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Client Documentation

- 9# Boeing eMOD BC – Project Management – 2008
- 8# Sparta – SOX audit – 2005
- 7# FCG – SOX audit – 2004
- 6# NovaStar – LOS and Web – 2004
- 5# CFC Orange County – occhildrenandfamilies.com – 2003
- 4# Avaya – SAP Business Warehouse – 2002
- 3# Conexant – Divisional Split – 2001
- 2# Pacific Life – Web Log Manager/WebTrends – 2000
- 1# OC Register – CCI Mail Spooler – 1999

eMOD - BC Project Management

Organization: eMOD - BC Date: 5/08-9/08

Understanding (M001S/M002S-1-2)

Current (Situation) (M002S-2.1)

- No standardized project management methodology or process, in the electronic Maintenance Operational Data (eMOD) Business Continuity (BC) organization.

Target

- An integrated project and task management process, based on corporate Boeing Macroscope methodology, standards and templates (M00#S).

Summary (Proposal) (M002S-2.2)

- Templates for individual tasks/projects in Word and Excel
- Project Manager tool for individual and integrated projects in MS-Project
- Management Tracking and Reporting in PowerPoint and Visio
- Documentation online in the Wiki on the intranet

Signatures for release/approval:

Approval:		eBC	
	First Last Name	Department	Date
Approval:		Development	
	First Last Name	Department	Date
Approval:		Production	
	First Last Name	Department	Date

Distribution:

mailto:Truxaw,%20Chris%20(chris.truxaw@boeing.com);%20Neshanian,%20Gary%20(gary.neshanian@boeing.com);

1. PROFILE (M002S-3)

The Business Continuity group is responsible for managing, coordinating and controlling changes to the eMOD system concerning data; including managing its storage, retention, and delivery. This Project Management guideline outlines the process and the documentation, used to manage new BC projects and to change existing.

2. SCOPE (M002S-4)

The 7 delivered documents are created, approved and managed through the 5 phases (Initiate, Plan, Manage, Execute and Close) of the defined life cycle.

Task			
Business Continuity Chris Truxaw (Mgr) 6.Blockpoints.vsd	**Development** Juhsin Chen (Mgr) 6.Blockpoints.vsd	**Production** Mark Unjian (Mgr) 6.Blockpoints.vsd	**CNO** (Operations)
Analyst: 1.Task Statement.doc 2.Task Plan.xls **Project Manager**: 3.Task Plan.mpp 4.Tasks Planner.mpp CR/BARS/SNAP 5.Timelines.ppt 7.Wiki.documentation	Applications: Programmers Databases: DBAs	Support: Analysts	Outage: Administrators Backups: Operators CR/BARS/SNAP

2.1 DELIVERABLES

1. Task Statement (TemplateTS.doc - Word)
2. Task Plan (TemplateTP.xls - Excel)

Integrated Project Manager
- 3. Individual Task Plan (TP.mpp - Project)
- 4. Integrated multi-level (TasksPlanner.mpp - Project)

Management Tracking and Reporting
- 5. BC timelines (TasksPlanner.ppt – PowerPoint)
- 6. Consolidated Blockpoints (2008blockpoint_eBC.vsd - Visio)

7. Documentation (Wiki-intranet)

3. PLAN (M002S-5)

Project Management occurs through 5 phases: Initiate, Plan, Manage, Execute and Close.

- Task Statement (TS) for acceptance (Phase#1: Initiate)
    - Analyst creates TS (TS: Understanding) for approval
- Supply further details
    - Analyst fills in further details (TS: 1.Profile – 2.Scope) for approval
- Planning and scheduling (Phase#2: Plan)
    - Task Statement (TS: 3.Plan) for approval
- Further task details in Task Plan (TP) spreadsheet
    - Analyst will create TP spreadsheet for approval
- Upon acceptance of the TP spreadsheet (Phase#3: Manage)
    - Project Manager (PM) will create the TP project file
    - PM copies the TP into the Tasks Planner project file scheduler
    - Analyst inserts the Gantt Chart into the TS: 4.Schedule
    - PM will hold meetings of all impacted departments for approval of TS/TP
- Final acceptance and execution (Phase#4: Execute)
    - Appropriate departments execute TS/TP
        - BC-Infrastructure, Development, Production, CNO (Operations)
- Management review (Phase#5: Close)
    - Management Tracking and Reports are updated

3.1 ROLES AND RESPONSIBILITIES

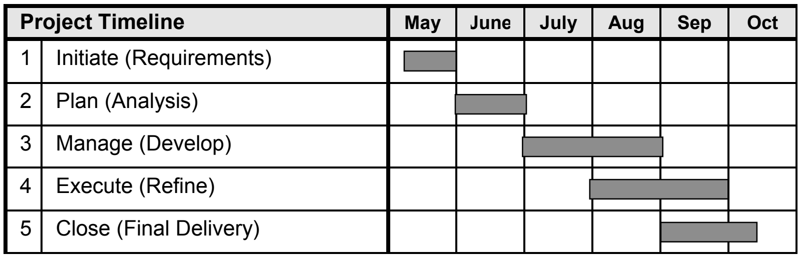
Chris Truxaw (BC Manager): review and approve BC PM
Gary Neshanian (contractor): develop and deliver the BC PM

4. SCHEDULE

4.1 MILESTONES/PHASES

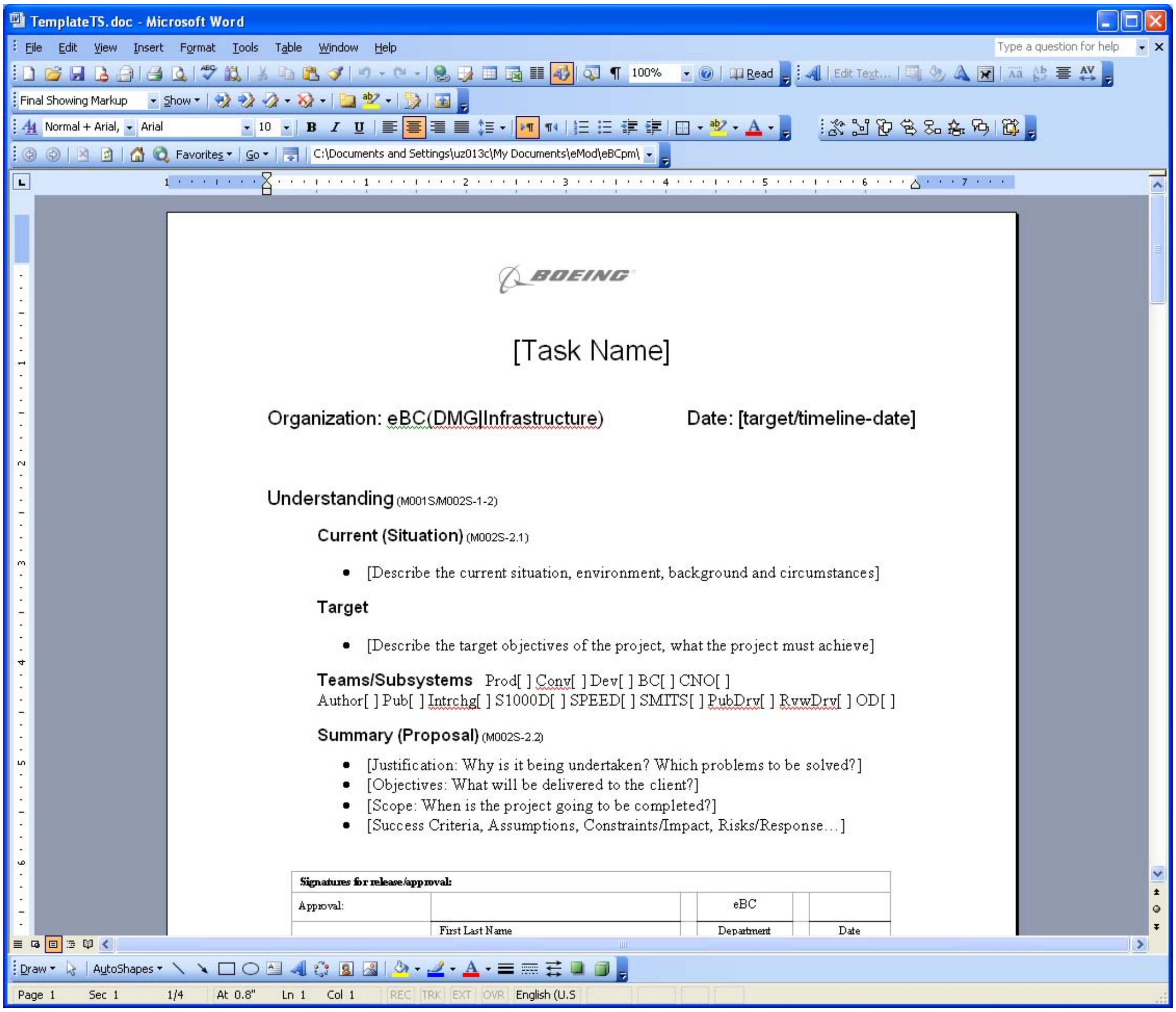
Initiate (gather requirements of existing practices	May
Plan (analysis)	June
Manage (develop templates and tools)	July-Aug
Execute (refine based on user acceptance and testing)	Aug-Sep
Close (final delivery and documentation)	September

4.2 GANTT CHART



5. DELIVERABLES

5.1 TASK STATEMENT (TEMPLATETS.DOC - WORD)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BOEING

[Task Name]

Organization: eBC(DMG|Infrastructure) Date: [target/timeline-date]

Understanding (M001S/M002S-1-2)

Current (Situation) (M002S-2.1)

- [Describe the current situation, environment, background and circumstances]

Target

- [Describe the target objectives of the project, what the project must achieve]

Teams/Subsystems Prod[ ] Conv[ ] Dev[ ] BC[ ] CNO[ ]
Author[ ] Pub[ ] Intrchg[ ] S1000D[ ] SPEED[ ] SMITS[ ] PubDrv[ ] RvwDrv[ ] OD[ ]

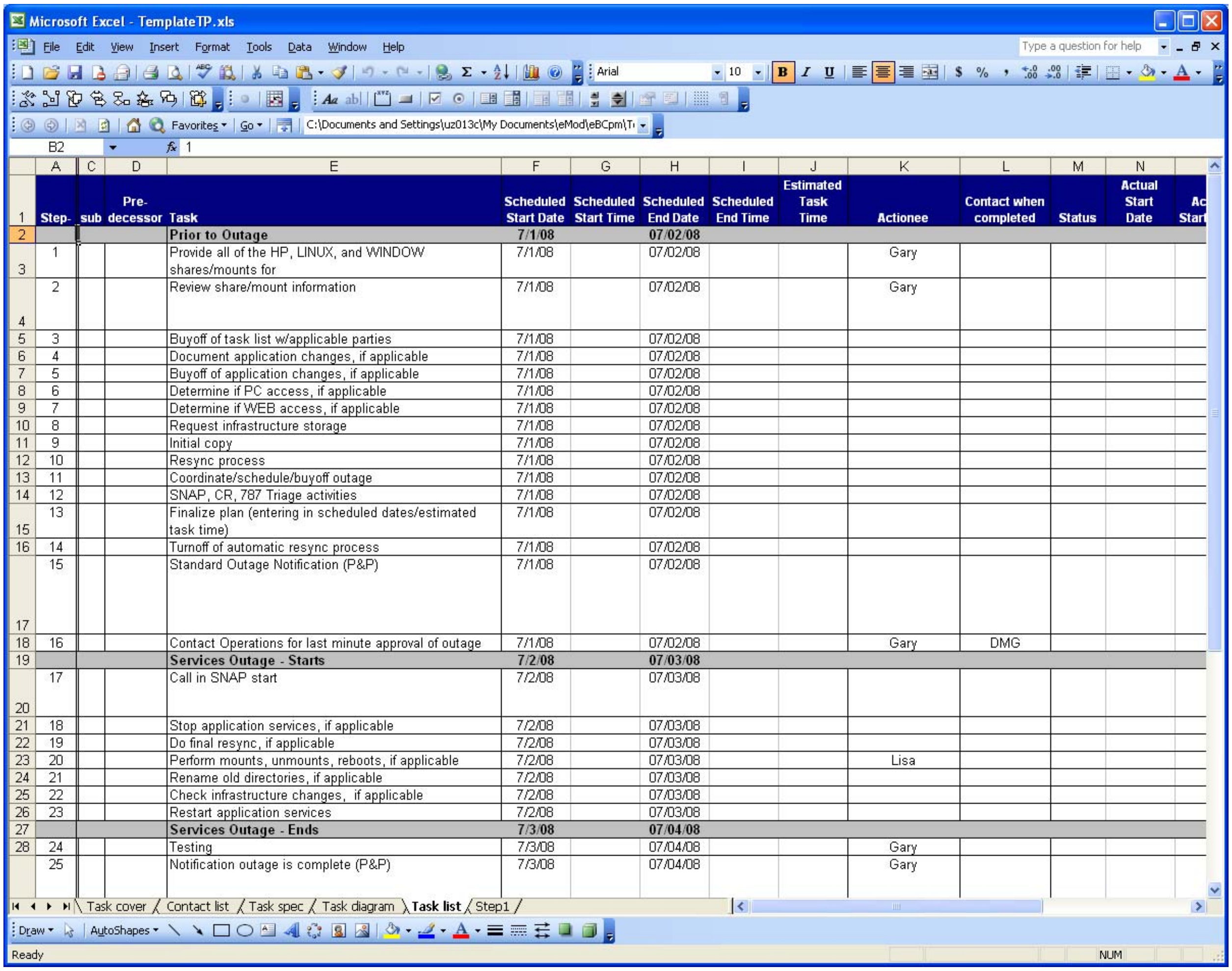
Summary (Proposal) (M002S-2.2)

- [Justification: Why is it being undertaken? Which problems to be solved?]
- [Objectives: What will be delivered to the client?]
- [Scope: When is the project going to be completed?]
- [Success Criteria, Assumptions, Constraints/Impact, Risks/Response…]

Signatures for release/approval:			
Approval:		eBC	
	First Last Name	Department	Date

The Task Statement is used to outline the proposed project and seek approval from management. After approval has been given to the outline on page one, greater detail is filled in on the following pages and approval is again needed, before scheduling and resources are committed.

5.2 TASK PLAN (TEMPLATETP.XLS - EXCEL)


Microsoft Excel - TemplateTP.xls
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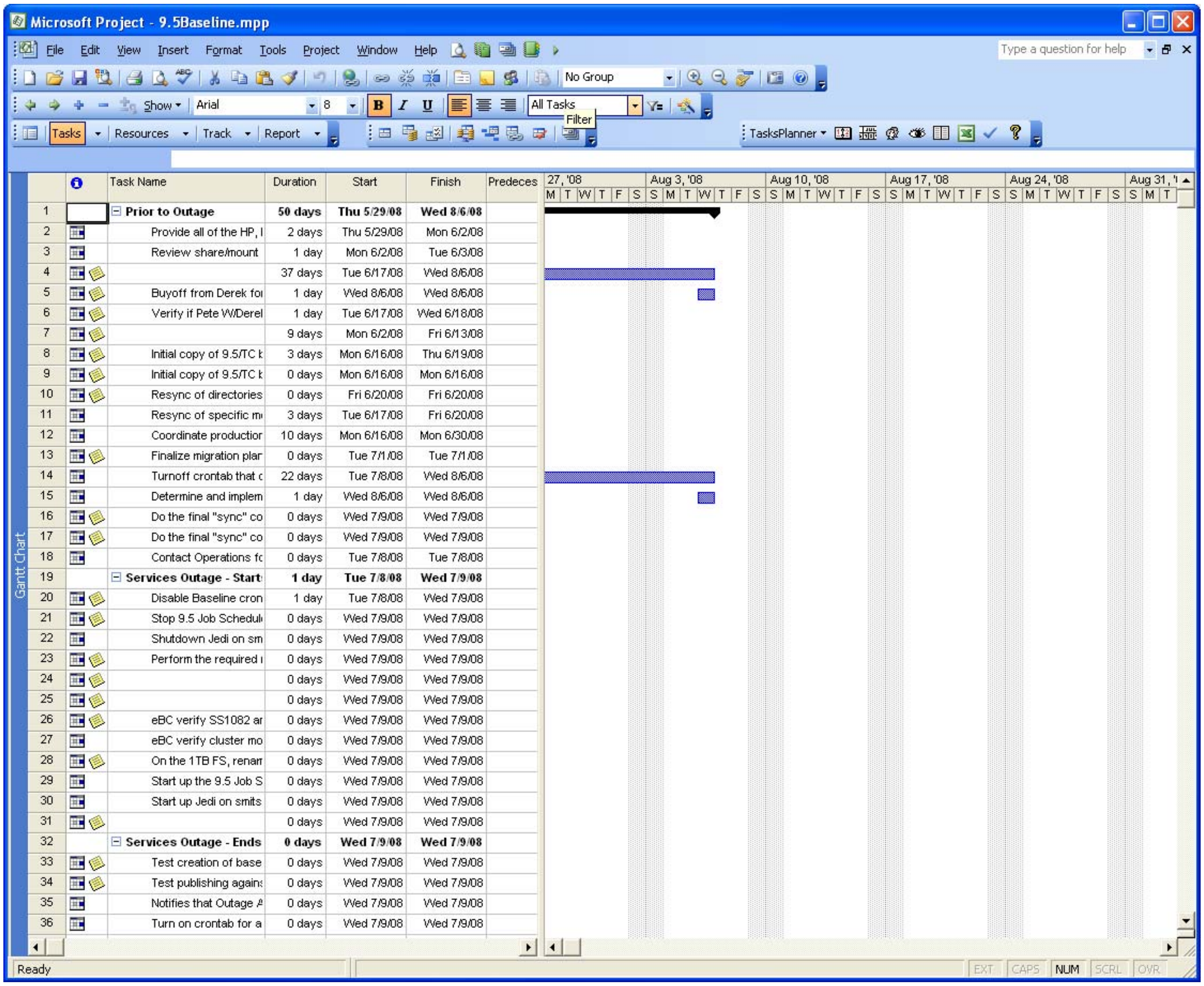
B2
1
Task cover
Contact list
Task spec
Task diagram
Task list
Step1
Draw
AutoShapes
Ready
NUM

	A	C	D	E	F	G	H	I	J	K	L	M	N	
1	Step-	sub	Pre-decessor	Task	Scheduled Start Date	Scheduled Start Time	Scheduled End Date	Scheduled End Time	Estimated Task Time	Actionee	Contact when completed	Status	Actual Start Date	Ac Start
2				**Prior to Outage**	**7/1/08**		**07/02/08**							
3	1			Provide all of the HP, LINUX, and WINDOW shares/mounts for	7/1/08		07/02/08			Gary				
4	2			Review share/mount information	7/1/08		07/02/08			Gary				
5	3			Buyoff of task list w/applicable parties	7/1/08		07/02/08							
6	4			Document application changes, if applicable	7/1/08		07/02/08							
7	5			Buyoff of application changes, if applicable	7/1/08		07/02/08							
8	6			Determine if PC access, if applicable	7/1/08		07/02/08							
9	7			Determine if WEB access, if applicable	7/1/08		07/02/08							
10	8			Request infrastructure storage	7/1/08		07/02/08							
11	9			Initial copy	7/1/08		07/02/08							
12	10			Resync process	7/1/08		07/02/08							
13	11			Coordinate/schedule/buyoff outage	7/1/08		07/02/08							
14	12			SNAP, CR, 787 Triage activities	7/1/08		07/02/08							
15	13			Finalize plan (entering in scheduled dates/estimated task time)	7/1/08		07/02/08							
16	14			Turnoff of automatic resync process	7/1/08		07/02/08							
17	15			Standard Outage Notification (P&P)	7/1/08		07/02/08							
18	16			Contact Operations for last minute approval of outage	7/1/08		07/02/08			Gary	DMG			
19				**Services Outage - Starts**	**7/2/08**		**07/03/08**							
20	17			Call in SNAP start	7/2/08		07/03/08							
21	18			Stop application services, if applicable	7/2/08		07/03/08							
22	19			Do final resync, if applicable	7/2/08		07/03/08							
23	20			Perform mounts, unmounts, reboots, if applicable	7/2/08		07/03/08			Lisa				
24	21			Rename old directories, if applicable	7/2/08		07/03/08							
25	22			Check infrastructure changes, if applicable	7/2/08		07/03/08							
26	23			Restart application services	7/2/08		07/03/08							
27				**Services Outage - Ends**	**7/3/08**		**07/04/08**							
28	24			Testing	7/3/08		07/04/08			Gary				
	25			Notification outage is complete (P&P)	7/3/08		07/04/08			Gary				

After the project has been approved through the Task Statement, the Task Plan is created to cover the lowest level of detail of the project. The Project is broken down into individual Tasks, dates are assigned, and hours are estimated. Once approved by all impacted organizations, it is then passed to the appropriate organizations for implementation, usually Operations (CNO).

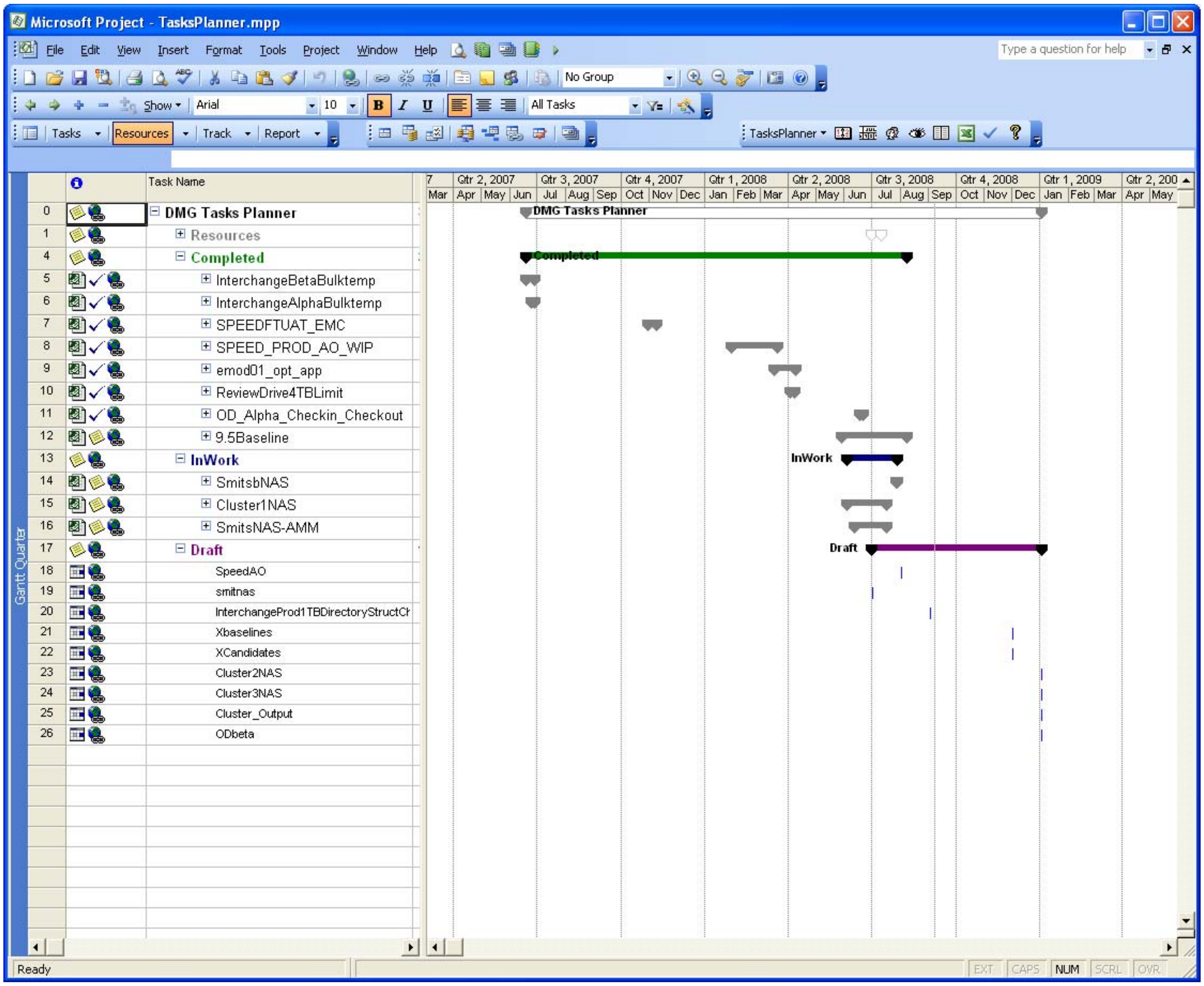
5.3 INDIVIDUAL TASK PLAN (TP.MPP - PROJECT)



	Task Name	Duration	Start	Finish	Predeces
1	**Prior to Outage**	**50 days**	**Thu 5/29/08**	**Wed 8/6/08**	
2	Provide all of the HP, I	2 days	Thu 5/29/08	Mon 6/2/08	
3	Review share/mount	1 day	Mon 6/2/08	Tue 6/3/08	
4		37 days	Tue 6/17/08	Wed 8/6/08	
5	Buyoff from Derek fo	1 day	Wed 8/6/08	Wed 8/6/08	
6	Verify if Pete W/Dere	1 day	Tue 6/17/08	Wed 6/18/08	
7		9 days	Mon 6/2/08	Fri 6/13/08	
8	Initial copy of 9.5/TC	3 days	Mon 6/16/08	Thu 6/19/08	
9	Initial copy of 9.5/TC	0 days	Mon 6/16/08	Mon 6/16/08	
10	Resync of directories	0 days	Fri 6/20/08	Fri 6/20/08	
11	Resync of specific m	3 days	Tue 6/17/08	Fri 6/20/08	
12	Coordinate productio	10 days	Mon 6/16/08	Mon 6/30/08	
13	Finalize migration pla	0 days	Tue 7/1/08	Tue 7/1/08	
14	Turnoff crontab that	22 days	Tue 7/8/08	Wed 8/6/08	
15	Determine and implem	1 day	Wed 8/6/08	Wed 8/6/08	
16	Do the final "sync" co	0 days	Wed 7/9/08	Wed 7/9/08	
17	Do the final "sync" co	0 days	Wed 7/9/08	Wed 7/9/08	
18	Contact Operations f	0 days	Tue 7/8/08	Tue 7/8/08	
19	**Services Outage - Start**	**1 day**	**Tue 7/8/08**	**Wed 7/9/08**	
20	Disable Baseline cron	1 day	Tue 7/8/08	Wed 7/9/08	
21	Stop 9.5 Job Schedul	0 days	Wed 7/9/08	Wed 7/9/08	
22	Shutdown Jedi on sm	0 days	Wed 7/9/08	Wed 7/9/08	
23	Perform the required	0 days	Wed 7/9/08	Wed 7/9/08	
24		0 days	Wed 7/9/08	Wed 7/9/08	
25		0 days	Wed 7/9/08	Wed 7/9/08	
26	eBC verify SS1082 a	0 days	Wed 7/9/08	Wed 7/9/08	
27	eBC verify cluster mo	0 days	Wed 7/9/08	Wed 7/9/08	
28	On the 1TB FS, renar	0 days	Wed 7/9/08	Wed 7/9/08	
29	Start up the 9.5 Job S	0 days	Wed 7/9/08	Wed 7/9/08	
30	Start up Jedi on smits	0 days	Wed 7/9/08	Wed 7/9/08	
31		0 days	Wed 7/9/08	Wed 7/9/08	
32	**Services Outage - Ends**	**0 days**	**Wed 7/9/08**	**Wed 7/9/08**	
33	Test creation of base	0 days	Wed 7/9/08	Wed 7/9/08	
34	Test publishing again	0 days	Wed 7/9/08	Wed 7/9/08	
35	Notifies that Outage	0 days	Wed 7/9/08	Wed 7/9/08	
36	Turn on crontab for a	0 days	Wed 7/9/08	Wed 7/9/08	

When the Task Plan has been approved by all impacted organization, the Project Manager imports the detailed spreadsheet into Microsoft Project for scheduling purposes.

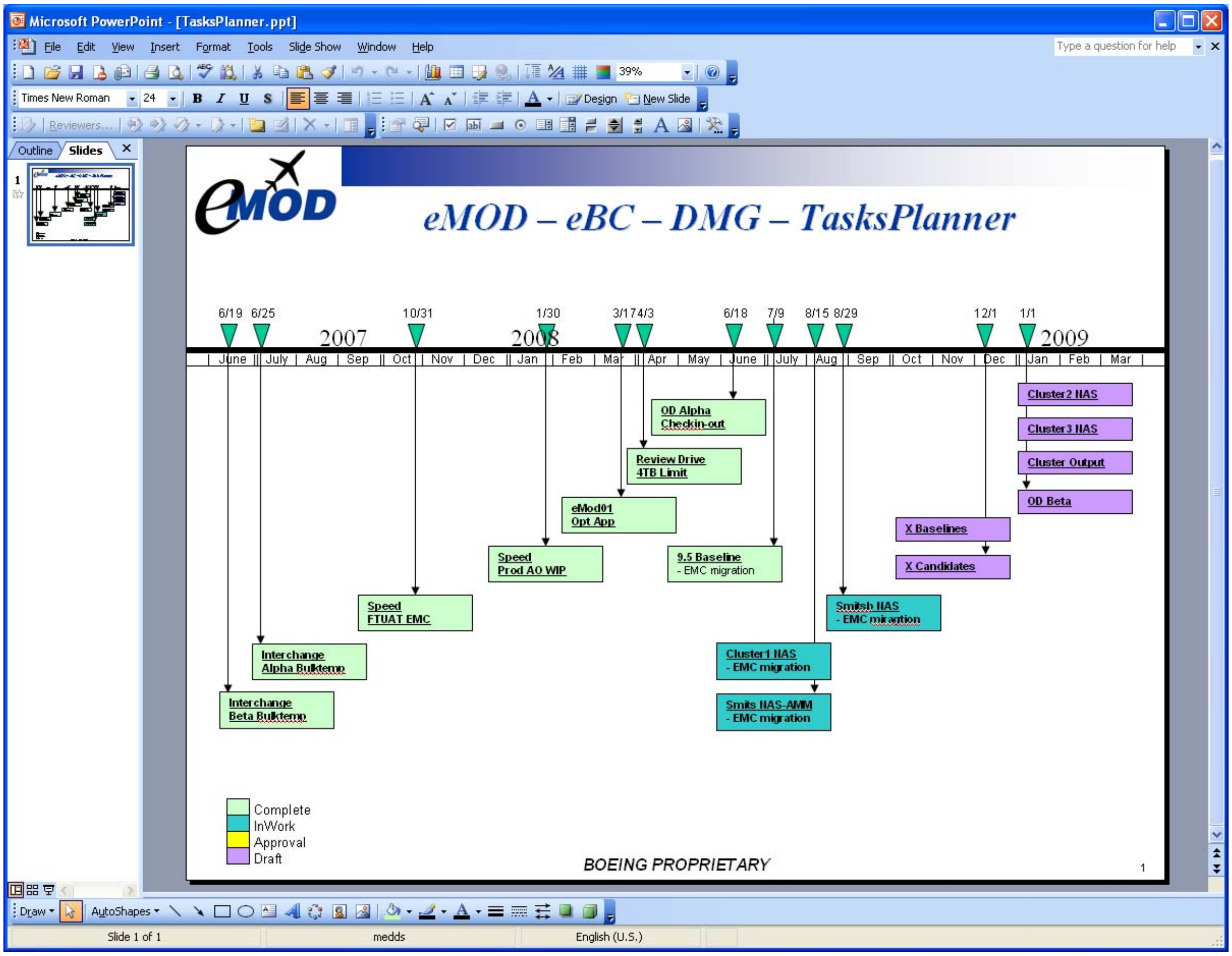
5.4 INTEGRATED MULTI-LEVEL (TASKSPLANNER.MPP - PROJECT)



	ⓘ	Task Name
0		⊟ DMG Tasks Planner
1		⊞ Resources
4		⊟ Completed
5	✓	⊞ InterchangeBetaBulktemp
6	✓	⊞ InterchangeAlphaBulktemp
7	✓	⊞ SPEEDFTUAT_EMC
8	✓	⊞ SPEED_PROD_AO_WIP
9	✓	⊞ emod01_opt_app
10	✓	⊞ ReviewDrive4TBLimit
11	✓	⊞ OD_Alpha_Checkin_Checkout
12		⊞ 9.5Baseline
13		⊟ InWork
14		⊞ SmitsbNAS
15		⊞ Cluster1NAS
16		⊞ SmitsNAS-AMM
17		⊟ Draft
18		SpeedAO
19		smitnas
20		InterchangeProd1TBDirectoryStructCh
21		Xbaselines
22		XCandidates
23		Cluster2NAS
24		Cluster3NAS
25		Cluster_Output
26		ODbeta

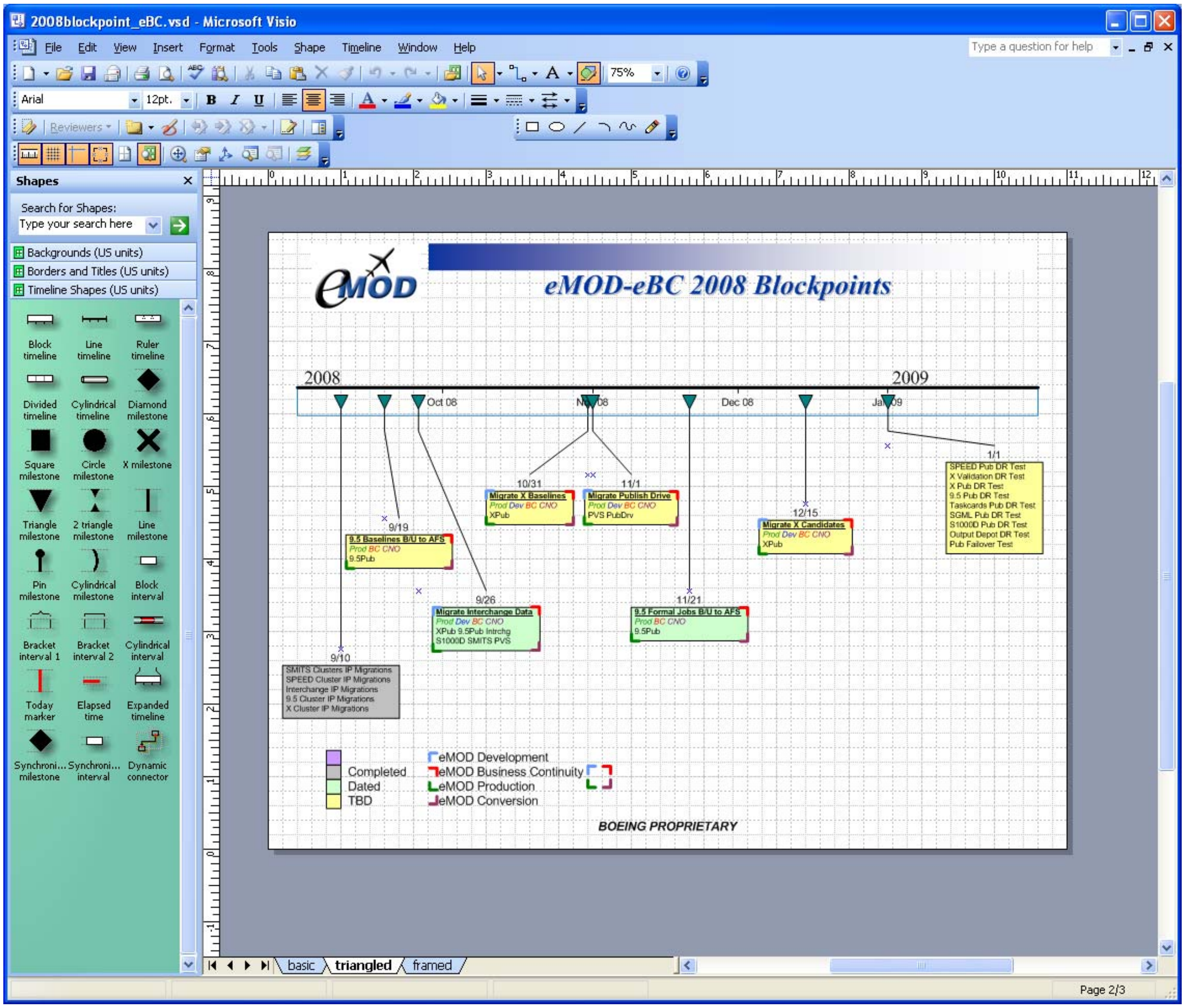
The detailed Task Plan project is imported into the Tasks Planner, where the other projects in the eMOD-BC organization are also scheduled. In this multi-level project level any conflicts with other projects are detected and resolved before implementation.

5.5 BC TIMELINES (TASKSPLANNER.PPT – POWERPOINT)



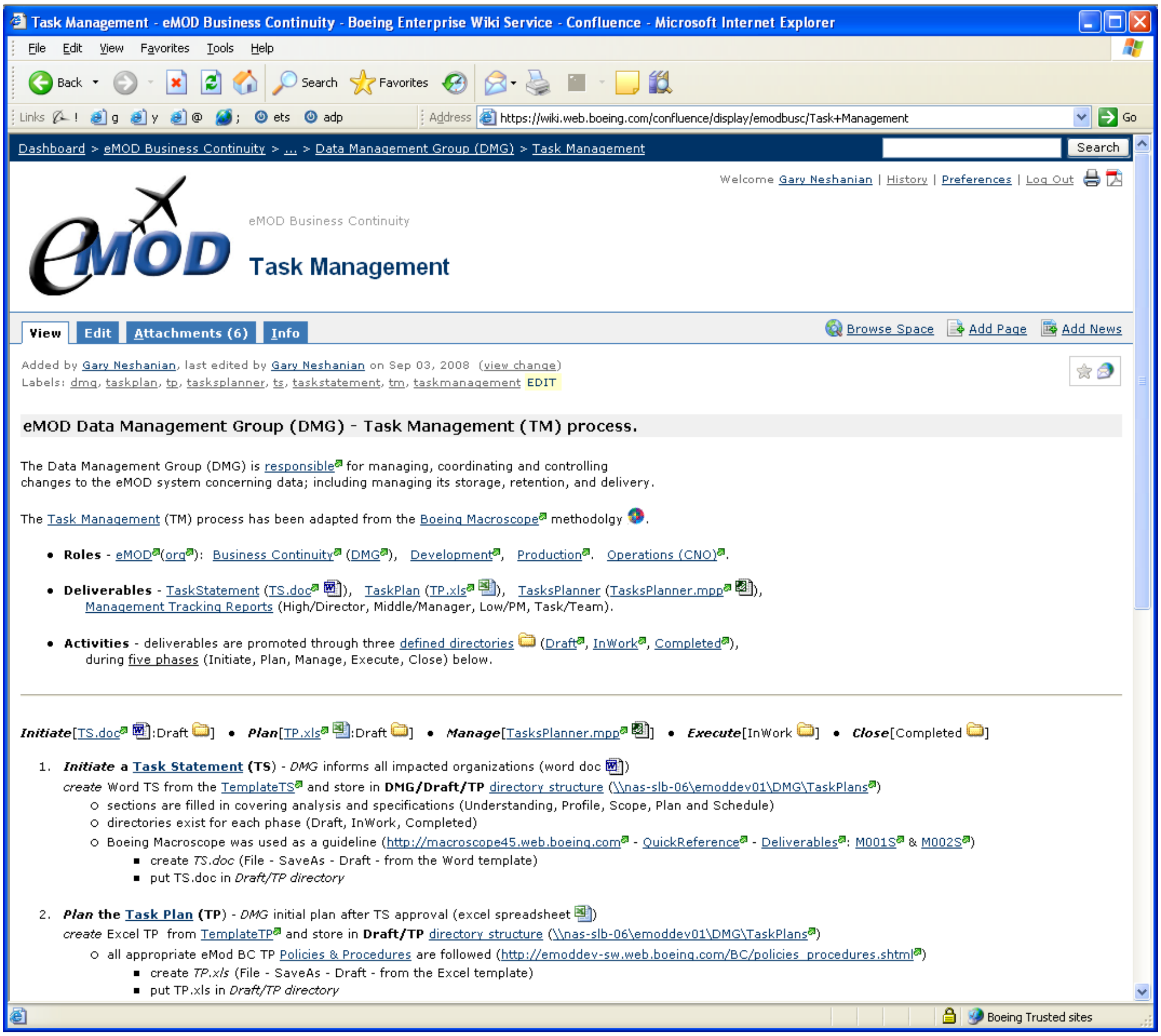
Managerial reporting and approval are done in timelines for the eMOD-BC projects.

5.6 CONSOLIDATED BLOCKPOINTS (2008BLOCKPOINT_EBC.VSD - VISIO)



Interdepartmental reporting and review and done in consolidated blockpoint timelines, including the Development, Production and Operations organizations.

5.7 DOCUMENTATION (WIKI-INTRANET)


Task Management - eMOD Business Continuity - Boeing Enterprise Wiki Service - Confluence - Microsoft Internet Explorer
File Edit View Favorites Tools Help
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Search
Favorites
Links ! g y @ ; ets adp
Address https://wiki.web.boeing.com/confluence/display/emodbusc/Task+Management
Go
Dashboard > eMOD Business Continuity > ... > Data Management Group (DMG) > Task Management
Search
Welcome Gary Neshanian | History | Preferences | Log Out
eMOD
eMOD Business Continuity
View
Edit
Attachments (6)
Info
Browse Space
Add Page
Add News
Boeing Trusted sites

Task Management

Added by Gary Neshanian, last edited by Gary Neshanian on Sep 03, 2008 (view change)
Labels: dmg, taskplan, tp, tasksplanner, ts, taskstatement, tm, taskmanagement EDIT

eMOD Data Management Group (DMG) - Task Management (TM) process.

The Data Management Group (DMG) is responsible for managing, coordinating and controlling changes to the eMOD system concerning data; including managing its storage, retention, and delivery.

The Task Management (TM) process has been adapted from the Boeing Macroscope methodolgy.

- **Roles** - eMOD(org): Business Continuity (DMG), Development, Production. Operations (CNO).
- **Deliverables** - TaskStatement (TS.doc), TaskPlan (TP.xls), TasksPlanner (TasksPlanner.mpp), Management Tracking Reports (High/Director, Middle/Manager, Low/PM, Task/Team).
- **Activities** - deliverables are promoted through three defined directories (Draft, InWork, Completed), during five phases (Initiate, Plan, Manage, Execute, Close) below.

Initiate[TS.doc:Draft] • ***Plan***[TP.xls:Draft] • ***Manage***[TasksPlanner.mpp] • ***Execute***[InWork] • ***Close***[Completed]

1. ***Initiate* a Task Statement (TS)** - *DMG* informs all impacted organizations (word doc)
   create Word TS from the TemplateTS and store in **DMG/Draft/TP** directory structure (\\nas-slb-06\emoddev01\DMG\TaskPlans)
   - sections are filled in covering analysis and specifications (Understanding, Profile, Scope, Plan and Schedule)
   - directories exist for each phase (Draft, InWork, Completed)
   - Boeing Macroscope was used as a guideline (http://macroscope45.web.boeing.com - QuickReference - Deliverables: M001S & M002S)
     - create *TS.doc* (File - SaveAs - Draft - from the Word template)
     - put TS.doc in *Draft/TP directory*
2. ***Plan* the Task Plan (TP)** - *DMG* initial plan after TS approval (excel spreadsheet)
   create Excel TP from TemplateTP and store in **Draft/TP** directory structure (\\nas-slb-06\emoddev01\DMG\TaskPlans)
   - all appropriate eMod BC TP Policies & Procedures are followed (http://emoddev-sw.web.boeing.com/BC/policies_procedures.shtml)
     - create *TP.xls* (File - SaveAs - Draft - from the Excel template)
     - put TP.xls in *Draft/TP directory*

The process is documented online in the Wiki that is hosted on the intranet. The Wiki environment allows easy review and correction by all team members, to ensure the greatest accuracy and most current information.

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Lake Forest, CA 92630-8873
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Sarbanes-Oxley (SOX)
Information Technology Audit

SPARTA, INC.
PRIDE IN PERFORMANCE

Table of Contents

SPARTA, INC.
PRIDE IN PERFORMANCE

July 8, 2005

Sarbanes-Oxley (SOX) IT Risk Analysis

Scope

The scope of this Information Technologies Risk Analysis performed by Jefferson Wells of the Sparta Information Services department included the review of the previous internal audit, review of the existing controls list, and the collection and review of all current documentation.

An Information Request List was submitted to, and returned by the IT

recommendations below.

Deliverables

The results of this analysis include the SOX binder that was created to organize all collected documentation, the analysis results presented below, and recommendations on how to respond to a formal audit and tests with this information.

Recommendations

It is recommended that the remaining information be collected and indexed in the SOX binder, and made available for the internal auditors to use in preparation for the final external audit and tests.

It is also recommended that contact be made with the external auditors to obtain a copy of their final controls audit list as soon as possible in order to address all of their key areas in a timely manner. That final controls list should be used as soon as possible to update the current list of only 25 controls.

Analysis

Findings:

- Sparta has an established Executive Committee/Network Steering Group providing guidance and policy on company information needs

- There is a lot of documentation written and available about the Sparta Information Services (SIS) organization and corporate policy

- There are projects that address industry standards such as SDLC and CM, such as Enterprise Information Services (EIS)

- Sparta has contracted with an outside company named InSync for the majority of IT services and staffing

- Sparta has started with a list of 25 controls as defined from a previous analysis

Gaps:

1. Documented Executive Committee/Network Steering Group long term Strategic plan and documented meeting minutes

2. Documentation, primarily covering IT procedures in CVS, needs to be standardized and indexed addressing specifically

3. Lack of defining policy and implementation for existing projects such EIS in regards to fulfilling industry standards such as SDLC/CM

4. Service Level Agreement commitments to business units

5. Personnel segregation of duties, assignments, definition, education, training and termination

6. A clear definition of boundaries and responsibilities for InSync was not found

7. A final controls list needs to be defined to respond to a formal audit, usually supplied from or validated by the external auditors

Recommendations

1. Author and approve long term Strategic Plan (planned Jul-05),
    - Archive Steering Committee meeting quarterly minutes (current),
    - Archive Network Security Group meeting minutes and agendas (planned Jul-05) as evidence and auditable proof

2. Author/reformat procedures in CVS for: (current and planned)
    - Data backups, restores with evidence, testing results, off-site archiving
    - User security and maintenance (new user, password policies, etc)
    - Server and network security, firewall penetration testing results, log monitoring (auto and manual)
    - Application specific security and maintenance:
        - SPICE, Costpoint, TES, FAS (planned Jul-05),
        - Cyborg (current),
        - eSOAP/StaRs (planned Aug/Sep-05),
        - Profit Sharing (planned Jul/Aug-05)
    - Performance monitoring/response, and capacity planning
    - Enterprise monitoring and response (Nagio, 24x7 messaging, escalation, etc)
    - Facilities security and support (physical and electronic security, etc)
    - Third party service security, support, SLAs, and regular reviews (ProBusiness, TrueSource)

3. Author and approve formal policies reusing EIS, RT, CVS and other projects/products
    - Software Development Life Cycle – SDLC (including development, test and release) (planned Aug-05)
    - Change Management – CM (processMax) (including formal promotion, sign off/acceptance processes, and any quality assurance standards) (planned Aug-05)
    - Problem reporting and support/help desk system documentation (Request Ticket-RT system)
    - Source Code and Configuration Control (CVS, code and documentation)

4. Author Service Level Agreement for individual business units supported by SIS (Accounting/Costpoint, HR/Cyborg, etc) (planned Jul-05)

5. Document employees with all available information, especially segregation of duties, in HR/Cyborg system and make procedures, samples and screen shots available for audit
    - Emphasize use of college students as a formal training plan
    - Emphasize automation of networking monitoring (Nagio) and response requires smaller then normal IT staff and training

   - Emphasize years of company service by computer users as on the job training, and reference any internal training as well as external/on-going courses
   - Document termination process including traceable logs

6. Remove references to InSync from documentation and SOX deliverables (Policies & Procedures, Narrative, RCM, etc), document and formalize staff responsibilities

7. Define final controls list as soon as possible and update developing SOX deliverables (Narrative, RCM, Binder) with references to new/existing documentation covering individual controls

SPARTA, Inc.
Sarbanes-Oxley IT General Controls

SPARTA, Inc.
Sarbanes-Oxley IT General Controls

Organization Overview

SPARTA Information Services (SIS) is lead by Ray □retlein, CIO (Chief Information Officer). He is responsible for both Corporate Network Administration and Business Systems Operations and Support. The CIO reports administratively to the CEO and while receiving policy guidance and direction from the Executive Committee in addressing company information services. Ray also chairs the Network Steering Group comprised of □□ senior engineers from across the company's operations. The NSG provides guidance on technical and policy issues affecting the company-wide information needs.

- **Operations**
    - Corporate Network Administration is located in Huntsville, AL and is headed by Mike Scudmore, Corporate Network Administrator. He is responsible for the management and operations of SPARTA'S Wide Area Network. The SPARTA WAN provides secure connectivity for data exchange between SPARTA offices.

    - The SPARTA Corporate Data Center is located in Lake Forest, CA. and is administered by InSync Computer Solutions at a □ person level of effort. They function as an integral part of the staff. Their responsibilities also include supporting the Local Area Network and desktop support for this location.

    - There are Local Site Administrators (LSA) at each SPARTA location. They are responsible for administration of each Local Area Network (LAN), as well as providing desktop support. The staffing ranges from full-time positions at the larger locations to additional duties at smaller locations.

- **Development & Support**
    - Web Based Services – (San Diego, CA.)
        - Thanh □an □oest is assigned full-time and is primarily responsible for back-end (non-consumer interfacing) web development and system support.
        - John Crean is assigned part-time and primarily focuses on front-end (consumer interfacing) services development and support.

    - Database Applications □(Lake Forest, CA.)
        - Ernie Amaro is assigned full-time as a DBA responsible for report development and software support.
        - In Sync Computer Solutions provides contract development support.
        - Diane Dougherty is on staff as a part time□on□call employee to support the Cyborg applications.

SPARTA, Inc.
Sarbanes-Oxley IT General Controls

I. Program Development and Program Change

1. Acquire or Develop Application Software:

The Enterprise Information Services (EIS) project defines the guiding principles that apply to all aspects of development activities from requirements definition through design, implementation, and into the deployment and support of new and existing applications.[1101]

SPARTA acquired processMax software in May [illegible]. This is a software tool that will enable SPARTA to implement CMM (Capability Maturity Model) for future in-house development as well as implement change management control for existing legacy systems. SPARTA's goal is to achieve a level [illegible] maturity level in all future software development and maintenance of existing legacy systems. By implementing the use of this software, the necessary controls for software development life cycle (SDLC) methodology will be in place. SPARTA is requiring InSync to utilize this tool in their current software development project upgrade of the current SPARTA Stock System, to be called Stock Transaction and Reporting Service (STARS).

All application software acquisition follows SPARTA's Policy/Procedures [illegible] (Bid Evaluation, Negotiations and Source Selection) and [illegible] (Contract Labor Purchase Order).[1102]

SPARTA currently utilizes a combination of purchased software and in-house developed applications to support its finance and accounting function.

Financial Application Systems:

- **Costpoint** (ver. [illegible]csp [illegible]) software is the primary accounting package used by SPARTA. It has been in production since [illegible]. SPARTA installs annual software upgrades received from Costpoint and has an on-going service contract for application support. The following accounting functions are performed in Costpoint:
  - Labor Accounting
  - Purchasing
  - Cost Ledger
  - General Ledger
  - Billing
  - Incurred Costs

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- **Cyborg** (ver. □.□□) is the software package used for all Human Resources data management and reporting. It has been in production since □□□□. Only the Human Resources department (□ people) has access to this system. Cyborg is written in COBOL and runs on UNIX operating system. All new hires, terminations and benefit changes are transferred to Costpoint & ProBusiness systems on a weekly basis from Cyborg utilizing a custom Java application. SPARTA is currently in the process of creating a data interface (bridge) for transferring of benefit and deduction information (hours, earnings, and deductions) from the ProBusiness payroll system back into Cyborg after each pay period cycle.

- **Timecard Entry System (TES)** is in-house (InSync) developed software which captures timecard entry data on a weekly basis. TES is web-based accessed from SPARTA's InfoSite by timecard entry personnel responsible for data entry of timecards within their assigned operations. This information is then transferred to Costpoint on a weekly basis. The Corporate Payroll Administrator is responsible for requesting new timecard entry personnel to be added to the TES Authorized User Table with appropriate approval from the corresponding Operations Manager.

- **ProBusiness** (ver. □.□□) is utilized by SPARTA as their payroll service provider. Labor information from the Costpoint Accounting System is transferred using FTP protocol via an encrypted VPN over the internet to ProBusiness on a bi-weekly basis for the processing of payroll. Subsequent to payroll checks being generated, ProBusiness supplies SPARTA with an excel spreadsheet that summarizes the current payroll by general ledger account. This spreadsheet then becomes the basis for the journal entry which is downloaded into Costpoint for recording of the current payroll transactions.

- SPARTA uses **Fixed Asset System (FAS)** packaged software to record fixed asset transactions for the entire company. SPARTA installs annual software upgrades received from FAS and has an on-going service contract for application support. Three people within the organization have access to this system. A monthly spreadsheet is created which becomes the basis for the upload journal entry to record depreciation into the Costpoint Accounting System.

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- **SPARTA Stock System** is in-house developed software application used to record and track all SPARTA company stock transactions. It is managed by Diane □avoie, SPARTA Stock Administrator. There is currently a project underway to upgrade this application. e-SOAP (electronic Stock Option Allocation Process) is a front end web application accessed through the company's InfoSite. The new version will be utilized by operation managers in the field to calculate stock option award percentages by employee for new projects starting in December □□□□. Sales & Fee information from Costpoint is imported manually by □inda □eaver on a quarterly basis for option calculations. Manually generated reports from the Stock system are used by the accounting department to reconcile stock activity to the general ledger.

- **Profit Plan Sharing System** is in-house developed Access database application that utilizes tables from the Costpoint Accounting System to calculate employee profit share contributions.

Financial Application Bridges

There are currently several bridges between applications within SPARTA. This concept is in line with SPARTA's overall Enterprise Information Systems strategy:

- Entering data one time
- Capture the data as close to its source as practical
- Maintain a single repository for an element of data
- Deliver information, not paper

Each bridge is a two step process, requiring human intervention at both ends. The basic concept is the originating system exports a flat file, uploads a database, the receiving systems imports a flat file from the database to be used in the application. The passing of XML documents are used at both ends to provide a common file format between all segments.

The following is a list of bridges that InSync has created and maintains:

- **Timecard Entry System (TES) → Costpoint**
  Hours worked are entered throughout SPARTA using the company InfoSite. Data is loaded into Oracle tables and uploaded to Costpoint's Oracle database tables and are manually reviewed.

- **Costpoint → ProBusiness**
  On a biweekly basis, a flat file is sent to ProBusiness which includes hours worked and any other compensation/deductions for the pay period.

- **Cyborg → Costpoint**
  On a weekly basis, Cyborg populates an Oracle database with "as of date" flat file containing employee data, deduction and benefit information.

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- **Cyborg → InfoSite Staff Directory**
  An □□ □ASCII file is used to extract employee data for the staff directory application which is automatically updated every Saturday.

- **Cyborg ↔ ProBusiness**
  Employee data, deductions and benefits information are all sent to ProBusiness on a weekly basis. A new file is created each week. Data from ProBusiness of actual deductions and benefits is imported back into Cyborg every two weeks.

2. Acquire Technology Infrastructure:

InSync is responsible for managing the Corporate Data Center which supports all of SPARTA's financial applications. InSync personnel recommend the purchase of any network devices, hardware, or software necessary to maintain or upgrade the Data Center based on current levels of user activities. Ray □retlein approves these purchases as well as reviews a weekly report (invoice) from InSync documenting the work performed.[1201]

3. Develop and Maintain Polices and Procedures:

By implementing the use of process□ ax software for SD□C methodology, SPARTA will have the necessary documentation captured to meet a C□□ level □on a going forward basis.

4. Install and Test Application Software and Technology Infrastructure:

InSync is responsible for installing any software upgrades or implementing any new software which they have developed. The process steps involved are:[1401]

- Upgrades or new software is installed in test environment
- Copy of production data is loaded into test environment
- Configuration issues are addressed
- Interfaces to other systems are addressed
- Users are involved in running parallel processing and interface testing
- Once users have signed off, software is moved from test environment to production environment at appropriate time in financial closing cycle, as to not interfere with critical reporting periods (month-end, qtr-end, year-end).

5. Manage Changes:

Requests for program changes and maintenance are handled through the Request Ticket (RT) System. E-mails are addressed via a series of addresses depending on the software service affected to various request queues as follows:

- infosite□rt□ sprata.com □requests pertaining to SPARTA intranet web-services called InfoSite. Requests pertaining to the employee Extranet, called OutfoSite are also handled through this address

- Cbo-rt@sparta.com □support of financial information services (Costpoint□ Cyborg) and the network connectivity services as well as CBO □A□ support

- Sew-rt@sparta.com □support requests originating from interaction with SPARTA's External website at www.sparta.com.

E-mail received at the above addresses are automatically routed to queues within the RT system to create a ticket. The person sending the e-mail receives an automatically generated acknowledgement. When a direct phone call is made to someone in the SPARTA Information Services (SIS) group□it is up to the SIS person to open a new Request Ticket. A biweekly □AIS (Finance Accounting/Information Services) meeting is held between the SIS group and the CBO's Finance & Accounting Department to discuss all open RTs and any other new or on-going system/support issues that are pending. End users are always involved in the testing phase of significant changes to any financial software application. **1501**

II. Computer Operations & Access to Programs and Data

1. Define and Manage Service Levels:

Based on the size of the SIS department and the number of users which they support□the definition and management of services levels is not applicable to this organization.

2. Manage Third-party Services:

At the quarterly Network Steering Committee meeting□third-party system access to SPARTA's information services environment is reviewed and discussed.**2201** When new services are procured□SPARTA's Purchasing Policy/Procedures are followed. D&B reports are requested to review the service provider's past business performance. **2202** The following companies are actively providing ongoing services to SPARTA's Information Services group□

- **InSync**
  □rank □alsema□president and owner of InSync was a previous employee of SPARTA over □□years ago. He started InSync upon leaving SPARTA and has been providing support services ever since. The criterion for InSync's performance is defined in a Statement of Work for Delivery of Information Technology Services document (last revised □/□□). This agreement is reviewed annually and any modifications to their contract are made at that time prior to renewing it for another year.**2203**

  It is the responsibility of Ray □retlein□CIO□to review and approve weekly reports (invoices) from InSync. There is a biweekly meeting of the SIS team□which includes InSync personnel□to discuss the progress status of existing open items and any new issues.

- **ProBusiness**
  A service contract is in place for the payroll processing services provided by ProBusiness. [2204]

3. Ensure System Security:

The following three policy/procedures outline various components of SPARTA’s overall security plan:[2301]

- A□□ Appropriate Use of Computer Resources
- A□□ Proper Use and Management of Computer Software
- A□□ Electronic Information Security Policy and Guidance

System access authentication is a four tiered process:[2302]

- Level □ – SPARTA Wide Area Network (SWAN) is secured by IP Address Domain recognition or VPN (Virtual Personal Network) validation.
- Level □ – Local Area Network (LAN) access is controlled by Windows passwords and Active Directory which are set to expire every □□□ days.
- Level □ – SPICE (SPARTA Password for Intranet Control Environment) grants access to internal web-based services. SPICE ids are assigned when new employees are processed. SPICE requires password changes every □□□ days.
- Level □ – Application password authentication. Costpoint requires password changes every □□□ days. Within Costpoint, users are assigned to USER GROUPS that define which modules and what type of access (i.e. read only, update, etc.) is allowed. All Costpoint user access is reviewed and approved by Cindy □arkinvoch, SPARTA Controller for appropriateness of request.

Management notifies SIS personnel to remove terminated employee’s system access on a timely basis. This process includes disabling access to personal computers, networks and applications. [2303] Quarterly reports, showing application access rights by employee, are generated by SIS and distributed to CBO department heads to verify and confirm that all system access is appropriate and current. Access logs, as well as transaction logs exists that date and time stamp activity by user. [2304]

Firewalls are installed on the WAN. SNORT (intrusion detection software) is also utilized within the CBO to monitor all packets and access to CBO services. E-mail alarm notifications are sent to SIS personnel if SNORT detects unauthorized attempts to access these services based on predefined rules. Any unusual activity is reported and discussed at the bi-weekly SIS meeting. If unusual activity is deemed a critical threat, the C□A and CIO are informed as soon as the activity is identified. [2305]

Facility security for the CBO includes a sign-in log at the reception’s desk as well as key code cipher locks on other doors into this facility. A key code door lock security system is in place on the Data Center door. Only authorized SIS employees have the door code to the Data Center. A second sign-in log is used inside the Data Center for any visitors that are allowed access to the Data Center. [2306]

4. Manage the Configuration:

Only authorized software is permitted for use by employees using company equipment. This is in accordance with SPARTA policy/procedure A[illegible].[2401] The SPARTA Columbia office does periodic penetration attempts to test firewall and other system security configuration reliability.[2402] Computer viruses are address in SPARTA policy/procedure A[illegible]. SPARTA has a Norton Anti-Virus corporate license agreement. Asset Insight is used to monitor the installation of Norton, as well as other software, an all machines.[2403]

The Network Steering Committee does period assessments of SPARTA's network configuration as part of their duties. A review of support and infrastructure is done as part of the annual forecast process for the SIS department, in order to budget for new/additional requirements.[2404]

5. Manage Problems & Incidents:

The current size of the SIS department and the number of financial application users it supports does not warrant the implementation of a formal problem management system. The Request Ticket system is used, but not on a consistent basis, and not for all matters that are handle immediately. The biweekly [illegible]AIS meeting described above is currently sufficient in order to continue to support the existing systems and users in a timely manner.

6. Manage Data:

- **Communications**

  Communication between SPARTA offices is encrypted using Checkpoint's Firewall-[illegible].[2601] Transmission of sensitive data to C[illegible]ATrust (manages SPARTA's profit sharing plan) is done via e-mail encryption using S/MIME protocol and [illegible].[illegible] digital certificates.[2602] All transmissions to and from ProBusiness for payroll processing is done utilizing FTP protocol over an encrypted VPN link across the Internet.[2603]

- **CBO Backup Operating Procedures:** [2604]
  - All servers in the data center are auto configured to backup on a nightly basis □□ □□) beginning after hours □approx □pm start time)
  - □ hen data center personnel arrive the following morning□all backups have completed
  - E□mail notifications are reviewed to be sure all backups were completed successfully
  - If for some reason□one did not complete□it is backed up manually
  - Backup tapes are shipped daily at □pm by □edEx standard overnight delivery to □untsville□A□
  - A rotating cycle of several backup tapes is always in use
  - Even and odd numbered week tapes are cycled back and forth between the two offices on a continuous basis
  - Restoration drills are performed on an unscheduled basis approximately every □□□weeks [2605]
  - Personal computer files stored in the □ y documents folder are synchroni□ed with the OI□ server continuously to assure that individual work products maintained on the workstation/laptops are backed up and recoverable. [2606]

7. Manage Operations:

InSync is responsible for managing day to day IT operations of the CBO Data Center located in □ake □orest□CA. They employee □people that work on□site full time to manage the local □A□ and also provide desktop support.

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Appendix
Corporate Data Center Server Configurations:

Name	Manufacture Make/Model	Operating System	Applications	Function	Backup
□eordi	□eneric Intel	□ in □T □.□	□ IS Report Store Development	Backup	□imli
Daestrom	□ateway □P□□□	□ in □□ Prof	Infosite/Rpt Admin Proposal □og Aggregation		□imli
□alco	Dell □□□□	□ in □□ Server	Asset Insight		□imli
Balin	Dell □□□□	□ in□□ Server	□AS/TES/ADS	Secondary	□imli
□imli	Dell □□□□	□ in□□ Server	□AS/□aser □iche	Primary	Self/Others
Picard	Dell □□□□	□ in□□ Server	□aguna.ads.sparta.com Exchange □k/Active Directory Server	Primary	□ot used
Oin	□ateway □□□□	□ in□□ Server	□ ain □ile Server	□ile/Print	Self/□imli
Arwen	Dell □□□□	□ in□□ Server	Timecard Entry System	Primary	□imli
Thoe	Dell □□□	□ in□□ Server Citrix	Deltek Executables Cyborg Remote Interfaces □Citrix	Citrix Terminal Server	□imli
□elos	Dell □□□	□ in□□ Server Citrix	Deltek Executables Cyborg Remote Interfaces □Citrix	Citrix Terminal Server	□imli
Durin	Sun v□□□	Solaris □.□	D□S/□TP □aguna S□ TP server E□mail relay		□ot
□awaii	□ateway □P□□□□	Redhat/□inux □	Configuration □ anagement □C□S) / □elp Ticket tracking □RT) □ eb services for the InfoSite Staff Directory		□ot
□ argawse	Dell □□□	Redhat/□inux □	InfoSite/SPICE Server DB		□ot
□ovel	Sparc □ltra □□	Solaris □.□	Development DB		Self/□ot
□OT	Sparc □ltra □	Solaris □.□/□nix	Cyborg	Primary	Self/Others
□ereth	Sparc □ltra □□	Solaris □.□	□ancelot – alternate server	Secondary	□ot
Excaliber/□	Sun v□□□	Solaris □.□	Report Database Server D□CP Apache/Tomcat		□ot
□ancelot	Enterprise □□□	Solaris □.□	Costpoint CP Ad ins □ ain Database		Self
Arthur	Sparc □ltra □□	Solaris □.□	CP S□R Reports □IS Print Server	□egacy Systems	□ot
□ erlin	Sun v□□□	Solaris □.□	Oracle development DB Cyborg development		□ot
□amarok	ASA	Redhat/□inux □ located in network D□ □	OutfoSite □Employee extranet □□externally accessible version of InfoSite)		□imue
□imue	□ateway □ □□□□	Redhat/□inux □	Intrusion Detection	Backup	□ot

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Control Legend

1. Priority	**K#** **C#** **I#**	Key Control Activity Control Activity Control Issue
2. Frequency	D W BiW M Q A	Daily Weekly Biweekly Monthly Quarterly Annually
3. Control Type	C A V R	Completeness Accuracy Validity Restricted Access
4. Control Category	P D	Preventive Detective
5. Control Method	M A	Manual Automated

Control Activities

Priority	Frequency	Control Category	Control Method	Control Type
C□□□□	□/A	P	□	C
C□□□□	A	P	□	C
C□□□□	□	P	□	C□A□□
C□□□□	□	P	□	C□A□□
C□□□□	□	P	□	C□A□□
C□□□□	□	P	□	C□R□□
C□□□□	□/A	P	□	C□R□□
C□□□□	A	P	□	C□R□□
C□□□□	A	P	□	C□R□□
C□□□□	□/A	P	□	C□R□□
C□□□□	D	P	A	C□A□R□□
C□□□□	□	P	□	C□□
C□□□□	□	D	□&A	C□R□□
C□□□□	D	P&D	A	C□A□R□□
C□□□□	D	P	□	C□A□R□□
C□□□□	□/A	P	□	C□R
C□□□□	□	D	□	R□□
C□□□□	D	P&D	A	C□A□R□□
C□□□□	□	D	□	C□A□□
C□□□□	D	P	A	C□A□R□□
C□□□□	□	P	A	C□A□R□□
C□□□□	Bi□	P	A	C□A□R□□
C□□□□	D	P	A	C□A□R□□
C□□□□	□	D	□	C□A□R□□
C□□□□	D	P	A	C□A□R□□

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	Cycle	Control Objective	Risks	Controls	Frequency (D/W/M/Q/A)	Control Category (P/D)	Control Method (M/A)	Control Type (C/A/R/V)	Designed Effectively (Y/N)	Operating Effectively (Y/N)
I. Program Development & Program Change										
1	Acquire or Develop Application Software	Controls provide reasonable assurance that application and system software is acquired or developed that effectively supports financial reporting requirements.	Without sufficient controls over application and interfaces, financial information may not be complete or accurate.	**1101**) The Enterprise Information Services (EIS) project defines the guiding principles that apply to all aspects of development activities from requirements definition through design, implementation, and into the deployment and support of new and existing applications.	N/A	P	M	C		
				1102) All application software acquisition follows Negotiations and Source Selection) and #F24 (Contract Labor Purchase Order).	A	P	M	C		
2	Acquire Technology Infrastructure	Controls provide reasonable assurance that technology infrastructure is acquired so that it provides the appropriate platform to support financial reporting applications.	Without an adequate infrastructure there is an increased risk that financial reporting applications will not be able to pass data between applications, financial reporting applications will not operate, and critical infrastructure failures will not be detected in a timely manner.	**1201**) InSync is responsible for managing the Corporate applications. InSync personnel recommend the purchase of any network devices, hardware, or software necessary to maintain or upgrade the Data Center based on current levels of user activities. Ray Gretlein approves these purchases as well as reviews a weekly report (invoice) from InSync documenting the work performed.	Q	P	M	C,A,V		
3	Develop and Maintain Policies and Procedures	Controls provide reasonable assurance that policies and procedures that define required acquisitions and maintenance processes have been developed and are maintained, and that they define the documentation needed to support the proper use of the applications and the technological solutions put in place.	Without development and maintenance of policies and procedures, there is no assurance of a commitment to perform business process activities in a consistent objective manner.	By implementing the use of processMax software for SDLC methodology, SPARTA will have the necessary documentation captured to meet a CMM level 3 on a going forward basis.	N/A	N/A	N/A	N/A		
4	Install and Test Application Software and Technology Infrastructure	Controls provide reasonable assurance that the systems are appropriately tested and validated prior to being placed into production processes and associated controls operate as intended and support financial reporting requirements.	Without adequate testing, systems may not function as intended and may provide invalid information, which could result in unreliable financial information and reports.	**1401**) A test environment is utilized with production data to address configuration and interface issues. Users are involved in running parallel processing and interface testing.	Q	P	M	C,A,V		
5	Manage Changes	Controls provide reasonable assurance that system changes of financial reporting significance are authorized and appropriately tested before being moved to production.	Deficiencies in this area could significantly impact financial reporting.	**1501**) A biweekly FAIS (Finance Accounting/Information Services) meeting is held between the SIS group and all open RTs and any other new or on-going system/support issues that are pending. End users are always involved in the testing phase of significant changes to any financial software application. Once processMax is implemented, it will provide the necessary documentation for change management.	M	P	M	C,A,V		

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	Cycle	Control Objective	Risks	Controls	Frequency (D/W/M/Q/A)	Control Category (P/D)	Control Method (M/A)	Control Type (C/A/R/V)	Designed Effectively (Y/N)	Operating Effectively (Y/N)
II. Computer Operations and Access to Programs & Data										
1	Define and Manage Service Levels	Controls provide reasonable assurance that service levels are defined and managed in a manner that satisfies financial reporting system requirements and provides a common understanding of performance levels with which the quality of services will be measured.	Deficiencies in this area could significantly impact financial reporting and disclosure of an entity.	Based on the size of the SIS department and the number of users which they support, the definition and management of services levels is not applicable to this organization.	N/A	N/A	N/A	N/A		
2	Manage Third-party Services	Controls provide reasonable assurance that third-party services are secure, accurate and available, support processing integrity and defined appropriately in performance contracts.	Deficiencies in this area could significantly impact financial reporting and disclosure for an entity.	**2201**) At the quarterly Network Steering Committee information services environment is reviewed and discussed.	Q	P	M	C,R,V		
				2202) Purchasing Policy/Procedures are followed. D&B reports business performance.	N/A	P	M	C,R,V		
				2203) in a Statement of Work for Delivery of Information Technology Services document (last revised 5/04). This agreement is reviewed annually and any modifications to their contract are made at that time prior to renewing it for another year.	A	P	M	C,R,V		
				2204) A service contract is in place for the payroll processing services provided by ProBusiness.	A	P	M	C,R,V		
3	Ensure System Security	Controls provide reasonable assurance that financial reporting systems and subsystems are appropriately secured to prevent unauthorized use, disclosure, modification, damage or loss of data.	Deficiencies in this area could significantly impact financial reporting.	**2301**) The following three policy/procedures outline A-10 Appropriate Use of Computer Resources A-17 Proper Use and Management of Computer Software A-20 Electronic Information Security Policy and Guidance	N/A	P	M	C,R,V		
				2302) System access authentication is a four tiered – is secured by IP Address Domain recognition or VPN – Area Network (LAN) access is controlled by Windows passwords and Active Directory which are set to expire – for Intranet Control Environment) grants access to internal web-based services. SPICE ids are assigned when new employees are processed. SPICE requires – password authentication. Costpoint requires password changes every 180 days. Within Costpoint, users are assigned to USER GROUPS that define which modules and what type of access (i.e. read only, update, etc.) is allowed. All Costpoint user access is reviewed and approved by Cindy Markinvoch, SPARTA Controller for appropriateness of request.	D	P	A	C,A,R,V		
				2303) Management notifies SIS personnel to remove This process includes disabling access to personal computers, networks and applications.	W	P	M	C,V		
				2304) Quarterly reports, showing application access rights by employee, are generated by SIS and distributed to CBO department heads to verify and confirm that all system access is appropriate and current. Access logs, as well as transaction logs exists that date and time stamp activity by user.	Q	D	M&A	C,R,V		

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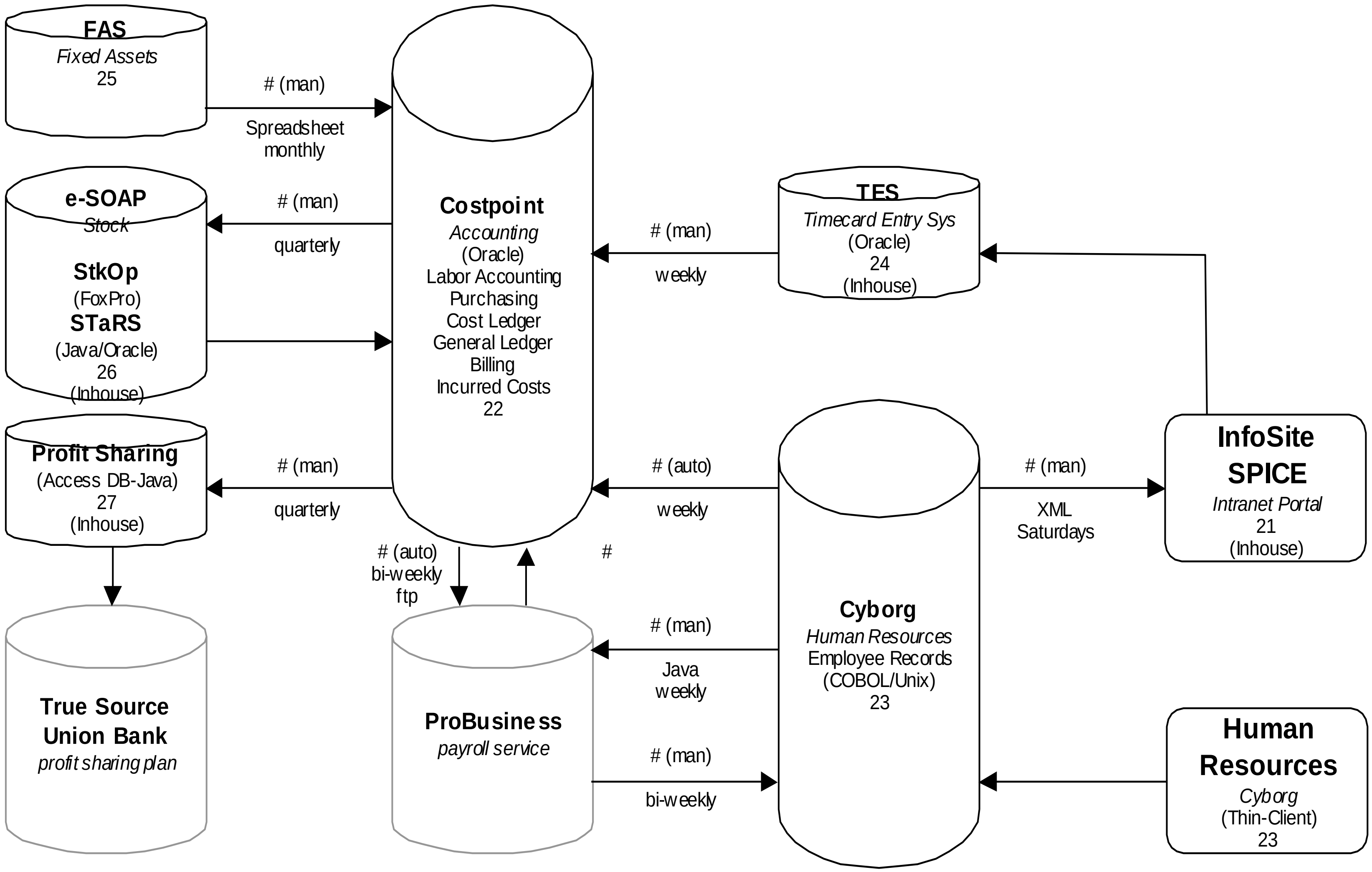
	Cycle	Control Objective	Risks	Controls	Frequency (D/W/M/Q/A)	Control Category (P/D)	Control Method (M/A)	Control Type (C/A/R/V)	Designed Effectively (Y/N)	Operating Effectively (Y/N)
				2305) Firewalls are installed on the WAN. SNORT, intrusion detection software, is also utilized within the CBO to monitor all packets and access to CBO services. E-mail alarm notifications are sent to SIS personnel if SNORT detects unauthorized attempts to access these services based on predefined rules. Any unusual activity is reported and discussed at the bi-weekly SIS meeting. If unusual activity is deemed a critical threat, the CNA and CIO are informed as soon as the activity is identified.	D	P&D	A	C,A,R,V		
				2306) Facility security for the CBO includes a sign-in log on other doors into this facility. A key code door lock security system is in place on the Data Center door. Only authorized SIS employees have the door code to the Data Center. A second sign-in log is used inside the Data Center for any visitors that are allowed access to the Data Center.	D	P	M	C,A,R,V		
4	Manage the Configuration	Controls provide reasonable assurance that all IT components, as they relate to security, processing and availability, are well protected, would prevent any unauthorized changes, and assist in the verification and recording of the current configuration.	Insufficient configuration controls can lead to security and availability exposures that permit unauthorized access to systems and data impact financial reporting.	**2401**) Only authorized software is permitted for use by employees using company equipment. This is in accordance with SPARTA policy/procedure A-17.	N/A	P	M	C,R		
				2402) The SPARTA Columbia office does periodic penetration attempts to test firewall and other system security configuration reliability.	Q	D	M	R,V		
				2403) Computer viruses are address in SPARTA policy/procedure A-20. SPARTA has a Norton Anti-Virus corporate license agreement. Asset Insight is used to monitor the installation of Norton, as well as other software, an all machines.	D	P&D	A	C,A,R,V		
				2404) The Network Steering Committee does period part of their duties. A review of support and infrastructure is done as part of the annual forecast process for the SIS department, in order to budget for new/additional requirements.	Q	D	M	C,A,V		
5	Manage Problems and Incidents	Controls provide assurance that any problems and/or incidents are properly responded to, resolved or investigated for proper resolution.	Deficiencies in this area could significantly impact financial reporting.	The current size of the SIS department and the number of financial application users it supports does not warrant the implementation of a formal problem management system. The Request Ticket system is used, but not on a consistent basis, and not for all matters that are handle immediately. The biweekly FAIS meeting described above is currently sufficient in order to continue to support the existing systems and users in	N/A	N/A	N/A	N/A		

Sparta, Inc. - SOXIT Audit

	Cycle	Control Objective	Risks	Controls	Frequency (D/W/M/Q/A)	Control Category (P/D)	Control Method (M/A)	Control Type (C/A/R/V)	Designed Effectively (Y/N)	Operating Effectively (Y/N)
6	Manage Data	Controls provide reasonable assurance that data recorded, processed and reported remain complete, accurate and valid throughout the update and storage process.	Deficiencies in this area could significantly impact financial reporting.	**2601**) Communication between SPARTA offices is	D	P	A	C,A,R,V		
				2602) Transmission of sensitive data to CNATrust, mail encryption using S/MIME protocol and X.509 digital certificates.	M	P	A	C,A,R,V		
				2603) All transmissions to and from ProBusiness for payroll processing is done utilizing FTP protocol over an encrypted VPN link across the Internet.	BiW	P	A	C,A,R,V		
				2604) All servers in the data center are auto configured to backup on a nightly basis (M-F) beginning after hours (approx 6pm start time). When data center personnel arrive the following morning, all backups have completed, e-mail notifications are reviewed to be sure all backups were completed successfully. If for some reason, one did not complete, it is backed up manually. Backup tapes are shipped daily at 4pm by FedEx standard overnight delivery to Huntsville, AL. A rotating cycle of several backup tapes is always in use. Even and odd numbered week tapes are cycled back and forth between the two offices on a continuous basis.	D	P	A	C,A,R,V		
				2605) Restoration drills are performed on an unscheduled basis approximately every 4-6 weeks.	Q	D	M	C,A,R,V		
				2606) Personal computer files stored in the My documents folder are synchronized with the OIN server continuously to assure that individual work products maintained on the workstation/laptops are backed up and recoverable.	D	P	A	C,A,R,V		
7	Manage Operations	Controls provide reasonable assurance that authorized programs are executed as planned and deviations from scheduled processing are identified and investigated, including controls over job scheduling, processing, error monitoring and system availability.	Deficiencies in this area could significantly impact financial reporting.	N/A - Managed by InSync	N/A	N/A	N/A	N/A		

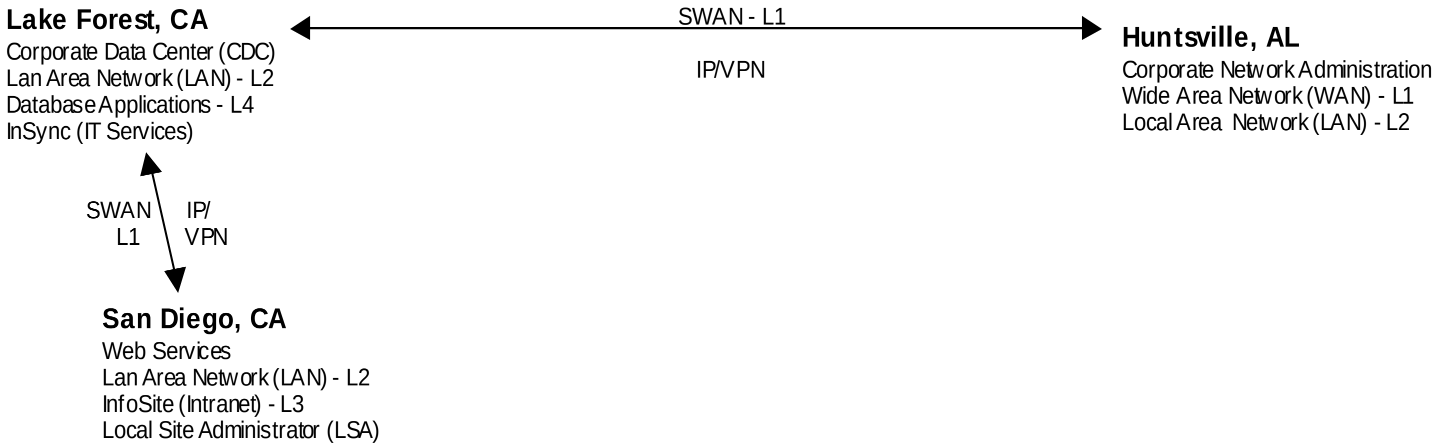
Sparta Information Services (SIS)



Sparta Network Diagram

System Access

L1 SWAN -IP/VPN
L2 LAN - Windows Password/Active Directory
L3 SPICE - Username/Password
L4 Application - Username/Password


Lake Forest, CA
Corporate Data Center (CDC)
Lan Area Network (LAN) - L2
Database Applications - L4
InSync (IT Services)
SWAN - L1
IP/VPN
Huntsville, AL
Corporate Network Administration
Wide Area Network (WAN) - L1
Local Area Network (LAN) - L2
SWAN
L1
IP/
VPN
San Diego, CA
Web Services
Lan Area Network (LAN) - L2
InfoSite (Intranet) - L3
Local Site Administrator (LSA)

SOX Compliance

IT General Controls

Process Narrative
Controls Matrix

Supporting Documentation
Standard Operating Procedure for IT – SOP
KITE An intranet portal – KITE
Standard Server Build Checklist – SSBC
Financial Audit/Application Security Document – ASD
Internal Control Deficiency and Other Advisory Comments

Version 1.0
9-July-2004

Version	Date	Revised By	Revision Detail
1.0	July 9, 2004	Gary Neshanian	Document created

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First Consulting Group
Process Narrative
(IT General Controls)

Business Process/Sub-Process: Information Technology Controls

Tables & Diagrams: Information Technology Documentation

Business Process Owner(s)	Title/Department (reviewed)
Phil Ockelmann	Controller
Brad Wheeler	VP/CIO (7/7)
Mike Seigafuse	Director IOG (7/6)
Randy Sohanaki	IT-Services (6/29)
Kevin Smith	IS-Systems (6/30)
Mike Valmidiano	Finance (7/1)
Compiled By:	Gary Neshanian (6/14-7/9)

Policies and Procedures	Documentation references
Standard Operating Procedure for IT	{SOP}
KITE – An intranet portal	{KITE}
Standard Server Build Checklist	{SSBC}
Fin. Audit/Application Security Document	{ASD}
Internal Control Deficiency and Other Advisory Comments for 2003	{ICDOAC}
MIS Document	{MIS} (due July 31)

General

This report is a comprehensive documentation of First Consulting Group's (FCG) Information Technology policies and practices as well as the internal controls over these processes.

The processes defined in this document include Company, Security, Operations, Backup, Modifications, Acquisitions, Services, and Information. Services defined in this document include KITE, Empire Time, Flexi and People Soft. The Service interfaces are also tabled and diagramed in the Information section.

External documentation referenced in this document; "KITE – An intranet portal" {KITE}, "Standard Operating Procedure for IT" {SOP}, "Standard Server Build Checklist" {SSBC}, "Application Security Documentation" {ASD}, and "MIS Document" {MIS}, which are available from KITE. Also referenced is the Audit Committee's 2003 "Internal Control Deficiency and Other Advisory Comments" {ICDOAC}, and the "Draft Responses to Internal Control Deficiencies document" from CIO/Brad Wheeler. Additional references to the Control Matrix that accompanies this narrative are referenced with *(ref 1.1-34)*. *Copies of these documents should be attached to this document.*

1. Company

FCG's IT structure is composed of staff primarily located at the headquarters ("Corporate") in Long Beach California, and Wayne Pennsylvania, with some personnel at smaller branch (field) offices in the U.S. and Europe. Corporate, Wayne and the remote field offices are networked (TCP/IP) together, primarily with CISCO firewalls, switches, and some hubs in remote offices, comprising a secured (VPN/SSL) Microsoft Windows (2000) NT Domain Network (FCGNET) of servers, clients, and services. The VP/CIO is located at the corporate office on the west coast (Long Beach, CA), with the Director of IOG on the east coast (Wayne, PA).

1.1. The company's data architecture is based upon the Microsoft Windows Domain client/server platform and technologies {ICDOAC-IT Strategies and Objectives} *(ref 1.28)*.
Note: A formalized MIS document is being finalized and is due out July 31(VP/CIO) ref (1.7).

1.2. The Systems Development Life Cycle is managed and monitored using Microsoft Project, and Microsoft's SharePoint Portal Server (SPS) and SharePoint Team Services (STS) {SOP-6.1.6 Share Point Security Standards} *(ref 1.8)*. Niku in used some remote location projects.

2. Security

FCG's security policies are designed to ensure that confidential information is protected, and at the same time, it is not the intent to enforce security to the extent that the policies prevent people from doing their everyday jobs in a simple and effective manner.

Data Center access, visitor/vendor policies, Domain user account/group/domain procedures, Internet/firewall standards, security incident/violation report and response are all covered in greater detail by the "Standard Operating Procedures/SOP-6.1 Security" document.

2.1. Company security administration policies & procedures are designed to ensure that confidential information, whether it belongs to FCG or clients, is protected, and exceptions are only approved by a Director within the Information Technology group of Practice Support {SOP-6.1 Security} *(ref 1.1)*.

2.2. Physical controls to secure the computer assets, and resources include card readers and cipher locks {SOP-6.1.1 Physical Access}, daily operations checks {SOP-Daily Operations Checks}, and Data Center system monitoring {SOP-6.3.2 System and Network Monitoring}*(ref 1.2)*.

2.3. Network Operations are secured and monitored using ProVision {SOP-6.1.4 Network Security Standards}, with only the VP/CIO approving any new Internet connections {SOP-6.1.3 Internet/Firewall Security Standards}, and using additional protocols in between secured facilities {SOP-Network Security Standards} *(ref 1.9)*.

2.4. Password and account policies and procedures are managed through the NT Domain and User Groups {SOP-6.1.2.2 User Account Naming Conventions}, with minimum lengths of 5 characters {SOP-6.1.2.8 Password Length}, expirations every 90 days {SOP-6.1.2.9 Password Expiration}, lockouts after 10 attempts {SOP-6.1.2.10 Account Lockout} and account creation within 2 days and termination after one business day {SOP-6.1.2.11 Account Maintenance Timeframes} {ICDOAC-Network, Applications and Database Security} *(ref 1.11)*.

2.5. System application access rights are managed with the Exchange Management System (ExMS), and individual application security mechanisms, such as Empire Time, Flexi and other application services. Extracts taken from the PeopleSoft HRIS system, including name and title, are processed by the ExMS system, assigning appropriate group memberships based on title and segregation of duties {SOP-6.1.2.12 Default Security Groups} *(ref 1.13)*.

2.6. Program, data and other information sources access rights are managed with ExMS, and individual program/data security mechanisms. Extracts taken from the PeopleSoft HRIS system, are processed by the ExMS system, assigning appropriate group memberships based on title and segregation of authority {SOP-6.1.2.12 Default Security Groups} *(ref 1.29)*.

3. Operations

The Data Centers are located at the corporate office on the west coast (Long Beach, CA), and the east coast (Wayne, PA), with local Help Desks at both centers and the London office. Nashville TN has also started some support of international offices and clients. Data centers are managed by Operations Managers, that are responsible for the daily operations, system and network monitoring (ProVision), and disaster protection/fault tolerance configuration and support.

System availability, daily operations, system/network monitoring, and fault tolerance are all cover in greater detail by the "Standard Operating Procedures/SOP-6.3 Assuring System Availability" document.

3.1. Only valid production programs are executed by the appropriate users in NT Domain User groups {SOP-6.1.2.12 Default Security Groups} *(ref 1.22)*.
3.2. Batch control and balancing is managed with daily checks of event logs, database log files, paging mechanisms and other daily system checks {SOP-6.3.1 Daily Operations Checks} with production servers being monitored by ProVision {SOP-6.3.2 System and Network Monitoring} *(ref 1.12)*.
3.3. Report output is available on demand for individuals through the NT/Windows domain. Finance has access and control of "Monthly Close" information and reports. Daily checks are made to guarantee system availability {SOP-6.3.1 Daily Operational Checks} *(ref 1.14)*.
3.4. Anti-virus protection is provided on all systems from PCs and laptops {SOP-6.1.7.1 Virus Protection Standards}, to servers {SBBC-page 11 Post Operating System Installation}, with ePO distributing updates *(ref. 1.4)*.
3.5. Computer processing environment staffing is documented with organization charts and system profiles, including education, training, and certifications of all associates on the intranet {KITE-Collaboration} system. The HR People Soft PCADS system maintains job descriptions for core skills and more detailed Functional Job Descriptions for segregation of duties {ICDOAC-IT Job Descriptions}. *(ref 1.23)*
3.6. Computer processing environment new hire/associate training is managed by the coach/manager {SOP-7 Training} *(ref 1.24)*.
3.7. Computer processing service levels at purchase, from HP/Compaq and Dell, are 7-day a week 4 hour or less response time, service agreements for 3 years *(ref 1.25)*. Renewal service levels of 24/7 for Dell and 16/7 for HP/Compaq, are maintained for critical systems, and are available for less critical business functions, such as development/test servers.
3.8. User training requests are made and placed in the PCADS PeopleSoft system, for review and approval *(ref 1.26)*.
3.9. Users receive appropriate applications and support from servers built according to a list of checklist {SBBC-page 10 Post Operating System Installation}, and PCs built from a list of standard builds specification, with exceptions handled by the help desk *(ref 1.27)*.
3.10. Software licensing is controlled and enforced with the server build procedure {SBBC-page6 Server Version and Licensing) and tracked in the "hardware tracking database" (SQL/Access) {SBBC-page12 Documentation-Software license tracking} *(ref 1.30)*.

4. Backup

All FCG Infrastructure and Delivery servers are backed at the Data Centers under the supervision of the Operations Manager. System backups, user data, and database (Sybase, Oracle, MS-SQL Server) are performed. Local off-site vendors are used for tape pool storage, and regulatory retention requirements (HR and Finance), and are audited annually by the Operations Manager. The Server Operations Staff are responsible for daily backups, weekly cleaning, monthly regulatory compliance, and on-site tape pool management.

System backups, procedures, tools, retention, storage, testing, restoring, and archival are all cover in greater detail by the "Standard Operating Procedures/SOP-6.4 System Backups" document.

4.1. System backups are performed on all Infrastructure and Delivery servers, except research, lab, training servers but if required, may be added to the backup schedule through the FCG Help Desks. PC users store all data files on file servers whenever possible so they are backed up regularly. {SOP-6.4 System Backups}
All backups are automated via a scheduling mechanism built into the backup toolset or native operating system {SOP-6.4.1.3 Standard Backup Procedures and Tools}, and image backups are done Monday through Friday, and incremental backups on Saturday and Sunday {SOP-6.4.1.1 Backup Types, Intervals, and Schedules} *(ref 1.16)*

4.2. Database backup procedures include dumping database files via either internal scheduling mechanisms (Microsoft SQL Server) or system batch jobs (Sybase and Oracle). The database dumps are performed nightly Monday through Saturday and are scheduled to complete before system backups {SOP-6.4.1.4 Database Backup Procedures and Tools}.
Data files are hosted on Windows Servers as file and print servers, in a Windows Active Directory domain called FCGNET, secured with accounts, groups, and permissions managed by the FCG Help Desk {SOP-6.1.5 File Server Security Standards}.
Knowledge management and collaboration are hosted on Microsoft's SharePoint Portal Server (SPS) and SharePoint Team Services (STS) {SOP-6.1.6 Share Point Security Standards} *(ref 1.6)*

4.3. Media library and backup tapes for all systems housed in Data Centers are retained in an offsite storage facility for 5 weeks, after which the tape is recycled. For regulatory retention requirements of HR and Finance records, the last business day backup of each month, the Infrastructure and Operations staffs pull the backup for 12-month retention. One tape set is permanently retained each year. {SOP-6.4.1.5 Backup Tape Retention, Mike Seigafuse review}
A local vendor provides off-site storage (Corporate/Long Beach uses Iron Mountain/Carson CA) that the IT Operations Manager audits at least once per calendar year {SOP-6.4.1.6 Backup Tape Storage}. *(ref 1.5)*.

4.4. The Information Technology staff for all backup pools tests backups biannually (1st and 3rd Quarter). Independent auditor selects file(s), IT staff restores file with auditor present, auditor compares files and records results on the Backup Test Form, which is then signed by the local IT Director {SOP-6.4.1.7 Backup Testing Procedure}.
Server operations staff clean tape drives weekly, recording daily anomalies on the Daily Operations Hotsheet. Operations Manager schedules at least quarterly Backup Tests to uncover any backup/recovery problems {SOP-6.4.1.2 Backup Responsibilities}.
The Operations Manager of each Data Center ensures that the servers are configured with the appropriate level of fault tolerance for the business function they support. Critical systems may require RAID disk arrays, UPS backups, and other fault tolerant features {SOP-6.3.3 Fault Tolerance). *(ref 1.3)*

4.5. Backups are pulled monthly (on the last day of each month) for regulatory requirements of HR and Finance records, and placed into 12-month offsite storage. One tape set is retained permanently {SOP-6.4.1.5 Backup Tape Retention, Mike Seigafuse review} *(ref 1.5)*.

4.6. Disaster recovery plans according to the PCAOB'S Final Rule issued on March 9, 2004 eliminated the need to verify, for Financial Reporting purposes under SOX 404, the requirement that companies have a business continuity plan and/or contingency plan in place *(ref 1.17)*. A formalized risk assessment is being developed with a qualified specialist for periodic review {ICDOAC-IT Risk Assessment}.

5. Modifications

FCG's Change Management procedures are organized by the function of the system being changed. "Corporate" systems (e-mail, Intranet, extranet, HRIS, Finance, etc.) require changes to be approved before being made. Changes to "Other" research, training, laboratory, and delivery servers do not need to be approved in advance, but must be reported. Changes are evaluated based on tolerance for error and the size of the user group impacted. The person seeking the change is called the "Change Coordinator", and is responsible to perform the initial evaluation and enter the proposed change into the on-line Change Control system, accessible from the KITE/Intranet. The Operations Director is responsible for the approving or declining or changes.

Change management for Corporate and Other systems covering the what, how and emergency changes are all cover in greater detail by the "Standard Operating Procedures/SOP-6.5 Change Management procedures" document.

5.1. Modifications to existing data structures *(ref 1.15)*,
5.2. network and communication software *(ref 1.31)* modifications,
5.3. systems software *(ref 1.32)* modifications,
5.4. computer hardware *(ref 1.33)* modifications,
5.5. and existing applications *(ref 1.34)* modifications are authorized, implemented, and tested through the Change Management Procedure process {SOP-6.5 Change Management Procedures}.
Changes to systems are evaluated based on tolerance for error and size of the user group impact. Changes are grouped in a matrix of quadrants (Q1-Q9), and the proposed changes are submitted into the Change Control system for review, approval, and scheduling {SOP-6.5.1 Corporate Change Control Procedures}.

6. Acquisition

The VP/CIO evaluates and monitors IT vendors and their service contracts. IT software, hardware and network/communications software requests are submitted the "Asset Man" PO system and approvals up $100K are made by the CIO, with anything above going to CXO management and/or the board for approval.

IT Procurement is defined in greater detail in the FCG Process Narrative (Purchasing/Accounts Payable/Cash Disbursement) authored by Peter Any. It is defined as an internal and recurring part of FCG's normal operations – namely, laptop computers used by FCG's employees and consultants on client engagements (projects). IT purchases are comprised mainly of: hardware (laptops, server networks, etc), software (software applications), and IT expenses (ancillary IT products – mouse, keyboard, etc).

6.1. Selection and monitoring of IT vendors is done by the VP/CIO *(ref 1.18)*.
6.2. Systems software *(ref 1.19)* requests,
6.3. computer hardware *(ref 1.20)* requests, and
6.4. network and communications software *(ref 1.21)* is requested through the "Asset Man" PO system and sent in for approval. The chief information officer has software purchase authority up to $100K. Above $100K is approved by CXO management and/or the board.

7. Services (Applications)

This section defines the services (applications) on the FCG NT Domain Network (FCGNET).

7.1. KITE – FCG's firm-wide intranet portal.
Features collaboration areas, personal information, professional development, discussion groups, search engines, and on-line data reporting. Six main areas include: Home, Search, Projects, MyCareer, Research and Collaboration.

FCGNET NT domain security, SSL encryption technology for secure data communication including locations external to FCG, and Microsoft SharePoint technology for: Knowledge repository, Document management, Enterprise-wide search, and On-line collaboration.

Microsoft SharePoint Portal Server (SPS), and SharePoint Team Services (STS), with the SQL database backed up in the Data Center by the IT staff (ref 4.2).

7.2. Empire Time – Time and Expense Capture, Project Capture
Empire TIME uses a spreadsheet-like format, customizable screens, populated with client, project, task and estimate-to-complete information, to support data entry of time and expenses. SSL encrypted for secure data communication

7.2.1. Access – Finance (Rick Reichersamer) maintains the user account (user id), security class (group), permission classification (features), and system options (password policies: minimum 5 characters, suspend after 10 tries, valid 180 days) {ASD-Empire Time, System Options} *(ref 1.35)*.

7.2.2. Backup – The Empire Time SQL database is backed up in the Data Center by the IT staff (ref 4.2) Daily full backups are supplemented with 2 hour log captures for additional incremental protection. *(ref 1.36)*.

7.3. Flexi – Financials: General Ledger, Accounts Payable, Accounts Receivable, Fixed Assets
FlexiFinancials Suite is a set of financial accounting components that capture, synthesize, distribute and manage financial accounting data.

A thin client application is secured by the NT domain security, and the SQL database is backed up in the Data Center by the IT staff (ref 4.2). Daily full backups are supplemented with 2 hour log captures for additional incremental protection.

7.3.1. Access – Director of Accounting (Scott Johnson) approves user account access requests. FlexiControl Administrators (Randy Sohanaki, Gina Miller) manage the user account (user id), security group, sign-on security (password policies: minimum 5 characters, disable after 10 tries, change every 180 days) {ASD-Flexi, SignOn Security} *(ref 1.37)*.

7.3.2. Backup – The Flexi SQL database is backed up in the Data Center by the IT staff (ref 4.2) *(ref 1.38)*. Database log files are backed up every 2 hours for incremental integrity.

7.4. FRx – Microsoft's financial reporting and analysis application, works with Flexi, considered a financial reporting standard.

Security is handled by a NT domain group and account information is passed from Flexi.

7.5. People Soft – Human Resources, HRIS, Self Serve. Self Serve is reachable through the KITE/intranet for personal updates by all associates. SSL encrypted for secure data communication

7.5.1. Access – All FCGNET domain users have an account that they can update through the self serve feature. Human Resources maintains the user account (user id), security setup (password policies: minimum length 5 characters, lockout after 10 tries, change every 180 days), permission lists (screen access), and user profiles (roles) {ASD-PeopleSoft} *(ref 1.39)*.

7.5.2. Backup – The People Soft SQL database is backed up in the Data Center by the IT staff (ref 4.2) Daily full backups are supplemented with 2 hour log captures for additional incremental protection. *(ref 1.40)*.

7.6. ProBusiness – ADP National Account services, outsourced payroll service.

7.7. Timeline – Reporting, Budgeting
Microsoft Excel spreadsheet for financial reporting, budgeting and analysis.

7.8. Novient – Staffing, Skills Database, and Revenue Forecast

7.9. Remedy – Help Desk application.

7.10. Siebel – Sales Force Automation, and Analytics

8. Information (Interfaces)

This section defines the interfaces in between the services (defined in section 7).

8.1. People Soft to Empire Time – Update employee demographic information: Employee Number, Staff Level, Department, Employment Status, Manager.

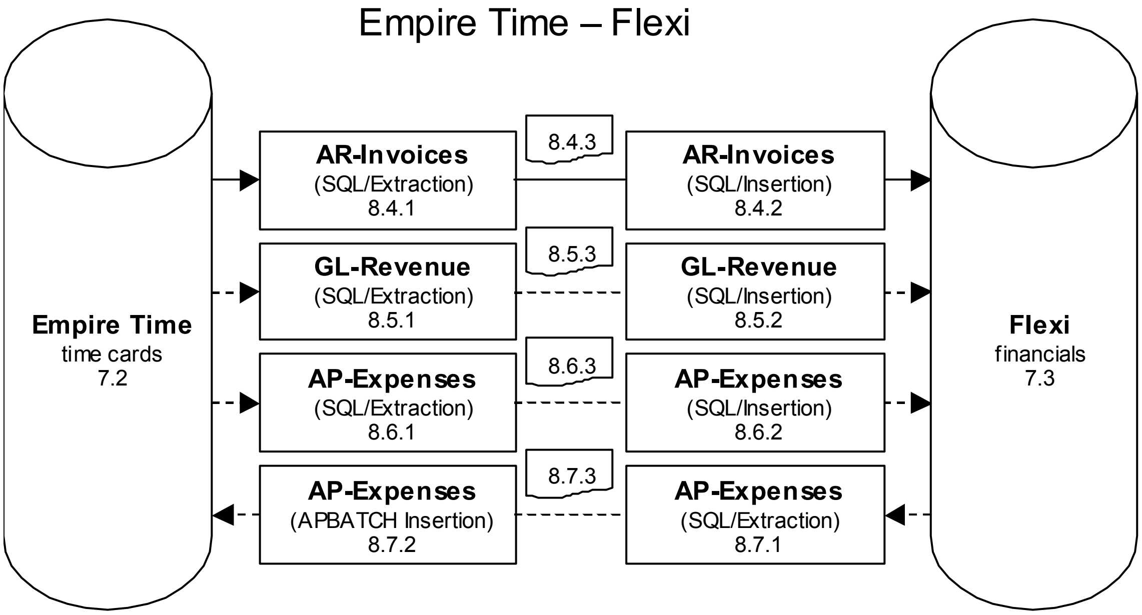
Stored procedure run automatically daily. Data is extracted into interim tables, transferred to ET server. New records and modified fields are then added to ET database. (Automatically nightly) *(ref 1.41)*

8.2. Empire Time to People Soft – To keep track of PTO & personal days: Employee, PTO hours, Holiday, Personal Time Hours.

Stored procedure kicked off by a operator at month end. (Manually after ET close) *(ref 1.42)*

8.3. Empire Time to Novient – Update Novient for staffing people. *(ref 1.43)*

Information Diagram – Empire Time–Flexi Interface Diagram



Empire Time–Flexi Diagram

8.4. Empire Time to Flexi (AR) – Move invoices to the AR system: Project Number, Revenue Category (Fees, Exp, Srvc), Invoice Number, Amount, Invoice Date.

Stored procedure run automatically on a daily basis. Extracts ET data into interim tables. Data is manipulated to add account numbers then transferred to the Flexi server. The data with fully qualified accounts is then loaded into the GL module and auto posted. (Automatically daily at 4pm) *(ref 1.44)*

8.4.1. Empire Time (AR) Extraction
User(s): Mike Baskerville, Seenu Moorti, Randy Sohanaki, SQLETADM.
Group(s): SQLAdmins.
Extraction stored procedure: msp_AR_Auto_Driver_Cust, msp_AR_Auto_Driver_INV.

8.4.2. Flexi (AR) Insertion
User(s): Mike Baskerville, Seenu Moorti, Randy Sohanaki, SQLFLXADM.
Group(s): ITDBA.
Insertion stored procedure: import_ar_customer, import_ar_invoices.

8.4.3. Flexi (AR) Validation
The Unbuild Report checked by Leelana Juatma, and AR Outstanding Report checked by April Tharachai, at month end are used to validate data in between Empire Time and Flexi (AR).

8.5. Empire Time to Flexi (GL) – Move revenue to the accounting system: Project Number, Revenue Category (Fees, Exp, Srvc), Unplanned Adjustment Category, Task Item, Employee, Amount.

Stored procedure kicked off by a operator at month end. Extracts ET data into interim tables. Data is manipulated to add account numbers then transferred to the Flexi server. The data with fully qualified accounts is then loaded into the GL module and auto posted. (Manually after ET close) *(ref 1.45)*

8.5.1. Empire Time (GL) Extraction
User(s): Mike Baskerville, Seenu Moorti, Randy Sohanaki, SQLETADM.
Group(s): SQLAdmins.
Extraction stored procedure: GL_driver.

8.5.2. Flexi (GL) Insertion
User(s): Mike Baskerville, Seenu Moorti, Randy Sohanaki, SQLFLXADM.
Group(s): ITDBA.
Insertion stored procedure: import_je.

8.5.3. Flexi (GL) Validation
The Project Summary Report checked by Leelana Juatma at month end is used to validate data in between Empire Time and Flexi (GL).

8.6. Empire Time to Flexi (AP) – Move expenses over to AP for checks to be issued to employees: Employee, Project Number, Amount.

Stored procedure kicked off by AP Supervisor every Wednesday and month end. Data is manipulated to add account numbers then transferred to the Flexi server. Data is loaded as invoices into AP module and fully qualified accounts and amounts are posted into the GL. (Manually weekly) *(ref 1.46)*

8.6.1. Empire Time (AP) Extraction
User(s): Mike Baskerville, Seenu Moorti, Randy Sohanaki, SQLETADM.
Group(s): SQLAdmins.
Extraction stored procedure: MSP_ET2AP_driver_auto.

8.6.2. Flexi (AP) Insertion
User(s): Mike Baskerville, Seenu Moorti, Randy Sohanaki, SQLFLXADM.
Group(s): ITDBA.
Insertion stored procedure: import_ap_inv_fcg.

8.6.3. Flexi (AP) Validation
The AP Aging Report checked by Anne Mohoff at month end is used to validate data in between Empire Time and Flexi (AP).

8.7. Flexi to Empire Time – Move the charges for centrally paid items from the AP to ET so that we can charge the clients accordingly: Project Number, Amount, Task Item (apt Rent, Phone, ect).

Stored procedure kicked off by project accounting associate every Thursday. Text file is extracted from Flexi AP. An ET application then loads the flat file intervals. (Manually weekly) *(ref 1.47)*

8.7.1. Flexi (AP) Extraction
User(s): Mike Baskerville, Seenu Moorti, Randy Sohanaki, Mike Valmidiano, Rick Reichersamer.
Group(s): SQLFLXADM, ITDBA.
Extraction stored procedure: MSP_AP2_CAST.

8.7.2. Empire Time (AP) Insertion
User(s): Mike Valmidiano, Rick Reichersamer (ET program security).
Insertion program: APBATCH.exe

8.7.3. Empire Time (AP) Validation
The AP Aging Report checked by Anne Mohoff at month end is used to validate data in between Flexi and Empire Time (AP).

8.8. Empire Time to CAST_REPORTS – For repository & Billing Repository: Project, Client, Employee, Revenue, Invoice Data, and extracts of project related information. Duplication of Empire Time databases based on previous day used for reporting, and for KITE information.

Stored procedure run automatically at various time intervals. (Automatically varying) *(ref 1.48)*

8.9. Empire Time to Timeline – For FP&A reporting (Revenue matrix, Utilization): Project, Client, Employee, Revenue, Invoice Data, Extracts of project related information.

(Manually as requested weekly) *(ref 1.49)*

8.10. ProBusiness to Flexi – Text file from ProBusiness used to update the Flexi General Ledger after checks have been issued.

Stored procedure run automatically at various time intervals. (Manual varying) *(ref 1.50)*

8.11. Flexi to FRx – Data extraction from Flexi AR and report generated by FRx.

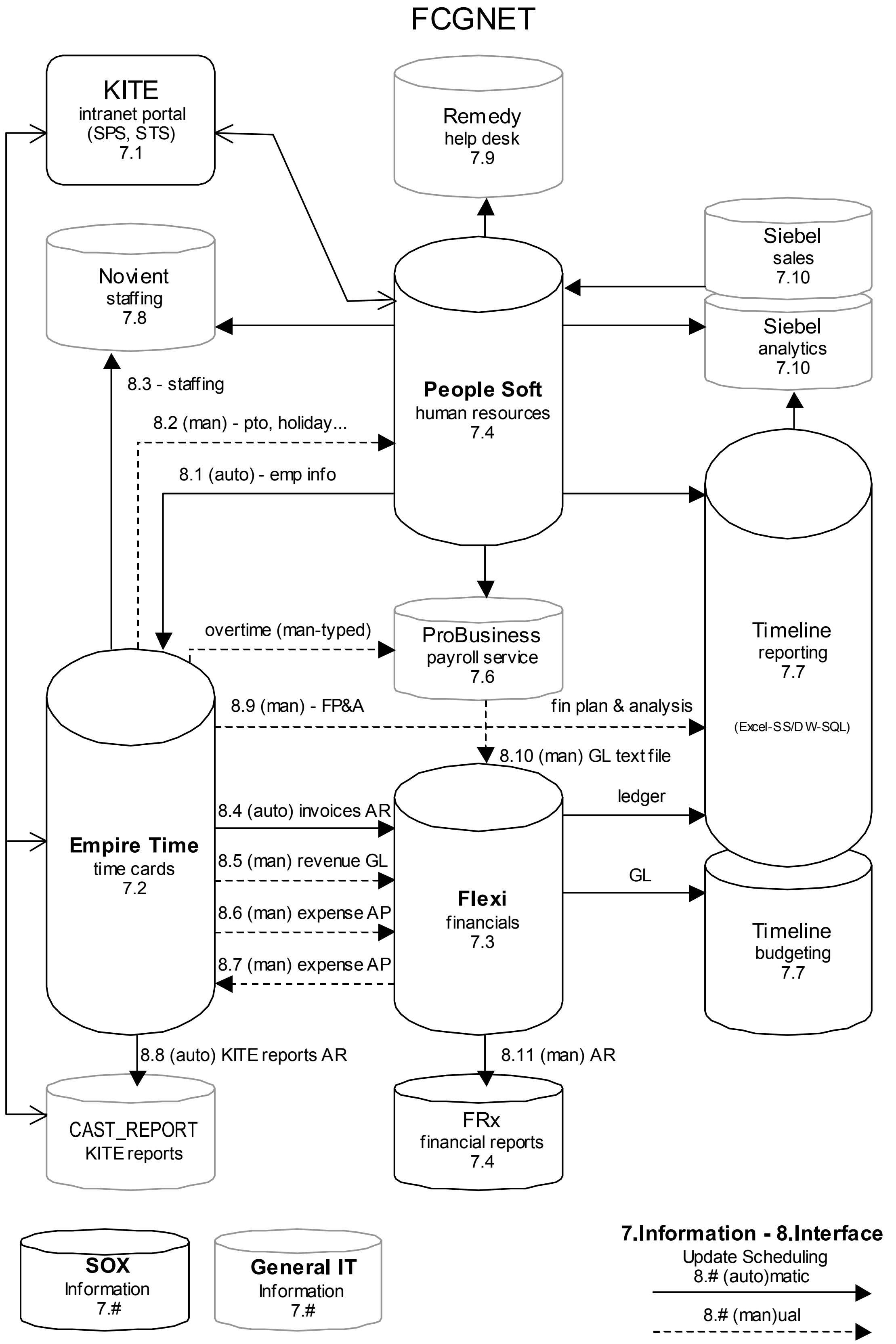
Stored procedure run automatically at various time intervals. (Manual varying) *(ref 1.51?)*

Information Table - IT Systems Interface Specifications

	Interfaces	Mechanism	Frequency	Description	Key Data Elements	General Process	Control Points
8.1	HR to ET 7.5 – 7.2	Automatic	Nightly	Update employee demographic info	Emp No, Name, Staff Level, Department, Employment Status, Manager	Stored procedure run automatically daily. Data is extracted into interim tables, transferred to ET server. New records and modified fields are then added to ET database.	HR Log Application which checks for errors in the interface
8.2	ET to HR 7.2 – 7.5	Manual	After ET close	To keep track of PTO & personal days	Employee, PTO hours, Holiday, Personal Time Hours	Stored procedure kicked off by a Operator at month end.	Data populated into People Soft to reduce PTO, Personal & Holiday.
8.3	ET to Novient 7.2 – 7.8			Update Novient for Staffing people			
8.4	ET to Flexi (AR) 7.2 – 7.3	Automatic	Daily	Move invoices to the AR system	Project No, Revenue Category (Fees, Exp, Srvc), Inv No, Amt, Inv Date.	Stored procedure run automatically on a daily basis. Extracts ET data into interim tables. Data is manipulated to add account numbers then transferred to the Flexi server. The data with fully qualified accounts is then loaded into the GL module and auto posted.	Errors are auto-emailed to AR group. Amounts are verified through balance sheet reconciliations of unbilled amounts and AR outstanding.
8.5	ET to Flexi (GL) 7.2 – 7.3	Manual	Before & After (USA)	Move revenue to the accounting system	Project No, Revenue Category (Fees, Exp, Srvc), Unplanned Adjustment Category, Task Item, Employee, Amt.	Stored procedure kicked off by a Operator at month end. Extracts ET data into interim tables. Data is manipulated to add account numbers then transferred to the Flexi server. The data with fully qualified accounts is then loaded into the GL module and auto posted.	On close day all firm except system administrators locked out of ET. Once a summary period is closed transactions cannot be posted into the closed period. ET detail and summary tables first validated. Send summary project report to GL. GL validates by project. Variances corrected at department/project level.
8.6	ET to Flexi (AP) 7.2 – 7.3	Manual	Weekly	Move expenses over to AP for checks to be issued to employees	Employee, Project No, Amount	Stored procedure kicked off by AP Supervisor every Wednesday and month end. Extracts ET data into interim tables. Data is manipulated to add account numbers then transferred to the Flexi server. Data is loaded as invoices into AP module and fully qualified accounts and amounts are posted into the GL.	Batch total from ET is compared with the Flexi AP and Flexi GL.
8.7	Flexi to ET 7.3 – 7.2	Manual		Move the charges for centrally paid items from the AP to ET so that we can charge the clients accordingly	Project No, Amount, Task Item (apt Rent, Phone, ect).	Stored procedure kicked off by project accounting associate every Thursday. Text file is extracted from Flexi AP. An ET application then loads the flat file intervals.	Verify reimbursable cost and reimbursable revenue and equal on the P&Ls. Data test prior to release.
8.8	ET to CAST_REPORT	Automatic	Daily	For reporting & Billing Repository	Project, Client, Employee, Revenue, Invoice Data. Extracts of project related information.	Stored procedure run automatically daily intervals.	Reports test prior to release for reports and KITE access.
8.9	ET to Timeline 7.2 – 7.7	Manual	Weekly	For FP&A reporting (Revenue matrix, Utilization)	Project, Client, Employee, Revenue, Invoice Data. Extracts of project related information.	Stored procedure run automatically daily intervals.	Data test prior to release.
8.10	ProBusiness to Flexi (GL) 7.6 – 7.7	Manual		Text file containing ProBusiness GL updates	Data tested for GL and actual checks issued.	Text file received from ProBusiness, then transferred to the Flexi server. The data with fully qualified accounts is then loaded into the GL module and auto posted.	Totals checked between what was paid and text file.

Information Table

Information Diagram - IT Systems Interface Diagram



Information Diagram

First Consulting Group
IT Control Matrix

1 COSO Component: Control Environment, Risk Assessment, Control Activity, Information and Communication, Monitoring
2 Control Type (FS Assertions): Existence and Occurrence, Completeness, Valuation and Allocation, Rights and Obligations, Presentation and Disclosure
3 Control Category: Preventive and Detective
4 Control Method: Manual and IT
5 Financial Statement Categories:

	Sub-Process	Risk	Risk Assessment	Control Description	COSO Component	Financial Statement Assertion	Control Category	Control Method	IT Dependent *(If yes, specify system)*	Responsible Party
1	Security	Potential for unauthorized access to systems, data, physical assets; resulting in unauthorized modification or loss.	High	FCG Standard Operating Procedure {SOP} FCG Standard Server Build Checklist {SSBC} FCG KITE Intranet Portal Documentation {KITE} Who: FCG associates How: The Kite Intranet hosts the SOP and SSBC documents in the Collaboration section {KITE Collaboration}, with access to the Microsoft's SharePoint Portal Server (SPS) and SharePoint Team Services (STS) {SOP-6.1.6 Share Point Security Standards}. Security section {SOP-6.1 Security} addresses confidential information. Exemptions based on function cover equipment (servers) for training, professional development, research, and hands-on technology experience. Exemptions for other purposes are requested through and only granted by any Director within the Information Technology group of Practice Support (PS). Frequency: Policy	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
2	Security	Potential for hardware theft, damage, vandalism, and data loss.	High	SOP-6.1 Security Who: Data Center Owner How: All servers are housed in Data Centers with physical access controlled either by a security system with card readers or, at a minimum, a cipher lock {SOP-6.1.1 Physical Access}. Frequency: Automated SOP-6.3 Assuring System Availability Who: Infrastructure and Operations Group How: Temperature, humidity, and general visual checks for each Data Center daily {SOP-6.3.1 Daily Operation Checks}. Frequency: Daily (Monday-Friday) Who: Operations Manager of Data Center How: Ensures all production servers are monitored by the standard monitoring system (i.e., ProVision) {SOP-6.3.2 System and Network Monitoring}. Frequency: Automated	Control Activity, Information and Communication	Completeness	Preventive Preventive Preventive	Automatic Manual Automatic	Yes- IT	IT
3	Backup	Potential damage and destruction of computer equipment and data.	High	SOP-6.4 System Backups Who: Information Technology staff and auditor How: The Information Technology staff test tape backups for all backup pools biannually. Independent auditor selects file(s). IT staff restores file with auditor present, auditor compares files and records results on the Backup Test Form, which is then signed by the local IT Director. {SOP-6.4.1.7 Backup Testing Procedure} Frequency: Biannually (1st and 3rd Quarter) Who: Server Operations Staff How: Cleaning tape drives weekly, recording daily anomalies on the Daily Operations Hotsheet. Operations Manager schedules at least quarterly Backup Tests to uncover any backup/recovery problems. {SOP-6.4.1.2 Backup Responsibilities} Frequency: Daily logging, Weekly cleaning, Quarterly tests Who: Operations Manager of Data Center How: The Operations Manager of each Data Center ensures that the servers are configured with the appropriate level of fault tolerance for the business function they support. Critical systems may require RAID disk arrays, UPS backups, and other fault tolerant features {SOP-6.3.3 Fault Tolerance). Frequency: Manua	Control Activity, Information and Communication	Completeness	Preventive Preventive Preventive	Manual Manual Manual	Yes- IT	IT

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5 Financial Statement Categories:

	Sub-Process	Risk	Risk Assessment	Control Description	COSO Component	Financial Statement Assertion	Control Category	Control Method	IT Dependent *(If yes, specify system)*	Responsible Party
4	Operations	Potential for unauthorized data access, downtime, corrupted software and data and loss of data integrity.	High	SOP-6.1.7 PC Security Standards Who: FCG Help Desk How: All PCs connected to the FCG network have antiviral software installed and enabled at all times {SOP-6.1.7.1 Virus Protection Standards} Frequency: Manual (installed) SSBC-Standard Server Build Checklist Who: Infrastructure and Operations Group How: Application and file servers are installed with the appropriate virus protection software {SSBC-page10 Post Operating System Installation}. The agent is installed and server is added to the ePO anti-virus software update distribution system {SSBC-page11 Post Operating System Installation}. Frequency: Manual (installed)	Control Activity, Information and Communication	Completeness	Preventive Preventive	Automatic Manual	Yes- IT	IT
5	Backup	Potential for data loss, unreliable business continuity plan, and potential loss of intellectual property.	High	Who: Information Technology staff How: All systems housed in Data Centers retain backup tape in an offsite storage facility for 5 weeks, after which the tape is recycled. Servers housed in field offices use a 3-week tape rotation and have no offsite tape storage. Only exceptions are regulatory retention requirements of HR and Finance records when the last business day of each month the Infrastructure and Operations staff pull the backups for permanent offsite storage. {SOP-6.4.1.5 Backup Tape Retention} A local vendor provides off-site storage that the IT Operations Manager audits at least once per calendar year {SOP-6.4.1.6 Backup Tape Storage}. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
6	Backup	Potential data integrity issues, inadequate data backup and recovery, unplanned downtime and system instability.	High	Who: FCG Help Desk How: Database backup procedures include dumping database files via either internal scheduling mechanisms (Microsoft SQL Server) or system batch jobs (Sybase and Oracle). The database dumps are performed nightly Monday through Saturday and are scheduled to complete before system backups {SOP-6.4.1.4 Database Backup Procedures and Tools}. Data files are hosted on Windows Servers as file and print servers, in a Windows Active Directory domain called FCGNET, secured with accounts, groups, and permissions managed by the FCG Help Desk {SOP-6.1.5 File Server Security Standards}. Knowledge management and collaboration are hosted on Microsoft's SharePoint Portal Server (SPS) and SharePoint Team Services (STS) {SOP-6.1.6 Share Point Security Standards} Frequency: Automatic	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT
7	Company	MIS plans and initiatives are inconsistent with strategic business goals. Inefficient and ineffective systems operations, potential data loss and downtime.	High	**Note: A formalized MIS document is being finalized and is due out July 31 according to the VP/CIO.**	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
8	Company	Systems may not operate according to managements' intentions. Potential results include; increased downtime, unauthorized development & maintenance of systems, inadequate systems integration, and reduced system performance.	High	Who: CIO How: Microsoft Project is used for corporate development when appropriate, along with Microsoft's SharePoint Portal Server (SPS) and SharePoint Team Services (STS) {SOP-6.1.6 Share Point Security Standards}. Some Niku planning and use in done in remote field sites. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT

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	Sub-Process	Risk	Risk Assessment	Control Description	COSO Component	Financial Statement Assertion	Control Category	Control Method	IT Dependent *(If yes, specify system)*	Responsible Party
9	Security	Potential interruption of data transmissions, voice communications and increased downtime.	High	Who: FCG IT Director within PS How: FCG's network security standards are designed to protect confidential data on internal data networks, within a given facility, from outside individuals. Transmission of information over the Internet to another facility or site is not secure and should use additional security measures (such as SSL, PPTP, or IPSEC encryption) {SOP-6.1.4 Network Security Standards} All FCG connections between the network and the Internet are approved by the VP/CIO, require a firewall (owned, managed, and maintained by the FCG IT team) {SOP-6.1.3 Internet/Firewall Security Standards}. The Operations Manager of each Data Center ensures all production servers are being monitored by the standard monitoring system (i.e., ProVision) {SOP-6.3.2 System and Network Monitoring} Frequency: Automated	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
10	Backup	Potential for regulatory fines and sanctions, negative impact on operations and image.	High	Who: Information Technology staff How: Backups are pulled monthly for regulatory requirements of HR and Finance records, and placed into permanent offsite storage {SOP-6.4.1.5 Backup Tape Retention}. Frequency: Monthly (on the last day of each month) Who: Information Technology staff How: Backup pools are tested with independent auditors, IT staff, and signed by local IT Director {SOP-6.4.1.7 Backup Testing Procedures}. Frequency: Biannually (1st and 3rd Quarter)	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
11	Security	Potential for unauthorized system access and data loss or modification.	High	SOP-6.1.2 Account Policies Who: PS IT Director How: Usernames for Active Directory and e-mail accounts are generated using the user's First, Middle, and Last Names with additional codes for duplicate users {SOP-6.1.2.2 User Account Naming Conventions}. Passwords are considered company confidential and system/administrative accounts are disclosed only by the IT owner of a system {SOP-6.1.2.7 Access to Password}. Passwords are a minimum length of 5 characters {SOP-6.1.2.8 Password Length}. Passwords expire every 90 days {SOP-6.1.2.9 Password Expiration}. Accounts are locked after 10 bad login attempts {SOP-6.1.2.10 Account Lockout}. New hire accounts are creating within 2 days of receiving notice and termination requests are completed within one business day of receipt {SOP-6.1.2.11 Account Maintenance Timeframes} Frequency: Automatic	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT
12	Operations	Potential for incomplete or inaccurate data through undetected input errors.	High	SOP-6.3 Assuring System Availability Who: Infrastructure and Operations Group How: Checks of Event logs, Database log files, Paging mechanisms, Application operation, and other system checks {SOP-6.3.1 Daily Operational Checks} Frequency: Daily Who: Operations Manager How: Production servers are monitored by the standard monitoring system (i.e., ProVision) {SOP-6.3.2 System and Network Monitoring} Frequency: Automated	Control Activity, Information and Communication	Completeness	Preventive Preventive	Manual Automatic	Yes- IT	IT

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13	Security	Potential for unauthorized transactions resulting in data modification.	High	Who: Exchange Management System (ExMS) How: Application and service access are controlled with NT Domain User groups. The Exchange Management System (ExMS) automatically places a user into the appropriate security group based on information supplied from the HRIS system PeopleSoft {SOP-6.1.2.12 Default Security Groups}. Finer granularity of security is applied with three top level groups (FCGI, FCGMS and Codigent). Frequency: Automated	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT
14	Operations	Potential for unreliable production environment and increased abnormal production job terminations resulting in inefficient data center operations.	High	Who: Infrastructure and Operations Group How: Reports are available on demand for individuals through the NT/Windows domain. Finance has access and control of “Monthly Close” information and reports. Daily checks of event logs, security alerts, and Data Center application operational checks are made to guarantee system availability to the user community {SOP-6.3.1 Daily Operational Checks}. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
15	Modifications	Potential for increased downtime, inappropriate data, and inefficient systems operations,	High	Who: Change Coordinator How: Authorization, implementation, modification, and testing to existing data structures are processed through the Change Management Procedure process {SOP-6.5 Change Management Procedures}. Changes to systems are evaluated based on tolerance for error and size of the user group impact. Changes are grouped in a matrix of quadrants (Q1-Q9), and the proposed changes are submitted into the Change Control system for review, approval, and scheduling {SOP-6.5.1 Corporate Change Control Procedures}. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT
16	Backup	Potential for data loss, unreliable business continuity plan, and potential loss of intellectual property.	High	SOP-6.4 System Backups Who: FCG Help Desk How: All FCG Infrastructure and Delivery servers are backed up. Research, lab, training servers are not generally backed up but, if required, may be added to the backup schedule through the FCG Help Desks. PC users store all data files on file servers whenever possible so they are backed up regularly. {SOP-6.4 System Backups} All backups are automated via a scheduling mechanism built into the back toolset or native operating system {SOP-6.4.1.3 Standard Backup Procedures and Tools} Frequency: Image backups Monday through Friday and incremental backups on Saturday and Sunday {SOP-6.4.1.1 Backup Types, Intervals, and Schedules}	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT
17	Backup	Potential risk to ongoing business activities	High	**Note: the PCAOB’S Final Rule issued on March 9, 2004 eliminates the need to verify, for Financial Reporting purposes under SOX 404, the requirement that companies have a business continuity plan and/or contingency plan in place.**	Control Activity, Information and Communication	Completeness			Yes- IT	IT
18	Acquisition	Potential for reduced effectiveness of operations, intellectual property loss and contracting inconsistent with managements intentions.	High	Who: CIO How: The chief information officer is responsible for the selection and monitoring of IT vendors. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
19	Acquisition	Potential for inefficient and ineffective systems operations, potential data loss and downtime.	High	Who: CIO How: Systems software is requested through the “Asse Man” PO system and sent in for approval. The chief information officer has software purchase authority up to $100K. Above $100K is approved by the board. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT

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	Sub-Process	Risk	Risk Assessment	Control Description	COSO Component	Financial Statement Assertion	Control Category	Control Method	IT Dependent *(If yes, specify system)*	Responsible Party
20	Acquisition	Potential for inefficient use of funds, inefficient systems operations, impairment of the overall hardware and system compatibility and support effectiveness.	High	Who: CIO How: Hardware is requested through the “Asset Man” PO system and sent in for approval. The chief information officer has hardware purchase authority up to $100K. Above $100K is approved by the board. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
21	Acquisition	Potential for inefficient use of funds, inefficient systems operations, and impairment of the overall software and system support effectiveness.	High	Who: CIO How: Network and communication software is requested through the “Asset Man” PO system and sent in for approval. The chief information officer has network and communication software purchase authority up to $100K. Above $100K is approved by the board. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
22	Operations	Potential for unreliable data integrity, unplanned downtime and system instability	High	Who: Operations Group How: Production programs are scheduled and executed by only users in the appropriate NT Domain User group {SOP-6.1.2.12 Default Security Groups}. Frequency: Automated	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT
23	Operations	Potential for lack of competency, skill/ task mismatch, inefficient and ineffective productive operations.	High	Who: VP/CIO (west coast), Director Infrastructure and Operations (east coast) How: The KITE (Intranet) contains Organization Charts and system profiles of all associates and staff. Profiles include education, training, certifications and other qualifications. The PCADS section of People Soft maintains job descriptions for core skills and detailed Functional Job Descriptions {ICDOAC-IT Job Descriptions}. Frequency: Automated	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
24	Operations	Potential for lack of competency, inefficient, ineffective and unproductive operations.	High	SOP.3-1.001: Standard Operating Procedure for Maintaining the QMS. Who: Coach/Manager How: The coach/manager of all newly hired PS IT associates shall arrange for training on this SOP within one month of hire {SOP-7 Training} Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
25	Operations	Potential for inadequate vendor relationship management and inappropriate service levels. Inefficient and ineffective operations.	High	Who: Infrastructure and Operations Group How: Service agreement/contracts are included with initial equipment purchases, from HP and Dell suppliers. Standard service levels are 7 days a week, with 4 hour or less response time. Frequency: Automated	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
26	Operations	Potential for inefficient and ineffective operations and introduction of inaccurate data.	High	Who: Professional Development How: User training requests are made and placed in the People Soft system, for review and approval. Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
27	Operations	Potential for insufficient user support. Inefficient and ineffective operations.	High	Who: Infrastructure and Operations Group How: Appropriate applications and installed on apps servers during system build process {SSBC-page10 Post Operating System Installation}. PCs are built according to a list of standard builds specifications, exceptions are made and reviewed through the help desk. Frequency: Manual (installed)	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
28	Company	Potential for incompatible data output and lack of support for the strategic business plan. Inefficient use of corporate funds. Inefficient and ineffective operations.	High	Who: CIO How: FCG computing resources are based and implemented on the Microsoft Windows platform and technology (ref 1.7). Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
29	Security	Potential for unauthorized access, security violations, loss of confidentiality and integrity of programs and data.	High	Who: Exchange Management System (ExMS) How: Program and data access are controlled with NT Domain User groups. (ref Control Objective 1.13) Frequency: Automated	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT

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30	Operations	Potential for legal and civil violations, damage to reputation, inefficient and ineffective operations.	High	Who: Infrastructure and Operations Group How: Ensure that a valid license for the selected version of the operating system has been purchased {SSBC-page6 Server Version and Licensing}. PCs are built only according to a standard builds list of configurations, and exceptions are handled and implemented by the help desk. Software licenses for any installed applications are tracked and updated in the “hardware tracking database”, a SQL/Access database {SSBC-page12 Documentation-Software license tracking}. Frequency: Manual (installed)	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
31	Modifications	Potential for unauthorized access, increased downtime, inefficient systems operations, and impairment of the overall software and system support effectiveness.	High	Who: Change Coordinator How: Authorization, implementation, modification, and testing to network and communication software are processed through the Change Management Procedure process {SOP-6.5 Change Management Procedures}. (ref Control Objective 1.15) Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
32	Modifications	Potential for unauthorized access, increased downtime, inefficient systems operations, and impairment of the overall software and system support effectiveness.	High	Who: Change Coordinator How: Authorization, implementation, modification, and testing to systems software are processed through the Change Management Procedure process {SOP-6.5 Change Management Procedures}. (ref Control Objective 1.15) Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
33	Modifications	Potential for unauthorized access, increased downtime, inefficient systems operations, and impairment of the overall software and system support effectiveness.	High	Who: Change Coordinator How: Authorization, implementation, modification, and testing to computer hardware are processed through the Change Management Procedure process {SOP-6.5 Change Management Procedures}. (ref Control Objective 1.15) Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
34	Modifications	Potential for unauthorized access, increased downtime, inefficient systems operations, and impairment of the overall software and system support effectiveness.	High	Who: Change Coordinator How: Authorization, implementation, modification, and testing to application systems are processed through the Change Management Procedure process {SOP-6.5 Change Management Procedures}. (ref Control Objective 1.15) Frequency: Manual	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
35	Services	Potential for unauthorized access, increased downtime, inefficient systems operations, and impairment of the overall software and system support effectiveness.	High	Who: Finance How: Finance (Rick Reichersamer, Theresa Dao) maintains the user account (user id), security class (group), permission classification (features), and system options (password policies: minimum 4 characters, suspend after 20 tries, valid 180 days) {ASD-Empire Time, System Options} Frequency: Automatic	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- Empire Time/ Finance	IT
36	Services	Potential data integrity issues, inadequate data backup and recovery, unplanned downtime and system instability.	High	Who: IT staff How: Database backup procedures include dumping database files via internal scheduling mechanisms (Microsoft SQL Server). The database dumps are performed nightly Monday through Saturday and are scheduled to complete before system backups {SOP-6.4.1.4 Database Backup Procedures and Tools}. Frequency: Automatic	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- Empire Time/ IT	IT
37	Services	Potential for unauthorized access, increased downtime, inefficient systems operations, and impairment of the overall software and system support effectiveness.	High	Who: Finance How: Director of Accounting (?) approves user account access requests. FlexiControl Administrators (Randy Sohanaki, Gina Miller) manage the user account (user id), security group, sign-on security (password policies: minimum 5 characters disable after 5 tries, change every 180 days) {ASD-Flexi, SignOn Security} Frequency: Automatic	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- Flexi/ Finance	IT

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	Sub-Process	Risk	Risk Assessment	Control Description	COSO Component	Financial Statement Assertion	Control Category	Control Method	IT Dependent *(If yes, specify system)*	Responsible Party
38	Services	Potential data integrity issues, inadequate data backup and recovery, unplanned downtime and system instability.	High	Who: IT staff How: Database backup procedures include dumping database files via internal scheduling mechanisms (Microsoft SQL Server). The database dumps are performed nightly Monday through Saturday and are scheduled to complete before system backups {SOP-6.4.1.4 Database Backup Procedures and Tools}. Database log files are backed up every 2 hours for incremental integrity. Frequency: Automatic	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- Flexi/ IT	IT
39	Services	Potential for unauthorized access, increased downtime, inefficient systems operations, and impairment of the overall software and system support effectiveness.	High	Who: Human Resources How: All FCGNET domain users have an account that they can update through the self serve feature. Human Resources maintains the user account (user id), security setup (password policies: minimum length 5 characters, lockout after 10 tries, change every 180 days), permission lists (screen access), and user profiles (roles) {ASD-PeopleSoft} Frequency: Automatic	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- People Soft/ HR	IT
40	Services	Potential data integrity issues, inadequate data backup and recovery, unplanned downtime and system instability.	High	Who: IT staff How: Database backup procedures include dumping database files via internal scheduling mechanisms (Microsoft SQL Server). The database dumps are performed nightly Monday through Saturday and are scheduled to complete before system backups {SOP-6.4.1.4 Database Backup Procedures and Tools}. Frequency: Automatic	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- People Soft/ IT	IT
41	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: IT staff How: Stored procedure run automatically daily. Data is extracted into interim tables, transferred to ET server. New records and modified fields are then added to ET database. Frequency: Automatic nightly	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT
42	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: IT staff How: Stored procedure kicked off by a IT Staff at month end. Frequency: Manually after ET close	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- Empire Time - People Soft/ IT	IT
43	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: IT staff How: Update Novient for staffing people. Frequency: Manually	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- Empire Time - Novient/ IT	IT
44	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: IT staff How: Stored procedure run automatically on a daily basis. Extracts ET data into interim tables. Data is manipulated to add account numbers then transferred to the Flexi server. The data with fully qualified accounts is then loaded into the GL module and auto posted. Frequency: Automatically daily Who: Leelana Juatma How: Unbuild Report data is checked against Empire Time and Flexi data. Frequency: Manual at month end Who: Leelana Juatma How: Unbuild Report data comparison from Empire Time to Flexi Frequency: Monthly at month end	Control Activity, Information and Communication	Completeness	Preventive Detective	Automatic Manual	Yes- Empire Time - Flexi/ IT / Finance	IT Finance
45	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: IT staff How: Stored procedure kicked off by a IT Staff at month end. Extracts ET data into interim tables. Data is manipulated to add account numbers then transferred to the Flexi server. The data with fully qualified accounts is then loaded into the GL module and auto posted. Frequency: Manually before & after USA Who: Leelana Juatma How: Project Summary Report data is checked against Empire Time and Flexi data. Frequency: Manual at month end Who: Leelana Juatma How: Project Summary Report data comparison from Empire Time to Flexi Frequency: Monthly at month end	Control Activity, Information and Communication	Completeness	Preventive Detective	Automatic Manual	Yes- Empire Time - Flexi/ IT / Finance	IT Finance

1 COSO Component: Control Environment, Risk Assessment, Control Activity, Information and Communication, Monitoring
2 Control Type (FS Assertions): Existence and Occurrence, Completeness, Valuation and Allocation, Rights and Obligations, Presentation and Disclosure
3 Control Category: Preventive and Detective
4 Control Method: Manual and IT
5 Financial Statement Categories:

	Sub-Process	Risk	Risk Assessment	Control Description	COSO Component	Financial Statement Assertion	Control Category	Control Method	IT Dependent *(If yes, specify system)*	Responsible Party
46	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: AP Supervisor How: Stored procedure kicked off by AP Supervisor every Wednesday and month end. Data is manipulated to add account numbers then transferred to the Flexi server. Data is loaded as invoices into AP module and fully qualified accounts and amounts are posted into the GL. Frequency: Manually weekly Who: Anna Mohoff How: AP Aging Report data is checked against Empire Time and Flexi data. Frequency: Manual at month end Who: Anne Mohoff How: AP Aging Report data comparison from Empire Time to Flexi Frequency: Monthly at month end	Control Activity, Information and Communication	Completeness	Preventive Detective	Automatic Manual	Yes- Empire Time - Flexi/ IT / Finance	IT Finance
47	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: Project Associate How: Stored procedure kicked off by project accounting associate every Thursday. Text file is extracted from Flexi AP. An ET application then loads the flat file intervals. Frequency: Manually Who: Anna Mohoff How: AP Aging Report data is checked against Empire Time and Flexi data. Frequency: Manual at month end	Control Activity, Information and Communication	Completeness	Preventive Detective	Automatic Manual	Yes- IT	IT Finance
48	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: Project IT staff How: Stored procedure run automatically at various time intervals. Frequency: Automatically varying	Control Activity, Information and Communication	Completeness	Preventive	Automatic	Yes- IT	IT
49	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: IT staff How: Frequency: Manually as requested weekly	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT
50	Information	Potential for invalid data update resulting in data corruption and system instability.	High	Who: IT staff How: Frequency: Manually as requested	Control Activity, Information and Communication	Completeness	Preventive	Manual	Yes- IT	IT

FCG Practice Support IT

SOP.2-4.001 SOP for Information Technology

Version 3.1

Document Approval

Original signatures are maintained in the QMS binders for the following approvers, and may be viewed upon request:

- Nicole Quinlan, Quality Process Analyst
- Mike Seigafuse, Director of Infrastructure & Operations
- Peter Wismer, Director, Life Sciences Quality
- Brad Wheeler, Vice President Practice Support

Document Identification

Property	**Value**
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Author(s):	Mike Seigafuse

Document Revision History

Version	**Date**	**Revised By**	**Revision Detail**
1.0	December 10, 1999	Mike Seigafuse	Document created. (Replaces ISCG's Information Systems Policies and Procedures, 1998)
2.0	October 16, 2000	Mike Seigafuse	Corrected omission of 3rd row of Change Control matrix, changed to weekly Change Control meetings. Added language to allow for disabling of user accounts of terminated associates on request by their Coach (to allow for retrieval of files). Updated location of the Backup Audit Checklist to the IT Communication section of KITE. Updated per completion of implementing 90-day password expiration for the rest of FCG. Removed Denver DR site, updated LBO DR status and ETA. Formalized email virus response procedures, and made adjustments to contractor/temporary worker account

Version	Date	Revised By	Revision Detail
			policies, as well as account maintenance procedures. Expanded Change Control section to handle hosting operations, added requirement to audit offsite tape storage vendors, added visitor sign in procedures for data center access, added firewall rule sets for service and hosting networks off of the firewalls, defined responsibility for follow ups to backup audit failures, added text describing what is confidential information to the screen saver section. Reformatted document to adhere to SOP standards. Added security response, account lockout, daily operational and archival procedures. Modified backups to include Sunday incremental backups, regulatory retention and archival procedures, wireless security policies and modified account setup policies for new requirements and Active Directory.
2.1	August 15, 2002	Mike Seigafuse	Reviewed and updated. Updates include policies for the management of SharePoint security, removed the provision for alternate SMTP addresses, removed references to UUNET, updated SMTP firewall rules to be more explicit and to disallow POP, revised user naming conventions for contractors and temps, added policies for subcontractors and flexible hires.
2.1.1	16 April 2003	Nicole K. Quinlan	FCG Document Number changed from SOP-IT-001 to SOP.2-4.001, document properties and fields updated accordingly. Added Approved By Section. Document approval spaces removed and placed in the QMS Document Disposition Package.
2.2.a	March 15, 2003	Mike Seigafuse	Updated to better align with ISO certification process by removing work instruction level of detail out of this document and out to the work instruction level. Added Patch Management policies.
2.2.b	August 18, 2003	Steve Prendergast	Revised the frequency of backup audits to biannually.

Version	Date	Revised By	Revision Detail
			Changed the location of the backup test form
3.0	September 4, 2003	Nicole Quinlan	Section 6.6 Destruction of Electronic Records added based on content submitted from Mike Seigafuse. Changed version targeted from 2.2 to 3.0, due to the scope and nature of the changes included. Version 2.2 was never published. Document version 3.0 reviewed.
3.1	January 16, 2004	Mike Seigafuse	Added new procedures for delegating administration of access to project shares to Project Managers/share owners via Mail Enabled Groups. Old policies will still be in place until all shares are converted to the new group type. (CIT00000245) Updated titles in the Document Approval section. Updated Section 6.6 as per CIT00000283

Contents

1. Statement of Policy

This document defines the policies, procedures, and standards for usage and management of the computing resources of First Consulting Group, Inc. (hereafter called “the Firm.”) As stated in FCG Policy Number 205 in the Associate Handbook, use of FCG Computing Resources is granted for "the legitimate conduct of FCG business". Policy 205 further clarifies the use of FCG resources to store or copy Copyright Protected materials, as well as clearly stating that information stored on FCG Systems is the sole property of the Firm and, as such, is not privileged and private to the Associate. Policy 205 should be read and understood by all associates.

All First Consulting Group (FCG) associates are required to comply with the policies, procedures, and standards found in this document. FCG Information Technology staff and FCG Management are responsible for ensuring compliance. Associates who violate these policies and procedures are subject to disciplinary actions up to and including termination.

2. Purpose

The purpose of this procedure is to formally document the protocol for Information Technology relating to FCG. The contents include:

- Acceptable Use and Information Privacy Policies
- Security Policies
- Backup and Recovery Standards
- Change Control Procedures
- Disaster Recovery Standards
- Destruction of Electronic Records Procedures

3. Scope

This SOP pertains to all FCG associates.

4. Definitions and Acronyms

Term	Definition
CERT	Computer Emergency Response Team: The Internet's official emergency team, focusing on security breach and denial-of-service incidents and providing alerts and incident-handling and avoidance guidelines.
DMZ	Demilitarized Zone: A computer host or small network inserted as a "neutral zone" between a company's private network and the outside public network.
DNS	Domain Name System: The way that Internet domain names are located and translated into Internet Protocol addresses.
GRE	Generic Routing Encapsulation: A protocol for routing data between computers over the Internet.
IT	Information Technology
InterNIC	Internet Network Information Center: A cooperative activity between the U.S. government and Network Solutions, Inc. that, until recently, was the organization responsible for registering and maintaining the com, net, and org top-level domain names on the World Wide Web.
IP	Internet Protocol: The method or protocol by which data is sent from one computer to another on the Internet.
RAID	Redundant Array of Independent Disks: A way of storing the same data in different places (thus, redundantly) on multiple hard disks.
SOP	Standard Operating Procedure: A specific statement of policy that has been agreed upon by the identified functions at FCG and will be implemented as a business rule.
SSL	Secured Sockets Layer: A commonly used protocol for managing the security of a message transmission on the Internet.
TCP	Transmission Control Protocol: A method used along with the Internet Protocol (IP) to send data in the form of message units between computers over the Internet.
UDP	User Datagram Protocol: A communications method that offers a limited amount of service when messages are exchanged between computers in a network that uses the Internet Protocol (IP).
PS	Practice Support

5. Responsibility

As stated in Section 1 of this document, “All First Consulting Group (FCG) associates are required to comply with the policies, procedures, and standards found in this document. FCG Information Technology staff and FCG Management are responsible for ensuring compliance.”

6. Procedure

6.1. Security

FCG's security policies are designed to ensure that confidential information, whether it belongs to the Firm or our clients, is protected. At the same time, it is not the intent to enforce security to the extent that the policies prevent people from doing their everyday jobs in a simple and effective manner. The following security policies were designed with these goals in mind and, as such, some resources are exempted.

Exemptions are determined based on the function of the equipment. Specifically, equipment (servers) used for training, professional development, research, and hands-on technology experience are exempt from these security policies and procedures. Conversely, all equipment used to store business data, house and/or generate client deliverables, or for any purpose other than those specifically exempted above must comply with these policies and procedures.

Exceptions for other purposes not foreseen by these policies and procedures may be requested through and approved by any Director within the Information Technology group of Practice Support (PS).

6.1.1. Physical Access

All servers will be housed in Data Centers with physical access control. Access control will be maintained either by a security system with card readers or, at a minimum, a cipher lock. The Data Center Owner and an alternate shall be the only individuals authorized to grant access to Data Centers.

Access to Data Centers is granted on the basis of legitimate business need. The Security System Administrator[1] shall seek approval from the Data Center Owner before granting any request for access to Data Centers. The Data Center Owner will audit the list of individuals with Data Center access and/or change cipher lock combinations on a quarterly basis.

6.1.1.1. Visitor Access to Data Centers

All visitors to the Data Center shall be required to sign into the Data Center Visitor Log Book, which will be kept in the Data Center. IT staff must accompany all visitors at all times, unless approved by a PS IT Manager. Unescorted access is intended to allow for vendor maintenance and other procedures that may require extended timeframes. When unescorted access is allowed, it is the responsibility of the PS IT staff member allowing Data Center access to make sure that all system consoles are secured.

6.1.1.2. Contractor/Vendor Keycard Access to Data Centers

Should a maintenance contractor or maintenance vendor require extended access to a Data Center with the ability to enter and exit (to obtain parts, supplies, etc), a loaner card may be issued for this purpose.

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[1] As defined in *FCG Life Sciences Standard Operating Procedure (SOP) for Wayne, PA Facility Security (SOP.2-4.002)*

6.1.1.3. Data Center Maintenance

Receipts for all maintenance performed in the Data Center (HVAC, FM200, UPS, etc) shall be retained and stored in a Data Center Maintenance folder to be kept in a central location in each Data Center.

6.1.2. Account Policies

6.1.2.1. User Account Creation and Deletion

This section defines policies and procedures for the management of user accounts on Infrastructure servers (standard accounts) and other accounts (those created on Delivery, Training, and Research servers).

6.1.2.1.1. Infrastructure/Standard Accounts

Standard accounts are created based on HR notification to IT by the PS IT staff. These standard accounts include:

- FCGNET Active Directory User Accounts
- MS Exchange Mailbox

6.1.2.1.2. Other Accounts

Non-standard accounts required for delivery, research, or training purposes should be requested through the Help Desk responsible for supporting the server in question (i.e., Long Beach, Wayne, Wales).

6.1.2.2. User Account Naming Conventions

All FCG Associates, contractors, subcontractors, flexible hires and temporary workers will have Active Directory user and e-mail accounts based on the following user naming conventions:

Example	**Associate Name**	**NT Domain Account**	**Email Alias**
1	First M. Last	Flast *(Based on first initial and first six characters of the last name.)*	flast@fcg.com *(Based on first initial and complete last name.)*
2	John C. Public	Jpublic	jpublic@fcg.com

Example	Associate Name	NT Domain Account	Email Alias
	John Q. Public *(Another associate with the same first and last name as above, but with a different middle name.)*	Jqpublic	jqpublic@fcg.com
	John Q. Public *(Yet another associate with the same first and last name, this time with the same middle initial.)*	j2public *(The number is sequential. If there were yet another conflict, the third person would receive the name j3public.)*	j2public@fcg.com
3	Mary J. Associate	Massoci	massociate@fcg.com
	Mary J. Associate *(Another associate with the same first name, last name, and middle initial as above.)*	Mjassoci *(Middle initial is used to resolve the conflict. Should the associate not have a middle initial, a number from 2-9 will be used to resolve the conflict.)*	mjassociate@fcg.com
	Mary J. Associate *(Another associate with the same first name, last name, and middle initial as above.)*	m2associ *(A number from 2-9 is used to resolve conflicts beyond the first conflict.)*	m2associate@fcg.com

Should an associate require an account other than the standard accounts already configured for them, the secondary account should be requested through the local Help Desk (i.e., Long Beach, Wayne, and London). If required, secondary accounts will be created on Delivery, Training, and Research servers (but not on Infrastructure servers).

6.1.2.3. Standard Access for accounts

6.1.2.4. Requests for Alternate Usernames and E-mail Addresses

Since some system automation is performed based on FCGNET user accounts and email addresses, these accounts must be created using the standard format (see section 6.1.2.2). As such, IT will not change the username for individuals based on nicknames.

6.1.2.5. Contractor/Temporary Worker Accounts

All accounts created for contractors and/or temporary workers are to be requested via the FCG Help Desk by the hiring associate. A firm termination date for the account must be provided.

Contractor and Temporary worker accounts will be created using the FCG standard naming convention, but will be created with an expiration date identical to the end date for the contractor/temporary worker. The temporary account will expire on that date unless a request is sent to the FCG Help Desk requesting an extension. Quarterly reviews will be performed by the NT Domain Account Operators to remove expired accounts.

6.1.2.6. Flexible Hire Accounts

Associates hired as flexible hires are given standard FCG user accounts and mailboxes but have a restricted security set up. These accounts are removed from the default **Domain Users** group and are added to the **Flexible Hires** group. This group is automatically given access to Webmail and ET-Web. The group is not given access to KITE or FCG confidential information.

6.1.2.7. Access to Passwords

FCG passwords are considered company confidential and are not to be disclosed to any third party, except in association with the configuration of accounts for clients, vendors, and partners. Passwords to system, root, or other administrative accounts are to be disclosed only to those individuals approved by the IT Owner of the system in question. IT Owners are determined based on server location and function. The following table illustrates the IT Owners for various server locations and functions:

Server Location	Server Function	IT Owner
Any	Corporate Infrastructure	PS IT Director
Any	Lab, training or research server	Server owner (i.e., Service Line sponsor)
Wayne	Delivery server	Wayne PS IT Director
Wales	Delivery server	European IT Manager

6.1.2.8. Password Length

FCG enforces a minimum length of 5 characters for password on all accounts and all systems.

6.1.2.9. Password Expiration

FCG policy is to expire passwords every 90 days. This policy is applicable to the primary security domain within FCG (FCG’s Active Directory), but is not applicable to development, test, training or other systems).

6.1.2.10. Account Lockout

FCG enforces account lockout on the FCG master account domain (FCGNET) after 10 bad login attempts. Once locked, only System Support or Helpdesk staff may unlock the account. Associates who do get locked out must request a reset through the Helpdesk. Support staff shall ask the impacted associate if they know how the account got locked out (mistyped passwords, failed connection attempts, etc.) If the cause is not known, Security Incident Response procedures shall be activated under the following conditions:

1. The account has administrative rights to the FCGNET Active Directory domain
2. The account that has been locked is an account specifically setup for a particular application (i.e., PeopleSoft, Novient, Flexi, etc.)
3. Many user account lockouts occur within the same business week with an unknown cause

To prevent the use of "Social Engineering" to gain access, support staff members shall issue new passwords to impacted associates via FCG voicemail systems—passwords shall not be issued over the phone, since identity cannot be determined over the phone with certainty.

6.1.2.11. Account Maintenance Timeframes

IT will complete new hire account setup within 2 business days of receiving notice of the new hire.

Requests for terminations of user accounts will be completed within one business day of receipt. FCG PS IT staff shall perform the following processes to handle accounts of terminated associates:

Upon 1 business day notice or upon the end date of the terminated associate:

1. Delete the FCGNET Active Directory domain account and associated mailbox of the terminated associate. (mailbox will remain on the email server for a period of 14 days after which it will be permanently deleted be Exchange).
2. Delete the personal folder of terminated associate.

6.1.2.12. Default Security Groups

All new associate user accounts will be automatically added to a default security group based on either their Practice Area Group or Practice Area (if they are an FCGMS associate). These groups are used for security on KITE and Sharepoint Teams and Portal sites. Within 1 day of each account creation FCG's Exchange Management System (ExMS) will automatically place each account in the appropriate security group based on information supplied from the HRIS system PeopleSoft. Below is a list of the security groups based on FCG's HR Tree structure.

Group based on Practice Area Group	Group based on Practice Area (FCGMS)
THG Management	NYP
THG Sales	The Med Memphis
Health Delivery Services	NY Blood Center
Technical Services	UPHS
Health Plan Services	UHHS
PSI	UMMHC
LS USA	BPO

Group based on Practice Area Group	**Group based on Practice Area (FCGMS)**
Life Sciences Europe	
Emerging Practices	
Government	
Field Ops	
Marketing	
HR/Prof Dev	
IT	
PS N/A	
Firm Items	
Codigent	

The above groups are nested members in three top level security groups; FCGI, FCGMS and Codigent. All general security access will be granted through these three top level groups. The groups in the above table will only be used in situations where finer granularity of security is required.

6.1.3. Internet/Firewall Security Standards

FCG requires that all connections between the FCG network and the Internet be approved in advance by the VP/CIO. Should a connection to the Internet be approved, FCG requires that a firewall (owned, managed, and maintained by the FCG IT team) be installed between the Internet and the FCG network per standards.

The following sections describe the standards that FCG firewalls must be configured to enforce. Exceptions to these standards may be requested and approved via any FCG IT Director within PS.

6.1.3.1. General Firewall Rules

- That which is not expressly permitted is prohibited
- Out bound and Inbound ICMP is permitted
- Connections to the outside should be kept to a bare essential minimum
- Net BIOS connections inbound and outbound are blocked
- Since outbound rules add virtually no risk to our network, additional outbound services may be added at the discretion of the firewall administrator to meet changing business needs.

6.1.3.2. Specific Firewall Rules

The following table describes the specific rules for all Internet firewalls at FCG

6.1.3.2.1. Firewall Rules for Traffic Between the FCG Internal Network and the Internet[2]

Service	Description	Port	Protocol	Policy
FTP	File transfer protocol	21	TCP	All outbound FTP transfers are allowed. Inbound allowed to designated machines only.
SSH	Secure Shell - allows encrypted shell connection to external machines For client shell access behind the firewall, this should be preferred to Telnet	22	TCP	Allow outbound. Case by case rules added for inbound.
Telnet	Telnet protocol Telnet is clear text, SSH is more secure	23	TCP	Allow outbound connections.
SMTP	Simple Mail Transfer Protocol	25	TCP	Inbound and outbound allowed to SMTP relay in DMZ. Inbound and outbound SMTP allowed from internal network to SMTP relay in DMZ. No access is allowed to external SMTP servers due to the risk of FCG's IP addresses landing on Real Time Blocking lists,
Whois	Whois requests to InterNIC database	43	TCP	Allow outbound connections.
Domain	DNS lookups	53	TCP	Inbound and outbound allowed to DNS servers in DMZ.
Domain	DNS lookups	53	UDP	UDP DNS connections may happen from the internal network to the DNS servers in the DMZ.
Gopher	Gopher text-based search	70	TCP	Allow outbound connections.
Finger	See who's logged into a remote machine	79	TCP	Allow outbound connections.
http	The World Wide Web	80	TCP	Allow outbound connections. Case by case rules added for inbound.
NNTP	Network News Transfer Protocol	119	TCP	Allow outbound connections.

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[2] For definitions of Protocol and Policy terms, see section 4.

Service	Description	Port	Protocol	Policy
NTP	Network Time Protocol - to synchronize computer clock times in the network	123	TCP	Allow outbound NTP connection from the DMZ.
NTP	Network Time Protocol	123	UDP	Allow connections from the inside to DMZ.
SNMP	Simple Network Management Protocol	161	UDP	SNMP connection permitted from internal network to the DMZ. SNMP connections permitted from internal network to designated external routers.
https	Secure HTTP - SSL	443	TCP	Allow outbound connections. Inbound only to designated servers.
Raudio	Real Audio	7070	TCP	Allow outbound connections.
Netmeeting	Microsoft NetMeeting	various	TCP/UDP	This service is permitted to the outside. Only designated internal servers are allowed to talk to designated external clients.
IP SEC	Virtual Private Networking protocol	various	TCP/UDP	Allowed outbound, inbound allowed to designated internal servers.
MSSQL	Microsoft SQL Server Access	various	TCP	Allow outbound connections, and inbound connections only to destinations approved by a PS IT Director.
SQLNet1	Oracle SQLNet Version 1	various	TCP	Allow outbound connections, and inbound connections only to destinations approved by a PS IT Director.
SQLNet2	Oracle SQLNet Version 2	various	TCP	Allow outbound connections, and inbound connections only to destinations approved by a PS IT Director.
Sybase	SQL Server by Sybase	various	TCP	Allow outbound connections, and inbound connections only to destinations approved by a PS IT Director.
PPTP	Microsoft Point to Point Tunneling Protocol	1723	TCP/GRE	Allow inbound connections to destinations approved by a PS IT Director. Allow outbound connections.

6.1.3.2.2. Firewall Rules for Traffic Between FCG Internal Network and the Firewall Hosting Network[3]

Service	Description	Port	Protocol	Policy
FTP	File transfer protocol	21	TCP	FTP traffic allowed from internal network to hosts on the hosting network only from specific IP addresses for IT support staff.
SSH	Secure Shell - allows encrypted shell connection to external machines For client shell access behind the firewall, this should be preferred to Telnet	22	TCP	Secure shell is permitted to select hosts on the hosting network only from specific IP addresses for IT Support staff.
Telnet	Telnet protocol Telnet is clear text, SSH is more secure	23	TCP	Telnet is permitted to hosts on the hosting network only from specific IP addresses for IT Support staff.
SMTP	Simple Mail Transfer Protocol	25	TCP	Inbound and outbound allowed to SMTP relay in DMZ. Inbound and outbound SMTP allowed from internal network to SMTP relay in DMZ.
Whois	whois requests to InterNIC database	43	TCP	Allow outbound connections.
Domain	DNS lookups	53	TCP	Inbound and outbound allowed to DNS servers in DMZ.
Domain	DNS lookups	53	UDP	UDP DNS connections may happen from the internal network to the DNS servers in the DMZ.
Gopher	Gopher text-based search	70	TCP	Allow outbound connections.
Finger	See who's logged into a remote machine	79	TCP	Allow outbound connections.
http	The World Wide Web	80	TCP	Allow outbound connections.
NNTP	Network News Transfer Protocol.	119	TCP	Allow outbound connections.
NTP	Network Time Protocol	123	TCP	Allow outbound NTP connection from the DMZ.
NTP	Network Time Protocol	123	UDP	Allow connections from the inside to DMZ.
SNMP	Simple Network Management Protocol	161	UDP	SNMP connection permitted from internal network to the DMZ. SNMP connections permitted from internal network to designated external routers.
https	Secure HTTP - SSL	443	TCP	Allow outbound connections. Inbound only to designated servers.

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[3] For definitions of Protocol and Policy terms, see section 4.

Service	Description	Port	Protocol	Policy
MSSQL	Microsoft SQL Server Access	various	TCP	Allow outbound connections, and inbound connections only to destinations approved by a PS IT Director.
SQLNet1	Oracle SQLNet Version 1	various	TCP	Allow outbound connections, and inbound connections only to destinations approved by a PS IT Director.
SQLNet2	Oracle SQLNet Version 2	various	TCP	Allow outbound connections, and inbound connections only to destinations approved by a PS IT Director.
Sybase	SQL Server by Sybase	various	TCP	Allow outbound connections, and inbound connections only to destinations approved by a PS IT Director.
PPTP	Microsoft Point to Point Tunneling Protocol	1723	TCP/GRE	Allow inbound connections to destinations approved by a PS IT Director. Allow outbound connections.

6.1.4. Network Security Standards

Network security standards are designed to protect confidential data on FCG's internal data networks from unauthorized access. The network traffic within a given FCG facility is secure from individuals outside of FCG. Company confidential and similar information can be safely stored on internal FCG systems.

The transmission of information via the Internet, either to another FCG facility or to any other site, is **not** secure. Such information travels through computers and networks belonging to many other organizations before reaching the destination. Therefore, sending company confidential or sensitive client information via the Internet is inappropriate unless additional security measures (such as SSL, PPTP, or IPSEC encryption) are used. Clients may be unaware that transmission of information via the Internet is insecure; consultants should advise clients of this risk before agreeing to receive information via the Internet. Dedicated connections to clients via leased lines or VPNs (Virtual Private Networks) do not suffer from this problem, and can be considered secure.

6.1.4.1. Access for Non-Associates

Other than systems specifically designated and approved by the PS IT Director as extranet hosts, individuals who are not employees of FCG are only to be granted access to FCG systems with the expressed permission of a PS IT Director. Similarly, they may also connect laptops to the FCG network only if they have the approval of a PS IT Manager and the equipment has virus protection software installed and activated. FCG associates must inform IT immediately if they believe that unauthorized access to FCG systems has occurred (see section 6.1.7.2). Systems specifically designated extranet hosts at the time of this writing are:

- SharePoint Portal Server hosts
- SharePoint Team Services hosts

6.1.4.1.1. Extranet Host Security Management

All access to extranet hosts shall be managed by way of local account creation and management. This distinction is important in that it does not allow access to the FCGNET Active Directory domain.

6.1.4.2. Access to Confidential Data

Some corporate information systems contain sensitive or confidential data, such as salaries and personnel records. These systems are secured with password protection at a minimum. Protections on databases and files are set so that only those employees who need access to perform their duties may gain access. Client PCs that access applications with confidential data must use password protected screen savers to protect the privacy of the information while unattended.

Some access by IT staff is required in order to perform system backups. If the particular software package housing the confidential data has the ability to encrypt sensitive data that is sent between clients and servers on the network, this feature should be enabled. If the software package does not include this capability then the risk of these communications on the network must be evaluated with the business owner of the data. IT and the business owner should jointly decide if some other security or encryption mechanism (database level encryption or physical network segregation) is warranted. The IT group must evaluate all software installed in FCG's computing environment (other than for client development purposes) to ensure that sensitive data will be protected.

6.1.4.3. Network Connections to Third Parties

FCG requires that an IT Director (or his or her designate) evaluate any and all connections to other networks (clients, vendors, partners, etc.) to ensure the security of FCG systems and networks. The security evaluation should include the following considerations at a minimum:

- Protection of FCG intellectual assets
- Protection of FCG confidential information including:
    - Associate information
    - Client information
- Prevention of access to the Internet or other parties via FCG systems and networks
- Protection of client, partner, and vendor information from access by anyone other than those specifically authorized

Access to FCG systems shall be limited, by design, to only those systems required to perform business functions, and to only those individuals specifically granted access.

6.1.4.4. Wireless Networks

It is a violation of FCG policy to connect an unauthorized wireless access point to the FCG network. Only with the permission of the Director of Infrastructure and Operations may a wireless access point be connected to the FCG network. This policy exists so that the deficiencies in the current wireless Ethernet standards (802.11b) do not expose the FCG network to security risks. Should a wireless access point be approved, it will be secured via additional security software that protects against exploitation of 802.11b's weaknesses.

6.1.4.5. Web Server security standards

All web servers that utilize local or domain username and passwords to control access are required to encrypt transmission of passwords over insecure network connections (the Internet). All web server that are to be exposed to Internet access must undergo a security audit by qualified IT staff prior to allowing said access.

6.1.4.6. E-mail-Borne Virus Response Procedures

Upon report of the spread of a virus (via e-mail) on the FCG network, IT staff shall take the following actions:

- Shutdown Internet Mail connectors on all Exchange servers
- Notify all associates not to read the attachment (via voicemail, e-mail, and posted flyers as appropriate)
- Check Websites of antiviral vendors (Network Associates, Inc. (NAI) and Symantec Corp.), as well as the CERT website for virus information

- Upon CERT or vendor notice that the virus had a destructive payload, FCG staff shall take the following actions:
    - All Exchange servers shall have all mail services stopped
    - Rules will be added to block all incoming and outgoing e-mails containing the virus in question (various methods may be employed dependent upon the nature of the virus)
    - Once virus updates are obtained from NAI and Symantec to detect and eliminate the virus, they shall be applied to all servers (via a push of an ePolicy Orchestrator job) and posted to the FCG intranet by Helpdesk staff
    - All e-mail services (including Internet mail connectors) can then be restarted
    - FCG associates will be notified to install the new virus definitions via voicemail and e-mail
    - Firewall/SMTP rules shall be updated to block all known copy cats of the virus as appropriate

6.1.5. File Server Security Standards

FCG uses Windows Servers as file and print servers. As such, a Windows Active Directory domain called FCGNET controls security on these servers. All users (whether FCG employees or vendors and/or clients approved by IT Directors) have accounts in the FCGNET domain.

Since some of the services on the Windows Servers contain confidential information, the security on these servers should not be set to allow either the group Everyone or Domain Users unrestricted access to such shares. Permissions on shares that contain proprietary information should be set so that only the appropriate individuals are permitted access.

Requests to create new shares should be sent to one of the FCG Help Desks, along with a list of permitted users and their access rights. The Server Administrator will then create a share on the appropriate server with the requested access rights setup. The requestor of the service becomes the owner of the service (share), and the owner approves all future requests for access to that service. A new global group must be created to control access to the new share. The name of the group owner must be entered in the Description line of the Group Creation form. It is the responsibility of all IT staff to request approval from the owner of a share before granting access to a requestor.

The preceding file share access control procedures are being migrated to the procedures below. Until the migration is fully completed both procedures will remain in effect.

Requests to create new shares should be sent to one of the FCG Help Desks. The Server Administrator will then create a share on the appropriate server as well as create a Mail Enabled Group. The requestor of the service becomes the owner share and the maintainer of the Mail Enabled Group. The name of the group owner must be entered in the Description line of the Group Creation form. It is the responsibility of the project manager to ensure that access is only granted to appropriate parties.

6.1.6. SharePoint Security Standards

FCG utilizes Microsoft’s SharePoint Portal Server (SPS) and SharePoint Team Services (STS) for knowledge management and collaboration. It is the responsibility of the SharePoint application administration staff to ensure that all SPS workspaces and all STS Team Webs comply with these polices. SharePoint site (SPS and STS) access shall be restricted to only those people specifically identified by the site owner (usually the project manager). When collaboration with a client is required by a project, accounts for non-FCG associates shall be setup per section 6.1.4.1 of this document.

6.1.7. PC Security Standards

6.1.7.1. Virus Protection Standards

All PCs connected to the FCG network must have antiviral software installed and enabled at all times. If required for development, antiviral software may be temporarily disabled but must be activated before accessing the Internet or other systems that may not be protected from viruses. If an FCG PC should somehow become infected with a virus, it must be reported promptly to the FCG Help Desk.

6.1.7.2. Screen Savers

Associates with access to administrative passwords and/or confidential information are required to enable password protected screen savers on their PCs. This measure will ensure that no unauthorized individuals gain access to these rights and/or information should someone leave their desk unattended.

Confidential data includes:

- Client data and/or proprietary knowledge
- Associate personal data
- Firm financial or Human Resource data

6.2. Security Incident Report and Response

A computer security incident is defined as use of computing facilities in an unauthorized manner. The purpose of this section is to provide a procedure for recognizing a security incident and taking appropriate action. This section also defines the chain of command for reporting security incidents and details the responsibilities of each level.

6.2.1. Chain of Command

The company Incident Response team must be notified of all security incidents. The Incident Response team is responsible for coordinating the response and is preauthorized to take specified actions. The Incident Response team will include representatives of the following organizations:

- System Administration (i.e., UNIX or NT Administrators, depending on the system in question)
- Security Administration (i.e., Firewall Administrator for external attacks, Operations Manager for internal attacks)
- Management (Director Infrastructure and Operations Group)
- If serious issues are identified, Audit, HR, and Legal teams will also be involved

6.2.2. Categorizing a Security Incident

The first priority for a security incident is to determine the type and status of the incident:

- Is the incident a penetration attempt (section 6.2.2.1) or a violation of the security policy (section 6.2.2.2)?
- Is the incident presently active?
- What is the source of the incident?
- Has the system been compromised?
- Which organizations are involved?

6.2.2.1. Penetration Attempts

Observation or notification of any of the following indicates a potential penetration attempt:

- Anomalies in log files, such as a user logging in at odd hours, frequent failed login attempts, or account lockouts
- Use of the "last" command shows a user who doesn't travel logging in from an unusual location
- System programs disappearing or behaving strangely
- Unusual processes running
- Entries added to the password file
- An alert from the security monitoring software

While these criteria may not conclusively prove a security incident, they indicate that further investigation is warranted. Unless an incident can be dismissed outright, the Incident Response team should be informed — even if an incident is not confirmed.

While attempting to confirm whether an incident has occurred, the System Administrator should capture the output of commands and log files. It is also helpful if information that appears on the screen can be printed and saved. All this data should be kept off of the system in question and write-protected. No discussion of a possible incident should occur via e-mail. Even if it turns out not to be an incident, it is prudent to save the data for future reference.

6.2.2.2. Violation of Security Policy

Because internal users commit security policy violations, and since this may result in legal action, some delicacy is required to handle these situations. It is very important to involve senior management, Legal, and Human Resources to limit the company's exposure to liability. Violation of the security policy may be determined either by routine examination of system log files or by a reported incident. Violations of security policies may subject FCG associates to disciplinary action up to and including termination.

6.2.3. Assigning Priority and Responding to a Security Incident

How FCG responds to a security incident is dependent on the severity and type of incident. In all cases, details of the incident shall be discussed only on a need-to-know basis. A chronological log of all investigative measures shall be maintained. If this log might be used as legal evidence, it is to be signed by all involved members of the Incident Response team. Also, a write-protected backup should be made of the data, preferably on write-once media.

Once evaluated, a security incident will be assigned one of five priorities, as described below.

6.2.3.1. Priority 1

An active penetration attempt is currently in progress. The attack may either be directed at the company internal network from outside or, originating from the internal network, be directed either inside or outside the external network. If a Priority 1 incident is suspected, the following steps should be followed:

- Call Incident Response team, if not already involved.
- Technical staff should gather as much information from screens and log files as quickly as possible and store offline (see sections 0 and 6.2.3.1.2).
- The management members of the Incident Response team should inform management and relevant organizations.
- If there is no management representative immediately available, all members of the Incident Response team are preauthorized to pursue the following procedures:
  - Contact the involved Internet Service Providers (ISPs) and provide appropriate log data to trace the attack.
  - Disconnect the company network from the Internet.
  - Request that the ISP for the originating attacker disconnect the attacker at its end.
  - Perform a complete backup of the system to preserve the data. Media must be clearly labeled, dated, and signed.

If it is confirmed that the system has been successfully penetrated and compromised, the following steps must be taken:

- Disconnect from the Internet, back-up the system, and begin analysis
- Reinstall system images from distribution media or from system backups as appropriate
- Install all recommended patches and all security patches
- Change all passwords, including users
- Audit the system by running a standard security assessment tool (SATAN, STAT, etc)

No attempt will be made to communicate directly with the attacker.

Under no circumstances will any administrator or Incident Response team member be permitted to take retaliatory action against the originating network with an intention to cause harm — no matter how provoked, associates should not open the company up to criminal or civil liability.

Only senior management may authorize informing outside agencies such as law enforcement, the media, and security organizations.

6.2.3.1.1. *UNIX System Files*

In the event of a Priority 1 incident on a UNIX system machine, the following files should be saved:

- /etc/passwd
- /var/adm/syslog
- /var/adm/messages
- /var/adm/sulog
- /var/adm/lastlog
- /etc/utmp
- /var/adm/wtmp
- Firewall logs
- Log files from any application running on the host being penetrated

6.2.3.1.2. *Windows NT System Files*

In the event of a Priority 1 incident on a Windows NT system machine, the following files should be saved:

- System Event log
- Application Event log
- Security Event log
- A copy of the Registry
- A copy of the output of the NETSTAT command
- Firewall logs
- Log files from any application running on the host being penetrated

6.2.3.2. Priority 2

An active violation of the company security policy, which could expose the company to criminal or civil liability, is in progress. An example may be that a user is currently sending or receiving harassing images or messages. If a Priority 2 incident is suspected, the following steps should be followed:

- The Incident Response team managers will inform senior management and follow Human Resource guidelines.
- The technical members of the Incident Response team will discreetly gather all log information and save to backup media.
- There will be no discussion of the incident with anyone who is not on a need-to-know basis, as approved by senior management.

6.2.3.3. Priority 3

There is evidence that a serious penetration attempt has been made, but the attack is not currently active. Follow the same procedure outlined for a Priority 1 (section 6.2.3.1), with the following exception:

- The Incident Response team must obtain senior management approval to disconnect the company from the Internet or send log data to the ISP.

6.2.3.4. Priority 4

There is evidence or a report of a security policy violation that could expose the company to legal liability. Follow the same procedures outlined for a Priority 2 (section 6.2.3.2).

6.2.3.5. Priority 5

There is evidence of minor penetration attempts or policy violations. The technical members of the Incident Response team may follow up by contacting the originating ISP's technical contact and monitoring the log files. The management members of the Incident Response team will inform appropriate management of policy violations.

6.3. Assuring System Availability

Availability is one of the key aspects of any well-designed Information Systems security plan.

6.3.1. Daily Operational Checks

On a daily basis (Monday-Friday), the Infrastructure and Operations Group performs a series of checks that include:

- Disk space checks for all production servers to insure adequate space is available for processing.
- Backup checks to insure that all scheduled backups ran as expected.
- Event log checks to proactively detect security alerts, device or system failures, and potential application issues.[4]
- Database checks and log file, space utilization log, and error log checks to insure database reliability and integrity
- Temperature, humidity, and general visual checks for each of the Data Centers
- Paging mechanisms tests to insure that alerts for system faults can be delivered
- Mail queue checks to insure that no backup exists and that mail is flowing
- Checks for new releases of antiviral software DAT files. If available, schedule installation to servers (i.e., Exchange) and contact Helpdesk to get posted on the corporate Intranet
- Check key Websites to insure they are operational
- Test Data Center specific applications[5] to insure they are operational

6.3.2. System and Network Monitoring

The Operations Manager of each Data Center is responsible for ensuring that all production servers are being monitored by the standard monitoring system (i.e., ProVision). Every server shall be monitored at

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[4] All critical servers are checked on a daily basis, important servers are checked weekly, other servers are checked monthly.

[5] To be defined by the Operations Manager of each Data Center.

the TCP/IP layer (responding to pings). Additionally, on all Microsoft Exchange servers, Microsoft Exchange services will be monitored to insure they are running. Alerts shall be set to notify on-call staff should a service stop. Production Web servers should also be monitored on a site-by-site basis (one Web server may house several sites).

The Network Manager is responsible for insuring that all network links are monitored by the ProVision system and that on-call network staff are notified should a carrier failure or other event cause a link to fail.

6.3.3. Fault Tolerance

The Operations Manager of each Data Center is responsible for ensuring that servers are configured with an appropriate level of fault tolerance for the business function they support. Critical systems may require RAID 0, 1, 5, or 10; hot spare disks; redundant power supplies; UPS backups; and other fault tolerant features. Non-critical systems do not require these features, and are certainly not cost justified.

6.4. System Backups

All FCG Infrastructure and Delivery servers should be backed up according to the procedures documented below. Research, lab, and training servers are not generally backed up but, if required, may be added to the backup schedule via a request to one of the FCG Help Desks.

PC users should store all data files on file servers whenever possible so that they are backed up regularly. When this is not possible, associates may request local PC/laptop backup capabilities via the Help Desk. FCG strongly recommends password protecting or encrypting local PC backup media.

6.4.1. Backup Procedures

6.4.1.1. Backup Types, Intervals, and Schedules

FCG performs image backups Monday through Friday and incremental backups on Saturday and Sunday.

6.4.1.2. Backup Responsibilities

The Server Operations Staff have the following responsibilities regarding system backups:

- Changing tapes Monday through Friday. Saturday incremental backups are appended to the end of the Friday tapes.
- Cleaning the tape drives once a week: inserting the appropriate tape-cleaning cartridge before the Friday tape switch, and marking the usage log on the cleaning cartridge.
- Recording any backup anomalies on the Daily Operations Hotsheet, which is posted in FCG PS Daily System Checklist public folder.
- Ensuring that the tapes from all backup pools are packed and ready to be picked up by the off-site storage vendor in a timely manner (except for field offices).

- Should any backup fail, notifying the local Operations Manager so that corrective action may be planned and, if required, an emergency backup performed.

Where IT is not staffed (e.g., field offices), it is the responsibility of the IT group to identify and train local personnel to perform backup procedures.

Any new servers should be added to an existing backup pool or should be backed up by the server installer using local backup procedures. All relevant documentation must also be updated.

The Operations Manager is responsible for ensuring that Backup Tests are scheduled and performed at least quarterly. Should such tests uncover any backup/recovery problems, the local IT Director is responsible for ensuring that root cause analysis is performed and the problems are corrected.

6.4.1.3. Standard Backup Procedures and Tools

FCG utilizes a variety of backup tools, based on the most efficient, reliable, and economical method of ensuring recovery for our various platforms and applications. Some of the tools used include:

- VMS Backup
- NT Backup
- Legato NetWorker
- CA ArcServe IT
- DUMP (UNIX)

All backups are automated via scheduling mechanisms built into the toolset or native operating system scheduling tools.

6.4.1.4. Database Backup Procedures and Tools

FCG database backup procedures include dumping the databases to files via either internal scheduling mechanisms (Microsoft SQL Server) or system batch jobs (Sybase and Oracle). These database dumps are performed nightly Monday through Saturday and are scheduled to complete before the system backups are initiated, so that the system backups subsequently backup the database dumps.

The only exception to this procedure occurs with Oracle on a VAX platform. Under these conditions, Oracle is shut down before the backups are initiated and re-started when the backup is complete.

6.4.1.5. Backup Tape Retention

For all systems housed in Data Centers, FCG currently retains each backup tape in an offsite storage facility for 5 weeks, after which the tape is recycled. Servers housed in field offices use a 3-week tape rotation and have no offsite tape storage.

The only exception to these retention policies is applied to data that has regulatory retention requirements. Due to regulatory requirements for retention of HR and Finance records, the following procedures apply to the systems that house the Book of Record data for HR and Finance data:

- On the last business day of each month, the Infrastructure and Operations staff shall pull the backups for HR and Finance systems out of the 5-week rotation of tapes.
- A label is applied with the year, the month, and a list of server backups contained on the tape.

- The tape is placed into the permanent offsite storage container, and it is verified that the offsite tape storage vendor removes the tape(s) to storage.

6.4.1.6. Backup Tape Storage

Of the five-week rotation of tapes, only two days of tapes are on-site at FCG at any given time. The remaining tapes are stored off-site with a local off-site storage vendor. The IT Operations Manager shall audit the offsite tape storage vendor at least once per calendar year to ensure that proper security is in place at the storage facility.

6.4.1.7. Backup Testing Procedures

The Information Technology staff tests tape backups for all backup pools biannually. This test is performed in the 1st and 3rd Quarter. The following steps are performed to test FCG backups:

- An independent auditor (not part of the IT staff) selects one or more files from each and every backup pool to be tested.
- Information Technology staff restore the files using standard restore procedures, with auditor present, to a location other than the original file location.
- The independent auditor compares the times, dates, sizes, and contents of the original and restored files to ensure that backups are accurate and that the restore procedures can recover the files intact.
- The results of the tests will be recorded on a printed copy of the Backup Test Form, which is located on the IOG Team Web.
- The completed Backup Test Form is then signed by the local IT Director and stored in the Test section of the Backup Log, which is located in the local Computer Room or Data Center.

6.4.2. Restore Procedures

User restore requests are sent to the FCG Help Desk. When a file restoration is required, the following procedures shall be followed:

- If a tape that is not on-site is required to restore the requested file(s), the Information Technology staff may call the local off-site storage vendor to request a tape delivery (next day or emergency). Since there is an additional charge for emergency delivery, these services should only be used in situations that truly require emergency restores.
- The FCG Information Technology staff will restore the files per the procedures found in the appropriate product documentation (i.e., VAX, NT, UNIX, ArcServe IT, or NetWorker).

6.4.3. Information Archival Procedures

Occasionally, PS IT may wish to clean aged information off of servers to reclaim disk space. When this situation arises, the following procedures shall be followed:

- The owner of the data (either the original owner, or a functional equivalent) will be contacted to confirm that the information is no longer required.

- The owner of the data shall determine if the data must be archived (due to regulatory or policy requirements), or if it may be deleted.
- If the information is eligible for deletion, PS IT staff shall remove the information from the system.
- If the information must be archived, the information shall be burned to CD-ROM for long term archival. Two copies shall be created: one shall be kept in off-site storage and one shall be maintained in secure internal storage. Indexes of both storage areas shall be maintained in an Excel file.
- Any and all requests for access to archived information shall be maintained via a sign-out sheet by the storage area maintainer.

6.5. Change Management Procedures

FCG's Change Management procedures are organized by the function of the system being changed.

- Changes to "Corporate" systems (e-mail, Intranet, extranet, HRIS, Finance, etc.) require that changes be approved before being made.
- Changes to research, training, laboratory, and delivery servers do not need to be approved in advance, but must be reported.

Details regarding both of these change management processes are contained below.

6.5.1. Corporate Change Control Procedures

Changes to corporate systems must be evaluated based on the tolerance for error and the size of the user group impacted. The following matrix categorizes changes into 9 quadrants (Q1-Q9) and defines the level of approval required for a change in any given quadrant:

	Small User Group 0 – 49	**Medium User Group 50 – 199**	**Large User Group 200 – Firm**
High Tolerance For Errors	Q1 Review At Implementers Discretion	Q2 Review By Manager Or Above	Q3 Review By Manager Or Above And Change Coordinator
Medium Tolerance For Errors	Q4 Review At Implementers Discretion	Q5 Review By Manager Or Above And Change Coordinator	Q6 Review Of Testing By Change Control Group

Low Tolerance For Errors	Q7 Review At Implementers Discretion	Q8 Review Of Testing By Change Control Group	Q9 Full Review By Change Control Group

It is the responsibility of the Change Coordinator (the person seeking to have the change made) to perform the initial evaluation and enter the proposed change into the on-line Change Control system, which can be found https://kite.fcg.com/it/change_control.asp

6.5.1.1. Emergency Changes

Changes made on an emergency basis must still be reported and approved via the Change Control system.

6.5.1.2. Change Control for Devices Used to Provide Hosting Services

All changes that have the possibility of impacting hosting operations require prior approval by the Director of Operations. Change requests shall be submitted using the Change Control system. The Operation Director will send an e-mail message to the change requestor approving or declining changes.

In the future, the Change Control system will be modified to include tracking and automatic e-mail functions to support this approval process.

6.5.2. Change Control for Other Systems

Systems used for research, training, or other hands-on laboratory services do not require prior approval. However, FCG does require that changes made to these systems be reported, as outlined below. Note that the reporting associate is also responsible for updating other relevant system documentation.

6.5.2.1. What Should Be Reported

The following list summarizes what should be reported:

- Any change in hardware
- Any changes to system configuration files
- Changes made to applications that are used by multiple projects and/or departments

6.5.2.2. How Changes Are Reported

All changes are recorded in the System Event Log public folder of the FCG Microsoft Exchange system. To report a change:

1. Log into Microsoft Exchange using your personal account.
2. In the folder view, double-click **All Public Folders**.
3. Click FCG LS **System Event Log**.

4. From the **Compose** menu, select **New System Event Form**.
5. Fill out the entire form and click the **Send** button; or select **Post** from the **File** menu.

6.6. Disaster Recovery

All “Corporate" systems must have a Disaster Recovery plan. It is the responsibility of the VP/CIO to ensure that adequate disaster and contingency planning is in place to ensure business resumption should a disaster strike. Depending upon the potential business impact of the loss of other systems, the VP/CIO may extend this requirement to cover those systems.

FCG currently has a contract with SunGard Recovery Services to provide disaster recovery services for all systems based in Wayne, PA; St. Asaph, UK; and Long Beach, CA. DR plans for these sites are under revision/development and new versions will be in place by the end of Q1 2004.

6.7. Destruction of Electronic Records

When it is appropriate to destroy electronic records (per FCG Document Retention policies and/or retirement or replacement of a computer system) the following destruction methods shall apply.

1. Confidential information media should be destroyed/disposed of using a method that ensures the confidential information cannot be recovered or reconstructed. Appropriate methods for destroying/disposing of media are outlined in the following table.

Medium	**Recommendation**
Audiotapes	Methods for destroying/disposing of audiotapes include recycling (tape over) or pulverizing.
Computerized Data/ Hard Disk Drives	Methods of destruction/disposal should destroy data permanently and irreversibly. Methods may include overwriting data with a series of characters or reformatting the disk (destroying everything on it). Deleting a file on a disk does not destroy the data, but merely deletes the filename from the directory, preventing easy access of the file and making the sector available on the disk so it may be overwritten. Total data destruction does not occur until the back-up tapes have been overwritten.
Computer Data/ Magnetic Media	Methods may include overwriting data with a series of characters or reformatting the tape (destroying everything on it). Total data destruction does not occur until the back-up tapes have been overwritten. Magnetic degaussing will leave the sectors in random patterns with no preference to orientation, rendering previous data unrecoverable.

Medium	Recommendation
Computer Diskettes	Methods for destroying/disposing of diskettes include reformatting, pulverizing, or magnetic degaussing.
Laser Disks	Disks used in "write once-read many" (WORM) document imaging cannot be altered or reused, making pulverization an appropriate means of destruction/disposal.
Microfilm/ Microfiche	Methods for destroying/disposing of microfilm or microfiche include recycling and pulverizing.
Labeled Devices, Containers, Equipment, Etc.	Reasonable steps should be taken to destroy or de-identify any confidential information prior to disposal of this medium. Removing labels or incineration of the medium would be appropriate.
Paper Records	Paper records should be destroyed/disposed of in a manner that leaves no possibility for reconstruction of information. Appropriate methods for destroying/disposing of paper records include: burning, shredding, pulping, and pulverizing.
Videotapes	Methods for destroying/disposing of videotapes include recycling (tape over) or pulverizing.

2. The methods of destruction/disposal will be reassessed annually along with the review of this SOP, based on current technology, accepted practices, and availability of timely and cost-effective destruction/disposal services.

7. Training

In addition to those procedures detailed in SOP.3-1.001: *Standard Operating Procedure for Maintaining the QMS*, the following steps will be taken to communicate the content of this SOP:

- The coach/manager of all newly hired PS IT associates shall arrange for training on this SOP within one month of hire.
- The Infrastructure and Operations Director shall hold annual training sessions to ensure that all PS IT associates are trained on the latest version of this SOP.
- Quality Management System training will be delivered as part of the FCG Life Sciences session, which will be presented at OrientationFirst for all new associates.
- Each Project Team Kickoff meeting will include an agenda item to discuss elements of this SOP in terms of project-specific requirements.

8. Reference

This SOP was developed in accordance with the *Standard Operating Procedure (SOP) for Creating and Maintaining the Quality Management System* (QMS) [SOP.3-1.001]. That document includes the procedures for all aspects of the review, approval, distribution, and retirement for this SOP.

In addition, site specific Facility Security SOPs have been referenced for Wayne, Somerset and St. Asaph.

Document Identification

Title: KITE® – An intranet portal

Subject: KITE® – An intranet portal

Version: 1

Date: 03/09/04

Author: Gina Miller

Files:

Revision History

Version	Date	Updated By	Comments
V 1.0	03/09/04	Gina Miller	Document created

TABLE OF CONTENT

Application Overview

KITE® is FCG's front page to the firm-wide intranet. It offers a broad array of resources and services, such as collaboration areas, search engines, and on-line data reporting. The idea behind a Web portal is to attract and keep a larger audience by providing more of the company's data right in front of the user. Over 20 modules have been built that, for most, one can choose to display or hide. Modules for Searching, Who's Logged On, Professional Development, Discussion Groups, Personal Information, Collaboration, Office Information and more are available.

Access to KITE and it's modules is highly customizable. Security is controlled by PeopleSoft HRIS data, Active Directory groups, and within KITE itself. Access to collaboration team webs is also fully customizable and can be administered by team web administrators.

KITE utilizes SSL encryption technology to secure data communication. This allows secure connections from locations external to FCG.

Functional Specifications

KITE® is built on top of a Microsoft SQL database structure consisting of tables and system files for the KITE® modules/areas as well as company data related to human resources, projects, sales and revenue, announcements, new feature text, office information, training records, timesheet entries and more. There are 6 main areas (designated by tabs across the top right of each page) Home, Search, Projects, MyCareer, Research and Collaboration. Each area is custom built around the data or text that needs to be displayed and can be customized using VBScript so that different data appears for different sets of users based on security.

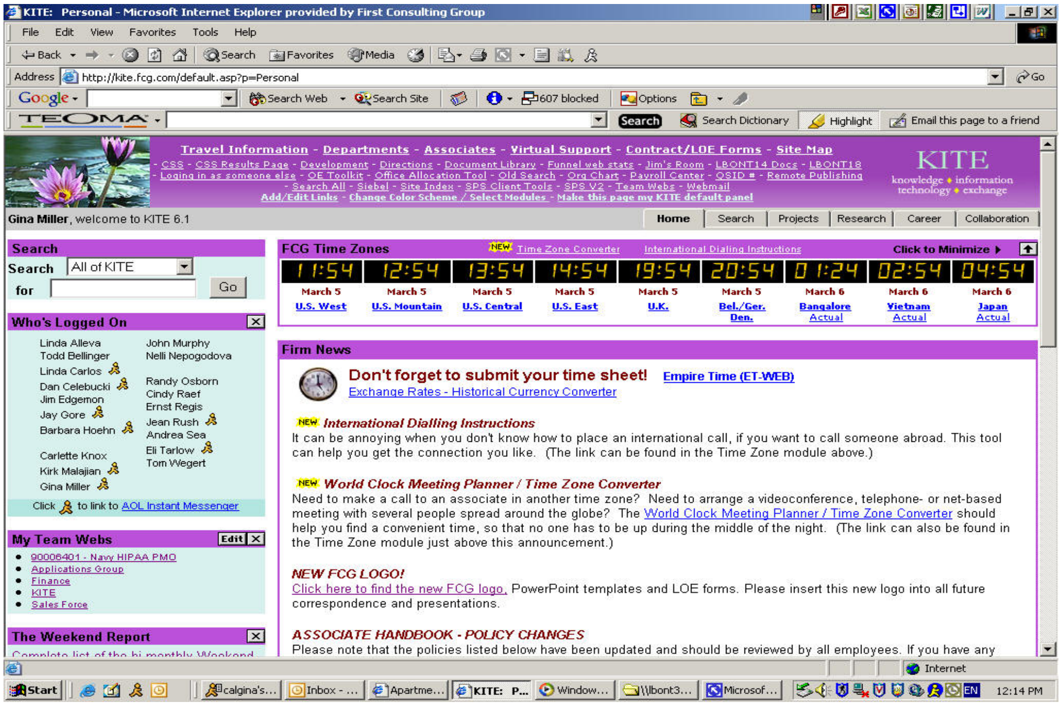
KITE® utilizes Microsoft SharePoint technology for several components. These include:

- Knowledge repository
- Document management
- Enterprise-wide search
- On-line collaboration

Home tab

Some of the modules may be customized by clicking the ☐ button. Many of the modules can be removed from your KITE® by clicking on the ☐ located in the upper-right corner of each. You also have the ability to add additional content back into KITE®, choose a new color scheme or set update timings for KITE®.

Another area of interest to users is the "My Favorite Links" feature. This allows you to customize your own set of web links that are always available on the top of every page of the intranet. Above the favorite links section are links to the KITE® Menu system.


KITE: Personal - Microsoft Internet Explorer provided by First Consulting Group
File
Edit
View
Favorites
Tools
Help
Back
Search
Favorites
Media
Address
http://kite.fcg.com/default.asp?p=Personal
Go
Google
Search Web
Search Site
607 blocked
Options
TEOMA
Search
Search Dictionary
Highlight
Email this page to a friend
Travel Information - Departments - Associates - Virtual Support - Contract/LOE Forms - Site Map
- CSS - CSS Results Page - Development - Directions - Document Library - Funnel web stats - Jim's Room - LBONT14 Docs - LBONT18
- Loging in as someone else - OE Toolkit - Office Allocation Tool - Old Search - Org Chart - Payroll Center - QSID # - Remote Publishing
- Search All - Siebel - Site Index - SPS Client Tools - SPS V2 - Team Webs - Webmail
Add/Edit Links - Change Color Scheme / Select Modules - Make this page my KITE default panel
KITE
knowledge ♦ information
technology ♦ exchange
Gina Miller, welcome to KITE 6.1
Home
Search
Projects
Research
Career
Collaboration
Search
Search
All of KITE
for
Go
Who's Logged On
Linda Alleva
Todd Bellinger
Linda Carlos
Dan Celebucki
Jim Edgemon
Jay Gore
Barbara Hoehn
Carlette Knox
Kirk Malajian
Gina Miller
John Murphy
Nelli Nepogodova
Randy Osborn
Cindy Raef
Ernst Regis
Jean Rush
Andrea Sea
Eli Tarlow
Tom Wegert
Click to link to AOL Instant Messenger
My Team Webs
Edit
90006401 - Navy HIPAA PMO
Applications Group
Finance
KITE
Sales Force
The Weekend Report
Complete list of the bi-monthly Weekend
FCG Time Zones
NEW
Time Zone Converter
International Dialing Instructions
Click to Minimize
Firm News
Internet
Start
calgina's...
Inbox - ...
Apartme...
KITE: P...
Window...
\\lbont3...
Microsof...
EN
12:14 PM

11:54	12:54	13:54	14:54	19:54	20:54	01:24	02:54	04:54
March 5	March 5	March 5	March 5	March 5	March 5	March 6	March 6	March 6
U.S. West	U.S. Mountain	U.S. Central	U.S. East	U.K.	Bel./Ger. Den.	Bangalore Actual	Vietnam Actual	Japan Actual

Don't forget to submit your time sheet! Empire Time (ET-WEB)
Exchange Rates - Historical Currency Converter

NEW ***International Dialling Instructions***
It can be annoying when you don't know how to place an international call, if you want to call someone abroad. This tool can help you get the connection you like. (The link can be found in the Time Zone module above.)

NEW ***World Clock Meeting Planner / Time Zone Converter***
Need to make a call to an associate in another time zone? Need to arrange a videoconference, telephone- or net-based meeting with several people spread around the globe? The World Clock Meeting Planner / Time Zone Converter should help you find a convenient time, so that no one has to be up during the middle of the night. (The link can also be found in the Time Zone module just above this announcement.)

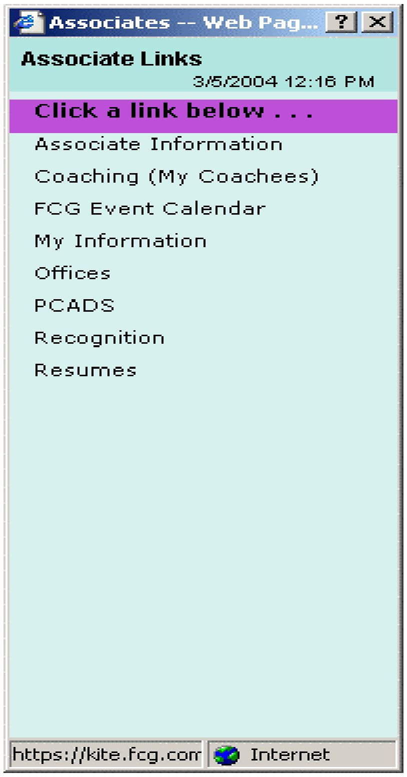
NEW FCG LOGO!
Click here to find the new FCG logo, PowerPoint templates and LOE forms. Please insert this new logo into all future correspondence and presentations.

ASSOCIATE HANDBOOK - POLICY CHANGES
Please note that the policies listed below have been updated and should be reviewed by all employees. If you have any

Figure 1) Sample Home tab

Menu System

Access to the menu system is located across the top of the each page within KITE. The Menu System groups related links for fast access to each page. Below is a sample of the Associate menu. Each link will take you directly to a frequently used area of KITE® that is associated related.



Associates -- Web Pag...

Associate Links

3/5/2004 12:16 PM

Click a link below . . .

- Associate Information
- Coaching (My Coachees)
- FCG Event Calendar
- My Information
- Offices
- PCADS
- Recognition
- Resumes

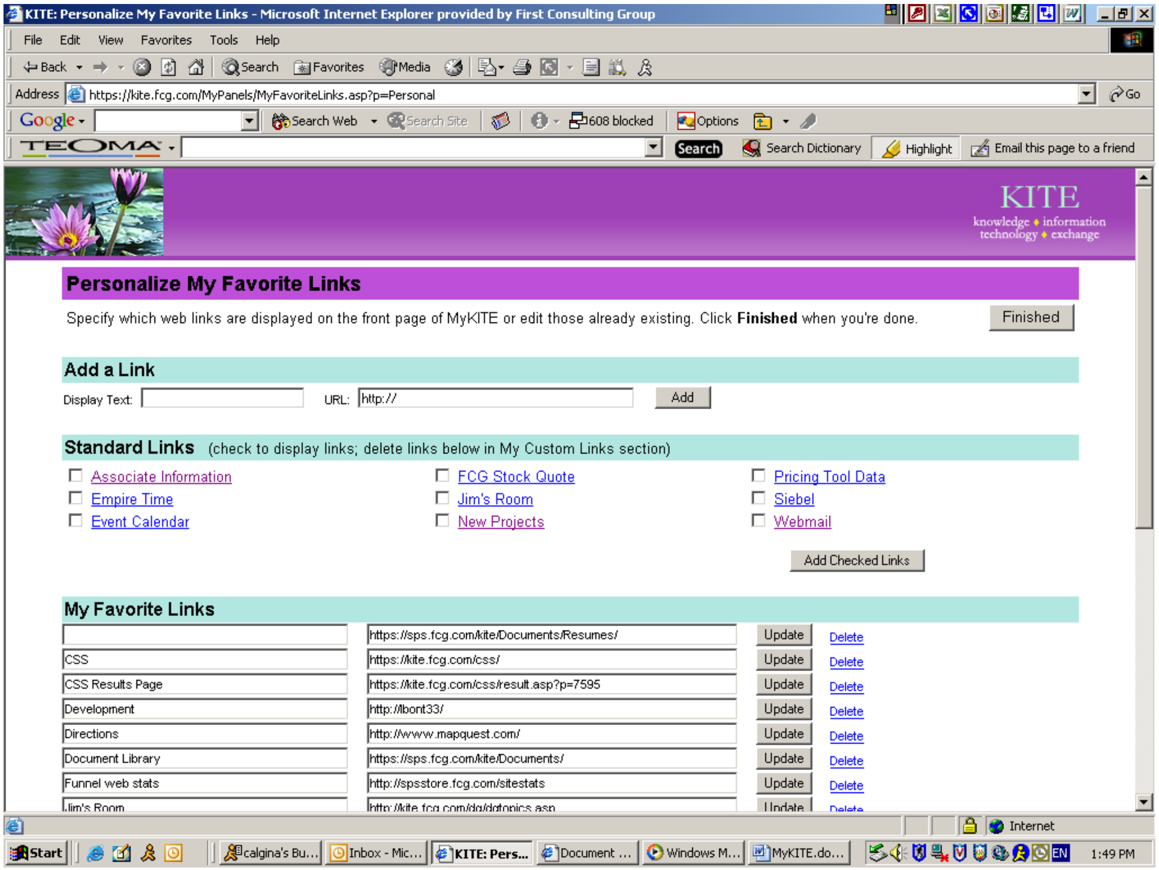
https://kite.fcg.com

Internet

Figure 2) Sample Menu screen

My Favorite Links

This page allows user to add any links that they use regularly. Any added to this page will appear at the top of every intranet page



Personalize My Favorite Links

Specify which web links are displayed on the front page of MyKITE or edit those already existing. Click **Finished** when you're done. [Finished]

Add a Link

Display Text: [ ] URL: [http://] [Add]

Standard Links (check to display links; delete links below in My Custom Links section)

- ☐ Associate Information
- ☐ Empire Time
- ☐ Event Calendar
- ☐ FCG Stock Quote
- ☐ Jim's Room
- ☐ New Projects
- ☐ Pricing Tool Data
- ☐ Siebel
- ☐ Webmail

[Add Checked Links]

My Favorite Links

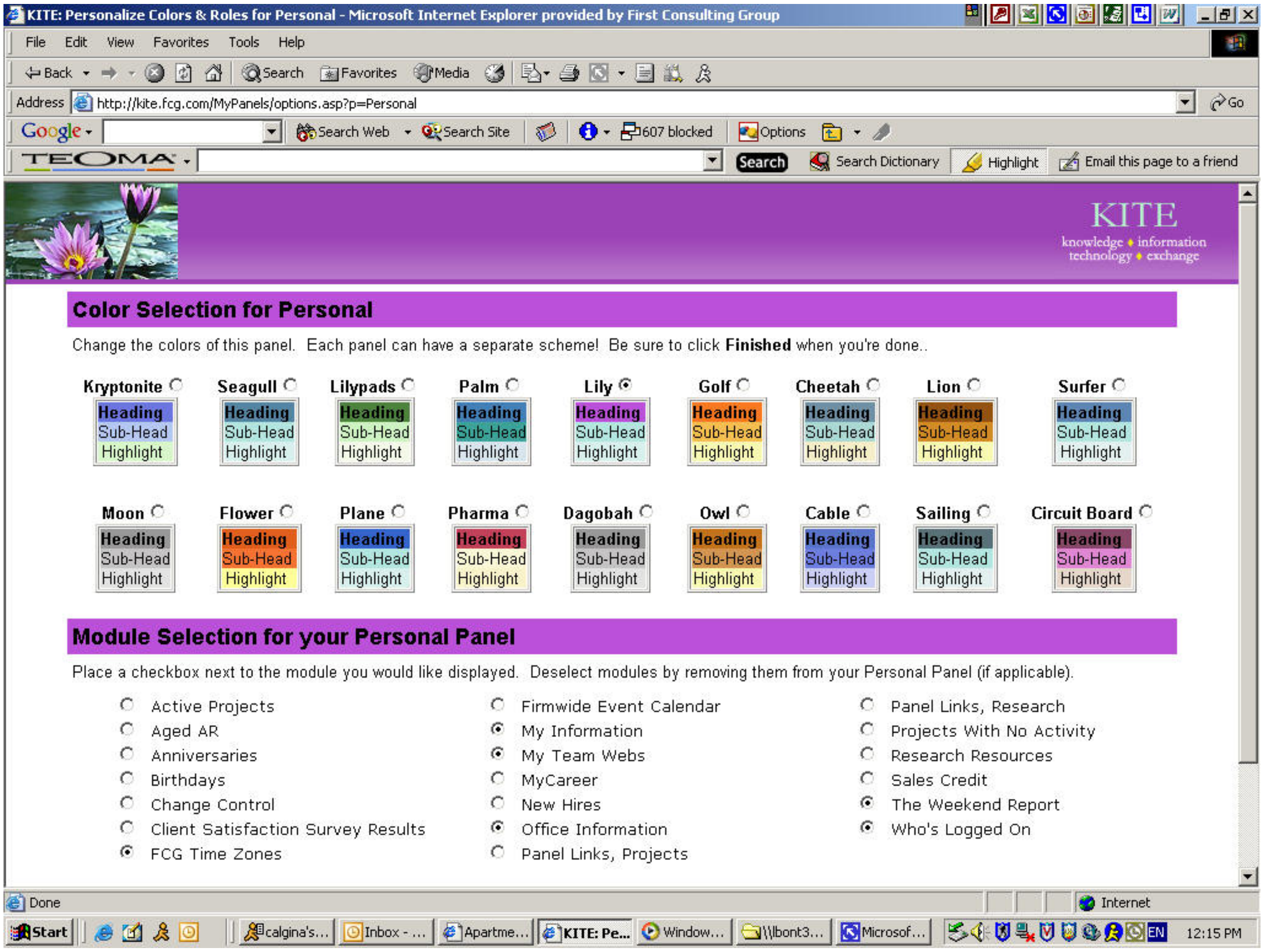
	https://sps.fcg.com/kite/Documents/Resumes/	Update	Delete
CSS	https://kite.fcg.com/css/	Update	Delete
CSS Results Page	https://kite.fcg.com/css/result.asp?p=7595	Update	Delete
Development	http://bont33/	Update	Delete
Directions	http://www.mapquest.com/	Update	Delete
Document Library	https://sps.fcg.com/kite/Documents/	Update	Delete
Funnel web stats	http://spsstore.fcg.com/sitestats	Update	Delete
Jim's Room	http://kite.fcg.com/dg/dgtopics.asp	Update	Delete

Figure 3) My Favorite Links screen

Colors and Modules

This page is used for customizing the design and selecting modules to show on your home page. Current modules include:

- Active Projects
- Aged AR
- Birthday
- Change Control
- Client Satisfaction Survey Results
- FCG Time Zones
- My Career
- My Team Webs
- Who's Logged On?
- New Hire
- Office Information
- Panel Links, Projects
- Panel Links, Research
- Research Resources
- Search
- The Weekend Report



Address: http://kite.fcg.com/MyPanels/options.asp?p=Personal

Color Selection for Personal

Change the colors of this panel. Each panel can have a separate scheme! Be sure to click **Finished** when you're done..

Kryptonite ○ Seagull ○ Lilypads ○ Palm ○ Lily ● Golf ○ Cheetah ○ Lion ○ Surfer ○

Moon ○ Flower ○ Plane ○ Pharma ○ Dagobah ○ Owl ○ Cable ○ Sailing ○ Circuit Board ○

Module Selection for your Personal Panel

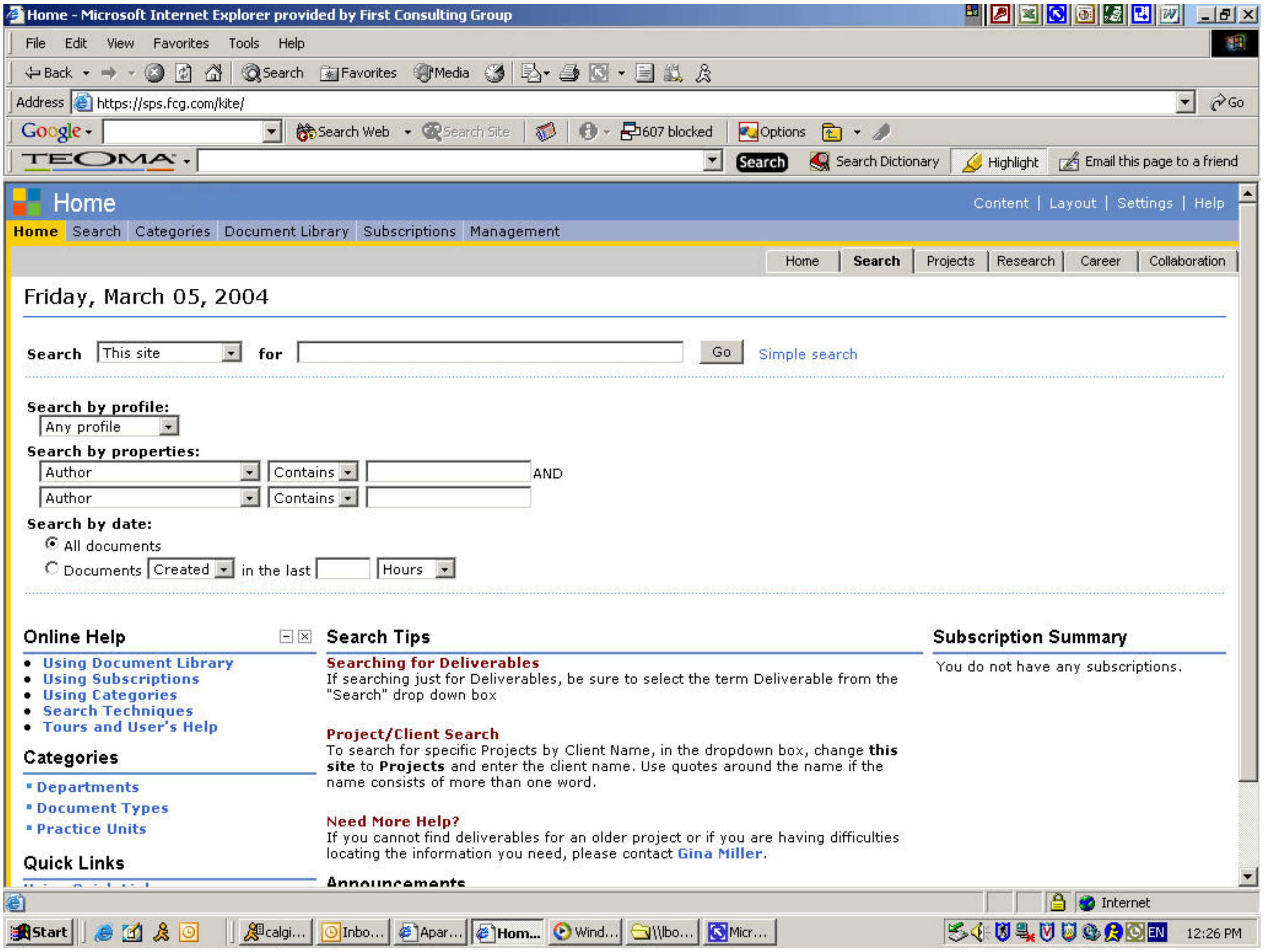
Place a checkbox next to the module you would like displayed. Deselect modules by removing them from your Personal Panel (if applicable).

○ Active Projects
○ Aged AR
○ Anniversaries
○ Birthdays
○ Change Control
○ Client Satisfaction Survey Results
● FCG Time Zones
○ Firmwide Event Calendar
● My Information
● My Team Webs
○ MyCareer
○ New Hires
● Office Information
○ Panel Links, Projects
○ Panel Links, Research
○ Projects With No Activity
○ Research Resources
○ Sales Credit
● The Weekend Report
● Who's Logged On

Figure 4) Color & Module Selection screen

Search

You can search full text by using the simple search box at the top or using advanced features to search on specific metadata assigned to each document that has been added.


Home - Microsoft Internet Explorer provided by First Consulting Group
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://sps.fcg.com/kite/
Go
Google Search Web Search Site 607 blocked Options
TEOMA Search Search Dictionary Highlight Email this page to a friend
Home
Content | Layout | Settings | Help
Home Search Categories Document Library Subscriptions Management
Home Search Projects Research Career Collaboration
Internet
Start calgi… Inbo… Apar… Hom… Wind… \\bo… Micr…
EN 12:26 PM

Friday, March 05, 2004

Search: This site for ____ Go Simple search

Search by profile: Any profile

Search by properties:

Author Contains ____ AND

Author Contains ____

Search by date:

● All documents

○ Documents Created in the last ____ Hours

Online Help

- Using Document Library
- Using Subscriptions
- Using Categories
- Search Techniques
- Tours and User's Help

Categories

- Departments
- Document Types
- Practice Units

Quick Links

Search Tips

Searching for Deliverables
If searching just for Deliverables, be sure to select the term Deliverable from the "Search" drop down box

Project/Client Search
To search for specific Projects by Client Name, in the dropdown box, change **this site** to **Projects** and enter the client name. Use quotes around the name if the name consists of more than one word.

Need More Help?
If you cannot find deliverables for an older project or if you are having difficulties locating the information you need, please contact Gina Miller.

Announcements

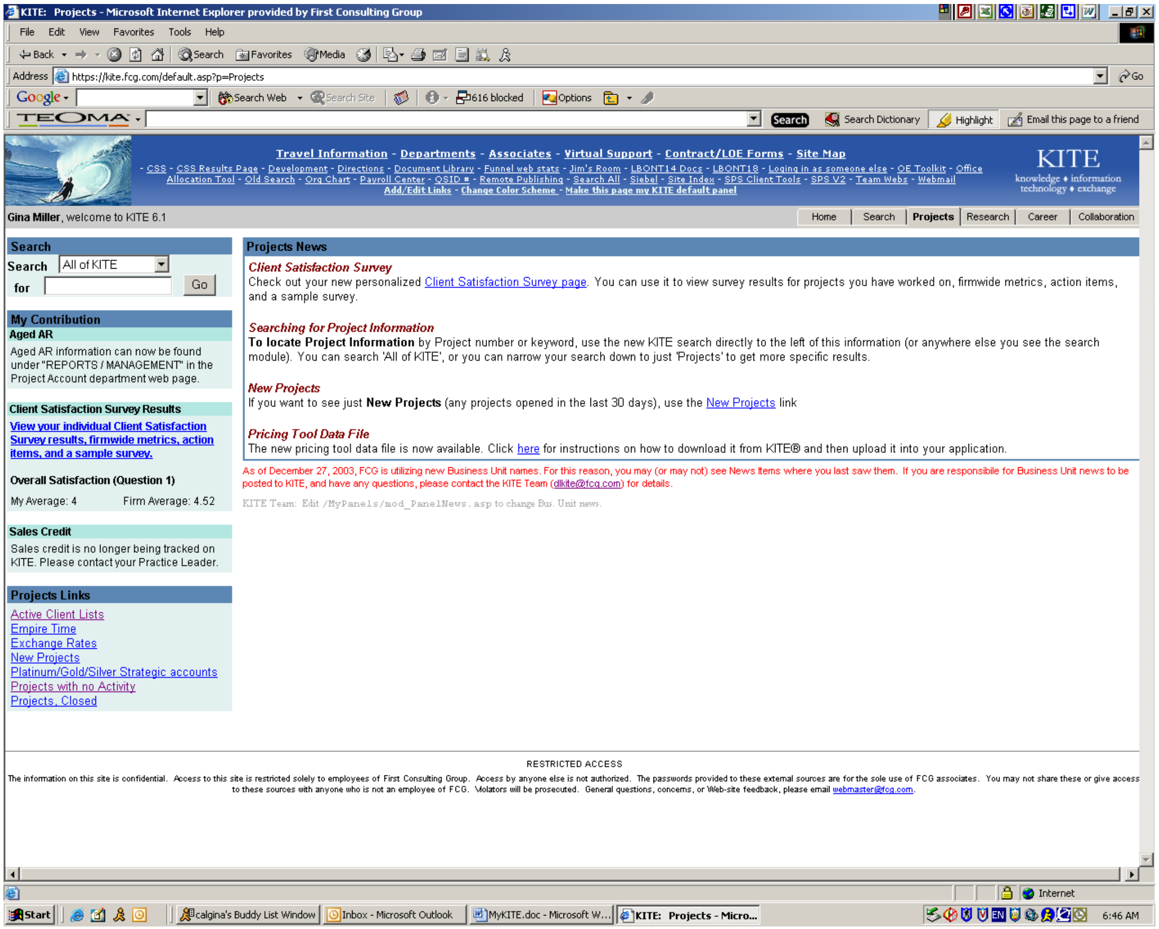
Subscription Summary

You do not have any subscriptions.

Figure 5) Advance Search screen

Projects

This area includes information regarding the projects that you have been involved in as well as general project & client information. The data is pulled from the T&E system.


KITE: Projects - Microsoft Internet Explorer provided by First Consulting Group
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://kite.fcg.com/default.asp?p=Projects
Go
Google
Search Web
Search Site
616 blocked
Options
TEOMA
Search
Search Dictionary
Highlight
Email this page to a friend
Travel Information - Departments - Associates - Virtual Support - Contract/LOE Forms - Site Map
- CSS - CSS Results Page - Development - Directions - Document Library - Funnel web stats - Jim's Room - LBONT14 Docs - LBONT18 - Loging in as someone else - OE Toolkit - Office Allocation Tool - Old Search - Org Chart - Payroll Center - QSID # - Remote Publishing - Search All - Siebel - Site Index - SPS Client Tools - SPS V2 - Team Webs - Webmail
Add/Edit Links - Change Color Scheme - Make this page my KITE default panel
KITE
knowledge ♦ information
technology ♦ exchange
Home
Search
Projects
Research
Career
Collaboration
Internet
Start
calgina's Buddy List Window
Inbox - Microsoft Outlook
MyKITE.doc - Microsoft W...
KITE: Projects - Micro...
6:46 AM

Gina Miller, welcome to KITE 6.1

Search

Search All of KITE

for Go

My Contribution

Aged AR

Aged AR information can now be found under "REPORTS / MANAGEMENT" in the Project Account department web page.

Client Satisfaction Survey Results

View your individual Client Satisfaction Survey results, firmwide metrics, action items, and a sample survey.

Overall Satisfaction (Question 1)

My Average: 4	Firm Average: 4.52

Sales Credit

Sales credit is no longer being tracked on KITE. Please contact your Practice Leader.

Projects Links

- Active Client Lists
- Empire Time
- Exchange Rates
- New Projects
- Platinum/Gold/Silver Strategic accounts
- Projects with no Activity
- Projects, Closed

Projects News

Client Satisfaction Survey

Check out your new personalized Client Satisfaction Survey page. You can use it to view survey results for projects you have worked on, firmwide metrics, action items, and a sample survey.

Searching for Project Information

To locate Project Information by Project number or keyword, use the new KITE search directly to the left of this information (or anywhere else you see the search module). You can search 'All of KITE', or you can narrow your search down to just 'Projects' to get more specific results.

New Projects

If you want to see just **New Projects** (any projects opened in the last 30 days), use the New Projects link

Pricing Tool Data File

The new pricing tool data file is now available. Click here for instructions on how to download it from KITE® and then upload it into your application.

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KITE Team: Edit /MyPanels/mod_PanelNews.asp to change Bus. Unit news.

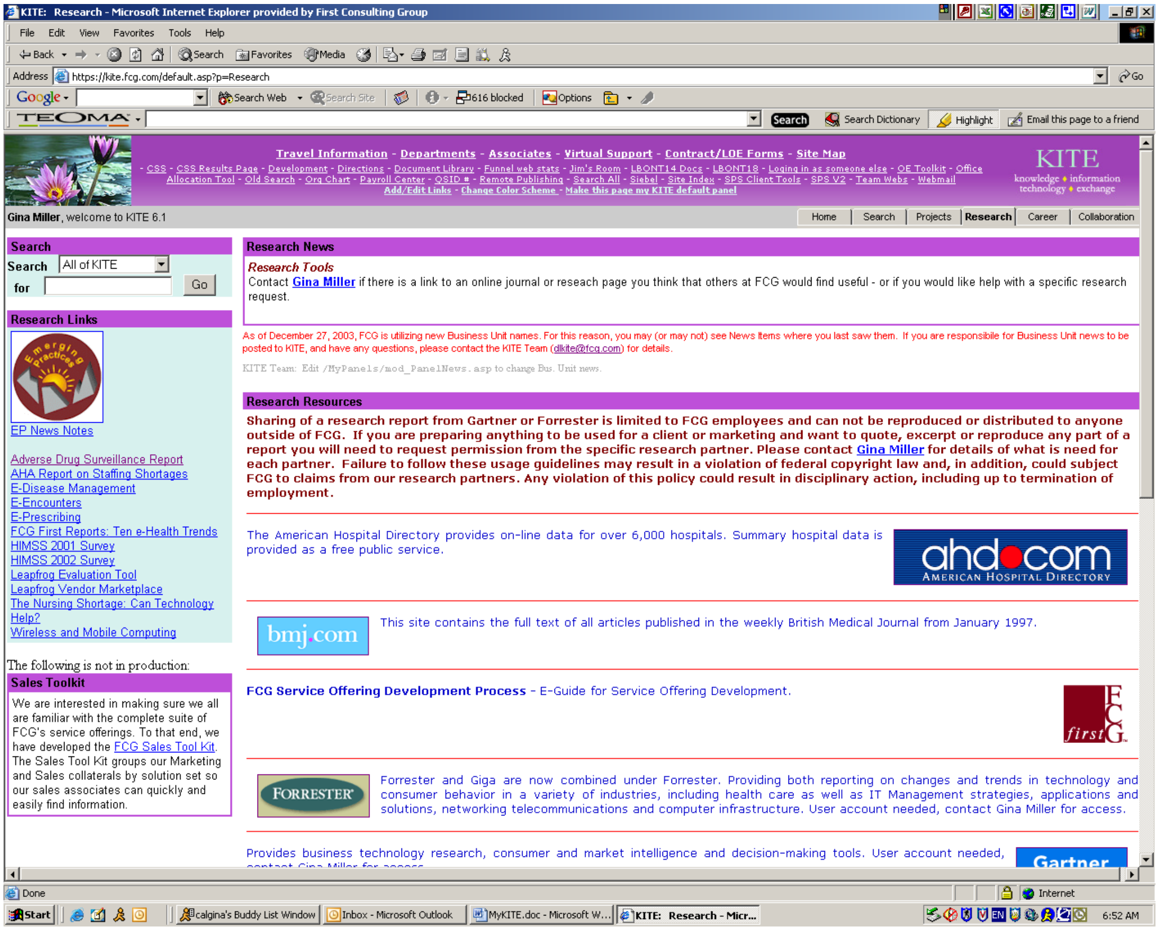
RESTRICTED ACCESS

The information on this site is confidential. Access to this site is restricted solely to employees of First Consulting Group. Access by anyone else is not authorized. The passwords provided to these external sources are for the sole use of FCG associates. You may not share these or give access to these sources with anyone who is not an employee of FCG. Violators will be prosecuted. General questions, concerns, or Web-site feedback, please email webmaster@fcg.com.

Figure 6) Project tab

Research

This area includes links to the different research tools that FCG has available to its associates. The content is from both internal and external sources.


KITE: Research - Microsoft Internet Explorer provided by First Consulting Group
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://kite.fcg.com/default.asp?p=Research
Go
Google Search Web Search Site 616 blocked Options
TEOMA Search Search Dictionary Highlight Email this page to a friend
Travel Information - Departments - Associates - Virtual Support - Contract/LOE Forms - Site Map
- CSS - CSS Results Page - Development - Directions - Document Library - Funnel web stats - Jim's Room - LBONT14 Docs - LBONT18 - Loging in as someone else - OE Toolkit - Office Allocation Tool - Old Search - Org Chart - Payroll Center - QSID # - Remote Publishing - Search All - Siebel - Site Index - SPS Client Tools - SPS V2 - Team Webs - Webmail
Add/Edit Links - Change Color Scheme - Make this page my KITE default panel
KITE
knowledge ♦ information
technology ♦ exchange
Home
Search
Projects
Research
Career
Collaboration
Search
Search All of KITE
for
Go
Emerging Practices
ahd.com American Hospital Directory
bmj.com
first FCG
FORRESTER
Gartner
Done
Internet
Start
calgina's Buddy List Window
Inbox - Microsoft Outlook
MyKITE.doc - Microsoft W...
KITE: Research - Micr...
6:52 AM

Gina Miller, welcome to KITE 6.1

Research Links

EP News Notes

Adverse Drug Surveillance Report
AHA Report on Staffing Shortages
E-Disease Management
E-Encounters
E-Prescribing
FCG First Reports: Ten e-Health Trends
HIMSS 2001 Survey
HIMSS 2002 Survey
Leapfrog Evaluation Tool
Leapfrog Vendor Marketplace
The Nursing Shortage: Can Technology Help?
Wireless and Mobile Computing

The following is not in production:

Sales Toolkit

We are interested in making sure we all are familiar with the complete suite of FCG's service offerings. To that end, we have developed the FCG Sales Tool Kit. The Sales Tool Kit groups our Marketing and Sales collaterals by solution set so our sales associates can quickly and easily find information.

Research News

Research Tools

Contact Gina Miller if there is a link to an online journal or reseach page you think that others at FCG would find useful - or if you would like help with a specific research request.

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KITE Team: Edit /MyPanels/mod_PanelNews.asp to change Bus. Unit news.

Research Resources

Sharing of a research report from Gartner or Forrester is limited to FCG employees and can not be reproduced or distributed to anyone outside of FCG. If you are preparing anything to be used for a client or marketing and want to quote, excerpt or reproduce any part of a report you will need to request permission from the specific research partner. Please contact Gina Miller for details of what is need for each partner. Failure to follow these usage guidelines may result in a violation of federal copyright law and, in addition, could subject FCG to claims from our research partners. Any violation of this policy could result in disciplinary action, including up to termination of employment.

The American Hospital Directory provides on-line data for over 6,000 hospitals. Summary hospital data is provided as a free public service.

This site contains the full text of all articles published in the weekly British Medical Journal from January 1997.

FCG Service Offering Development Process - E-Guide for Service Offering Development.

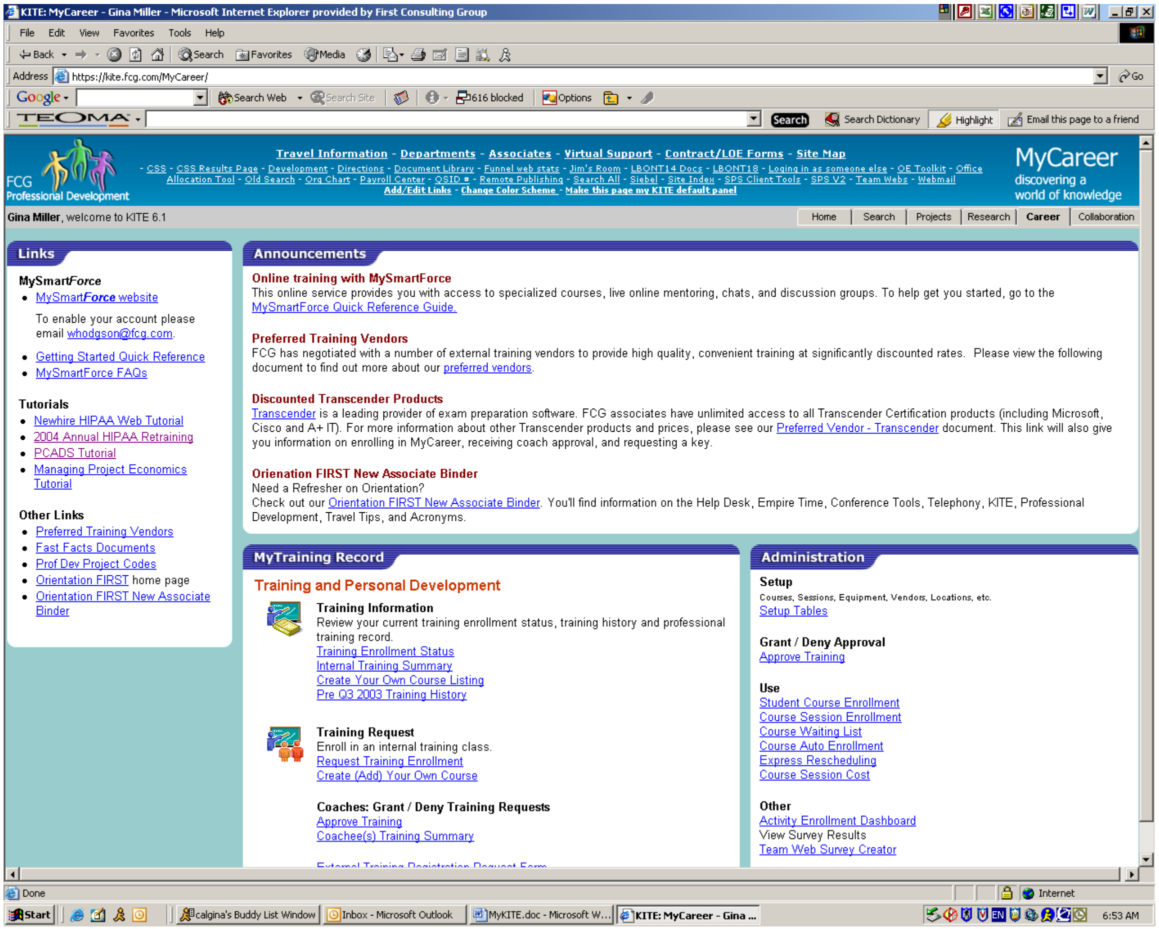
Forrester and Giga are now combined under Forrester. Providing both reporting on changes and trends in technology and consumer behavior in a variety of industries, including health care as well as IT Management strategies, applications and solutions, networking telecommunications and computer infrastructure. User account needed, contact Gina Miller for access.

Provides business technology research, consumer and market intelligence and decision-making tools. User account needed,

Figure 7) Research tab

Career

This area includes general information regarding professional development as well as individual information for that associates personal records for planned or completed courses.


KITE: MyCareer - Gina Miller - Microsoft Internet Explorer provided by First Consulting Group
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://kite.fcg.com/MyCareer/
Go
Google Search Web Search Site 616 blocked Options
TEOMA Search Search Dictionary Highlight Email this page to a friend
FCG Professional Development
MyCareer discovering a world of knowledge
Home Search Projects Research Career Collaboration
Done
Internet
Start
calgina's Buddy List Window
Inbox - Microsoft Outlook
MyKITE.doc - Microsoft W...
KITE: MyCareer - Gina ...
6:53 AM

Travel Information - Departments - Associates - Virtual Support - Contract/LOE Forms - Site Map

- CSS - CSS Results Page - Development - Directions - Document Library - Funnel web stats - Jim's Room - LBONT14 Docs - LBONT18 - Login as someone else - OE Toolkit - Office Allocation Tool - Old Search - Org Chart - Payroll Center - QSID # - Remote Publishing - Search All - Siebel - Site Index - SPS Client Tools - SPS V2 - Team Webs - Webmail

Add/Edit Links - Change Color Scheme - Make this page my KITE default panel

Gina Miller, welcome to KITE 6.1

Links

MySmart*Force*

- MySmart***Force*** website

To enable your account please email whodgson@fcg.com.

- Getting Started Quick Reference
- MySmartForce FAQs

Tutorials

- Newhire HIPAA Web Tutorial
- 2004 Annual HIPAA Retraining
- PCADS Tutorial
- Managing Project Economics Tutorial

Other Links

- Preferred Training Vendors
- Fast Facts Documents
- Prof Dev Project Codes
- Orientation FIRST home page
- Orientation FIRST New Associate Binder

Announcements

Online training with MySmartForce
This online service provides you with access to specialized courses, live online mentoring, chats, and discussion groups. To help get you started, go to the MySmartForce Quick Reference Guide.

Preferred Training Vendors
FCG has negotiated with a number of external training vendors to provide high quality, convenient training at significantly discounted rates. Please view the following document to find out more about our preferred vendors.

Discounted Transcender Products
Transcender is a leading provider of exam preparation software. FCG associates have unlimited access to all Transcender Certification products (including Microsoft, Cisco and A+ IT). For more information about other Transcender products and prices, please see our Preferred Vendor - Transcender document. This link will also give you information on enrolling in MyCareer, receiving coach approval, and requesting a key.

Orienation FIRST New Associate Binder
Need a Refresher on Orientation?
Check out our Orientation FIRST New Associate Binder. You'll find information on the Help Desk, Empire Time, Conference Tools, Telephony, KITE, Professional Development, Travel Tips, and Acronyms.

MyTraining Record

Training and Personal Development

Training Information
Review your current training enrollment status, training history and professional training record.
Training Enrollment Status
Internal Training Summary
Create Your Own Course Listing
Pre Q3 2003 Training History

Training Request
Enroll in an internal training class.
Request Training Enrollment
Create (Add) Your Own Course

Coaches: Grant / Deny Training Requests
Approve Training
Coachee(s) Training Summary

Administration

Setup
Courses, Sessions, Equipment, Vendors, Locations, etc.
Setup Tables

Grant / Deny Approval
Approve Training

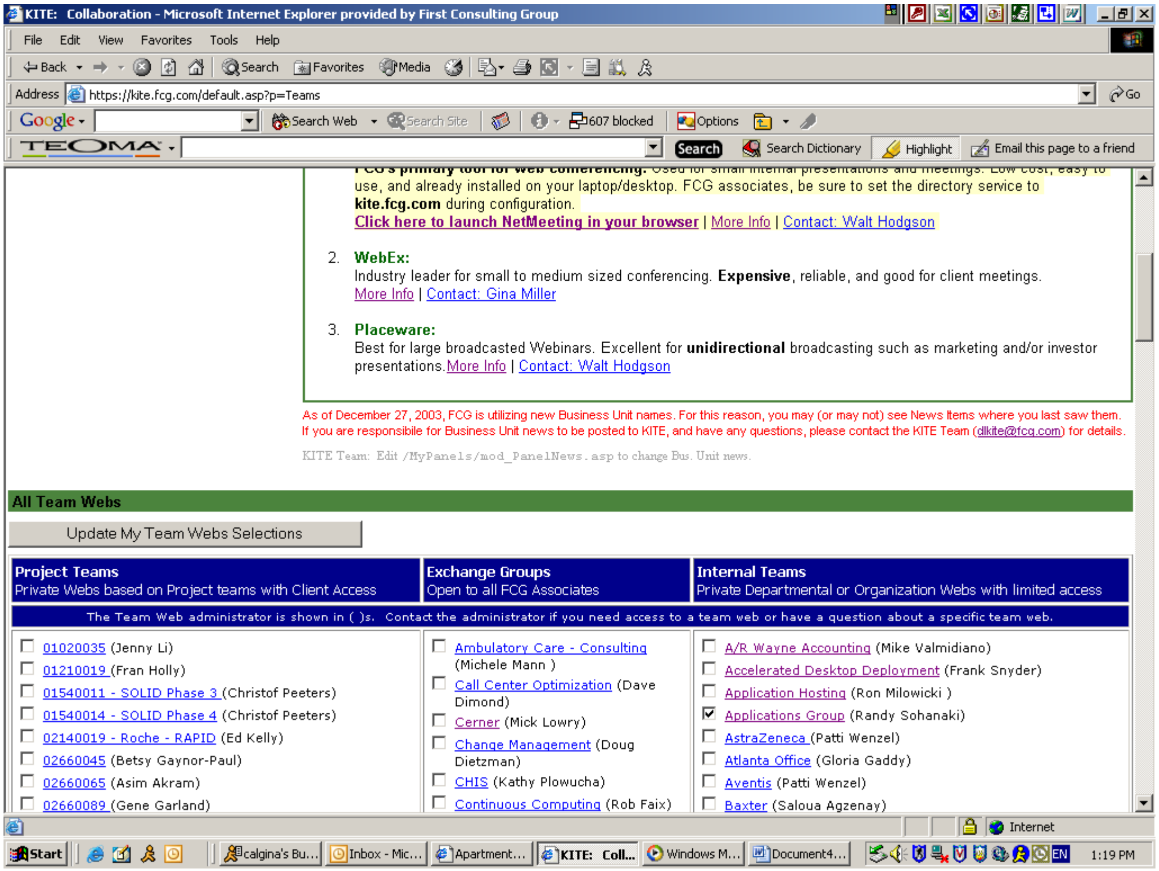
Use
Student Course Enrollment
Course Session Enrollment
Course Waiting List
Course Auto Enrollment
Express Rescheduling
Course Session Cost

Other
Activity Enrollment Dashboard
View Survey Results
Team Web Survey Creator

Figure 8) Career tab

Collaboration

This tab contains information for web conferencing and listing of all team webs. Team webs are divided into three groups, Project, Exchange Group, Internal. Project team webs are set up for project work and can be shared with clients, Exchange Groups are open to all of FCG and Internal are limited to a set group. Each team web has a corresponding folder in the document library. This folder can be used to store documents that require check-in, check-out and version control.


KITE: Collaboration - Microsoft Internet Explorer provided by First Consulting Group
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://kite.fcg.com/default.asp?p=Teams
Go
Google Search Web Search Site 607 blocked Options
TEOMA Search Search Dictionary Highlight Email this page to a friend
Internet
Start calgina's Bu... Inbox - Mic... Apartment... KITE: Coll... Windows M... Document4...
EN 1:19 PM

FCG's primary tool for web conferencing. Used for small internal presentations and meetings. Low cost, easy to use, and already installed on your laptop/desktop. FCG associates, be sure to set the directory service to **kite.fcg.com** during configuration.
Click here to launch NetMeeting in your browser | More Info | Contact: Walt Hodgson

2. **WebEx:**
Industry leader for small to medium sized conferencing. **Expensive**, reliable, and good for client meetings.
More Info | Contact: Gina Miller

3. **Placeware:**
Best for large broadcasted Webinars. Excellent for **unidirectional** broadcasting such as marketing and/or investor presentations. More Info | Contact: Walt Hodgson

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KITE Team: Edit /MyPanels/mod_PanelNews.asp to change Bus. Unit news.

All Team Webs

Update My Team Webs Selections

Project Teams
Private Webs based on Project teams with Client Access

Exchange Groups
Open to all FCG Associates

Internal Teams
Private Departmental or Organization Webs with limited access

The Team Web administrator is shown in ( )s. Contact the administrator if you need access to a team web or have a question about a specific team web.

☐ 01020035 (Jenny Li)
☐ 01210019 (Fran Holly)
☐ 01540011 - SOLID Phase 3 (Christof Peeters)
☐ 01540014 - SOLID Phase 4 (Christof Peeters)
☐ 02140019 - Roche - RAPID (Ed Kelly)
☐ 02660045 (Betsy Gaynor-Paul)
☐ 02660065 (Asim Akram)
☐ 02660089 (Gene Garland)

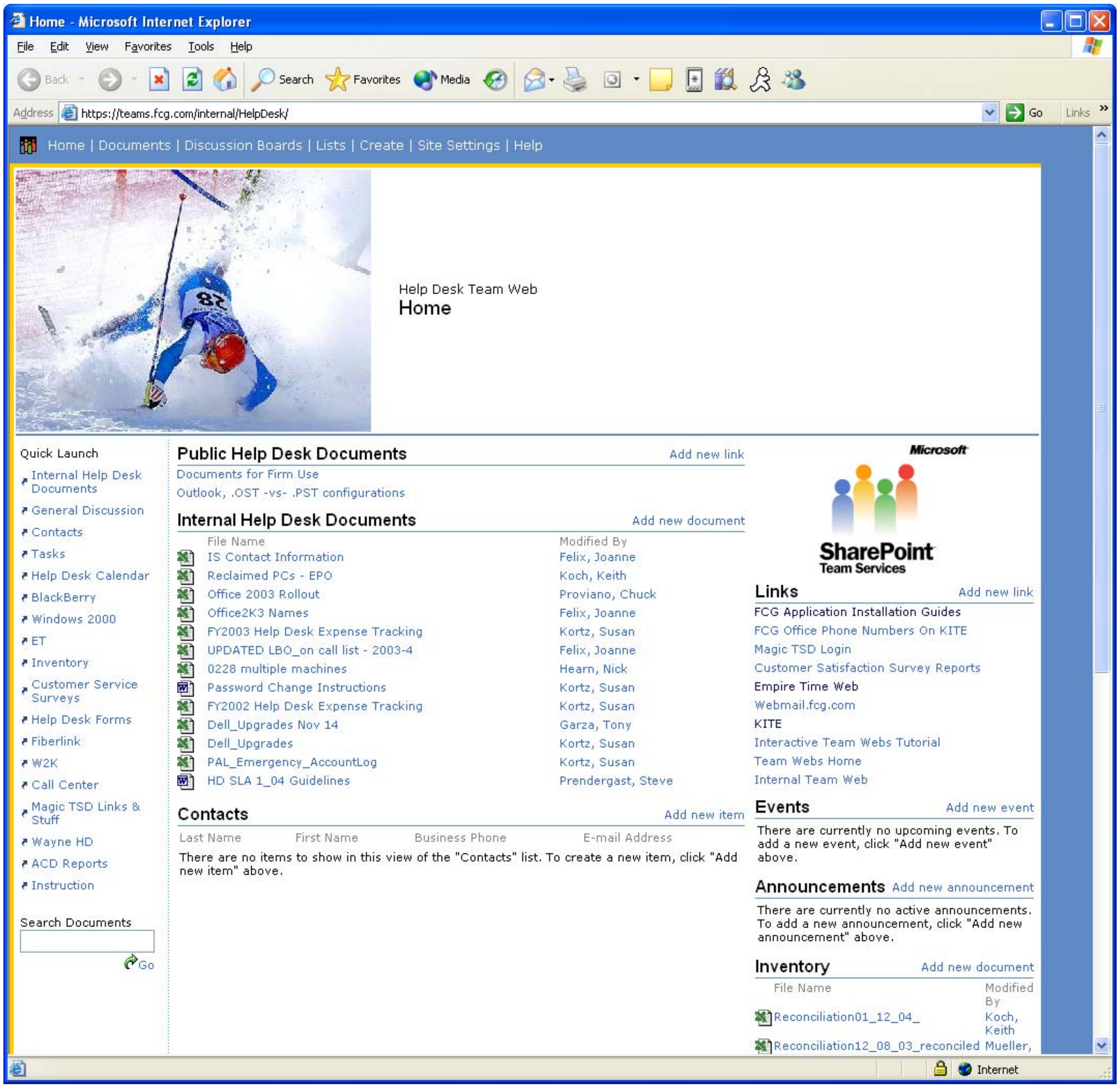
☐ Ambulatory Care - Consulting (Michele Mann)
☐ Call Center Optimization (Dave Dimond)
☐ Cerner (Mick Lowry)
☐ Change Management (Doug Dietzman)
☐ CHIS (Kathy Plowucha)
☐ Continuous Computing (Rob Faix)

☐ A/R Wayne Accounting (Mike Valmidiano)
☐ Accelerated Desktop Deployment (Frank Snyder)
☐ Application Hosting (Ron Milowicki)
☑ Applications Group (Randy Sohanaki)
☐ AstraZeneca (Patti Wenzel)
☐ Atlanta Office (Gloria Gaddy)
☐ Aventis (Patti Wenzel)
☐ Baxter (Saloua Agzenay)

Figure 9) Collaboration tab

Team webs

Microsoft SharePoint Team webs are utilized to create sub webs for each group or project. The Team webs give the group total control over the sites design and content


Home - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://teams.fcg.com/internal/HelpDesk/
Go Links
Home | Documents | Discussion Boards | Lists | Create | Site Settings | Help
Microsoft
SharePoint Team Services
Internet

Help Desk Team Web
Home

Quick Launch
- Internal Help Desk Documents
- General Discussion
- Contacts
- Tasks
- Help Desk Calendar
- BlackBerry
- Windows 2000
- ET
- Inventory
- Customer Service Surveys
- Help Desk Forms
- Fiberlink
- W2K
- Call Center
- Magic TSD Links & Stuff
- Wayne HD
- ACD Reports
- Instruction

Search Documents

Go

Public Help Desk Documents Add new link

Documents for Firm Use
Outlook, .OST -vs- .PST configurations

Internal Help Desk Documents Add new document

File Name	Modified By
IS Contact Information	Felix, Joanne
Reclaimed PCs - EPO	Koch, Keith
Office 2003 Rollout	Proviano, Chuck
Office2K3 Names	Felix, Joanne
FY2003 Help Desk Expense Tracking	Kortz, Susan
UPDATED LBO_on call list - 2003-4	Felix, Joanne
0228 multiple machines	Hearn, Nick
Password Change Instructions	Kortz, Susan
FY2002 Help Desk Expense Tracking	Kortz, Susan
Dell_Upgrades Nov 14	Garza, Tony
Dell_Upgrades	Kortz, Susan
PAL_Emergency_AccountLog	Kortz, Susan
HD SLA 1_04 Guidelines	Prendergast, Steve

Contacts Add new item

Last Name	First Name	Business Phone	E-mail Address

There are no items to show in this view of the "Contacts" list. To create a new item, click "Add new item" above.

Links Add new link

FCG Application Installation Guides
FCG Office Phone Numbers On KITE
Magic TSD Login
Customer Satisfaction Survey Reports
Empire Time Web
Webmail.fcg.com
KITE
Interactive Team Webs Tutorial
Team Webs Home
Internal Team Web

Events Add new event

There are currently no upcoming events. To add a new event, click "Add new event" above.

Announcements Add new announcement

There are currently no active announcements. To add a new announcement, click "Add new announcement" above.

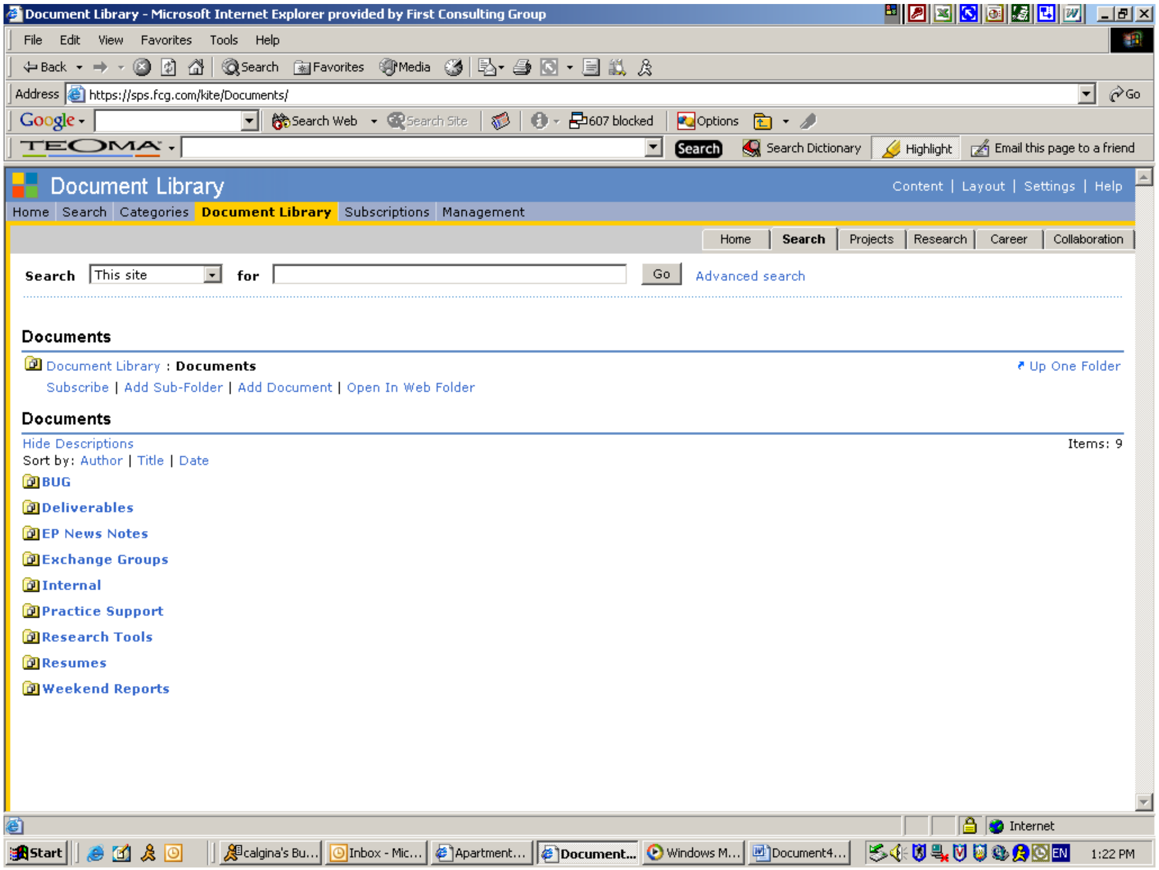
Inventory Add new document

File Name	Modified By
Reconciliation01_12_04_	Koch, Keith
Reconciliation12_08_03_reconciled	Mueller,

Figure 10) Help desk team web

Document Libraries

Microsoft SharePoint portal Services is used as the Document Library. The Document Library is folder hierarchy used to store documents. The Document Library is used to manage documents and folders. You can also search and browse through the document folders stored in the workspace. The folders and documents you see in the Document Library depend upon your role. Documents can be kept ‘Checked In’, while work is being done on them. As soon as the document is final, it can be changed to ‘Published’ and it becomes available for other to find when searching the site.



Document Library - Microsoft Internet Explorer provided by First Consulting Group

Address https://sps.fcg.com/kite/Documents/

Search This site for

Documents

Document Library : Documents

Subscribe | Add Sub-Folder | Add Document | Open In Web Folder

Up One Folder

Documents

Hide Descriptions

Items: 9

Sort by: Author | Title | Date

- BUG
- Deliverables
- EP News Notes
- Exchange Groups
- Internal
- Practice Support
- Research Tools
- Resumes
- Weekend Reports

Figure11) Document library

Project Resource Estimate

In order to configure this application for a client, a time estimate of 4 to 6 weeks is required for a full-time Web developer with SharePoint, SQL database experience (or with the help of a DBA) to set up the database and ASP coding. In edition to the configuration work, 1 week of training an administrator is recommended. This estimate assumes that a full time client resource is available to work with our team and that individual has a full knowledge of their ERP systems to create data extracts.

FCG Standard
Windows 2000 Server
Build Checklist

First Consulting Group, Inc.
Company Confidential

Version 2.1
March 13, 2003

Document Approval

The following signatures indicate approval of this document and its content.

FCG VP/CIO

Name: Brad Wheeler
Signature:
Date:

FCG Infrastructure and Operations Director

Name: Mike Seigafuse
Signature:
Date:

Document Identification

Property	**Value**
Title:	Windows 2000 Server Build Procedures
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Category:	Information Technology
Version:	2.2
Last Updated:	March 13, 2003
Supercedes (if applicable):	FCG Windows 2000 Server Standards
Next Review Date:	03/12/2004
Author(s):	Mike Seigafuse
Template Information:	TMP-GP-001; Version 3.0

Revision History

Version	Date	Updated By	Comments
V1.0	May 2, 2001	Alex LePage	Document created.
V1.1	June 15, 2001	Alex LePage	Updated for Dell OpenManage assisted install.
V1.2	June 26, 2001	Alex LePage	Added installation of Administrative Terminal Services
V1.3	Oct 11, 2001	Richard E. York	Added ePO agent install check
V1.4	March 18, 2002	Alex LePage	Clarified Anti-Virus config. settings
V1.5	April 29, 2002	Jim Miller	Added IIS security updates
V1.6	July 29, 2002	Raman Bridwell	Web-based PW changes
V2.0	August 15, 2002	Mike Seigafuse	Modified to require checklist retention, signing by the person performing the build, dating of the document, the addition of space in each section to note exceptions or anomalies during the build procedure, and the requirement for coach/manager signature to approve the completed document. These additional requirements are being driven by additional audit requirements for product development, and FCG's desire to gain ISO 9000 certification.
V2.1	March 7, 2003	Thomas McGrath	Add switch connection check-offs to Post-Installation.
V2.2	March 13, 2003	Mike Seigafuse	Added the hardware verification section before hardware setup, removed DiskAgent requirements, removed configuration of virus software (now performed centrally through EPO), added requirement to coordinate network port setup with network group.

Table of Contents

Purpose

This document specifies First Consulting Group's standard installation procedures for the Windows 2000 Server family of operating systems. This document will be adhered to for all W2000 Server installations unless Infrastructure and Operations Group (IOG) management grants an explicit exception. FCG personnel building servers are required to use a hardcopy of this procedure during the installation process, checking off each checkbox as performed, noting any exceptions or anomalies within the space provided in each section of the document, sign and date the document, submit document for management approval post completion, and to retain the document for the life of the server in a binder in the site's data center.

Pre-Operating System Installation

Server Version and Licensing

There are three versions of Windows 2000 Server: Server, Advanced, and Data Center. In the absence of instruction from IOG management all servers deployed to FCG's environment will be the Server version. Ensure a valid license for the selected version of the operating system has been purchased.

Server's Domain Role

Windows 2000 can be configured to operate either as a member server or a domain controller. In the absence of instruction from IOG management, all servers deployed to FCG's environment will be built as member servers. If the machine is an authorized domain controller, follow the instructions in the *Post Operating System Installation*, *Domain Controller Only* section.

Important Server Attributes

Prior to beginning the operating system installation establish the following server attributes:

Fill-in the Items Below	
1. Server Name T-LBONT11	All servers should be named in accordance with FCG's Server Naming Conventions. Please see appendix A of this document for the convention's specification.
2. Server's Domain FCGNET	FCG's network environment has a number of authorized Windows domains. All servers should be placed into an existing domain. IOG management must authorize any deviations from this policy.
3. Server's Use Replacement PeopleSoft Database Server	A concise/abbreviated description of the server's intended use.
4. Web Server N/A	Indicate whether this server will make use of Internet Information Server or any other Web

	Application Server product.
5. Service Pack Requirements No	Indicate the specific service pack required for this server. If no specific requirements are given, use the latest IOG approved version.
6. IP Address 199.196.32.99	Determine the servers IP address. Ensure any static IP addresses assigned to the machine are recorded in IP address tracking excel documents.

Exception Comments

Hardware Specific Instructions

Before beginning the build of the server, confirm that the hardware expected is complete (for reused servers simply confirm all components are as expected, for new servers compare the hardware received against the purchase order to be sure the system received matches what was ordered).

Exception Comments

RAID Controllers

If the machine has a RAID Controller that features data caching, ensure that write caching in not enabled. If available read caching can be used.

Compaq Servers

- ☐ Boot the server with the latest copy of Compaq’s SmartStart CD.
- ☐ Run through SmartStart with the Assisted Install.

DELL Servers

Newer Dell Systems for which OpenManage Assisted Install is available:

- ☐ Press Ctrl+M during the POST sequence
  - ☐ Delete all existing containers
  - ☐ Create a new Container with appropriate RAID setting
- ☐ Insert *Dell OpenManage Server Assistant* CD-ROM
- ☐ Follow guided instructions for installing the Windows 2000 Server operating system.

Older Dell Systems for which OpenManage Assisted Install is not available:

- ☐ Press Ctrl+M during the POST sequence.
- ☐ Inside the Container Configuration Utility
  - ☐ Delete all existing containers
  - ☐ Create a new Container with appropriate RAID setting
- ☐ Boot Windows 2000 Server CD and press F6 when NT “Detects Hardware”
- ☐ Hit S to install additional controllers
- ☐ Insert floppy with appropriate drivers for RAID controller
- ☐ Continue with Operating System Installation below
- ☐ After installing NT, install the FAST software and run the Array configuration utility

Cubix Servers

- ☐ Hit Ctrl+C at boot to run the setup program
- ☐ Make sure that the CD-ROM is first in the boot order
- ☐ Continue with installation instructions below

Exception Comments

Operating System Installation

- ☐ Place Windows 2000 CD in CD-Rom drive and power-on machine.
- ☐ When Windows 2000 “Detects hardware” press F6 if using alternate drivers
- ☐ Machine will copy files
- ☐ Machine will reboot -- press enter to install Win2K
- ☐ Setup will detect mass storage devices (SCSI cards, disk controllers, CD-ROMs)
- ☐ Press enter to continue – hardware inspection and file begins
- ☐ At Welcome screen, press Enter to begin the installation.
- ☐ Press F8 to agree and continue
- ☐ Verify/create partitions:
  - ☐ Ensure 'C:\' drive is newly formatted and uses the NTFS file system.
  - ☐ Size should 8GB if possible
- ☐ Select 'C:\' drive for the install - press enter.
- ☐ File copy will begin. Computer will restart when complete.
- ☐ Windows 2000 Server will start and will begin installing the machines devices
- ☐ Regional Settings
  - ☐ United States is the default -- if the server is for another locale adjust accordingly
- ☐ Name: *System Manager* Organization: *FCG*
- ☐ Licensing mode: Per Seat
- ☐ Computer name: from above Use FCG naming convention. (See appendix A)
- ☐ Enter the current standard local Administrator account password
- ☐ Select additional Windows 2000 components if required.
- ☐ Ensure time and date are correct; adjust to appropriate time zone

☐ Enter proper TCP/IP information - make sure DNS host name is correct

☐ Join the required domain

☐ Windows 2000 will now complete its installation

Exception Comments

Post Operating System Installation
All Servers

☐ Copy I:\386 directory to the c:\ drive

☐ Enable Terminal Services for administrative use only

- ☐ Open the Add/Remove Windows Components Wizard
- ☐ Highlight the Terminal Services component and click on the Details
- ☐ Check ‘Enable Terminal Services’
- ☐ When prompted select terminal services for remote administration

☐ Complete any additional required disk configurations

☐ Install Support Tools located on Server CD-ROM

☐ Open Disk Management:

- ☐ All CD-ROM drives should start with D:\ and should continue until H:\
- ☐ Make sure the raid drive letter is 'I:\' and the partition is formatted with NTFS
- ☐ All other disks should continue from I:\ to Z:\
- ☐ Complete any additional required disk configurations

☐ Implement backup procedure for this server

- ☐ Install appropriate client software
- ☐ Make necessary changes to appropriate backup server

☐ If this is an apps server, install appropriate applications

☐ If this is a file server, install appropriate virus protection software (no need to set parameters or schedule tasks, as this will be controlled centrally through ePolicy Orchestrator)

☐ Install hardware manufactures hardware drive updates, e.g. Compaq SSD

☐ Disable license logging service

☐ Optimize the server's performance. (See Appendix C)

☐ Use Backup to create Emergency Repair Disk – label and store disk appropriately

☐ Use AD Users and Computers

  ☐ Place the server in the appropriate Organizational Unit
  ☐ Enter description of server from Server attributes table above

☐ Label the Server

☐ Add server to Provision and NetSonar (availability and performance monitoring systems)

☐ Change log settings in Event viewer to 4MB and Overwrite events as needed

☐ Install appropriate service pack. (SP2)

☐ Apply IIS security updates. (Post-SP2 Security Roll-up: \\pant14\software\Service Packs\Windows2000\w2ksp2srp1)

☐ Verify that server host name automatically registered with DNS

☐ Add server to ePO and install ePO agent (if you don't have the console installed, see the 'ePO Console.doc')

☐ Configure web-based password change functionality by following the instructions in 'Setup instructions for Web Based PW Changes.doc'

☐ Connect Server to appropriate port on central catalyst switch

  ☐ Label server side of cable with blade and port number of connection

  ☐ Label catalyst side of cable with server name

☐ Inform Network Group of server connection location (Blade and Port) so it can be noted in the catalyst

☐ Coordinate network port setting and server NIC setting with Network Group

Domain Controllers Only

☐ Run DCPROMO.exe

☐ Join the appropriate existing forest and domain. Do not create a new forest/domain.

☐ Place key system folders on appropriate drives:

  ☐ If dedicated trans drive available, place logs on trans drive (J:) otherwise on I
  ☐ Place SYSVOL in default location C:
  ☐ Place database on data drive I:

☐ Verify presence of the Active Directory database files in their default directory winnt\Ntds

☐ Verify presence of the Shared System Volume winnt\Sysvol

☐ If not already installed, install DNS – request configuration instructions

Exception Comments

Documentation

- ☐ Fill out the server documentation sheet for this computer completely and place in the book with its emergency repair disk and disk configuration.
- ☐ For Compaq servers, send serial number, server name and location to support contract manager
- ☐ Update the hardware tracking database:
  - ☐ Server hardware
  - ☐ Software license tracking for any installed applications

Exception Comments

Signatures

Role	Signature	Date
Server Builder		
Coach/Manager		

Appendices

Appendix A

FCG Naming Convention

Windows 2000 Servers deployed to FCG's environments will adhere to the following convention:

LLOS##

LL indicates the two or three character abbreviation for the geographic office location where the server will reside. ***OS*** indicates the operating system and will remain constant with 'NT' for all Windows Servers. ***##*** is the servers unique instance number reflecting the total number of server deployed to a particular office location. An example name for the first machine deployed to the Wayne office: ***PANT01***

Appendix B

Services

Basic-

Computer Browser
NetBIOS Interface
RPC Configuration
Server
Workstation
SNMP Service
Network Monitor Tools and Agent

File and Print Server-

(In addition to basic services)
Microsoft TCP/IP Printing

Other applicable services-

DHCP
DNS
Remote Access Service
Windows Internet Name Service

Appendix C

Optimization

If the server is an Applications server then set it to Maximize Throughput for Network Applications. Consider fixing the page file size at its maximum recommended size.

Financial Security Audit requested items

Table of Content

Purpose;

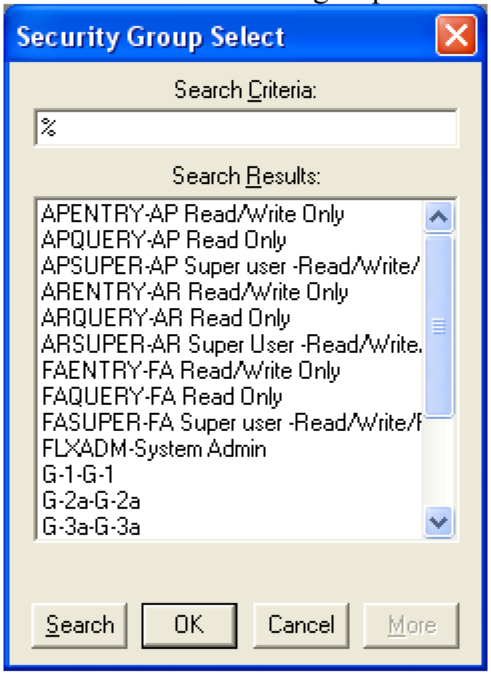
This document outlines the security method and standard set by FCG for the following applications;

- Flexi – The accounting system used at FCG
- Empire Time – Time and expense system used at FCG
- PeopleSoft – Human Resource Management System

Flexi Application

Questions 1

Screen shot of different groups available within Flexi application

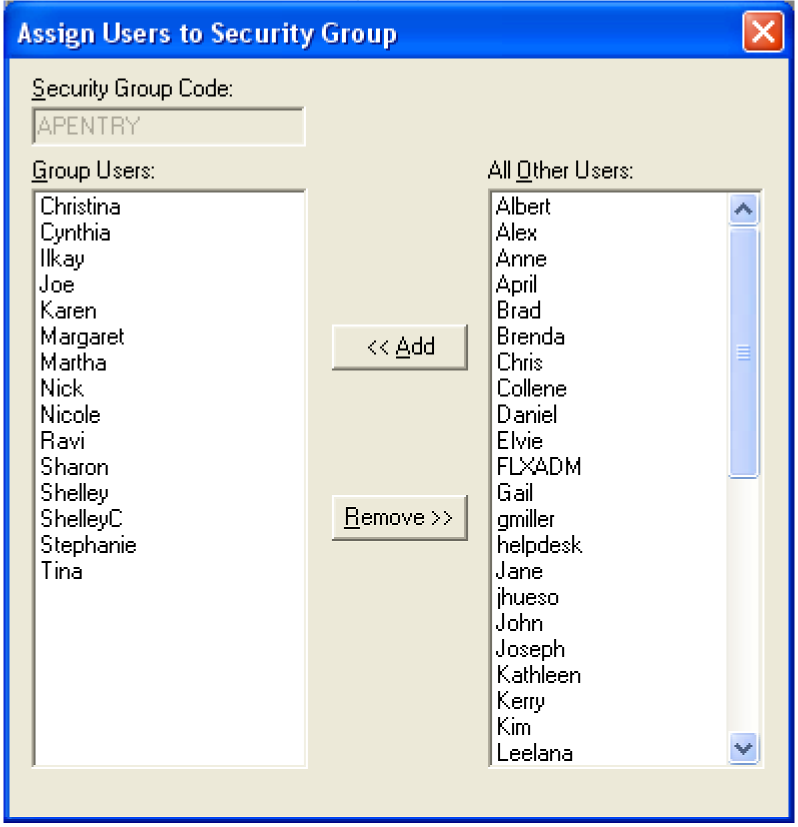


Search Criteria: %

Search Results:

APENTRY-AP Read/Write Only
APQUERY-AP Read Only
APSUPER-AP Super user -Read/Write/
ARENTRY-AR Read/Write Only
ARQUERY-AR Read Only
ARSUPER-AR Super User -Read/Write.
FAENTRY-FA Read/Write Only
FAQUERY-FA Read Only
FASUPER-FA Super user -Read/Write/
FLXADM-System Admin
G-1-G-1
G-2a-G-2a
G-3a-G-3a

Screen shot of APENTRY group and all the users that are within that group



Security Group Code: APENTRY

Group Users:

Christina
Cynthia
Ilkay
Joe
Karen
Margaret
Martha
Nick
Nicole
Ravi
Sharon
Shelley
ShelleyC
Stephanie
Tina

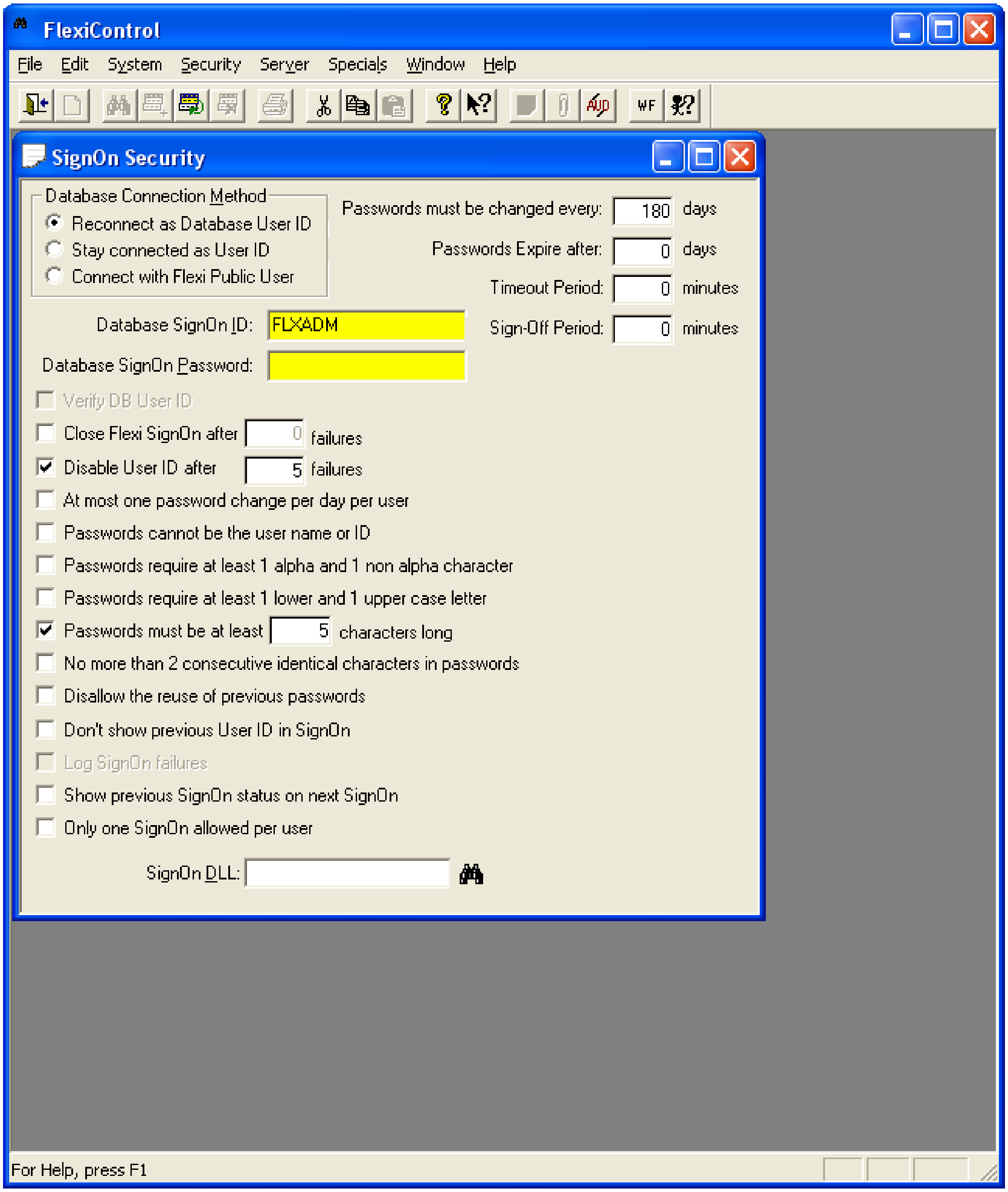
All Other Users:

Albert
Alex
Anne
April
Brad
Brenda
Chris
Collene
Daniel
Elvie
FLXADM
Gail
gmiller
helpdesk
Jane
jhueso
John
Joseph
Kathleen
Kerry
Kim
Leelana

Questions 2 & 3

Screen shot showing different security settings that can be applied to this system. We have implemented the following;

- Password needs to be changed after 180 days
- Disable account after 5 failed logins
- Password need to be a minimum number of 5 characters long
- Password next to have one digit



SignOn Security

Database Connection Method
● Reconnect as Database User ID
○ Stay connected as User ID
○ Connect with Flexi Public User

Passwords must be changed every: 180 days
Passwords Expire after: 0 days
Timeout Period: 0 minutes
Sign-Off Period: 0 minutes

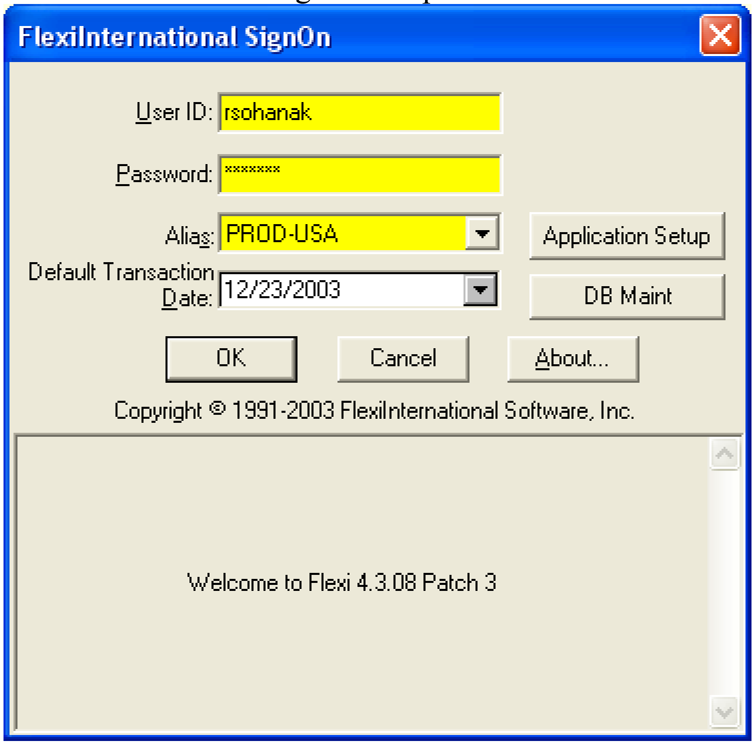
Database SignOn ID: FLXADM
Database SignOn Password:

☐ Verify DB User ID
☐ Close Flexi SignOn after 0 failures
☑ Disable User ID after 5 failures
☐ At most one password change per day per user
☐ Passwords cannot be the user name or ID
☐ Passwords require at least 1 alpha and 1 non alpha character
☐ Passwords require at least 1 lower and 1 upper case letter
☑ Passwords must be at least 5 characters long
☐ No more than 2 consecutive identical characters in passwords
☐ Disallow the reuse of previous passwords
☐ Don't show previous User ID in SignOn
☐ Log SignOn failures
☐ Show previous SignOn status on next SignOn
☐ Only one SignOn allowed per user

SignOn DLL:

Question 4

Screen shot of showing that the password is “*” when entered into the Flexi application



FlexiInternational SignOn

User ID: rsohanak

Password: *******

Alias: PROD-USA

Default Transaction Date: 12/23/2003

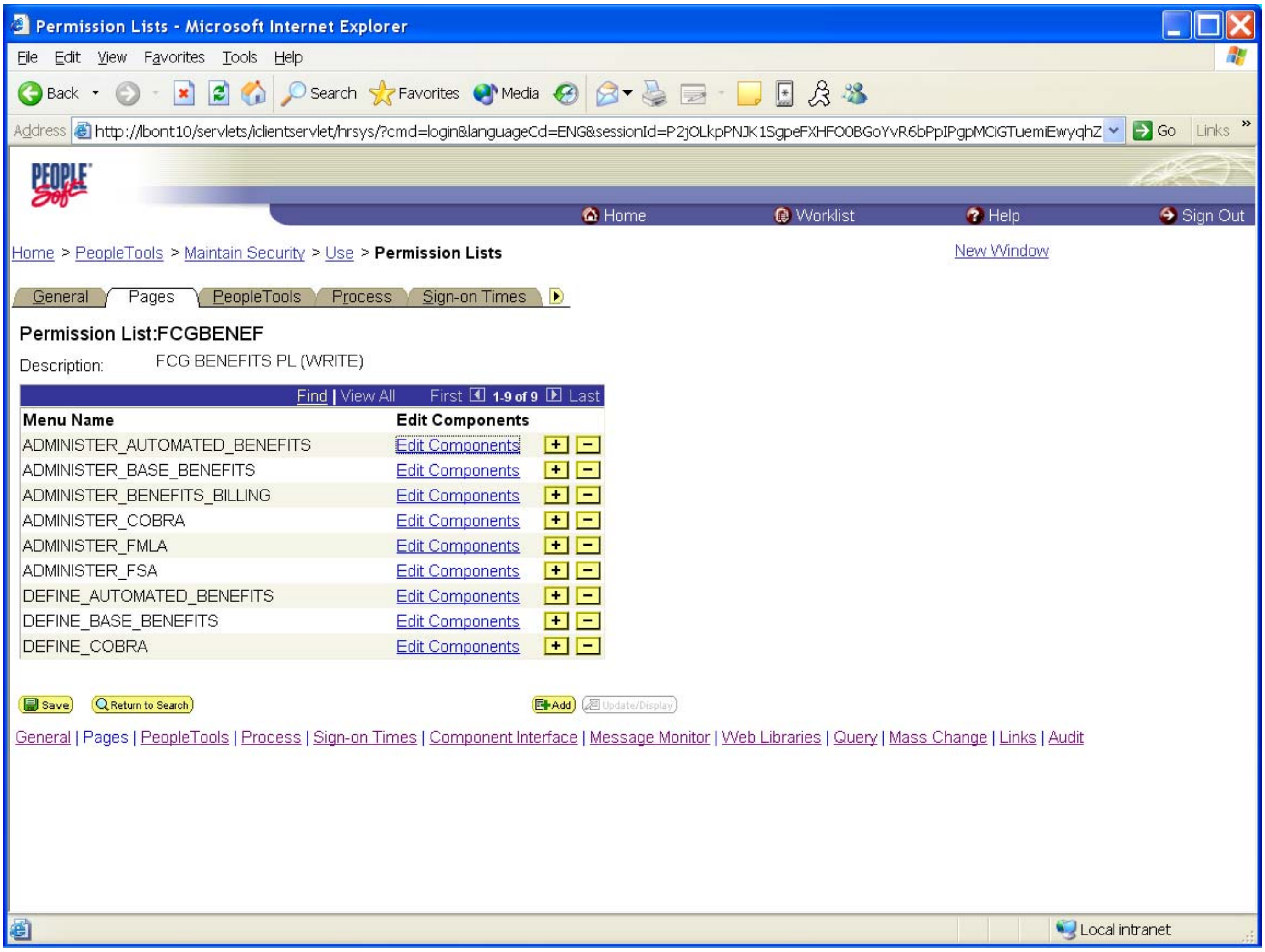
Copyright © 1991-2003 FlexiInternational Software, Inc.

Welcome to Flexi 4.3.08 Patch 3

PeopleSoft Application

Questions 1

Screen shot of different Roles available within PeopleSoft application



Permission Lists - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Go Links
PEOPLE Soft
Home Worklist Help Sign Out
Home > PeopleTools > Maintain Security > Use > Permission Lists
New Window
General Pages PeopleTools Process Sign-on Times
Find | View All First 1-9 of 9 Last
Save Return to Search Add Update/Display
General | Pages | PeopleTools | Process | Sign-on Times | Component Interface | Message Monitor | Web Libraries | Query | Mass Change | Links | Audit
Local intranet

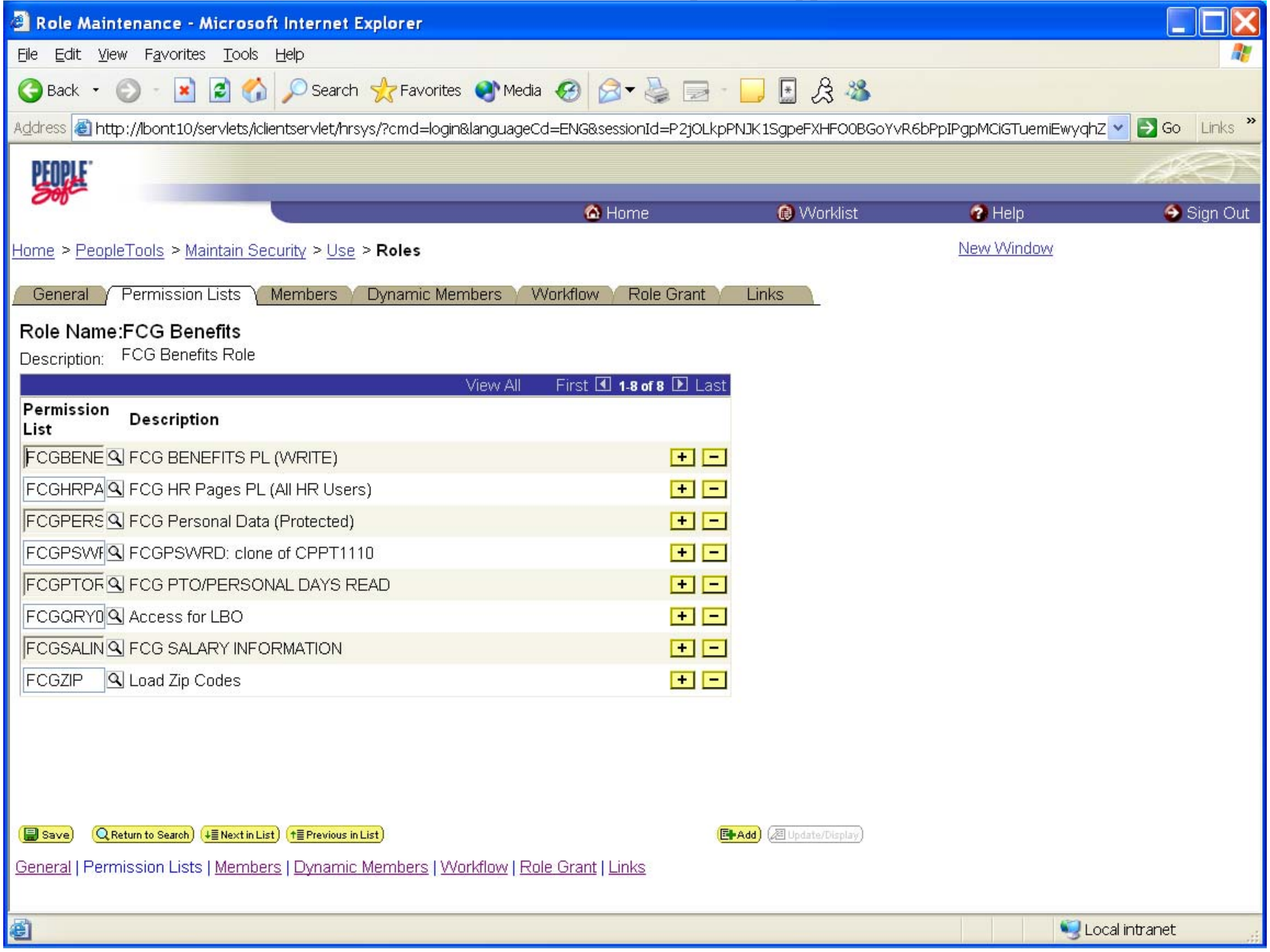
Address http://lbont10/servlets/iclientservlet/hrsys/?cmd=login&languageCd=ENG&sessionId=P2jOLkpPNJK1SgpeFXHFO0BGoYvR6bPpIPgpMCiGTuemiEwyqhZ

Permission List:FCGBENEF

Description: FCG BENEFITS PL (WRITE)

Menu Name	Edit Components		
ADMINISTER_AUTOMATED_BENEFITS	Edit Components	+	−
ADMINISTER_BASE_BENEFITS	Edit Components	+	−
ADMINISTER_BENEFITS_BILLING	Edit Components	+	−
ADMINISTER_COBRA	Edit Components	+	−
ADMINISTER_FMLA	Edit Components	+	−
ADMINISTER_FSA	Edit Components	+	−
DEFINE_AUTOMATED_BENEFITS	Edit Components	+	−
DEFINE_BASE_BENEFITS	Edit Components	+	−
DEFINE_COBRA	Edit Components	+	−

Screen shot of different Roles available within PeopleSoft application

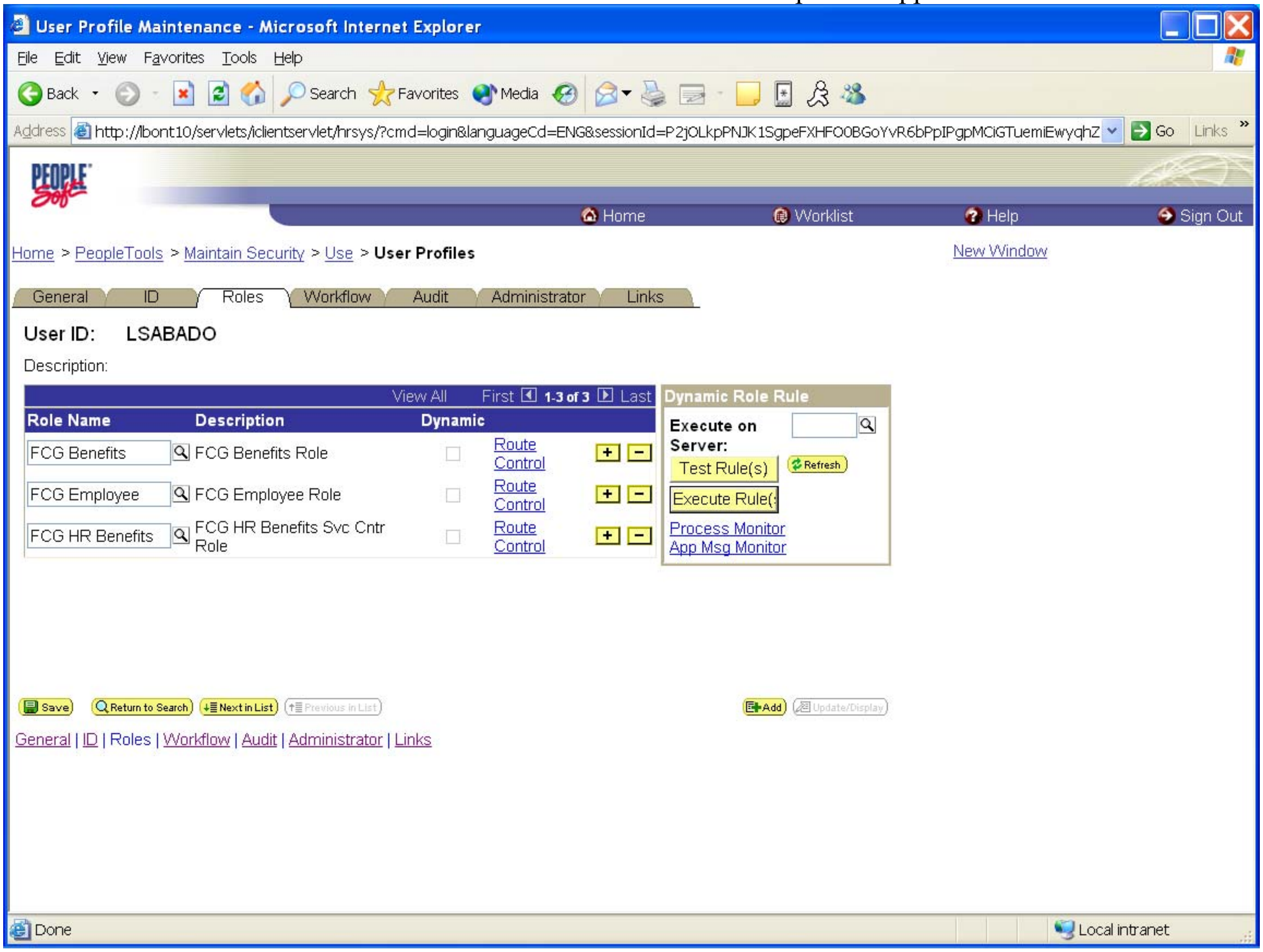

Role Maintenance - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://lbont10/servlets/iclientservlet/hrsys/?cmd=login&languageCd=ENG&sessionId=P2jOLkpPNJK1SgpeFXHFO0BGoYvR6bPpIPgpMCiGTuemiEwyqhZ
Go Links
Home Worklist Help Sign Out
Home > PeopleTools > Maintain Security > Use > Roles
New Window
General Permission Lists Members Dynamic Members Workflow Role Grant Links
View All First 1-8 of 8 Last
Save Return to Search Next in List Previous in List Add Update/Display
General | Permission Lists | Members | Dynamic Members | Workflow | Role Grant | Links
Local intranet

Role Name:FCG Benefits

Description: FCG Benefits Role

Permission List	Description
FCGBENE	FCG BENEFITS PL (WRITE)
FCGHRPA	FCG HR Pages PL (All HR Users)
FCGPERS	FCG Personal Data (Protected)
FCGPSWI	FCGPSWRD: clone of CPPT1110
FCGPTOF	FCG PTO/PERSONAL DAYS READ
FCGQRY0	Access for LBO
FCGSALIN	FCG SALARY INFORMATION
FCGZIP	Load Zip Codes

Screen shot of a User with Roles for that one user within PeopleSoft application



http://lbont10/servlets/iclientservlet/hrsys/?cmd=login&languageCd=ENG&sessionId=P2jOLkpPNJK1SgpeFXHFO0BGoYvR6bPpIPgpMCiGTuemiEwyqhZ

Home > PeopleTools > Maintain Security > Use > **User Profiles**

User ID: LSABADO

Description:

Role Name	Description	Dynamic		
FCG Benefits	FCG Benefits Role	☐	Route Control	+ −
FCG Employee	FCG Employee Role	☐	Route Control	+ −
FCG HR Benefits	FCG HR Benefits Svc Cntr Role	☐	Route Control	+ −

Dynamic Role Rule

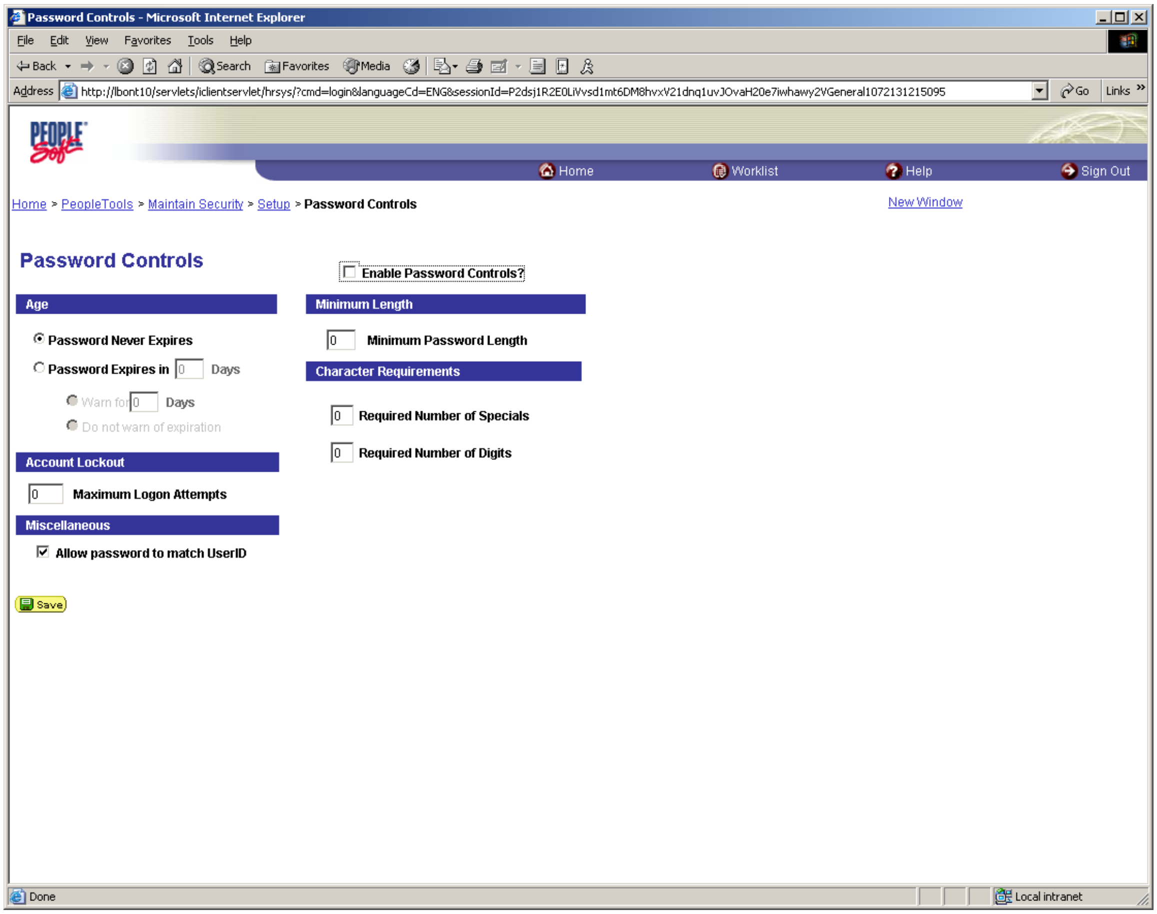
Execute on Server:

General | ID | Roles | Workflow | Audit | Administrator | Links

Question 2 & 3

Screen shot showing the different system options available within the PeopleSoft security. The following items will be implemented late September of 2004 with the roll out of PeopleSoft 8.8;

- Password needs to be changed after 180 days
- Disable account after 5 failed logins
- Password need to be a minimum number of 5 characters long
- Password next to have one digit


Password Controls - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://lbont10/servlets/iclientservlet/hrsys/?cmd=login&languageCd=ENG&sessionId=P2dsj1R2E0LiVvsd1mt6DM8hvxV21dnq1uvJOvaH20e7iwhawy2VGeneral1072131215095
Go Links
Home
Worklist
Help
Sign Out
Home > PeopleTools > Maintain Security > Setup > Password Controls
New Window
Save
Done
Local intranet

Password Controls

☐ Enable Password Controls?

Age

● Password Never Expires

○ Password Expires in 0 Days

○ Warn for 0 Days

○ Do not warn of expiration

Account Lockout

0 Maximum Logon Attempts

Miscellaneous

☑ Allow password to match UserID

Minimum Length

0 Minimum Password Length

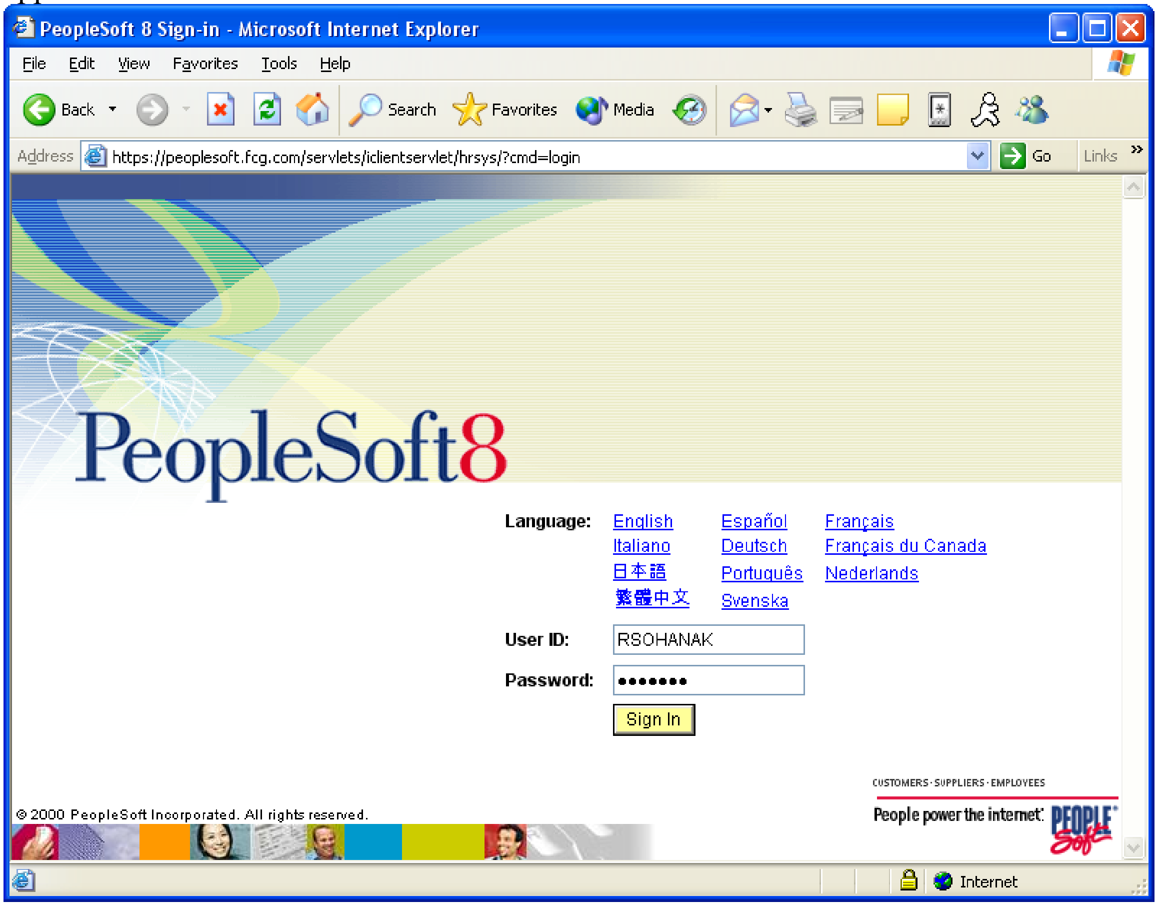
Character Requirements

0 Required Number of Specials

0 Required Number of Digits

Question 4

Screen shot of showing that the password is "*" when entered into the PeopleSoft application.



PeopleSoft 8 Sign-in - Microsoft Internet Explorer
File
Edit
View
Favorites
Tools
Help
Back
Search
Favorites
Media
Go
Links
PeopleSoft8
Sign In
Internet
CUSTOMERS · SUPPLIERS · EMPLOYEES
People power the internet.
PEOPLE Soft

Address: https://peoplesoft.fcg.com/servlets/iclientservlet/hrsys/?cmd=login

Language: English, Italiano, 日本語, 繁體中文, Español, Deutsch, Português, Svenska, Français, Français du Canada, Nederlands

User ID: RSOHANAK

Password: •••••••

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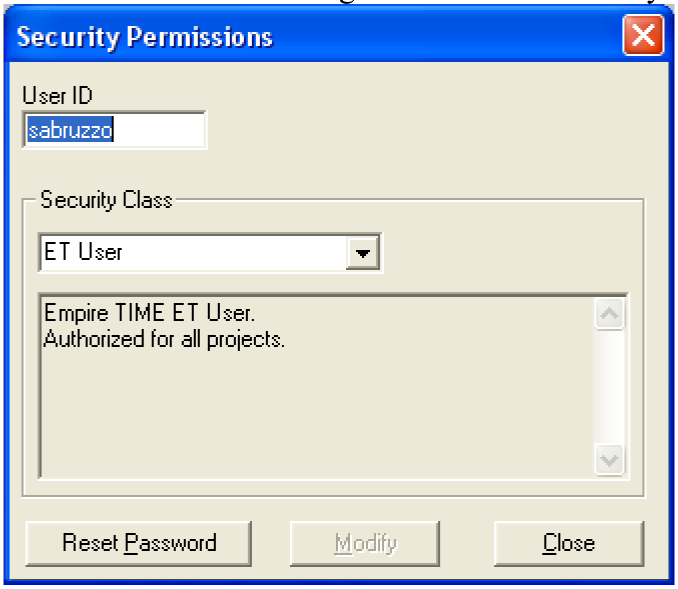
Empire Time

Questions 1

Screen shot of a users assigned to different security classes.

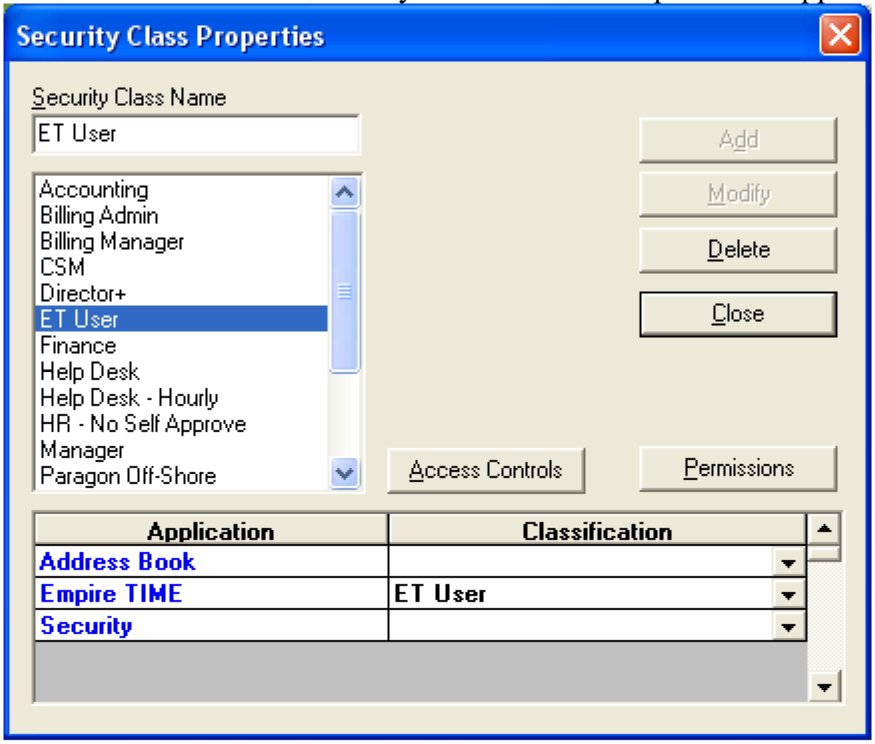


User ID
sabruzzo

Security Class
ET User

Empire TIME ET User.
Authorized for all projects.

Screen shot of different security classes within Empire Time application

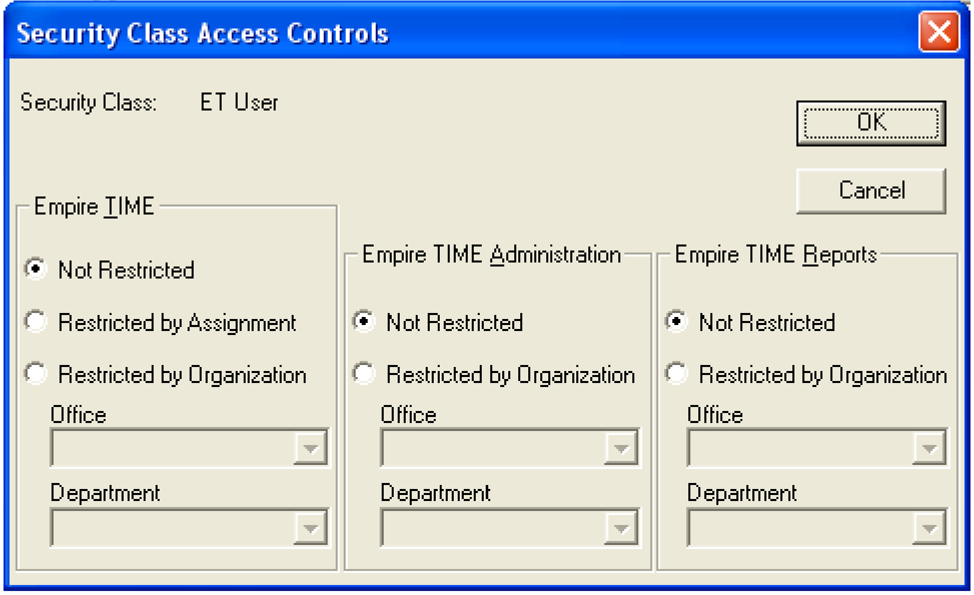


Security Class Name
ET User

- Accounting
- Billing Admin
- Billing Manager
- CSM
- Director+
- ET User
- Finance
- Help Desk
- Help Desk - Hourly
- HR - No Self Approve
- Manager
- Paragon Off-Shore

Application	Classification
Address Book	
Empire TIME	ET User
Security	

Screen shot of the Access Controls for a specific security class (ET User) within Empire Time application



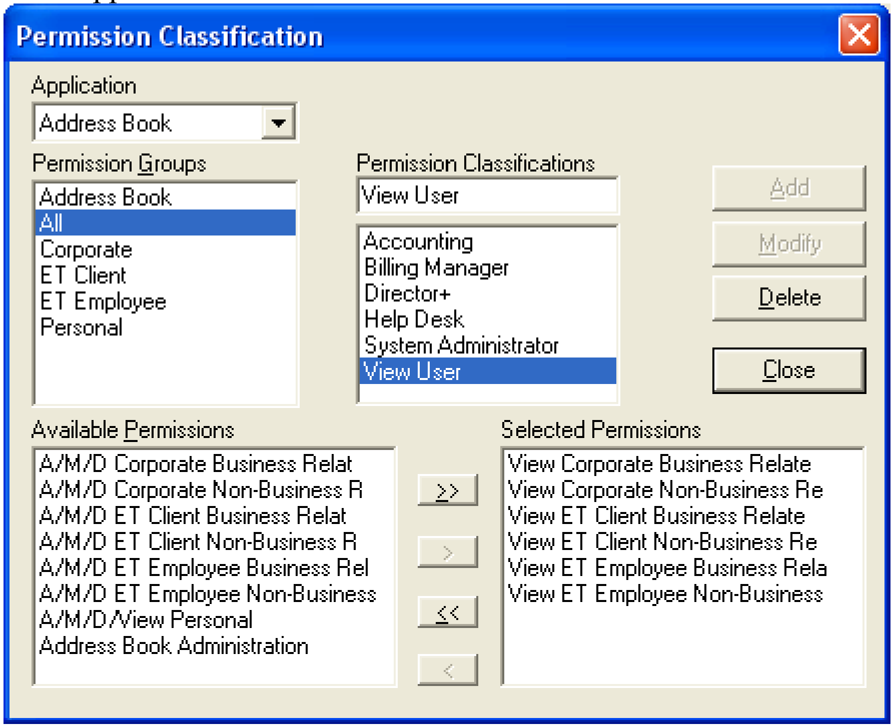
Security Class: ET User

Empire TIME
● Not Restricted
○ Restricted by Assignment
○ Restricted by Organization
Office
Department

Empire TIME Administration
● Not Restricted
○ Restricted by Organization
Office
Department

Empire TIME Reports
● Not Restricted
○ Restricted by Organization
Office
Department

Screen shot of the Permission Classification for a specific security class within Empire Time application.



Application: Address Book

Permission Groups
- Address Book
- All
- Corporate
- ET Client
- ET Employee
- Personal

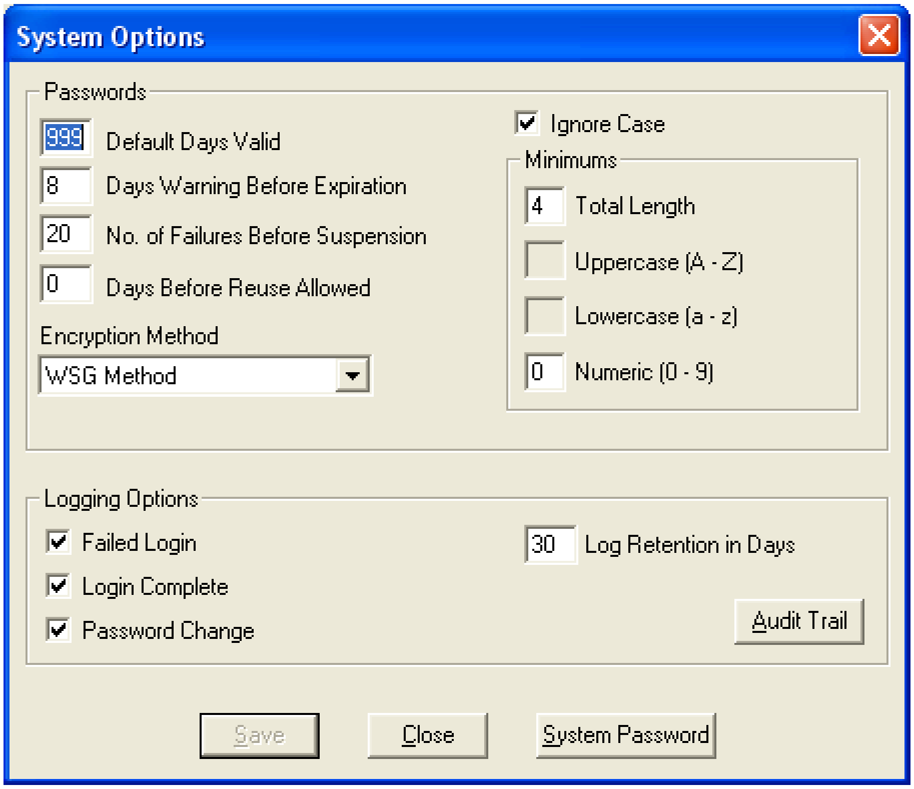
Permission Classifications: View User
- Accounting
- Billing Manager
- Director+
- Help Desk
- System Administrator
- View User

Available Permissions
- A/M/D Corporate Business Relat
- A/M/D Corporate Non-Business R
- A/M/D ET Client Business Relat
- A/M/D ET Client Non-Business R
- A/M/D ET Employee Business Rel
- A/M/D ET Employee Non-Business
- A/M/D/View Personal
- Address Book Administration

Selected Permissions
- View Corporate Business Relate
- View Corporate Non-Business Re
- View ET Client Business Relate
- View ET Client Non-Business Re
- View ET Employee Business Rela
- View ET Employee Non-Business

Question 2 & 3

Screen shot showing the different system options available within the Empire Time security. However as we upgrade Empire Time to verion 6.2 in September of 2004 we will be utilizing the network login feature. By doing so ths screen will no longer be required because the application will use the end users Network (NT Domain) login for authentication.



Passwords

999 Default Days Valid
8 Days Warning Before Expiration
20 No. of Failures Before Suspension
0 Days Before Reuse Allowed

Encryption Method: WSG Method

☑ Ignore Case

Minimums

4 Total Length
☐ Uppercase (A - Z)
☐ Lowercase (a - z)
0 Numeric (0 - 9)

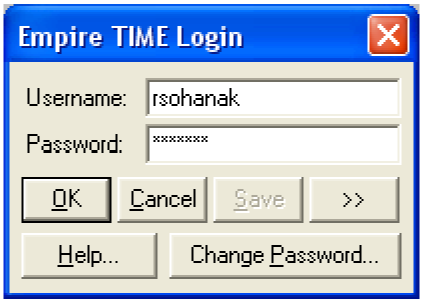
Logging Options

☑ Failed Login
☑ Login Complete
☑ Password Change

30 Log Retention in Days

Question 4

Screen shot of showing that the password is “*” when entered into the Empire Time application.



Username: rsohanak

Password: *******

From: Wheeler, Brad
Sent: Monday, April 19, 2004 11:02 AM
To: Ockelmann, Philip
Cc: Seigafuse, Mike; Sohanaki, Randy; LoFiego, Andrea
Subject: Draft Responses to Internal Control Deficiencies document

I will respond to each recommendation point – not sure if we want to agree/disagree or just post our response:

Network, Applications and Database Security

- User access should be reviewed and documented by management and kept in central repository with IT.

Response:

a) System Administration (DBA, network, OS) level access is reviewed monthly by IT staff to ensure appropriate levels are maintained. A record of this review will be kept/

b) Application Administration level access is the responsibility of the appropriate applications end user groups. Application management periodically reviews their higher level administrative user's access levels.

- Where possible, dictionaries should be used to check passwords against, to ensure that common words are not used.

Response: Agreed - FCG Applications do not currently have a common dictionary to validate against. The Network accounts utilize standard Active Directory which does contain a common dictionary for password validation. FCG will utilize this function for network access. Applications will utilize only complex passwords.

- IT should further develop their password parameters to enforce the use of complex passwords by the system. Systems in which this is not possible should be noted in policies and procedures.

Response: Agreed – key financial systems (PeopleSoft, Flexi, Empire Time) will require a minimum of 6 characters of which 1 must be a numeric (note: Empire Time data entry will utilize Network Authentication)

- All systems should enforce a system lockout function after three invalid login attempts.

Response: Agreed – key financial systems (Peoplesoft, Flexi and Empire Time Admin) will lockout users after 3 failed attempts

- All systems should automatically log users off after 15-30 minutes of inactivity.

Response: FCG understands the need for inactivity lockouts, but due to our start/stop nature of our work, we currently utilize PC Screen Lockout. This invokes a screen lockout by the PC operating system after 30 minutes. This is currently documented in the IT SOPs.. FCG will ensure that all user of key financial systems utilize PC Screen Lockout.

- Consider using hardware devices and digital certificates to enforce user authentication. This is especially important for users with remote access.

Response: Disagree -FCG has already reviewed and disagreed with this approach. This is primarily due to the nature of our work (at client sites, through web, etc.) and due to the cost/complexity. FCG requires both VPN and separate application logins to mitigate this risk.

- Management should document the process and the policies associated with removing a terminated employee's system access.

Response: Disagree - FCG SOP has network account and access termination documented. Individual application groups shall document their local processes for application account termination.

- Management should document in a policy that users are to keep their passwords confidential and that passwords should not be shared with anyone.

Response: Agreed – a FCG HR policy addition shall read as follows:

Passwords

Due to the confidentiality and proprietary nature of FCG's systems, all electronic passwords given to Associates for access to any of FCG's electronic systems must remain confidential at all times. Application passwords are provided to specific Associates and should remain confidential to that associate only and should not be 'lent' or disclosed to anyone.

- Management should research to determine whether the passwords for the applications are encrypted. If the passwords are not encrypted, management should determine if there is a way to encrypt the passwords.

Response: Disagree - All passwords for key financial systems are currently encrypted.

-

IT Strategies and Objectives

Formal, documented IT strategies and objectives should be document and updated on a regular basis. This process should include appropriate approval by an IT steering committee that consists of upper management from both the IT and business side of operations. Additionally, these documents should be kept in a central repository and should be regularly communicated to end users and IT personnel.

Response: Disagree – FCG IT has previously held broad steering committee meetings, but direction/authorization was given to IT and the Practice Support leaders for the direction of IT. Practice Support leaders drive the overall IT direction via functional steering committee meetings held periodically (normally twice per year), with monthly updates. This direction is then frozen in the budgets for the next financial period. Directional changes are then formally discussed with the firm at a high level either with the Executive Committee or with the Leadership Council, which ever is appropriate. Documentation of direction will be held in a central IT repository for review and dissemination.

IT Risk Assessment

IT management should strengthen and document its current informal risk assessment process and then periodically evaluate the effectiveness of its internal risk assessment processes to ensure that risks are being addressed within information technology. This process should be documented. Management should also consider having a qualified specialist periodically review the IT control environment.

Response: Agreed – While FCG IT does manage its infrastructure risk on an ongoing basis, we will develop a formalized risk assessment review process utilizing a qualified specialist for periodic reviews.

IT Job Descriptions

Develop formal IT job descriptions that detail the type of work and the level of expertise required for specific job functions.

Response: Disagreed – FCG maintains two sets of job titles. PCADS maintains job descriptions for core skills. In addition, most positions have a more detailed Functional Job Description that is more focused on specific technical skills and job requirements. Many of the Functional Job Descriptions have been transferred to a specific PCADS position title. For those IT associates where a more specific functional job description does not exist, because it may be too broad, we utilize an existing PCADS title for IT skills.

LOS and Web interface

NovaStar branch

Documentation

Version 1.0
9-Jan-04

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Version 1.0

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Introduction

Gary Neshanian is a Computer and Web Consultant, who has been working in the computer industry, since before graduating from the California State University at Long Beach, in 1985. He has done his independent work through his Nish Consulting.

Purpose

This is the delivery of the third party vendor supplied documentation for the LendingTree interface and Calyx Point LOS software that was installed and configured for the NovaStar branch.

Scope

This documentation is only a delivery of documentation from the third party vendors, and is not a warranty of the software's reliability or functionality, and is not a guarantee of any kind from the installer and contractor delivering integration services. Their appropriate vendors assume all issues of warranty and reliability for their software.

Conventions

Used in this document: [Fill-in] values are used to prompt you for information that will be linked to other places in the document. **Bold** to highlight a particular word or statement. *Italic* to highlight a particular phrase. *Gray* words have been used for linked values that you shouldn't have to modify.

Sections

Introduction	purpose, scope and conventions of this document
Table of Contents	listed by section and page
Table of Diagrams	listed by page
1 System	specifications and contact information
2 Software	including operating systems and configurations
3 Network	diagram and file listings
4 Services	application services and systems
Appendix A –	*Statement Of Work*
Appendix B –	*Project Plan*
Appendix C –	*Service Level Agreement*
Appendix D –	*LendingTree*
Index/Glossary	*Terms* sorted alphabetically
Notes	

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1 System

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Branch WinXP server

1.2 Installation

Date: January, 9 2004

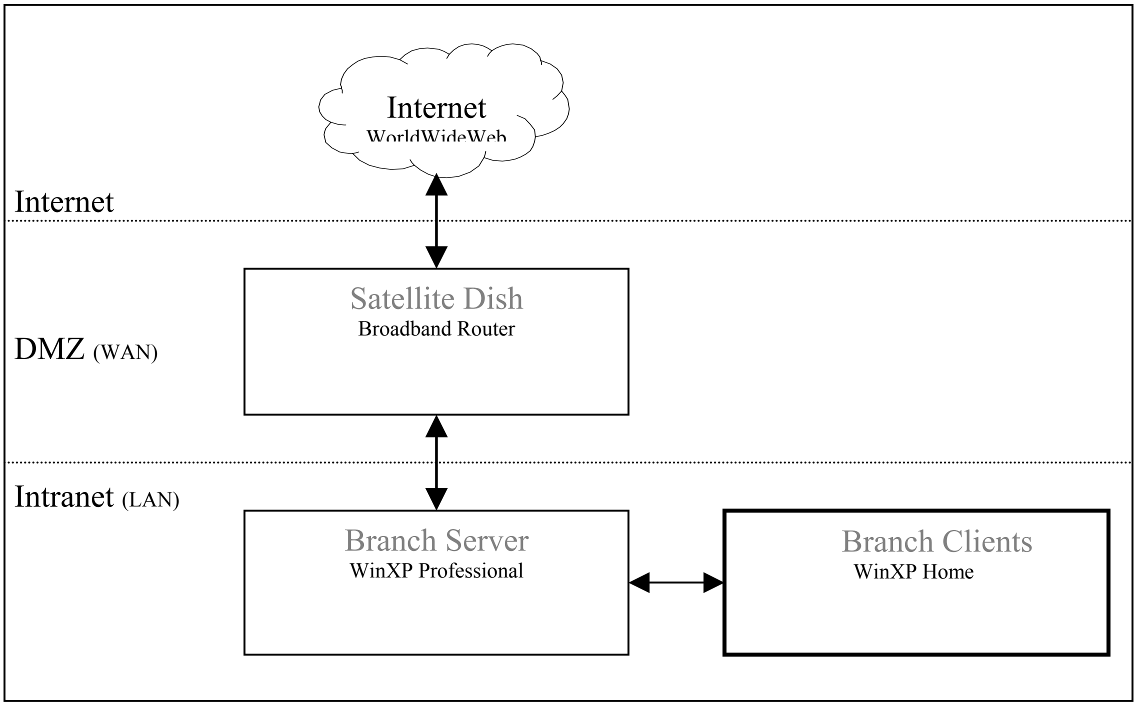
Technician: Gary Neshanian

2 Software

2.1 Operating System (OS)

Factory installed WinXP on Compaq Client/Servers
Third party software, documented in Appendices, warranted by vendors

3 Network



Network Diagram

4 Services

4.1 Application

4.1.1 LendingTree website

XML data transfer and importation into LOS system

See vendor supplied documentation for functionality and operation in Appendix D

4.1.2 Calyx Point LOS

Mortgage pre-qualification, origination, processing, underwriting and management

See vendor supplied documentation for functionality and operation in Appendix E

4.2 Network

4.2.1 Microsoft Small Business file sharing

Appendix A – Statement Of Work

1 N/A

Appendix B – Project Plan

1 N/A

Appendix C – Service Level Agreement

1 N/A

Appendix D – LendingTree

LendingTree®

Implementation - Frequently Asked Questions

1) Does the response URL require a file extension (ex: .htm or .asp)?
A file extension is not needed.

2) What are the firewall/port configuration requirements for Lenders?
Posting XML/CGI to LendingTree will require transmission through port 443.
LendingTree posting XML to Lender will require transmission through port 8022.

4) What would happen if a Lender response post were sent to LendingTree that was for a QF that already had a decision?
QF already with a decision would return “err_status=0”.

5) What would happen if a duplicate packet were sent one after another by mistake? Would LendingTree ignore the second packet?
Yes, A QF that has already has a decision will return “err_status=0<BR>err_description=request already in queue”

6) What would happen if a response were sent for a QF that was already withdrawn by the applicant?
Applicant cannot “withdraw” or “decline” a referral without an approval and the decision would be allowed.

7) What type of error response would be received if the QF was withdrawn by the applicant?
A) If the applicant has not viewed the offer. Then the incoming offer will overwite the existing offer.
B) If the applicant has viewed the offer. The result will be “err_status=0<B>err_description=QF already decisioned and has been viewed by the borrower.

8) What type of error response would be received if the QF were currently being processed?
“err_status=0<B>err_discription=Request already in queue”.

9) What are the possible server IP addresses that could be used by LendingTree to process inbound XML transmissions through the dynamic URL?
12.152.18.209, 12.152.18.210, 12.152.18.219,12.152.18.220. But these addresses should only be used to configure firewall settings.

10) Is it possible to transmit posts to LendingTree without utilizing port 443 (HTTPS)?
It is not recommended, however possible only through the testing phase. Once in production post transmissions will require utilization of port 443 HTTPS.

11) What are some of the common error response messages?

err_status=0	err_description=Request Already In Queue
err_status=0	err_description=QF Already Decisioned and has been viewed by borrower. Cannot Re-decision
err_status=0	err_description=OK
err_status=1	err_description=Invalid Login
err_status=3	err_description=Invalid QF
err_status=4	err_description=Invalid Fee X - Numeric, no decimals or commas
err_status=5	err_description=No Description To Match Fee X
err_status=6	err_description=Invalid Contact Phone Format
err_status=9	err_description=No Referral Record Exists
err_status=11	err_description=Invalid lr_c
err_status=12	err_description=No Loan Amount Specified for Offer X
err_status=13	err_description=No Interest Rate Specified for Offer X
err_status=13	err_description=Invalid APR... APR
err_status=14	err_description=No Term Specified for Offer: X
err_status=14	err_description=No Payments Specified for Offer X
err_status=14	err_description=No Offer Type Specified for Offer X
err_status=15	err_description=No Term Unit Specified for Offer X
err_status=16	err_description=Requested Multi Offers but No OfferID exists for Offer number X
err_status=17	err_description=Required Down payment Const Must Be Numeric for Offer X
err_status=18	err_description=Lock Term Const must be numeric
err_status=19	err_description=Payment Amount Cannot Contain Commas in Offer X
err_status=19	err_description=Invalid Default Phone Number Format.
err_status=20	err_description=Annual Fee Requested but no Fee Unit Constant sent
err_status=21	err_description=Origination Fee Requested but no Fee Unit Constant sent
err_status=88	err_description=Loan Amount Cannot Contain Commas
err_status=89	err_description=Invalid Expiration Date
err_status=89	err_description=Error Assigning Loan Officer
err_status=97	err_description=Database Connection Error
err_status=97	err_description=Login SQL Failed
err_status=98	err_description=Database Error
err_status=99	err_description=Database Error
err_status=99	err_description=Transaction Failed

12) Who should I contact about error response messages?
During the initial testing phase please contact your implementations manager. Once the automation project is processing in production please contact Lender Technical Services.

LendingTree CGI/XML Interface

Home Equity

Updated
11/5/2002

For more information please contact LendingTree, Inc.

Revision History

Date	Author	Revision
1/21/2002	Ben Wells	Added Document Revision History
1/28/2002	Erin Dailey	**The following Home Equity elements have been updated for AXX:** HomeEquityLoanPurpose - UI/XML VALUES1=Debt Consolidation, 3=Home Improvement, 4=Purchase an auto, 20=Payoff Home Equity Loan, 21= Payoff Home Equity Line of Credit, 22=Purchase a boat, 23=Purchase a RV, 24=Purchase a Motorcycle, 9=Other
1/30/2002	Ben Wells	Removed erroneous revision notes from 1/21/2002.
2/4/2002	Ben Wells	Added color coding to Appendix A Green New Yellow Changed Red No longer supported
3/8/2002	Ben Wells	Added EChannelUID, PropertyPurchaseYear & BorrowerComments to Home Equity Qualification Form section of Appendix A
6/10/2002	Ben wells	Added XML tags for Multiple Lender Response

The CGI/XML Interface

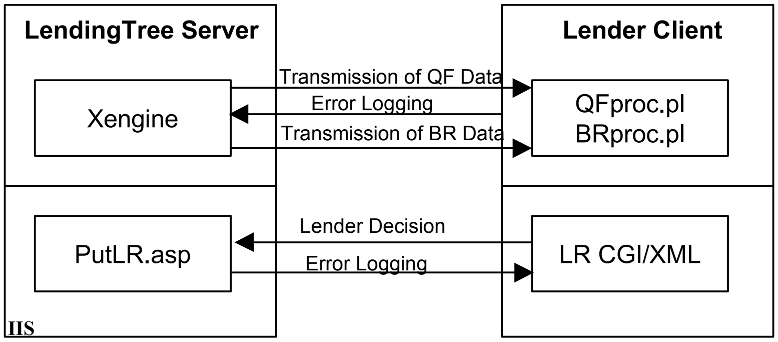
The CGI/XML Interface is a method of transferring borrower and lender data via the internet using Secured Socket Layer (SSL) technology. The LendingTree CGI/XML Post Interface has three distinct parts:

- Qualification Form (QF) Transmission to Lender
- Retrieval of Lender Response (LR) Data from Lender
- Borrower Response (BR) Transmission to Lender

The QF and Borrower Response information is transmitted in its entirety to scripts that the Lender provides. These may be implemented using any technology that supports CGI/XML (i.e. Perl, ColdFusion, ASP), which parse the received information and insert it in the Lenders Loan Processing System (LPS).

The Lender Response must also be compiled and transmitted to LendingTree as XML or as CGI strings composed of name-value pairs. LendingTree's active server page, PutLR.asp, inserts the Lender Response information into the LendingTree database.

The diagram below shows how the LendingTree server and the Lender Client interact in each of the three CGI interface transmissions, as well as, the logging transaction.



QF/BR CGI/XML processed by Lender scripts.

Lender generates Response CGI/XML which is processed by LendingTree.

Notes:

- All transmissions between LendingTree and lenders must be secure. Lenders must have a valid certificate from a valid authority and all testing and production transmissions will be https.

- At this time, LendingTree does not support synchronous transmissions. Because of the high volume through our site and the number of lenders using CGI/XML, we cannot wait indefinitely for decisions to come back from the lender in the same connection.

- Further, lenders should quickly accept our post (in less than 5 seconds) and not do any downstream processing before returning an error message to us.

- LendingTree periodically adds fields to the CGI. Your code should be written so that you ignore all fields that you don't need or expect. We will inform you about new fields and they can be added to your application at your convenience.

- The LendingTree Qualification Form stores zeros for fields that are drop-down lists but not required. Your application should be written to ignore these zeros.

DEVELOPMENT & TESTING ON THE LENDER SIDE

Step 1: Qualification Form Transmission to Lender

To initiate the CGI/XML Post process, LendingTree transmits a Qualification Form (QF) to the Lender. The Transmission Engine sends the QF information as a CGI/XML string to a lender-side script. The lender receives the CGI/XML script, interprets it in a method of their choice, and imports the information into a system of their choice.

Script to Receive Qualification Form (QF) CGI/XML

A Lender must have a web page that can receive a CGI/XML POST over a secure channel (SSL). The following is a sample of the LendingTree QF CGI/XML string:

http://www.test.com/default.asp?qfn=4483761&wsrc=888&bc_c=1&lid=3779789&lam=50010&cbr_c=1&cmpdt=1%2F10%2F2002&dl_c=2&ow_c=2&ptcode=3779789&abl=9505&hoa_c=2&bln=15050&co_amt=50010&cnt=CAMPBELL&val=75250&fhme_c=2&hp_c=3&he_c=2&he_bal=0&hl_c=1&hl_bal=9505&hl12_c=1&hllnme=PROVIDENT+BANK&hl_lmt=10000&hl_pmt=175&hlp_c=2&hm_c=1&lnme=HUNTINGTON&mft_c=4&ccltv=0.326&cltv=0.2&pr_c=1&pcltv=0.991&pltv=0.2&ppr=35980&pu_c=9&pmt=295&mrt_c=3&prst_c=18&un_c=1&ypa=1990&yrb=1900&przip=41071&ssn=600-25-3652&lnm=MOUSE&fnm=MICKEY&mit=M&hph=859-581-1766&wph=859-581-1700&ad_stno=859&ad_stnme=PARK&ad_sttype=AV&ad1=859+PARK+AVENUE&cty=NEWPORT&st_c=18&zip=41071&sf_c=0&et_c=7&gd_c=1&rs_c=1&eml=EASBURY%40MSN.COM&ms_c=1&rln=2&wpx=356&dob=10%2F14%2F1965&rln_c=2&bk_c=3&mmn=CURIOUS&ndp=2&pfr_c=2&v2bk_c=9&occ_c=1&usc_c=1&fc_c=9&amt=8501&epl=1&emn=KMART&jbt=DISTRICT+MANAGER&pbo=0&sfx_c=2&se_c=2&epl_c=2&v2em_c=1&pamt=6005&pepl=5&pemn=WAL+MART&pjbt=AREA+MANAGER&psfx_c=2&pepl_c=2&oam=0&oam_c=2&oic=Total+Other&v2oamc=2&v2oic=6&xssn=600-30-8898&xlnm=MOUSE&xfnm=MINNEY&xmit=M&xhph=859-581-1766&xwph=859-581-1766&xad_stno=859&xad_stnme=PARK&xad_sttype=AV&xad1=859+PARK+AVENUE&xcty=NEWPORT&xst_c=18&xzip=41071&xsf_c=0&xet_c=1&xgd_c=2&xrs_c=1&xms_c=1&xrln=2&xdob=11%2F14%2F1968&xrln_c=2&xbk_c=3&xpfr_c=2&xv2bk_c=9&xocc_c=1&xusc_c=1&xfc_c=9&xamt=3500&xepl=1&xemn=MARY+KAY&xjbt=SALES&xpbo=0&xsfx_c=2&xse_c=2&xepl_c=2&xv2em_c=1&xpamt=3001&xpepl=9&xpemn=AVON&xpjbt=SALES&xpsfx_c=2&xpepl_c=2&xoam=0&xoam_c=2&xoic=Total+Other&xv2oamc=2&xv2oic=6&hamt=295&hamt_c=1&acsh=10001&xhamt=0&1dcb=0&1dba=0&1db_c=7&1dnm=Total&1dpy=2501&1v2db_c=30&ndo=1&1ho34=3&xndo=0&chksum=555

It is suggested that the Lender use the above CGI/XML Post script as a template for testing. It is recommended that your script be configured to support GET as well as POST directives, so that it can be tested simply by using a browser like MS Internet Explorer or Netscape to post the information to yourself.

By convention, LendingTree expects the following text to be returned by your code on successful completion:

err_status=0
err_description=OK

When your script is complete and ready to handle information passed in this way, you must contact your LendingTree technical contact to give them the URL of your page. The URL is entered into the LendingTree system to enable LendingTree to CGI/XML Post QF information to that URL.

Testing with a QF Entered on the LendingTree Test Site

When you are ready to begin testing, you can enter information for a full test QF on the LendingTree test site. This will be provided by LendingTree when testing begins.

Enter a QF exactly the same way a Borrower would on the live site. When you have entered your test QF, be sure to note the password that you are offered and the SSN of the test borrower you entered. You need these to check the test offer you make in the next stage.

Once you have entered the QF, you need to contact your LendingTree technical contact to activate the filter and posting applications.

Step 2: Retrieval of Lender Response from Lender[1]

The lender system generates a Lender Response CGI/XML string and transmits it to PutLR.asp in the LendingTree system. The information is inserted into the LendingTree database and logging information is returned to the Lender as HTML.

The Lender is responsible for translating the CGI/XML Post to the appropriate file format in order to automate the back-end system processing and decisioning.

Script to Send Lender Response CGI/XML

Next, you need to provide LendingTree with a CGI/XML string composing all the information required for the Lender Response. All communication with our site is further secured by a user name and password that will identify you as a lender. Contact your LendingTree technical contact to obtain this information.

---

[1] Please note that the LendingTree CGI Interface does not support the automated transmission of Priceline decisions at this time. We are currently in the process of adding this functionality to our interface.

Below is an example of a typical Lender Response CGI. *(Refer to Appendix B for explanation of CGI/XML name value pairs.)*

https://207.87.31.76//lender/putlr.asp?username=test7&password=test7&lid=503268&qfn=154148&dl_c=1&lr_c=1&lnme=Test+Program+Name&lamt=5000&lapr=12.5&lpmts=2&mpd_c=1&ofd=Offer+Text&acd=Acceptance+Text&ctd=Canned+Text&1ac_c=1&2ac_c=1

The Lender Response should be sent over a secure channel. Your operation will receive a response indicating the result of the operation. If the operation was a success, you will receive the following response:

err_status=0
err_description=OK

If there is an error, you will receive another message in a similar format. Your code should check for ‘err_status=0’ as the defining response for a successful LR transmission.

Checking your test offer as a 'Borrower' on our site

When your Lender Response transmission has been successfully sent, you will need to log on to the test site as a borrower to check your offer.

Enter your password (qfn) and the test SSN you entered in your test QF. You will be given the details of your test offer. Hit either the Accept or Reject button to send a response back to your system.

Step 3: Borrower Response Transmission to Lender

The Transmission Engine sends the Borrower Response information as a CGI/XML string to a lender-side script. The script extracts the information and enters it into Lender system.

The Lender is responsible for translating the CGI/XML Post to the appropriate file format in order to automate the back end system processing and decisioning.

Script to Receive Borrower Response CGI/XML

This stage is very much like that of receiving a Qualification Form, only much simpler. You need a similar script that registers the acceptance or rejection by the borrower of a Qualification Form. To test, go to the LendingTree system as a borrower and respond to the Qualification Form you entered in Step 1. As before, you most notify your LendingTree technical contact of the URL you are using, so that the URL can be entered into the LendingTree system.

Below is a sample CGI/XML Post the LendingTree system will send you for a Borrower Response:

https://www.yoursite.com/yourscript?qfn=154149&brs_c=1

LendingTree expects the following text to be returned by your code on successful completion:

```
err_status=0
err_description=OK
```

Error Status Notification: CGI

In all CGI/XML notifications the LendingTree System requires feedback in the form of two notifiers:

For successful processing, the script must return:

err_status = 0
err_descriptor = “OK”

In the case of an error, the script must return:

err_status = {Your Error Number}
err_descriptor = “{Your Error Message}”

Error Status Notification: XML

In all notifications the LendingTree System require status feedback <ERRSTATUS> in the form of two notifiers:

To indicate that the XML document has been successfully received:

ERRORNUM = 0
ERRORDESCRIPTION = Success

In the case of an error, the lender must return any non-zero positive number and a description of the error. If there are multiple errors, you may return multiple ERRSTATUS tags.

ERRORNUM <> 0
ERRORDESCRIPTION = Name of the XML tag that contains missing or incorrect information.

DTD

```
<?xml version="1.0" encoding="UTF-8"?>

<!ELEMENT LTACK (ERRSTATUS)+>

<!ELEMENT ERRSTATUS (QFNAME,ERRORNUM,ERRORDESCRIPTION)>
<!ELEMENT QFNAME        (#PCDATA)>
<!ELEMENT ERRORNUM            (#PCDATA)>
<!ELEMENT ERRORDESCRIPTION    (#PCDATA)>
```

Successful XML Transmission Sample

```
<?xml version="1.0"?>
<LTACK>
   <ERRSTATUS>
      <QFNAME>123456</QFNAME>
      <ERRORNUM>0</ERRORNUM>
      <ERRORDESCRIPTION>Success</ERRORDESCRIPTION>
   </ERRSTATUS>
</LTACK>
```

Unsuccessful XML Transmission Sample

```
<?xml version="1.0"?>
<LTACK>

   <ERRSTATUS>
      <QFNAME>123456</QFNAME>
      <ERRORNUM>1</ERRORNUM>
      <ERRORDESCRIPTION>Invalid Deal Type</ERRORDESCRIPTION>
   </ERRSTATUS>

   <ERRSTATUS>
         <QFNAME>123456</QFNAME>
         <ERRORNUM>2</ERRORNUM>
         <ERRORDESCRIPTION>Invalid Income</ERRORDESCRIPTION>
   </ERRSTATUS>

   <ERRSTATUS>
      <QFNAME>123456</QFNAME>
      <ERRORNUM>5</ERRORNUM>
      <ERRORDESCRIPTION>Invalid Purpose</ERRORDESCRIPTION>
   </ERRSTATUS>
</LTACK>
```

Certificate and Browser Issues

Certificate issues may cause problems in testing with browsers and the transfer control in the LendingTree test system.

LendingTree Internet Transfer Control – LTITC

The LendingTree Internet Transfer Control (LTITC) will ignore the following certificate errors:

12038 INVALID COMMON NAME
12037 EXPIRED CERTIFICATE

LTITC will not ignore the following:

12045 INVALID CERTIFICATE AUTHORITY

Browsers

MS Internet Explorer 3 will not allow Posts for certain types of certificate errors. If you have problems with this, try Microsoft Internet Explorer 4 or Netscape.

Appendix A

Home Equity Qualification Form CGI/XML

Color	Meaning
🟩	New
🟨	Updated
🟥	Being Retired

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
Being Retired						
Are you or your spouse on active duty or a veteran of the U.S. Military?	int	1	No	IsMilitary	vt_c	1=Yes, 2=No
Original Lender City	varchar	64	No	City	lcty	
Original Lender State	int	2	No	State	lst_c	1=AK, 2=AL, 3=AR, 4=AZ, 5=CA, 6=CO, 7=CT, 8=DC, 9=DE, 10=FL, 11=GA, 12=HI, 13=IA, 14=ID, 15=IL, 16=IN, 17=KS, 18=KY, 19=LA, 20=MA, 21=MD, 22=ME, 23=MI, 24=MN, 25=MO, 26=MS, 27=MT, 28=NC, 29=ND, 30=NE, 31=NH, 32=NJ, 33=NM, 34=NV, 35=NY, 36=OH, 37=OK, 38=OR, 39=PA, 40=RI, 41=SC, 42=SD, 43=TN, 44=TX, 45=UT, 46=VA, 47=VT, 48=WA, 49=WI, 50=WV, 51=WY
Original Lender Zip	varchar	10	No	Zip	lzip	
Do you plan to payoff a 2nd/3rd mortgage with the proceeds of this loan?	int	2	No	SecondOrThirdMortgagePayoff	pu_c	9=Other, 10=Refinance 2nd/3rd
What is your relationship to the co-borrower?	int	2	No	Relationship	cbr_c	Spouse or Other
If “Other”, please enter relationship?	varchar	64	No	RelationshipDescription	cbo	Always Other

---

[2] Valid Values for CGI will be sent as the value that represents a particular option and for XML the actual option will be sent for the QF transmission only. For example, if a borrower selects “Ohio” as their residence state we will send “36” in the CGI and “OH” in the XML. For the Lender Decision Response, we require the numeric value to be returned in the XML.

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
If you have ever declared bankruptcy, when was it discharged?	int	2	No	DeclaredBankruptcy	bk_c	1=Bankruptcy not discharged at least four years, 2=Bankruptcy discharged at least four years, 3=Never declared bankruptcy
If you have ever declared bankruptcy, when was it discharged? (Co-Borrower)	int	2	No	DeclaredBankruptcy	xbk_c	1=Bankruptcy not discharged at least four years, 2=Bankruptcy discharged at least four years, 3=Never declared bankruptcy
QF display name	varchar	64	Yes	LoanApplicationID	qfn	
Type of Credit Requested	int	2	Yes	TransactionType	dl_c	1=Mortgage, 2=Home Equity, 3=Personal, 4=Auto, 5=Credit Card, 6=Student Loan
LendingTree/Priceline	int	1	Yes	InitiatedBy	bc_c	1=LendingTree, 2=Priceline
Filter ID	varchar	7	Yes	FilterID	flt	
Lender's Party ID	varchar	20	Yes	ReferenceSource	lid	Differs from test to production.
Lead Source	varchar	20	No	EChannelUID	euid	6000 for LendingTree, 4050 for Costco
Present LTV	numeric	5	Yes	PresentLTV	cltv	
Present CLTV	numeric	5	Yes	PresentCLTV	ccltv	
Proposed LTV	numeric	5	Yes	ProposedLTV	pltv	
Proposed CLTV	numeric	5	Yes	ProposedCLTV	pcltv	
Step 1: Customize Your Loan						
Are you submitting individually or jointly	int	1	Yes	IsPrimaryBorrower	ow_c	1=Individual, 2=Joint
Purpose of the loan? (Multiples values may be passed in this field. Therfore, we number each request variable for each option selected. See this field in the sample above.)	int	2	Yes	HomeEquityLoanPurpose	'x'ho34	1=Debt Consolidation, 3=Home Improvement, 4=Purchase an auto, 20=Payoff Home Equity Loan, 21= Payoff Home Equity Line of Credit, 22=Purchase a boat, 23=Purchase a RV, 24=Purchase a Motorcycle, 9=Other
Do you have a Home Equity Loan on this Home?	int	1	Yes	HomeEquityLoan	he_c	1=Yes, 2=No
Do you have a Home Equity Line of Credit on this Home?	int	1	Yes	HomeEquityLineOfCredit	hl_c	1=Yes, 2=No
Would you prefer a loan or line of credit?	int	1	Yes	Preference	hp_c	1=No Preference, 2=Home Equity Loan, 3=Home Equity Line of Credit
Interest Rate	int	1	Yes	RatePreference	mrt_c	1=No Preference, 2=Fixed, 3=Adjustable
Loan Amount			Yes	LoanAmount	lam	This is now a calculated field.
Desired Term	int	2	Yes	Term	mft_c	1=5 years, 2=7 Years, 3=10 years, 4=15 years, 5=20 years, 6=30 years, 10=25 years. If "No Preference" is selected in the UI, Term and mft_c are not sent
Step 2: Tell Us About Yourself						
First Name	varchar	64	Yes	FirstName	fnm	
Middle Name	varchar	64	No	MiddleName	mit	
Last Name	varchar	64	Yes	LastName	lnm	

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
Suffix	int	1	No	NameSuffix	sf_c	1=Sr, 2=Jr, 3=I, 4=II, 5=III
First Name (Co-Borrower)	varchar	64	Yes if there is co-borrower	FirstName	xfnm	
Middle Name (Co-Borrower)	varchar	64	No	MiddleName	xmit	
Last Name (Co-Borrower)	varchar	64	Yes if there is co-borrower	LastName	xlnm	
Suffix (Co-Borrower)	int	1	No	NameSuffix	xsf_c	1=Sr, 2=Jr, 3=I, 4=II, 5=III
Social Security Number	char	11	Yes	SSN	ssn	
Social Security Number (Co-Borrower)	char	11	Yes if there is co-borrower	SSN	xssn	
Does the borrower live in this house?	int	1	Yes	IsBorrowerLivingAtThisHome	occ_c	1=Yes, 2=No
Does the co-borrower live in this house?	int	1	Yes if there is a co-borrower	IsBorrowerLivingAtThisHome	xocc_c	1=Yes, 2=No
Date of Birth	smalldatetime	10	Yes	DateOfBirth	dob	
Date of Birth (Co-Borrower)	smalldatetime	10	Yes if there is co-borrower	DateOfBirth	xdob	
What is your citizenship status?	int	1	Yes	CitizenshipStatus	usc_c	1=US Citizen 2= Permanent Resident Alien 3=Non-Permanent Resident Alien 4=Non-Resident Alien
What is your citizenship status?	int	1	Yes if there is co-borrower	CitizenshipStatus	xusc_c	1=US Citizen 2= Permanent Resident Alien 3=Non-Permanent Resident Alien 4=Non-Resident Alien
What is you marital status?	int	1	Yes	MaritalStatus	ms_c	1=Married, 2=Not Married, 3=Separated
What is you marital status? (Co-Borrower)	int	1	Yes if there is co-borrower	MaritalStatus	xms_c	1=Married, 2=Not Married, 3=Separated
Number of dependants	int	2	Yes	DependentCount	ndp	
Mother's Maiden Name?	varchar	64	Yes	MothersMaidenName	mmn	
Mailing Address Street	varchar	64	Yes	Street	ad1	
Parsed Address: Street Number	varchar	64	No	StreetNumber	ad_stno	
Parsed Address: Street Name	varchar	64	No	StreetName	ad_stnme	
Parsed Address: Street Type	varchar	64	No	StreetType	ad_sttype	
Parsed Address: Apartment	varchar	64	No	StreetOther	ad_apt	
Mailing Address City	varchar	64	Yes	City	cty	
Mailing Address State	int	2	Yes	State	st_c	1=AK, 2=AL, 3=AR, 4=AZ, 5=CA, 6=CO, 7=CT, 8=DC, 9=DE, 10=FL, 11=GA, 12=HI, 13=IA, 14=ID, 15=IL, 16=IN, 17=KS, 18=KY, 19=LA, 20=MA, 21=MD, 22=ME, 23=MI, 24=MN, 25=MO, 26=MS, 27=MT, 28=NC, 29=ND, 30=NE, 31=NH, 32=NJ, 33=NM, 34=NV, 35=NY, 36=OH, 37=OK, 38=OR, 39=PA, 40=RI, 41=SC, 42=SD, 43=TN, 44=TX, 45=UT, 46=VA, 47=VT, 48=WA, 49=WI, 50=WV,

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
						51=WY
Mailing Zip	varchar	10	Yes	PostalCode	zip	
Mailing Address Street (Co-Borrower)	varchar	64	Yes if there is co-borrower	Street	xad1	
Parsed Address: Street Number (Co-Borrower)	varchar	64	No	StreetNumber	xad_stno	
Parsed Address: Street Name (Co-Borrower)	varchar	64	No	StreetName	xad_stnme	
Parsed Address: Street Type (Co-Borrower)	varchar	64	No	StreetType	xad_sttype	
Parsed Address: Apartment (Co-Borrower)	varchar	64	No	StreetOther	xad_apt	
Mailing Address City (Co-Borrower)	varchar	64	Yes	City	xcty	
Mailing Address State (Co-Borrower)	int	2	Yes	State	xst_c	1=AK, 2=AL, 3=AR, 4=AZ, 5=CA, 6=CO, 7=CT, 8=DC, 9=DE, 10=FL, 11=GA, 12=HI, 13=IA, 14=ID, 15=IL, 16=IN, 17=KS, 18=KY, 19=LA, 20=MA, 21=MD, 22=ME, 23=MI, 24=MN, 25=MO, 26=MS, 27=MT, 28=NC, 29=ND, 30=NE, 31=NH, 32=NJ, 33=NM, 34=NV, 35=NY, 36=OH, 37=OK, 38=OR, 39=PA, 40=RI, 41=SC, 42=SD, 43=TN, 44=TX, 45=UT, 46=VA, 47=VT, 48=WA, 49=WI, 50=WV, 51=WY
Mailing Zip (Co-Borrower)	varchar	10	Yes	PostalCode	xzip	
Mailing Address Country (Co-Borrower)	varchar	64	Yes	Country	xctr	
Time at Residence	int	2	Yes	BorrowerTimeAtResidence	rln	
Units of Time at Residence	int	1	Yes	UnitTimeAtResidence	rln_c	1=Months, 2=Years
Time at Residence (Co-Borrower)	int	2	Yes if there is co-borrower	BorrowerTimeAtResidence	xrln	
Units of Time at Residence (Co-Borrower)	int	1	Yes if there is co-borrower	UnitTimeAtResidence	xrln_c	1=Months, 2=Years
Do you rent or own your residence?	int	1	Yes	ResidenceType	rs_c	1=Own, 2=Rent, 3=Other, 0=Not Provided
Do you rent or own your residence (Co-Borrower)?	int	1	Yes	ResidenceType	xrs_c	1=Own, 2=Rent, 3=Other, 0=Not Provided
Home Phone Number	varchar	20	Yes	HomePhone	hph	
Home Phone Number (Co-Borrower)	varchar	20	Yes if there is co-borrower	HomePhone	xhph	
What is your email address	varchar	64	Yes	Email	eml	
Monthly Rent/Mortgage	int	7	Yes	HouseRent	hamt	
Monthly Rent/Mortgage (Co-Borrower)	int	7	Yes if there is co-borrower	HouseRent	xhamt	
Previous Address Street	varchar	64	Yes if current residence is < 2 years	Street	pad1	
Parsed Address: Street Number (Previous)	varchar	64	No	StreetNumber	pad_stno	
Parsed Address: Street Name (Previous)	varchar	64	No	StreetName	pad_stnme	

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
Parsed Address: Street Type (Previous)	varchar	64	No	StreetType	pad_sttype	
Parsed Address: Apartment (Previous)	varchar	64	No	StreetOther	pad_apt	
Previous address City	varchar	64	Yes if current residence is < 2 years	City	pcty	
Previous address State	int	2	Yes if current residence is < 2 years	State	pst_c	1=AK, 2=AL, 3=AR, 4=AZ, 5=CA, 6=CO, 7=CT, 8=DC, 9=DE, 10=FL, 11=GA, 12=HI, 13=IA, 14=ID, 15=IL, 16=IN, 17=KS, 18=KY, 19=LA, 20=MA, 21=MD, 22=ME, 23=MI, 24=MN, 25=MO, 26=MS, 27=MT, 28=NC, 29=ND, 30=NE, 31=NH, 32=NJ, 33=NM, 34=NV, 35=NY, 36=OH, 37=OK, 38=OR, 39=PA, 40=RI, 41=SC, 42=SD, 43=TN, 44=TX, 45=UT, 46=VA, 47=VT, 48=WA, 49=WI, 50=WV, 51=WY
Previous address Zip	numeric	10	Yes if current residence is < 2 years	PostalCode	pzip	
Previous address Country	varchar	64	Yes if current residence is < 2 years	Country	pctr	
Time at previous residence	int	2	Yes, is current residence is < 2 years.	BorrowerTimeAtResidence	presl	
Units of time at previous residence	int	4	Yes, is current residence is < 2 years.	UnitTimeAtResidence	pfr_c	1=Months, 2=Years
Time at previous residence (Co-Borrower)	int	2	Yes, is current residence is < 2 years.	BorrowerTimeAtResidence	xpresl	
Units of time at previous residence (Co-Borrower)	int	4	Yes, is current residence is < 2 years.	UnitTimeAtResidence	xpfr_c	1=Months, 2=Years
Step 3: Tell Us About Your Home						
Property State	int	2	Yes	State	prst_c	1=AK, 2=AL, 3=AR, 4=AZ, 5=CA, 6=CO, 7=CT, 8=DC, 9=DE, 10=FL, 11=GA, 12=HI, 13=IA, 14=ID, 15=IL, 16=IN, 17=KS, 18=KY, 19=LA, 20=MA, 21=MD, 22=ME, 23=MI, 24=MN, 25=MO, 26=MS, 27=MT, 28=NC, 29=ND, 30=NE, 31=NH, 32=NJ, 33=NM, 34=NV, 35=NY, 36=OH, 37=OK, 38=OR, 39=PA, 40=RI, 41=SC, 42=SD, 43=TN, 44=TX, 45=UT, 46=VA, 47=VT, 48=WA, 49=WI, 50=WV,

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
						51=WY
Property County	varchar	64	Yes	County	cnt	
Property Zip	varchar	10	Yes	PostalCode	przip	
Is this the first home you have owned?	int	1	Yes	FirstHomeOwned	fhme_c	1=Yes, 2=No
Property Type	int	2	Yes	PropertyType	pr_c	**UI Values:** Single-Family Detached, Town House, Condominium with 4 or fewer stories, Condominium with 5 or more stories, Cooperative, 2-4 Units, Mobile Home (Movable), Mobile Home (Permanent), Modular **XML Values:** 1=Single-Family Detached, 2=Town House, 3=Condominium, 4=Cooperative, 5=Multiple-Family Dwelling, 6=Mobile Home (Movable), 7=Mobile Home (Permanent), 8=Modular
The property to be used as collateral is:	int	2	Yes	CollateralProperty	hm_c	1=Primary Home, 2=Secondary Home, 3=Investment Property
Number of units to finance	int	1	Yes	NumberOfUnits	un_c	1=1 unit, 2=2 units, 3=3 units, 4=4 units, 5=5 or more
Estimated Current Value	numeric	9	Yes	EstCurrentValue	val	
What year did you purchase this property?	char	4	Yes	PropertyPurchaseYear	ypa	
Original Purchase Price	numeric	9	Yes	PurchasePrice	ppr	
What year was the property built?	char	4	Yes	PropertyBuildYear	yrb	
Balance Outstanding on primary (first) mortgage	numeric	9	Yes	PrimaryMortgageBalance	bln	
Current Monthly Payment on mortgage	numeric	9	Yes	MortgagePayment	pmt	
If applicable, what are your Homeowner's Association or Condominium Dues?	numeric	9	No	HOADues	hoa	
HOA/Condo Dues Frequency	int	9	No	HOADuesFrequency	hoa_c	2=Monthly 6=Quarterly 3=Annually
Original Lender Name	varchar	64	No	LenderName	lnme	
Have you had your Home Equity Loan more than 12 months?	int	1	Yes if you have a HEIL.	IsHomeEquityLoanMoreThan12	he12_c	1=Yes, 2=No
What is the balance on your Home Equity Loan?	numeric	9	Yes if you have a HEIL.	HomeEquityLoanBalance	he_bal	
What is the monthly payment on you Home Equity Loan?	numeric	9	Yes if you have a HEIL.	HomeEquityLoanMonthlyPayment	he_pmt	
Monthly Frequency	int	1	Yes if you		hep_c	2=Monthly

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
			have a HEIL.			
Who is the Lender for your Home Equity Loan?	varchar	64	Yes if you have a HEIL.	HomeEquityLoanLender	helnme	
Have you had your Home Equity Line of Credit more than 12 months?	int	1	Yes if you have a HELOC.	IsHomeEquityLineOfCreditMoreThan12Mos	hl12_c	1=Yes, 2=No
What is the the credit limit on your Home Equity Line(s) of Credit?	numeric	9	Yes if you have a HELOC.	CreditLimitOnHomeEquityLineOfCredit	hl_lmt	
What is the balance on your Home Equity Line of Credi?	numeric	9	Yes if you have a HELOC.	OutstandingBalanceOnHomeEquityLineOfCredit	hl_bal	
What is the monthly payment on you Home Equity Line of Credit?	numeric	9	Yes if you have a HELOC.	HomeEquityLineOfCreditMonthlyPayment	hl_pmt	
Monthly Frequency	int	1	Yes if you have a HELOC.		hlp_c	2=Monthly
Who is the Lender for your Home Equity Line of Credit?	varchar	64	Yes if you have a HELOC.	HomeEquityLineOfCreditLender	hllnme	
N/A	N/A	N/A	N/A	BalanceOfSecondOrThirdMortgage	abl	Sum of balance of HEIL and HELOC.
How much additional cash would you like to receive after paying off your current Home Equity Loan or LIne of Credit?	numeric	9	No	AdditionalCashAfterCurrentHELOrHELOCPaidOff	co_amt	
Step 4: Tell Us About Your Work						
Do you own 25% or more of a business?	int	4	Yes	SelfEmployed	se_c	1=Yes, 2=No. If the Borrower owns 25% or more of a business OR the Borrower is Self-Employed then Yes. Otherwise No.
Do you own 25% or more of a business? (Co-Borrower)	int	4	Yes if there is Co-Borrower.	SelfEmployed	xse_c	1=Yes, 2=No. If the Co-Borrower owns 25% or more of a business OR the Co-Borrower is Self-Employed then Yes. Otherwise No.
This question is no longer asked but the answer is inferred. What percentage of the business do you own?	numeric	4	Yes	PercentageOfBusinessOwned	pbo	If the Borrower owns 25% or more of a business OR the Borrower is Self-Employed then 25. Otherwise 0.
This question is no longer asked but the answer is inferred. What percentage of the business do you own? (Co-Borrower)	numeric	4	Yes	PercentageOfBusinessOwned	xpbo	If the Co-Borrower owns 25% or more of a business OR the Co-Borrower is Self-Employed then 25. Otherwise 0.
What is your employment status?	int	4	Yes	EmploymentStatus	v2em_c	1=Full Time, 2=Part Time, 3=Self-Employed, 4=Homemaker, 5=Student, 6=Retired

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
What is your employment status? (Co-Borrower)	int		Yes	EmploymentStatus	xv2em_c	1=Full Time, 2=Part Time, 3=Self-Employed, 4=Homemaker, 5=Student, 6=Retired
Who is your current employer?	varchar	64	No	EmployerName	emn	If "Retired", "Student", or "Homemaker" is entered for Employment status, "Retired", "Student", or "Homemaker" will be passed in this field and the remaining employment fields are not required.
Who is your current employer? (Co-Borrower)	varchar	64	No	EmployerName	xemn	If "Retired", "Student", or "Homemaker" is entered for Employment status, "Retired", "Student", or "Homemaker" will be passed in this field and the remaining employment fields are not required.
What is your title or position?	varchar	64	No	Title	jbt	Free Format Text
What is your title or position? (Co-Borrower)	varchar	64	No	Title	xjbt	
What is your business phone number?	varchar	20	No	WorkPhone	wph	
Business Phone Extension	varchar	20	No	WorkPhoneExtension	wpx	
What is your business phone number? (Co-Borrower)	varchar	20	No	WorkPhone	xwph	
Business Phone Extension (Co-Borrower)	varchar	20	No	WorkPhoneExtension	xwpx	
How long have you worked for your current employer?	int	2	No	TimeAtJob	epl	
Unit of time at current job	int	1	No	UnitTimeAtJob	epl_c	1=Months, 2=Years
How long have you worked for your current employer? (Co-Borrower)	int	2	No	TimeAtJob	xepl	
Unit of time at current job (Co-Borrower)	int	1	No	UnitTimeAtJob	xepl_c	1=Months, 2=Years
Who was your previous employer? (If fewer than 2 years at current job.)	varchar	64	Yes, if employed < 2 years and not retired, student, homemaker.	EmployerName	pemn	
What was your previous title or position?	varchar	64	Yes, if employed < 2 years and not retired, student, homemaker	Title	pjbt	
How long did you work for your previous employer?	int	2	Yes, if employed < 2 years and not retired,	TimeAtJob	pepl	

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
			student, homemaker			
Unit of time at previous job	int	1	Yes, if employed < 2 years and not retired, student, homemaker	UnitTimeAtJob	pepl_c	1=Months, 2=Years
What was your previous monthly salary?	numeric	7	Yes, if employed < 2 years and not retired, student, homemaker	BorrowerPreviousSalary	pamt	
Frequency of Previous Salary (monthly)	int	1	Yes, if employed < 2 years and not retired, student, homemaker	PreviousSalaryFrequency	psfx_c	1=Weekly, 2=Monthly, 3=Annually
Who was your previous employer? (If fewer than 2 years at current job.) (Co-Borrower)	varchar	64	Yes, if employed < 2 years and not retired, student, homemaker	EmployerName	xpemn	
What was your previous title or position? (Co-Borrower)	varchar	64	Yes, if employed < 2 years and not retired, student, homemaker	Title	xpjbt	
How long did you work for your previous employer? (Co-Borrower)	int	2	Yes, if employed < 2 years and not retired, student, homemaker	TimeAtJob	xpepl	
Unit of time at previous job (Co-Borrower)	int	1	Yes, if employed < 2 years and not retired, student,	UnitTimeAtJob	xpepl_c	1=Months, 2=Years

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
			homemaker			
What was your previous monthly salary? (Co-Borrower)	numeric	7	Yes, if employed < 2 years and not retired, student, homemaker	BorrowerPreviousSalary	xpamt	
Frequency of Previous Salary (monthly) (Co-Borrower)	int	1	Yes, if employed < 2 years and not retired, student, homemaker	PreviousSalaryFrequency	xpsfx_c	1=Weekly, 2=Monthly, 3=Annually
Step 5: Tell Us About Your Finances						
What is your total monthly salary?	numeric	7	Yes, if employed	CurrentSalary	amt	
Frequency of monthly salary?	int	1	Yes, if employed	SalaryFrequency	sfx_c	1=Weekly, 2=Monthly, 3=Annually
What is your total monthly salary? (Co-Borrower)	numeric	7	Yes, if employed	CurrentSalary	xamt	
Frequency of monthly salary? (Co-Borrower)	int	1	Yes, if employed	SalaryFrequency	xsfx_c	1=Weekly, 2=Monthly, 3=Annually
What is your total monthly other income?	numeric	7	Yes, if not employed	OtherIncomeAmount	oam	
Frequency of monthly other income	int	1	Yes, if not employed	OtherIncomeFrequency	oam_c	1=Weekly, 2=Monthly, 3=Annually
Source of other income	varchar	64	Yes	IncomeType	oic	Defaults to “Total Other”.
What is your total monthly other income? (Co-Borrower)	numeric	7	Yes, if not employed	OtherIncomeAmount	xoam	
Frequency of monthly other income (Co-Borrower)	int	1	Yes, if not employed	OtherIncomeFrequency	xoam_c	1=Weekly, 2=Monthly, 3=Annually
Source of other income (Co-Borrower)	varchar	64	Yes	IncomeType	xoic	Defaults to “Total Other”.
What is your current monthly housing payment?	int	7	Yes	HouseRent	hamt	
What is your current monthly housing payment? (Co-Borrower)	int	7	Yes	HouseRent	xhamt	
Total Debts	varchar	64	Yes	CompanyName	1dnm	We default to “Total” since we are not longer asking for itemized debts on the Q-Form.)
Type of Debt	int	1	Yes	TypeOfDebt	1db_c	7=Other (We default to other since we are no longer asking for itemized debts on the Q-Form.)

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
Monthly Payment Amount	numeric	7	Yes	MonthlyPayment	1dpy	
Total Debts (Co-Borrower)	varchar	64	Yes	CompanyName	x1dnm	We default to “Total” since we are not longer asking for itemized debts on the Q-Form.)
Type of Debt (Co-Borrower)	int	1	Yes	TypeOfDebt	x1db_c	7=Other (We default to other since we are no longer asking for itemized debts on the Q-Form.)
Monthly Payment Amount (Co-Borrower)	numeric	7	Yes	MonthlyPayment	x1dpy	
Liquid Assets	int	7	Yes	CashAsset	acsh	
Liquid Assets (Co-Borrower)	int	7	Yes	CashAsset	xacsh	
If you have ever declared bankruptcy, when was it discharged?	int	2	Yes	DischargedBankruptcyMonth	v2bk_c	0=Declared and not discharged, 1=Discharged 1-12 months ago, 2=Discharged 13-24 months ago, 3=Discharged 25-36 months ago, 4=Discharged 37-48 months ago, 5=Discharged 49-60 months ago, 6=Discharged 61-72 months ago, 7=Discharged 73-84 months ago,8=Discharged over 84 months ago, 9=Never Declared
If you have ever declared bankruptcy, when was it discharged? (Co-Borrower)	int	2	Yes	DischargedBankruptcyMonth	xv2bk	0=Declared and not discharged, 1=Discharged 1-12 months ago, 2=Discharged 13-24 months ago, 3=Discharged 25-36 months ago, 4=Discharged 37-48 months ago, 5=Discharged 49-60 months ago, 6=Discharged 61-72 months ago, 7=Discharged 73-84 months ago,8=Discharged over 84 months ago, 9=Never Declared
If you have ever had a property foreclosed upon, when did it take place?	int	2	Yes	PropertyForeclosure	fc_c	'9=Never, 0=Currently in Foreclosure, 1=1-12 months ago, 2=13-24 months ago, 3=25-36 months ago, 4=37-48 months ago, 5=49-60 months ago, 6=61-72 months ago, 7=73-84 months ago, 8= Over 84 months ago
If you have ever had a property foreclosed upon, when did it take place? (Co-Borrower)	int	2	Yes	PropertyForeclosure	xfc_c	'9=Never, 0=Currently in Foreclosure, 1=1-12 months ago, 2=13-24 months ago, 3=25-36 months ago, 4=37-48 months ago, 5=49-60 months ago, 6=61-72 months ago, 7=73-84 months ago, 8= Over 84 months ago
Do you have any special circumstances you would like our lenders to know about?	varchar	2000	No	BorrowerComments	b_text	
HMDA						
Ethnicity	int	1	Yes if HMDA reportable	Race	et_c	1=I choose not to provide this information, 2=American Indian, Alaskan Native, 3=Asian, Pacific Islander, 4=Black, 5=Hispanic, 6=White, 7=Other
Gender	int	1	Yes if HMDA reportable	Gender	gd_c	1=Male, 2=Female
Ethnicity (Co-Borrower)	int	1	Yes if HMDA	Race	xet_c	1=I choose not to provide this information,

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	CGI NAME	VALID VALUES[2]
			reportable			2=American Indian, Alaskan Native, 3=Asian, Pacific Islander, 4=Black, 5=Hispanic, 6=White, 7=Other
Gender (Co-Borrower)	int	1	Yes if HMDA reportable	Gender	xgd_c	1=Male, 2=Female
COMMUNITY PROPERTY						
Spouse Name	varchar	64	Yes if Community Property State	SpouseName	spn	
Spouse SSN	char	11	Yes if Community Property State	SpouseSSN	sps	
Spouse DOB	smalldatetime	10	Yes if Community Property State	SpouseDOB	spb	
Spouse Name	varchar	64	Yes if Community Property State	SpouseName	Xspn	
Spouse SSN	char	11	Yes if Community Property State	SpouseSSN	Xsps	
Spouse DOB	smalldatetime	10	Yes if Community Property State	SpouseDOB	Xspb	

Lender Response CGI/XML: Single Offer

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	REQUEST VARIABLE	AVAILABLE VALUES OR EXAMPLES
User Name	varchar	64	Yes	UserName	username	We will assign
Password	varchar	64	Yes	Password	password	We will assign

Mode	int	2	Yes	Mode	lr_c	1=Approved, 2=Declined, 3=Counter Offer
QF Name	varchar	20	Yes	LoanApplicationID	qfn	QF Name from LendingTree's initial referral post
Lender's Party ID	varchar	20	Yes	LenderID	lid	We will assign
Deal Constant	int	1	Yes	TransactionType	dl_c	1=Mortgage, 2=Home Equity, 3=Personal, 4=Auto, 5=Credit Card, 6=Student
Loan Program Name	varchar	32	Yes	LoanProgramName	lnme	Fixed Home Equity Loan, Variable Home Equity Loan, Balloon Home Equity Loan, Home Equity Line of Credit.
Loan Amount	numeric	8	Yes	LoanAmount	lamt	Example 1700 or 1500.56
Interest Rate	numeric	8	Yes if HEIL No if HELOC	InterestRate	lintr	12.55
Intro Rate						
Intro Period						
Term	numeric	8	Yes if HEIL No if HELOC	Term	lterm	60
Term Constant	int	1	Yes if HEIL No if HELOC	TermConstant	lunit	1=Months, 2=Years
Points	numeric	7	No	Points	lmpt	2
Monthly Payments	numeric	9	Yes if HEIL No if HELOC	MonthlyPayment	lpmts	325.53, 375 or 12.55
Monthly Payment Constant	int	1	Yes if HEIL No if HELOC	MonthlyPaymentOption	mpd_c	1=% (Percentage), 2=(Dollar Amount)
Required Down Payment/Equity	numeric	7	No	DownPayment	lreqd	325.53, 375 or 12.55
Down Payment Constant	int	1	No	DownPaymentOption	rpd_c	1=% (Percentage), 2=(Dollar Amount)
APR	numeric	8	Yes if HEIL No if HELOC	APR	lapr	12.55
Origination Fee	numeric	9	No (default 0)	OriginationFee	orig_fee	
Origination Fee Constant	int	1	No		orig_fee_c	1=% (Percentage), 2=(Dollar Amount)
Annual Fee	numeric	9	No (default 0)	AnnualFee	ann_fee	
Annual Fee Constant	int	1	No		ann_fee_c	1=% (Percentage), 2=(Dollar Amount)
Application Fee	numeric	9	No (default 0)	ApplicationFee	fee1	
Tax Service Fee	numeric	9	No (default 0)	TaxFee	fee2	Not Used.
Underwriting Fee	numeric	9	No (default 0)	UnderWritingFee	fee3	
Administrative Fee	numeric	9	No (default 0)	AdministrativeFee	fee4	
Processing Fee	numeric	9	No (default 0)	ProcessingFee	fee5	
Document Preparation Fee	numeric	9	No (default 0)	DocumentFee	fee6	
Flood Certification	numeric	9	No (default 0)	FloodCertification	fee7	
Courier Fee	numeric	9	No (default 0)	CourierFee	fee8	
Wire Transfer Fee	numeric	9	No (default 0)	WireTransferFee	fee9	
Appraisal Fee	numeric	9	No (default 0)	AppraisalFee	fee10	
Credit Report	numeric	9	No (default 0)	CreditReport	fee11	
Other	numeric	9	No (default 0)		fee12	Being added.

Contact Name	varchar	32	Yes	Name	ctnm	John Doe
Contact Email	varchar	32	Yes	Email	ctem	johndoe@email.com
Contact Phone	varchar	32	Yes	WorkPhone	ctph	5555555555 (10 characters Required)
Contact Extension	varchar	32	Yes	WorkphoneExtension	ctphex	1234
Verification of income via W-2's, pay-stubs, and/or business P&L, tax returns.	int		Yes	IncomeVerification	1ac_c	1=Yes; 0=No
Verification of other income.	int		Yes	OtherIncomeVerification	3ac_c	1=Yes; 0=No
Verification of sufficient funds to close.	int		Yes	SufficientFundVerification	10ac_c	1=Yes; 0=No
Verification of residence via utility bill.	int		Yes	ResidenceVerification	2ac_c	1=Yes; 0=No
Verification of your current mortgage payments through cancelled checks or a letter from current lender.	int		Yes	CurrentMortgagePaymentVerification	5ac_c	1=Yes; 0=No
Review of a copy of the first mortgage on your property.	int		Yes	CopyOfFirstMortgageVerification.	4ac_c	1=Yes; 0=No
Receipt and review of your most recent credit report.	int		Yes	ReviewOfCreditReportReceipt	8ac_c	1=Yes; 0=No
Review of your most recent homeowner’s policy.	int		Yes	RecentHomeownerPolicy	6ac_c	1=Yes; 0=No
Appraisal to verify collateral value.	int		Yes	CollateralValueVerification	7ac_c	1=Yes; 0=No
Other documents as required by lender.	int		Yes	OtherDocuments	9ac_c	1=Yes; 0=No
Private Mortgage Insurance may be required.	int		Yes	PrivateMortgageInsuranceRequired	1ag_c	1=Yes; 0=No
We may revoke this offer if there is an adverse change in your credit, financial, or employment status.	int		Yes	RevokeOffer	2ag_c	1=Yes; 0=No
Pay off existing 2nd mortgage	int		Yes		13ac_c	1=Yes; 0=No
Offer Description	varchar	250	Yes	OfferDescription	ofd	This is an offer for you….. (If not in post then we will look for Canned Text in DB)
Customized Message to Borrower	varchar	250	Yes	CustomizedMessageToBorrower	ofc	This offer is subject to the following terms and conditions (If not in post then we will look for Canned Text in DB)
Canned Text	varchar	250	Yes	CannedText	ctd	Bank.com is pleased to offer you ….(If not in post then we will look for Canned Text in DB)

Lender Response CGI/XML: Mulitple Offer

HTML LABEL	DATA TYPE	MAX LENGTH	REQUIRED	XML TAG	REQUEST VARIABLE	AVAILABLE VALUES OR EXAMPLES
User Name	varchar	64	Yes	UserName	username	We will assign
Password	varchar	64	Yes	Password	password	We will assign
Mode	int	2	Yes	Mode	lr_c	1=Approved, 2=Declined, 3=Counter Offer
QF Name	varchar	20	Yes	LoanApplicationID	qfn	QF Name from LendingTree's initial referral post
Lender's Party ID	varchar	20	Yes	LenderID	lid	We will assign
Deal Constant	int	1	Yes	TransactionType	dl_c	1=Mortgage, 2=Home Equity, 3=Personal, 4=Auto, 5=Credit Card, 6=Student
Multiple Offers	varchar	20	Yes		lrsrc	The value of “multi” must be sent back with multiple offers. (This field is not required if only one offer is sent back.)
The fields in the following segment apply to multiple offers. Each field must be numbered for the number of offers posted back. When multiple offers are posted back, the offers must be sent in the order they are numbered. The ‘x’ in the fields below indicates that a number 1 through 3 is inserted in front of the field name.						
Offer ID	numeric	2	Yes	Offerid	‘x’offerid	Example 1,2,3
Offer Type	varchar	64	Yes	Offertype	‘x’offertype	Fixed or Variable
Loan Program Name	varchar	32	Yes	LoanProgramName	‘x’lnme	Fixed Home Equity Loan, Variable Home Equity Loan, Balloon Home Equity Loan, Home Equity Line of Credit.
Loan Amount	numeric	8	Yes	LoanAmount	‘x’lamt	Example 1700 or 1500.56
Interest Rate	numeric	8	Yes if HEIL No if HELOC	InterestRate	‘x’lintr	12.55
Intro Rate	numeric	8	No	IntroRate	‘x’intror	60
Intro Period	int	1	No	IntroPeriod	‘x’introt	1=Months, 2=Years
Term	numeric	8	Yes if HEIL No if HELOC	Term	‘x’lterm	60
Term Constant	int	1	Yes if HEIL No if HELOC	TermConstant	‘x’lunit	1=Months, 2=Years
Discount Points	numeric	7	No	Points	‘x’lmpt	2
Monthly Payments	numeric	9	Yes if HEIL No if HELOC	MonthlyPayment	‘x’lpmts	325.53, 375 or 12.55
Monthly Payment Constant	int	1	Yes if HEIL No if HELOC	MonthlyPaymentOption	‘x’mpd_c	1=% (Percentage), 2=(Dollar Amount)
Required Down Payment/Equity	numeric	7	No	DownPayment	‘x’lreqd	325.53, 375 or 12.55
Down Payment Constant	int	1	No	DownPaymentOption	‘x’rpd_c	1=% (Percentage), 2=(Dollar Amount)
APR	numeric	8	Yes if HEIL No if HELOC	APR	‘x’lapr	12.55

Origination Fee	numeric	9	No (default 0)	OriginationFee	'x' orig_fee	
Origination Fee Constant	int	1	No	OriginationFeeOption	'x' orig_fee_c	1=% (Percentage), 2=(Dollar Amount)
Annual Fee	numeric	9	No (default 0)	AnnualFee	'x' ann_fee	
Annual Fee Constant	int	1	No		'x' ann_fee_c	1=% (Percentage), 2=(Dollar Amount)
The fields below can only be sent once, the same values will apply to all offers posted back.						
Application Fee	numeric	9	No (default 0)	ApplicationFee	fee1	
Tax Service Fee	numeric	9	No (default 0)	TaxFee	fee2	Not Used.
Underwriting Fee	numeric	9	No (default 0)	UnderWritingFee	fee3	
Administrative Fee	numeric	9	No (default 0)	AdministrativeFee	fee4	
Processing Fee	numeric	9	No (default 0)	ProcessingFee	fee5	
Document Preparation Fee	numeric	9	No (default 0)	DocumentFee	fee6	
Flood Certification	numeric	9	No (default 0)	FloodCertification	fee7	
Courier Fee	numeric	9	No (default 0)	CourierFee	fee8	
Wire Transfer Fee	numeric	9	No (default 0)	WireTransferFee	fee9	
Appraisal Fee	numeric	9	No (default 0)	AppraisalFee	fee10	
Credit Report	numeric	9	No (default 0)	CreditReport	fee11	
Other Fees	numeric	9	No (default 0)	OtherFee	fee12	
Contact Name	varchar	32	Yes	Name	ctnm	John Doe
Contact Email	varchar	32	Yes	Email	ctem	johndoe@email.com
Contact Phone	varchar	32	Yes	WorkPhone	ctph	5555555555 (10 characters Required)
Contact Extension	varchar	32	Yes	WorkphoneExtension	ctphex	1234
Verification of income via W-2's, pay-stubs, and/or business P&L, tax returns.	int	1	Yes	IncomeVerification	1ac_c	1=Yes; 0=No
Verification of other income.	int	1	Yes	OtherIncomeVerification	3ac_c	1=Yes; 0=No
Verification of sufficient funds to close.	int	1	Yes	SufficientFundVerification	10ac_c	1=Yes; 0=No
Verification of residence via utility bill.	int	1	Yes	ResidenceVerification	2ac_c	1=Yes; 0=No
Verification of your current mortgage payments through cancelled checks or a letter from current lender.	int	1	Yes	CurrentMortgagePaymentVerification	5ac_c	1=Yes; 0=No
Review of a copy of the first mortgage on your property.	int	1	Yes	CopyOfFirstMortgageVerification.	4ac_c	1=Yes; 0=No
Receipt and review of your most recent credit report.	int	1	Yes	ReviewOfCreditReportReceipt	8ac_c	1=Yes; 0=No
Review of your most recent homeowner's policy.	int	1	Yes	RecentHomeownerPolicy	6ac_c	1=Yes; 0=No
Appraisal to verify collateral value.	int	1	Yes	CollateralValueVerification	7ac_c	1=Yes; 0=No
Other documents as required by lender.	int	1	Yes	OtherDocuments	9ac_c	1=Yes; 0=No

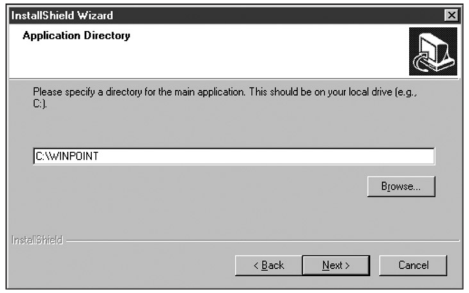
Private Mortgage Insurance may be required.	int	1	Yes	PrivateMortgageInsuranceRequired	1ag_c	1=Yes; 0=No
We may revoke this offer if there is an adverse change in your credit, financial, or employment status.	int	1	Yes	RevokeOffer	2ag_c	1=Yes; 0=No
Pay off existing 2nd mortgage	int	1	Yes	ExistingSecondMortgagePayOff	13ac_c	1=Yes; 0=No
Offer Description	varchar	250	Yes	OfferDescription	ofd	This is an offer for you….. (If not in post then we will look for Offer Description in DB)
Customized Message to Borrower	varchar	250	Yes	CustomizedMessageToBorrower	ofc	This offer is subject to the following terms and conditions
Canned Text	varchar	250	Yes	CannedText	ctd	Bank.com is pleased to offer you ….(If not in post then we will look for Canned Text in DB)

Borrower Response CGI/XML

CGI NAME	XMLTAG	FIELD SIZE	DESCRIPTION
qfn	LoanApplicationID	16	Qualification Form
brs_c	BorrowerAction	1	Borrower Response (1=Accept; 2=Reject, 3=More Info)
x'offerid		1	Offer ID (used for mulitple responses)

Appendix E – Calyx Point

Note: The application folder should always be stored on a local drive (usually drive C). A typical path name for the Winpoint folder is C:\WINPOINT (Figure 5).



Please specify a directory for the main application. This should be on your local drive (e.g., C:).

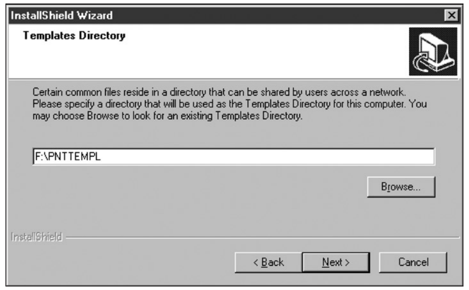
C:\WINPOINT

Figure 5: Winpoint folder path

2 Template Directory

Enter the location where you want the template directory stored (usually on the server). Click **Browse** to link to an existing PNTTEMPL folder (Figure 6).

Note: All workstations on your network must be mapped to the server before they can share the template and data folders. See Tech Tip #62 at www.calyxsupport.com for instructions.



Certain common files reside in a directory that can be shared by users across a network. Please specify a directory that will be used as the Templates Directory for this computer. You may choose Browse to look for an existing Templates Directory.

F:\PNTTEMPL

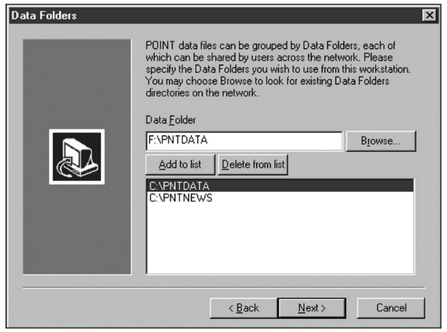
Figure 6: Template directory path

3 Data Directories

Enter the location where you want the data directories stored (unless the directories already appear in the list of directories).

Click **Add** if you want to add data folders to the application. After you've finalized your folders and specified the directory location, click **Next** (Figure 7).

Note: Click Browse to link to existing data folders on the network.



POINT data files can be grouped by Data Folders, each of which can be shared by users across the network. Please specify the Data Folders you wish to use from this workstation. You may choose Browse to look for existing Data Folders directories on the network.

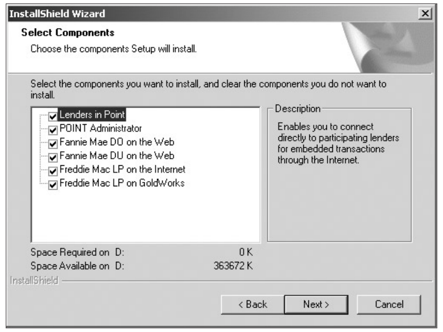
Data Folder: F:\PNTDATA

C:\PNTDATA
C:\PNTNEWS

Figure 7: Data folder paths

4 Components

Point has optional components that you may choose to install. To find out more about each option, click the box beside the option and a description will be displayed. After you've selected the components that you want to install, click **Next** and follow the instructions (Figure 8).



Choose the components Setup will install.

Select the components you want to install, and clear the components you do not want to install.

- ☑ Lenders in Point
- ☑ POINT Administrator
- ☑ Fannie Mae DO on the Web
- ☑ Fannie Mae DU on the Web
- ☑ Freddie Mac LP on the Internet
- ☑ Freddie Mac LP on GoldWorks

Description: Enables you to connect directly to participating lenders for embedded transactions through the Internet.

Space Required on D: 0 K
Space Available on D: 363672 K

Figure 8: Installing optional features

5 Finish

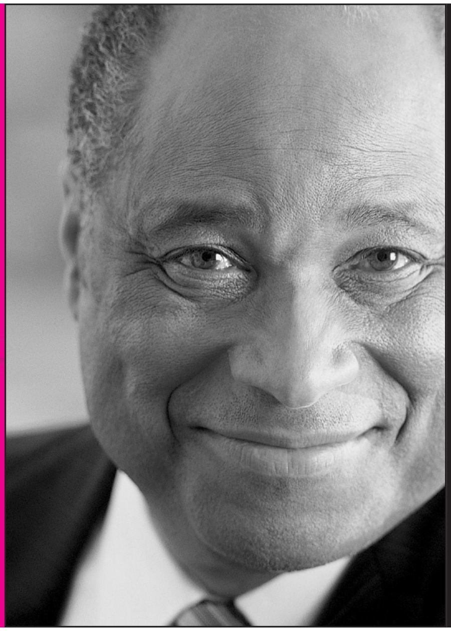
When you see the InstallShield Wizard Complete message, click **Finish.** If you need to reboot your computer, a screen will appear, giving you the option of rebooting. Click **Yes.**

Calyx Software
6475 Camden Avenue, Suite 207
San Jose, CA 95120-2848
800 362 2599
www.calyxsoftware.com

CALYX
software

Installing

Calyx® Point®



installation guide

A quick guide to

Installing Point

Locating Your Site ID

Before you install Calyx® Point® you'll need your Site ID. This number is printed on the shipping label and invoice that came with your software. After you locate your Site ID, please write it on the inside cover of your Point User Guide—you'll need it if you ever want to re-install your software or call Calyx Technical Support.

About the Installation

For current Point owners: If you have a previous version of Point installed on your computer, you do not need to delete it before you install the new version.

For new Point owners: If you are installing Point for the first time and you plan to share your data and template files with coworkers, you'll need to create a folder for your files and provide coworkers with access to it. For more information about file sharing, please see your network administrator.

Beginning the Installation

1 Insert the Point CD.

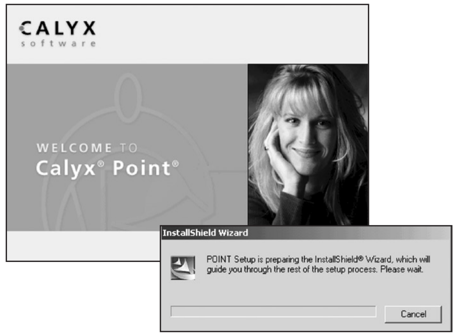
Insert the Point CD into your CD-ROM drive. Most computers will run the CD automatically. If not, click **Start,** then **Run,** and type **D:\setup.**

Note: Type the letter that corresponds to your CD-ROM drive, if the drive isn't "D."

If setup doesn't start automatically, go to the Run screen to start it manually.

2 Internet Explorer Search

Point will automatically search your system for Internet Explorer. If version 5.01 or higher is found (Figure 1), then the installation process will continue.



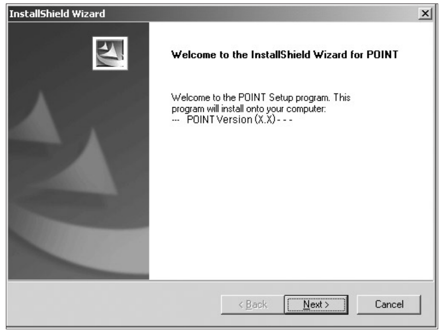
POINT Setup is preparing the InstallShield® Wizard, which will guide you through the rest of the setup process. Please wait.

Figure 1: InstallShield Wizard

If a compatible version of Internet Explorer is not found, either a message window will appear or you'll be instructed to download a newer version from Microsoft. Follow the instructions on the screen as Internet Explorer 5.01 is installed. After the installation is complete, you will be asked if you want to reboot your computer. Click **Yes.**

3 Installation Process

After your computer has rebooted, the installation of Point will begin automatically. When you see the Welcome screen, click **Next** (Figure 2). Read the Software License Agreement and click **Yes** to accept it. Enter your name and company name. If this information is already entered, please confirm that it is correct.



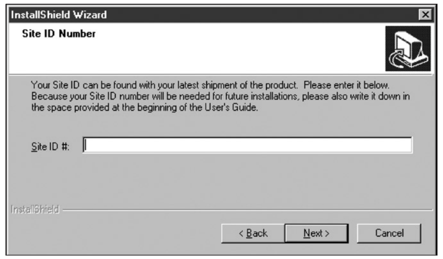
Welcome to the InstallShield Wizard for POINT

Welcome to the POINT Setup program. This program will install onto your computer:
--- POINT Version (X.X) - - -

Figure 2: Welcome screen

4 Site ID

You'll be asked to enter your Site ID number. Enter your number and click **Next** (Figure 3).



Site ID Number

Your Site ID can be found with your latest shipment of the product. Please enter it below. Because your Site ID number will be needed for future installations, please also write it down in the space provided at the beginning of the User's Guide.

Site ID #:

Figure 3: Site ID screen

If a previous version of Point is already installed on your computer, a dialog box will appear and you'll have the option of retaining your current settings. If you click **Yes,** your folder settings will be transferred to your new edition of Point.

5 Type of Installation Setup

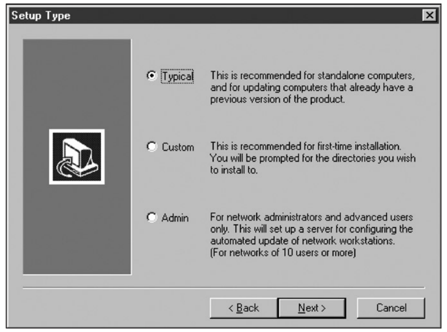
Point can be set up in three different ways, depending on your needs (Figure 4):

Click **Typical** if you're installing the software on a standalone system (one that is not connected to a network) or if you are upgrading from a previous version of Point on a networked computer.

Click **Custom** if you're installing Point on a networked computer for the first time.

Click **Admin** only if you are a network administrator or an advanced user. Visit **www.calyxsupport.com** for installation instructions.

Note: Typical installation meets the needs of most Point users.



● Typical — This is recommended for standalone computers, and for updating computers that already have a previous version of the product.

○ Custom — This is recommended for first-time installation. You will be prompted for the directories you wish to install to.

○ Admin — For network administrators and advanced users only. This will set up a server for configuring the automated update of network workstations. (For networks of 10 users or more)

Figure 4: Setup type

After you select the installation type, click **Next** and follow the instructions that pertain to the type of installation you selected.

Completing a Typical Installation

If you're performing a typical installation, Point will complete the installation automatically. When you see the InstallShield Wizard Complete message, click **Finish.** If you need to reboot your computer, a screen will appear, giving you the option of rebooting. Click **Yes.**

The following section applies only to custom installations.

Completing a Custom Installation

If you're performing a custom installation, you'll need to specify where the directories should be stored, as follows:

1 Main Application Folder

Enter the location where the application folder will be stored and click **Next.**

(continued)

The complete guide to

Calyx® Point®

point user guide

CALYX
software

User Guide
Calyx Point

Welcome to Calyx Point® - the industry's most popular multipurpose mortgage pre-qualification, origination, processing, underwriting and management application.

Calyx Software makes no representations or warranties with respect to this manual and will not guarantee the accuracy and completeness of any information. Users of this manual do so with the understanding that Calyx Software is not engaged in the practice of law and does not render legal, accounting, or other professional services.

In determining which federal or state forms supplied by Calyx Software should be used in a particular situation, users of this manual should consult with their own legal counsel for advice.

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Revised October, 2003 by Claudia Bramkamp, Alice Hansen, and Lynn Anderson.

Table of Contents

Chapter 1

Getting Started

Welcome to Calyx Point® - the industry's most popular multipurpose mortgage pre-qualification, origination, processing, underwriting and management application. Point is designed for mortgage loan originators, mortgage brokers, mortgage bankers, and other mortgage professionals.

System Requirements

To use Point software, you will need the following computer software and hardware:

* For Microsoft Windows 98®, and Windows ME®: 32 MB RAM (minimum)
*For Microsoft Windows NT® 4.0: 32MB of RAM (minimum), and you must be running Service Pack 6a or higher
* For Microsoft Windows 2000® and Windows XP®: 64 MB RAM (minimum)
* A personal computer with a 166 MHz or higher microprocessor (Pentium® recommended) with access to a CD-ROM drive
*75MB of free space for the Point application, additional space for user data, and 20MB of space for Microsoft Internet Explorer if not already installed
* Monitor with 800 x 600 screen resolution (256 colors minimum)
* Mouse
* Any Windows compatible laser or non-laser printer (1 MB printer memory required for laser printers)
* An Internet Service Provider is required for some functions
*For Networks, Microsoft Windows Networking is required

Note: Point is written to be Microsoft Network compatible. Calyx does not support the operation of Point under Novell, Linux, or any other environment including multiple user environments such as Citrix Servers or Microsoft Terminal Servers and Services.

For additional information about system requirements, see www.calyxsupport.com.

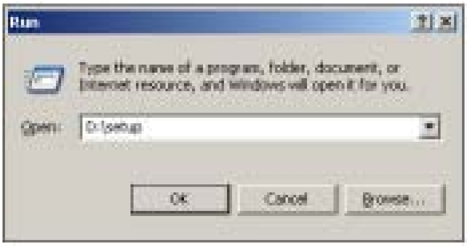
Installing Point

If you have a previous version of Point installed on your computer, there's no need to delete it before installing the new version but please close all other applications before installing this program.

If you are installing Point for the first time and wish to share your Point files with other computers on your network, you may want to create a folder on your server that will share all of your data and template files. Make sure that the folder is accessible to all who will need access to it and that all users have full write access to it. Also, be sure to keep the data and template directories separate within the shared folder. For instructions on sharing the folder, see your network administrator.

Insert the Point CD

1. Insert the Point CD into your CD-ROM drive. The CD-ROM will automatically run from most computers, but if it doesn't, click on the Start button, then on Run and type: D:\setup (use the drive letter of your CD-ROM drive at the beginning of the line - it may not be D).



Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Open: D:\setup

Figure 1.1: Starting the setup manually

Note: If setup doesn't start automatically, you may have to manually start the setup from the Run screen.

2. During the first step of the installation, the InstallShield Wizard screen appears while the Point installation program searches for evidence that Internet Explorer® (IE) 5.5 or higher has been installed.

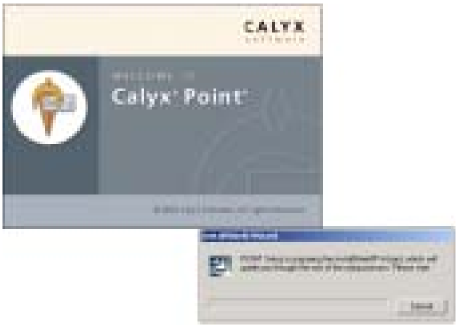


Figure 1.2: InstallShield Wizard screen

- If IE 5.5 or higher is detected, Point will begin to install. Skip to step 3 for instructions for the next step.
- If a correct version of IE is not detected, you will receive a message stating that it is about to be installed or that you will need to install a newer version of IE.

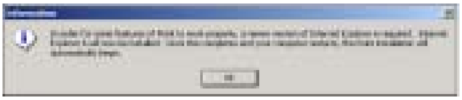


Figure 1.3: IE 6.0 installation information screen

Follow the instruction on the screens as IE 6.0 installs. When this installation is finished, you will be asked if you want to reboot your computer. Click on Yes.

Once your computer has rebooted, Point installation will begin.

Point Installation

3. Once the Point installation screen appears, click on the Next button to proceed to the next screen and click on Yes to accept the Software License Agreement. Then enter your user name and company name or confirm that the information already entered is correct.

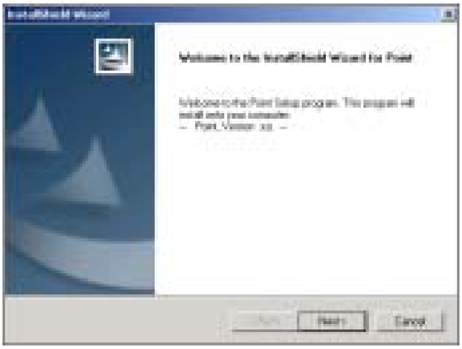


Figure 1.4: Welcome screen

SiteID

4 Next, enter your SiteID number, which is required to install Point. This number can be found on the shipping carton's address label or on the invoice inside the package. Enter the SiteID number, then click on the Next button.

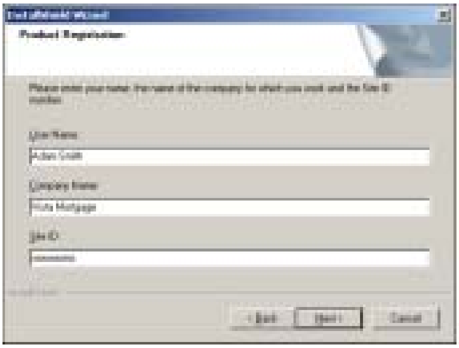
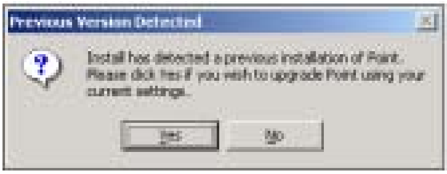


Figure 1.5: SiteID Number screen

If a previous version of Point is detected, the following screen will appear, asking if you want to upgrade Point using your current settings.



Previous Version Detected

Install has detected a previous installation of Point. Please click Yes if you wish to upgrade Point using your current settings.

Figure 1.6: Previous version of Point detected

Click Yes and Point will begin to install using the previous settings. Click No and you will be given a choice of the type of installation you choose.

Setup Type

5 This screen determines the setup type if you did not choose the settings from your previous installation.

- Click on Typical for all installations on stand-alone (non-networked) computers and for updating networked computers that already have a previous version of Point installed.
- Click on Custom for first-time installations on networked computers.
- Click on Admin if you are a network administrator or advanced user and want to install Point on ten or more computers.

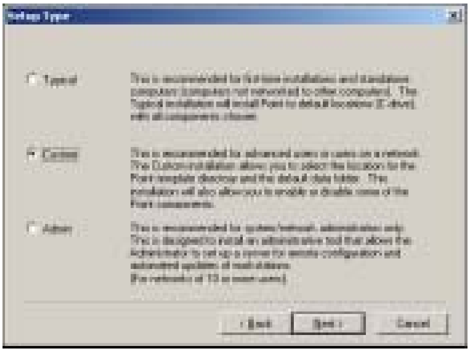


Figure 1.7: Installation type

Note: Most Point users prefer to use the Typical install.

6 Then click on the Next button.

- For a Typical installation, skip down to step 13.
- For a Custom installation, you will now need to select locations for each of the Point directories. Complete steps 7 through 12 now.
- For instructions on completing an Admin installation, see Tech Tip #73 at www.calyxsupport.com.

Custom Installation Instructions

7 For Custom installations only, you will now enter the locations for each of the directories. The first screen asks for the location for the main application folder.

This folder should always be located on a local drive (usually drive C:).

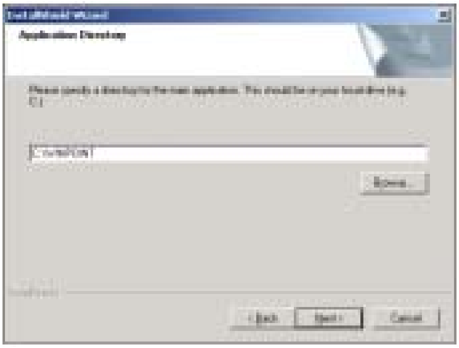


Figure 1.8: Winpoint folder path

Note: A typical path for the Winpoint folder is C:\WINPOINT.

8 Click on the Next button.

9 For Custom installations only, enter the location for the template directory, usually found on the server. Use the Browse button to link to an existing PNTTEMPL folder.

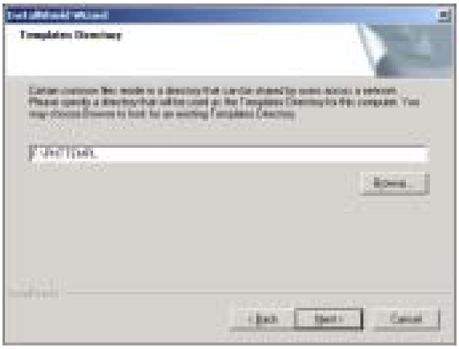


Figure 1.9: Template directory path

Note: Please be sure to keep the template and data folders separate. Mixing the subdirectories for these types of files within one folder may create problems accessing the files.

10 Click on the Next button.

11 For Custom installations only, enter the location for the default data directory (if it does not already appear on the screen).

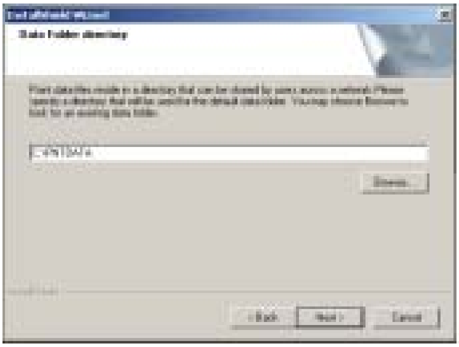


Figure 1.10: Default data folder path

Note: Use the Browse button to link to any existing data folders on the network.

12 Click on the Next button and you will be asked to choose which optional features of Point you would like to install.

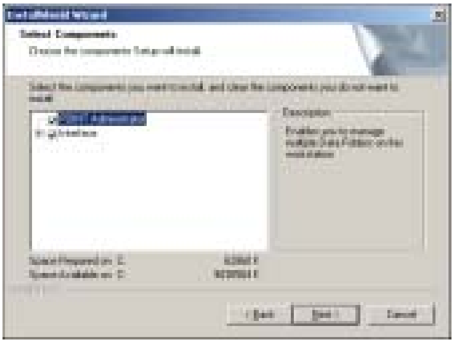


Figure 1.11: Select components

Select the options you want, and click on the Next button. You will be asked to select the folder where you would like your Program icons. Select the folder and click the Next button.

Finish the Installation

13 When you receive the InstallShield Wizard Complete message, click on the Finish button. You may choose at this time to reboot your computer.

Learning Point

Calyx provides a variety of ways to learn Point. You can begin learning Point using this guide or the other User Guides that come with Point, and you can take classes in Point from a certified Point trainer. To find out more, click on the Help menu and select Calyx Training. There you will find a link to the Calyx Training website. For more information, contact:

Training Division of Calyx Software

Karol Pierce - Training Director
Toll free phone: (877) 836-7655
Phone: (714) 544-8040
Fax: (714) 544-8060
karol_pierce@calyxsoftware.com

Using Context Sensitive Help

You can get help for any screen in Point by pressing F1 on your keyboard when you are in the screen or by clicking on the Help ? icon at the top of each page. A help screen appears giving you information about the screen you are working in. From this screen, you can also access the index to the help file that allows you to fine tune your search for specific information.

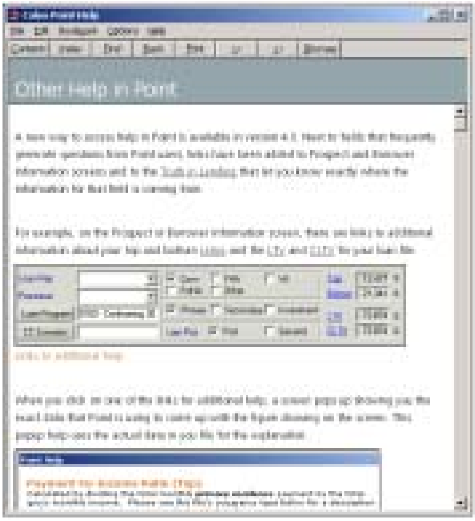


Figure 1.12: Help screens

Other Help in Point

Next to fields that frequently generate questions from Point users, links have been added to Prospect and Borrower Information screens, to the Truth in Lending, and to several other screens. These links let you know exactly where the information for that field is coming from.

For example, on the Prospect or Borrower Information screen, there are links to additional information about your top and bottom ratios and the LTV and CLTV for your loan file.

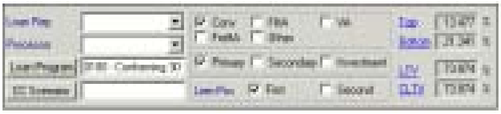


Figure 1.13: Links to additional help

When you click on one of the links for additional help, a screen pops up showing you the exact data that Point is using to come up with the figure showing on the screen. This popup help uses the actual data in your file for the explanation.

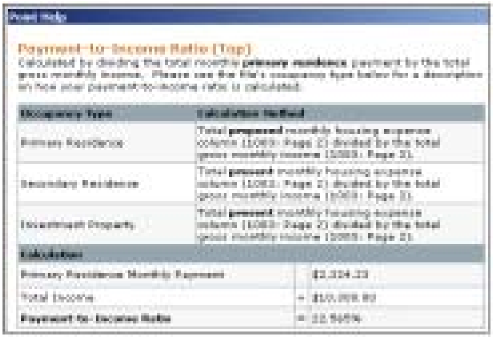
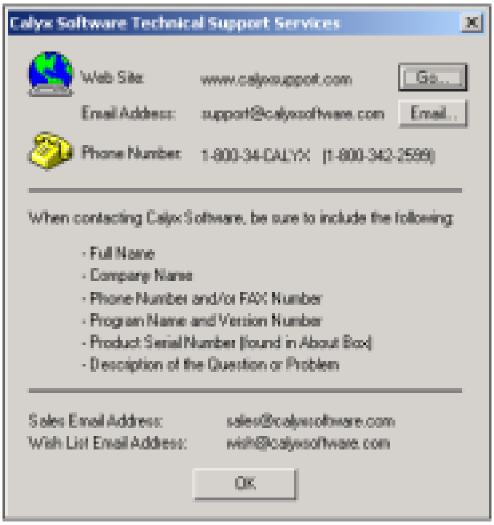


Figure 1.14: Additional help screen

Tech Support on the Internet

If you have an Internet connection and a Web browser installed on your system, you can reach the Calyx Support website at: http://calyxsupport.com.

Another way to access help on the Internet is to click on the Tech Support button on the Main Panel of Point. You can send an email directly to Calyx Tech Support by clicking on the Email button on the screen that appears or you can press the Go button instead to open the Calyx Support website.



Web Site: www.calyxsupport.com
Email Address: support@calyxsoftware.com
Phone Number: 1-800-34-CALYX (1-800-342-2599)

When contacting Calyx Software, be sure to include the following:

- Full Name
- Company Name
- Phone Number and/or FAX Number
- Program Name and Version Number
- Product Serial Number (found in About Box)
- Description of the Question or Problem

Sales Email Address: sales@calyxsoftware.com
Wish List Email Address: wish@calyxsoftware.com

Figure 1.15: Calyx Technical Support

You can also reach help through the Internet by clicking on the Help menu at the top of any Prospect or Borrower file. You can search the Contents of the Help file, connect to the Calyx Software, Training and News sites on the Web, email Tech Support, or find out more about your version of Point.

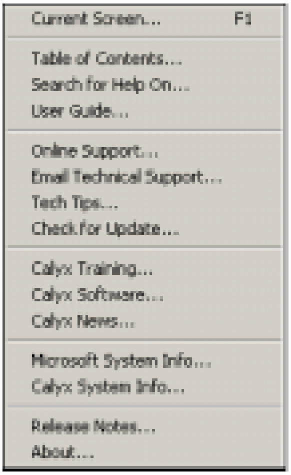


Figure 1.16: The Help menu

Accessing Point Tips and User Guides

Point Tips and Point and PointMan User Guides are available by clicking on the Help menu on any file and selecting Tech Tips or User Guide. You can also access a Point Tips screen from the Need Help? button on the Shortcut Bar inside a file (click Utilities > Shortcut Bar). That screen gives you access to all of Calyx's Tech Tips and User Guides.

Figure 1.17: Point Tips screen

Using Popup Help for Field Definitions

Point includes popup definitions for each field in the program. To enable popup definitions to show when you rest your cursor on a field, open a Point file and activate the Shortcut Bar (if it isn't already showing on your screen. See "Shortcut Bar" on page 22 for instructions for activating the shortcut bar).

From the Shortcut Bar, click on the Need Help? button, then click on the check box for Enabling Popup Help.

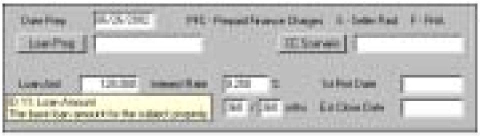


Figure 1.18: Popup field definitions

Note: Holding your cursor over the field for a few seconds will enable the definition to pop up.

Chapter 2

Setting Up Point

If you want to maximize your efficiency using Point, it's a good idea to fill out the areas in the Utilities section of Point that contain information that will be used and reused in a number of files. This way you will be able to reuse information that is frequently entered into files. Once you have filled in the Utilities information, you can transfer it into files whenever you need it. The Utilities menu contains the settings for your company information, the names of your processors and loan originators, your title and escrow tables, automatic file naming and file saving, and settings for some of the other Point options.

Filling in the Utilities Information

The Main Panel is the screen that first appears when you open Point.

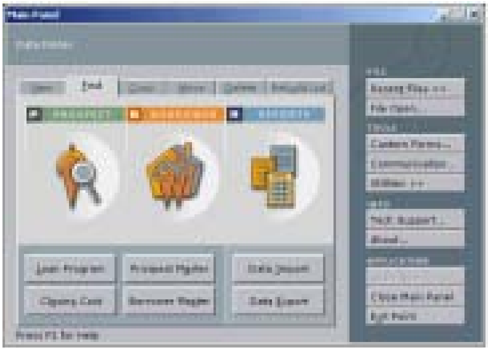


Figure 2.1: The Main Panel

You can access the Utilities menu by clicking on the Utilities button on the Main Panel of Point or by selecting Utilities on the Menu Bar in any Borrower or Prospect file.

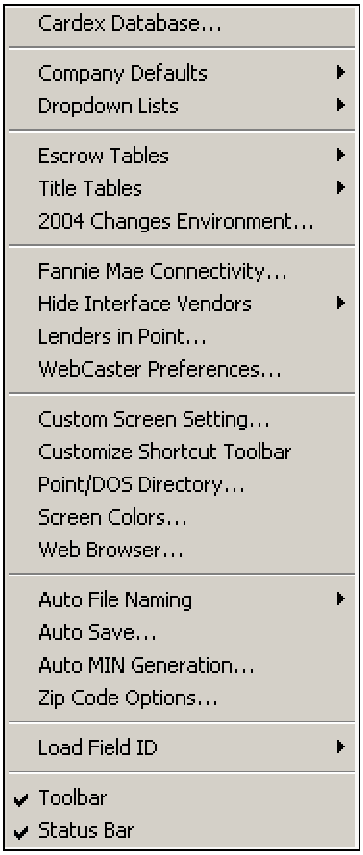


Figure 2.2: Utilities menu on the Main Panel

Additional utility options for displaying ratios and using the conversation log and the Windows calculator are available from within a Borrower or Prospect file. See “Conversation Log” on page 29, “Display Ratios” on page 28, and “Launch Calculator” on page 29 for more information about these options. For information about displaying field IDs, see “Displaying Field IDs” on page 28.

Cardex

Point contains a database called Cardex that is used for collecting and storing the names, addresses, and phone numbers for the people, companies, and institutions relating to your business.

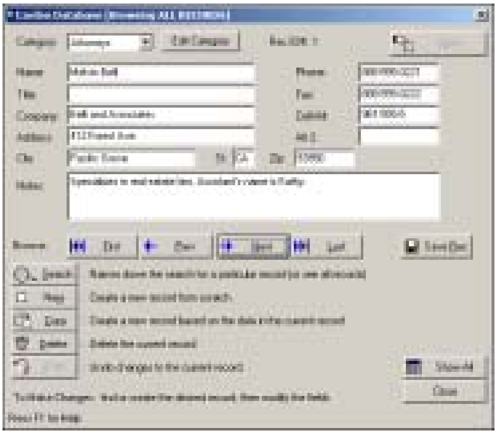


Figure 2.3: Cardex information

You can fill in the Cardex information now, or fill it in gradually, as you work in the files. To find out more about Cardex, see “Cardex” on page 277.

Company Defaults

It’s best to fill in the company defaults and the dropdown lists before you start working on files. These settings provide the default names, values, and addresses to be printed out on all your Point forms. Company defaults also include settings for disclosures and verifications.

You can set up this information in your Primary Data Folder, then transfer it to other folders using a feature in Point Administrator. See “How to Copy Folder Settings” on page 60 for information about doing this.

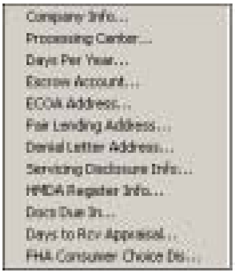


Figure 2.4: Company defaults menu

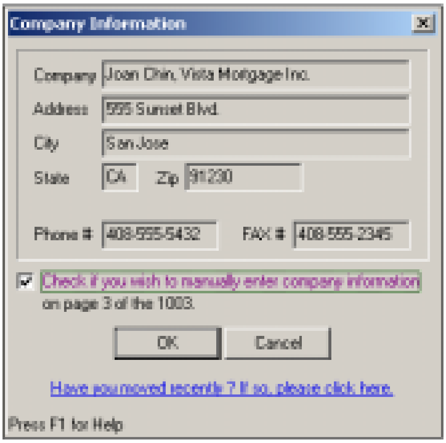
Note: The Marketing Letterhead Option is only available from the Utilities menu in a Prospect file.

Setting Up Company & Processing Center Information

The data entered in Company Information appears on all printed forms in the data folder where it was entered. The company name you type here will transfer to all other forms except verifications and Page 3 of the Loan Application (unless you choose to transfer this information to the Loan Application).

The information entered into the Processing Center screen appears on all printed verifications in this folder. Enter the same information in both the Company Information screen and the Processing Information screen if the return address for verifications and the company address is the same. Follow the instructions below.

1 Click on the Utilities button on the Main Panel or click on Utilities from the Menu Bar in any Prospect or Borrower file. Then click on Company Defaults > Company Info or Processing Center from the dropdown list.



Company: Joan Chin, Vista Mortgage Inc.
Address: 555 Sunset Blvd.
City: San Jose
State: CA Zip: 91230
Phone #: 408-555-5432 FAX #: 408-555-2345

☑ Check if you wish to manually enter company information on page 3 of the 1003.

Figure 2.5: Company Information

2 In the Company Information or in the Processing Center dialog boxes, type the name of your company or processing center, address, and phone and fax numbers, as you would like them to appear on your printed forms.

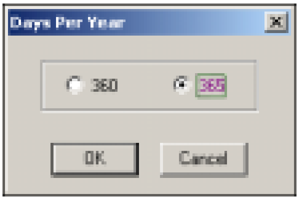
3 On the Company Information screen, click on the checkbox if you wish to allow this information to be changed on Page 3 of the Loan Application. If you have moved recently, click on the link to change your mailing address with Calyx. When you are finished entering the information, click on OK or press the Enter key.

Note: Company Defaults are specific to a single data folder. The Company Defaults you set up in Utilities apply only to the data folder in which they are created. The Processing Center information you enter appears on the verifications for the same folder. See "How to Copy Folder Settings" on page 60 for information about transferring the Utilities information to other folders.

Setting Up Days Per Year

When figuring the amount of prepaid interest to be charged in relation to a loan, lenders either base their calculations on a 360- or 365-day year. Check with your lender to determine which it should be.

1 To specify the 360 or 365-day calendar, click on the Utilities button on the Main Panel or click on Utilities from the Menu Bar in any Prospect or Borrower file. Then click on Company Defaults > Days Per Year from the dropdown list.



○ 360 ● 365

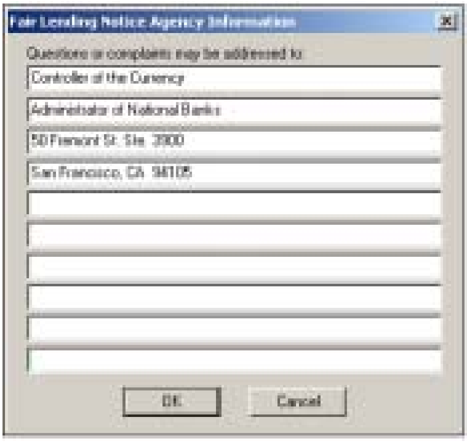
Figure 2.6: Days per year

2 Click on the number of days per year you wish to use. Then click on OK or press the Enter key.

Setting up the Fair Lending Address

Use this table to record the various addresses to which questions or comments about the Fair Lending Notice can be sent. Check with your lender to determine which address to use.

1 To open the Fair Lending Address screen, click on the Utilities button from the Main Panel or from the Menu Bar in a Prospect or Borrower file. Click on Company Defaults > Fair Lending Address from the dropdown list.



Questions or complaints may be addressed to:

Controller of the Currency
Administrator of National Banks
50 Fremont St. Ste. 3900
San Francisco, CA 94105

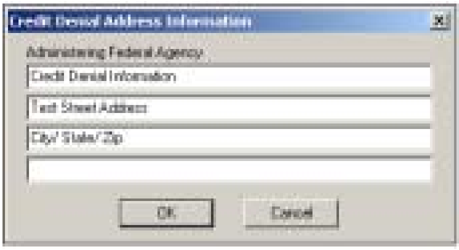
Figure 2.7: Fair Lending address

2 Enter the Fair Lending Address, then click on OK or press the Enter key.

Filling in the Denial Letter Address

This dialog box contains blank fields to record the administering federal agency name and address. Check with your particular lender to determine which address to use for each Borrower.

1 To open the Denial Letter Address screen, click on Utilities from the Main Panel or from the Menu Bar in a Prospect or Borrower file. Click on Company Defaults > Denial Letter Address from the dropdown list.



Administering Federal Agency

Credit Denial Information
Text Street Address
City/ State/ Zip

Figure 2.8: Credit Denial Address

2 Enter the Denial Letter Address, then click on OK or press Enter.

Servicing Disclosure Info

Access this table to set defaults for the Servicing Disclosure Statement. Once you have set the defaults, the fields will automatically fill when you print the servicing disclosure for any file in this data folder.

1 To open the Servicing Disclosure Info screen, click on Utilities from the Main Panel or on the Menu Bar of any Prospect or Borrower file. Click on Company Defaults > Service Disclosure Info.

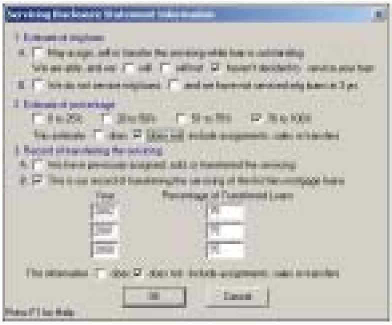


Figure 2.9: Servicing Disclosure Information

2 Fill in the fields by clicking on checkboxes to select them and type years and percentages when necessary.

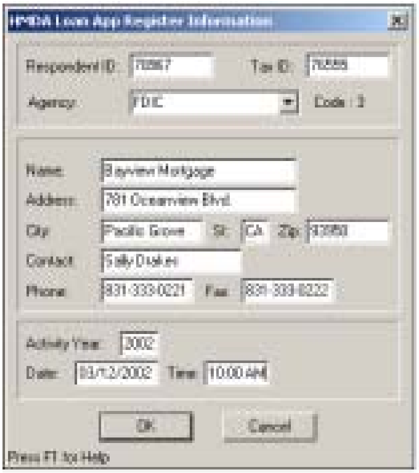
Note: In the Percentage of Transferred Loans fields, enough character space is provided to type the word "nominal."

3 When finished, click on OK or press Enter.

HMDA Register Info

When this table is completed, it allows the HMDA (Home Mortgage Disclosure Act) information common to all responses to automatically transfer to your HMDA Reports. This screen must be completed before sending your HMDA report to HUD.

1 To open the HMDA Register Information screen, click on Utilities from the Main Panel (not available from the Company Defaults menu when accessed from Utilities in Prospect files). Click on Company Defaults > HMDA Register Info from the dropdown list.



Agency: FDIC
Code : 3
Name: Bayview Mortgage
Address: 781 Oceanview Blvd.
City: Pacific Grove
St: CA
Phone: 831-333-0221
Fax: 831-333-0222
Activity Year: 2002
Date: 03/12/2002
Time: 10:00 AM

Figure 2.10: HMDA Loan App Register Screen

2 Enter the HMDA Register information. Consult your lender for more information or see "HMDA Report" on page 222. When you are finished, click on OK or press Enter.

Setting Up an Escrow Account

This Initial Escrow Account Setup box is where you specify which items, if any, will be paid from impounds, which months they will be paid, and how many months cushion will be used.

1 To bring up the Initial Escrow Account Setup screen, click on Utilities from the Main Panel or click on Utilities from the Menu Bar in any Prospect or Borrower file. Then click on Company Defaults > Escrow Account from the dropdown list. The Initial Escrow Account Setup screen appears.

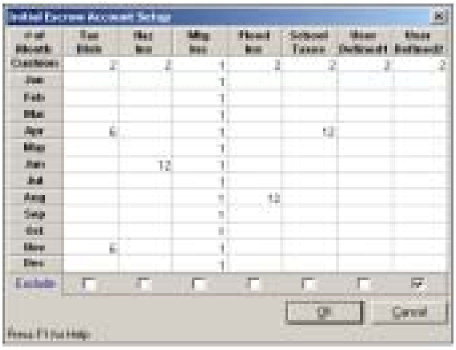


Figure 2.11: Escrow account setup

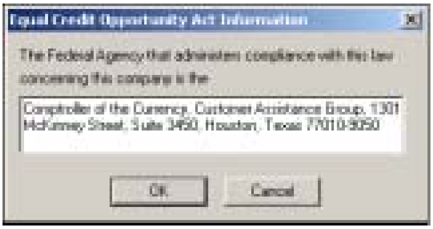
2 The cushion (the top row of the screen) is the extra impound collected in the event of an increase in the coming year's disbursements. Obtain this information from your lender.

3. Complete the table. In the month row, fill in the number of months to be paid at that time. For example, if taxes are due twice a year, fill in the number 6 in both of the months when payments are due.
4. Check the exclude box at the bottom of each disbursement column if you want to exclude that fee from the aggregate accounting (this will not exclude it from the GFE).
5. When your table is complete, click on OK or press Enter. For additional information, see “Escrow Account Disclosure (or Aggregate Escrow Account)” on page 139.

Equal Credit Opportunity Address (ECOA)

The Equal Credit Opportunity Act disclosure is accessed from the Prospect (or Borrower) Forms screen in the File menu in a Prospect or Borrower file.

The agency and address are entered from the Utilities menu by clicking on Company Defaults > ECOA Address. There are no other input areas for this form.



The Federal Agency that administers compliance with this law concerning this company is the:

Comptroller of the Currency, Customer Assistance Group, 1301 McKinney Street, Suite 3450, Houston, Texas 77010-9050

Figure 2.12: Equal Credit Opportunity Act Information

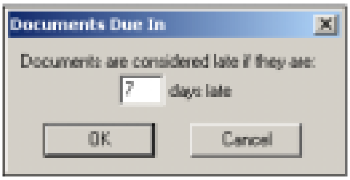
This form discloses to the Borrowers that according to the Federal Equal Credit Opportunity Act, they do not have to disclose income from alimony, child support, or any separate maintenance payment.

The applicant’s name and property information is taken from other forms in the Borrower’s file and will automatically be printed on this disclosure.

Docs Due In Screen

Specify the maximum number of days from the time when they are sent out before verifications and other processing related documents should be returned to the processor before being considered “late”. This setting provides the time limitation for late documents reports you run.

1. To open the Docs Due In screen, click on Utilities from the Main Panel or click on Utilities from the Menu Bar in any Prospect or Borrower file. Then click on Company Defaults > Docs Due In from the dropdown list.



Documents are considered late if they are:

7 days late

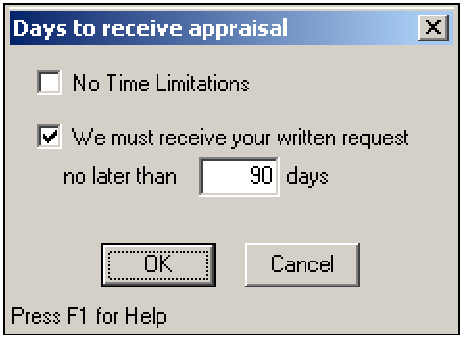
Figure 2.13: Docs Due In screen

2. Enter the Docs Due In information. When finished, click on OK or press Enter.

Days to Receive Appraisal Screen

Specify the maximum number of days from the time appraisals are sent out to the time they are returned before the request will no longer be honored. Click on No Time Limitations if the state in which the subject property is located does not require a time limit for requests.

1 To open the Days to Receive Appraisal screen, click on Utilities from the Main Panel or click on Utilities from the Menu Bar in any Prospect or Borrower file. Then click on Company Defaults > Days to Rcv Appraisal from the dropdown list.



Days to receive appraisal

☐ No Time Limitations

☑ We must receive your written request no later than 90 days

Press F1 for Help

Figure 2.14: Days to Receive Appraisal

2 Enter the Days to Receive Appraisal information, or click on No Time Limitations. Click on OK or press Enter to save the information.

Marketing Letterhead

Use the following instructions to add a logo to marketing forms.

1 Open a Prospect file and click on Utilities > Company Defaults > Marketing Letter Head. (This option is not available from the Utilities menu on the Main Panel or from within Borrower files.)

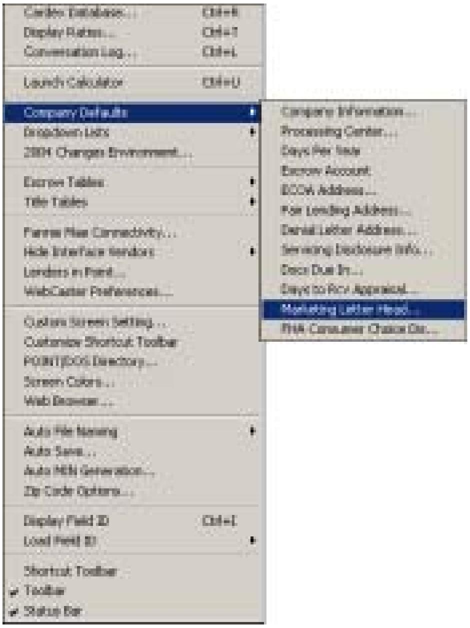
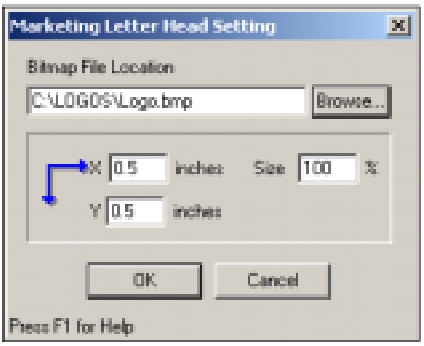


Figure 2.15: Adding marketing letterhead

2 Type the directory path to the bitmap file you wish to import or click on the Browse button to locate it. Click on OK.

3 Use Print Preview to check that the logo is located where it should be and that it is the correct size. (Click on File > Print Preview, and select the form you wish to see from the Prospect Forms menu.)

4 If you wish to move the logo, fill in the amount of change needed in the fields next to the X and Y arrows. To move the logo to the right, fill in the X field; to move it down, fill in the Y field. Add a minus sign in front of each entry to move in the opposite direction.


Marketing Letter Head Setting

Bitmap File Location: C:\LOGOS\Logo.bmp

X 0.5 inches Size 100 %

Y 0.5 inches

Figure 2.16: Marketing logo sizing

5 If you wish to resize the logo, fill in a percentage in the Size field. Click on OK.

FHA Consumer Disclosure

FHA requires that you compare an FHA loan with similar information in a non-FHA loan. The comparison does not need to be based on the loan you are working on. This information can be set up within the Utilities menu so it defaults on all loan files.

You may use the sample below that was provided by FHA, or edit any of the fields in the screen as needed. Refer to Mortgagee Letters 99-23 and 00-46 for more information.

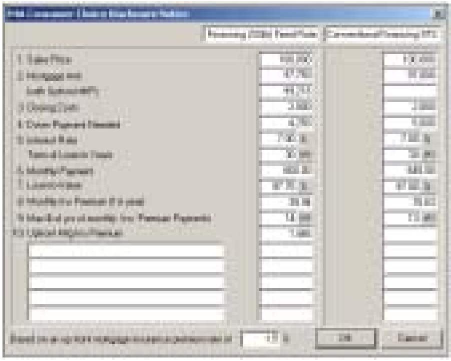


Figure 2.17: FHA Consumer Disclosure

Dropdown Lists

Point allows you to set up lists of commonly used values for names and ratios for use while filling out forms and calculating amounts. Dropdown lists are scrollable fields containing a list of choices. They help by saving you time entering data and ensure consistency and accuracy of the entries.

You may set up dropdown lists of your company's loan representatives, processors, the manner in which title will be held, the underwriter, Title, Branch, Region, Division, Team, Doc Type, Hazard Insurance, Taxes, Mortgage Insurance, City, County and State Tax, User Defined Fees, and Cardex Category (see “Cardex” on page 277).

There is also a field designated as User Defined Fee, which is similar to the City and State Tax fields, except you can set the description of the calculation.

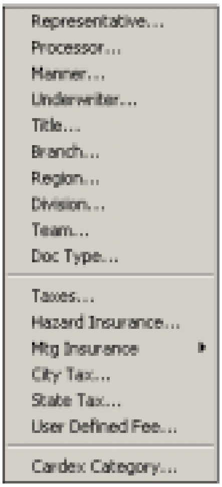
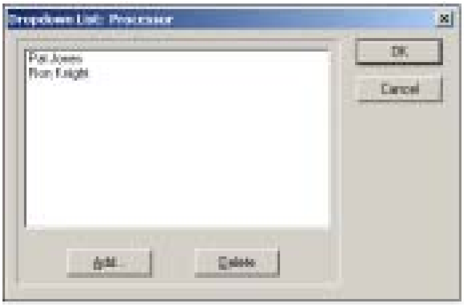


Figure 2.18: Dropdown lists

Adding Defaults to Dropdown Lists

1. Click on Utilities from the Main Panel or click on Utilities from the Menu Bar in any Prospect or Borrower file. Click on Dropdown Lists, then on the list you wish to modify.
2. To add default names or percentages to any of the dropdown lists, click on Add (or press the Alt+A keys).
3. Enter the name or number as you would like it to appear on your dropdown list and click on OK. Add more defaults in the same manner, or if finished, click OK.



Pat Jones
Ron Knight

Figure 2.19: Dropdown List - Processors

4. To create the City and User Defined Fee settings, click on the Add button, fill the description, then click on the checkbox indicating that the tax is based on either loan amount or purchase price.
5. To create State Tax settings, click Add and enter the factor.
6. Enter the desired tax rate, any additional amount, then click OK.
7. To delete a name or percentage, highlight it with your mouse and click on the Delete button (or press the Alt+D keys). When finished, click on OK.
8. To modify a setting, add the new setting and delete the old setting.

Creating Mortgage Insurance Tables

Once the dropdown lists are completely filled in, the next tables you will want to create are for Mortgage Insurance. If you have created mortgage insurance tables, when you are working on your Loan Application, Truth-In-Lending, Good Faith Estimate or some of the other forms in Point, and you get to the section for mortgage insurance, you can click on the dropdown arrows and your options for each field appears, based on what you entered in the tables.

1. These tables can be accessed by clicking on the Utilities button > Dropdown Lists > Mtg Insurance > Initial or Renewal.

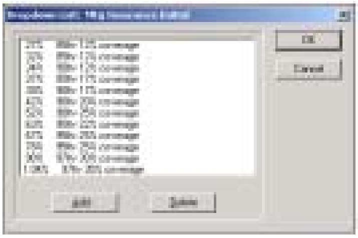
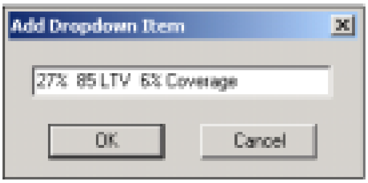


Figure 2.20: Initial table

2. Click on the Add button to enter the data for the table. A typical entry would look like the following example. Point only uses the initial percentage for its calculations. Adding other information is optional.
3. Click OK to add each line in the table.



27% 85 LTV 6% Coverage

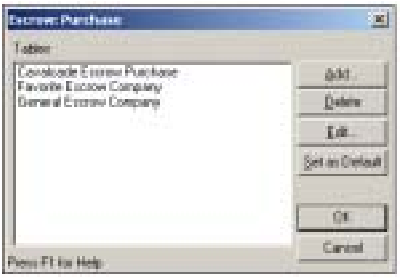
Figure 2.21: Add item to table

Note: Leave at least five spaces after the first percentage in each line to add a description.

Creating Escrow and Title Tables

Set up the Title and Escrow tables to fill in the fees that the companies you do business with charge. Setting up these tables allows you to click on a button on the Good Faith Estimate or California Mortgage Loan Disclosure Statement and have the appropriate fee transfer into the form.

1 To set up the tables, click on Utilities > Escrow Tables. Select Refinance or Purchase. The screen for that function appears.



Cavalcade Escrow Purchase
Favorite Escrow Company
General Escrow Company

Figure 2.22: Escrow Purchase tables

2 Click on the Add button to add a new table to the list.

3 Type the table name into the Table: field, then click on the Add button.

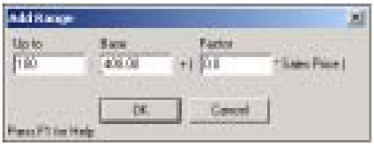


Figure 2.23: Add Range to table

4 Fill in the Up To field with the dollar amount of the first break in escrow fees.

5 Tab over to the Base field and fill in the base fee amount that corresponds to this Up To amount. The base amount will be charged as a set amount for all loans with loan amounts that are under the Up To level.

6 Tab to the Factor field and fill in the dollar amount per thousand used by the escrow company. The factor ia a percentage of the loan amount (appraised value or sales price). The factor amount will be added to the base amount to determine the total fee. Click OK to save your entry.

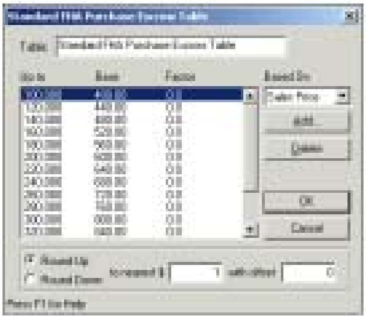


Figure 2.24: Add table items

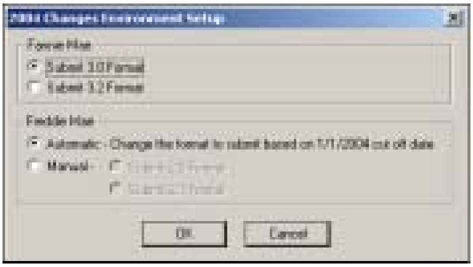
7 Create the rest of the table by clicking on the Add button again and again to add information for loans that exceed the first Up To amount. From the Based On drop-down list, select whether the fees are based on the loan amount, the sales price, or the appraised value.

8 Next, decide if you want to round the liability amounts up or down and to which nearest dollar amount. Enter an offset amount, if there is one, and click OK.

9 When you are finished building the escrow tables, use the same method to build the title tables.

2004 Changes Environment

Fannie Mae and Freddie Mac will soon change the format for their Automatic Underwriting Submissions. Use the Fannie Mae 3.0 Submit option until Fannie Mae requires you to use the 3.2 format. (Fannie Mae will still accept the 3.0 format through 2004.) To find out more about this conversion, see http://www.efanniemae.com/singlefamily/technology_tools/integration_services/1003_integration.jhtml.


2004 Changes Environment Setup

Fannie Mae
● Submit 3.0 Format
○ Submit 3.2 Format

Freddie Mac
● Automatic - Change the format to submit based on 1/1/2004 cut off date
○ Manual -

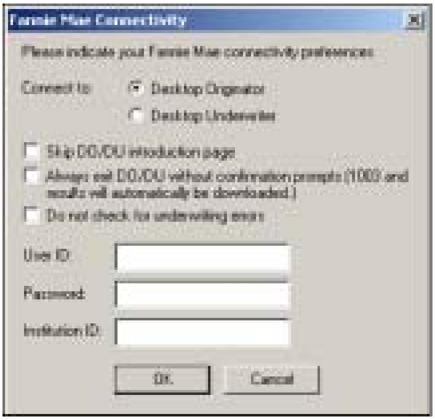
Figure 2.25: 2004 Changes Environment

When selecting your option for Freddie Mac, if you select Automatic, Point will use the defaulted format (2.0) through 12/31/2003 and switch to 2.1 format on 01/02/2004 based on the setting of your computer clock. Freddie Mac will only support the 2.1 file format in 2004.

Certain vendors or lenders may require using a different submission format than what is currently defaulted. Use the Manual option to change the Freddie format.

Fannie Mae Connectivity

This option allows you to choose the options available for connecting to Fannie Mae. Clicking on Utilities > Fannie Mae Connectivity will bring up this screen that allows you to select how you would like to be connected to Fannie Mae.


Fannie Mae Connectivity

Please indicate your Fannie Mae connectivity preferences

Connect to: ● Desktop Originator
○ Desktop Underwriter

☐ Skip DO/DU introduction page
☐ Always exit DO/DU without confirmation prompts (1003 and results will automatically be downloaded.)
☐ Do not check for underwriting errors

User ID:
Password:
Institution ID:

Figure 2.26: Fannie Mae Connectivity

- Skip DO/DU introduction page will directly launch you into DO/DU without viewing the introductory page.
- Always exit DO/DU without confirmation prompt will deactivate the feature in Point that automatically prompts you to download your 1003 and findings on exiting the Desktop Originator tab. Changes that have been made on DO/DU, credit, or new findings will download into Point automatically.

- Do not check for underwriting errors deactivates the feature in Point that checks for Fannie Mae errors, such as truncation errors.

For more information about the options in Fannie Mae, see “Interface to Fannie Mae” on page 251.

Hide Interface Vendors

You may hide any or all of the interface vendors in Point.

1 To hide interface vendors, from the Main Panel of Point, click on the Utilities > Hide Interface Vendors.

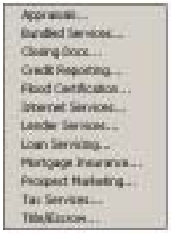


Figure 2.27: Hide Interface vendors

2 Click on the category of vendors you wish to hide. A list of all of the vendors in that category appears. Double-click on the names of the vendors you wish to hide, then click on the Close button.

Lenders in Point™

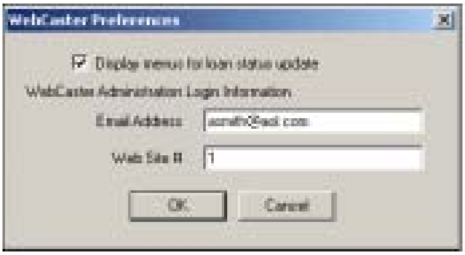
The Lenders in Point interfaces embedded in Point lets you price, approve, lock, and close loans with up-to-the-minute fully adjusted rate information.

Open the Lenders in Point screen from the Main Panel or from a Prospect or Borrower file by clicking on Utilities > Lenders in Point. Check each of the boxes that appear on this screen for the lenders you wish to access from the Lenders dropdown list on the Menu Bar of any Prospect or Borrower file.

WebCaster Preferences

WebCaster is Calyx Software’s web site creation service that allows mortgage professionals to work with the borrower community over the Internet. With this service, brokers and other mortgage professionals can generate new leads and post information about their company and their current loan products on their own unique web sites. Beginning with the next release of Point, WebCaster subscribers will also be able to display on their sites the status of each loan and update it directly from Point.

Point version 4.3 contains a new screen in the Utilities menu that will allow beta testers of WebCaster to use this new feature when it first becomes available.



☑ Display menus for loan status update

WebCaster Administration Login Information

Email Address: asmith@aol.com

Web Site #: 1

Figure 2.28: WebCaster Preferences

The feature will become available for WebCaster beta testers in the late Fall release of WebCaster and to all WebCaster subscribers in the Spring, 2004 release of Point. These testers will be able to click on Interfaces > WebCaster and have the choice of going directly to the Admin Login or View status screen in WebCaster or they can update the Loan Status on their web site from Point.

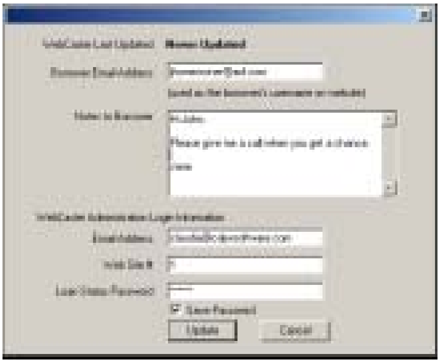


Figure 2.29: WebCaster Connection

For information about WebCaster, see http://calyxsoftware.com/solutions/webcaster/ or call the Calyx Order Desk at (800) 342-2599.

Custom Screen Setting

You may create up to four customized screens in Point in this section of Utilities. Each screen you create may contain up to 25 fields of information and appears in the Forms dropdown menu in Borrower and Prospect files.

Creating a Custom Screen

1 Click on Utilities from the Main Panel or from the Menu Bar in any Prospect or Borrower file, then click on Custom Screen Setting. The Custom Screen Settings screen appears.

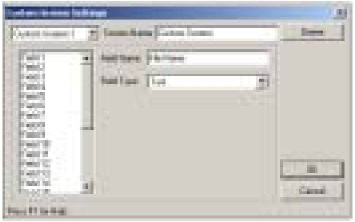


Figure 2.30: Custom Screen Settings

2 Click on the dropdown list for the Custom Screen number and select the screen you will be creating or editing (select Custom Screen 1 if this is the first screen you will be working on).

3 Give the screen a name and enter it into the Screen Name field.

4 Click on Field 1 and enter the Title for that field in the Field Name field. Then click on the type of information you intend to enter into the field in the Field Type field.

Note: Select Disabled if you only want the title of the field to appear in the report but you do not intend to enter data in the data field.

5 Click on Field 2 and repeat the process listed in Step 4 above. Continue filling in each line until you have all of the information listed (up to 25 fields). Click OK to close the screen and save it.

6 To view the screen, open any Borrower or Prospect file. Click on Forms > Custom Screens/Fields, then select the form you wish to view. The screen you created may look similar to Figure 2.31.

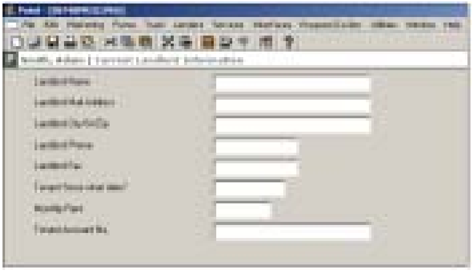


Figure 2.31: Custom screens

Shortcut Bar

You can access the setup screen for the shortcut bar from the Utilities menu on the Main Panel of Point or from the Utilities menu in any Prospect or Borrower file.

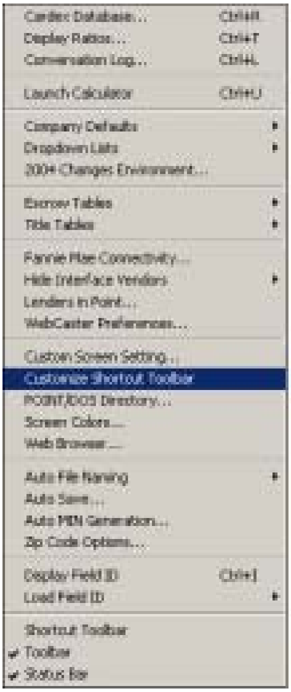


Figure 2.32: Customize toolbar menu

Each workstation will probably need its own unique setting for the shortcut bar. You can set one sequence for Prospect forms and another sequence for Borrower forms. Each workstation must be set up separately.

1 To set up the shortcut bar, from the Main Panel or from inside either a Prospect or a Borrower file, click on Utilities > Customize Shortcut Toolbar. The Customize Borrower Shortcut Toolbar screen appears listing every modifiable form in Point.

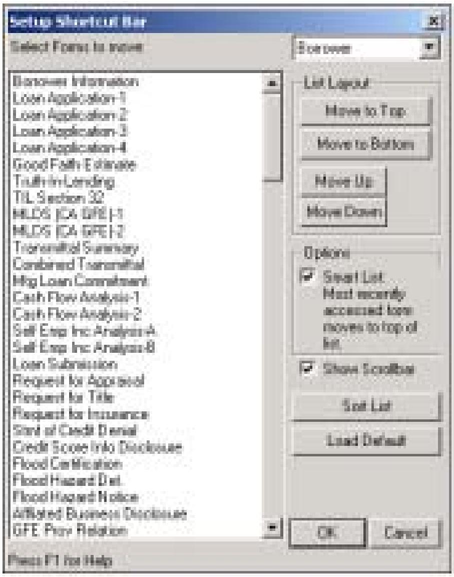


Figure 2.33: Customize Borrower toolbar

2 To customize the toolbar, select from the dropdown list on the upper right-hand corner of the screen, the type of files you wish to make the shortcut bar contain (either Prospect or Borrower files).

- Click on a form and use any one of the four move buttons to change its location in the list.

- Click inside the Smart List checkbox if you wish to display the list in the order of the most recently accessed forms first.
- Click on the Show Scrollbar option if you wish to view all of the forms in the list.
- Click on Sort List if you want to sort the list alphabetically.
- Click on Load Default to set the list order to the default settings.

3 Click the OK button to confirm your choices or on Cancel to leave the toolbar the way it was before you started.

Activating the Shortcut Bar

Access the toolbar from the Utilities menu inside a Prospect or Borrower file.

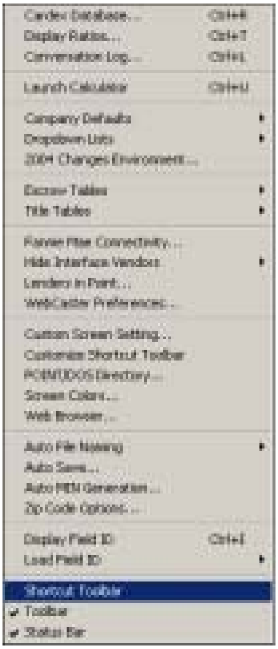


Figure 2.34 Activate shortcut bar

When the Shortcut Bar appears, click on any one of the forms in the list.

Note: If you don't see the toolbar after you have followed the steps above, you may need to change the size of your screen. Follow the instructions in the next section.

Changing the Screen Size

If your screen size is too large, you may not be able to see the shortcut bar on the right side of the screen, or the toolbar may cover up fields that you need to be able to see. If you wish to change the size of your screens, you'll need to access the control panel in your computer.

1 Click on the Windows® Start button at the bottom of your screen, then click on Settings > Control Panel. The Control Panel screen appears.

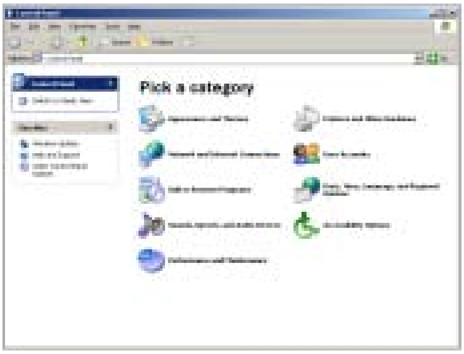
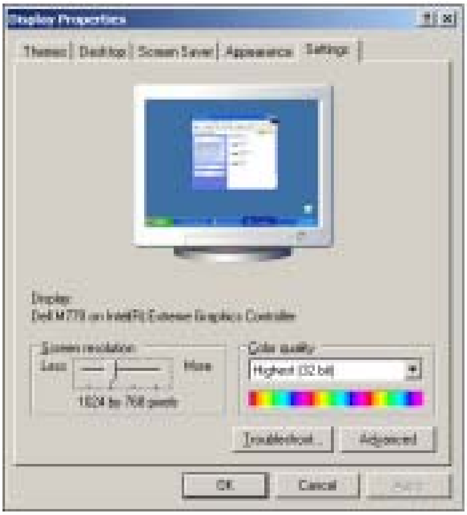


Figure 2.35: Control Panel

2 Double-click on the Display icon and click on the Settings tab. The Display Properties screen will open.



Display:
Dell M770 on Intel(R) Extreme Graphics Controller

Screen resolution: Less — More: 1024 by 768 pixels

Color quality: Highest (32 bit)

Figure 2.36: Display Properties

3 In the Screen Area section, move the arrow to the right to make screens smaller and to the left to make them larger.

Note: Most Point users prefer 800 by 600 pixels.

4 Click OK to save your settings. You may need to restart your computer before the changes can be seen.

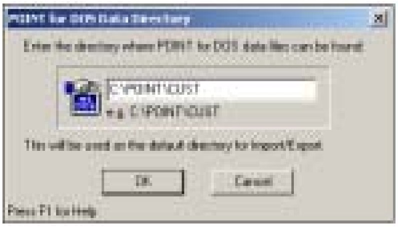
Point/DOS Directory

You may import Point for DOS files to this Point version. If you have active files in a DOS version of Point that you would like to copy to this Point version, you must first set up the Point/DOS Directory from the Utilities menu.

Setting Up the Point for DOS Data Directory

1 Click on Utilities from the Main Panel or from the Menu Bar in any Prospect or Borrower file. Click on Point/DOS Directory and enter the path to the directory containing the DOS files.

2 Add the customer sub-directory, CUST, to the directory.



Enter the directory where POINT for DOS data files can be found:

C:\POINT\CUST

e.g. C:\POINT\CUST

This will be used as the default directory for Import/Export.

Figure 2.37: Point/DOS Directory

3 Click on OK to save the path.

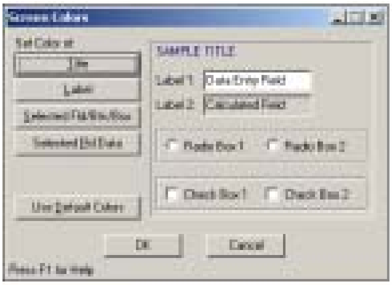
Screen Colors

You may change the colors of certain fields, titles, and labels in the Point screens. The Color dialog box also allows you to define custom colors.

Note: While changing the screen colors is an option available in Point, it is not recommended. Changing the colors can make the information in some fields difficult to read.

Changing Screen Colors

1 Click on Utilities from the Main Panel or from the Menu Bar in any Prospect or Borrower file. Click on Screen Colors and the Screen Colors screen appears.



Label 1: Data Entry Field

Label 2: Calculated Field

Figure 2.38: Screen colors

2 Click on the button for the item you wish to change. The Color dialog box appears. Click on the desired color for the type of field and click on OK.

3 To create a custom color, click on the Define Custom Colors button on the Color dialog box.

4 If you want to return to the original screen colors, click on the Use Default Colors button.

5 Click on OK to save your choices.

Locating Your Web Browser

If you have more than one web browser on your PC and wish to help the Point program locate the web browser you wish to use, click on Utilities > Web Browser.

1 Type the path to your web browser in the Find a Web Browser screen.

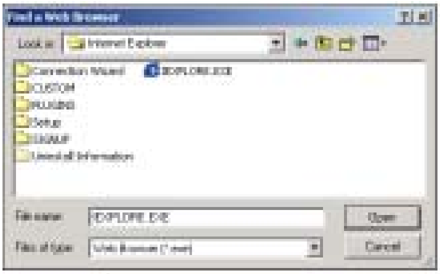
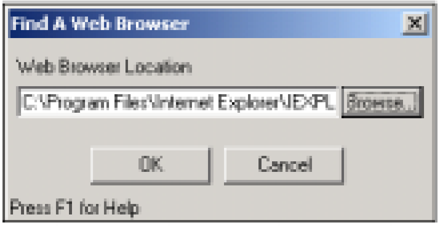


Figure 2.39: Web browser path

2 If you don't know the correct path for the executable for your web browser, use the Browse button on the screen to locate it. The following screen shows the typical path to the executable for Internet Explorer.



Web Browser Location: C:\Program Files\Internet Explorer\IEXPL

Figure 2.40: Internet Explorer path

Auto File Naming

When creating new files, you have the option of letting Point name the files for you based on the criteria you set in the Auto File Naming screen. Auto File Naming is useful for ensuring unique names for each file so that files are not accidentally overwritten by other files (this can happen if you use the Borrower's last name for the file name).

Note: Enabling Auto File Naming is required when you are importing a batch of files into Point.

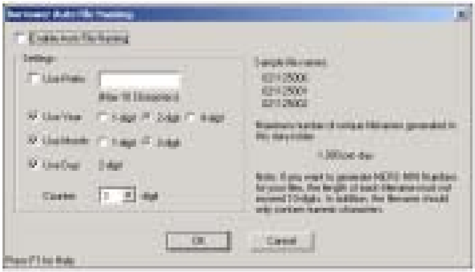


Figure 2.41: Automatic File Naming

1 Open Auto File Naming from the Utilities menu on the Main Panel or from a Prospect or Borrower file. Click on Auto File Naming > Prospect or Borrower.

2 Check the box to enable Auto File Naming, then set your criteria. You may want to use a prefix in the settings to separate files coming into the same directory from different offices.

3 Use the year, the month, and the day in the file name to tell at a glance the date the file was opened. Use the counter to state how many digits you want to appear following any other information you selected for the file name.

Note: If you plan to generate MERS MIN numbers for your files, the length of the file name should not exceed 10 characters and should contain only numerals.

4 Click OK to save the settings.

Auto Save

This feature allows Point to save a file automatically whenever you switch from one screen to another in the application. This helps you to prevent losing files by forgetting to save your work.

Some Point users activate this feature to save the time of having to manually save the file every time changes are made. You may not wish to activate the Auto Save feature in Prospect files if you frequently tinker with different loan scenarios, and want to return to the original information that you entered.

1 To activate Auto Save, click on Utilities > Auto Save.

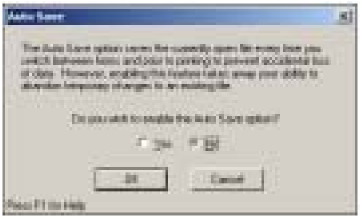


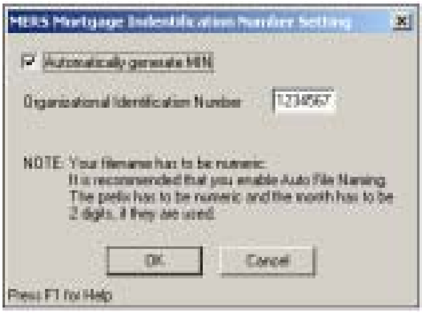
Figure 2.42: Auto Save

2 Click on Yes to enable Auto Save, then click OK.

Auto MIN Generation

Activate the Auto MIN Generation feature in Point if you want Point to automatically generate your MERS (Mortgage Electronic Registration System) Mortgage Identification number for you.

Note: If you use this feature, your file name must consist of only numerals.


MERS Mortgage Indentification Number Setting

☑ Automatically generate MIN

Organizational Identification Number: 1234567

NOTE: Your filename has to be numeric.
It is recommended that you enable Auto File Naming.
The prefix has to be numeric and the month has to be 2 digits, if they are used.

Figure 2.43: Auto MIN generation

1 To automatically generate MIN numbers in Point, click on Utilities > Auto MIN Generation.

2 Click in the checkbox to automatically generate MIN numbers and enter your 7-digit Organizational Identification Number, then click OK. The MERS MIN number will appear on the General Tracking screen in the Lenders section.

Note: To enable Auto File Naming to work with this feature, any prefix you use in the file name must consist of only numerals and if you use the month in your file name, it must consist of two digits.

For more information about MERS, see http://www.mersinc.com.

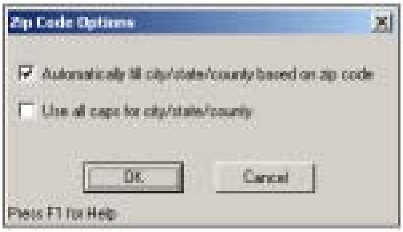
Zip Code Options

Point contains an optional search engine that auto-populates the City, State, and County fields whenever a valid United States five-digit ZIP code is entered.

Note: Zip Code information is frequently changed by the Postal Service. Check with your post office to ensure that the zip code you enter is accurate.

1 To activate Zip Code Options, click on Utilities from the Main Panel or from the Menu Bar in any Prospect or Borrower file.

2 Click on Prospect or Borrower and the Zip Code Options screen appears.



☑ Automatically fill city/state/county based on zip code

☐ Use all caps for city/state/county

Figure 2.44: Zip Code Options

3 Click on the first checkbox to activate the ZIP Code Engine. Clicking it again removes the check and deactivates it.

4 Click on the second checkbox if you process files in all capital letters and want the city, state, and county in all capital letters also.

5 Click on OK to save your choices.

Using the ZIP Code Engine

From any form in a Borrower or Prospect file, enter the ZIP code, then tab to the next field in the screen. The corresponding city and state (and county, when applicable) abbreviation appears in the correct fields.

Note: Zip Code information is frequently changed by the Postal Service. Check with your post office to ensure that the zip code you enter is accurate.

Load Field ID and Display Field ID

There are more than 10,000 fields in Point, and most of them can be included in creating data import, data export, custom forms, or report templates. If you want to create form letters or forms using Point data or import data from other applications, you may need to create a template correlating Point's fields with those of other applications.

The Load Field ID and Display Field ID options in Point allow you to view and print most of the field IDs in the forms in Point. Use the Load Field ID option to display all the fields in Borrower or Prospect files. Use the Display Field ID option to display the field ID for a particular field on the status bar at the bottom of the screen you are currently working in.

Note: The Load Field IDs option takes you out of the screen you are working in and into a new file which displays every field with its corresponding ID number in it.; the Display Field ID option keeps you in the same file where you are working.

Loading Field IDs

1 To load field IDs, click on Utilities from the Main Panel or click on Utilities from the Menu Bar in any Prospect or Borrower file. Click on Load Field ID > Borrower or Prospect. The Prospect or Borrower Information screen appears, displaying the field IDs for the fields contained in that screen.

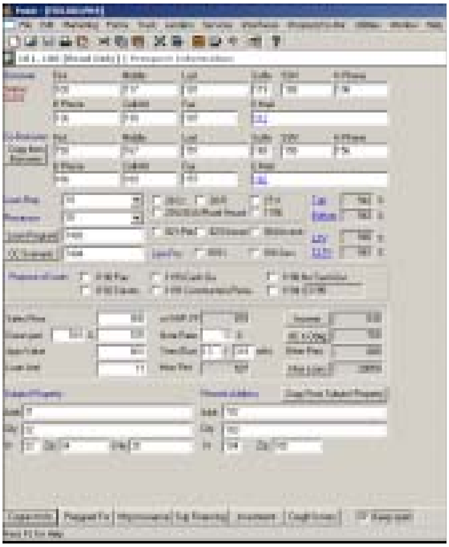


Figure 2.45: Load Field ID

Displaying Field IDs

1 Click on Utilities from the Menu Bar in any Prospect or Borrower file. Click on Display Field ID.

2 Clicking in any field in the screen you are currently working in will display the field ID for that field on the status bar at the bottom of the screen.

Toolbar and Status Bar

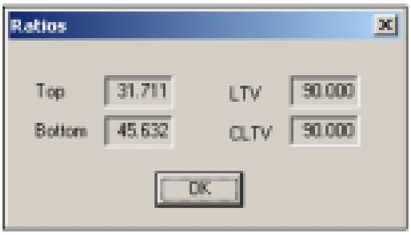
The Toolbar contains icons that replicate some of the commonly used Menu Bar functions. The Status Bar on the bottom of the screen shows the date, time, field IDs, and other Help messages. You may choose to view or not to view them.

1 To activate the toolbar and status bar, click on Utilities from the Main Panel or click on Utilities from the Menu Bar in any Prospect or Borrower file. Click on Toolbar or Status Bar to activate or deactivate them.

Note: A check mark indicates that the bar is activated.

Display Ratios

The Display Ratios feature in Point is available from a Borrower, Prospect, or Master File (this feature is not available from the Main Panel). This feature allows you to see at a glance the ratios Point uses to determine the eligibility for a loan.



Ratios

Top 31.711
Bottom 45.632
LTV 90.000
CLTV 90.000

Figure 2.46: Display Ratios screen

The Top Ratio, also called the Front-End Ratio or Housing Ratio, is calculated by dividing the proposed total monthly mortgage payment (which includes principal, interest, taxes, insurance, and mortgage insurance) by the gross monthly income.

The Bottom Ratio, also called the Back-End Ratio or Total-Debt Ratio, is calculated by dividing the total monthly mortgage payment + the monthly recurring debt by the gross monthly income.

Ratio Guidelines

80% LTV	33 / 38
90% LTV	28 / 36
95% LTV	25 / 33

Conversation Log

A Conversation Log is available in Point to record information that pertains to a Prospect or Borrower. The Conversation Log in any file can record notes, phone calls, conversations, and reminders of appointments and scheduled meetings that concern a particular file. The Conversation Log is available from a Borrower, Prospect, or Master File (this feature is not available from the Main Panel).

Using the Conversation Log

1 Click on Utilities from the Menu Bar in any Prospect or Borrower file (not available from the Main Panel Utilities menu). Click on Conversation Log and the Conversation Log screen appears.

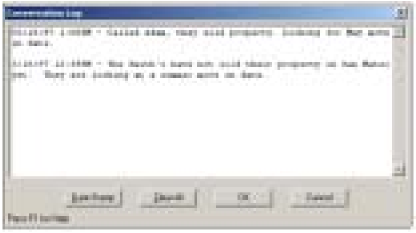


Figure 2.47: Conversation Log

2 Enter notes, then click on the Date Stamp button. Click on OK to save the information. See “Setting Up and Using Security Levels” on page 63 to add security to the conversation log.

3 Print the Conversation Log by selecting Print from the File menu and select Conversation Log in the Prospect Forms screen.

Launch Calculator

Launch Calculator activates the Windows default calculator and can be used to perform simple mathematical calculations.

1 To launch the calculator, click on Utilities from the Menu Bar in any Prospect or Borrower file (not available from the Main Panel Utilities menu).

2 Click on the numbers and operations as you would a desktop calculator.

Note: Amounts calculated with Point's calculator can be copied and pasted into desired fields. Select the number to highlight it, then from the Edit menu, click on Cut or Copy. Paste the number into the desired field.

Getting Help

To find out more information about any of the options in the Utilities menu, press the F1 button after you click on the option and a help file appears explaining what to do next.

Chapter 3

Moving around in Point

The Main Panel functions as Point's central control area. When you enter Point, the Main Panel opens, and from here you can access all files.

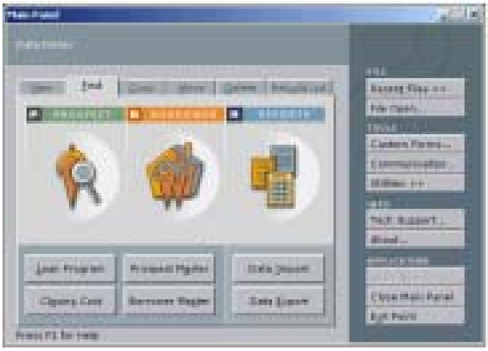


Figure 3.1: Main Panel

The Main Panel

The Data Folder field at the top of the screen displays the name of the data folder that is currently open. You may select other data folders to work from after you have created them. For information about creating new data folders, see "Point Administrator" on page 57.

Use the buttons and the tabs on the Main Panel of Point to navigate through the program. The following tables describe the various functions of these buttons and tabs.

Main Panel Tabs

Button	Description
New	Creates a new file. See "Creating New Prospect or Borrower Files" on page 38.
Find	Opens an existing file. See "Opening Saved Prospect or Borrower Files" on page 40.
Copy	Copies one or more files from one data folder to another, and to floppy and zip disks. See "How to Copy Files from One Data Folder to Another" on page 52.
Move	Moves files from one data folder to another, and back and forth between data folders and floppy and zip disks. See "How to Move a File Between Data Folders" on page 51.
Delete	Deletes an existing file or files. See "How to Delete Prospect, Borrower, or Co-Borrower Files Linked to Other Active Files" on page 45.
Rebuild List	Re-indexes a file list so that the Prospect or Borrower file list reflects all files.

File Type Buttons

Button	Description
	Accesses the files of leads not yet committed to a loan. See “File Types” on page 35.
	Accesses individual active files in the pipeline. See “Borrower Files” on page 35.
	Creates summaries of Prospect and Borrower files. See “Reports” on page 215.
Prospect Master Borrower Master	Creates master templates for Prospect and Borrower files. See “Prospect Master File Basics” on page 211 and “Borrower Master File Basics” on page 212.
Loan Program	Creates templates for Loan Programs/Truth in Lending. See “Loan Program Templates” on page 207.
Closing Cost	Creates templates for Closing Cost/Good Faith information. See “Closing Cost Scenario Templates” on page 209.
Data Import Data Export	Accesses the engine to import and export data into and out of Point files to and from other applications. See “Data Import” on page 231 and “Data Export” on page 237.

Other Buttons on the Main Panel

Button	Description
Recent Files >>	Accesses a list of the last nine files used.
File Open...	Accesses Point files that don’t appear in a file list or index. Use this feature to open files saved to a floppy or zip drive.
Login Again...	Prompts to re-enter password for access to folders. See “Security” on page 62.
Custom Forms...	Allows you to create custom forms in Point. See “Custom Forms” on page 203.
Communication...	Transfers files via the modem. See “Communications” on page 283.
Utilities >>	Sets file information to be used in multiple files. See “Filling in the Utilities Information” on page 9.
Tech Support...	Explains how to get help by e-mail or phone. See “Tech Support on the Internet” on page 6.
About...	Displays the Point program information screen with your serial number and the version of Point installed.
Close Main Panel	Closes the Main Panel without exiting Point. Use this button to minimize the application from the Main Panel.
Exit Point	Closes Point.

Toolbar Buttons

Button	Description
🗋	Accesses the Main Panel to create a new file.
📂	Accesses the Main Panel to open a previously saved file.
💾	Saves a file.
🖨	Prints a form or worksheet.
📧	Opens the email menu.
✂	Cuts the selected text and places it on the clipboard (for temporary storage).
⧉	Copies the current selection to the clipboard.
📋	Pastes the contents of the clipboard to the file.
%	Displays the income-to-debt and loan-to-value ratios (combined when there is a Co-Borrower).
🗒	Opens a Conversation Log.
🖩	Accesses the Windows calculator.
🗃	Opens the Cardex Database.
✉	Notifies and opens incoming messages from vendors.
▤	Accesses the Shortcut bar.
?	Accesses context sensitive online help.

Navigating the Screens

You may use either the mouse pointer or the keyboard to move around the Point screens.

Movement, Activating, Scrolling and Hot Keys

Point uses all conventional Windows movement keys. Learning these keys will enable you to move through the forms quickly and efficiently.

When you see an underlined letter in a menu item, hold the Alt key and press that letter on the keyboard to activate that menu item.

Movement Keys

Key	Description
Tab	Moves forward one field.
Shift+Tab	Moves backward one field.
`Alt` + ⇒	Jumps forward one section.
`Alt` + ⇐	Jumps backward one section.

Activating Keys

Key	Description
Enter	Activates the highlighted command.
Esc	Closes a dialog box; cancels the command.
Spacebar	Activates the highlighted button.

Hot Keys

Key	Description
Ctrl + L	Conversation Log
Ctrl + U	Launch Calculator
Ctrl + R	Utilities, Cardex Database
Ctrl + N	File, New
Ctrl + O	File, Open
Ctrl + S	File, Save
Ctrl + P	File, Print
Ctrl + Z	Edit, Undo
Ctrl + X	Edit, Cut
Ctrl + C	Edit, Copy
Ctrl + V	Edit, Paste
Ctrl + D	Edit, Paste Date

Scrolling Keys

Key	Description
Ctrl + PageDown	Scrolls form down one page.
Ctrl + PageUp	Scrolls form up one page.
Ctrl + ⇓	Scrolls form down one line.
Ctrl + ⇑	Scrolls form up one line.
Ctrl + ⇒	Scrolls form right one line.
Ctrl + ⇐	Scrolls form left one line.
Ctrl + Home	Scrolls to top of form.
Ctrl + End	Scrolls to bottom of form.

Chapter 4

Working with Point Files

Point has nine types of files: Prospect, Borrower, Report, Loan Program, Closing Cost, Prospect Master, Borrower Master, Data Import, and Data Export. To access any of the forms or worksheets in the Point program, you must first access a file. Access all file types from the Main Panel.

File Types

Prospect Files

When you begin a file, you generally open a Prospect file. Prospect files contain all the marketing tools and the preliminary disclosures and processing forms. Prospect files do not contain all the forms necessary to process a loan.

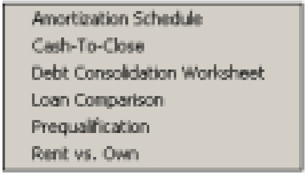


Figure 4.1: Marketing options in Prospect files

Use the Prospect files as temporary files to keep track of leads, market Loan Programs, prequalify individuals, run preliminary Good Faiths, and to start the Loan Application. With Prospect files, you can open "dummy" files and do quick prequals on the phone without having to worry about cluttering up your "real" files in the pipeline, because those files are separate.

When the Prospect has committed to a loan and is no longer a lead, you can copy or move all the Prospect information to a "real" file, a Borrower file. For information about filling in the Prospect information screen, see "Borrower, Prospect, & Co-Borrower Information" on page 135.

Borrower Files

Borrower files are the permanent files that make up your pipeline. These files contain the necessary forms needed to process the loan.

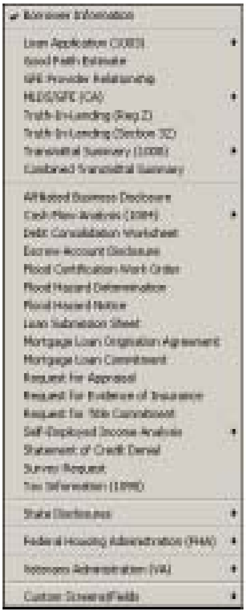

Borrower Information
Loan Application (1003)
Good Faith Estimate
GFE Provider Relationship
MLDS/GFE (CA)
Truth-In-Lending (Reg Z)
Truth-In-Lending (Section 32)
Transmittal Summary (1008)
Combined Transmittal Summary
Affiliated Business Disclosure
Cash Flow Analysis (1084)
Debt Consolidation Worksheet
Escrow Account Disclosure
Flood Certification Work Order
Flood Hazard Determination
Flood Hazard Notice
Loan Submission Sheet
Mortgage Loan Origination Agreement
Mortgage Loan Commitment
Request for Appraisal
Request for Evidence of Insurance
Request for Title Commitment
Self-Employed Income Analysis
Statement of Credit Denial
Survey Request
Tax Information (1098)
State Disclosures
Federal Housing Administration (FHA)
Veterans Administration (VA)
Custom Screens/Fields

Figure 4.2: Borrower Forms menu

Borrower files do not contain the marketing forms, because the individual is past the stage of being a Prospect and is now a Borrower. Because Borrower files will never contain dummy or “dead” files, your pipeline and the reports you generate will be clean.

All of the information you already typed into the Prospect files can be copied into your newly opened Borrower file.

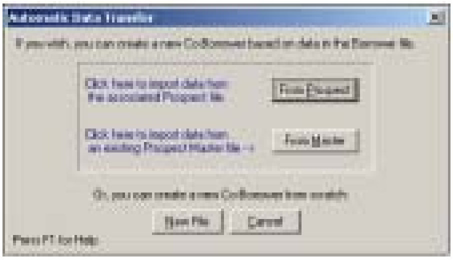


Figure 4.3: Automatic Data Transfer screen

You may also open a new Borrower file and not copy the contents of a Prospect file into it. For this reason, many of the Prospect preliminary forms are also available in Borrower files.
For information about filling out Borrower files, see “Borrower, Prospect, & Co-Borrower Information” on page 135.

Templates

To save time and reduce data entry errors, you can create template files that contain information common to a large group of files. There are four kinds of template files (Borrower Master, Prospect Master, Loan Program, and Closing Cost), and all are accessed using the buttons on the Main Panel. To find out more about using template files, see “Loan File Templates” on page 207.

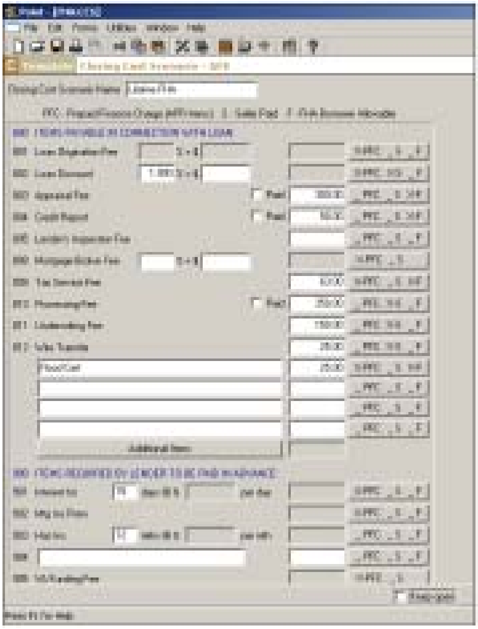


Figure 4.4: Closing Cost Scenario

Reports

Reports are files that summarize data from all files and compile them into an orderly printout (see “Reports” on page 215). Reports can be generated and exported to other applications to create form letters and to use Point data in other programs.

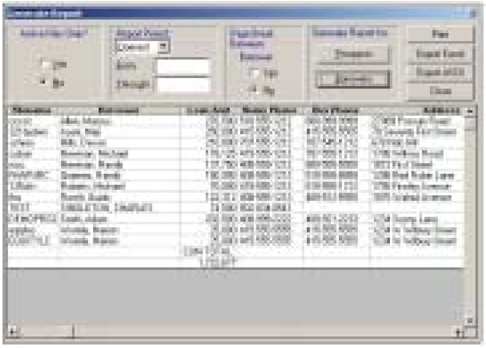
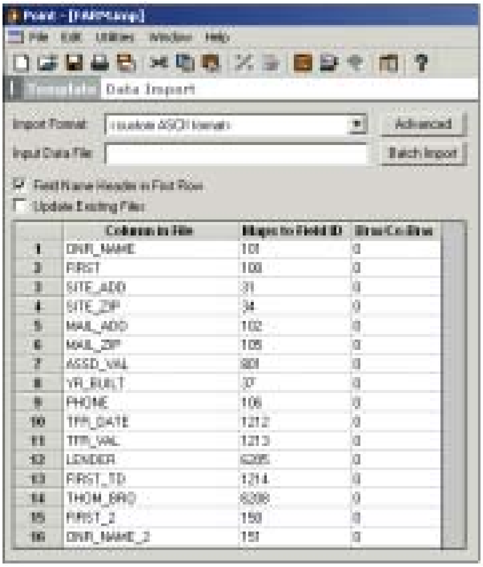


Figure 4.5: Property Address report

For more information about reports, see “Reports” on page 215.

Data Import

The Data Import engine copies fields of information to Point Prospect and Borrower files from other applications, such as contact management programs, databases, computer lead services, or credit report providers. A data import file is an ASCII text-only file based on a template comprised of Point fields. For more information about data import, see “Data Import” on page 231.



Data Import

Import Format: <custom ASCII format>

Input Data File:

☑ Field Name Header in First Row

☐ Update Existing Files

	Column in File	Maps to Field ID	Brw Co-Brw
1	OWR_NAME	101	0
2	FIRST	100	0
3	SITE_ADD	31	0
4	SITE_ZIP	34	0
5	MAIL_ADD	102	0
6	MAIL_ZIP	105	0
7	ASSD_VAL	801	0
8	YR_BUILT	37	0
9	PHONE	106	0
10	TRR_DATE	1212	0
11	TRR_VAL	1213	0
12	LENDER	6205	0
13	FIRST_TD	1214	0
14	THOM_BRO	6208	0
15	FIRST_2	150	0
16	OWR_NAME_2	151	0

Figure 4.6: Data import template

Data Export

The Data Export engine copies fields of information from Point Prospect and Borrower files to other applications, such as word processors, spreadsheets, and databases. A data export file is an ASCII text-only file based on a template comprised of Point fields. For more information about data export, see “Data Export” on page 237.

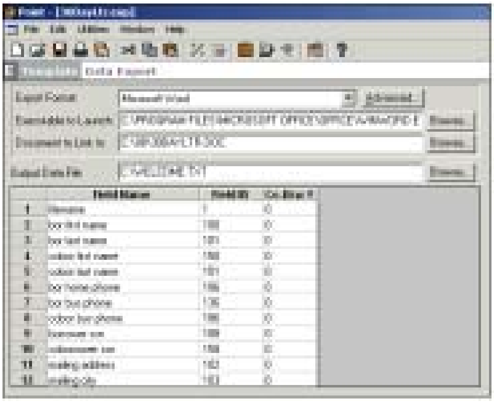


Figure 4.7: Data export template

Interfaces

The Interfaces option on the Menu Bar on all Prospect and Borrower files connects Point users to Fannie Mae and Freddie Mac, and also to Calyx Software's Preferred Point Partners. These are vendors who have integrated their software applications to work seamlessly with Point. These interfaces allow users to send or receive data to and from vendors without having to exit from Point. For more information about interfaces, see “Interfaces” on page 249, “Interface to Fannie Mae” on page 251, “Interface to Freddie Mac” on page 261 and “Lenders and Services in Point” on page 245.

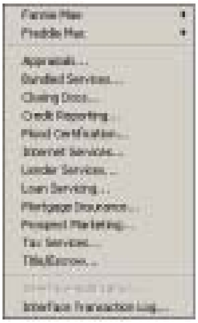


Figure 4.8: Interfaces menu

Creating, Copying, Moving, and Saving Files in Point

This section includes instructions for the following functions:

- Creating new Prospect or Borrower files
- Creating a second file for an existing Prospect or Borrower
- Saving Prospect or Borrower files
- Opening saved Prospect or Borrower files
- Creating Co-Borrower files
- Finding saved Co-Borrower files
- Swapping Prospects and Borrowers with Co-Borrowers
- Saving Files
- E-mailing Prospect or Borrower files
- Downloading Prospect or Borrower files from e-mail
- Deleting Prospect or Borrower files
- Copying Prospect files to Borrower files
- Copying or moving Borrower files to Prospect files
- Moving files from one data folder to another
- Copying files to/from floppy disks
- Copying files to/from zip disks
- Data backup through Windows Explorer®

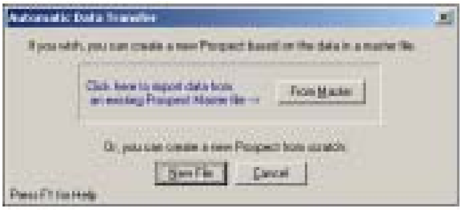
Creating New Prospect or Borrower Files

Follow the instructions below for creating new files (see definitions of each in “File Types” on page 35 and in “Borrower Files” on page 35 for information about the differences in these types of files).

How to Create a New Prospect or Borrower File

1 Click on the New tab on the Main Panel (or press the Alt+N keys).

2 Click on the button: Prospect (Alt+P) or Borrower (Alt+B). The Automatic Data Transfer screen opens.



If you wish, you can create a new Prospect based on the data in a master file.

Click here to import data from an existing Prospect Master file -->

Or, you can create a new Prospect from scratch.

Press F1 for Help

Figure 4.9: Automatic Data Transfer screen

If you are creating a new Prospect file your choices are:

- From Master: Copies data from an existing Prospect Master File to your new file. Double-click on your desired Master File in the File Name box, or highlight it and click on OK.

Note: See “Master File Templates” on page 211 for information about creating your templates.

- New File: Creates a new Prospect file with all entry fields blank.

If you are creating a new Borrower file your choices are:

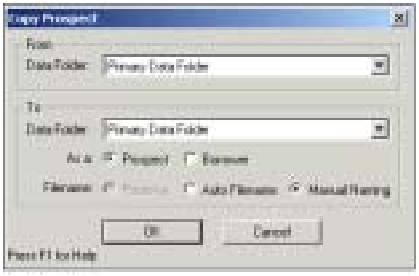
- From Prospect: Copies data from an existing Prospect file to your new file. Double-click on your desired Prospect file in the File Name box, or highlight it and click on OK.
- From Master: Copies data from an existing Borrower Master File to your new file. Double-click on your desired Master File in the File Name box, or highlight it and click on OK.

  Note: See “Master File Templates” on page 211 for information about creating your templates.
- New File: Creates a new Borrower file with all entry fields blank.

3. When you enter a file, the Information screen opens showing summary information for file. The data entered here transfers to all other applicable screens.

How to Create a Second File for an Existing Prospect or Borrower

1. From the Main Panel of Point, click on Copy, then on the Prospect or Borrower button.
2. Select the To folder and whether the file will copy as a Prospect or Borrower file.



From
Data Folder: Primary Data Folder
To
Data Folder: Primary Data Folder
As a: ● Prospect ○ Borrower
Filename: ○ Previous ○ Auto Filename ● Manual Naming

Figure 4.10: Creating second files

3. Give the new file a new name. If your original file had other files associated with it, those files will copy over as well.
4. Click OK to save the new file.

   Note: Remember to delete any tracking information that may have transferred over into the new file.

Saving Prospect and Borrower Files

Point files are saved by clicking on the floppy disk icon (💾) on the toolbar, or selecting File > Save (or Save As) from the Menu Bar inside the file. The first time you save a file, however, you must give the file a name or let the file name be automatically generated.

Point also provides two options for naming files when saving them, as well as an option to have the current file saved automatically whenever the user moves from one screen to another (see “Auto Save” on page 26.)

You can have Point assign a sequential file name automatically based on parameters you set, or you can type the file name in manually every time you create a new file. For instructions on setting up the Auto File Naming sequences, see “Auto File Naming” on page 25.

Note: The file name must not contain any of the following characters: \ / : * ? " < > | before the .brw or .prs at the end of the name.

Point automatically saves all Prospect files with a .prs extension and all Borrower files with a .brw extension. Do not change the extension Point automatically assigns to the file.

Opening Saved Prospect or Borrower Files

You can open a saved Prospect or Borrower file using the mouse or the keyboard.

How to Open a Saved File

1 Click on the Find tab on the Main Panel (press on the Alt+F keys). Then click on either the Prospect (Alt+P) or Borrower (Alt+B) button. A list of search fields appears.

2 Find saved files by choosing any one of the following criteria.

- Last Name: the primary Borrower's last name.
- File Name: the file name you saved the file as.
- Rep Name: the loan representative's name.
- First Name: the primary Borrower's first name.
- Contact Date: the first contact date on the Next Contact dialog box (accessed from the command bar at the bottom of the Prospect and Borrower Information screens).

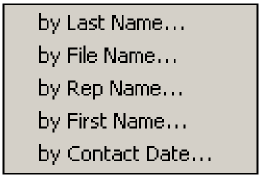


Figure 4.11: List of search criteria

- You may sort your list of files and pull up only those with certain identifying characteristics. For example, you can Find by Rep Name and extract only those files belonging to a specified loan representative. Or you can Find by Contact Date and extract only those files with the specified next contact date. See "Scheduling Calls and Meetings" on page 68 for more information about finding files by contact date.
- If you have a large number of files in the current data folder, be as specific as possible when searching for files. This will narrow the search parameters and produce the desired file quicker.
- Click on one of the search criteria (Last Name, for example). If you are using the keyboard only, type the underlined letter (L, for example).

3 The List dialog box appears next. In the Begins With field, type the information you are searching for (Smith, for example, or type S to get all last names beginning with S), or leave the field blank to list all files.

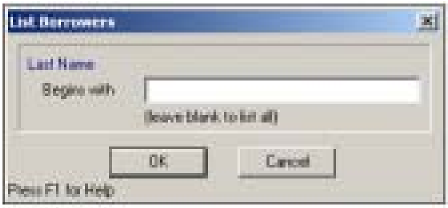


Figure 4.12 List Borrowers

The File List appears containing the file(s) matching your search definition. Click on the List Co-Brw button to view the list of Co-Borrowers.

4 From the File List, highlight the desired file. To do so with the keyboard, press the Spacebar. After you have selected your file(s), click on OK, or press Enter, or double-click on the filename to open the file.

Advanced Find

Use the Advanced Find feature in Point to locate files based on Subject Property Address, Present Address, Processor's Name, Borrower's Home Phone or Business Phone, or by the Co-Borrower's First Name, Last Name, or Home or Business Phone Number.

1 Click on the Find tab at the bottom of the Main Panel (press on the Alt+F keys). Then click on either the Prospect (Alt+P) or Borrower (Alt+B) button. A list of search fields appears.

2 Find saved files by choosing any one of the following criteria.

- Last Name: the primary Borrower's last name.
- File Name: the file name you saved the file as.
- Rep Name: the loan representative's name.
- First Name: the primary Borrower's first name.
- Contact Date: the first contact date on the Next Contact dialog box (accessed from the command bar at the bottom of the Prospect and Borrower Information screens).

3 Click on one of the search criteria (Last Name, for example). If you are using the keyboard only, type the underlined letter (L, for example).

4 The List dialog box appears next. In the Begins With field, type the information you are searching for (Smith, for example, or type S to get all last names beginning with S), or leave the field blank to list all files.

5 The File List appears containing the file(s) matching your search definition. Click on the Advanced Find button Advanced Find... . The Advanced Find screen appears.

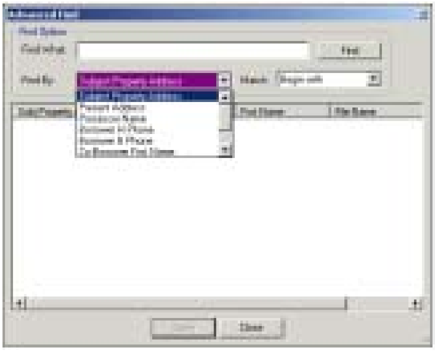


Figure 4.13: Advanced Find screen

6 In the Find By field, select from the dropdown list the field for which you wish to search.

7 In the Find What field, type in the specific information for the field you want to find.

8 Click on the dropdown list for the Match field to specify how closely you want the typed information in the previous step to match the actual file.

9 Click the Find button to view the files that match your request.

10 Select a file and double-click on it or click on the Open button to open it.

Note: The search engine in the Advanced Find feature in Point may run more slowly over a network than the standard search engine in Point because file name information is not saved on your computer as it normally is.

Children & Families
Commission of Orange County

Children and Families Commission

occhildrenandfamilies.com

Documentation

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Kathie Ohmer – Nakoma Group

Introduction

Gary Neshanian is the designer, developer and programmer contracted by the Children and Families Commission of Orange County, from Kathie Ohmer at the Nakoma Group, to build the http://www.occhildrenandfamilies.com web site.

Purpose

This document is a guideline for maintenance or modification to the CFCOC web site.

This document was taken from a larger template used by Gary Neshanian and downsized to meet the needs of this project.

Scope

This document covers all materials delivered by Gary Neshanian.

The design from the original bid was changed, to include a database backend that is supplied by the Internet Host Provider, CS&O. The technical specifications, documentation and training of the CEMS service are not covered here, and are their responsibility.

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Sections

Introduction	Introduction, purpose, scope and contact information
Table of Contents	Listed by section and page
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1 System	Specifications and contact information
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Table of Diagrams

1 System

1.1 Hostname

occhildrenandfamilies.com (org, .net)
Windows 2000, Microsoft Internet Information Server,
provided by the Internet Host Provider.

1.2 Internet Host Provider

CS&O
15 Enterprise, Suite 500
Aliso Viejo, CA 92656
949-448-4920

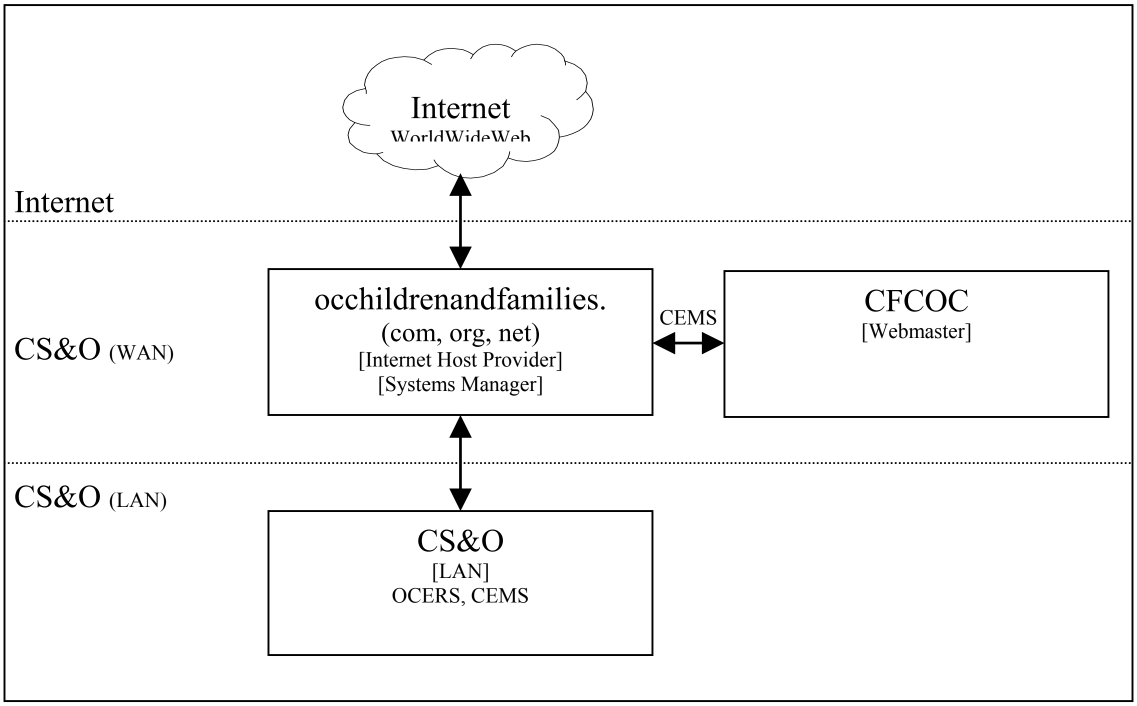
1.3 Systems Manager

Keith Stanislaw
CS&O
keith.stanislaw@csando.com

1.4 Webmaster

Joelle Casteix or Terrie Druehl
Children and Families Commission of Orange County
17320 Redhill Ave. Suite 200
Irvine, CA 92614
714-834-4765

2 Network



Network Diagram

2.1 CFCOC

Children and Families Commission of Orange County, consists of a Local Area Network of personal computers are running various Windows operating systems and applications. The County of Orange maintains the LAN for CFCOC.

2.2 CS&O

Corporation for Standards and Outcomes (CS&O), has been providing Outcomes Collection Evaluation and Reporting Services (OCERS). CFCOC has switched their web site hosting from the County of Orange to CS&O.

It was decided in the middle of this project to also integrate the Calendar Event Management System (CEMS) services, provided by CS&O, into the web site.

2.3 Updates

The web master at CFCOC can send *static web html* changes or updates to the systems manager at CS&O, in the form of *emails* (uploadrequests@csando.com).

The web master changes *dynamic data* using the *CEMS* system, which is documented and training provided by CS&O. The CEMS system handles Word.doc, Adobe Acrobat.pdf and Text/HTML.txt document types, along with a list of People, Events, Organizations and other information for the commission's web site.

3 Services

3.1 HTTP

The web server is hosted on a Windows 2000 machine, running Microsoft Internet Information Server, and is managed by CS&O.

3.2 SQL Server Database

The Microsoft SQL Server is also hosted and managed by CS&O. The Database server hosts the information for the other services provided by CS&O: OCERS, CEMS.

3.3 OCERS

The Collection Evaluation and Reporting Services (OCERS) is a service provided by CS&O for the management and maintenance of the grantee database. This service is provided and accessed outside of the CFCOC web site.

3.4 CEMS

The Calendar Event Management System (CEMS) is a new service, which is used to manage and maintain a dynamic database for the web site.

This includes documents, people, events, organizations and other information that change on an on going basis for the commission.

The CEMS information is accessed and presented on the web site through the standard ASP/VB script process, and is documented here in section 4.4, the cems.asp section.

Use of the CEMS system is documented and supported by CS&O themselves.

4 Web Site

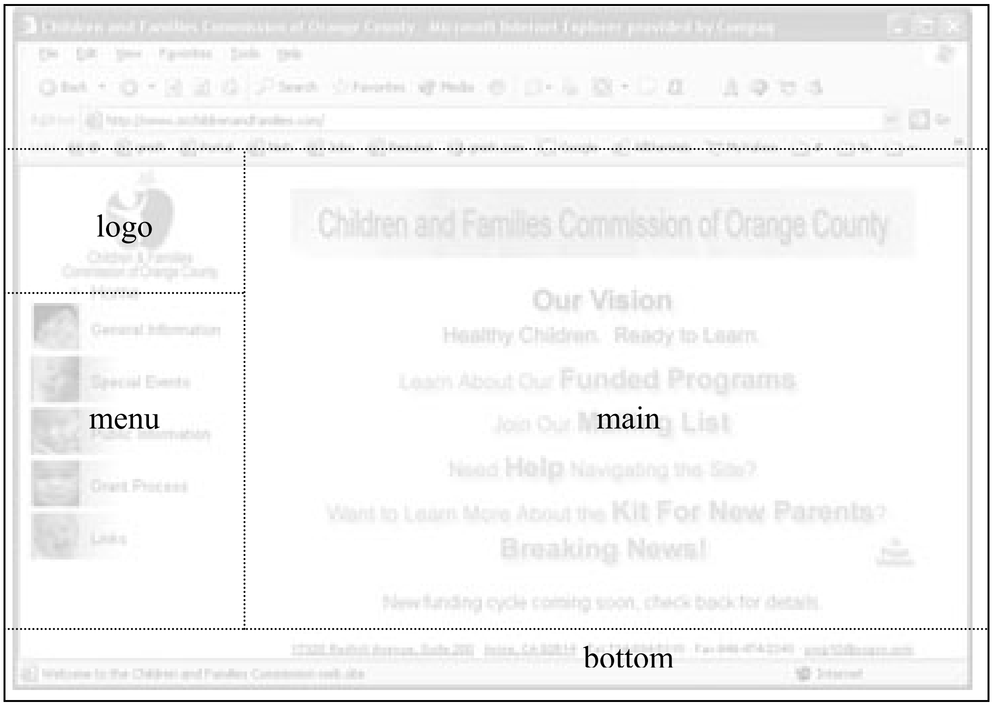
4.1 History

The Children and Families Organization of Orange County web site was funded by the Proposition 10 Tobacco Tax initiative, approved by California voters just as the state's Tobacco Settlement Revenue agreement was achieved.

The Orange County Children and Families Commission, the organization tasked with overseeing the allocation of funds received through Proposition 10, has developed this web site to aid in the education, health and child care programs that promote early childhood development, from prenatal to age five.

4.2 Overview

The web site is designed with 4 frames (logo, menu, main, bottom), using standard html code. The site uses both standard html pages (.html), and active server pages (.asp) to retrieve and present information in the appropriate frame. VB scripting in the ASP pages retrieves dynamic data from the CEMS system. Macromedia Flash is used in an optional opening front page and on a tutorial page demonstrating how to navigate the site.



Children and Families Commission of Orange County

Our Vision

Healthy Children. Ready to Learn.

Learn About Our Funded Programs

Join Our Mailing List

Need Help Navigating the Site?

Want to Learn More About the Kit For New Parents?

Breaking News!

New funding cycle coming soon, check back for details.

Frames Diagram

4.2.1 Index.html

The main page of the web site is a standard index.html file with frame declarations for each of the 4 following frames.

4.2.2 Logo (CFCOC apple)

The logo is a static html page (logo.html) that displays the CFCOC apple graphic file (images/cfcoc-logo.gif).

4.2.3 Menu (Menu - of children's faces)

The menu frame is a static html page (menu.html) that displays the 5 categories of information for the web site. The html uses the mouseover event to popup a list of the categories features or functions. The categories include General Information, Special Events, Public Information, Grant Process and Links.

4.2.4 Main (Main Window)

The main frame of the browser window is where the features or functions from a category are displayed. This is where the real content of the web site is presented. When a function or feature of a category are selected, the static or dynamic information goes in this frame.

4.2.5 Bottom (Address and Phone)

The bottom frame contains the address and phone information that appears at the bottom of the browser window, and is a static html file (bottom.html).

4.3 Organization

4.3.1 Files

Standard web page files, found mostly in the root or category folders:

.html	Hypertext Markup Language, conventional web page files within these pages there is also Java and Visual Basic script programming

Script files, mostly in the CEMS folder:

.asp	Active Server Pages, used to extract CEMS data and create html code within these pages there is also Visual Basic script programming

Graphical files, mostly in the images folder:

.gif	Graphic Image File, standard web graphics files
.jpg	Joint Photographic, standard web graphics files

CEMS files are defined and documented in section 4.3.3 .

4.3.2 Folders/Directories

The web site is broken into a collection of folders or directories, one for each category.

Additionally there are folders for images, sounds, and administration.

A folder to handle all CEMS access, was added after the initial design and specification.

Some of these folders are no longer used after the CEMS integration, but due to lack of configuration control, they have not been removed from the server and are listed here.

admin	replaced by CEMS
calendar	replaced by CEMS, now called Special Events
cems	asp/vbscript code for CEMS requests
cluster	dropped after the initial design
gen-info	static files for the General Information category
cfc	static html pages for the Commission
agendas	replaced by CEMS
minutes	replaced by CEMS
tac	static html pages for the TAC group
agendas	replaced by CEMS
minutes	replaced by CEMS
grant	static files for the Grant Process category
images	graphical files (gif, jpg)

links	static files for the Links category
pub-info	static files for the Public Information category
financial	Financial reports, now stored in CEMS
newsletters	NewsLetters, now stored in CEMS
pr	Public Releations, now stored in CEMS
reports	Reports, now stored in CEMS
sounds	sound file (.wav)

4.3.3 CEMS

These are the definitions defined and used in the CEMS system. The category types and proper usage should be found in the CEMS documentation from CS&O.

Organization Types		affiliated organization to the commission
1	Commission	the CFCOC organization
2	Independent	a independent organization
3	Grant	a CFCOC grant organization
4	Funded	a CFCOC funded organization
5	Vendor	outside vendors

Roles		roles that people perform for the commission
1	Commissioner	a commissioner or board member
2	TAC Member	a technical advisory committee member
3	Staff	office personnel at the commission
4	Vendor	an outside vendor or contractor
5	Speaker	a speaker at commission events
6	Presenter	a presenter at commission events

Event Types		events that the commission holds and schedules
1	Commission Meeting	a regular monthly commission meeting
2	TAC Meeting	a TAC meeting
3	Milestone	a milestone tracked in the CEMS system
4	Vendor Meeting	meetings held with outside vendors
5	Speech	a commission event involving a speech
6	Presentation	a commission event involving a presentation
7	Workshop	a commission workshop
8	Press Release	a commission pres release

Question Types		faqs that hadn't been defined yet by the commission
1	Commission	a frequently asked question about the commission
2	TAC	
3	General	
4	Public	
5	Grant	

General Documents			documents associated with events held by the commission
1	CFC OC	318	a general document, presented on the web site
2	CFC Agenda	309	agendas for commission meetings
3	CFC Minutes	310	minutes from commission meetings
4	TAC Agenda	311	agendas for TAC meetings
5	TAC Minutes	312	minutes from TAC meetings
6	Highlights	385	meeting highlights

7	Invitations	384	event invitations
8	Press Releases	313	press releases from the commission
9	Reports	314	reports released by the commission
10	Presentations	322	presentations used at commission events
11	Newsletters	323	news letters released by the commission
12	FAQs	382	frequently asked questions with document answers
13	Links	315	a url to a affiliated web site or organization

Occurrence Documents			documents generated for or at meetings
1	Agenda		agendas for meetings
2	Minutes		minutes taken at meetings

Documents			documents generated for events
1	Agenda		meeting agendas
2	Minutes		meeting minutes
3	Press Releases		press releases
4	Reports		special reports
5	Presentations		presentations at events

General Formats			built in document formats in CEMS
1	PDF	7	Adobe Acrobat.pdf
2	DOC	89	Microsoft Word.doc
3	TXT	93	Plain Text.txt
4	RTF	95	Rich Text Format.rtf
?	PPT	?	Microsoft Powerpoint (not yet supported)

4.4 CEMS.asp

4.4.1 Include

All CEMS interfacing in done through a single ASP/VB file called cems.asp, and is included with a:
<!--#include file="cems.asp" --> asp statement.

4.4.2 dsptbl

All CEMS interfacing in done through a single ASP/VB function called dsptbl

Function dsptbl(vtbl,vhdr,vtable,vselect,vwhere,vorder)

The dsptbl function accepts 6 arguments:

1 vtbl	optional html table defintion, default:"<TABLE Border='1' cellpadding='2' cellspacing='1'>"
2 vhdr	[true | false] determines whether the column title is to be displayed in the table
3 vtable	name of the CEMS table to be displayed
4 vselect	list of fields to be extracted for each CEMS record
5 vwhere	SQL record filter, Orange County domain: Domain_ID='{F0522241-9C66-4EAA-B6A5-24B19DED3554}'
6 vorder	optional SQL field sort order

Combined these arguments make a SQL: SELECT vselect FROM vtable WHERE vwhere ORDER BY vorder

4.4.3 vselect

vselect is also used to control new columns in the tables, create href hyperlinks for URL values, create href hyperlinks for Upload_Path values, and to retrieve and display CEMS documents themselves.

If a field name is repeated	a new | column is displayed in the table
If URL is listed	then a href to the URL, named the next field value
If Upload_Path is listed	then a href to the Upload_Path, named the next field value
If Upload_Path,Upload_Path is listed	then the CEMS document is displayed

4.4.4 Internal Variables

Some internal variables are used to configure the CEMS interface

vdebug	[true | false] will generate some debug information on the screen
vmode	[adb | cems] says what cems database to use, adb allows a Access DataBase to be used
uploadpath	"https://apps.csando.net/cems2/ai/uploads/occhildrenandfamilies/"
sConn	"Provider=SQLOLEDB.1;SERVER=10.1.59.14;UID=occemswebaccess;PWD=oc123*!;DATABASE=CEMS"

4.4.5 Overview

Basic program flow in dsptbl:

```
oConn.Open sConn                                                                 '
sCmd = "SELECT "&vselect&" FROM "&vtable&" WHERE "&vwhere&" ORDER BY "&vorder
set rs = oConn.Execute(sCmd)

if not rs.eof then
    while not rs.eof
        for each oField in rs.fields
            PROCESS EACH RECORD FIELD AND DISPLAY IN HTML TABLE
            PLAY CLOSE ATTENTION TO “vselect” ARGUMENT FOR SPECIAL DISPLAYING
        next
        rs.movenext
    wend
end if
rs.close
set rs = nothing
oConn.Close
```

4.4.6 Examples

Example 1: | First_Name Last_Name **|** Title |

```
<!--#include file="cems.asp" --><%
dsptbl "",false,"people","First_Name,Last_Name,Last_Name,Title","Role_Key_ID=285 AND Domain_ID='{F0522241-9C66-4EAA-B6A5-24B19DED3554}'","Title,Last_Name"
%>
```

Example 2: | Description | **Name** |

```
<!--#include file="cems.asp" --><%
dsptbl "",false,"Documents","Description,Description,URL,Name,URL","Category_Key_ID=315 AND Domain_ID='{F0522241-9C66-4EAA-B6A5-24B19DED3554}'",""
%>
```

Example 3: a hyperlink, and not a table is displayed: Mission Statement

```
<!--#include file="cems.asp" --><%
dsptbl " ",false,"Documents","Upload_Path,Name,Upload_Path","Name='Mission Statement' AND Domain_ID='{F0522241-9C66-4EAA-B6A5-24B19DED3554}'","Date"
%>
```

Example 4: the **CEMS document** named ECENA is displayed, instead of a table

```
<!--#include file="cems.asp" --><%
dsptbl " ",false,"Documents","Upload_Path,Upload_Path","Name='ECENA' AND Domain_ID='{F0522241-9C66-4EAA-B6A5-24B19DED3554}'","Date"
%>
```

4.4.7 Listings

```
CEMS.asp file listing:
<%
' dsptbl - Display Table from CEMS database - written by Gary Neshanian January 2003, consulting@gnish.com
Function dsptbl(vtbl,vhdr,vtable,vselect,vwhere,vorder)    ' SQL - SELECT vselect FROM vtable WHERE vwhere
ORDER BY vorder

     ' vtbl=non-default table definition
     ' vhdr=display column header from db (true|false)
     vdebug=false                                                ' debug on screen (true|false)
     vmode="cems"                                                ' database mode: sql | adb | cems | open
     dim sConn, oConn, sCmd, rs, oField                    ' asp-sql variables
     ' sql server database   - Provider=SQLOLEDB.1;SERVER=BOCK;UID=sa;PWD=;DATABASE=cfcoc -
Provider=SQLOLEDB.1;SERVER=BOCK;UID=sa;PWD=;DATABASE=cfcoc
     tserver="csodev"
     tuid="Garyn_cemsdev" ' "ocadmin"
     tpwd="cems123!" ' "cookie1"
     tdatabase="CEMS"
     uploadpath="https://apps.csando.net/cems2/ai/uploads/occhildrenandfamilies/"

     ' create ADO connection object
     set oConn = Server.CreateObject("ADODB.Connection")

     ' define connection string
     if (vmode = "adb")  then sConn = "Driver={Microsoft Access Driver (*.mdb)};
Dbq="&"C:\inetpub\clients\cfcoc\cems\CEMS.mdb"
     if (vmode = "cems") then sConn =
"Provider=SQLOLEDB.1;SERVER=10.1.59.14;UID=occemswebaccess;PWD=oc123*!;DATABASE=CEMS"

if vdebug then Response.Write("Database access: "&vmode&"<br>")            'if (vmode <> "open") then

     ' open the database connection
     oConn.Open sConn

if vdebug then Response.Write("ADODB.Connection: "&sConn&"<br>")
```

```
     ' construct Transact - SQL statement - SELECT list [INTO table] FROM table [WHERE search] [GROUP expr]
[HAVING cond] [ORDER BY exp [ASC|DESC]]
     sCmd = "SELECT "&vselect&" FROM "&vtable
     if vwhere <> "" then sCmd = sCmd&" WHERE "&vwhere
     if vorder <> "ASC" and vorder <> "" then sCmd = sCmd&" ORDER BY "&vorder

     ' Execute Transact-SQL statement and assign to rs object
     if vdebug then
          Response.Write("Transact-SQL statement: "&sCmd&"<br>")
     else
          set rs = oConn.Execute(sCmd)
     end if


if not vdebug then

     ' construct HTML table of Data
     if (vtbl <> "") then Response.Write(vtbl) else Response.Write("<TABLE Border='1' cellpadding='2'
cellspacing='1'>") ' "<TABLE Border='1' cellpadding='2' cellspacing='1' width='90%'>")
     if not rs.eof then

          ' write out column headings - if vhdr=true
          Response.Write("<tr>")
          for each oField in rs.fields
               if vhdr then Response.Write("<td>" & oField.name & "</td>")
          next
          Response.Write("</tr>")

          ' write out each record - rs("ID")
          while not rs.eof
               Response.Write("<tr>")                              ' start new row
               Response.Write("<td>")                              ' start new column
               ' write out each field winthin reach record
               oLast=""
               oURL=""
               oUpload=""
               ' go through each field in record
               for each oField in rs.fields
```

```
                  if (oField.value =  "Breaking News") then        ' breaking news on the front page
                      Response.Write("</a><IFRAME SRC=""" & uploadpath & oUpload & """ FRAMEBORDER=""0""
WIDTH=""100%"" HEIGHT=""40"" MARGINWIDTH=""0"" MARGINHEIGHT=""0""></IFRAME>")
                  elseif (oField.name =  "URL") then               ' url in field list
                      if (oURL = "") then                                ' ahref - first
                            if (oField.value <> "") then Response.Write("<a href='"& oField.value & "'
target='_blank'>")
                            oURL=oField.value
                      else                                               ' /a - second url
                            Response.Write("</a>")
                            oURL=""
                      end if
                  elseif (oField.name =  "Upload_Path") then       ' upload in field list
                      if (oLast = "Upload_Path") then                    ' two uploads goto upload page
                            Response.Write("<script language=""javascript"">")
                            Response.Write("location.href="""& uploadpath & oField.value & """")
                            Response.Write("</script>")
                      end if
                      if (oUpload = "") then                             ' first - ahref
                            'if (oField.value <> "") then Response.Write("<a href='"& uploadpath &
oField.value & "' target='_blank'>")
                            'if (oField.value <> "") then Response.Write("<a
href='vbscript:window.open("""& uploadpath & oField.value & ""","""",""toolbar=no,menubar=no,status=yes"")'
target='_self'>")
                            if (oField.value <> "") then Response.Write("<a
href='javascript:window.open("""& uploadpath & oField.value &
""","""",""toolbar=0,location=0,directories=0,status=0,menubar=0,scrollbars=1,resizable=1,copyhistory=0"");
close();' target='_blank'>")
                            oUpload=oField.value
                      else                                               ' second - /a
                            Response.Write("</a>")
                            oUpload=""
                      end if
                  else                                             ' non url and upload
                      if (vselect = "*") then Response.Write("</td><td>")  ' * separates all columns
                      if (oField.name = oLast) then                                              '
repeated field means new column
                            Response.Write("</td><td>")
```

```
                       else                                                     ' same column as last field
                             if ((oField.name = "Last_Name") AND (oLast = "First_Name")) then
Response.Write(" ")
                             if (oField.name = "Format_Key_ID") then            ' file type
                                  if (oField.value =  7) then Response.write("<img src='../images/fav-
pdf.gif'  border='0' alt='acrobat.pdf'>")
                                  if (oField.value = 89) then Response.write("<img src='../images/fav-
word.gif' border='0' alt='word.doc'>")
                                  if (oField.value = 93) then Response.write("<img src='../images/fav-
html.gif' border='0' alt='txt/html'>")
                                  'Response.Write(oField.value)
                             else                                                    ' non file type
                                  Response.Write(oField.value)
                             end if
                       end if
                       'oLast=oField.name
                  end if
                  oLast=oField.name
              next
              Response.Write("</td>")                                   ' finish last column
              Response.Write("</tr>")                                   ' finish row
              ' move to next record
              rs.movenext
         wend

     end if
     Response.Write("</TABLE>")

     ' clean-up objects by closing and dealloctaing
     rs.close
     set rs = nothing
     oConn.Close
     set oconn = nothing
         'end if
end if
End Function

%>
```

4.5 Site Map

This is a listing of the menu and site map, with explanation of the page(s), type and any CEMS relationship. HTML references a static html page usually in the category folder, ASP stands for active server page usually in the CEMS folder, ands (CEMS:) references the definition and type within the CEMS system.

General Information	Menu Category
What is CFCOC	asp(CEMS:Document:CFC OC-CEMS file links)
Contact Us	asp(CEMS:People:CFC OC)
Commissioners	asp(CEMS:People:CFC-Commisioner)
Meeting Calendar	CEMS document “Calendar”
Agendas/Minutes	asp(CEMS:Document:CFC Agendas/Minutes)
TAC Members	asp(CEMS:People:CFC-TAC)
TAC Agend/Minute	asp(CEMS:Document:TAC Agendas/Minutes)
Site Map	html, sitemap.html
How to use this site	Macromedia Flash, demo of using the site

Special Events	Menu Category
Schedule	CEMS document “Schedule”
Invitations	asp(CEMS:Document:Invitations)
Speakers	asp(CEMS:People:Organization:CFCOC outsider)
Presentations	asp(CEMS:Document:Presentations)

Public Information	Menu Category
Annual Report	CEMS document “Annual Report”
ECENA	CEMS document “ECENA”
Fact Sheet	CEMS document “Fact Sheet”
Funded Programs	asp(CEMS:Organization:Funded)
Legislation	http://vote98.ss.ca.gov/VoterGuide/Propositions/10.htm
Newsletters	asp(CEMS:Document:CFC OC:Newsletters)
Press Releases	asp(CEMS:Document:CFC OC:Press Releases)
Strategic Plan	CEMS document “Commission Reports”

Grant Process	Menu Category
Best Practices Info	CEMS document “Best Practices Info”
FAQs	asp(CEMS:Document:FAQs)
Process & Timeline	CEMS document “Process & Timeline”
Request Application	CEMS document “Request Application”
Strategies	CEMS document “Strategies”
Workshops	CEMS document “Workshops”
Work Plan Guide	CEMS document “Work Plan Guide”

Links	Menu Category
Links	asp(CEMS:Document:Links)
Funded Programs	asp(CEMS:Organization:Funded)

4.5.1 Modification of people and events

People and Events can be added to the appropriate table in CEMS, by following the example of existing personnel and events in the system.

4.5.2 Modification of documents

CEMS documents are either Word documents (.doc), Adobe Acrobat (.pdf), or text files. I have renamed .html to .txt, for html support in the system.

You can save a CEMS document from your browser, modify it on your local machine, using an appropriate editor, and reload the modified document back into CEMS. Word is used to edit .doc files, Acrobat for .pdf files, and Front Page or another web page editor for .html files. An .html document has to be renamed to a .txt before it can be reloaded into the CEMS system. Anything labeled "CEMS document " in the site map can be updated, and by reloading "Upload File" the appropriate file, into the CEMS system.

DO NOT!!! However change the file name or description fields when uploading, as they are required to stay the same for the site pages to find the data.

4.5.3 CEMS access and training

The CEMS system and interface are provided by CS&O, and any instructions or training on how to work with it, should be requested from CS&O directly.

Appendix A – Statement Of Work

(Inserted as supplied by Commission)

SCOPE OF WORK
CHILDREN AND FAMILIES COMMISSION OF ORANGE COUNTY
WEBSITE DEVELOPMENT

Summary:

The Children and Families Commission of Orange County is seeking a third party vendor to design and develop an Internet website. Site development would include the website flow, organization, navigation, design, and back end administration functions. The site must be user-friendly, developed with the understanding that many of the organizations and individuals who will access the site have older, less sophisticated computers. The site itself must be visible to all browsers 4.0+. The backend administration site can be developed for IE 5.0+.

The overall feel of the site should reflect the values and mission of the Commission. The site should be informative (but not bureaucratic), colorful and inviting to the grantees and programs accessing it.

A URL has been obtained: occhildrenandfamilies.com/org/net.

The site will be hosted through a Commission-owned server, which is managed by a vendor, CS&O. Through CS&O, the Commission has a web-based system with all pertinent grantee information.

The Commission website will reside behind a firewall, and the developer will be required to coordinate with CS&O for site updates. Detailed descriptions of the information and functions desired on the website, the back end administrative site capabilities, and technical specifications are provided below.

Desired Information and Functions

Please note: Site updates will be managed by Commission staff members. The logistics involved are described in “Back End Administrative Site Capability” at the end of this document. The ability and ease with which a staff member can make updates is of the utmost importance in the overall design of the site. Each section described below has been placed into a static HTML or database driven category.

Every Page

Each page should have a stationary header or bar from which the user can navigate the site, so they are always able to access each of the sections delineated below from this bar/header. All pages should use the same style sheet and the look and feel of all components should be classified and tied to this style sheet.

Home Page

This page will be a simple, concise, clean-looking starting point from which the user can go directly to several specific pages that offer detailed information on that topic. This page should be graphically pleasing and include the commission logo. It should also include general contact information (mailing address, phone number, e-mail contact).

From this home page, the user should be able to go to the following sections, as detailed below. These general headings should have a roll-over function capability, where the user can see from this page what further items are included in a particular section, if appropriate.

1. General Information
2. Technical Advisory Committee
3. Calendar
4. Public Documents, Legislation & Resources
5. Public Information
6. Grant Process and Workshops
7. Grantee Information
8. Cluster Groups
9. Links

General Information

This section will include:

- What is CFCOC (Who, What, When, Where, Why)? (Static HTML)
- FAQs that address common misconceptions about the commission and organizational goals (database driven)
- Mission, goals, platforms (Static HTML)
- Map/address of Commission Offices (Static HTML)
- List of Commissioners, one-sentence bios, links to their organizations' websites, and access to more detailed bios, photos (database driven)
- Calendar of commission meetings, locations, map (database driven, also accessible via calendar page), agendas, minutes. The County of Orange Clerk of the Board currently uploads meeting agendas and minutes via the County's website. The Commission's site will need to accommodate this function, so that the Clerk of the Board can still upload this information directly.
- Staff contacts, titles, job descriptions, bio for ED (database driven), direct e-mail links to select staff members (managers); contract staff information. This should be accomplished/formatted to fit on one page.

Technical Advisory Committee

This section will include:

- What is the TAC, list of sub-committees (Static HTML)
- List of TAC members, one-sentence bios, links to their organizations' websites, and access to more detailed bios (database driven)
- Calendar of TAC meetings, locations, map (database driven, also accessible via calendar page), agendas, minutes
- TAC staff contact, job description ,direct e-mail link. This should be accomplished/formatted to fit on one page. (Same information as above.)

Calendar

- Searchable/Dynamic quarterly calendar of all Commission-related meetings, workshops, etc. It should include agenda or flyer, location & map, and contact (database driven). The County of Orange Clerk of the Board currently uploads Commission-only meeting agendas and minutes via the County's website. The Commission's site will need to accommodate this function, so that the Clerk of the Board can still upload this information directly.

Public Documents, Legislation & Resources

- Downloadable copies of lengthy Commission Reports, including the Strategic Plan and 10-year budget (static HTML). Reports should be easily scrolled through, with the ability to access the Table of Contents, and then go directly to a particular section from the Table of Contents; and the ability to cut and paste the document into a word file.
- Legislation: Proposition 10 legislation and repeal legislation; other related legislation (link to state site)
- Resources: Reports and resources from other agencies such as Community Indicators Report; Conditions of Children Report; Healthy Children Report; Pre-kindergarten Report. Some documents will be PDF files; some will be accessible via links. This section should include a listing of available reports and a number to contact to receive a hard copy.

Public Information

- Press releases (database driven)
- Year-end report (static)
- Annual report (static)
- Newsletters (database driven)
- Fact Sheets (Bridges, School Readiness, etc.)
- Funded Programs list (link to grantee information—see below)
- Other general information pieces

Grant Process and Workshops

- Process and timeline for grant applications
- Downloadable request for applications (database driven)
- FAQs related to RFA (database driven)
- Workshop notices, meeting location and map, agenda (database driven)
- Workshop attendee lists (database driven)
- Best Practices Information (static)
- Sample documents—invoice, business/service plan outline (static)

Grantee Information

- Description of each project funded, including: name of organization, contact, city/supervisorial district in which project is located, date funded, amount funded. There is a web-based system that has all the grantee information accessible and this program will interact with and run on the same server as the CFCOC website. They will have the same firewall. This will be in matrix format.
- Links to funded projects/organizations with logos. The use of links and logos will be built into the grantee contract, to alleviate any possible legal issues.

Links

- To Commission member organizations
- To TAC member organizations
- To all County Commissions
- To State Commission and Association
- To all funded projects/programs
- County of Orange
- CalState Fullerton
- Orange County Department of Education
- State Department of Education
- Orange County Legislators
- State-level legislators
- United Way
- Others

Other Desired Features

- Meta Tags for easy site retrieval from popular search engines
- Non-fee registration with popular search engines
- Roll-over/pull down menus (depending on technical requirements)
- Search capabilities
- Text versions for easier printing (where appropriate—pages with graphic components/headers where user may want a text-only version)
- Ability to have some content show while large documents are downloading
- When Commission staff is updating information through data driven administration process, they should be able to cut and paste from existing word documents, rather than having to rekey in documents such as press releases, FAQs, etc.

Back End Administration Site Capability

Summary

The back end administration of the web site allows authorized individuals to access the following sections: Individuals, Meetings, Funding Cycles, and Press Releases. Each section is described below along with the impact it has on the public site. These are just summaries and detailed specs will be developed with the vendor once chosen. Italic text represents either a comment or an area that CFCOC will be addressing and deciding whether they need this functionality.

Individuals

The “Individuals” section will collect the names, contact information (phone, email, business address, fax), bios, and links (Unlimited multiple links to organizations’ site(s), publications, personal site, etc.).

Each individual will be attached to one or more individual type(s) (currently Commission Staff, TAC member). This list can grow and should be driven from a table.

This section will impact the web site by driving the commission bios by listing all individuals belonging to the “Commissioner” type. The TAC Member’s page will list all individuals belonging to the TAC Member type.

Meetings

This section will be accessed twice. Once to record: meeting description, agenda, attendees, location, meeting type, and date/time. After the meeting has occurred, this section will be accessed again to add meeting FAQ’s, minutes, and multiple agenda reports.

“Locations” should be its own table and store the location description and address information for the location. Attaching a location to a meeting will be accomplished by selecting the location description from a pick list. The pick list will contain an “other” selection that will allow the user to specify an address and description without adding it to the location table. The pick list will also contain a “new” option, which will allow users to specify a different address and description and will add the location to the location table when adding the meeting. You should also be able to add locations to the system without adding meeting.

Special rules will be placed on adding records based on the type of meeting such as specifying a funding cycle for all “grantee meetings”.

Details are yet to be determined on how much detail to gather on attendees. This could be simply names or require all attendees be added into the individual’s section and picked from a list. Adding them to individuals will create a lot of administration but allow for easy email, follow-up merges to occur because you have detailed information about the attendee stored. Currently, the grant meeting attendee lists are simply used for a one-time list that allows grantees to partner with each other/identify each other, using organization name, contact, phone.

This section will interact with the web site by having meeting links under different sections and will list meetings of a certain type when selected. For instance, a commission meetings link under the “about CFCOC” section will list only meetings with the type “commission meeting”. “Grantee meetings” will be in the grantees section of the site because grantees will be accessing this section to obtain information on the meetings that they may have attended or missed for the funding cycle they are being funded in. Grantees also belong to clusters and a meeting type for each cluster will be created and displayed as “School Readiness Cluster Meetings” link under the grantees section.

The addresses for the meetings will be used in conjunction with Trip Quest (A service provided by Map Quest) to allow users to get driving directions after entering their point of origin.

Funding Cycles

This section will allow be used to record each funding cycle and the due dates for various deliverables associated with the funding cycle.

This will interact with the Grantee section by allowing grantees to select a funding cycle to see what and when they are required to deliver something to the Commission. “Document/Form” links will be provided if the deliverable requires a grantee to submit a form. As mentioned above grantee meeting types are required to have a funding cycle attached.

Press Releases

The responding vendor should provide a fully functional press release publisher to CFCOC that is already developed. CFCOC should only be charged fees associated with customizing the look and feel or functionality of this publisher. Proof of this system should be accessible during the evaluation process.

Security

While it will be possible for several Commission staff members and other select individuals to update information on the site (add meetings, post meeting notices or resources, update information), the Commission does not anticipate the need for special security systems to block specific users from sections of the backend applications, but the system does need to be user name and password secured.

Bulletin Board

The ability to put a bulletin board on the site may impede the ability of a developer to get the site up and running as soon as possible. Assuming this is so, the site should have a link to a Yahoo! Group, where a bulleting board and messaging service can be set up easily and free of charge.

Statistical Information

As a key component of the site, statistical visitor information should be easily accessed. The administrator should have the ability to see, on a monthly basis, an overview of site visitors. This information will help the commission better suit the needs of its audience, by tracking the heavily-used pages and understanding the scope of people viewing the site.

Technical Requirements

1. The site will run on an IIS server. The website must be developed using asp with vbscript as the scripting language. No third party software, components, or dll's will be installed on the server for reliability concerns. The site will interact with a SQL Server 7.0 backend database.

2. Support for 4.0 or higher browsers for public site.

3. Support Internet Explorer 5.0 or higher for administrative site.

4. Design for minimum resolution of 800x600.

5. Macromedia Flash capabilities.

6. Database platform for back end administration will be SQL Server 7.0.

Appendix B – Project Plan

1 Overview

This was the proposal for the design, implementation and release of the CFCOC web site.

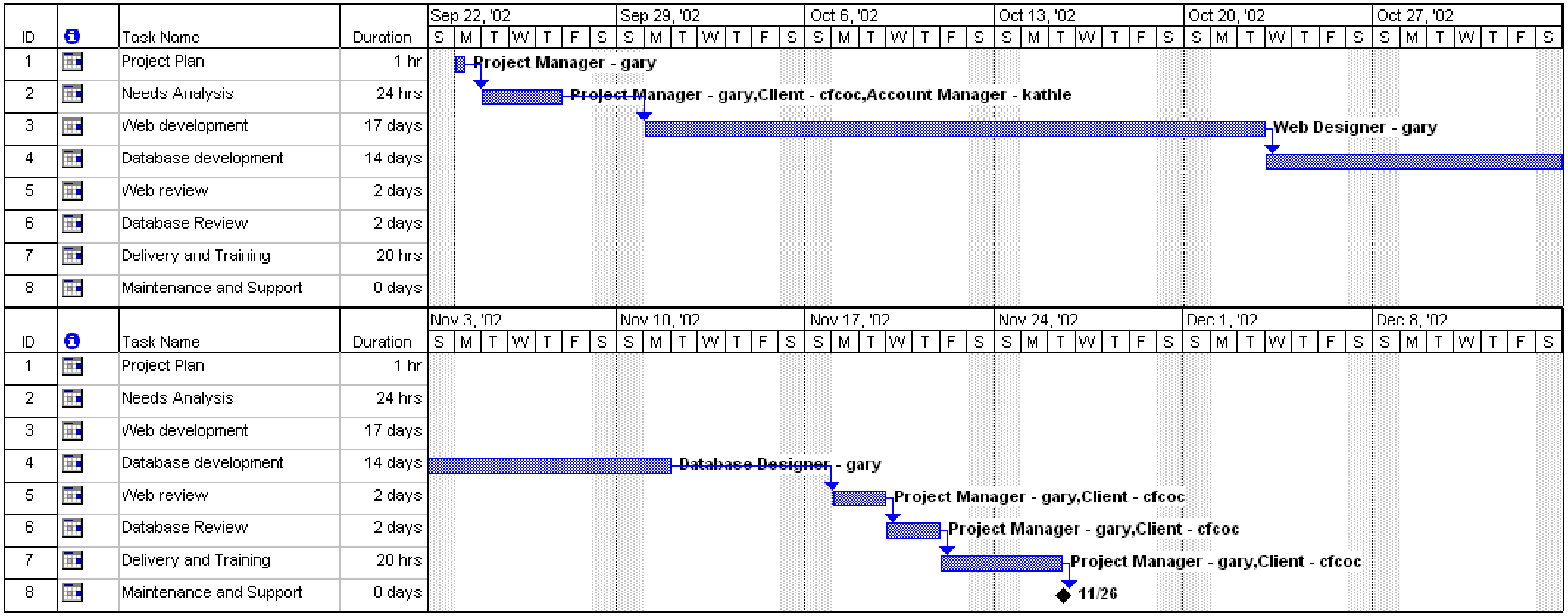
The Timeline included here, was the original proposal offered during the bidding process, and is not the actual timeline delivered.

The Milestones and Resources were also those proposed and not necessarily delivered.

Do to a change in the architectural design of the project, with the addition of the CEMS systems in the middle of the project, the Timeline, Milestones and Resources were not, and could not, be accurately updated or estimated.

2 Timeline

Proposed Microsoft Gantt chart:



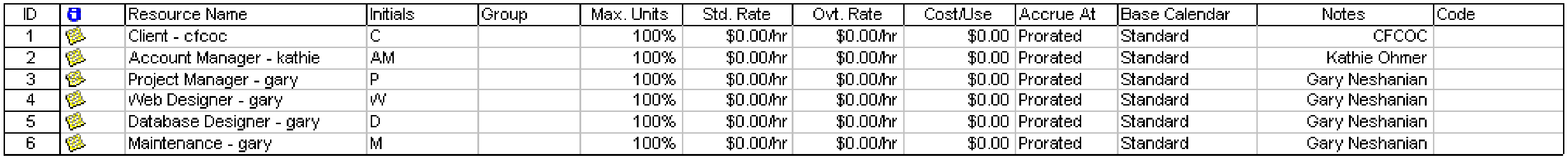
ID		Task Name	Duration
1	▦	Project Plan	1 hr
2	▦	Needs Analysis	24 hrs
3	▦	Web development	17 days
4	▦	Database development	14 days
5	▦	Web review	2 days
6	▦	Database Review	2 days
7	▦	Delivery and Training	20 hrs
8	▦	Maintenance and Support	0 days

ID		Task Name	Duration
1	▦	Project Plan	1 hr
2	▦	Needs Analysis	24 hrs
3	▦	Web development	17 days
4	▦	Database development	14 days
5	▦	Web review	2 days
6	▦	Database Review	2 days
7	▦	Delivery and Training	20 hrs
8	▦	Maintenance and Support	0 days

Project Plan - Timeline

3 Resources

Proposed Microsoft Resources table:



ID	ℹ	Resource Name	Initials	Group	Max. Units	Std. Rate	Ovt. Rate	Cost/Use	Accrue At	Base Calendar	Notes	Code
1	📝	Client - cfcoc	C		100%	$0.00/hr	$0.00/hr	$0.00	Prorated	Standard	CFCOC	
2	📝	Account Manager - kathie	AM		100%	$0.00/hr	$0.00/hr	$0.00	Prorated	Standard	Kathie Ohmer	
3	📝	Project Manager - gary	P		100%	$0.00/hr	$0.00/hr	$0.00	Prorated	Standard	Gary Neshanian	
4	📝	Web Designer - gary	W		100%	$0.00/hr	$0.00/hr	$0.00	Prorated	Standard	Gary Neshanian	
5	📝	Database Designer - gary	D		100%	$0.00/hr	$0.00/hr	$0.00	Prorated	Standard	Gary Neshanian	
6	📝	Maintenance - gary	M		100%	$0.00/hr	$0.00/hr	$0.00	Prorated	Standard	Gary Neshanian	

Project Plan - Resources

4 Milestones

Proposed major task break down with date assignments.

4.1 Analysis

Completion of needs analysis. (25 hours, September)

4.2 Development

Completion of development . (31 days, October)

4.3 Review

Completion of client review. (4 days, November)

4.4 Training

Completion of delivery/installation. (20 hours, November)

4.5 Support

Formal transfer to acceptance team. (75 hours, December)

4.6 CEMS (addition)

With the addition CEMS system to the project requirements at the tenth week, it was agreed that all Review, Training and Support time was going to be reallocated to the CEMS service integration.

With the new requirements, no accurate update to the proposal was possible or supplied.

5 Acceptance

Joel Casteix
Kelly Pijl

Appendix C – Service Level Agreement

Not applicable here, consult CS&O.

Appendix D – Emergency Procedures

Not applicable here, consult CS&O.

Appendix E – Service Log

Date	**Task** **(including: downtime, dependencies, impact…)**	**Done**	**Technician**	**Notes**

Service Log

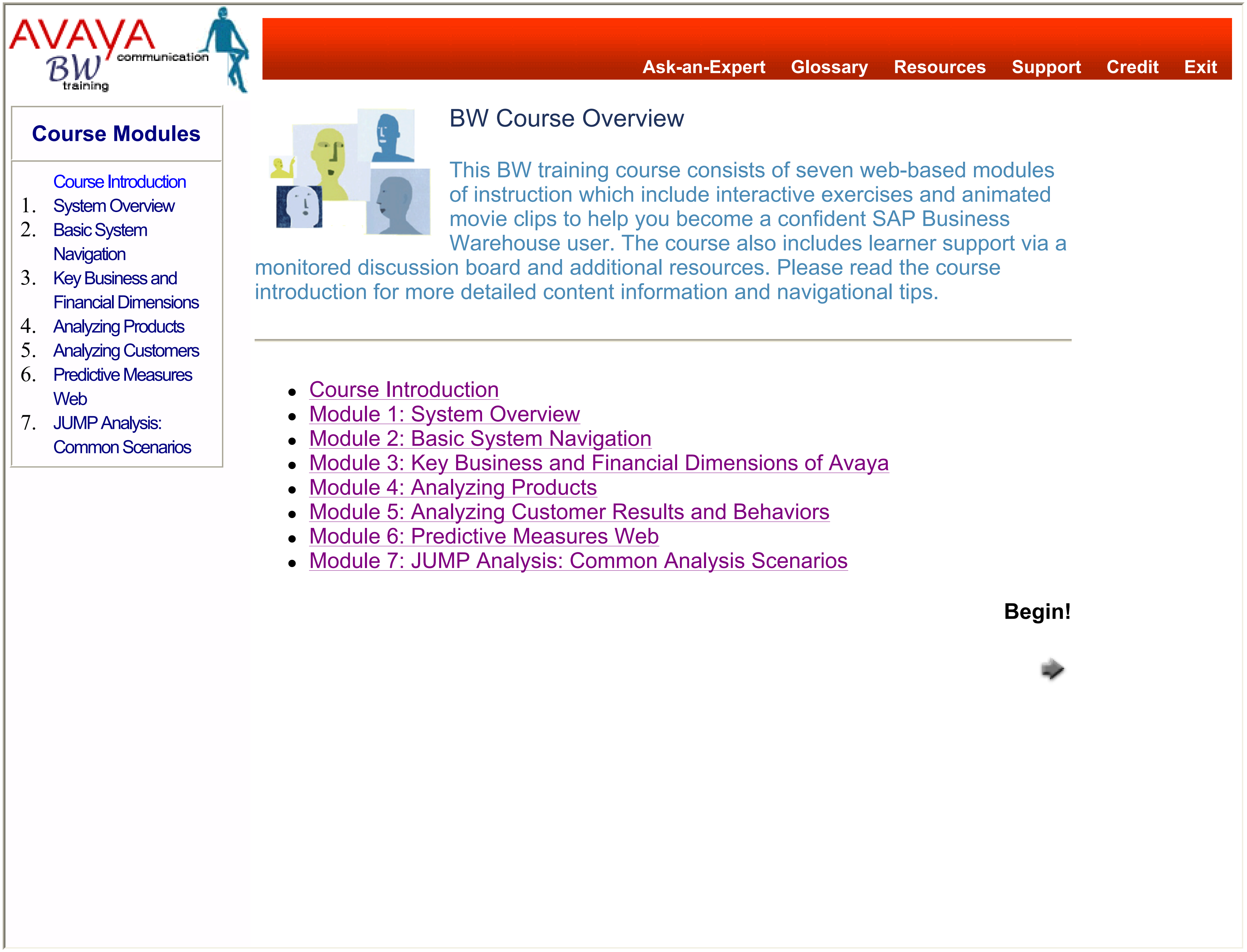
Appendix F – Reference

This document covers all information and material regarding the CFCOC web site itself.

Any further documentation need to cover the OCERS or CEMS systems should be requested from CS&O directly.

Index

Notes



Course Modules

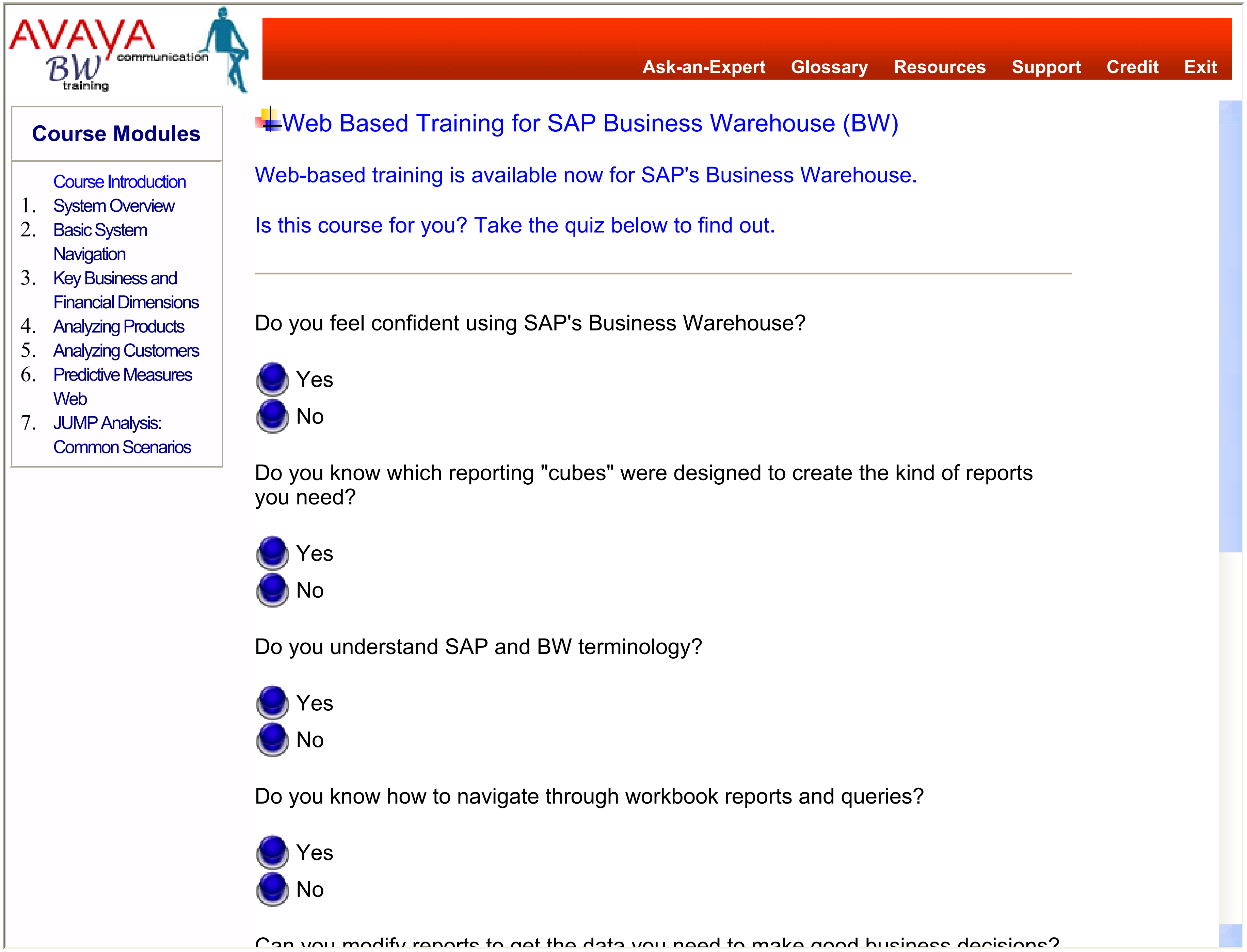
Course Introduction
1. System Overview
2. Basic System Navigation
3. Key Business and Financial Dimensions
4. Analyzing Products
5. Analyzing Customers
6. Predictive Measures Web
7. JUMP Analysis: Common Scenarios

BW Course Overview

This BW training course consists of seven web-based modules of instruction which include interactive exercises and animated movie clips to help you become a confident SAP Business Warehouse user. The course also includes learner support via a monitored discussion board and additional resources. Please read the course introduction for more detailed content information and navigational tips.

- Course Introduction
- Module 1: System Overview
- Module 2: Basic System Navigation
- Module 3: Key Business and Financial Dimensions of Avaya
- Module 4: Analyzing Products
- Module 5: Analyzing Customer Results and Behaviors
- Module 6: Predictive Measures Web
- Module 7: JUMP Analysis: Common Analysis Scenarios

Begin!



Course Modules

Course Introduction
1. System Overview
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4. Analyzing Products
5. Analyzing Customers
6. Predictive Measures Web
7. JUMP Analysis: Common Scenarios

Web Based Training for SAP Business Warehouse (BW)

Web-based training is available now for SAP's Business Warehouse.

Is this course for you? Take the quiz below to find out.

Do you feel confident using SAP's Business Warehouse?

● Yes
● No

Do you know which reporting "cubes" were designed to create the kind of reports you need?

● Yes
● No

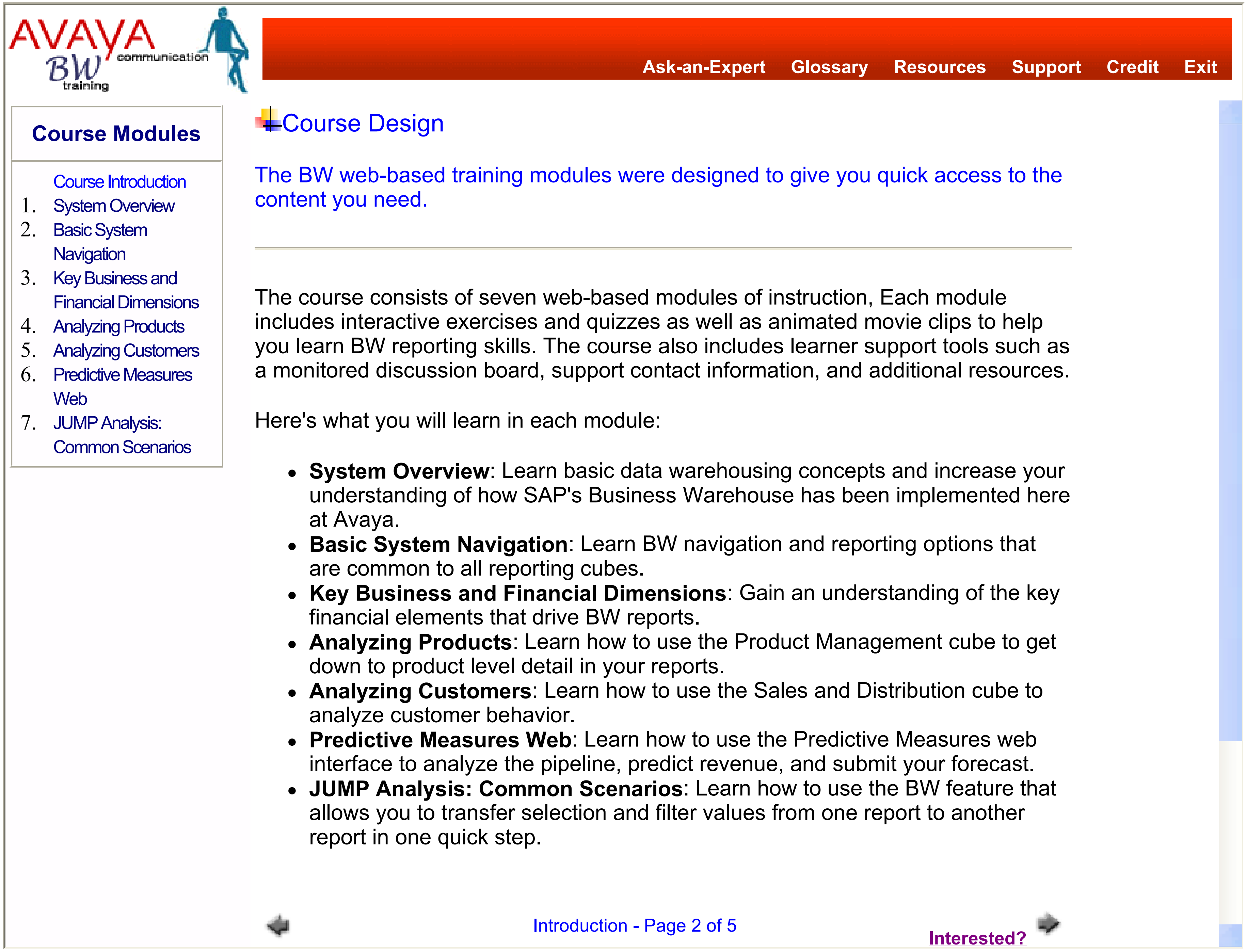
Do you understand SAP and BW terminology?

● Yes
● No

Do you know how to navigate through workbook reports and queries?

● Yes
● No

Can you modify reports to get the data you need to make good business decisions?



Course Modules

Course Introduction
1. System Overview
2. Basic System Navigation
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4. Analyzing Products
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Course Design

The BW web-based training modules were designed to give you quick access to the content you need.

The course consists of seven web-based modules of instruction, Each module includes interactive exercises and quizzes as well as animated movie clips to help you learn BW reporting skills. The course also includes learner support tools such as a monitored discussion board, support contact information, and additional resources.

Here's what you will learn in each module:

- **System Overview**: Learn basic data warehousing concepts and increase your understanding of how SAP's Business Warehouse has been implemented here at Avaya.
- **Basic System Navigation**: Learn BW navigation and reporting options that are common to all reporting cubes.
- **Key Business and Financial Dimensions**: Gain an understanding of the key financial elements that drive BW reports.
- **Analyzing Products**: Learn how to use the Product Management cube to get down to product level detail in your reports.
- **Analyzing Customers**: Learn how to use the Sales and Distribution cube to analyze customer behavior.
- **Predictive Measures Web**: Learn how to use the Predictive Measures web interface to analyze the pipeline, predict revenue, and submit your forecast.
- **JUMP Analysis: Common Scenarios**: Learn how to use the BW feature that allows you to transfer selection and filter values from one report to another report in one quick step.

Introduction - Page 2 of 5

Interested?

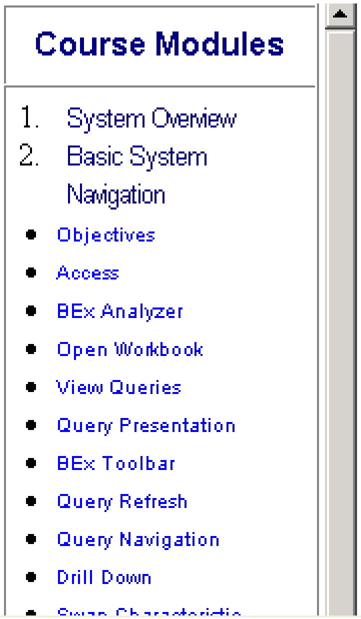
Course Modules

Course Introduction
1. System Overview
2. Basic System Navigation
3. Key Business and Financial Dimensions
4. Analyzing Products
5. Analyzing Customers
6. Predictive Measures Web
7. JUMP Analysis: Common Scenarios

Navigational Tips

You can go through the entire course from start to finish or you can jump around and access the content in any order you choose.

- The navigational bar on the left links directly to any module.
- If you click on the module title, you can link directly to specific topics within the module.
- To navigate between pages of instruction, use the arrows at the bottom of each page of content.
- You can find out where you are in the course by checking the module and page information at the bottom of each page.
- Here is an example of what the menu bar looks like with Module 2 expanded to include links to sub topics.



Course Modules

1. System Overview
2. Basic System Navigation
- Objectives
- Access
- BEx Analyzer
- Open Workbook
- View Queries
- Query Presentation
- BEx Toolbar
- Query Refresh
- Query Navigation
- Drill Down
- Swap Characteristic

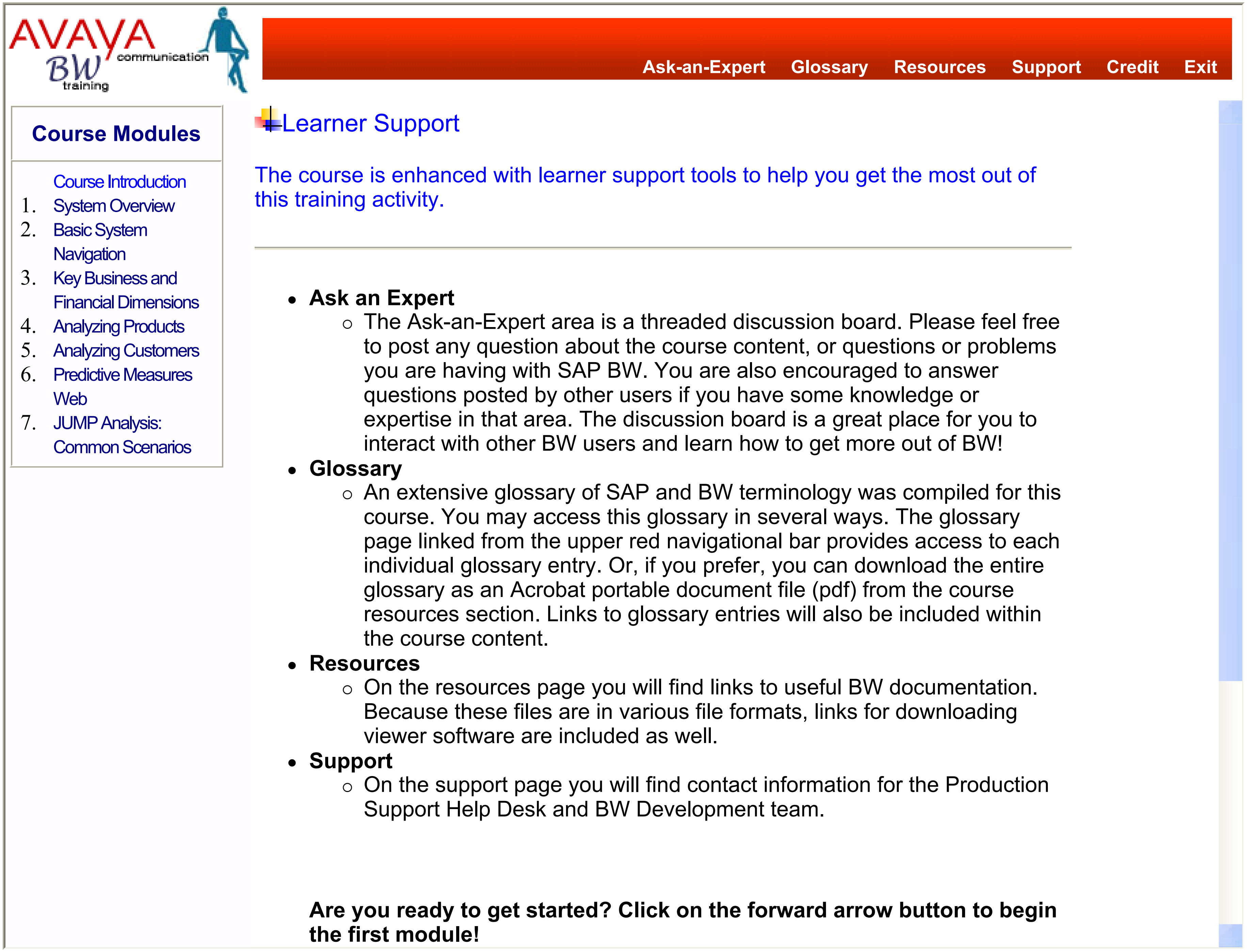
Course Modules

Course Introduction
1. System Overview
2. Basic System Navigation
3. Key Business and Financial Dimensions
4. Analyzing Products
5. Analyzing Customers
6. Predictive Measures Web
7. JUMP Analysis: Common Scenarios

Interactive Exercises

Interactive exercises and movie clips are included within the modules of instruction.

- **Quizzes:**
    - Throughout the course you will find short quizzes that have been designed to check your understanding of the content presented. Quiz results are not stored by the system and will not be used for employee evaluation purposes. They are there simply to help you master the content and to help you monitor your own learning. Feel free to try questions as many times as you like.
- **Movie Clips:**
    - Macromedia Flash movie clips are included throughout the course to illustrate the navigational steps used in BW reporting. Movie clips are identified by the Flash "Show Me" icon. To view the movie clips you will need to have the Flash player installed on your computer. This quick download is available from Macromedia. GET macromedia FLASH PLAYER



Learner Support

The course is enhanced with learner support tools to help you get the most out of this training activity.

- **Ask an Expert**
    - The Ask-an-Expert area is a threaded discussion board. Please feel free to post any question about the course content, or questions or problems you are having with SAP BW. You are also encouraged to answer questions posted by other users if you have some knowledge or expertise in that area. The discussion board is a great place for you to interact with other BW users and learn how to get more out of BW!
- **Glossary**
    - An extensive glossary of SAP and BW terminology was compiled for this course. You may access this glossary in several ways. The glossary page linked from the upper red navigational bar provides access to each individual glossary entry. Or, if you prefer, you can download the entire glossary as an Acrobat portable document file (pdf) from the course resources section. Links to glossary entries will also be included within the course content.
- **Resources**
    - On the resources page you will find links to useful BW documentation. Because these files are in various file formats, links for downloading viewer software are included as well.
- **Support**
    - On the support page you will find contact information for the Production Support Help Desk and BW Development team.

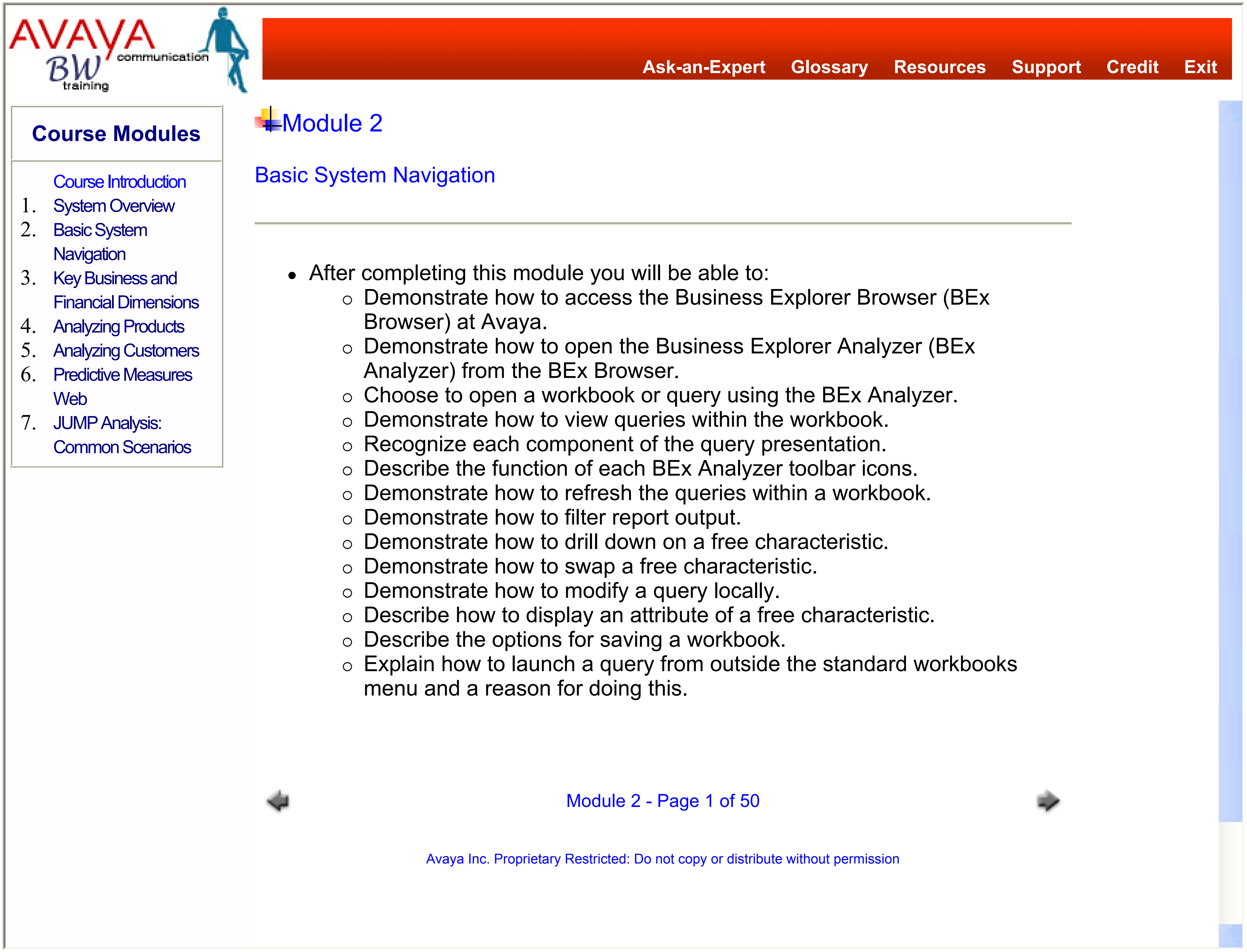
Are you ready to get started? Click on the forward arrow button to begin the first module!

Course Modules

Module 1

System Overview

- After completing this module you will be able to:
    - Describe the function of a data warehouse.
    - Identify the information available in BW at Avaya.
    - Define commonly used SAP/BW terminology.
    - Explain how data is represented.
    - Recognize how BW organizes data.



Course Modules

Course Introduction
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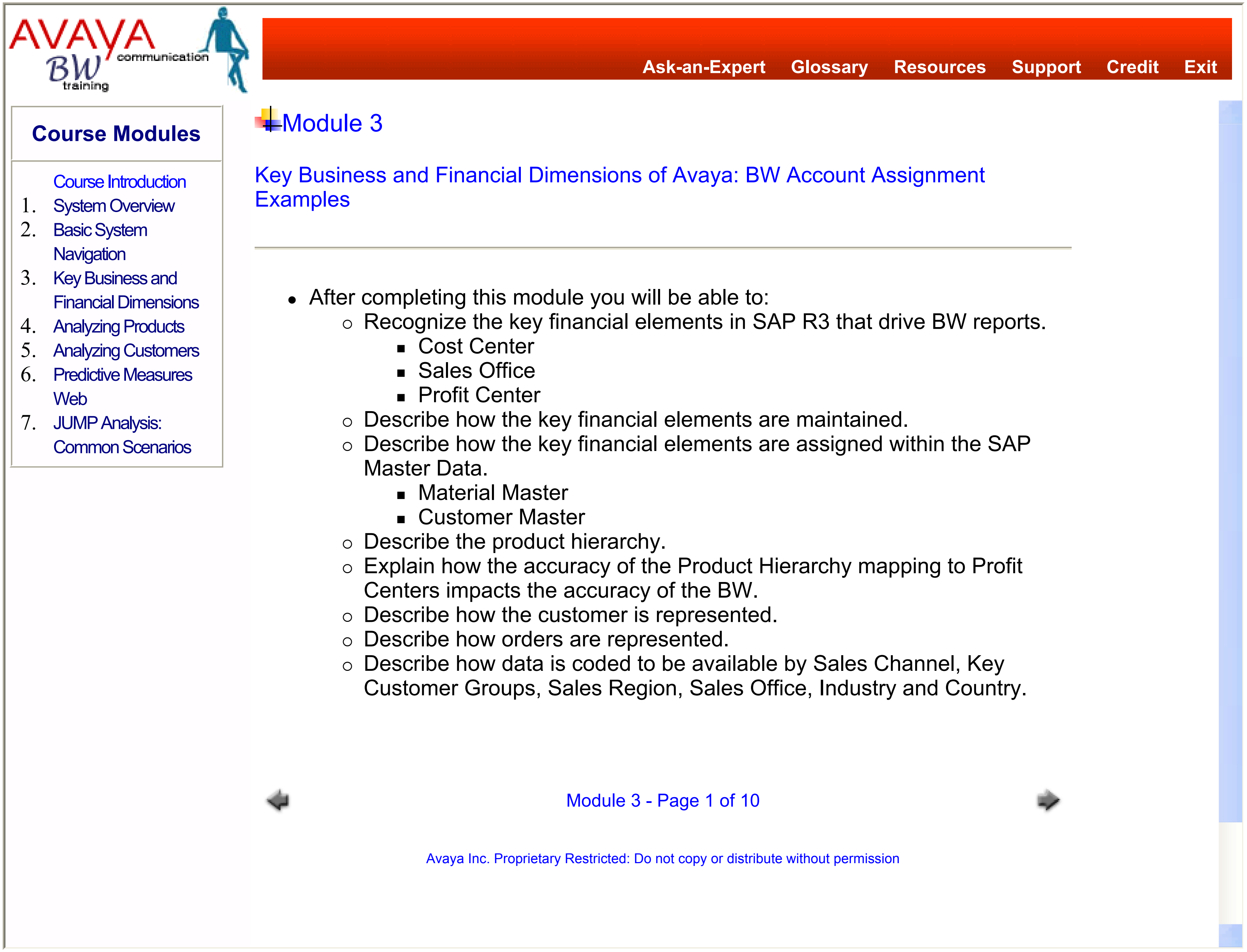
Module 2

Basic System Navigation

- After completing this module you will be able to:
    - Demonstrate how to access the Business Explorer Browser (BEx Browser) at Avaya.
    - Demonstrate how to open the Business Explorer Analyzer (BEx Analyzer) from the BEx Browser.
    - Choose to open a workbook or query using the BEx Analyzer.
    - Demonstrate how to view queries within the workbook.
    - Recognize each component of the query presentation.
    - Describe the function of each BEx Analyzer toolbar icons.
    - Demonstrate how to refresh the queries within a workbook.
    - Demonstrate how to filter report output.
    - Demonstrate how to drill down on a free characteristic.
    - Demonstrate how to swap a free characteristic.
    - Demonstrate how to modify a query locally.
    - Describe how to display an attribute of a free characteristic.
    - Describe the options for saving a workbook.
    - Explain how to launch a query from outside the standard workbooks menu and a reason for doing this.

Module 2 - Page 1 of 50



Module 3

Key Business and Financial Dimensions of Avaya: BW Account Assignment Examples

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- After completing this module you will be able to:
  - Recognize the key financial elements in SAP R3 that drive BW reports.
    - Cost Center
    - Sales Office
    - Profit Center
  - Describe how the key financial elements are maintained.
  - Describe how the key financial elements are assigned within the SAP Master Data.
    - Material Master
    - Customer Master
  - Describe the product hierarchy.
  - Explain how the accuracy of the Product Hierarchy mapping to Profit Centers impacts the accuracy of the BW.
  - Describe how the customer is represented.
  - Describe how orders are represented.
  - Describe how data is coded to be available by Sales Channel, Key Customer Groups, Sales Region, Sales Office, Industry and Country.

Course Modules

Module 4

Analyzing Products: Using the Product Managment Cube to Analyze Profit Center Results and Behaviors: A Guide for Product Managers

---

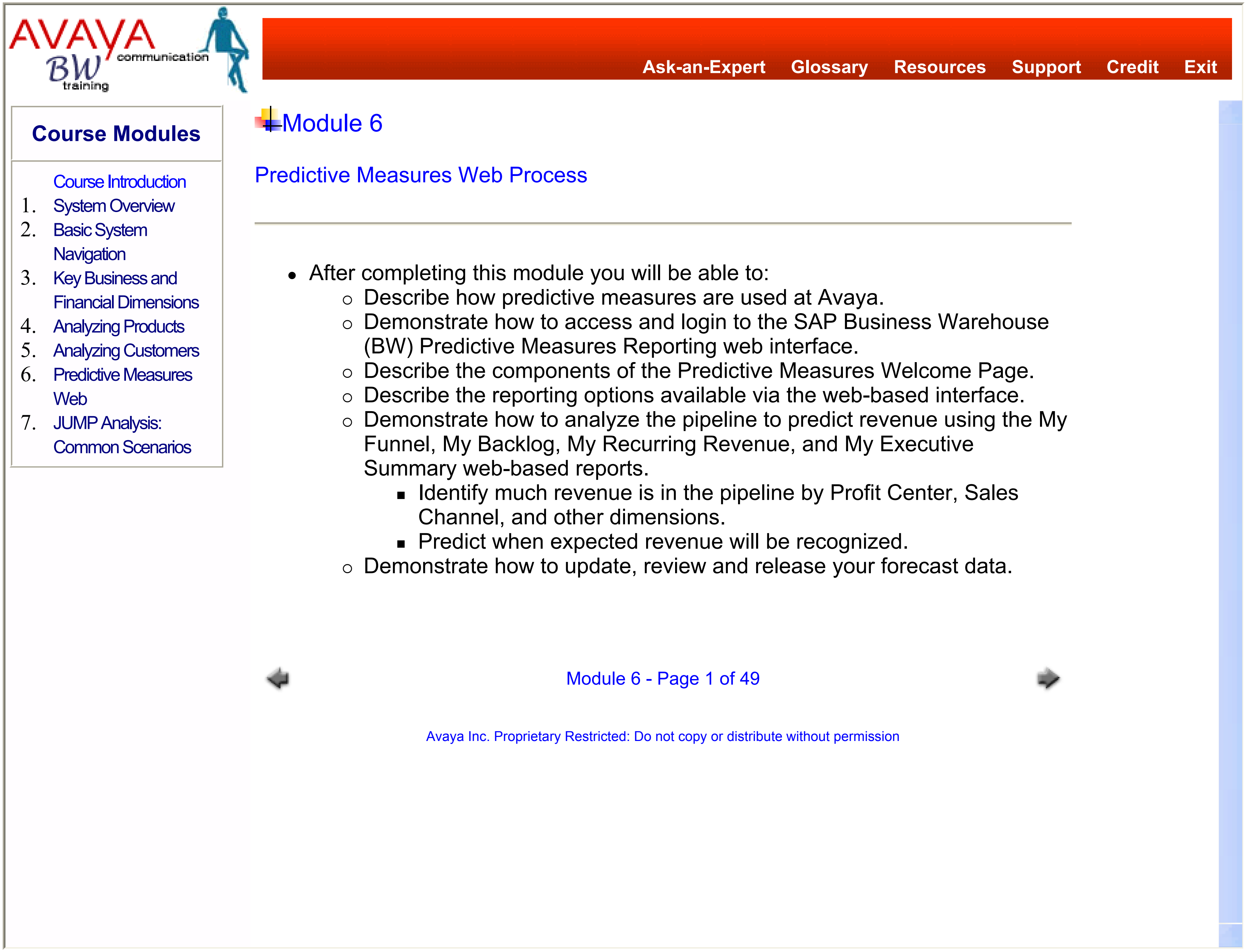
- After completing this module you will be able to:
    - Demonstrate how to track a product in BW.
    - List the drill down options.
    - Describe how to add additional columns of information.
    - Demonstrate how to create reports that display product costs, revenue, profit and loss.

Module 5

Analyzing Customer Results and Behaviors: Using the Sales and Distribution (SD) Cube to Analyze Customer Results and Behaviors and Track Unit Sales: A Guide for Sales and Product Managers

---

- After completing this module you will be able to:
    - Demonstrate how to track customers in BW.
    - List the drill down options.
    - Describe how to use the SD cube to analyze a customer's buying behavior.
    - Demonstrate how to drill down on financial information to justify revenue.
    - Demonstrate how to track unit sales and orders of products and services by customer.



Course Modules

Module 6

Predictive Measures Web Process

- After completing this module you will be able to:
  - Describe how predictive measures are used at Avaya.
  - Demonstrate how to access and login to the SAP Business Warehouse (BW) Predictive Measures Reporting web interface.
  - Describe the components of the Predictive Measures Welcome Page.
  - Describe the reporting options available via the web-based interface.
  - Demonstrate how to analyze the pipeline to predict revenue using the My Funnel, My Backlog, My Recurring Revenue, and My Executive Summary web-based reports.
    - Identify much revenue is in the pipeline by Profit Center, Sales Channel, and other dimensions.
    - Predict when expected revenue will be recognized.
  - Demonstrate how to update, review and release your forecast data.

Course Modules

Module 7

Exercising JUMP Analysis: Common Analysis Scenarios

- After completing this module you will be able to:
    - Describe scenarios where JUMP analysis is possible and makes sense from a business perspective.
    - Demonstrate how to utilize jumps within the report cubes.
    - Recognize who to go to with the JUMP analysis reporting options you would like to have activated for future use.

Avaya BW · "Ask-an-Expert" Bulletin Board

Post New Messages and get answers from the experts and others.
Review Old Messages or post a reply.

Get help on how to post a message or reply ✳ BB-Flash.

Post a New Message:

Name	Email	Subject

```
Your Message
```

☐ Post Message

Review Old Messages: 90 days

select days ☐ Update Listing

Subject (down to 10 levels)	Author	Date

Glossary

Glossary of Terms, Definition and Usage.

- Attribute
- Backlog
- BEx (Business Explorer)
- BEx Analyzer (Business Explorer Analyzer)
- BEx Browser (Business Explorer Browser)
- BRP
- Cal Year / Month
- Change Globally
- Change Locally
- Channel
- Channel Group
- Channel Group WI
- Channel Group WM
- Channel Hierarchy
- Channel Sub 1 WI
- Channel Sub 1 WM
- Channel Sub 2 WI
- Channel Sub 2 WM
- Channel Sub 3 WI
- Channel Sub 3 WM
- Channel WI
- Channel WM
- Characteristic
- Company Code
- Consolidated Reports
- Controlling Area
- Cost Center
- Customer Analysis
- Customer Analysis - Current Calendar Month, Prior Year & YTD
- Customer Analysis Roadmap (SD cubes)

Additional Resources

Here is a listing of resources and additional training materials you may find helpful.

Document Name	Type	Link
BW Line Mapping Matrix	Microsoft Excel Workbook	You will find a link to this document on the Avaya Global Finance Source Website. (http://associate2.avaya.com/training/agfo_controller/) From the Financial Planning drop-down window, Select "BW/IS Mapping" and then click GO to download the file.
SAP/BW Codes and Concepts Glossary	Adobe Acrobat Document (.pdf)	Glossary
BW Tips and Tricks Version 2.0B	Microsoft Word Document	Tips and Tricks
BW Product Management Report Training	Microsoft PowerPoint	BW Product Management
Basic BW Training	Microsoft PowerPoint	Basic BW Training
Predictive Measures Step-by-Step Guide	Microsoft PowerPoint	Predictive Measures Step-by-Step Guide
Tables 1 to 8	Microsoft Excel Workbook	You will find a link to this document on the following Avaya webpage: http://itcentral.avaya.com/fcc/documents.asp?id=9&status=document
End User BW Reports	Microsoft Excel Workbook	End User BW Reports

Support

Avaya Business Warehouse Support.

The first line of help for BW Support is the Production Support Help Desk.
Available 24 hours a day Sunday - Friday
Contact Numbers:

- 877-615-4174
- 732-271-1420

Types of Support:

- ID passwords resets
- Security problems
- Navigation questions

Production Support will escalate issues to the BW Project Team if necessary.

Contributors

Thank you to the following people who contributed ideas, content, or expertise to the development of this training course.

- *Keith Anastasi*
- *Jane Benner*
- *Eileen Brennan*
- *Daniel Dekemper*
- *Joe Doster*
- *Michael Evans*
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- *Mark Papera*
- *Mike Pera*
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- *Jeff Wiessler*
- *Rosalyn Wilson*

CONEXANT™

Conexant Divisional Split
Newport Beach Servers
Documentation

January 10, 2001
9-Aug-03

CNXT™
A Nasdaq-100
Company

Delivered – January 10, 2001

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To: Conexant Systems
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4311 Jamboree Road
Newport Beach, CA
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INTRODUCTION

The purpose of this document is to present the work performed by Gary Neshanian, a contractor from Kimco Staffing Services, during his assignment from November 13, 2000 through January 2001. Mr. Neshanian worked with Calvin Chi, under the management of Farrid Zeighami, in the NT Server Group, of Conexant Systems Inc., in Newport Beach CA.

His assignment was to help with the planning and implementation of a migration path for the Conexant servers and their services, from the Conexant network, to the new corporation, after the divisional separation planned around January 2001. The servers are all Microsoft NT, with services including web hosting, ftp serving and other network and application support functions.

This document also contains the plan and all other generated documentation during Mr. Neshanian's assignment and is intended as a documentation of the original network and a reference for the new spin off network.

Section 1 **Networks** – network server and applications diagrams.
Section 2 **Conexant Servers** – characteristics and configurations of the Conexant servers.
Section 3 **Spin Off Servers** – characteristics and configurations of the Spin Off servers.
Section 4 **Documentation** – of application and migration utilities.

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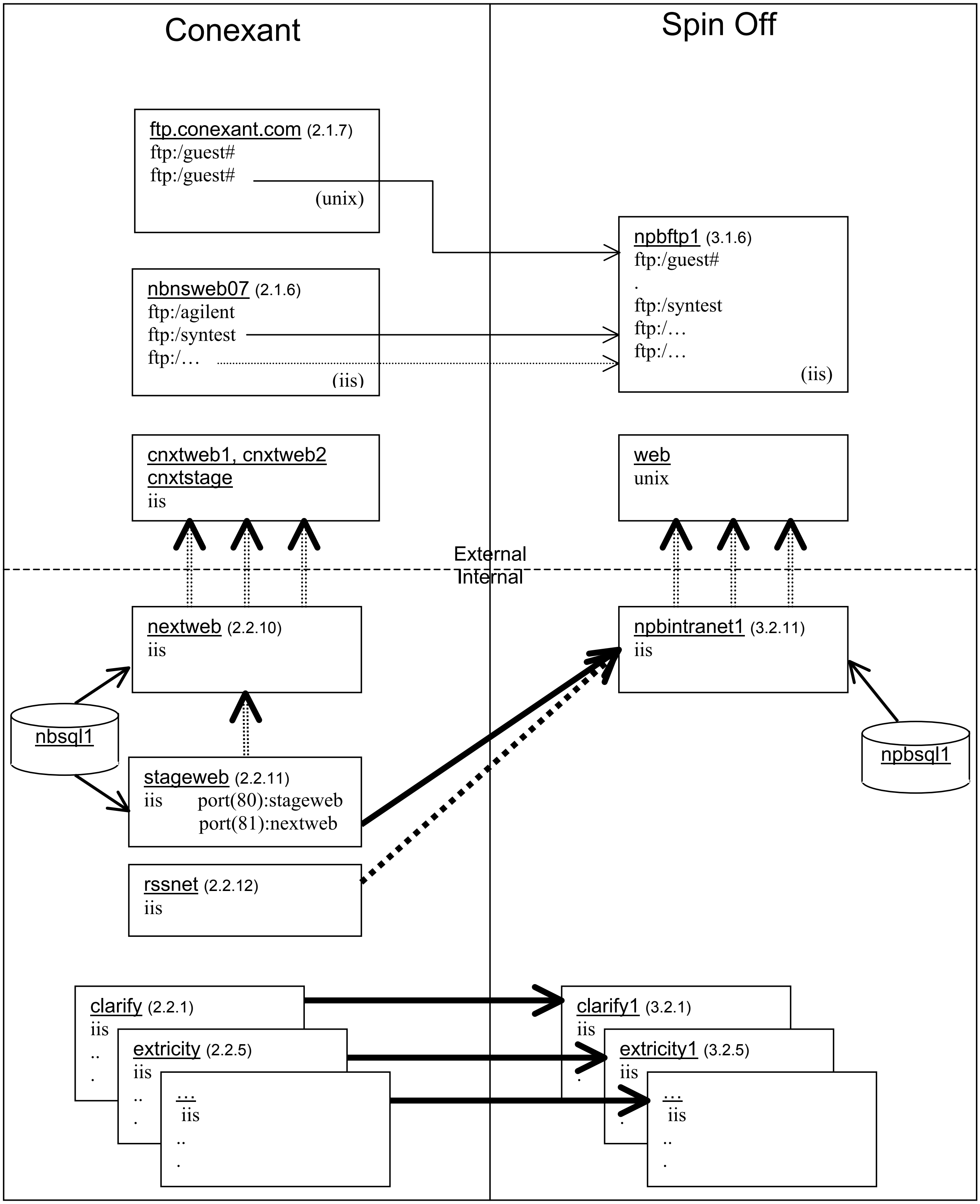
1. NETWORKS

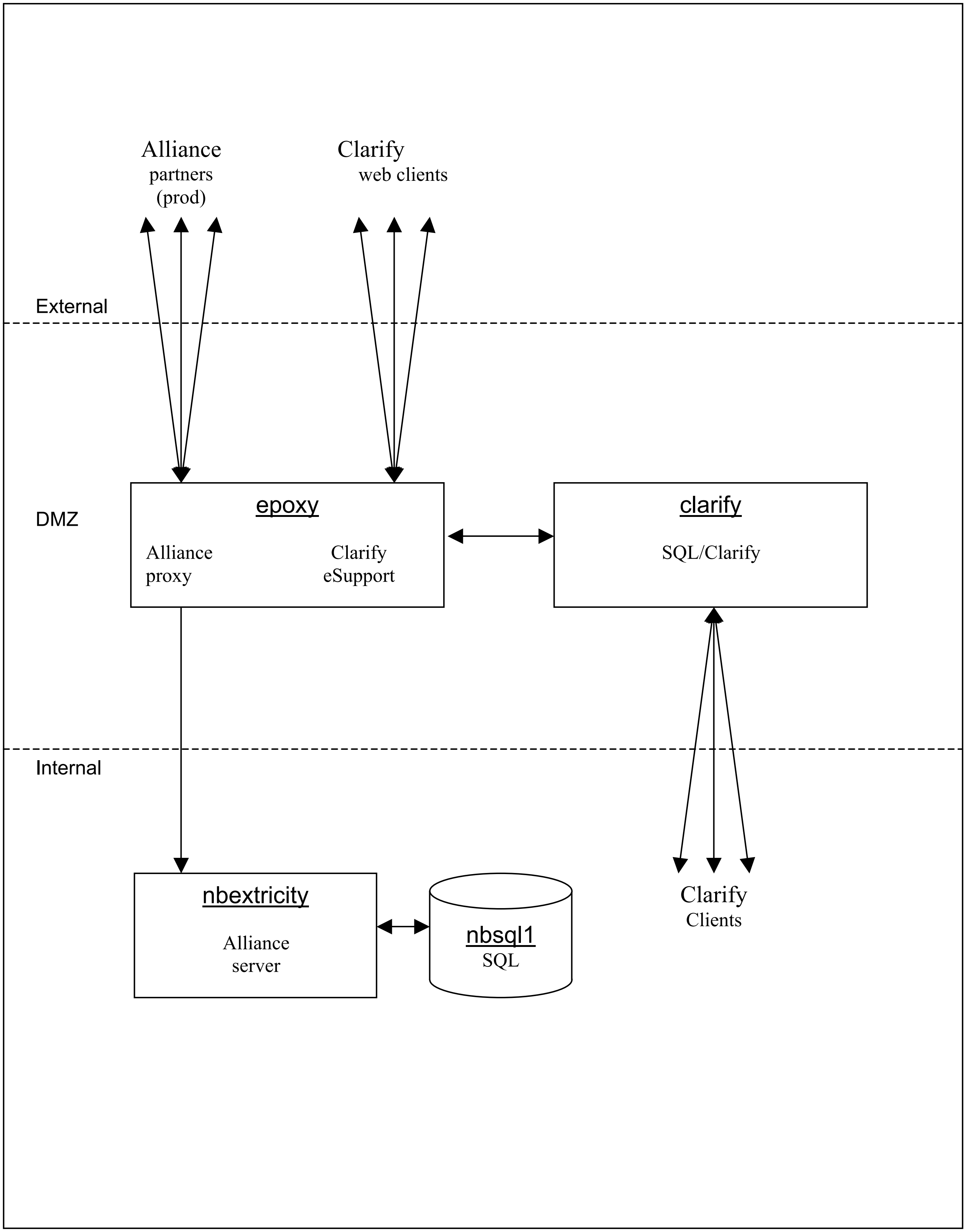
1.1. Conexant

Conexant Network Diagram



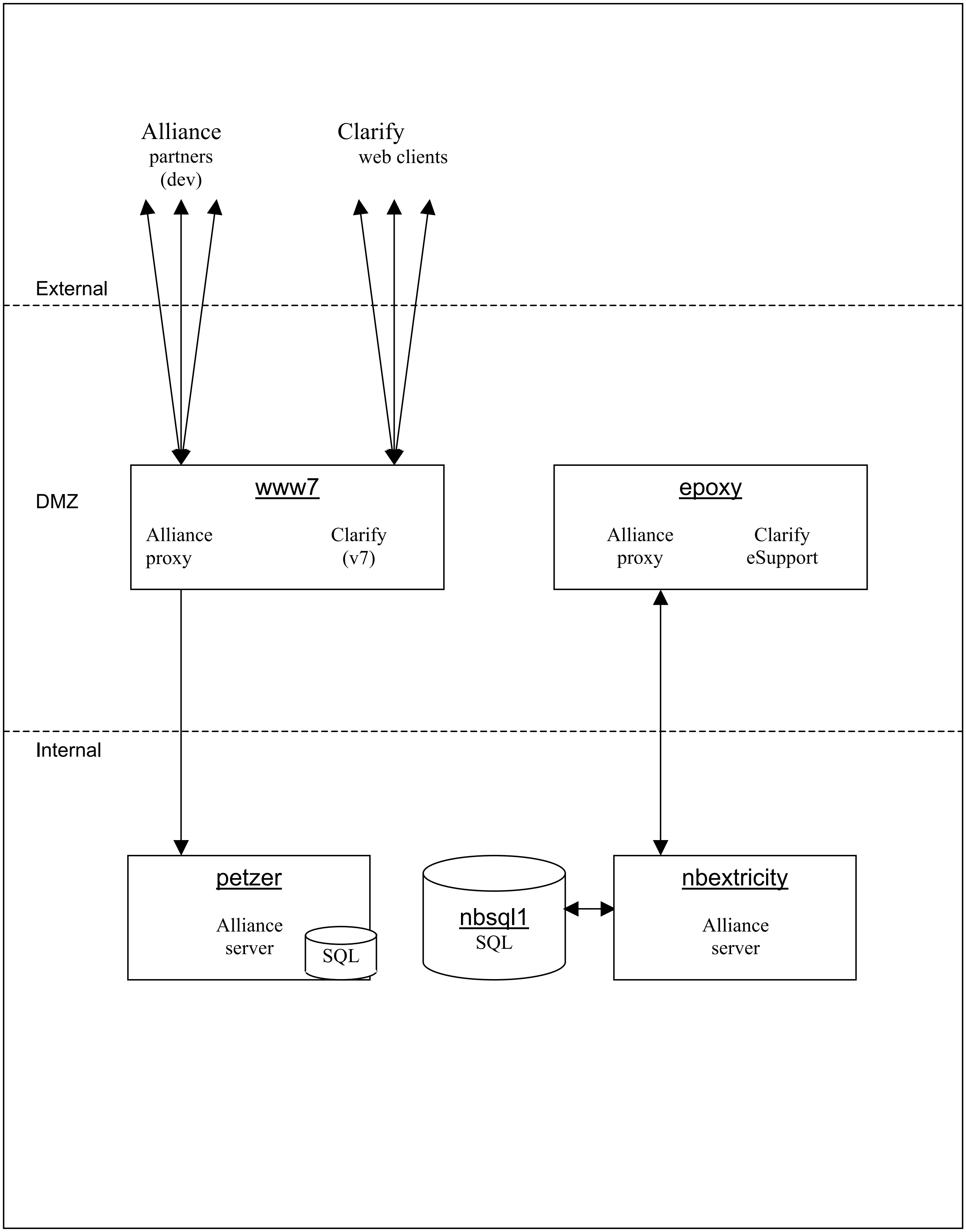
1.2. Clarify

Clarify Network Diagram



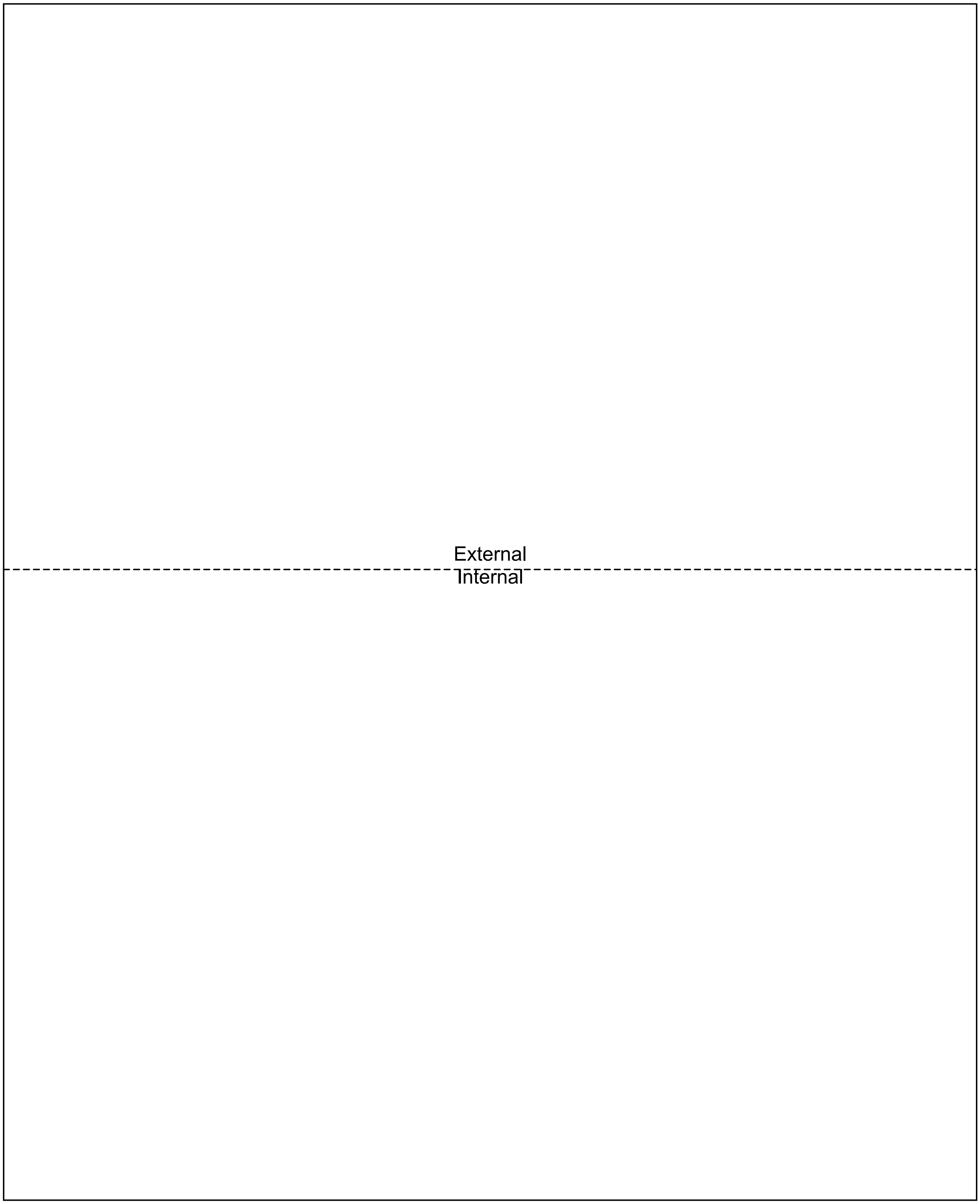
1.3. Extricity

Extricity Network Diagram



1.4. Spin Off

Spin Off Network Diagram



1.5. Server Lists

Servers List

Conexant
Servers

External	hostname	ip-address
epoxy	epoxy.conexant.com	198.62.8.39
nbproxy	?.conexant.com	198.?
bbs	bbs.conexant.com	198.62.8.20
realvideo	?.conexant.com	198.?
netpodium	netpodium.conexant.com	198.62.8.128
nbnsweb07	nbnsweb07.nb.conexant.com	157.152.183.60
Internal	hostname	ip-address
clarify	clarify.nb.conexant.com	157.152.183.102
clarify2	clarify2.nb.conexant.com	157.152.183.103
nbcbsapps1	nbcbsapps1.nb.conexant.com	157.152.183.234
nbcbsapps2	nbcbsapps2.nb.conexant.com	157.152.183.235
nbextricity	nbextricity.nb.conexant.com	157.152.183.104
nbfinance1	?.nb.conexant.com	157.152.183.
nbnsops1	nbnsops1.nb.conexant.com	157.152.161.184
nbnstrain1	nbnstrain1.nb.conexant.com	157.152.164.253
nbtsmc	nbtsmc.nb.conexant.com	157.152.183.138
nextweb	nextweb.nb.conexant.com	157.152.185.63
stageweb	stageweb.nb.conexant.com	157.152.183.228

Spin Off
Servers

External	hostname	ip-address
epoxy		
nbproxy		
bbs	npbbbs	?
realvideo		
netpodium		
nbnsweb07		
Internal	hostname	ip-address
Clarify1	npbclarify1	10.1.16.27
clarify2	npbclarify2	
nbcbsapps1	npbcbsapps1	10.1.16.71.
nbcbsapps2	npbcbsapps2	10.1.16.72.
nbextricity	nbpextricity1	
nbfinance1	npbfinance1	10.1.16.253.
nbnsops1	npbops1	
nbnstrain1	npbtraining1	
nbtsmc	npbtsmc1	
nextweb	npbintranet1	10.1.16.26
intranet	(npbintranet1)	

2. CONEXANT SERVERS

2.1. *External*

2.1.1. epoxy

Name: epoxy.conexant.com
Address: 198.62.8.39

2.1.2. nbproxy

Name: ?.conexant.com
Address: 198.?

2.1.3. bbs

Name: bbs.conexant.com
Address: 198.62.8.20
Aliases: bbs.nb.conexant.com

2.1.4. realvideo

Name: ?.conexant.com
Address: 198.?

2.1.5. netpodium

Name: netpodium.conexant.com
Address: 198.62.8.128

2.1.6. nbnsweb07

Name: nbnsweb07.nb.conexant.com
Address: 157.152.183.60

[CMAK], [Common Files], [Content Analyzer Express], [ControlIT], [ICW-Internet Connection Wizard], [Imparto], [Macro Express], [MarkVis], [Microsoft Chat], [Microsoft FrontPage Express], [Microsoft FrontPage], [Microsoft NetShow], [Microsoft Office], [Microsoft Script Debugger], [Microsoft Site Server Express], [mks], [MSSQL], [Mts], [NetMeetingNT], [Netscape], [Netscape], [Network Associates], [Outlook Express], [pba], [Perl], [Plus!], [Plus!], [Real], [Remotely Possible], [Small Wonders], [UA Express], [Veritas], [Web Publish], [WEBTREND], [WebTrends Enterprise Suite], [Windows NT], [WindowsUpdate], [WinZip], [WS_FTP Pro]

2.1.6.1. migration report > npbftp1

3gpp2 adpcm alcatel apptel asek asset atm bluetooth chasemellon compaq datacast **denali** destdevl dnp **entridia** hdsl huawei itu4k legal2 lucent maker **mosys** novanet orckit rok_collins rs8973 satevk smc sonnet sony symbionics syntest tong_hsing uwashington vvl whitepine

Migration Report – nbsweb07

Done	Split	Div	Directory	Contact	Phone	Email
	Y	cdNA	syntest	Bing Wu(x-3250)		bing.wu@conexant.com
	Y	paNA	huawei	Brian Ong (483-1029)		brian.ong@conexant.com
	?		datacast	BT		
	?		symbionics	BT		
	?		vvl	BT		
	Y	tpNA	maker	Carol Mahla (508-621-0661)		carol.mahla@conexant.com
	M	pt	denali	Charles Longway (x-7655)	(x-7655)	charles.longway@conexant.com
	M	pt	entridia	Charles Longwayx-9655 (NB)		
	M		mosys	Charles / Anupama (x5356)	(x5356)	anupama.asthana@conexant.com
	?	ops	whitepine	Christopher J Bowes	483-3246	chris.bowes@conexant.com
	?	it	tong_hsing	Cora Le	713-3419	cora.le@conexant.com
	M	it	asek	Cora Lee 713-3419		cora.le@conexant.com
	M		aset	Cora Lee 713-3419		
	Y	aeNA	hdsl	David Facinelli (713-4722)		david.facinelli@conexant.com
	Y		sonet	David Facinelli 858-713-4722 (SD)		
	?	di	satevk	David Wolfson	713-4793	dave.wolfson@conexant.com
	Y	stNA	3gpp2	Eyal Shlomot	483-4988	eyal.shlomot@conexant.com
	?	pt	orckit	Jack Yang	483-2040	jack.c.yang@conexant.com
	Y	daeNA	adpcm	Jeff Mullin	543-2029	jeff.mullin@conexant.com
	Y		atm	Jeff Mullin		
	Y	stNA	itu4k	Jes Thyssen (x-6607)		jes.thyssen@conexant.com
	Y		dnp	Judy Young	483-4800	judy.young@conexant.com
	Y		lucent	Judy Young		
	Y		uwashington	Judy Young		
	M		sony	Judy Young (483-4800)		judy.young@conexant.com
	M		alcatel	Julie Young (x-4800)		
	?		chasemellon	Louw Kotze	483-4507	louw.kotze@conexant.com
	Y	plmNA	rs8973	Mark Steenstra (713-3646)		mark.steenstra@conexant.com
	?	it	compaq	Mike Reese	713-4852	michael.reese@conexant.com
	?	NA	apptel	Roger Gale	799-9309	roger.gale@conexant.com
	?	it	bluetooth	Samantha J Howard	713-3366	samantha.howard@conexant.com
	M	pt	smc	Sarathy Gopal (713-4482)		sarathy.gopal@conexant.com
	?	legal	legal2	Stefanie P Vuong	483-3581	stefanie.vuong@conexant.com

Y	peNA	novanet	Tim Pappas 858-713-3676 (SD)	tim.pappas@conexant.com

2.1.6.2. disk report

Disk Report – nbsweb07

D: \InetPub\wwwroot\
E: \InetPub2\wwwroot\

	\users\	Joker file:	
e:	3gpp2		Eyal Shlomot
d:	adpcm		Jeff Mullin
e:	apptel		Roger Gale
d:	atm	users\atm	Jeff Mullin
d:	bt835		
d:	bt848		
d:	bt868		
e:	cx870		
d:	datacast		BT
d:	destdevl		xxxxxx
d:	dgidrop1	users\dgidrop1	
d:	dgidrop2	users\dgidrop2	
d:	dgidrop3	users\dgidrop3	
d:	dgiqa1	users\dgiqa1	
d:	dgiqa2	users\dgiqa2	
d:	did_solutions		
e:	did_solutions	*vendors\did_sulutions*	
d:	DID_upload	*vendors\DID_upload*	Rob Miller
d:	dnp		Judy Young
d:	dooin		
d:	echostar		Steve Glennon
d:	echostart		
e:	fusion		
e:	fusion_old		
e:	fusions		
d:	fusionwdm		Rob Miller
d:	general_datacom		John Richardson
d:	gsm	users\gsm	
d:	gsm_gvc	users\gsm_gvc	
d:	gsm_sec	users\gsm_sec	
d:	himedia		
d:	hss		
d:	infosurge		Rob Miller
e:	infosurgeDVB		Rob Miller

D: \InetPub\wwwroot\
E: \InetPub2\wwwroot\

	\vendors\	Joker file:	
d:	ab		John Richardson
d:	acte		John Richardson
d:	agilent	*users\agilent*	
d:	agility	vendors\agility	
d:	alcatel	vendors\alcatel	
d:	alcom		John Richardson
e:	amkor	vendors\amkor	
d:	anam		
d:	ao-inc	vendors\ao-inc	
d:	aptix_jta	vendors\aptix_jta	
d:	arris	vendors\arris	
e:	asat	vendors\asat	
d:	ase	vendors\ase	
e:	asek	vendors\asek	
e:	aset	vendors\aset	
d:	atx		John Richardson
d:	avnet		John Richardson
d:	axess		John Richardson
d:	best_data		John Richardson
d:	bluetooth		Samantha J Howard
d:	boeing	vendors\boeing	
d:	cadence	vendors\cadence	
d:	camknights	vendors\fusion	
e:	chartered		ZY Cheng
d:	chasemellon		Louw Kotze
e:	chromisys	vendors\chromisys	
d:	cmap		John Richardson
d:	cocom	vendors\cocom	
e:	com21		Rob Miller
d:	compaq		Mike Reese
d:	comstream		John Richardson
d:	delorme		John Richardson
d:	denali	vendors\denali	
d:	digicom		John Richardson

d:	legal		
e:	legal2		Stefanie P Vuong
d:	lucent		Judy Young
d:	maker	*vendors\maker*	
e:	maker		
e:	mizar		David W Peters
e:	novanet	*vendors\novanet*	
d:	oak	users\oak	
d:	orckit		Jack Yang
d:	pace		Steve Glennon
e:	rftest	*vendors\rftest*	
e:	satevk		David Wolfson
d:	soho	users\soho	
e:	sonet	*vendors\sonet*	
d:	sort		
d:	symbionics		BT
d:	techpub		
e:	test		
d:	usage.txt		
d:	vvl		BT
d:	wan		

Unmatched Joker file:

users\audioplayground
users\autobaud
users\bluetooth
users\compaq
users\disstance
vendors\camknights
vendors\cx870
vendors\extricitychartered

vendors\infosurge
vendors\infosurgeDVB

d:	echostar			Steve Glennon
e:	entridia		vendors\entridia	
d:	equinox		vendors\equinox	John Richardson
d:	excel		*users\excel*	
e:	extricity		vendors\extricity	
d:	fujitsu		*users\fujisu*	
d:	gatech		*users\gatech*	
e:	grayscaletech		vendors\grayscaletech	
d:	gsm_gvc			
d:	hanvit		vendors\hughes	John Richardson
e:	hp		*users\hp*	
e:	huawei		vendors\huawei	
d:	index.htm			
d:	itu4k		*users\itu4k*	
e:	kme		vendors\kme	
e:	kyocera		vendors\kyocera	
e:	lanl		vendors\lanl	
e:	legal2		vendors\legal2	
e:	lexmark		vendors\lexmark	
d:	lucent		*users\lucent*	
d:	marshall			John Richardson
e:	mfc2000		vendors\mfc2000	
e:	mgcs		vendors\mgcs	
e:	mosys		vendors\mosys	
e:	nec		vendors\nec	
e:	nextlevel		vendors\nextlevel	
d:	nokia		*users\nokia*	
e:		octera	vendors\octera	
e:	opticomp		vendors\opticomp	
d:	ositech			John Richardson
d:	pace		*users\pace*	
e:	philips		vendors\philips	
d:	prairie		vendors\prairie	
d:	qthink		vendors\qthink	
d:	rec		vendors\rec	
d:	rok_collins			Steve L Nguyen,cmsellne@collins.rockwell.com,
d:	samsung		*users\samsung*	
d:	samsung2		*users\samsung2*	

vendors\v92

d:	scarborough		John Richardson
d:	sci		John Richardson
d:	sharp	vendors\sharp	
d:	sharp2	*users\sharp2*	
d:	sharp3	vendors\sharp3	
e:	sharp4	*users\sharp4*	
d:	shiva		John Richardson
e:	si	vendors\si	
e:	silitek	vendors\silitek	
d:	simac	vendors\simac	
d:	smc	*users\smc*	
e:	sony	vendors\sony	
d:	stats	vendors\stats	
d:	summit		Yi-Hsien Doo
d:	syntest	*users\syntest*	
d:	tdc		John Richardson
e:	technisat	vendors\technisat	
d:	ted		John Richardson
d:	temp		
d:	teradyne	*users\teradyne*	
e:	test		
d:	thomson		John Richardson
e:	tong_hsing		Cora Le
d:	tsmc	vendors\tsmc	
e:	ucsb	vendors\ucsb	
d:	umc	vendors\umc	
d:	umich	*users\umich*	
d:	unitronic		John Richardson
d:	usage.txt		
d:	uwashington		Judy Young
e:	visionetics	vendors\visionetics	
d:	wabco	vendors\wabco	
e:	webware	vendors\webware	
d:	whitepine		Christopher J Bowes
e:	wipro	vendors\wipro	
e:	xerox	vendors\xerox	
e:	xilinx	vendors\xilinx	
d:	zoom		John Richardson

2.1.6.3. migration scripts

mkdirs script:

```
MKDIR D:\InetPub\wwwroot\users\3gpp2
MKDIR D:\InetPub\wwwroot\users\adpcm
MKDIR D:\InetPub\wwwroot\vendors\alcatel
MKDIR D:\InetPub\wwwroot\users\apptel
MKDIR D:\InetPub\wwwroot\vendors\asek
MKDIR D:\InetPub\wwwroot\vendors\aset
MKDIR D:\InetPub\wwwroot\users\atm
MKDIR D:\InetPub\wwwroot\vendors\bluetooth
MKDIR D:\InetPub\wwwroot\vendors\chasemellon
MKDIR D:\InetPub\wwwroot\vendors\compaq
MKDIR D:\InetPub\wwwroot\vendors\denali
MKDIR D:\InetPub\wwwroot\vendors\entridia
MKDIR D:\InetPub\wwwroot\vendors\huawei
MKDIR D:\InetPub\wwwroot\vendors\itu4k
MKDIR D:\InetPub\wwwroot\users\legal2
MKDIR D:\InetPub\wwwroot\vendors\lucent
MKDIR D:\InetPub\wwwroot\users\maker
MKDIR D:\InetPub\wwwroot\vendors\mosys
MKDIR D:\InetPub\wwwroot\users\novanet
MKDIR D:\InetPub\wwwroot\vendors\rok_collins
MKDIR D:\InetPub\wwwroot\users\satevk
MKDIR D:\InetPub\wwwroot\vendors\smc
MKDIR D:\InetPub\wwwroot\users\sonet
MKDIR D:\InetPub\wwwroot\vendors\sony
MKDIR D:\InetPub\wwwroot\vendors\syntest
MKDIR D:\InetPub\wwwroot\vendors\tong_hsing
MKDIR D:\InetPub\wwwroot\vendors\uwashington
MKDIR D:\InetPub\wwwroot\vendors\whitepine
```

dmpftplist.bat:

```
dmpvdir.vbs msftpsvc/1/root/3gpp2
dmpvdir.vbs msftpsvc/1/root/adpcm
dmpvdir.vbs msftpsvc/1/root/alcatel
dmpvdir.vbs msftpsvc/1/root/apptel
dmpvdir.vbs msftpsvc/1/root/asek
dmpvdir.vbs msftpsvc/1/root/aset
dmpvdir.vbs msftpsvc/1/root/atm
dmpvdir.vbs msftpsvc/1/root/bluetooth
dmpvdir.vbs msftpsvc/1/root/chasemellon
dmpvdir.vbs msftpsvc/1/root/compaq
dmpvdir.vbs msftpsvc/1/root/datacast
dmpvdir.vbs msftpsvc/1/root/denali
dmpvdir.vbs msftpsvc/1/root/destdevl
dmpvdir.vbs msftpsvc/1/root/dnp
dmpvdir.vbs msftpsvc/1/root/entridia
dmpvdir.vbs msftpsvc/1/root/hdsl
dmpvdir.vbs msftpsvc/1/root/huawei
dmpvdir.vbs msftpsvc/1/root/itu4k
dmpvdir.vbs msftpsvc/1/root/legal2
dmpvdir.vbs msftpsvc/1/root/lucent
dmpvdir.vbs msftpsvc/1/root/maker
dmpvdir.vbs msftpsvc/1/root/mosys
dmpvdir.vbs msftpsvc/1/root/novanet
dmpvdir.vbs msftpsvc/1/root/orckit
dmpvdir.vbs msftpsvc/1/root/rok_collins
dmpvdir.vbs msftpsvc/1/root/rs8973
dmpvdir.vbs msftpsvc/1/root/satevk
dmpvdir.vbs msftpsvc/1/root/smc
dmpvdir.vbs msftpsvc/1/root/sonet
dmpvdir.vbs msftpsvc/1/root/sony
dmpvdir.vbs msftpsvc/1/root/symbionics
dmpvdir.vbs msftpsvc/1/root/syntest
dmpvdir.vbs msftpsvc/1/root/tong_hsing
dmpvdir.vbs msftpsvc/1/root/uwashington
dmpvdir.vbs msftpsvc/1/root/vvl
dmpvdir.vbs msftpsvc/1/root/whitepine
```

dmpwwwlist.bat:

```
dmpvdir.vbs w3svc/1/root/3gpp2
dmpvdir.vbs w3svc/1/root/adpcm
dmpvdir.vbs w3svc/1/root/alcatel
dmpvdir.vbs w3svc/1/root/apptel
dmpvdir.vbs w3svc/1/root/asek
dmpvdir.vbs w3svc/1/root/aset
dmpvdir.vbs w3svc/1/root/atm
dmpvdir.vbs w3svc/1/root/bluetooth
dmpvdir.vbs w3svc/1/root/chasemellon
dmpvdir.vbs w3svc/1/root/compaq
dmpvdir.vbs w3svc/1/root/datacast
dmpvdir.vbs w3svc/1/root/denali
dmpvdir.vbs w3svc/1/root/destdevl
dmpvdir.vbs w3svc/1/root/dnp
dmpvdir.vbs w3svc/1/root/entridia
dmpvdir.vbs w3svc/1/root/hdsl
dmpvdir.vbs w3svc/1/root/huawei
dmpvdir.vbs w3svc/1/root/itu4k
dmpvdir.vbs w3svc/1/root/legal2
dmpvdir.vbs w3svc/1/root/lucent
dmpvdir.vbs w3svc/1/root/maker
dmpvdir.vbs w3svc/1/root/mosys
dmpvdir.vbs w3svc/1/root/novanet
dmpvdir.vbs w3svc/1/root/orckit
dmpvdir.vbs w3svc/1/root/rok_collins
dmpvdir.vbs w3svc/1/root/rs8973
dmpvdir.vbs w3svc/1/root/satevk
dmpvdir.vbs w3svc/1/root/smc
dmpvdir.vbs w3svc/1/root/sonet
dmpvdir.vbs w3svc/1/root/sony
dmpvdir.vbs w3svc/1/root/symbionics
dmpvdir.vbs w3svc/1/root/syntest
dmpvdir.vbs w3svc/1/root/tong_hsing
dmpvdir.vbs w3svc/1/root/uwashington
dmpvdir.vbs w3svc/1/root/vvl
dmpvdir.vbs w3svc/1/root/whitepine
```

2.1.6.4. iis differences report

```
C:\>Rem dif >dif.doc

C:\>Rem diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_3
GPP2.TXT  NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_3GPP2.TXT

C:\>rem ftps

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_A
DPCM.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ADPCM.TXT

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_A
LCATEL.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ALCATEL.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_APPTEL.TXT

       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_APPTEL.TXT
2c2
< Path                              : (STRING)
"E:\InetPub2\wwwroot\users\apptel"
---
> Path                              : (STRING)
"D:\InetPub\wwwroot\users\apptel"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ASEK.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ASEK.TXT
2c2
< Path                              : (STRING)
"E:\InetPub2\wwwroot\vendors\asek"
---
> Path                              : (STRING)
"D:\InetPub\wwwroot\vendors\asek"
13c13
< IPGRANT                             : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                             : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ASET.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ASET.TXT
2c2
< Path                              : (STRING)
"E:\InetPub2\wwwroot\vendors\aset"
---
> Path                              : (STRING)
"D:\InetPub\wwwroot\vendors\aset"
13c13
< IPGRANT                             : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                             : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ATM.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ATM.TXT

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_BLUETOOTH.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_BLUETOOTH.TXT

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_CHASEMELLON.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_CHASEMELLON.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_COMPAQ.TXT

       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_COMPAQ.TXT

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_DATACAST.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_DATACAST.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_DENALI.TXT

       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_DENALI.TXT

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_DESTDEVL.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_DESTDEVL.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_DNP.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_DNP.TXT

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ENTRIDIA.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ENTRIDIA.TXT
2c2
< Path                              : (STRING)
"E:\InetPub2\wwwroot\vendors\entridia"
---
> Path                              : (STRING)
"D:\InetPub\wwwroot\vendors\entridia"
6,10d5
<
```

```
< DataType: "IPSec" Not Yet Supported on property: IPSecurity
<
< ErrNumber: 0 (0x0)
<

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_HDSL.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_HDSL.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_HUAWEI.TXT

        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_HUAWEI.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\vendors\huawei"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\vendors\huawei"
13c13
< IPGRANT                            : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                            : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ITU4K.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ITU4K.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_LEGAL2.TXT

        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_LEGAL2.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\legal2"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\legal2"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_LUCENT.TXT

        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_LUCENT.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_MAKER.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_MAKER.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_MOSYS.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_MOSYS.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\vendors\mosys"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\vendors\mosys"
13c13
< IPGRANT                            : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                            : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_NOVANET.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_NOVANET.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\novanet"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\novanet"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ORCKIT.TXT

        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ORCKIT.TXT

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ROK_COLLINS.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ROK_COLLINS.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_RS8973.TXT

        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_RS8973.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SATEVK.TXT

        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SATEVK.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\satevk"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\satevk"
13c13
< IPGRANT                            : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                            : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SMC.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SMC.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SONET.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SONET.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\sonet"
---
```

```
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\sonet"
13c13
< IPGRANT                            : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                            : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SONY.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SONY.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\vendors\sony"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\vendors\sony"
13c13
< IPGRANT                            : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                            : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SYMBIONICS.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SYMBIONICS.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SYNTEST.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SYNTEST.TXT

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_TONG_HSING.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_TONG_HSING.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\vendors\tong_hsing"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\vendors\tong_hsing"

C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_UWASHINGTON.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_UWASHINGTON.TXT
13c13
< IPGRANT                            : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                            : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_VVL.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_VVL.TXT
```

```
C:\>diff
NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_WHITEPINE.TXT
       NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_WHITEPINE.TXT

C:\>diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_3GPP2.TXT
               NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_3GPP2.TXT
2c2
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\3gpp2"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\3gpp2"
13c13
< IPGRANT                            : (IPSEC) "157.152.0.0,
255.255.0.0" "198.62.8.0, 255.255.255.0"
---
> IPGRANT                            : (IPSEC) "10.1.0.0,
255.255.0.0" "157.152.0.0, 255.255.0.0"
```

```
C:\>rem webs

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_HUAWEI.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_HUAWEI.TXT
4c4
< AppIsolated                     : (BOOLEAN) False
---
> AppIsolated                     : (INTEGER) 0
22a23
> AccessSource                    : (BOOLEAN) False
28,29c29
< Path                            : (STRING)
"E:\InetPub2\wwwroot\vendors\huawei"
< 'AppWamClsid                     : (STRING) "{0E289ADC-B1FD-
11D4-AB7E-0008C733356F}"
---
> Path                            : (STRING)
"D:\InetPub\wwwroot\vendors\huawei"
32a33
> AuthMD5                         : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_APPTEL.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_APPTEL.TXT
4c4
< AppIsolated                     : (BOOLEAN) False
---
> AppIsolated                     : (INTEGER) 0
22a23
> AccessSource                    : (BOOLEAN) False
28,29c29
< Path                            : (STRING)
"E:\InetPub2\wwwroot\users\apptel"
< 'AppWamClsid                     : (STRING) "{099A6B81-2F8D-
11D4-AB71-0008C733356F}"
---
> Path                            : (STRING)
"D:\InetPub\wwwroot\users\apptel"
32a33
> AuthMD5                         : (BOOLEAN) False
34,123d34
< [/w3svc/1/root/apptel/ima]
< [/w3svc/1/root/apptel/ima/ima16_8]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima16]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima32_12]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima32_8]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima4_2j2]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima8]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima8l]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima8l_icop]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima8s]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima8_8]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima_com]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/pdf]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< ContentIndexed                  : (BOOLEAN) False
< AuthFlags                       : (INTEGER) 6
<
< [/w3svc/1/root/apptel/ima/ima16_8v]
< AuthBasic                       : (BOOLEAN) True
< AuthAnonymous                   : (BOOLEAN) False
< AuthNTLM                        : (BOOLEAN) True
< AuthFlags                       : (INTEGER) 6
<
<

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ASEK.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ASEK.TXT
4c4
< AppIsolated                     : (BOOLEAN) False
---
> AppIsolated                     : (INTEGER) 0
22a23
> AccessSource                    : (BOOLEAN) False
28,29c29
< Path                            : (STRING)
"E:\InetPub2\wwwroot\vendors\asek"
< 'AppWamClsid                     : (STRING) "{9BEED3D8-8609-
11D4-AB79-0008C733356F}"
---
> Path                            : (STRING)
"D:\InetPub\wwwroot\vendors\asek"
32a33
> AuthMD5                         : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ASET.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ASET.TXT
4c4
< AppIsolated                     : (BOOLEAN) False
---
> AppIsolated                     : (INTEGER) 0
22a23
> AccessSource                    : (BOOLEAN) False
28,29c29
```

```
< Path                            : (STRING)
"E:\InetPub2\wwwroot\vendors\aset"
< 'AppWamClsid                     : (STRING) "{9BEED3A3-8609-
11D4-AB79-0008C733356F}"
---
> Path                            : (STRING)
"D:\InetPub\wwwroot\vendors\aset"
32a33
> AuthMD5                         : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ATM.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ATM.TXT
4c4
< AppIsolated                     : (BOOLEAN) False
---
> AppIsolated                     : (INTEGER) 0
17a18
> AccessSource                    : (BOOLEAN) False
25d25
< 'AppWamClsid                     : (STRING) "{E7311FE6-38C5-
11D3-AB53-0008C733356F}"
27a28
> AuthMD5                         : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ENTRIDIA.TXT
               NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ENTRIDIA.TXT
4c4
< AppIsolated                     : (BOOLEAN) False
---
> AppIsolated                     : (INTEGER) 0
22a23
> AccessSource                    : (BOOLEAN) False
28,29c29
< Path                            : (STRING)
"E:\InetPub2\wwwroot\vendors\entridia"
< 'AppWamClsid                     : (STRING) "{F9406F45-933B-
11D4-AB7A-0008C733356F}"
---
> Path                            : (STRING)
"D:\InetPub\wwwroot\vendors\entridia"
32a33
> AuthMD5                         : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_3GPP2.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_3GPP2.TXT
4c4
< AppIsolated                     : (BOOLEAN) False
---
> AppIsolated                     : (INTEGER) 0
22a23
> AccessSource                    : (BOOLEAN) False
28,29c29
```

```
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\3gpp2"
< 'AppWamClsid                      : (STRING) "{7084159F-1CD1-
11D4-AB70-0008C733356F}"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\3gpp2"
31a32,46
> ScriptMaps                       : (LIST) (13 Items)
>   ".htw,C:\WINNT\System32\webhits.dll,3,GET,HEAD,POST"
>   ".ida,C:\WINNT\System32\idq.dll,3,GET,HEAD,POST"
>   ".idq,C:\WINNT\System32\idq.dll,3,GET,HEAD,POST"
>
".asp,C:\WINNT\System32\inetsrv\asp.dll,1,GET,HEAD,POST,TRACE"
>
".cer,C:\WINNT\System32\inetsrv\asp.dll,1,GET,HEAD,POST,TRACE"
>
".cdx,C:\WINNT\System32\inetsrv\asp.dll,1,GET,HEAD,POST,TRACE"
>
".asa,C:\WINNT\System32\inetsrv\asp.dll,1,GET,HEAD,POST,TRACE"
>   ".htr,C:\WINNT\System32\inetsrv\ism.dll,1,GET,POST"
>
".idc,C:\WINNT\System32\inetsrv\httpodbc.dll,1,OPTIONS,GET,HEAD,P
OST,PUT,DELETE,TRACE"
>   ".shtm,C:\WINNT\System32\inetsrv\ssinc.dll,1,GET,POST"
>   ".shtml,C:\WINNT\System32\inetsrv\ssinc.dll,1,GET,POST"
>   ".stm,C:\WINNT\System32\inetsrv\ssinc.dll,1,GET,POST"
>   ".printer,C:\WINNT\System32\msw3prt.dll,1,GET,POST"
>
32a48
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ITU4K.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ITU4K.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
29d29
< 'AppWamClsid                      : (STRING) "{3F508786-9D4B-
11D3-AB64-0008C733356F}"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_LUCENT.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_LUCENT.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
```

```
> AccessSource                     : (BOOLEAN) False
29d29
< 'AppWamClsid                      : (STRING) "{90880BB1-C026-
11D3-AB65-0008C733356F}"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_MAKER.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_MAKER.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
29d29
< 'AppWamClsid                      : (STRING) "{E8E296F6-EE86-
11D3-AB6B-0008C733356F}"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_MOSYS.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_MOSYS.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
28,29c29
< Path                             : (STRING)
"E:\InetPub2\wwwroot\vendors\mosys"
< 'AppWamClsid                      : (STRING) "{F9406EEF-933B-
11D4-AB7A-0008C733356F}"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\vendors\mosys"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_NOVANET.TXT
       NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_NOVANET.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
28,29c29
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\novanet"
< 'AppWamClsid                      : (STRING) "{F9406823-933B-
11D4-AB7A-0008C733356F}"
```

```
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\novanet"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_SATEVK.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_SATEVK.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
28,29c29
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\satevk"
< 'AppWamClsid                      : (STRING) "{9BEECB13-8609-
11D4-AB79-0008C733356F}"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\satevk"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_SONET.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_SONET.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
28,29c29
< Path                             : (STRING)
"E:\InetPub2\wwwroot\users\sonet"
< 'AppWamClsid                      : (STRING) "{F9406D67-933B-
11D4-AB7A-0008C733356F}"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\users\sonet"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_SONY.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_SONY.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
28,29c29
```

```
< Path                             : (STRING)
"E:\InetPub2\wwwroot\vendors\sony"
< 'AppWamClsid                      : (STRING) "{9A2D56ED-F568-
11D3-AB6E-0008C733356F}"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\vendors\sony"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_TONG_HSING.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_TONG_HSING.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
28,29c29
< Path                             : (STRING)
"E:\InetPub2\wwwroot\vendors\tong_hsing"
< 'AppWamClsid                      : (STRING) "{099A76FD-2F8D-
11D4-AB71-0008C733356F}"
---
> Path                             : (STRING)
"D:\InetPub\wwwroot\vendors\tong_hsing"
32a33
> AuthMD5                          : (BOOLEAN) False

C:\>diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_UWASHINGTON.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_UWASHINGTON.TXT
4c4
< AppIsolated                      : (BOOLEAN) False
---
> AppIsolated                      : (INTEGER) 0
22a23
> AccessSource                     : (BOOLEAN) False
29d29
< 'AppWamClsid                      : (STRING) "{27E02F35-E968-
11D3-AB69-0008C733356F}"
32a33
> AuthMD5                          : (BOOLEAN) False
34,40d34
< [/w3svc/1/root/uwashington/upload]
< AppRoot                          : (STRING)
"/LM/W3SVC/1/Root/uwashington/upload"
< AppFriendlyName                  : (STRING) ""
< AppIsolated                      : (BOOLEAN) False
< AppWamClsid                      : (STRING) "{E8E2836F-EE86-
11D3-AB6B-0008C733356F}"
< AspSessionTimeout                : (INTEGER) 200
<
```

```
Sample IIS dumps:

C:\>type NBNSWEB07_MSFTPSVC\NBNSWEB07_MSFTPSVC_1_ROOT_ALCATEL.TXT

KeyType                         : (STRING) "IIsFtpVirtualDir"
Path                            : (STRING)
"D:\InetPub\wwwroot\vendors\alcatel"
AccessFlags                     : (INTEGER) 3
AccessRead                      : (BOOLEAN) True
AccessWrite                     : (BOOLEAN) True


C:\>type NPBFTP1_MSFTPSVC\NPBFTP1_MSFTPSVC_1_ROOT_ALCATEL.TXT
KeyType                         : (STRING) "IIsFtpVirtualDir"
Path                            : (STRING)
"D:\InetPub\wwwroot\vendors\alcatel"
AccessFlags                     : (INTEGER) 3
AccessRead                      : (BOOLEAN) True
AccessWrite                     : (BOOLEAN) True


C:\>type NBNSWEB07_MSFTPSVC\NBNSWEB07_MSFTPSVC_1_ROOT_APPTEL.TXT
KeyType                         : (STRING) "IIsFtpVirtualDir"
Path                            : (STRING)
"E:\InetPub2\wwwroot\users\apptel"
AccessFlags                     : (INTEGER) 3
AccessRead                      : (BOOLEAN) True
AccessWrite                     : (BOOLEAN) True


C:\>type NPBFTP1_MSFTPSVC\NPBFTP1_MSFTPSVC_1_ROOT_APPTEL.TXT
KeyType                         : (STRING) "IIsFtpVirtualDir"
Path                            : (STRING)
"D:\InetPub\wwwroot\users\apptel"
AccessFlags                     : (INTEGER) 3
AccessRead                      : (BOOLEAN) True
AccessWrite                     : (BOOLEAN) True
```

```
C:\>dir NBNSWEB07_MSFTPSVC

 Volume in drive C is CONEXANT
 Volume Serial Number is 3E12-16F6

 Directory of C:\NBNSWEB07_MSFTPSVC

12/11/2000  11:08a      <DIR>          .
12/11/2000  11:08a      <DIR>          ..
12/07/2000  05:36p                 289
NBNSWEB07_MSFTPSVC_1_ROOT_ADPCM.TXT
12/07/2000  05:36p                 293
NBNSWEB07_MSFTPSVC_1_ROOT_ALCATEL.TXT
12/07/2000  05:36p                 291
NBNSWEB07_MSFTPSVC_1_ROOT_APPTEL.TXT
12/07/2000  05:36p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_ASEK.TXT
12/07/2000  05:36p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_ASET.TXT
12/07/2000  05:36p                 287
NBNSWEB07_MSFTPSVC_1_ROOT_ATM.TXT
12/07/2000  05:36p                 295
NBNSWEB07_MSFTPSVC_1_ROOT_BLUETOOTH.TXT
12/07/2000  05:37p                 297
NBNSWEB07_MSFTPSVC_1_ROOT_CHASEMELLON.TXT
12/07/2000  05:37p                 292
NBNSWEB07_MSFTPSVC_1_ROOT_COMPAQ.TXT
12/07/2000  05:37p                 157
NBNSWEB07_MSFTPSVC_1_ROOT_DATACAST.TXT
12/07/2000  05:37p                 292
NBNSWEB07_MSFTPSVC_1_ROOT_DENALI.TXT
12/07/2000  05:37p                 157
NBNSWEB07_MSFTPSVC_1_ROOT_DESTDEVL.TXT
12/07/2000  05:37p                 152
NBNSWEB07_MSFTPSVC_1_ROOT_DNP.TXT
12/07/2000  05:37p                 382
NBNSWEB07_MSFTPSVC_1_ROOT_ENTRIDIA.TXT
12/07/2000  05:37p                 153
NBNSWEB07_MSFTPSVC_1_ROOT_HDSL.TXT
12/07/2000  05:37p                 507
NBNSWEB07_MSFTPSVC_1_ROOT_HUAWEI.TXT
12/07/2000  05:37p                 291
NBNSWEB07_MSFTPSVC_1_ROOT_ITU4K.TXT
12/07/2000  05:38p                 291
NBNSWEB07_MSFTPSVC_1_ROOT_LEGAL2.TXT
12/07/2000  05:38p                 292
NBNSWEB07_MSFTPSVC_1_ROOT_LUCENT.TXT
12/07/2000  05:38p                 289
NBNSWEB07_MSFTPSVC_1_ROOT_MAKER.TXT
12/07/2000  05:38p                 505
NBNSWEB07_MSFTPSVC_1_ROOT_MOSYS.TXT
12/07/2000  05:38p                 292
NBNSWEB07_MSFTPSVC_1_ROOT_NOVANET.TXT
12/07/2000  05:38p                 155
NBNSWEB07_MSFTPSVC_1_ROOT_ORCKIT.TXT
12/07/2000  05:38p                 297
NBNSWEB07_MSFTPSVC_1_ROOT_ROK_COLLINS.TXT
12/07/2000  05:38p                 155
NBNSWEB07_MSFTPSVC_1_ROOT_RS8973.TXT
12/07/2000  05:38p                 505
NBNSWEB07_MSFTPSVC_1_ROOT_SATEVK.TXT
12/07/2000  05:39p                 289
NBNSWEB07_MSFTPSVC_1_ROOT_SMC.TXT
12/07/2000  05:39p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_SONET.TXT
12/07/2000  05:39p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_SONY.TXT
12/07/2000  05:39p                 159
NBNSWEB07_MSFTPSVC_1_ROOT_SYMBIONICS.TXT
12/07/2000  05:39p                 293
NBNSWEB07_MSFTPSVC_1_ROOT_SYNTEST.TXT
12/07/2000  05:39p                 297
NBNSWEB07_MSFTPSVC_1_ROOT_TONG_HSING.TXT
12/07/2000  05:39p                 516
NBNSWEB07_MSFTPSVC_1_ROOT_UWASHINGTON.TXT
12/07/2000  05:39p                 152
NBNSWEB07_MSFTPSVC_1_ROOT_VVL.TXT
12/07/2000  05:39p                 295
NBNSWEB07_MSFTPSVC_1_ROOT_WHITEPINE.TXT
12/07/2000  05:36p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_3GPP2.TXT
              36 File(s)         11,432 bytes
               2 Dir(s)  17,572,003,840 bytes
free
```

```
C:\>dir NPBFTP1_MSFTPSVC
 Volume in drive C is CONEXANT
 Volume Serial Number is 3E12-16F6

 Directory of C:\NPBFTP1_MSFTPSVC

12/11/2000  11:16a      <DIR>          .
12/11/2000  11:16a      <DIR>          ..
12/11/2000  10:41a                 289
NPBFTP1_MSFTPSVC_1_ROOT_ADPCM.TXT
12/11/2000  10:41a                 293
NPBFTP1_MSFTPSVC_1_ROOT_ALCATEL.TXT
12/11/2000  10:41a                 290
NPBFTP1_MSFTPSVC_1_ROOT_APPTEL.TXT
12/11/2000  10:41a                 498
NPBFTP1_MSFTPSVC_1_ROOT_ASEK.TXT
12/11/2000  10:41a                 498
NPBFTP1_MSFTPSVC_1_ROOT_ASET.TXT
12/11/2000  10:41a                 287
NPBFTP1_MSFTPSVC_1_ROOT_ATM.TXT
12/11/2000  10:41a                 295
NPBFTP1_MSFTPSVC_1_ROOT_BLUETOOTH.TXT
12/11/2000  10:41a                 297
NPBFTP1_MSFTPSVC_1_ROOT_CHASEMELLON.TXT
12/11/2000  10:41a                 292
NPBFTP1_MSFTPSVC_1_ROOT_COMPAQ.TXT
12/11/2000  10:42a                 157
NPBFTP1_MSFTPSVC_1_ROOT_DATACAST.TXT
12/11/2000  10:42a                 292
NPBFTP1_MSFTPSVC_1_ROOT_DENALI.TXT
12/11/2000  10:42a                 157
NPBFTP1_MSFTPSVC_1_ROOT_DESTDEVL.TXT
12/11/2000  10:42a                 152
NPBFTP1_MSFTPSVC_1_ROOT_DNP.TXT
12/11/2000  10:42a                 294
NPBFTP1_MSFTPSVC_1_ROOT_ENTRIDIA.TXT
12/11/2000  10:42a                 153
NPBFTP1_MSFTPSVC_1_ROOT_HDSL.TXT
12/11/2000  10:42a                 502
NPBFTP1_MSFTPSVC_1_ROOT_HUAWEI.TXT
12/11/2000  10:42a                 291
NPBFTP1_MSFTPSVC_1_ROOT_ITU4K.TXT
12/11/2000  10:42a                 290
NPBFTP1_MSFTPSVC_1_ROOT_LEGAL2.TXT
12/11/2000  10:43a                 292
NPBFTP1_MSFTPSVC_1_ROOT_LUCENT.TXT
12/11/2000  10:43a                 289
NPBFTP1_MSFTPSVC_1_ROOT_MAKER.TXT
12/11/2000  10:43a                 500
NPBFTP1_MSFTPSVC_1_ROOT_MOSYS.TXT
```

```
12/11/2000  10:43a                 291
NPBFTP1_MSFTPSVC_1_ROOT_NOVANET.TXT
12/11/2000  10:43a                 155
NPBFTP1_MSFTPSVC_1_ROOT_ORCKIT.TXT
12/11/2000  10:43a                 297
NPBFTP1_MSFTPSVC_1_ROOT_ROK_COLLINS.TXT
12/11/2000  10:43a                 155
NPBFTP1_MSFTPSVC_1_ROOT_RS8973.TXT
12/11/2000  10:43a                 500
NPBFTP1_MSFTPSVC_1_ROOT_SATEVK.TXT
12/11/2000  10:43a                 289
NPBFTP1_MSFTPSVC_1_ROOT_SMC.TXT
12/11/2000  10:43a                 498
NPBFTP1_MSFTPSVC_1_ROOT_SONET.TXT
12/11/2000  10:44a                 498
NPBFTP1_MSFTPSVC_1_ROOT_SONY.TXT
12/11/2000  10:44a                 159
NPBFTP1_MSFTPSVC_1_ROOT_SYMBIONICS.TXT
12/11/2000  10:44a                 293
NPBFTP1_MSFTPSVC_1_ROOT_SYNTEST.TXT
12/11/2000  10:44a                 296
NPBFTP1_MSFTPSVC_1_ROOT_TONG_HSING.TXT
12/11/2000  10:44a                 512
NPBFTP1_MSFTPSVC_1_ROOT_UWASHINGTON.TXT
12/11/2000  10:44a                 152
NPBFTP1_MSFTPSVC_1_ROOT_VVL.TXT
12/11/2000  10:44a                 295
NPBFTP1_MSFTPSVC_1_ROOT_WHITEPINE.TXT
12/11/2000  10:41a                 498
NPBFTP1_MSFTPSVC_1_ROOT_3GPP2.TXT
              36 File(s)         11,296 bytes
               2 Dir(s)  17,572,003,840 bytes
free

C:\>dir NBNSWEB07_MSFTPSVC
 Volume in drive C is CONEXANT
 Volume Serial Number is 3E12-16F6

 Directory of C:\NBNSWEB07_MSFTPSVC

12/11/2000  11:08a      <DIR>          .
12/11/2000  11:08a      <DIR>          ..
12/07/2000  05:36p                 289
NBNSWEB07_MSFTPSVC_1_ROOT_ADPCM.TXT
12/07/2000  05:36p                 293
NBNSWEB07_MSFTPSVC_1_ROOT_ALCATEL.TXT
12/07/2000  05:36p                 291
NBNSWEB07_MSFTPSVC_1_ROOT_APPTEL.TXT
12/07/2000  05:36p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_ASEK.TXT
12/07/2000  05:36p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_ASET.TXT
12/07/2000  05:36p                 287
NBNSWEB07_MSFTPSVC_1_ROOT_ATM.TXT
12/07/2000  05:36p                 295
NBNSWEB07_MSFTPSVC_1_ROOT_BLUETOOTH.TXT
12/07/2000  05:37p                 297
NBNSWEB07_MSFTPSVC_1_ROOT_CHASEMELLON.TXT
12/07/2000  05:37p                 292
NBNSWEB07_MSFTPSVC_1_ROOT_COMPAQ.TXT
12/07/2000  05:37p                 157
NBNSWEB07_MSFTPSVC_1_ROOT_DATACAST.TXT
12/07/2000  05:37p                 292
NBNSWEB07_MSFTPSVC_1_ROOT_DENALI.TXT
12/07/2000  05:37p                 157
NBNSWEB07_MSFTPSVC_1_ROOT_DESTDEVL.TXT
12/07/2000  05:37p                 152
NBNSWEB07_MSFTPSVC_1_ROOT_DNP.TXT
12/07/2000  05:37p                 382
NBNSWEB07_MSFTPSVC_1_ROOT_ENTRIDIA.TXT
12/07/2000  05:37p                 153
NBNSWEB07_MSFTPSVC_1_ROOT_HDSL.TXT
12/07/2000  05:37p                 507
NBNSWEB07_MSFTPSVC_1_ROOT_HUAWEI.TXT
12/07/2000  05:37p                 291
NBNSWEB07_MSFTPSVC_1_ROOT_ITU4K.TXT
12/07/2000  05:38p                 291
NBNSWEB07_MSFTPSVC_1_ROOT_LEGAL2.TXT
12/07/2000  05:38p                 292
NBNSWEB07_MSFTPSVC_1_ROOT_LUCENT.TXT
12/07/2000  05:38p                 289
NBNSWEB07_MSFTPSVC_1_ROOT_MAKER.TXT
12/07/2000  05:38p                 505
NBNSWEB07_MSFTPSVC_1_ROOT_MOSYS.TXT
12/07/2000  05:38p                 292
NBNSWEB07_MSFTPSVC_1_ROOT_NOVANET.TXT
12/07/2000  05:38p                 155
NBNSWEB07_MSFTPSVC_1_ROOT_ORCKIT.TXT
12/07/2000  05:38p                 297
NBNSWEB07_MSFTPSVC_1_ROOT_ROK_COLLINS.TXT
12/07/2000  05:38p                 155
NBNSWEB07_MSFTPSVC_1_ROOT_RS8973.TXT
12/07/2000  05:38p                 505
NBNSWEB07_MSFTPSVC_1_ROOT_SATEVK.TXT
12/07/2000  05:39p                 289
NBNSWEB07_MSFTPSVC_1_ROOT_SMC.TXT
12/07/2000  05:39p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_SONET.TXT
12/07/2000  05:39p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_SONY.TXT
12/07/2000  05:39p                 159
NBNSWEB07_MSFTPSVC_1_ROOT_SYMBIONICS.TXT
12/07/2000  05:39p                 293
NBNSWEB07_MSFTPSVC_1_ROOT_SYNTEST.TXT
12/07/2000  05:39p                 297
NBNSWEB07_MSFTPSVC_1_ROOT_TONG_HSING.TXT
12/07/2000  05:39p                 516
NBNSWEB07_MSFTPSVC_1_ROOT_UWASHINGTON.TXT
12/07/2000  05:39p                 152
NBNSWEB07_MSFTPSVC_1_ROOT_VVL.TXT
12/07/2000  05:39p                 295
NBNSWEB07_MSFTPSVC_1_ROOT_WHITEPINE.TXT
12/07/2000  05:36p                 503
NBNSWEB07_MSFTPSVC_1_ROOT_3GPP2.TXT
              36 File(s)         11,432 bytes
               2 Dir(s)  17,572,003,840 bytes
free

C:\>dir NPBFTP1_W3SVC
 Volume in drive C is CONEXANT
 Volume Serial Number is 3E12-16F6

 Directory of C:\NPBFTP1_W3SVC

12/11/2000  12:00p      <DIR>          .
12/11/2000  12:00p      <DIR>          ..
12/11/2000  10:48a                 152
NPBFTP1_W3SVC_1_ROOT_ORCKIT.TXT
12/11/2000  10:45a                 151
NPBFTP1_W3SVC_1_ROOT_ADPCM.TXT
12/11/2000  10:45a                 153
NPBFTP1_W3SVC_1_ROOT_ALCATEL.TXT
12/11/2000  10:45a               1,777
NPBFTP1_W3SVC_1_ROOT_APPTEL.TXT
12/11/2000  10:46a               1,773
NPBFTP1_W3SVC_1_ROOT_ASEK.TXT
12/11/2000  10:46a               1,773
NPBFTP1_W3SVC_1_ROOT_ASET.TXT
12/11/2000  10:46a               1,518
NPBFTP1_W3SVC_1_ROOT_ATM.TXT
12/11/2000  10:46a                 155
NPBFTP1_W3SVC_1_ROOT_BLUETOOTH.TXT
12/11/2000  10:46a                 157
NPBFTP1_W3SVC_1_ROOT_CHASEMELLON.TXT
12/11/2000  10:46a                 152
NPBFTP1_W3SVC_1_ROOT_COMPAQ.TXT
12/11/2000  10:46a                 154
NPBFTP1_W3SVC_1_ROOT_DATACAST.TXT
12/11/2000  10:46a                 152
NPBFTP1_W3SVC_1_ROOT_DENALI.TXT
```

```
12/11/2000  10:46a                 154
NPBFTP1_W3SVC_1_ROOT_DESTDEVL.TXT
12/11/2000  10:46a                 149
NPBFTP1_W3SVC_1_ROOT_DNP.TXT
12/11/2000  10:47a               1,785
NPBFTP1_W3SVC_1_ROOT_ENTRIDIA.TXT
12/11/2000  10:47a                 150
NPBFTP1_W3SVC_1_ROOT_HDSL.TXT
12/11/2000  10:47a               1,779
NPBFTP1_W3SVC_1_ROOT_HUAWEI.TXT
12/11/2000  10:47a               1,776
NPBFTP1_W3SVC_1_ROOT_ITU4K.TXT
12/11/2000  10:47a                 152
NPBFTP1_W3SVC_1_ROOT_LEGAL2.TXT
12/11/2000  10:47a               1,779
NPBFTP1_W3SVC_1_ROOT_LUCENT.TXT
12/11/2000  10:47a               1,774
NPBFTP1_W3SVC_1_ROOT_MAKER.TXT
12/11/2000  10:47a               1,776
NPBFTP1_W3SVC_1_ROOT_MOSYS.TXT
12/11/2000  10:47a               1,780
NPBFTP1_W3SVC_1_ROOT_NOVANET.TXT
12/11/2000  10:45a               2,627
NPBFTP1_W3SVC_1_ROOT_3GPP2.TXT
12/11/2000  10:48a                 157
NPBFTP1_W3SVC_1_ROOT_ROK_COLLINS.TXT
12/11/2000  10:48a                 152
NPBFTP1_W3SVC_1_ROOT_RS8973.TXT
12/11/2000  10:48a               1,777
NPBFTP1_W3SVC_1_ROOT_SATEVK.TXT
12/11/2000  10:48a                 149
NPBFTP1_W3SVC_1_ROOT_SMC.TXT
12/11/2000  10:48a               1,774
NPBFTP1_W3SVC_1_ROOT_SONET.TXT
12/11/2000  10:48a               1,773
NPBFTP1_W3SVC_1_ROOT_SONY.TXT
12/11/2000  10:48a                 156
NPBFTP1_W3SVC_1_ROOT_SYMBIONICS.TXT
12/11/2000  10:48a                 153
NPBFTP1_W3SVC_1_ROOT_SYNTEST.TXT
12/11/2000  10:48a               1,792
NPBFTP1_W3SVC_1_ROOT_TONG_HSING.TXT
12/11/2000  10:49a               1,794
NPBFTP1_W3SVC_1_ROOT_UWASHINGTON.TXT
12/11/2000  10:49a                 149
NPBFTP1_W3SVC_1_ROOT_VVL.TXT
12/11/2000  10:49a                 155
NPBFTP1_W3SVC_1_ROOT_WHITEPINE.TXT
              36 File(s)         33,729 bytes
               2 Dir(s)  17,572,003,840 bytes
free
```

```
Microsoft Diagnostics Report For \\nbnsweb07
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381: Service Pack 6) x86 Multiprocessor
Free
Registered Owner: Conexant, Conexant
Product Number: 50370-813-2809583-37367
------------------------------------------------------------

System Report
------------------------------------------------------------
System: AT/AT COMPATIBLE
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 07/15/98
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 5 Stepping 2 GenuineIntel ~448 Mhz
   1:  x86 Family 6 Model 5 Stepping 2 GenuineIntel ~448 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: <unavailable>
Adapter:
   Setting: 800 x 600 x 256
            60 Hz
   Type: ati compatible display adapter
   String: ATI Graphics Accelerator
   Memory: 1 MB
   Chip Type: ATI 3D RAGE IIC (GT-B3U1)
   DAC Type: ATI Internal DAC
Driver:
   Vendor: ATI Technologies Inc.
   File(s): ati.sys, rp32ntv1.dll
   Version: 5.1.118, 4.0.0


Drives Report
------------------------------------------------------------
C:\  (Local - NTFS) WWW7_C Total: 4,141,199 KB, Free: 3,033,903
KB
D:\  (Local - NTFS) WWW7_D Total: 13,590,476 KB, Free:
3,335,204 KB
E:\  (Local - NTFS) WWW7_E Total: 53,341,164 KB, Free:
14,430,056 KB

Memory Report
------------------------------------------------------------
Handles: 7,576
Threads: 384
Processes: 59

Physical Memory (K)
   Total: 261,536
   Available: 115,260
   File Cache: 32,944



Services Report
------------------------------------------------------------
Alerter                                       Running
(Automatic)
```

```
Network Associates Alert Manager              Running
(Automatic)
Alliance Proxy                                Running
(Automatic)
Computer Browser                              Running
(Automatic)
Certificate Authority                         Running
(Automatic)
Compaq NIC Agents                             Running
(Automatic)
Compaq Remote Monitor Service                 Running
(Automatic)
Compaq Foundation Agents                      Running
(Automatic)
Compaq Server Agents                          Running
(Automatic)
Compaq Storage Agents                         Running
(Automatic)
EventLog (Event log)                          Running
(Automatic)
IIS Admin Service                             Running
(Manual)
Server                                        Running
(Automatic)
Workstation (NetworkProvider)                 Running
(Automatic)
License Logging Service                       Running
(Automatic)
TCP/IP NetBIOS Helper                         Running
(Automatic)
Network Associates McShield                   Running
(Automatic)
Network Associates Task Manager               Running
(Automatic)
Messenger                                     Running
(Automatic)
MSDTC (MS Transactions)                       Running
(Automatic)
FTP Publishing Service                        Running
(Automatic)
NetBackup Database Manager                    Running
(Automatic)
NetBackup Device Manager                      Running
(Automatic)
NetBackup Client Service                      Running
(Automatic)
NetBackup Request Manager                     Running
(Automatic)
NetBackup Volume Manager                      Running
(Automatic)
Microsoft NNTP Service                        Running
(Automatic)
NT LM Security Support Provider               Running
(Manual)
Plug and Play (PlugPlay)                      Running
(Automatic)
Protected Storage                             Running
(Automatic)
Remote Console Server                         Running
(Automatic)
Remotely Possible/32                          Running
(Automatic)
Remote Procedure Call (RPC) Service           Running
(Automatic)
Schedule                                      Running
(Automatic)
Microsoft SMTP Service                        Running
(Automatic)
```

```
SNMP                                          Running
(Automatic)
Spooler (SpoolerGroup)                        Running
(Automatic)
Surveyor                                      Running
(Automatic)
Compaq System Shutdown Service                Running
(Automatic)
World Wide Web Publishing Service             Running
(Automatic)
WebTrends Real-Time Service                   Running
(Automatic)
VNC Server                                    Running
(Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running
(Automatic)
aic78xx (SCSI miniport)                       Running   (Boot)
Aspi32                                        Running
(Automatic)
atapi (SCSI miniport)                         Running   (Boot)
ati (Video)                                   Running
(System)
Beep (Base)                                   Running
(System)
Cdfs (File system)                            Running
(Disabled)
Cdrom (SCSI CDROM Class)                      Running
(System)
Compaq Network Management Protocol Driver (Extended Base)
Running   (Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Cpqarray (SCSI miniport)                      Running   (Boot)
Compaq NetFlex-3 Driver (NDIS)                Running
(Automatic)
CpqSMgrK (System Bus Extender)                Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
DriveMap (SCSI Class)                         Running   (Boot)
Fastfat (Boot file system)                    Running
(Disabled)
Floppy (Primary disk)                         Running
(System)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port)
Running   (System)
Keyboard Class Driver (Keyboard Class)        Running
(System)
KSecDD (Base)                                 Running
(System)
Mouse Class Driver (Pointer Class)            Running
(System)
Msfs (File system)                            Running
(System)
Mup (Network)                                 Running
(Manual)
NaiFiltr                                      Running
(Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running
(System)
NetBIOS Interface (NetBIOSGroup)              Running
(Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running
(Automatic)
```

```
Npfs (File system)                           Running
(System)
Ntfs (File system)                           Running
(Disabled)
Null (Base)                                  Running
(System)
Open Transaction Manager (Filter)            Running   (Boot)
Parallel (Extended base)                     Running
(Automatic)
Parport (Parallel arbitrator)                Running
(Automatic)
ParVdm (Extended base)                       Running
(Automatic)
qntmdlt (SCSI Class)                         Running
(System)
Rdr (Network)                                Running
(Manual)
Rp32Spin                                     Running
(System)
Rp32Wire                                     Running
(Automatic)
ScsiPwr (Filter)                             Running   (Boot)
Serial (Extended base)                       Running
(Automatic)
Special Purpose Utility Driver               Running
(Manual)
Srv (Network)                                Running
(Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                     Running
(Automatic)
VgaSave (Video Save)                         Running
(System)



Environment Report
------------------------------------------------------------




System Environment Variables

CLASSPATH=.;d:\apps\Imparto\WMS2.0;d:\apps\Imparto\WMS2.0\SiteD
river;d:\apps\Imparto\WMS2.0\java\ijc\classes.zip;d:\apps\Impar
to\WMS2.0\java\ifc\classes;d:\apps\Imparto\WMS2.0\java\javamail
;d:\apps\Imparto\WMS2.0\java\javachart;d:\apps\Imparto\WMS2.0\j
ava\gnu\lib\gnu108.jar;d:\apps\Imparto\WMS2.0\java\jsdk2.1\serv
let.jar;d:\apps\Imparto\WMS2.0\java\jsdk2.1\server.jar;d:\apps\
Imparto\WMS2.0\java\jdk1.2\jre\lib\rt.jar;D:\apps\Imparto\WMS2.
0\java\weblogic\mssqlserver4\classes
   ComSpec=C:\WINNT\system32\cmd.exe
   HOME=C:/
   INCLUDE=d:\Program Files\Mts\Include
   LIB=d:\Program Files\Mts\Lib
   NUMBER_OF_PROCESSORS=2
   OS=Windows_NT
   Os2LibPath=C:\WINNT\system32\os2\dll;
   OSAGENT_ADDR=198.62.8.149
   OSAGENT_PORT=14014

Path=e:\apps\perl\bin;E:\apps\Perl\bin\;d:\apps\mks\mksnt;C:\WI
NNT\system32;C:\WINNT;d:\PROGRA~1\Mts;;D:\apps\MSSQL\BINN;d:\ap
ps\Imparto\WMS2.0\bin;d:\apps\Imparto\WMS2.0\java\jdk1.2\bin;d:
\apps\Imparto\WMS2.0\java\jdbc\lib
   PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.JS;.VBS
   PROCESSOR_ARCHITECTURE=x86
```

```
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 5 Stepping 2,
GenuineIntel
   PROCESSOR_LEVEL=6
   PROCESSOR_REVISION=0502
   ROOTDIR=d:/apps/mks
   SHELL=d:/apps/mks/mksnt/sh.exe
   TMPDIR=C:/TEMP

VISIBROKER_CLASSPATH=.\lib\vbjorb.jar;.\lib\vbjapp.jar;.\lib\vb
jtools.jar;.\lib\vbjgk.jar

WEBLOGIC_CLASSPATH=D:\apps\Imparto\WMS2.0\java\weblogic\mssqlse
rver4\classes
   windir=C:\WINNT

WMS_CLASSPATH=.;d:\apps\Imparto\WMS2.0;d:\apps\Imparto\WMS2.0\S
iteDriver;d:\apps\Imparto\WMS2.0\java\ijc\classes.zip;d:\apps\I
mparto\WMS2.0\java\ifc\classes;d:\apps\Imparto\WMS2.0\java\java
mail;d:\apps\Imparto\WMS2.0\java\javachart;d:\apps\Imparto\WMS2
.0\java\gnu\lib\gnu108.jar;d:\apps\Imparto\WMS2.0\java\jsdk2.1\
servlet.jar;d:\apps\Imparto\WMS2.0\java\jsdk2.1\server.jar;d:\a
pps\Imparto\WMS2.0\java\jdk1.2\jre\lib\rt.jar
   WMS_HOME=d:\apps\Imparto\WMS2.0

WMS_PATH=d:\apps\Imparto\WMS2.0\bin;d:\apps\Imparto\WMS2.0\java
\jdk1.2\bin;d:\apps\Imparto\WMS2.0\java\jdbc\lib



Environment Variables for Current User
   TEMP=C:\TEMP
   TMP=C:\TEMP




Network Report
------------------------------------------------------------
Your Access Level: Admin & Local
Workgroup or Domain: WORKGROUP
Network Version: 4.0
LanRoot: WORKGROUP
Logged On Users: 5
Current User (1): ntadmin4web07
  Logon Domain: NBNSWEB07
  Logon Server: NBNSWEB07
Current User (2): ntadmin4web07
  Logon Domain: NBNSWEB07
  Logon Server: NBNSWEB07
Current User (3): hp_su
  Logon Domain: NBNSWEB07
  Logon Server: NBNSWEB07
Current User (4): aset
  Logon Domain: NBNSWEB07
  Logon Server: NBNSWEB07
Current User (5): wan
  Logon Domain: NBNSWEB07
  Logon Server: NBNSWEB07

Transport: NetBT_CpqNF31, 00-08-C7-33-35-6F, VC's: 1, Wan: Wan

Character Wait: 3,600
Collection Time: 250
Maximum Collection Count: 16
Keep Connection: 600
Maximum Commands: 5
Session Time Out: 45
Character Buffer Size: 512
Maximum Threads: 50
```

```
Lock Quota: 6,144
Lock Increment: 10
Maximum Locks: 500
Pipe Increment: 10
Maximum Pipes: 500
Cache Time Out: 40
Dormant File Limit: 45
Read Ahead Throughput: 4,294,967,295
Mailslot Buffers: 3
Server Announce Buffers: 20
Illegal Datagrams: 5
Datagram Reset Frequency: 60
Bytes Received: 8,704
SMB's Received: 60
Server File Opens: 207
.
.
Directory Report
------------------------------------------------------------
 Volume in drive \\nbnsweb07\c$ is WWW7_C
 Volume Serial Number is 58F2-E009

 Directory of \\nbnsweb07\c$\apps

[.]                 [ControlIT]
[..]                [Remotely Possible]
               4 File(s)              0 bytes
                          3,106,680,832 bytes free
 Volume in drive \\nbnsweb07\c$ is WWW7_C
 Volume Serial Number is 58F2-E009

 Directory of \\nbnsweb07\c$\program files

[.]                              [Mts]
[..]                             [NetMeetingNT]
[CMAK]                           [Netscape]
[Common Files]                   [Outlook Express]
[Content Analyzer Express]       [pba]
[ICW-Internet Connection Wizard] [Plus!]
[MarkVis]                        [Real]
[Microsoft Chat]                 [UA Express]
[Microsoft FrontPage]            [Web Publish]
[Microsoft FrontPage Express]    [WEBTREND]
[Microsoft NetShow]              [Windows NT]
[Microsoft Office]               [WindowsUpdate]
[Microsoft Script Debugger]
[Microsoft Site Server Express]
              26 File(s)              0 bytes
                          3,106,680,832 bytes free
 Volume in drive \\nbnsweb07\d$ is WWW7_D
 Volume Serial Number is E808-1D8B

 Directory of \\nbnsweb07\d$\apps

[.]                  [Netscape]           [WinZip]
[..]                 [Network Associates] [WS_FTP Pro]
[Imparto]            [Plus!]
[mks]                [Small Wonders]
[MSSQL]              [Veritas]
              12 File(s)              0 bytes
                          3,415,248,896 bytes free
 Volume in drive \\nbnsweb07\e$ is WWW7_E
 Volume Serial Number is BC28-3A29

 Directory of \\nbnsweb07\e$\apps

[.]                          [Perl]
[..]                         [WebTrends Enterprise Suite]
```

```
alliance_proxy.exe
[Macro Express]
               6 File(s)        245,876 bytes
                         14,776,377,344 bytes free
 Volume in drive \\nbnsweb07\e$ is WWW7_E
 Volume Serial Number is BC28-3A29
```

2.1.7. ftp.conexant.com

Name: thetick.conexant.com
Address: 198.62.8.25
Aliases: ftp.conexant.com

2.1.7.1. migration report > npbftp1

?

Migration Report – ftp.conexant.com

Done	Split	Div	Directory	Contact	Phone	Email

2.2. *Internal*

2.2.1. clarify

Name: clarify.nb.conexant.com
Address: 157.152.183.102

[Administrative Tools (Common)], [Clarify eFrontOffice], [Clarify Server], [ClearExpress WebAdmin App Server], [ClearExpress WebSupport App Server], [Common Files], [Compaq System Tools], [Fulcrum], [HTML Help Workshop], [ICW-Internet Connection Wizard], [MapInfo MapX], [mcafee], [Microsoft SQL Server 7.0], [MKS Toolkit], [Network Associates NetShield NT], [office2000], [Outlook Express], [Plus!], [Remotely Possible 32], [RP32], [Seagate Crystal Reports], [Seagate Software], [Startup], [VERITAS NetBackup], [veritas], [Veritas32], [VNC], [Windows NT], [WinVNC]

```
Microsoft Diagnostics Report For \\clarify
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 5 x86 Multiprocessor
Free
Registered Owner: Conexant, Systems, Inc.
Product Number: 50370-111-1111111-34425
------------------------------------------------------------

System Report
------------------------------------------------------------
System: AT/AT COMPATIBLE
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 09/10/99
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 7 Stepping 3 GenuineIntel ~548 Mhz
   1:  x86 Family 6 Model 7 Stepping 3 GenuineIntel ~548 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: <unavailable>
Adapter:
   Setting: 800 x 600 x 256
            60 Hz
   Type: ati compatible display adapter
   String: ATI Graphics Accelerator
   Memory: 1 MB
   Chip Type: ATI 3D RAGE IIC (UMC GT-B)
   DAC Type: ATI Internal DAC
Driver:
   Vendor: <not available from remote connection>
   File(s): ati.sys, rp32ntv1.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Alerter                                       Running
(Automatic)
Network Associates Alert Manager              Running
(Automatic)
Computer Browser                              Running
(Automatic)
ClearExpress WebAdmin App Server              Running
(Automatic)
ClearExpress WebSupport App Server            Running
(Automatic)
Compaq NIC Agents                             Running
(Automatic)
Compaq Remote Monitor Service                 Running
(Automatic)
Compaq Web Agent                              Running
(Automatic)
Compaq Server Agents                          Running
(Automatic)
Compaq Storage Agents                         Running
(Automatic)
EventLog (Event log)                          Running
(Automatic)
```

```
Fulcrum Server 3.0                            Running
(Manual)
Server                                        Running
(Automatic)
Workstation (NetworkProvider)                 Running
(Automatic)
License Logging Service                       Running
(Automatic)
TCP/IP NetBIOS Helper                         Running
(Automatic)
Network Associates McShield                   Running
(Automatic)
Network Associates Task Manager               Running
(Automatic)
Messenger                                     Running
(Automatic)
NetBackup Client Service                      Running
(Automatic)
Net Logon (RemoteValidation)                  Running
(Automatic)
NT LM Security Support Provider               Running
(Manual)
Plug and Play (PlugPlay)                      Running
(Automatic)
Protected Storage                             Running
(Automatic)
Remotely Possible/32                          Running
(Automatic)
Remote Procedure Call (RPC) Service           Running
(Automatic)
Rule Manager                                  Running
(Automatic)
Schedule                                      Running
(Automatic)
SNMP                                          Running
(Automatic)
Spooler (SpoolerGroup)                        Running
(Automatic)
Compaq System Shutdown Service                Running
(Automatic)
VNC Server                                    Running
(Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running
(Automatic)
atapi (SCSI miniport)                         Running   (Boot)
ati (Video)                                   Running
(System)
Beep (Base)                                   Running
(System)
Cdfs (File system)                            Running
(Disabled)
Cdrom (SCSI CDROM Class)                      Running
(System)
Compaq Network Management Protocol Driver (Extended Base)
Running   (Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
cpqarry2 (SCSI Miniport)                      Running   (Boot)
Compaq Drive Array Event Notification Driver (SCSI class)
Running   (System)
Compaq NetFlex-3 Driver (NDIS)                Running
(Automatic)
cpqsmgrk (System Bus Extender)                Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
```

```
Fastfat (Boot file system)                    Running
(Disabled)
Floppy (Primary disk)                         Running
(System)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port)
Running   (System)
intlfxsr (Base)                               Running   (Boot)
Keyboard Class Driver (Keyboard Class)        Running
(System)
KSecDD (Base)                                 Running
(System)
Mouse Class Driver (Pointer Class)            Running
(System)
Msfs (File system)                            Running
(System)
Mup (Network)                                 Running
(Manual)
NaiFiltr                                      Running
(Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running
(System)
NetBIOS Interface (NetBIOSGroup)              Running
(Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running
(Automatic)
NetDetect                                     Running
(Manual)
Npfs (File system)                            Running
(System)
Ntfs (File system)                            Running
(Disabled)
Null (Base)                                   Running
(System)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running
(Automatic)
Parport (Parallel arbitrator)                 Running
(Automatic)
ParVdm (Extended base)                        Running
(Automatic)
Rdr (Network)                                 Running
(Manual)
Rp32Spin                                      Running
(System)
Rp32Wire                                      Running
(Automatic)
Serial (Extended base)                        Running
(Automatic)
Srv (Network)                                 Running
(Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running
(Automatic)
VgaSave (Video Save)                          Running
(System)


Environment Report
------------------------------------------------------------


System Environment Variables
   CLFYDLLPATH=D:\Clarify\EFRONT~1\CLARIF~1\dll
   ComSpec=C:\WINNT\system32\cmd.exe
   NUMBER_OF_PROCESSORS=2
   OS=Windows_NT
   Os2LibPath=C:\WINNT\system32\os2\dll;
Path=C:\mksnt;C:\WINNT\system32;C:\WINNT;D:\Clarify\EFRONT~1\CL
ARIF~1\dll;%CLARIFY_DIR%;C:\MSSQL7\BINN;
   PROCESSOR_ARCHITECTURE=x86
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 7 Stepping 3,
GenuineIntel
   PROCESSOR_LEVEL=6
   PROCESSOR_REVISION=0703
   windir=C:\WINNT
   ROOTDIR=C:/
   SHELL=C:/mksnt/sh.exe
   HOME=C:/
   TMPDIR=C:/TEMP
   CI_HOLOS_CLI=C:\Program Files\Seagate Software\Open OLAP



Network Report
------------------------------------------------------------
Your Access Level: Admin
Workgroup or Domain: NBRSS
Network Version: 4.0
LanRoot: NBRSS
Logged On Users: 3
Current User (1): Clarify
  Logon Domain: CLARIFY
  Logon Server: CLARIFY
Current User (2): Clarify
  Logon Domain: CLARIFY
  Logon Server: CLARIFY
Current User (3): Clarify
  Logon Domain: CLARIFY
  Logon Server: CLARIFY

Transport: NetBT_CpqNF31, 00-08-C7-CF-41-46, VC's: 1, Wan: Wan

Character Wait: 3,600
Collection Time: 250
Maximum Collection Count: 16
Keep Connection: 600
Maximum Commands: 5
Session Time Out: 45
Character Buffer Size: 512
Maximum Threads: 17
Lock Quota: 6,144
Lock Increment: 10
Maximum Locks: 500
Pipe Increment: 10
Maximum Pipes: 500
Cache Time Out: 40
Dormant File Limit: 45
Read Ahead Throughput: 4,294,967,295
Mailslot Buffers: 3
Server Announce Buffers: 20
Illegal Datagrams: 5
Datagram Reset Frequency: 60
Bytes Received: 23,502,930
SMB's Received: 298,008
Server File Opens: 15,634
.
.
Directory Report
------------------------------------------------------------

 Directory of \\clarify\c$\apps
```

```
[.]         [..]        [RP32]      [Veritas32] [WinVNC]
               5 File(s)              0 bytes
                          1,976,471,552 bytes free


 Directory of \\clarify\c$\program files

[.]                              [Outlook Express]
[..]                             [Plus!]
[Common Files]                   [Seagate Software]
[HTML Help Workshop]             [Windows NT]
[ICW-Internet Connection Wizard]
[MapInfo MapX]
              10 File(s)              0 bytes
                          1,976,471,552 bytes free


 Directory of \\clarify\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                                  [Microsoft SQL Server 7.0]
[..]                                 [MKS Toolkit]
[Administrative Tools (Common)]      [Network Associates
NetShield NT]
[Clarify eFrontOffice]               [Remotely Possible 32]
[Clarify Server]                     [Seagate Crystal Reports]
[ClearExpress WebAdmin App Server]   [Startup]
[ClearExpress WebSupport App Server] [VERITAS NetBackup]
[Compaq System Tools]                [VNC]
[Fulcrum]
Microsoft Outlook.lnk
              18 File(s)            734 bytes
                          1,976,471,552 bytes free


 Directory of \\clarify\d$\apps

[.]                     [office2000]
vnc_error_011499.doc
[..]                    sp4hfixi.exe
[mcafee]                [veritas]
               7 File(s)      1,192,536 bytes
                         12,578,054,144 bytes free
```

2.2.2. clarify2

Name: clarify2.nb.conexant.com
Address: 157.152.183.103

[Administrative Tools (Common)], [Adobe Acrobat 4.0], [Adobe], [Avalan], [Clarify eFrontOffice], [Clarify eFrontOffice9], [Clarify Server], [ClearExpress WebAdmin App Server], [ClearExpress WebAdmin Proxy], [ClearExpress WebSupport App Server], [ClearExpress WebSupport Proxy], [Common Files], [Compaq System Tools], [Content Analyzer Express], [Fulcrum], [HTML Help Workshop], [MapInfo MapX], [Microsoft FrontPage Express], [Microsoft FrontPage], [Microsoft SQL Server - Switch], [Microsoft SQL Server 7.0], [MKS Toolkit], [Mts], [NetMeetingNT], [network associates], [Network Associates], [ODBC], [office], [Outlook Express], [Plus!], [Remotely Possible 32], [Seagate Crystal Reports], [Seagate Software], [Startup], [UA Express], [VERITAS NetBackup], [Web Publish], [Windows Media Player], [Windows NT 4.0 Option Pack], [Windows NT], [WinVNC], [WinZip], [WinZip]

```
Microsoft Diagnostics Report For \\clarify2
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 5 x86 Multiprocessor
Free
Registered Owner: Conexant, Conexant
Product Number: 50370-111-1111111-68366
------------------------------------------------------------

System Report
------------------------------------------------------------
System: AT/AT COMPATIBLE
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 07/14/99
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 7 Stepping 3 GenuineIntel ~548 Mhz
   1:  x86 Family 6 Model 7 Stepping 3 GenuineIntel ~548 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: <unavailable>
Adapter:
   Setting: 1024 x 768 x 256
            60 Hz
   Type: ati compatible display adapter
   String: ATI Graphics Accelerator
   Memory: 1 MB
   Chip Type: ATI 3D RAGE IIC (UMC GT-B)
   DAC Type: ATI Internal DAC
Driver:
   Vendor: <not available from remote connection>
   File(s): ati.sys, rp32ntv1.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Alerter                                       Running
(Automatic)
Network Associates Alert Manager              Running
(Automatic)
Computer Browser                              Running
(Automatic)
Clarify Routing Server                        Running
(Automatic)
ClearExpress WebAdmin App Server              Running
(Automatic)
ClearExpress WebSupport App Server            Running
(Automatic)
SMS Client Service                            Running
(Automatic)
Compaq NIC Agents                             Running
(Automatic)
Compaq Remote Monitor Service                 Running
(Automatic)
Compaq WMI WEB Agent                          Running
(Automatic)
Compaq Foundation Agents                      Running
(Automatic)
```

```
Compaq Server Agents                          Running
(Automatic)
Compaq Storage Agents                         Running
(Automatic)
Crystal Web Image Server                      Running
(Automatic)
Crystal Web Page Server                       Running
(Automatic)
EventLog (Event log)                          Running
(Automatic)
Fulcrum Server 3.0                            Running
(Automatic)
IIS Admin Service                             Running
(Automatic)
Server                                        Running
(Automatic)
Workstation (NetworkProvider)                 Running
(Automatic)
License Logging Service                       Running
(Automatic)
TCP/IP NetBIOS Helper                         Running
(Automatic)
Network Associates McShield                   Running
(Automatic)
Network Associates Task Manager               Running
(Automatic)
Messenger                                     Running
(Automatic)
MSDTC (MS Transactions)                       Running
(Automatic)
FTP Publishing Service                        Running
(Automatic)
Microsoft Search                              Running
(Automatic)
MSSQLServer                                   Running
(Automatic)
NetBackup Client Service                      Running
(Automatic)
Net Logon (RemoteValidation)                  Running
(Automatic)
Notifier                                      Running
(Automatic)
NT LM Security Support Provider               Running
(Manual)
Plug and Play (PlugPlay)                      Running
(Automatic)
Protected Storage                             Running
(Automatic)
Remote Access Connection Manager (Network)    Running
(Manual)
Remote Console Server                         Running
(Automatic)
Remote Access Server (Network)                Running
(Automatic)
Remotely Possible/32                          Running
(Automatic)
Remote Procedure Call (RPC) Service           Running
(Automatic)
Rule Manager                                  Running
(Automatic)
Task Scheduler                                Running
(Automatic)
Microsoft SMTP Service                        Running
(Automatic)
SNMP                                          Running
(Automatic)
SNMP Trap Service                             Running
(Automatic)
```

```
Spooler (SpoolerGroup)                        Running
(Automatic)
Surveyor                                      Running
(Automatic)
Compaq System Shutdown Service                Running
(Automatic)
World Wide Web Publishing Service             Running
(Automatic)
Windows Management                            Running
(Automatic)
VNC Server                                    Running
(Automatic)
SMS Remote Control Agent                      Running
(Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running
(Automatic)
Remote Access Mac (NDIS)                      Running
(Automatic)
atapi (SCSI miniport)                         Running   (Boot)
ati (Video)                                   Running
(System)
Beep (Base)                                   Running
(System)
Cdfs (File system)                            Running
(Disabled)
Cdrom (SCSI CDROM Class)                      Running
(System)
Compaq Network Management Protocol Driver (Extended Base)
Running   (Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
cpqarry2 (SCSI Miniport)                      Running   (Boot)
Compaq Drive Array Event Notification Driver (SCSI class)
Running   (System)
Compaq NetFlex-3 Driver (NDIS)                Running
(Automatic)
cpqsmgrk (System Bus Extender)                Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
Fastfat (Boot file system)                    Running
(Disabled)
Floppy (Primary disk)                         Running
(System)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port)
Running   (System)
intlfxsr (Base)                               Running   (Boot)
Keyboard Class Driver (Keyboard Class)        Running
(System)
SMS Remote Control Keyboard Driver (Keyboard Port) Running
(System)
KSecDD (Base)                                 Running
(System)
Mouse Class Driver (Pointer Class)            Running
(System)
Msfs (File system)                            Running
(System)
Mup (Network)                                 Running
(Manual)
NaiFiltr                                      Running
(Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running
(System)
Microsoft NDIS TAPI driver (NDIS)             Running
(System)
```

```
Remote Access WAN Wrapper (NDISWAN)           Running
(Automatic)
NetBIOS Interface (NetBIOSGroup)              Running
(Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running
(Automatic)
Npfs (File system)                            Running
(System)
Ntfs (File system)                            Running
(Disabled)
Null (Base)                                   Running
(System)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running
(Automatic)
Parport (Parallel arbitrator)                 Running
(Automatic)
ParVdm (Extended base)                        Running
(Automatic)
Remote Access Auto Connection Driver (Streams Drivers) Running
(Automatic)
Remote Access ARP Service (PNP_TDI)           Running
(Automatic)
Rdr (Network)                                 Running
(Manual)
Rp32Spin                                      Running
(System)
Rp32Wire                                      Running
(Automatic)
Serial (Extended base)                        Running
(Automatic)
smbios                                        Running
(Automatic)
Special Purpose Utility Driver                Running
(Manual)
Srv (Network)                                 Running
(Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running
(Automatic)
VgaSave (Video Save)                          Running
(System)



Environment Report
------------------------------------------------------------



System Environment Variables
   CI_HOLOS_CLI=C:\Program Files\Seagate Software\Open OLAP
   CLFYDLLPATH=d:\Clarify\EFRONT~1\CLARIF~1\dll
   ComSpec=C:\WINNT\system32\cmd.exe
   HOME=c:/clarify_admin
   INCLUDE=C:\Program Files\Mts\Include
   LIB=C:\Program Files\Mts\Lib
   NUMBER_OF_PROCESSORS=2
   OS=Windows_NT
   Os2LibPath=C:\WINNT\system32\os2\dll;

Path=D:\Clarify\eFrontOffice9\bin;C:\mksnt;C:\WINNT\system32;C:
\WINNT;C:\PROGRA~1\Mts;C:\MSSQL7\BINN;%CLARIFY_DIR%;C:\Clarify\
EFRONT~1\CLARIF~1\dll;;C:\WINNT\System32\WBEM;C:\Program
Files\Common Files\Network Associates\VirusScan
Engine\4.0.xx\;C:\WINNT\System32\patrol\bin;C:\WINNT\System32\p
```

```
atrol\utils;C:\WINNT\System32\patrol\KM\bin;C:\WINNT\System32\W
BEM;%CLFYDLLPATH%;C:\FULCRUM\bin
   PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.JS
   PROCESSOR_ARCHITECTURE=x86
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 7 Stepping 3,
GenuineIntel
   PROCESSOR_LEVEL=6
   PROCESSOR_REVISION=0703
   ROOTDIR=C:/
   SHELL=C:/mksnt/sh.exe
   SMS_LOCAL_DIR=C:\WINNT
   TMPDIR=C:/TEMP
   windir=C:\WINNT



Network Report
------------------------------------------------------------
Your Access Level: Admin
Workgroup or Domain: NBRSS
Network Version: 4.0
LanRoot: NBRSS
Logged On Users: 8
Current User (1): SMSCliSvcAcct&
  Logon Domain: CLARIFY2
  Logon Server: CLARIFY2
Current User (2): CRWEBUSER
  Logon Domain: CLARIFY2
  Logon Server: CLARIFY2
Current User (3): CRWEBUSER
  Logon Domain: CLARIFY2
  Logon Server: CLARIFY2
Current User (4): zzMcAfee
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (5): kathurp
  Logon Domain: ODC
  Logon Server: ODCBDC
Current User (6): SMSCliToknAcct&
  Logon Domain: CLARIFY2
  Logon Server: CLARIFY2
Current User (7): clarify2
  Logon Domain: CLARIFY2
  Logon Server: CLARIFY2
Current User (8): clarify2
  Logon Domain: CLARIFY2
  Logon Server: CLARIFY2

Transport: NetBT_CpqNF35, 00-08-C7-CF-81-77, VC's: 2, Wan: Wan

Character Wait: 3,600
Collection Time: 250
Maximum Collection Count: 16
Keep Connection: 600
Maximum Commands: 5
Session Time Out: 45
Character Buffer Size: 512
Maximum Threads: 17
Lock Quota: 6,144
Lock Increment: 10
Maximum Locks: 500
Pipe Increment: 10
Maximum Pipes: 500
Cache Time Out: 40
Dormant File Limit: 45
Read Ahead Throughput: 4,294,967,295
Mailslot Buffers: 3
Server Announce Buffers: 20
```

```
Illegal Datagrams: 5
Datagram Reset Frequency: 60
Bytes Received: 10,451,503
SMB's Received: 7,698
Paged Read Bytes Requested: 581,632
Non Paged Read Bytes Requested: 242,732
Cache Read Bytes Requested: 7,466
Network Read Bytes Requested: 616,380
Bytes Transmitted: 551,255
SMB's Transmitted: 6,140
Server File Opens: 791
.
.
Directory Report
------------------------------------------------------------

 Directory of \\clarify2\c$\apps

[.]      [..]     [WinVNC]
               3 File(s)              0 bytes
                          1,332,152,320 bytes free


 Directory of \\clarify2\c$\program files

[.]                            [NetMeetingNT]
[..]                           [network associates]
[Adobe]                        [Outlook Express]
[Avalan]                       [Plus!]
[Common Files]                 [Seagate Software]
[Content Analyzer Express]     [UA Express]
[HTML Help Workshop]           [Web Publish]
[MapInfo MapX]                 [Windows Media Player]
[Microsoft FrontPage]          [Windows NT]
[Microsoft FrontPage Express]  [WinZip]
[Mts]
              21 File(s)              0 bytes
                          1,332,152,320 bytes free


 Directory of \\clarify2\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                                   [Microsoft SQL Server -
Switch]
[..]                                  [Microsoft SQL Server 7.0]
[Administrative Tools (Common)]       [MKS Toolkit]
[Adobe Acrobat 4.0]                   [Network Associates]
[Clarify eFrontOffice]                [ODBC]
[Clarify eFrontOffice9]               [Remotely Possible 32]
[Clarify Server]                      [Seagate Crystal Reports]
[ClearExpress WebAdmin App Server]    [Startup]
[ClearExpress WebAdmin Proxy]         [VERITAS NetBackup]
[ClearExpress WebSupport App Server] VNCviewer.lnk
[ClearExpress WebSupport Proxy]       [Windows NT 4.0 Option
Pack]
[Compaq System Tools]                 [WinZip]
[Fulcrum]
Microsoft Outlook.lnk
              26 File(s)          1,257 bytes
                          1,332,152,320 bytes free


 Directory of \\clarify2\d$\apps

[.]              clarify_qa.dmp
[..]             [office]
               4 File(s)     58,739,200 bytes
```

```
7,379,206,144 bytes free
```

2.2.3. nbcbsapps1

Name: nbcbsapps1.nb.conexant.com
Address: 157.152.183.234

[Administrative Tools (Common)], [CA Registration], [CA], [CA], [CMAK], [Common Files], [Compaq System Tools], [ControlIT], [ICW-Internet Connection Wizard], [MarkVis], [mcafee], [Microsoft FrontPage], [Microsoft Script Debugger], [MS Office Startup], [msoffice], [Mts], [NetBackup], [NetDynamics 4.1], [NetDynamics], [Network Associates], [Network Associates], [ODBC 3.0], [Oracle Enterprise Manager], [Oracle for Windows NT], [Outlook Express], [pba], [Plus!], [SAP Frontend 3.1H], [Startup], [veritas], [Windows NT 4.0 Option Pack], [Windows NT], [WinZip], [WinZip]

```
Microsoft Diagnostics Report For \\nbcbsapps1
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 6 x86 Multiprocessor Free
Registered Owner: conexant, conexant systems, inc.
Product Number: 50370-123-1111111-79842
------------------------------------------------------------

System Report
------------------------------------------------------------
System: AT/AT COMPATIBLE
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 07/15/98
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 5 Stepping 2 GenuineIntel ~448 Mhz
   1:  x86 Family 6 Model 5 Stepping 2 GenuineIntel ~448 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: <unavailable>
Adapter:
   Setting: 800 x 600 x 65536
            60 Hz
   Type: ati compatible display adapter
   String: ATI Graphics Accelerator
   Memory: 1 MB
   Chip Type: ATI 3D RAGE IIC (GT-B3U1)
   DAC Type: ATI Internal DAC
Driver:
   Vendor: <not available from remote connection>
   File(s): ati.sys, rp32ntv1.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Alerter                                       Running   (Automatic)
Network Associates Alert Manager              Running   (Automatic)
Computer Browser                              Running   (Automatic)
Content Index                                 Running   (Automatic)
ControlIT                                     Running   (Automatic)
Compaq NIC Agents                             Running   (Automatic)
Compaq Remote Monitor Service                 Running   (Automatic)
Compaq Foundation Agents                      Running   (Automatic)
Compaq Server Agents                          Running   (Automatic)
Compaq Storage Agents                         Running   (Automatic)
EventLog (Event log)                          Running   (Automatic)
IIS Admin Service                             Running   (Manual)
Server                                        Running   (Automatic)
Workstation (NetworkProvider)                 Running   (Automatic)
License Logging Service                       Running   (Automatic)
TCP/IP NetBIOS Helper                         Running   (Automatic)
Network Associates McShield                   Running   (Automatic)
Network Associates Task Manager               Running   (Automatic)
Messenger                                     Running   (Automatic)
MSDTC (MS Transactions)                       Running   (Automatic)
FTP Publishing Service                        Running   (Automatic)
NetBackup Client Service                      Running   (Automatic)
NetDynamics 4.1 Application Server            Running   (Automatic)
Net Logon (RemoteValidation)                  Running   (Automatic)
NT LM Security Support Provider               Running   (Manual)
PatrolAgent                                   Running   (Automatic)
Patrol Event Log Monitor                      Running   (Automatic)
Patrol Process Monitor                        Running   (Automatic)
Plug and Play (PlugPlay)                      Running   (Automatic)
Protected Storage                             Running   (Automatic)
Remote Console Server                         Running   (Automatic)
Remote Procedure Call (RPC) Service           Running   (Automatic)
Microsoft SMTP Service                        Running   (Automatic)
SNMP                                          Running   (Automatic)
SNMP Trap Service                             Running   (Automatic)
Spooler (SpoolerGroup)                        Running   (Automatic)
Surveyor                                      Running   (Automatic)
Compaq System Shutdown Service                Running   (Automatic)
World Wide Web Publishing Service             Running   (Automatic)
VNC Server                                    Running   (Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running   (Automatic)
atapi (SCSI miniport)                         Running   (Boot)
ati (Video)                                   Running   (System)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
Cdrom (SCSI CDROM Class)                      Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Cpqarray (SCSI miniport)                      Running   (Boot)
Compaq NetFlex-3 Driver (NDIS)                Running   (Automatic)
CpqSMgrK (System Bus Extender)                Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
Fastfat (Boot file system)                    Running   (Disabled)
Floppy (Primary disk)                         Running   (System)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
Keyboard Class Driver (Keyboard Class)        Running   (System)
KSecDD (Base)                                 Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Manual)
NaiFiltr                                      Running   (Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running   (System)
NetBIOS Interface (NetBIOSGroup)              Running   (Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running   (Automatic)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running   (Automatic)
Parport (Parallel arbitrator)                 Running   (Automatic)
ParVdm (Extended base)                        Running   (Automatic)
Rdr (Network)                                 Running   (Manual)
Rp32Spin                                      Running   (System)
Rp32Wire                                      Running   (Automatic)
Serial (Extended base)                        Running   (Automatic)
Special Purpose Utility Driver                Running   (Manual)
Srv (Network)                                 Running   (Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running   (Automatic)
VgaSave (Video Save)                          Running   (System)



Environment Report
------------------------------------------------------------



System Environment Variables

CLASSPATH=C:\NetDynamics\NetDynamics40\Classes\nd_client_4x.jar;C:\Ne
tDynamics\NetDynamics40\Projects;.;C:\jdk1.1.7B\lib\classes.zip;
   ComSpec=C:\WINNT\system32\cmd.exe
   INCLUDE=C:\Program Files\Mts\Include
   LIB=C:\Program Files\Mts\Lib
.
.
Directory Report
------------------------------------------------------------

 Directory of \\nbcbsapps1\c$\apps

[.]       [..]      [CA]      [mcafee]  [veritas] [WinZip]
               6 File(s)              0 bytes
                          1,239,548,416 bytes free


 Directory of \\nbcbsapps1\c$\program files

[.]                              [Mts]
[..]                             [NetDynamics]
[CA]                             [Network Associates]
[CMAK]                           [ODBC 3.0]
[Common Files]                   [Outlook Express]
[ICW-Internet Connection Wizard] [pba]
[MarkVis]                        [Plus!]
[Microsoft FrontPage]            [Windows NT]
[Microsoft Script Debugger]
[msoffice]
              18 File(s)              0 bytes
                          1,239,548,416 bytes free


 Directory of \\nbcbsapps1\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                             [NetBackup]
[..]                            [NetDynamics 4.1]
[Administrative Tools (Common)] [Network Associates]
[CA Registration]               [Oracle Enterprise Manager]
[Compaq System Tools]           [Oracle for Windows NT]
[ControlIT]                     [SAP Frontend 3.1H]
Microsoft Access.lnk            [Startup]
Microsoft Binder.lnk            [Windows NT 4.0 Option Pack]
Microsoft Outlook.lnk           [WinZip]
Microsoft Photo Editor.lnk
[MS Office Startup]
              20 File(s)          2,101 bytes
                          1,239,548,416 bytes free
```

2.2.4. nbcbsapps2

Name: nbcbsapps2.nb.conexant.com
Address: 157.152.183.235

[Administrative Tools (Common)], [CA Registration], [CA], [CA], [CMAK], [Common Files], [Compaq System Tools], [ControlIT], [ICW-Internet Connection Wizard], [Java RFC], [mcafee], [Microsoft FrontPage], [Microsoft Script Debugger], [MS Office Startup], [msoffice], [Mts], [NetBackup], [NetDynamics 4.1], [NetDynamics], [Network Associates], [Network Associates], [ODBC 3.0], [Oracle Enterprise Manager], [Oracle for Windows NT], [Outlook Express], [pba], [Plus!], [SAP Frontend 3.1H], [Startup], [Veritas], [Windows NT 4.0 Option Pack], [Windows NT], [WinZip], [WinZip]

```
Microsoft Diagnostics Report For \\nbcbsapps2
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 4 x86 Multiprocessor Free
Registered Owner: Conexant, Conexant Systems, Inc
Product Number: 50370-111-1111111-63648
------------------------------------------------------------

System Report
------------------------------------------------------------
System: AT/AT COMPATIBLE
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 07/15/98
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 5 Stepping 2 GenuineIntel ~448 Mhz
   1:  x86 Family 6 Model 5 Stepping 2 GenuineIntel ~448 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: <unavailable>
Adapter:
   Setting: 800 x 600 x 256
            60 Hz
   Type: ati compatible display adapter
   String: ATI Graphics Accelerator
   Memory: 1 MB
   Chip Type: ATI 3D RAGE IIC (GT-B3U1)
   DAC Type: ATI Internal DAC
Driver:
   Vendor: <not available from remote connection>
   File(s): ati.sys, rp32ntv1.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Alerter                                       Running   (Automatic)
Network Associates Alert Manager              Running   (Automatic)
Computer Browser                              Running   (Automatic)
CA-Unicenter                                  Running   (Automatic)
CA-Unicenter WorldView Agent                  Running   (Automatic)
CA-Unicenter (NR-Server)                      Running   (Automatic)
CA-Unicenter (Remote)                         Running   (Automatic)
CA-Unicenter (Transport)                      Running   (Automatic)
Content Index                                 Running   (Automatic)
ControlIT                                     Running   (Automatic)
Insight Agents                                Running   (Automatic)
Compaq NIC Management Agents                  Running   (Automatic)
Compaq Remote Monitor Service                 Running   (Automatic)
Insight Web Agent                             Running   (Automatic)
EventLog (Event log)                          Running   (Automatic)
IIS Admin Service                             Running   (Manual)
Server                                        Running   (Automatic)
Workstation (NetworkProvider)                 Running   (Automatic)
License Logging Service                       Running   (Automatic)
TCP/IP NetBIOS Helper                         Running   (Automatic)
Network Associates Task Manager               Running   (Automatic)
Messenger                                     Running   (Automatic)
MSDTC (MS Transactions)                       Running   (Automatic)
FTP Publishing Service                        Running   (Automatic)
NetBackup Client Service                      Running   (Automatic)
NetDynamics 4.1 Application Server            Running   (Automatic)
Net Logon (RemoteValidation)                  Running   (Automatic)
NT LM Security Support Provider               Running   (Manual)
```

```
PatrolAgent                                   Running   (Automatic)
Patrol Event Log Monitor                      Running   (Automatic)
Patrol Process Monitor                        Running   (Automatic)
Plug and Play (PlugPlay)                      Running   (Automatic)
Protected Storage                             Running   (Automatic)
Remote Console Server                         Running   (Automatic)
Remote Procedure Call (RPC) Service           Running   (Automatic)
Microsoft SMTP Service                        Running   (Automatic)
SNMP                                          Running   (Automatic)
Spooler (SpoolerGroup)                        Running   (Automatic)
Surveyor                                      Running   (Automatic)
Compaq System Shutdown Service                Running   (Automatic)
TNG DB Server                                 Running   (Automatic)
World Wide Web Publishing Service             Running   (Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running   (Automatic)
atapi (SCSI miniport)                         Running   (Boot)
ati (Video)                                   Running   (System)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
Cdrom (SCSI CDROM Class)                      Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Cpqarray (SCSI miniport)                      Running   (Boot)
Compaq NetFlex-3 Driver (NDIS)                Running   (Automatic)
Disk (SCSI Class)                             Running   (Boot)
Fastfat (Boot file system)                    Running   (Disabled)
Floppy (Primary disk)                         Running   (System)
HalHook                                       Running   (Manual)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
Keyboard Class Driver (Keyboard Class)        Running   (System)
KSecDD (Base)                                 Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Manual)
NaiFiltr                                      Running   (Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running   (System)
NetBIOS Interface (NetBIOSGroup)              Running   (Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running   (Automatic)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running   (Automatic)
Parport (Parallel arbitrator)                 Running   (Automatic)
ParVdm (Extended base)                        Running   (Automatic)
Rdr (Network)                                 Running   (Manual)
Rp32Spin                                      Running   (System)
Rp32Wire                                      Running   (Automatic)
Scsiscan (SCSI Class)                         Running   (System)
Serial (Extended base)                        Running   (Automatic)
Special Purpose Utility Driver                Running   (Manual)
Srv (Network)                                 Running   (Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running   (Automatic)
VgaSave (Video Save)                          Running   (System)



Environment Report
------------------------------------------------------------
```

```
System Environment Variables

CLASSPATH=C:\NetDynamics\NetDynamics40\Classes\nd_client_4x.jar;C:\Ne
tDynamics\NetDynamics40\Projects;.;C:\jdk1.1.7B\lib\classes.zip;
   ComSpec=C:\WINNT\system32\cmd.exe
   INCLUDE=C:\Program Files\Mts\Include
   LIB=C:\Program Files\Mts\Lib
.
.
Directory Report
------------------------------------------------------------

 Directory of \\nbcbsapps2\c$\apps

[.]       [..]      [CA]      [mcafee]  [Veritas] [WinZip]
               6 File(s)              0 bytes
                            890,668,544 bytes free


 Directory of \\nbcbsapps2\c$\program files

[.]                              [Mts]
[..]                             [NetDynamics]
[CA]                             [Network Associates]
[CMAK]                           [ODBC 3.0]
[Common Files]                   [Outlook Express]
[ICW-Internet Connection Wizard] [pba]
[Microsoft FrontPage]            [Plus!]
[Microsoft Script Debugger]      [Windows NT]
[msoffice]
              17 File(s)              0 bytes
                            890,668,544 bytes free


 Directory of \\nbcbsapps2\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                             [MS Office Startup]
[..]                            [NetBackup]
[Administrative Tools (Common)] [NetDynamics 4.1]
[CA Registration]               [Network Associates]
[Compaq System Tools]           [Oracle Enterprise Manager]
[ControlIT]                     [Oracle for Windows NT]
[Java RFC]                      [SAP Frontend 3.1H]
Microsoft Access.lnk            [Startup]
Microsoft Binder.lnk            [Windows NT 4.0 Option Pack]
Microsoft Outlook.lnk           [WinZip]
Microsoft Photo Editor.lnk
              21 File(s)          2,101 bytes
                            890,668,544 bytes free
```

2.2.5. nbextricity

Name: nbextricity.nb.conexant.com
Address: 157.152.183.104

```
Microsoft Diagnostics Report For \\nbextricity
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 6 □ Multiprocessor Free
Registered Owner: Extricity, Conexant Systems
Product Number: 50370-411-1111111-04332
------------------------------------------------------------

System Report
------------------------------------------------------------
System:
Hardware Abstraction Layer:

Processor list:
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
Adapter:
   Setting:
   Type:
   String:
   Memory:
   Chip Type:
   DAC Type:
Driver:
   Vendor:
   File(s):
   Version:




Services Report
------------------------------------------------------------
Alerter                                      Running   (Automatic)
Alliance                                     Running   (Automatic)
AllianceIS                                   Running   (Automatic)
Computer Browser                             Running   (Automatic)
ControlIT                                    Running   (Automatic)
Compaq NIC Agents                            Running   (Automatic)
Compaq Remote Monitor Service                Running   (Automatic)
Compaq Web Agent                             Running   (Automatic)
Compaq Foundation Agents                     Running   (Automatic)
Compaq Server Agents                         Running   (Automatic)
Compaq Storage Agents                        Running   (Automatic)
EventLog (Event log)                         Running   (Automatic)
IIS Admin Service                            Running   (Manual)
Server                                       Running   (Automatic)
Workstation (NetworkProvider)                Running   (Automatic)
License Logging Service                      Running   (Automatic)
TCP/IP NetBIOS Helper                        Running   (Automatic)
Event Log Watch                              Running   (Automatic)
MessageQ                                     Running   (Automatic)
Messenger                                    Running   (Automatic)
MSDTC (MS Transactions)                      Running   (Automatic)
FTP Publishing Service                       Running   (Automatic)
NetBackup Client Service                     Running   (Automatic)
Net Logon (RemoteValidation)                 Running   (Automatic)
NT LM Security Support Provider              Running   (Manual)
Orbix Daemon                                 Running   (Automatic)
Plug and Play (PlugPlay)                     Running   (Automatic)
Protected Storage                            Running   (Automatic)
Rconsvc                                      Running   (Automatic)
Remote Procedure Call (RPC) Service          Running   (Automatic)
Microsoft SMTP Service                       Running   (Automatic)
SNMP                                         Running   (Automatic)
Spooler (SpoolerGroup)                       Running   (Automatic)
Compaq System Shutdown Service               Running   (Automatic)
World Wide Web Publishing Service            Running   (Automatic)
VNC Server                                   Running   (Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running   (Automatic)
atapi (SCSI miniport)                         Running   (Boot)
ati (Video)                                   Running   (System)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
Cdrom (SCSI CDROM Class)                      Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
cpqarry2 (SCSI Miniport)                      Running   (Boot)
Compaq Drive Array Event Notification Driver (SCSI class) Running
(System)
Compaq NetFlex-3 Driver (NDIS)                Running   (Automatic)
cpqsmgrk (System Bus Extender)                Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
Floppy (Primary disk)                         Running   (System)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
intlfxsr (Base)                               Running   (Boot)
Keyboard Class Driver (Keyboard Class)        Running   (System)
KSecDD (Base)                                 Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Manual)
Microsoft NDIS System Driver (NDIS)           Running   (System)
NetBIOS Interface (NetBIOSGroup)              Running   (Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running   (Automatic)
NetDetect                                     Running   (Manual)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
Parallel (Extended base)                      Running   (Automatic)
Parport (Parallel arbitrator)                 Running   (Automatic)
ParVdm (Extended base)                        Running   (Automatic)
Rdr (Network)                                 Running   (Manual)
Serial (Extended base)                        Running   (Automatic)
Special Purpose Utility Driver                Running   (Manual)
Srv (Network)                                 Running   (Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running   (Automatic)
VgaSave (Video Save)                          Running   (System)



Environment Report
------------------------------------------------------------



System Environment Variables



Network Report
------------------------------------------------------------
Your Access Level: User
Workgroup or Domain: NBRSS
Network Version: 4.0
LanRoot: NBRSS
Current User (1): extricity
  Logon Domain: NBEXTRICITY
  Logon Server: NBEXTRICITY
Current User (2): extricity
  Logon Domain: NBEXTRICITY
  Logon Server: NBEXTRICITY
Current User (3): extricity
  Logon Domain: NBEXTRICITY
  Logon Server: NBEXTRICITY
Current User (4): extricity
  Logon Domain: NBEXTRICITY
  Logon Server: NBEXTRICITY

Transport: NetBT_CpqNF31, 00-50-8B-72-97-5F, VC's: 1, Wan: Wan
.
.
Directory Report
------------------------------------------------------------
```

2.2.6. nbfinance1

[Accessories], [Analyzer], [Common Files], [Compaq], [ComPlus Applications], [essbase], [Internet Explorer], [Microsoft FrontPage], [Microsoft Script Debugger], [NetMeeting], [Network Associates], [New Folder], [Outlook Express], [Windows Media Player], [Windows NT], [WindowsUpdate], [WinVNC]

```
Microsoft Diagnostics Report For \\nbfinance1
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 5.0 (Build 2195): Service Pack 1 x86 Multiprocessor Free
Registered Owner: Conexant, Conexant
Product Number: 51879--27-0-72838-86-05
------------------------------------------------------------

System Report
------------------------------------------------------------
System: AT/AT COMPATIBLE
Hardware Abstraction Layer: ACPI 1.0 - APIC platform MP
BIOS Date: 08/24/00
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 10 Stepping 1 GenuineIntel ~701 Mhz
   1:  x86 Family 6 Model 10 Stepping 1 GenuineIntel ~701 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: <unavailable>
Adapter:
   Setting: 1024 x 768 x 256
            60 Hz
   Type: ati2mpah compatible display adapter
   String: 1002-4756-7A-1002-4756
   Memory: 4 MB
   Chip Type: ATI 3D RAGE IIC PCI (A21)
   DAC Type: ATI Internal DAC
Driver:
   Vendor: <not available from remote connection>
   File(s): ati2mpah.sys, ati2drah.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Alerter                                       Running   (Automatic)
Network Associates Alert Manager              Running   (Automatic)
Computer Browser                              Running   (Automatic)
Compaq NIC Agents                             Running   (Automatic)
Compaq Remote Monitor Service                 Running   (Automatic)
Compaq Web Agent                              Running   (Automatic)
Compaq Foundation Agents                      Running   (Automatic)
Compaq Server Agents                          Running   (Automatic)
Compaq Storage Agents                         Running   (Automatic)
Distributed File System (Dfs)                 Running   (Automatic)
DHCP Client (TDI)                             Running   (Automatic)
Logical Disk Manager                          Running   (Automatic)
DNS Client (TDI)                              Running   (Automatic)
Event Log (Event log)                         Running   (Automatic)
COM+ Event System (Network)                   Running   (Manual)
IIS Admin Service                             Running   (Automatic)
Server                                        Running   (Automatic)
Workstation (NetworkProvider)                 Running   (Automatic)
License Logging Service                       Running   (Automatic)
TCP/IP NetBIOS Helper Service (TDI)           Running   (Automatic)
Network Associates McShield                   Running   (Automatic)
Network Associates Task Manager               Running   (Automatic)
Messenger                                     Running   (Automatic)
MSSQLServer                                   Running   (Automatic)
Net Logon (RemoteValidation)                  Running   (Automatic)
Network Connections                           Running   (Manual)
Removable Storage                             Running   (Automatic)
Plug and Play (PlugPlay)                      Running   (Automatic)
```

```
IPSEC Policy Agent                            Running   (Automatic)
Protected Storage                             Running   (Automatic)
Rconsvc                                       Running   (Automatic)
Remote Registry Service                       Running   (Automatic)
Remote Procedure Call (RPC)                   Running   (Automatic)
Security Accounts Manager                     Running   (Automatic)
Task Scheduler                                Running   (Automatic)
RunAs Service                                 Running   (Automatic)
System Event Notification (Network)           Running   (Automatic)
Simple Mail Transport Protocol (SMTP)         Running   (Automatic)
SNMP Service                                  Running   (Automatic)
Print Spooler (SpoolerGroup)                  Running   (Automatic)
Compaq System Management Shutdown Service     Running   (Automatic)
Telephony                                     Running   (Manual)
Terminal Services                             Running   (Automatic)
Distributed Link Tracking Client              Running   (Automatic)
Windows Time                                  Running   (Automatic)
World Wide Web Publishing Service             Running   (Automatic)
Windows Management Instrumentation            Running   (Automatic)
VNC Server                                    Running   (Automatic)
Hyperion Analyzer                             Running   (Automatic)
Windows Management Instrumentation Driver Extensions Running
(Manual)



Drivers Report
------------------------------------------------------------
Microsoft ACPI Driver (Boot Bus Extender)     Running   (Boot)
adpu160m (SCSI miniport)                      Running   (Boot)
AFD Networking Support Environment (TDI)      Running   (Automatic)
Standard IDE/ESDI Hard Disk Controller (SCSI miniport) Running
(Boot)
atirage (Video)                               Running   (Manual)
Audio Stub Driver                             Running   (Manual)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
CD-ROM Driver (SCSI CDROM Class)              Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Cpqarray (SCSI miniport)                      Running   (Boot)
cpqarry2 (SCSI miniport)                      Running   (Boot)
Compaq Advanced System Management Controller  Running   (Manual)
CPQDAEN (SCSI Class)                          Running   (System)
Compaq PCI Hot Plug Controller (CPQPHP installed) (PnP Filter)
Running   (Boot)
Compaq Remote Insight Board Driver            Running   (Manual)
DfsDriver (filter)                            Running   (Boot)
Disk Driver (SCSI Class)                      Running   (Boot)
Diskperf (System Bus Extender)                Running   (Boot)
Logical Disk Manager Driver (System Bus Extender) Running   (Boot)
dmload (System Bus Extender)                  Running   (Boot)
EFS (File system)                             Running   (Disabled)
Fastfat (Boot file system)                    Running   (Disabled)
Floppy Disk Controller Driver (System Bus Extender) Running
(Manual)
Floppy Disk Driver (Primary disk)             Running   (Manual)
Volume Manager Driver (System Bus Extender)   Running   (Boot)
Generic Packet Classifier (PNP_TDI)           Running   (Manual)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
IPSEC driver (Extended base)                  Running   (Manual)
PnP ISA/EISA Bus Driver (Boot Bus Extender)   Running   (Boot)
Keyboard Class Driver (Keyboard Class)        Running   (System)
KSecDD (Base)                                 Running   (Boot)
mnmdd (Video Save)                            Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
MountMgr (System Bus Extender)                Running   (Boot)
MRxSmb (Network)                              Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Boot)
```

```
Compaq Ethernet or Fast Ethernet NIC Driver (NDIS) Running   (Manual)
NaiFiltr                                      Running   (Manual)
NaiFsRec                                      Running   (Boot)
NDIS System Driver (NDIS Wrapper)             Running   (Boot)
Remote Access NDIS TAPI Driver                Running   (Manual)
Remote Access NDIS WAN Driver                 Running   (Manual)
NDIS Proxy (PNP_TDI)                          Running   (Manual)
NetBIOS Interface (NetBIOSGroup)              Running   (System)
NetBios over Tcpip (PNP_TDI)                  Running   (System)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
Parallel class driver (Extended base)         Running   (Manual)
Parallel port driver (Parallel arbitrator)    Running   (System)
PartMgr (System Bus Extender)                 Running   (Boot)
ParVdm (Extended base)                        Running   (Automatic)
PCI Bus Driver (Boot Bus Extender)            Running   (Boot)
PCIIde (System Bus Extender)                  Running   (Boot)
WAN Miniport (PPTP)                           Running   (Manual)
Direct Parallel Link Driver                   Running   (Manual)
Remote Access Auto Connection Driver (Streams Drivers) Running
(System)
WAN Miniport (L2TP)                           Running   (Manual)
Direct Parallel                               Running   (Manual)
Rdbss (Network)                               Running   (System)
Terminal Server Device Redirector Driver      Running   (Manual)
RDPWD                                         Running   (Manual)
Serenum Filter Driver (PNP Filter)            Running   (Manual)
Serial port driver (Extended base)            Running   (System)
Special Purpose Utility Driver                Running   (Manual)
Srv (Network)                                 Running   (Manual)
Software Bus Driver                           Running   (Manual)
symc810 (SCSI miniport)                       Running   (Boot)
symc8xx (SCSI miniport)                       Running   (Boot)
sym_hi (SCSI miniport)                        Running   (Boot)
Compaq System Management Driver Interface     Running   (System)
TCP/IP Protocol Driver (PNP_TDI)              Running   (System)
TDTCP                                         Running   (Manual)
Terminal Device Driver                        Running   (Automatic)
Microcode Update Driver                       Running   (Manual)
VgaSave (Video Save)                          Running   (System)
Remote Access IP ARP Driver                   Running   (Manual)



Environment Report
------------------------------------------------------------



System Environment Variables
   ComSpec=C:\WINNT\system32\cmd.exe
   Os2LibPath=C:\WINNT\system32\os2\dll;

Path=D:\APPS\ESSBASE\BIN;C:\WINNT\system32;C:\WINNT;C:\WINNT\System32
\Wbem;C:\Program Files\Common Files\Network Associates\VirusScan
Engine\4.0.xx\;C:\MSSQL7\BINN
   windir=C:\WINNT
   OS=Windows_NT
   PROCESSOR_ARCHITECTURE=x86
   PROCESSOR_LEVEL=6
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 10 Stepping 1,
GenuineIntel
   PROCESSOR_REVISION=0a01
   NUMBER_OF_PROCESSORS=2
   PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH
   TEMP=C:\WINNT\TEMP
   TMP=C:\WINNT\TEMP
   ARBORPATH=D:\APPS\ESSBASE
```

```
Network Report
------------------------------------------------------------
Your Access Level: Admin
Workgroup or Domain: NBRSS
Network Version: 5.0
LanRoot: NBRSS
Logged On Users: 3
Current User (1): NBFINANCE1$
  Logon Domain: NBRSS
  Logon Server:
Current User (2): bernhos
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (3): zzSQLexec
  Logon Domain: NBRSS
  Logon Server: NBNSPDC

Transport: NetbiosSmb, 00-00-00-00-00-00, VC's: 0, Wan: Wan
Transport: NetBT_Tcpip_{AB80231E-206D-45FD-88FF-16A500489E13}, 00-50-
8B-F9-A6-74, VC's: 0, Wan: Wan

Bytes Received: 148,473,099
SMB's Received: 18,456
Paged Read Bytes Requested: 141,669,888
Initally Failed Operations: 1
Server File Opens: 55,999
.
.
Directory Report
------------------------------------------------------------

 Directory of \\nbfinance1\c$\apps

[.]      [..]     [WinVNC]
               3 File(s)              0 bytes
                            619,333,120 bytes free


 Directory of \\nbfinance1\c$\program files

[.]                         [Microsoft Script Debugger]
[..]                        [NetMeeting]
[Accessories]               [Network Associates]
[Common Files]              [Outlook Express]
[Compaq]                    [Windows Media Player]
[ComPlus Applications]      [Windows NT]
[Internet Explorer]         [WindowsUpdate]
[Microsoft FrontPage]
              15 File(s)              0 bytes
                            619,333,120 bytes free



 Directory of \\nbfinance1\d$\apps

[.]          [..]         [Analyzer]   [essbase]    [New Folder]
               5 File(s)              0 bytes
                         53,642,813,440 bytes free
```

2.2.7. nbnsops1

Name: nbnsops1.nb.conexant.com
Address: 157.152.161.184

[Administrative Tools (Common)], [Avalan], [CIMU], [Common Files], [Compaq System Tools], [Developer 2000 Comps for NT], [Developer 2000 Doc for NT], [Developer 2000 for NT], [JetForm Central], [Mcafee], [mcafee], [Microsoft Internet Server (Common)], [NetBackup], [Network Associates NetShield NT], [Network Associates], [Oracle Book], [Oracle Developer 6.0 Demos], [Oracle Developer 6.0 Doc], [Oracle Developer 6.0], [Oracle for Windows NT], [Perl Resource Kit], [Plus!], [quantum dlt7000 for NT4.0], [Remotely Possible 32], [Remotely Possible], [Startup], [Veritas], [Visual Mining], [Visual Mining], [Windows Media Player], [Windows NT], [WinZip], [WinZip], [Zebra BAR-ONE v4.3]

```
Microsoft Diagnostics Report For \\nbnsops1
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 5 x86 Multiprocessor Free
Registered Owner: NBNSOPS1, Rockwell
Product Number: 50370-111-1111111-14849
------------------------------------------------------------

System Report
------------------------------------------------------------
System: COMPAQ SYMMETRIC SYSTEMPRO
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 03/11/98
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
   1:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: 08/30/96
BIOS Version: ) Version 3.00.04
              ) Version 3.00.04

Adapter:
   Setting: 800 x 600 x 65536
            60 Hz
   Type: n9i128v2 compatible display adapter
   String: Number Nine
   Memory: 4 MB
   Chip Type: Imagine 128 Series 2e
   DAC Type: IBM RGB526
Driver:
   Vendor: <not available from remote connection>
   File(s): n9i128v2.sys, rp32ntv1.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Alerter                                       Running   (Automatic)
Network Associates Alert Manager              Running   (Automatic)
Computer Browser                              Running   (Automatic)
ChartWorks Server                             Running   (Automatic)
SMS Client Service                            Running   (Automatic)
Insight Agents                                Running   (Automatic)
Compaq Remote Monitor                         Running   (Automatic)
EventLog (Event log)                          Running   (Automatic)
JetForm Central Control Service               Running   (Automatic)
Server                                        Running   (Automatic)
Workstation (NetworkProvider)                 Running   (Automatic)
License Logging Service                       Running   (Automatic)
TCP/IP NetBIOS Helper                         Running   (Automatic)
Network Associates McShield                   Running   (Automatic)
Network Associates Task Manager               Running   (Automatic)
FTP Publishing Service                        Running   (Automatic)
NetBackup Client Service                      Running   (Automatic)
Net Logon (RemoteValidation)                  Running   (Automatic)
NT LM Security Support Provider               Running   (Manual)
Patrol Event Log Monitor                      Running   (Automatic)
Patrol Process Monitor                        Running   (Automatic)
Plug and Play (PlugPlay)                      Running   (Automatic)
Protected Storage                             Running   (Automatic)
Remote Console Server                         Running   (Automatic)
Remote Procedure Call (RPC) Service           Running   (Automatic)
```

```
Schedule                                      Running   (Automatic)
SNMP                                          Running   (Automatic)
Spooler (SpoolerGroup)                        Running   (Automatic)
Surveyor                                      Running   (Automatic)
Compaq System Shutdown                        Running   (Automatic)
World Wide Web Publishing Service             Running   (Automatic)
Windows Management                            Running   (Automatic)
SMS Remote Control Agent                      Running   (Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running   (Automatic)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
Cdrom (SCSI CDROM Class)                      Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Cpqarray (SCSI miniport)                      Running   (Boot)
Compaq NetFlex-3 Driver (NDIS)                Running   (Automatic)
Compaq SCSI Device Monitor (Filter)           Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
Fastfat (Boot file system)                    Running   (Disabled)
Floppy (Primary disk)                         Running   (System)
HalHook                                       Running   (Manual)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
Keyboard Class Driver (Keyboard Class)        Running   (System)
SMS Remote Control Keyboard Driver (Keyboard Port) Running   (System)
KSecDD (Base)                                 Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Manual)
n9i128v2 (Video)                              Running   (System)
NaiFiltr                                      Running   (Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running   (System)
NetBIOS Interface (NetBIOSGroup)              Running   (Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running   (Automatic)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running   (Automatic)
Parport (Parallel arbitrator)                 Running   (Automatic)
ParVdm (Extended base)                        Running   (Automatic)
Rdr (Network)                                 Running   (Manual)
Rp32Spin                                      Running   (System)
Rp32Wire                                      Running   (Automatic)
Scsiscan (SCSI Class)                         Running   (System)
Serial (Extended base)                        Running   (Automatic)
smbios                                        Running   (Automatic)
Srv (Network)                                 Running   (Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running   (Automatic)
VgaSave (Video Save)                          Running   (System)
WNTHW                                         Running   (Automatic)



Environment Report
------------------------------------------------------------



System Environment Variables
   ComSpec=C:\WINNT\system32\cmd.exe
   NTRESKIT=D:\NTRESKIT
   NUMBER_OF_PROCESSORS=2
```

```
   OS=Windows_NT
   Os2LibPath=C:\WINNT\system32\os2\dll;
   Path=d:\perl\5.005\bin\MSWin32-x86-
object;d:\perl\5.005\bin;D:\InetPub\wwwroot\perl5\bin;C:\WINNT\system
32;C:\WINNT;C:\ORANT\BIN;D:\ORANT\BIN;;D:\NTRESKIT;;C:\PATROL3-
3\bin;C:\PATROL3-3\utils;C:\WINNT\System32\WBEM
   PROCESSOR_ARCHITECTURE=x86
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 1 Stepping 9, GenuineIntel
   PROCESSOR_LEVEL=6
   PROCESSOR_REVISION=0109
   windir=C:\WINNT
   PATROL_HOME=C:\PATROL3-3\
   PATROL_ADMIN=NBRSS\zzpatrol
   PATROL_TEMP=C:\PATROL3-3\tmp
   SMS_LOCAL_DIR=C:\WINNT



Network Report
------------------------------------------------------------
Your Access Level: Admin
Workgroup or Domain: NBRSS
Network Version: 4.0
LanRoot: NBRSS
Logged On Users: 232
Current User (1): jfcentral
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (2): scmadmin
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (3): SMSCliSvcAcct&
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (4): IUSR_OPS
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (5): scmadmin
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (6): SMSCliToknAcct&
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (7): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (8): zebraprint
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (9): ftpadmin
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (10): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (11): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (12): zebraprint
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (13): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (14): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (15): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (16): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (17): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (18): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (19): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (20): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (21): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (22): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (23): ftpadmin
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (24): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (25): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (26): promis_ftp
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (27): promis_ftp
  Logon Domain: NBNSOPS1
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  Logon Server: NBNSOPS1
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Current User (140): zebraprint
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Current User (154): zebraprint
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  Logon Server: NBNSOPS1
Current User (157): ftpadmin
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Current User (164): promis_ftp
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  Logon Server: NBNSOPS1
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  Logon Server: NBNSOPS1
Current User (166): scmadmin
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1
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  Logon Server: NBNSOPS1
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Current User (177): promis_ftp
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  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (184): promis_ftp
  Logon Domain: NBNSOPS1
```

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Current User (185): promis_ftp
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Current User (206): zebraprint
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  Logon Server: NBNSOPS1
Current User (208): promis_ftp
  Logon Domain: NBNSOPS1
```

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Current User (211): promis_ftp
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Current User (219): promis_ftp
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Current User (220): ftpadmin
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Current User (230): promis_ftp
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  Logon Server: NBNSOPS1
Current User (231): ftpadmin
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1
Current User (232): zebraprint
  Logon Domain: NBNSOPS1
  Logon Server: NBNSOPS1

Transport: NetBT_CpqNF31, 00-80-5F-95-B9-2C, VC's: 3, Wan: Wan
Transport: NetBT_CpqNF32, 00-80-5F-BE-3F-3F, VC's: 1, Wan: Wan

Character Wait: 3,600
Collection Time: 250
Maximum Collection Count: 16
Keep Connection: 600
Maximum Commands: 5
Session Time Out: 45
Character Buffer Size: 512
Maximum Threads: 17
Lock Quota: 6,144
Lock Increment: 10
Maximum Locks: 500
Pipe Increment: 10
Maximum Pipes: 500
Cache Time Out: 40
Dormant File Limit: 45
Read Ahead Throughput: 4,294,967,295
Mailslot Buffers: 3
Server Announce Buffers: 20
Illegal Datagrams: 5
Datagram Reset Frequency: 60
Bytes Received: 312,361,816
SMB's Received: 515,017
Paged Read Bytes Requested: 47,715,840
Non Paged Read Bytes Requested: 28,980,873
Cache Read Bytes Requested: 3,809,636
Network Read Bytes Requested: 51,962,436
Bytes Transmitted: 46,956,963
SMB's Transmitted: 477,390
Paged Read Bytes Requested: 167,936
Non Paged Read Bytes Requested: 5,807,522
Cache Read Bytes Requested: 53
Network Read Bytes Requested: 5,733,773
Server File Opens: 4,198,738
.
.
Directory Report
------------------------------------------------------------

 Directory of \\nbnsops1\c$\apps

[.]                         [quantum dlt7000 for NT4.0]
[..]                        [Veritas]
[Mcafee]
               5 File(s)             0 bytes
                            236,077,056 bytes free


 Directory of \\nbnsops1\c$\program files

[.]                    [Common Files]         [Windows NT]
[..]                   [Network Associates]   [WinZip]
[Avalan]               [Plus!]
[CIMU]                 [Windows Media Player]
              10 File(s)             0 bytes
                            236,077,056 bytes free


 Directory of \\nbnsops1\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                                  [Oracle Developer 6.0]
[..]                                 [Oracle Developer 6.0 Demos]
[Administrative Tools (Common)]      [Oracle Developer 6.0 Doc]
[Compaq System Tools]                [Oracle for Windows NT]
[Developer 2000 Comps for NT]        [Perl Resource Kit]
[Developer 2000 Doc for NT]          [Remotely Possible 32]
[Developer 2000 for NT]              [Startup]
```

```
[JetForm Central]                    [Visual Mining]
[Microsoft Internet Server (Common)] [WinZip]
[NetBackup]                          [Zebra BAR-ONE v4.3]
[Network Associates NetShield NT]
[Oracle Book]
              22 File(s)             0 bytes
                            236,077,056 bytes free


 Directory of \\nbnsops1\d$\apps

[.]                 [mcafee]            [Visual Mining]
[..]                [Remotely Possible]
               5 File(s)             0 bytes
                          1,217,642,496 bytes free
```

2.2.8. nbnstrain1

Name: nbnstrain1.nb.conexant.com
Address: 157.152.164.253

[Administrative Tools (Common)], [Altiris LabExpert 4], [Avalan], [CIMU], [ColdFusion Server 4.0], [Common Files], [Compaq System Tools], [Content Analyzer Express], [Data Access], [LabExpert], [McAfee], [Microsoft FrontPage], [Microsoft Script Debugger], [Microsoft SQL Server 6.5], [Mts], [NetBackup], [Netscape SuiteSpot], [Network Associates], [Network Associates], [NTRESKIT], [ODBC], [OpenVision], [Oracle for Windows NT], [Outlook Express], [Plus!], [Remotely Possible 32], [Remotely Possible], [SkillVantage], [Startup], [Syscom], [TrainingServer 4.6.1], [UA Express], [Web Publish], [Windows Media Player], [Windows NT 4.0 Option Pack], [Windows NT], [Windows Script Encoder], [WindowsUpdate], [WinVNC]

```
Microsoft Diagnostics Report For \\nbnstrain1
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 6 x86 Multiprocessor Free
Registered Owner: NBNSTRAIN1, Rockwell Semiconductor Systems
Product Number: 50370-111-1111111-19074
------------------------------------------------------------

System Report
------------------------------------------------------------
System: COMPAQ SYMMETRIC SYSTEMPRO
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 03/19/98
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
   1:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: 11/16/95
BIOS Version: CL-GD5440 VGA BIOS Version 1.06

Adapter:
   Setting: 800 x 600 x 256
            60 Hz
   Type: cirrus compatible display adapter
   String: Cirrus Logic Compatible
   Memory: 1 MB
   Chip Type: CL 5430
   DAC Type: Integrated RAMDAC
Driver:
   Vendor: <not available from remote connection>
   File(s): cirrus.sys, vga.dll, rp32ntv2.dll, vga256.dll, vga64K.dll
   Version: <not available from remote connection>



Services Report
------------------------------------------------------------
Netscape Administration Server 3.0            Running   (Automatic)
Alerter                                       Running   (Automatic)
Network Associates Alert Manager              Running   (Automatic)
Computer Browser                              Running   (Automatic)
Content Index                                 Running   (Automatic)
Cold Fusion Application Server                Running   (Automatic)
Cold Fusion Executive                         Running   (Automatic)
Cold Fusion RDS                               Running   (Automatic)
Compaq NIC Agents                             Running   (Automatic)
Compaq Remote Monitor Service                 Running   (Automatic)
Compaq Enhanced Integrated Management Display Service Running
(Automatic)
Compaq Foundation Agents                      Running   (Automatic)
Compaq Server Agents                          Running   (Automatic)
Compaq Storage Agents                         Running   (Automatic)
EventLog (Event log)                          Running   (Automatic)
Netscape Enterprise Server 3.0 (nbnstrain1)   Running   (Automatic)
IIS Admin Service                             Running   (Manual)
Server                                        Running   (Automatic)
Workstation (NetworkProvider)                 Running   (Automatic)
License Logging Service                       Running   (Automatic)
TCP/IP NetBIOS Helper                         Running   (Automatic)
Network Associates McShield                   Running   (Automatic)
Network Associates Task Manager               Running   (Automatic)
Messenger                                     Running   (Automatic)
MSDTC (MS Transactions)                       Running   (Automatic)
```

```
FTP Publishing Service                        Running   (Automatic)
MSSQLServer                                   Running   (Automatic)
NetBackup Client Service                      Running   (Automatic)
Net Logon (RemoteValidation)                  Running   (Automatic)
NT LM Security Support Provider               Running   (Manual)
Plug and Play (PlugPlay)                      Running   (Automatic)
Protected Storage                             Running   (Automatic)
Remote Console Server                         Running   (Automatic)
Remotely Possible/32                          Running   (Automatic)
Remote Procedure Call (RPC) Service           Running   (Automatic)
Task Scheduler                                Running   (Automatic)
Microsoft SMTP Service                        Running   (Automatic)
SNMP                                          Running   (Automatic)
SNMP Trap Service                             Running   (Automatic)
Spooler (SpoolerGroup)                        Running   (Automatic)
Surveyor                                      Running   (Automatic)
Compaq System Shutdown Service                Running   (Automatic)
World Wide Web Publishing Service             Running   (Automatic)
VNC Server                                    Running   (Automatic)


Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running   (Automatic)
atapi (SCSI miniport)                         Running   (Boot)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
Cdrom (SCSI CDROM Class)                      Running   (System)
cirrus (Video)                                Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Cpqarray (SCSI miniport)                      Running   (Boot)
Compaq NetFlex-3 Driver (NDIS)                Running   (Automatic)
CpqSMgrK (System Bus Extender)                Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
Fastfat (Boot file system)                    Running   (Disabled)
Floppy (Primary disk)                         Running   (System)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
Keyboard Class Driver (Keyboard Class)        Running   (System)
KSecDD (Base)                                 Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Manual)
NaiFiltr                                      Running   (Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running   (System)
NetBIOS Interface (NetBIOSGroup)              Running   (Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running   (Automatic)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
NWLink IPX/SPX Compatible Transport Protocol (PNP_TDI) Running
(Automatic)
NWLink NetBIOS (PNP_TDI)                      Running   (Automatic)
NWLink SPX/SPXII Protocol                     Running   (Manual)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running   (Automatic)
Parport (Parallel arbitrator)                 Running   (Automatic)
ParVdm (Extended base)                        Running   (Automatic)
Rdr (Network)                                 Running   (Manual)
Rp32Spin                                      Running   (System)
Rp32Wire                                      Running   (Automatic)
Serial (Extended base)                        Running   (Automatic)
Special Purpose Utility Driver                Running   (Manual)
Srv (Network)                                 Running   (Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running   (Automatic)
WNTHW                                         Running   (Automatic)
```

```
Environment Report
------------------------------------------------------------



System Environment Variables
   ComSpec=C:\WINNT\system32\cmd.exe
   NUMBER_OF_PROCESSORS=2
   OS=Windows_NT
   Os2LibPath=C:\WINNT\system32\os2\dll;

Path=D:\orant\bin;C:\WINNT\system32;C:\WINNT;d:\notes;d:\notes\data;D
:\MSSQL\BINN;D:\Program
Files\Mts\;c:\sqlany50\win32;C:\Apps\NTRESKIT;C:\Apps\NTRESKIT\Perl;C
:\Program Files\Common Files\Network Associates\VirusScan
Engine\4.0.xx\;D:\Apps\NTRESKIT
   PROCESSOR_ARCHITECTURE=x86
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 1 Stepping 9, GenuineIntel
   PROCESSOR_LEVEL=6
   PROCESSOR_REVISION=0109
   windir=C:\WINNT
   INCLUDE=D:\Program Files\Mts\Include
   LIB=D:\Program Files\Mts\Lib
   PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.JS;.VBE;.JSE;.WSF;.WSH
   NTRESKIT=D:\Apps\NTRESKIT



Network Report
------------------------------------------------------------
Your Access Level: Admin
Workgroup or Domain: NBRSS
Network Version: 4.0
LanRoot: NBRSS
Logged On Users: 2
Current User (1): zzMcAfee
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (2): chik
  Logon Domain: NBRSS
  Logon Server: NBNSPDC

Transport: NetBT_CpqNF32, 00-80-5F-A7-04-C3, VC's: 1, Wan: Wan
Transport: NwlnkNb, 00-80-5F-95-BB-12, VC's: 0, Wan: Wan
Transport: NetBT_CpqNF31, 00-80-5F-95-BB-12, VC's: 0, Wan: Wan

Character Wait: 3,600
Collection Time: 250
Maximum Collection Count: 16
Keep Connection: 600
Maximum Commands: 5
Session Time Out: 45
Character Buffer Size: 512
Maximum Threads: 50
Lock Quota: 6,144
Lock Increment: 10
Maximum Locks: 500
Pipe Increment: 10
Maximum Pipes: 500
Cache Time Out: 40
Dormant File Limit: 45
Read Ahead Throughput: 4,294,967,295
Mailslot Buffers: 3
Server Announce Buffers: 20
Illegal Datagrams: 5
Datagram Reset Frequency: 60
Bytes Received: 18,369,629
SMB's Received: 66,395
Paged Read Bytes Requested: 1,561,600
```

```
Non Paged Read Bytes Requested: 3,246,804
Cache Read Bytes Requested: 523,926
Network Read Bytes Requested: 3,724,931
Bytes Transmitted: 8,641,619
SMB's Transmitted: 66,376
Paged Read Bytes Requested: 8,192
Non Paged Read Bytes Requested: 1,170
Server File Opens: 67,253
.
.
Directory Report
------------------------------------------------------------

 Directory of \\nbnstrain1\c$\apps

[.]      [..]     [WinVNC]
               3 File(s)              0 bytes
                             41,831,424 bytes free


 Directory of \\nbnstrain1\c$\program files

[.]                         [Outlook Express]
[..]                        [Plus!]
[Avalan]                    [Web Publish]
[CIMU]                      [Windows Media Player]
[Common Files]              [Windows NT]
[Data Access]               [WindowsUpdate]
[Microsoft Script Debugger]
[Network Associates]
              14 File(s)              0 bytes
                             41,831,424 bytes free


 Directory of \\nbnstrain1\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                             [Network Associates]
[..]                            [ODBC]
[Administrative Tools (Common)] [Oracle for Windows NT]
[Altiris LabExpert 4]           [Remotely Possible 32]
[ColdFusion Server 4.0]         [SkillVantage]
[Compaq System Tools]           [Startup]
[LabExpert]                     [TrainingServer 4.6.1]
[Microsoft SQL Server 6.5]      [Windows NT 4.0 Option Pack]
[NetBackup]
[Netscape SuiteSpot]
              18 File(s)              0 bytes
                             41,831,424 bytes free


 Directory of \\nbnstrain1\d$\apps

[.]                      [NTRESKIT]               [Windows Script
Encoder]
[..]                     [OpenVision]
[McAfee]                 [Remotely Possible]
               7 File(s)              0 bytes
                         18,726,719,488 bytes free


 Directory of \\nbnstrain1\d$\program files

[.]                        [Mts]
[..]                       [Syscom]
[Content Analyzer Express] [UA Express]
[Microsoft FrontPage]
               7 File(s)              0 bytes
                         18,726,719,488 bytes free
```

2.2.9. nbtsmc

Name: nbtsmc.nb.conexant.com
Address: 157.152.183.138

[Administrative Tools (Common)], [Common Files], [Compaq System Tools], [Mcafee], [NetBackup], [Network Associates], [Network Associates], [NTRESKIT], [Oracle - OraHome81], [Oracle - oramanager], [Oracle Installation Products], [Oracle], [oramanager], [Plus!], [Remotely Possible 32], [RP32], [Startup], [VERITAS], [Windows Media Player], [Windows NT], [WinVNC]

```
Microsoft Diagnostics Report For \\nbtsmc
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 5 x86 Multiprocessor Free
Registered Owner: Administrator, Conexant System Inc.
Product Number: 50370-111-1111111-93255
------------------------------------------------------------

System Report
------------------------------------------------------------
System: AT/AT COMPATIBLE
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 05/14/99
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 7 Stepping 3 GenuineIntel ~548 Mhz
   1:  x86 Family 6 Model 7 Stepping 3 GenuineIntel ~548 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: <unavailable>
Adapter:
   Setting: 800 x 600 x 65536
            75 Hz
   Type: ati compatible display adapter
   String: ATI Graphics Accelerator
   Memory: 1 MB
   Chip Type: ATI 3D RAGE IIC (UMC GT-B)
   DAC Type: ATI Internal DAC
Driver:
   Vendor: <not available from remote connection>
   File(s): ati.sys, rp32ntv1.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Alerter                                       Running   (Automatic)
Network Associates Alert Manager              Running   (Automatic)
Computer Browser                              Running   (Automatic)
Compaq NIC Management Agents                  Running   (Automatic)
Compaq Remote Monitor Service                 Running   (Automatic)
Insight Web Agent                             Running   (Automatic)
Insight Host Agents                           Running   (Automatic)
Insight Server Agents                         Running   (Automatic)
Insight Storage Agents                        Running   (Automatic)
EventLog (Event log)                          Running   (Automatic)
Server                                        Running   (Automatic)
Workstation (NetworkProvider)                 Running   (Automatic)
License Logging Service                       Running   (Automatic)
TCP/IP NetBIOS Helper                         Running   (Automatic)
Network Associates Task Manager               Running   (Automatic)
Messenger                                     Running   (Automatic)
NetBackup Client Service                      Running   (Automatic)
Net Logon (RemoteValidation)                  Running   (Automatic)
NT LM Security Support Provider               Running   (Manual)
OracleOraHome81Agent                          Running   (Manual)
OracleOraHome81TNSListener                    Running   (Automatic)
OracleServiceTSMC                             Running   (Automatic)
OracleWebAssistant0                           Running   (Automatic)
Plug and Play (PlugPlay)                      Running   (Automatic)
Protected Storage                             Running   (Automatic)
Rconsvc                                       Running   (Automatic)
Remotely Possible/32                          Running   (Automatic)
Remote Procedure Call (RPC) Service           Running   (Automatic)
Schedule                                      Running   (Automatic)
SNMP                                          Running   (Automatic)
Spooler (SpoolerGroup)                        Running   (Automatic)
Surveyor                                      Running   (Automatic)
Compaq System Shutdown Service                Running   (Automatic)
Windows Management                            Running   (Automatic)
VNC Server                                    Running   (Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running   (Automatic)
atapi (SCSI miniport)                         Running   (Boot)
ati (Video)                                   Running   (System)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
Cdrom (SCSI CDROM Class)                      Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Compaq Virtual NIC Driver (NDIS)              Running   (Automatic)
Cpqarray (SCSI miniport)                      Running   (Boot)
cpqsmgrk (System Bus Extender)                Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
Fastfat (Boot file system)                    Running   (Disabled)
Floppy (Primary disk)                         Running   (System)
HalHook                                       Running   (Manual)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
intlfxsr (Base)                               Running   (Boot)
Keyboard Class Driver (Keyboard Class)        Running   (System)
KSecDD (Base)                                 Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Manual)
Compaq Ethernet or Fast Ethernet NIC Driver (NDIS) Running
(Automatic)
Microsoft NDIS System Driver (NDIS)           Running   (System)
NetBIOS Interface (NetBIOSGroup)              Running   (Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running   (Automatic)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running   (Automatic)
Parport (Parallel arbitrator)                 Running   (Automatic)
ParVdm (Extended base)                        Running   (Automatic)
Rdr (Network)                                 Running   (Manual)
Rp32Spin                                      Running   (System)
Rp32Wire                                      Running   (Automatic)
Serial (Extended base)                        Running   (Automatic)
smbios                                        Running   (Automatic)
Srv (Network)                                 Running   (Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running   (Automatic)
VgaSave (Video Save)                          Running   (System)



Environment Report
------------------------------------------------------------



System Environment Variables
   ComSpec=C:\WINNT\system32\cmd.exe
   Os2LibPath=C:\WINNT\system32\os2\dll;
   Path=C:\Orant\bin;d:\apps\oramanager\bin;C:\Program
Files\Oracle\jre\1.1.7\bin;C:\WINNT\system32;C:\WINNT;;C:\Apps\NTRESK
IT;C:\Apps\NTRESKIT\Perl;C:\Program Files\Common Files\Network
Associates\VirusScan
Engine\4.0.xx\;C:\WINNT\System32\WBEM;d:\apps\oramanager\orb\bin
   windir=C:\WINNT
   OS=Windows_NT
   PROCESSOR_ARCHITECTURE=x86
   PROCESSOR_LEVEL=6
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 7 Stepping 3, GenuineIntel
   PROCESSOR_REVISION=0703
   NUMBER_OF_PROCESSORS=2
   NTRESKIT=C:\Apps\NTRESKIT
   SMS_LOCAL_DIR=C:\WINNT

CLASSPATH=d:\apps\oramanager\orb\classes\yoj.jar;d:\apps\oramanager\o
rb\classes\share.zip



Network Report
------------------------------------------------------------
Your Access Level: Admin
Workgroup or Domain: NBRSS
Network Version: 4.0
LanRoot: NBRSS
Logged On Users: 4
Current User (1): zzMcAfee
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (2): linl
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (3): linl
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (4): linl
  Logon Domain: NBRSS
  Logon Server: NBNSPDC

Transport: NetBT_CPQANC3, 00-50-8B-6F-49-E0, VC's: 1, Wan: Wan

Character Wait: 3,600
Collection Time: 250
Maximum Collection Count: 16
Keep Connection: 600
Maximum Commands: 5
Session Time Out: 45
Character Buffer Size: 512
Maximum Threads: 17
Lock Quota: 6,144
Lock Increment: 10
Maximum Locks: 500
Pipe Increment: 10
Maximum Pipes: 500
Cache Time Out: 40
Dormant File Limit: 45
Read Ahead Throughput: 4,294,967,295
Mailslot Buffers: 3
Server Announce Buffers: 20
Illegal Datagrams: 5
Datagram Reset Frequency: 60
Bytes Received: 26,010,285
SMB's Received: 55,742
Paged Read Bytes Requested: 3,366,912
Non Paged Read Bytes Requested: 19,846,547
Cache Read Bytes Requested: 1,858,372
Network Read Bytes Requested: 19,310,567
Bytes Transmitted: 6,430,621
SMB's Transmitted: 55,704
Paged Read Bytes Requested: 61,440
Non Paged Read Bytes Requested: 13,466
Server File Opens: 891
.
.
```

```
Directory Report
------------------------------------------------------------

 Directory of \\nbtsmc\c$\apps

[.]        [..]       [NTRESKIT] [RP32]     [WinVNC]
               5 File(s)              0 bytes
                          1,761,497,600 bytes free


 Directory of \\nbtsmc\c$\program files

[.]                    [Network Associates]   [Windows Media Player]
[..]                   [Oracle]               [Windows NT]
[Common Files]         [Plus!]
               8 File(s)              0 bytes
                          1,761,497,600 bytes free


 Directory of \\nbtsmc\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                             [Oracle - OraHome81]
[..]                            [Oracle - oramanager]
[Administrative Tools (Common)] [Oracle Installation Products]
[Compaq System Tools]           [Remotely Possible 32]
[NetBackup]                     [Startup]
[Network Associates]
              11 File(s)              0 bytes
                          1,761,497,600 bytes free


 Directory of \\nbtsmc\d$\apps

[.]          [..]         [Mcafee]     [oramanager] [VERITAS]
               5 File(s)              0 bytes
                          5,763,624,960 bytes free
```

2.2.10. nextweb

Name: nextweb.nb.conexant.com
Address: 157.152.185.63

[admin], [Administrative Tools (Common)], [Adobe Acrobat 4.0], [Avalan], [BrowserHawk], [CMAK], [Common Files], [Compaq System Tools], [Content Analyzer Express], [dtSearch], [Java RFC], [MarkVis], [Microsoft FrontPage], [Microsoft Script Debugger], [Microsoft Site Server], [Mts], [NetBackup], [Network Associates], [Network Associates], [Network Associates], [Oracle - OraHome81], [Oracle], [Outlook Express], [pba], [Plus!], [Remotely Possible 32], [Remotely Possible], [SAP], [Startup], [UA Express], [Veritas], [Web Publish], [Web Server Extensions], [WebTrends Enterprise Suite], [Windows Media Player], [Windows NT 4.0 Option Pack], [Windows NT], [WindowsUpdate], [WinVNC]

```
Microsoft Diagnostics Report For \\nextweb
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 6 x86 Multiprocessor Free
Registered Owner: Conexant, Conexant
Product Number: 50370-813-2809583-44963
------------------------------------------------------------

System Report
------------------------------------------------------------
System: COMPAQ SYMMETRIC SYSTEMPRO
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 09/25/97
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
   1:  x86 Family 6 Model 1 Stepping 7 GenuineIntel ~200 Mhz
   2:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
   3:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: 04/17/94
BIOS Version: CL-GD540x/542x VGA BIOS Version 1.20

Adapter:
   Setting: 640 x 480 x 256
            72 Hz
   Type: cirrus compatible display adapter
   String: Cirrus Logic Compatible
   Memory: 512 KB
   Chip Type: CL 5424
   DAC Type: Integrated RAMDAC
Driver:
   Vendor: <not available from remote connection>
   File(s): cirrus.sys, vga.dll, cirrus.dll, rp32ntv3.dll, vga64K.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Site Server Active Channel Multicaster        Running   (Automatic)
Alerter                                       Running   (Automatic)
Network Associates Alert Manager              Running   (Automatic)
Site Server Authentication Service            Running   (Automatic)
Computer Browser                              Running   (Automatic)
Content Index                                 Running   (Automatic)
Insight Agents                                Running   (Automatic)
Insight Web Agent                             Running   (Automatic)
Site Server Content Deployment                Running   (Automatic)
EventLog (Event log)                          Running   (Automatic)
Site Server Gatherer                          Running   (Automatic)
IIS Admin Service                             Running   (Automatic)
Server                                        Running   (Automatic)
Workstation (NetworkProvider)                 Running   (Automatic)
TCP/IP NetBIOS Helper                         Running   (Automatic)
Network Associates McShield                   Running   (Automatic)
Network Associates Task Manager               Running   (Automatic)
Messenger                                     Running   (Automatic)
MSDTC (MS Transactions)                       Running   (Automatic)
NetBackup Client Service                      Running   (Automatic)
Net Logon (RemoteValidation)                  Running   (Automatic)
NT LM Security Support Provider               Running   (Automatic)
OracleWebAssistant0                           Running   (Automatic)
Orbix Daemon                                  Running   (Automatic)
```

```
Plug and Play (PlugPlay)                      Running   (Automatic)
Protected Storage                             Running   (Automatic)
Rconsvc                                       Running   (Automatic)
Remotely Possible/32                          Running   (Automatic)
Remote Procedure Call (RPC) Service           Running   (Automatic)
Task Scheduler                                Running   (Automatic)
Microsoft SMTP Service                        Running   (Automatic)
SNMP                                          Running   (Automatic)
Spooler (SpoolerGroup)                        Running   (Automatic)
Site Server Search                            Running   (Automatic)
Surveyor                                      Running   (Automatic)
Compaq System Shutdown Service                Running   (Automatic)
World Wide Web Publishing Service             Running   (Automatic)
VNC Server                                    Running   (Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running   (Automatic)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
Cdrom (SCSI CDROM Class)                      Running   (System)
cirrus (Video)                                Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Cpqarray (SCSI miniport)                      Running   (Boot)
Compaq NetFlex-3 Driver (NDIS)                Running   (Automatic)
Compaq SCSI Device Monitor (Filter)           Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
Fastfat (Boot file system)                    Running   (Disabled)
Floppy (Primary disk)                         Running   (System)
HalHook                                       Running   (Manual)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
Keyboard Class Driver (Keyboard Class)        Running   (System)
KSecDD (Base)                                 Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Manual)
NaiFiltr                                      Running   (Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running   (System)
NetBIOS Interface (NetBIOSGroup)              Running   (Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running   (Automatic)
Network Monitor Agent v2 Driver               Running   (Manual)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running   (Automatic)
Parport (Parallel arbitrator)                 Running   (Automatic)
ParVdm (Extended base)                        Running   (Automatic)
Rdr (Network)                                 Running   (Manual)
Rp32Spin                                      Running   (System)
Rp32Wire                                      Running   (Automatic)
Scsiscan (SCSI Class)                         Running   (System)
Serial (Extended base)                        Running   (Automatic)
Special Purpose Utility Driver                Running   (Manual)
Srv (Network)                                 Running   (Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running   (Automatic)



Environment Report
------------------------------------------------------------
```

```
System Environment Variables
   ComSpec=C:\WINNT\system32\cmd.exe
   Os2LibPath=C:\WINNT\system32\os2\dll;
   Path=D:\Oracle\Ora81\bin;C:\Program
Files\Oracle\jre\1.1.7\bin;D:\Oracle\Ora805\bin;d:\inetpub\scripts\to
ols\perl\bin;C:\WINNT\system32;C:\WINNT;C:\Program
Files\Mts;d:\Microsoft Site Server\bin;C:\PATROL3-3\bin;C:\PATROL3-
3\utils;C:\Program Files\Common Files\Network Associates\VirusScan
Engine\4.0.xx\
   windir=C:\WINNT
   OS=Windows_NT
   PROCESSOR_ARCHITECTURE=x86
   PROCESSOR_LEVEL=6
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 1 Stepping 9, GenuineIntel
   PROCESSOR_REVISION=0107
   NUMBER_OF_PROCESSORS=4
   INCLUDE=C:\Program Files\Mts\Include
   LIB=C:\Program Files\Mts\Lib
   PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.JS
   PATROL_HOME=C:\PATROL3-3\
   PATROL_ADMIN=NBRSS\zzpatrol
   PATROL_TEMP=C:\PATROL3-3\tmp
   IT_CONFIG_PATH=E:\Apps\SAP\JRFC\Server\cfg



Network Report
------------------------------------------------------------
Your Access Level: Admin
Workgroup or Domain: NBRSS
Network Version: 4.0
LanRoot: NBRSS
Logged On Users: 10
Current User (1): zzMcAfee
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1
Current User (2): SiteServer
  Logon Domain: NEXTWEB
  Logon Server: NEXTWEB
Current User (3): zz_iw_connector
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1
Current User (4): zz_iw_connector
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1
Current User (5): zz_iw_connector
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1
Current User (6): zz_iw_connector
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1
Current User (7): Administrator
  Logon Domain: NEXTWEB
  Logon Server: NEXTWEB
Current User (8): zz_iw_connector
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1
Current User (9): zz_iw_connector
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1
Current User (10): chik
  Logon Domain: NBRSS
  Logon Server: NBNSDEPT1

Transport: NetBT_CpqNF32, 00-80-5F-FE-08-79, VC's: 4, Wan: Wan
Transport: NetBT_CpqNF31, 00-80-5F-31-8D-C9, VC's: 0, Wan: Wan

Character Wait: 3,600
Collection Time: 250
Maximum Collection Count: 16
Keep Connection: 600
Maximum Commands: 5
```

```
Session Time Out: 45
Character Buffer Size: 512
Maximum Threads: 17
Lock Quota: 6,144
Lock Increment: 10
Maximum Locks: 500
Pipe Increment: 10
Maximum Pipes: 500
Cache Time Out: 40
Dormant File Limit: 45
Read Ahead Throughput: 4,294,967,295
Mailslot Buffers: 3
Server Announce Buffers: 20
Illegal Datagrams: 5
Datagram Reset Frequency: 60
Bytes Received: 38,809,559
SMB's Received: 67,182
Paged Read Bytes Requested: 19,730,944
Non Paged Read Bytes Requested: 758,449
Cache Read Bytes Requested: 376,848
Network Read Bytes Requested: 19,636,627
Bytes Transmitted: 7,943,523
SMB's Transmitted: 67,173
Paged Read Bytes Requested: 4,096
Non Paged Read Bytes Requested: 288
Server File Opens: 43,219
.
.
Directory Report
------------------------------------------------------------

 Directory of \\nextweb\c$\apps

[.]        [..]       [Acrobat]  [dtSearch] [WinVNC]
               5 File(s)              0 bytes
                          2,258,743,808 bytes free


 Directory of \\nextweb\c$\program files

[.]                         [Oracle]
[..]                        [Outlook Express]
[Avalan]                    [pba]
[CMAK]                      [Plus!]
[Common Files]              [UA Express]
[Content Analyzer Express]  [Web Publish]
[MarkVis]                   [Windows Media Player]
[Microsoft FrontPage]       [Windows NT]
[Microsoft Script Debugger] [WindowsUpdate]
[Mts]
[Network Associates]
              20 File(s)              0 bytes
                          2,258,743,808 bytes free


 Directory of \\nextweb\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                             [NetBackup]
[..]                            [Network Associates]
[Administrative Tools (Common)] [Oracle - OraHome81]
[Adobe Acrobat 4.0]             [Remotely Possible 32]
[Compaq System Tools]           [Startup]
[Java RFC]                      [Windows NT 4.0 Option Pack]
[Microsoft Site Server]
              13 File(s)              0 bytes
                          2,258,743,808 bytes free


 Directory of \\nextweb\d$\apps

[.]                  [Network Associates] [Veritas]
[..]                 [Remotely Possible]
[BrowserHawk]        RPINGS.EXE
               7 File(s)         29,696 bytes
                         12,758,253,568 bytes free



 Directory of \\nextweb\e$\apps

[.]                          [Web Server Extensions]
[..]                         [WebTrends Enterprise Suite]
[admin]
[SAP]
               6 File(s)              0 bytes
                         51,301,953,536 bytes free
```

2.2.11. stageweb

Name: stageweb.nb.conexant.com
Address: 157.152.183.228

[Administrative Tools (Common)], [BrowserHawk], [CA Registration], [CA], [CA], [Clarify], [Common Files], [Compaq System Tools], [ControlIT], [dtSearch], [Imparto Web Marketing Suite], [Imparto], [Inprise], [Microsoft FrontPage], [Microsoft Internet], [Microsoft Script Debugger], [Microsoft Site Server], [Microsoft SQL Server - Switch], [Microsoft SQL Server 7.0], [MTS], [NetBackup], [Network Associates], [Network Associates], [Network Associates], [Oracle - OraHome81], [Oracle for Windows NT], [Oracle Installation Products], [Oracle], [Outlook Express], [PATROL3-3], [Plus!], [Remotely Possible 32], [Remotely Possible], [SA-FileUp], [SoftArtisans SA-FileUp], [Startup], [VERITAS], [VisiBroker], [Windows Media Player], [Windows NT 4.0 Option Pack], [Windows NT], [WindowsUpdate], [WinVNC], [WinZip], [WinZip]

2.2.11.1. migration report > npbintranet1

?

Migration Report – rstageweb

Done	Split	Div	Directory	Contact	Phone	Email

2.2.11.2. stageweb_msftpsvc_1_root.txt

```
'Server Dump File
[/MSFTPSVC/1/ROOT]
KeyType                : (STRING) "IIsFtpVirtualDir"
Path                 : (STRING) "D:\Inetpub\ftproot"
AccessFlags              : (INTEGER) 1
AccessRead               : (BOOLEAN) True
AccessWrite              : (BOOLEAN) False
```

2.2.11.3. stageweb_w3svc_1_root.txt

```
'Server Dump File
[/W3SVC/1/ROOT]
KeyType                 : (STRING) "IIsWebVirtualDir"
AppRoot                 : (STRING) "/LM/W3SVC/1/ROOT"
AppFriendlyName             : (STRING) "Default Application"
AppIsolated             : (BOOLEAN) False
AccessRead              : (BOOLEAN) True
AccessWrite             : (BOOLEAN) False
AccessExecute            : (BOOLEAN) False
AccessScript            : (BOOLEAN) True
HttpExpires             : (STRING) "D, 0"
AccessNoRemoteRead          : (BOOLEAN) False
AccessNoRemoteWrite         : (BOOLEAN) False
AccessNoRemoteExecute        : (BOOLEAN) False
AccessNoRemoteScript        : (BOOLEAN) False
DefaultDoc              : (STRING)
"Default.asp,Default.htm,index.htm,index.html"
ContentIndexed            : (BOOLEAN) True
Path                  : (STRING) "D:\Inetpub\wwwroot"
AppWamClsid               : (STRING) "{52F9E462-3EED-11D3-A106-
00805F57BE3A}"
AccessFlags             : (INTEGER) 513
ScriptMaps              : (LIST) (20 Items)
  ".asa,C:\WINNT\System32\inetsrv\asp.dll,1,PUT,DELETE"
  ".asp,C:\WINNT\System32\inetsrv\asp.dll,1,PUT,DELETE"
  ".cdx,C:\WINNT\System32\inetsrv\asp.dll,1,PUT,DELETE"
  ".cer,C:\WINNT\System32\inetsrv\asp.dll,1,PUT,DELETE"
  ".htr,C:\WINNT\System32\inetsrv\ism.dll,1"
  ".htw,C:\WINNT\System32\webhits.dll,3"
  ".ida,C:\WINNT\System32\idq.dll,3"
  ".idc,C:\WINNT\System32\inetsrv\httpodbc.dll,1"
  ".idq,C:\WINNT\System32\idq.dll,3"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".shtm,C:\WINNT\System32\inetsrv\ssinc.dll,1"
  ".shtml,C:\WINNT\System32\inetsrv\ssinc.dll,1"
  ".stm,C:\WINNT\System32\inetsrv\ssinc.dll,1"

MimeMap                 : (MimeMapList) ".log,text/plain"
[/W3SVC/1/ROOT/IISSAMPLES]
[/W3SVC/1/ROOT/IISADMIN]
[/W3SVC/1/ROOT/IISHELP]
[/W3SVC/1/ROOT/SCRIPTS]
[/W3SVC/1/ROOT/IISADMPWD]
[/W3SVC/1/ROOT/msadc]
[/W3SVC/1/ROOT/News]
[/W3SVC/1/ROOT/Mail]
[/W3SVC/1/ROOT/_vti_log]
[/W3SVC/1/ROOT/_vti_pvt]
[/W3SVC/1/ROOT/_vti_txt]
[/W3SVC/1/ROOT/_vti_cnf]
[/W3SVC/1/ROOT/_vti_bin]
[/W3SVC/1/ROOT/cgi-bin]
[/W3SVC/1/ROOT/SiteServer]
[/W3SVC/1/ROOT/Sites]
[/W3SVC/1/ROOT/_mem_bin]
[/W3SVC/1/ROOT/FpSample]
[/W3SVC/1/ROOT/CmSample]
[/W3SVC/1/ROOT/TechAdmin]
[/W3SVC/1/ROOT/PressAdmin]
[/W3SVC/1/ROOT/JobAdmin]
[/W3SVC/1/ROOT/wm]
[/W3SVC/1/ROOT/ClarifyAdmin]
[/W3SVC/1/ROOT/ClarifySupport]
[/W3SVC/1/ROOT/nextweb]
[/W3SVC/1/ROOT/secure]
[/W3SVC/1/ROOT/charts]
[/W3SVC/1/ROOT/servlet]
[/W3SVC/1/ROOT/imparto]
[/W3SVC/1/ROOT/virus_scan_log]
```

2.2.11.4. stageweb_w3svc_3_root.txt

```
Microsoft (R) Windows Script Host Version 5.1 for Windows
Copyright (C) Microsoft Corporation 1996-1999. All rights reserved.

KeyType                    : (STRING) "IIsWebVirtualDir"
AppRoot                    : (STRING) "/LM/W3SVC/3/Root"
AppFriendlyName            : (STRING) "Default Application"
AppIsolated                : (BOOLEAN) False
AuthBasic                  : (BOOLEAN) False
AuthAnonymous              : (BOOLEAN) True
AuthNTLM                   : (BOOLEAN) True
EnableDefaultDoc           : (BOOLEAN) True
DirBrowseShowDate          : (BOOLEAN) True
DirBrowseShowTime          : (BOOLEAN) True
DirBrowseShowSize          : (BOOLEAN) True
DirBrowseShowExtension     : (BOOLEAN) True
DirBrowseShowLongDate      : (BOOLEAN) False
AccessRead                 : (BOOLEAN) True
AccessWrite                : (BOOLEAN) False
AccessExecute              : (BOOLEAN) True
AccessScript               : (BOOLEAN) True
AccessNoRemoteRead         : (BOOLEAN) False
AccessNoRemoteWrite        : (BOOLEAN) False
AccessNoRemoteExecute      : (BOOLEAN) False
AccessNoRemoteScript       : (BOOLEAN) False
EnableDirBrowsing          : (BOOLEAN) False
Path                       : (STRING) "D:\Inetpub\wwwroot\nextweb"
AppWamClsid                : (STRING) "{F352553E-4081-11D3-A114-
00805F57BE3A}"
AccessFlags                : (INTEGER) 517
ScriptMaps                 : (LIST) (20 Items)
  ".asa,C:\WINNT\System32\inetsrv\asp.dll,1,PUT,DELETE"
  ".asp,C:\WINNT\System32\inetsrv\asp.dll,1,PUT,DELETE"
  ".cdx,C:\WINNT\System32\inetsrv\asp.dll,1,PUT,DELETE"
  ".cer,C:\WINNT\System32\inetsrv\asp.dll,1,PUT,DELETE"
  ".htr,C:\WINNT\System32\inetsrv\ism.dll,1"
  ".htw,C:\WINNT\System32\webhits.dll,3"
  ".ida,C:\WINNT\System32\idq.dll,3"
  ".idc,C:\WINNT\System32\inetsrv\httpodbc.dll,1"
  ".idq,C:\WINNT\System32\idq.dll,3"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".pl,D:\mksnt\perl.exe %s %s,2"
  ".shtm,C:\WINNT\System32\inetsrv\ssinc.dll,1"
  ".shtml,C:\WINNT\System32\inetsrv\ssinc.dll,1"
  ".stm,C:\WINNT\System32\inetsrv\ssinc.dll,1"

DirBrowseFlags             : (INTEGER) 1073741854
AuthFlags                  : (INTEGER) 5
[/w3svc/3/root/webmaster]
[/w3svc/3/root/webmaster/test]
EnableDefaultDoc           : (BOOLEAN) True
DirBrowseShowDate          : (BOOLEAN) True
DirBrowseShowTime          : (BOOLEAN) True
DirBrowseShowSize          : (BOOLEAN) True
DirBrowseShowExtension     : (BOOLEAN) True
DirBrowseShowLongDate      : (BOOLEAN) False
EnableDirBrowsing          : (BOOLEAN) True
DirBrowseFlags             : (INTEGER) -1073741794

[/w3svc/3/root/webmaster/db]
EnableDefaultDoc           : (BOOLEAN) True
DirBrowseShowDate          : (BOOLEAN) True
DirBrowseShowTime          : (BOOLEAN) True
DirBrowseShowSize          : (BOOLEAN) True
DirBrowseShowExtension     : (BOOLEAN) True
DirBrowseShowLongDate      : (BOOLEAN) False
EnableDirBrowsing          : (BOOLEAN) False
DirBrowseFlags             : (INTEGER) 1073741854
[/w3svc/3/root/webmaster/db/microsoft]
EnableDefaultDoc           : (BOOLEAN) True
DirBrowseShowDate          : (BOOLEAN) True
DirBrowseShowTime          : (BOOLEAN) True
DirBrowseShowSize          : (BOOLEAN) True
DirBrowseShowExtension     : (BOOLEAN) True
DirBrowseShowLongDate      : (BOOLEAN) False
```

```
EnableDirBrowsing              : (BOOLEAN) True
DirBrowseFlags                 : (INTEGER) -1073741794



[/w3svc/3/root/dept]
[/w3svc/3/root/dept/scm]
KeyType                        : (STRING) "IIsWebVirtualDir"
AppRoot                        : (STRING) "/LM/W3SVC/3/Root/dept/scm"
AppFriendlyName                : (STRING) "scm"
AppIsolated                    : (BOOLEAN) False
EnableDefaultDoc               : (BOOLEAN) True
DirBrowseShowDate              : (BOOLEAN) True
DirBrowseShowTime              : (BOOLEAN) True
DirBrowseShowSize              : (BOOLEAN) True
DirBrowseShowExtension         : (BOOLEAN) True
DirBrowseShowLongDate          : (BOOLEAN) False
AccessRead                     : (BOOLEAN) True
AccessWrite                    : (BOOLEAN) False
AccessExecute                  : (BOOLEAN) False
AccessScript                   : (BOOLEAN) True
AccessNoRemoteRead             : (BOOLEAN) False
AccessNoRemoteWrite            : (BOOLEAN) False
AccessNoRemoteExecute          : (BOOLEAN) False
AccessNoRemoteScript           : (BOOLEAN) False
EnableDirBrowsing              : (BOOLEAN) False
DefaultDoc                     : (STRING) "default.asp,default.htm"
Path                           : (STRING) "D:\Inetpub\wwwroot\nextweb\dept\op\scm"
AppWamClsid                    : (STRING) "{86AA649D-D8E0-11D3-A123-
00805F57BE3A}"
AccessFlags                    : (INTEGER) 513
DirBrowseFlags                 : (INTEGER) 1073741854
[/w3svc/3/root/dept/scm/admin]
AuthBasic                      : (BOOLEAN) True
AuthAnonymous                  : (BOOLEAN) False
AuthNTLM                       : (BOOLEAN) True
AuthFlags                      : (INTEGER) 6


[/w3svc/3/root/dept/op]
[/w3svc/3/root/dept/op/scm]
[/w3svc/3/root/dept/op/scm/admin]
AuthBasic                      : (BOOLEAN) True
AuthAnonymous                  : (BOOLEAN) False
AuthNTLM                       : (BOOLEAN) True
EnableDefaultDoc               : (BOOLEAN) True
DirBrowseShowDate              : (BOOLEAN) True
DirBrowseShowTime              : (BOOLEAN) True
DirBrowseShowSize              : (BOOLEAN) True
DirBrowseShowExtension         : (BOOLEAN) True
DirBrowseShowLongDate          : (BOOLEAN) False
EnableDirBrowsing              : (BOOLEAN) True
DirBrowseFlags                 : (INTEGER) -1073741794
AuthFlags                      : (INTEGER) 6


[/w3svc/3/root/dept/op/designservices]
[/w3svc/3/root/dept/op/designservices/d539]
KeyType                        : (STRING) "IIsWebVirtualDir"
AppRoot                        : (STRING)
"/LM/W3SVC/3/Root/dept/op/designservices/d539"
AppFriendlyName                : (STRING) "d539"
AppIsolated                    : (BOOLEAN) False
AuthBasic                      : (BOOLEAN) True
AuthAnonymous                  : (BOOLEAN) False
AuthNTLM                       : (BOOLEAN) True
EnableDefaultDoc               : (BOOLEAN) True
DirBrowseShowDate              : (BOOLEAN) True
DirBrowseShowTime              : (BOOLEAN) True
DirBrowseShowSize              : (BOOLEAN) True
DirBrowseShowExtension         : (BOOLEAN) True
DirBrowseShowLongDate          : (BOOLEAN) False
AccessRead                     : (BOOLEAN) True
AccessWrite                    : (BOOLEAN) True
AccessExecute                  : (BOOLEAN) False
AccessScript                   : (BOOLEAN) True
AccessNoRemoteRead             : (BOOLEAN) False
AccessNoRemoteWrite            : (BOOLEAN) False
AccessNoRemoteExecute          : (BOOLEAN) False
AccessNoRemoteScript           : (BOOLEAN) False
EnableDirBrowsing              : (BOOLEAN) True
Path                           : (STRING) "\\nbnsdept3\d539"
```

```
UNCUserName                  : (STRING) "NBRSS\zziisconnect"
UNCPassword                  : (STRING) "zziisconnect"
AppWamClsid                  : (STRING) "{A21DF44A-8B2B-11D4-A13D-
0008C7CFA6BE}"
AccessFlags                  : (INTEGER) 515
DirBrowseFlags               : (INTEGER) -1073741794
AuthFlags                    : (INTEGER) 6



[/w3svc/3/root/dept/hr]
[/w3svc/3/root/dept/hr/benefits]
DefaultDoc                   : (STRING) "index.asp,Default.asp,Default.htm"

[/w3svc/3/root/dept/hr/secure]
AuthBasic                    : (BOOLEAN) True
AuthAnonymous                : (BOOLEAN) False
AuthNTLM                     : (BOOLEAN) True
DefaultLogonDomain           : (STRING) "Nbrss"
AuthFlags                    : (INTEGER) 6


[/w3svc/3/root/dept/finance]
[/w3svc/3/root/dept/finance/policy]
EnableDefaultDoc             : (BOOLEAN) True
DirBrowseShowDate            : (BOOLEAN) True
DirBrowseShowTime            : (BOOLEAN) True
DirBrowseShowSize            : (BOOLEAN) True
DirBrowseShowExtension       : (BOOLEAN) True
DirBrowseShowLongDate        : (BOOLEAN) False
EnableDirBrowsing            : (BOOLEAN) True
DirBrowseFlags               : (INTEGER) -1073741794


[/w3svc/3/root/dept/bprit]
[/w3svc/3/root/dept/bprit/dcom]
[/w3svc/3/root/dept/bprit/dcom/server_map]
EnableDefaultDoc             : (BOOLEAN) True
DirBrowseShowDate            : (BOOLEAN) True
DirBrowseShowTime            : (BOOLEAN) True
DirBrowseShowSize            : (BOOLEAN) True
DirBrowseShowExtension       : (BOOLEAN) True
DirBrowseShowLongDate        : (BOOLEAN) False
EnableDirBrowsing            : (BOOLEAN) True
DirBrowseFlags               : (INTEGER) -1073741794

[/w3svc/3/root/dept/bprit/dcom/oracle]
[/w3svc/3/root/dept/bprit/dcom/oracle/doc]
[/w3svc/3/root/dept/bprit/dcom/oracle/doc/816]
DefaultDoc                   : (STRING) "Default.asp,Default.htm,index.htm"



[/w3svc/3/root/dept/it]
KeyType                      : (STRING) "IIsWebVirtualDir"
AppRoot                      : (STRING) "/LM/W3SVC/3/Root/dept/it"
AppFriendlyName              : (STRING) "it"
AppIsolated                  : (BOOLEAN) False
EnableDefaultDoc             : (BOOLEAN) True
DirBrowseShowDate            : (BOOLEAN) True
DirBrowseShowTime            : (BOOLEAN) True
DirBrowseShowSize            : (BOOLEAN) True
DirBrowseShowExtension       : (BOOLEAN) True
DirBrowseShowLongDate        : (BOOLEAN) False
AccessRead                   : (BOOLEAN) True
AccessWrite                  : (BOOLEAN) False
AccessExecute                : (BOOLEAN) False
AccessScript                 : (BOOLEAN) True
AccessNoRemoteRead           : (BOOLEAN) False
AccessNoRemoteWrite          : (BOOLEAN) False
AccessNoRemoteExecute        : (BOOLEAN) False
AccessNoRemoteScript         : (BOOLEAN) False
EnableDirBrowsing            : (BOOLEAN) False
Path                         : (STRING) "D:\Inetpub\wwwroot\nextweb\dept\bprit"
AppWamClsid                  : (STRING) "{FCA95B9B-34DB-11D4-A13B-
0008C7CFA6BE}"
AccessFlags                  : (INTEGER) 513
DirBrowseFlags               : (INTEGER) 1073741854
```

```
[/w3svc/3/root/platforms]
[/w3svc/3/root/platforms/wcd]
[/w3svc/3/root/platforms/wcd/wcdma]
EnableDefaultDoc               : (BOOLEAN) True
DirBrowseShowDate              : (BOOLEAN) True
DirBrowseShowTime              : (BOOLEAN) True
DirBrowseShowSize              : (BOOLEAN) True
DirBrowseShowExtension         : (BOOLEAN) True
DirBrowseShowLongDate          : (BOOLEAN) False
EnableDirBrowsing              : (BOOLEAN) True
DirBrowseFlags                 : (INTEGER) -1073741794
[/w3svc/3/root/platforms/wcd/wcdma/restricted]
AuthBasic                      : (BOOLEAN) True
AuthAnonymous                  : (BOOLEAN) False
AuthNTLM                       : (BOOLEAN) True
AuthFlags                      : (INTEGER) 6




[/w3svc/3/root/tapintoyourfuture]
KeyType                        : (STRING) "IIsWebVirtualDir"
AppFriendlyName                : (STRING) "Default Application"
EnableDefaultDoc               : (BOOLEAN) True
DirBrowseShowDate              : (BOOLEAN) True
DirBrowseShowTime              : (BOOLEAN) True
DirBrowseShowSize              : (BOOLEAN) True
DirBrowseShowExtension         : (BOOLEAN) True
DirBrowseShowLongDate          : (BOOLEAN) False
AccessRead                     : (BOOLEAN) True
AccessWrite                    : (BOOLEAN) False
AccessExecute                  : (BOOLEAN) False
AccessScript                   : (BOOLEAN) True
AccessNoRemoteRead             : (BOOLEAN) False
AccessNoRemoteWrite            : (BOOLEAN) False
AccessNoRemoteExecute          : (BOOLEAN) False
AccessNoRemoteScript           : (BOOLEAN) False
HttpRedirect                   : (STRING)
"/dept/hr/projects/tapintoyourfuture,EXACT_DESTINATION, "
EnableDirBrowsing              : (BOOLEAN) False
Path                           : (STRING)
"D:\Inetpub\wwwroot\nextweb\dept\hr\projects\tapintoyourfuture"
AccessFlags                    : (INTEGER) 513
DirBrowseFlags                 : (INTEGER) 1073741854

[/w3svc/3/root/eBusiness]
AppRoot                        : (STRING) "/LM/W3SVC/3/Root/eBusiness"
AppFriendlyName                : (STRING) ""
AppIsolated                    : (BOOLEAN) False
AppWamClsid                    : (STRING) "{9C6071B2-10AD-11D4-A13B-
0008C7CFA6BE}"

[/w3svc/3/root/rise]
KeyType                        : (STRING) "IIsWebVirtualDir"
AppRoot                        : (STRING) "/LM/W3SVC/3/Root/rise"
AppFriendlyName                : (STRING) "rise"
AppIsolated                    : (BOOLEAN) False
EnableDefaultDoc               : (BOOLEAN) True
DirBrowseShowDate              : (BOOLEAN) True
DirBrowseShowTime              : (BOOLEAN) True
DirBrowseShowSize              : (BOOLEAN) True
DirBrowseShowExtension         : (BOOLEAN) True
DirBrowseShowLongDate          : (BOOLEAN) False
AccessRead                     : (BOOLEAN) True
AccessWrite                    : (BOOLEAN) False
AccessExecute                  : (BOOLEAN) False
AccessScript                   : (BOOLEAN) True
AccessNoRemoteRead             : (BOOLEAN) False
AccessNoRemoteWrite            : (BOOLEAN) False
AccessNoRemoteExecute          : (BOOLEAN) False
AccessNoRemoteScript           : (BOOLEAN) False
HttpRedirect                   : (STRING) "/dept/hr/projects/rise,CHILD_ONLY, "
EnableDirBrowsing              : (BOOLEAN) False
Path                           : (STRING)
"D:\Inetpub\wwwroot\nextweb\dept\hr\projects\rise"
AppWamClsid                    : (STRING) "{DC8BCA86-4F21-11D4-A13B-
0008C7CFA6BE}"
AccessFlags                    : (INTEGER) 513
DirBrowseFlags                 : (INTEGER) 1073741854
```

```
dmpw3stage.cmd:
@echo on

dmpvdir.vbs w3svc/1/root/imparto
dmpvdir.vbs w3svc/1/root/JobAdmin
dmpvdir.vbs w3svc/1/root/Mail
dmpvdir.vbs w3svc/1/root/News
dmpvdir.vbs w3svc/1/root/PressAdmin
dmpvdir.vbs w3svc/1/root/secure
dmpvdir.vbs w3svc/1/root/servlet
dmpvdir.vbs w3svc/1/root/SiteServer
dmpvdir.vbs w3svc/1/root/Sites
dmpvdir.vbs w3svc/1/root/TechAdmin

dmpvdir.vbs w3svc/3/root/dept
dmpvdir.vbs w3svc/3/root/dept/scm
dmpvdir.vbs w3svc/3/root/dept/scm/admin
dmpvdir.vbs w3svc/3/root/dept/op
dmpvdir.vbs w3svc/3/root/dept/op/scm
dmpvdir.vbs w3svc/3/root/dept/op/scm/admin
dmpvdir.vbs w3svc/3/root/dept/op/designservices
dmpvdir.vbs w3svc/3/root/dept/op/designservices/d539
dmpvdir.vbs w3svc/3/root/dept/hr
dmpvdir.vbs w3svc/3/root/dept/hr/benefits
dmpvdir.vbs w3svc/3/root/dept/hr/secure
dmpvdir.vbs w3svc/3/root/dept/finance
dmpvdir.vbs w3svc/3/root/dept/finance/policy
dmpvdir.vbs w3svc/3/root/dept/bprit
dmpvdir.vbs w3svc/3/root/dept/bprit/dcom
dmpvdir.vbs w3svc/3/root/dept/bprit/dcom/server_map
dmpvdir.vbs w3svc/3/root/dept/bprit/dcom/oracle
dmpvdir.vbs w3svc/3/root/dept/bprit/dcom/oracle/doc
dmpvdir.vbs w3svc/3/root/dept/bprit/dcom/oracle/doc/816
dmpvdir.vbs w3svc/3/root/dept/it
dmpvdir.vbs w3svc/3/root/platforms
dmpvdir.vbs w3svc/3/root/platforms/wcd
dmpvdir.vbs w3svc/3/root/platforms/wcd/wcdma
dmpvdir.vbs w3svc/3/root/tapintoyourfuture
dmpvdir.vbs w3svc/3/root/eBusiness
dmpvdir.vbs w3svc/3/root/rise
```

```
setw3stage.cmd:
@echo ON
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_imparto.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_JobAdmin.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_Mail.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_News.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_PressAdmin.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_secure.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_servlet.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_SiteServer.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_Sites.TXT
cscript setvdir.vbs STAGEWEB_w3svc_1_ROOT_TechAdmin.TXT

cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_scm.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_scm_admin.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_op.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_op_scm.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_op_scm_admin.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_op_designservices.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_op_designservices_d539.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_hr.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_hr_benefits.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_hr_secure.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_finance.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_finance_policy.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_bprit.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_bprit_dcom.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_bprit_dcom_server_map.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_bprit_dcom_oracle.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_bprit_dcom_oracle_doc.TXT
cscript setvdir.vbs
STAGEWEB_w3svc_3_ROOT_dept_bprit_dcom_oracle_doc_816.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_dept_it.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_platforms.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_platforms_wcd.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_platforms_wcd_wcdma.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_tapintoyourfuture.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_eBusiness.TXT
cscript setvdir.vbs STAGEWEB_w3svc_3_ROOT_rise.TXT
```

```
Microsoft Diagnostics Report For \\stageweb
------------------------------------------------------------

OS Version Report
------------------------------------------------------------
Microsoft (R) Windows NT (TM) Server
Version 4.0 (Build 1381): Service Pack 5 x86 Multiprocessor Free
Registered Owner: Administrator, Conexant System Inc.
Product Number: 50370-111-1111111-73733
------------------------------------------------------------

System Report
------------------------------------------------------------
System: COMPAQ SYMMETRIC SYSTEMPRO
Hardware Abstraction Layer: MPS 1.4 - APIC platform
BIOS Date: 12/30/98
BIOS Version: <unavailable>

Processor list:
   0:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
   1:  x86 Family 6 Model 1 Stepping 9 GenuineIntel ~200 Mhz
------------------------------------------------------------

Video Display Report
------------------------------------------------------------
BIOS Date: 11/16/95
BIOS Version: CL-GD5440 VGA BIOS Version 1.06

Adapter:
   Setting: 1024 x 768 x 256
            70 Hz
   Type: cirrus compatible display adapter
   String: Cirrus Logic Compatible
   Memory: 1 MB
   Chip Type: CL 5430
   DAC Type: Integrated RAMDAC
Driver:
   Vendor: <not available from remote connection>
   File(s): cirrus.sys, idisntkm.dll, vga.dll, rp32ntv2.dll,
idisntkm.dll, vga256.dll, idisntkm.dll, vga64K.dll
   Version: <not available from remote connection>




Services Report
------------------------------------------------------------
Alerter                                       Running   (Automatic)
Network Associates Alert Manager              Running   (Automatic)
Site Server Authentication Service            Running   (Automatic)
Computer Browser                              Running   (Automatic)
SMS Client Service                            Running   (Automatic)
Compaq NIC Management Agents                  Running   (Automatic)
Compaq Remote Monitor Service                 Running   (Automatic)
Insight Web Agent                             Running   (Automatic)
Compaq Enhanced IMD Idle Screen               Running   (Automatic)
Insight Host Agents                           Running   (Automatic)
Insight Server Agents                         Running   (Automatic)
Insight Storage Agents                        Running   (Automatic)
Site Server Content Deployment                Running   (Automatic)
EventLog (Event log)                          Running   (Automatic)
IIS Admin Service                             Running   (Manual)
Imparto Web Marketing Suite Gatekeeper        Running   (Automatic)
Imparto Web Marketing Suite Server            Running   (Automatic)
Server                                        Running   (Automatic)
Workstation (NetworkProvider)                 Running   (Automatic)
License Logging Service                       Running   (Automatic)
TCP/IP NetBIOS Helper                         Running   (Automatic)
Network Associates McShield                   Running   (Automatic)
Network Associates Task Manager               Running   (Automatic)
Messenger                                     Running   (Automatic)
FTP Publishing Service                        Running   (Automatic)
```

```
Microsoft Search                              Running   (Automatic)
MSSQLServer                                   Running   (Automatic)
NetBackup Client Service                      Running   (Automatic)
Net Logon (RemoteValidation)                  Running   (Automatic)
NT LM Security Support Provider               Running   (Manual)
VisiBroker Smart Agent                        Running   (Automatic)
Plug and Play (PlugPlay)                      Running   (Automatic)
Protected Storage                             Running   (Automatic)
Rconsvc                                       Running   (Automatic)
Remote Procedure Call (RPC) Locator           Running   (Automatic)
Remote Procedure Call (RPC) Service           Running   (Automatic)
Task Scheduler                                Running   (Automatic)
SNMP                                          Running   (Automatic)
Spooler (SpoolerGroup)                        Running   (Automatic)
Surveyor                                      Running   (Automatic)
Compaq System Shutdown Service                Running   (Automatic)
World Wide Web Publishing Service             Running   (Automatic)
VNC Server                                    Running   (Automatic)
SMS Remote Control Agent                      Running   (Automatic)



Drivers Report
------------------------------------------------------------
AFD Networking Support Environment (TDI)      Running   (Automatic)
atapi (SCSI miniport)                         Running   (Boot)
Beep (Base)                                   Running   (System)
Cdfs (File system)                            Running   (Disabled)
Cdrom (SCSI CDROM Class)                      Running   (System)
cirrus (Video)                                Running   (System)
Compaq Network Management Protocol Driver (Extended Base) Running
(Automatic)
cpq32fs2 (SCSI miniport)                      Running   (Boot)
Cpqarray (SCSI miniport)                      Running   (Boot)
Compaq NetFlex-3 Driver (NDIS)                Running   (Automatic)
Compaq SCSI Device Monitor (Filter)           Running   (Boot)
cpqsmgrk (System Bus Extender)                Running   (Boot)
Disk (SCSI Class)                             Running   (Boot)
Fastfat (Boot file system)                    Running   (Disabled)
Floppy (Primary disk)                         Running   (System)
HalHook                                       Running   (Manual)
i8042 Keyboard and PS/2 Mouse Port Driver (Keyboard Port) Running
(System)
Keyboard Class Driver (Keyboard Class)        Running   (System)
SMS Remote Control Keyboard Driver (Keyboard Port) Running   (System)
KSecDD (Base)                                 Running   (System)
Mouse Class Driver (Pointer Class)            Running   (System)
Msfs (File system)                            Running   (System)
Mup (Network)                                 Running   (Manual)
NaiFiltr                                      Running   (Manual)
NaiFsRec                                      Running   (Boot)
Microsoft NDIS System Driver (NDIS)           Running   (System)
NetBIOS Interface (NetBIOSGroup)              Running   (Manual)
WINS Client(TCP/IP) (PNP_TDI)                 Running   (Automatic)
Npfs (File system)                            Running   (System)
Ntfs (File system)                            Running   (Disabled)
Null (Base)                                   Running   (System)
Open Transaction Manager (Filter)             Running   (Boot)
Parallel (Extended base)                      Running   (Automatic)
Parport (Parallel arbitrator)                 Running   (Automatic)
ParVdm (Extended base)                        Running   (Automatic)
Rdr (Network)                                 Running   (Manual)
Rp32Spin                                      Running   (System)
Rp32Wire                                      Running   (Automatic)
Serial (Extended base)                        Running   (Automatic)
smbios                                        Running   (Automatic)
Special Purpose Utility Driver                Running   (Manual)
Srv (Network)                                 Running   (Manual)
Compaq System Management Driver (System Management) Running
(System)
TCP/IP Service (PNP_TDI)                      Running   (Automatic)
```

```


Environment Report
------------------------------------------------------------



System Environment Variables

CLASSPATH=%WMS_CLASSPATH%;%VISIBROKER_CLASSPATH%;%WEBLOGIC_CLASSPATH%
   ComSpec=C:\WINNT\system32\cmd.exe
   HOME=X:/
   INCLUDE=D:\APPS\MTS\Include
   LIB=D:\APPS\MTS\Lib
   NUMBER_OF_PROCESSORS=2
   OS=Windows_NT
   Os2LibPath=C:\WINNT\system32\os2\dll;
   OSAGENT_ADDR=157.152.183.228
   OSAGENT_PORT=14014

Path=D:\Oracle\Ora805\bin;D:\Oracle\Ora81\bin;d:\apps\Inprise\vbroker
\bin;d:\mksnt;C:\PROGRA~1\Oracle\jre\1179F4~1.7\bin;C:\WINNT\system32
;C:\WINNT;D:\APPS\MTS;D:\MSSQL7\BINN;D:\MICROS~1\bin;C:\WINNT\System3
2\WBEM;%WMS_PATH%;C:\PATROL3-3\bin;C:\PATROL3-3\utils;C:\Program
Files\Common Files\Network Associates\VirusScan Engine\4.0.xx\
   PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.JS;.VBE;.JSE;.WSF;.WSH
   PROCESSOR_ARCHITECTURE=x86
   PROCESSOR_IDENTIFIER=x86 Family 6 Model 1 Stepping 9, GenuineIntel
   PROCESSOR_LEVEL=6
   PROCESSOR_REVISION=0109
   ROOTDIR=d:/
   SHELL=d:/mksnt/sh.exe
   SMS_LOCAL_DIR=C:\WINNT
   TMPDIR=C:/TEMP

VISIBROKER_CLASSPATH=d:\apps\Inprise\vbroker\lib\vbjorb.jar;d:\apps\I
nprise\vbroker\lib\vbjapp.jar;d:\apps\Inprise\vbroker\lib\vbjtools.ja
r;d:\apps\Inprise\vbroker\lib\vbjgk.jar

WEBLOGIC_CLASSPATH=d:\apps\Imparto\WMS2.0\java\weblogic\mssqlserver4\
classes
   windir=C:\WINNT

WMS_CLASSPATH=.;d:\apps\Imparto\WMS2.0;d:\apps\Imparto\WMS2.0\SiteDri
ver;d:\apps\Imparto\WMS2.0\java\ijc\classes.zip;d:\apps\Imparto\WMS2.
0\java\ifc\classes;d:\apps\Imparto\WMS2.0\java\javamail;d:\apps\Impar
to\WMS2.0\java\javachart;d:\apps\Imparto\WMS2.0\java\gnu\lib\gnu108.j
ar;d:\apps\Imparto\WMS2.0\java\jsdk2.1\servlet.jar;d:\apps\Imparto\WM
S2.0\java\jsdk2.1\server.jar;d:\apps\Imparto\WMS2.0\java\jdk1.2\jre\l
ib\rt.jar
   WMS_HOME=d:\apps\Imparto\WMS2.0

WMS_PATH=d:\apps\Imparto\WMS2.0\bin;d:\apps\Imparto\WMS2.0\java\jdk1.
2\bin;d:\apps\Imparto\WMS2.0\java\jdbc\lib
   PATROL_HOME=C:\PATROL3-3\
   PATROL_ADMIN=NBRSS\zzpatrol
   PATROL_TEMP=C:\PATROL3-3\tmp



Network Report
------------------------------------------------------------
Your Access Level: Admin
Workgroup or Domain: NBRSS
Network Version: 4.0
LanRoot: NBRSS
Logged On Users: 15
Current User (1): zzMcAfee
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (2): stageadmin
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (3): SMSCliSvcAcct&
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (4): SMSCliToknAcct&
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (5): Administrator
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (6): IWAM_STAGEWEB
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (7): MTS Administrator
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (8): Administrator
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (9): Administrator
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (10): Administrator
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (11): huangg
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (12): yehjc
  Logon Domain: NBRSS
  Logon Server: NBNSPDC
Current User (13): Administrator
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (14): zzSiteServer
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB
Current User (15): zzSiteServer
  Logon Domain: STAGEWEB
  Logon Server: STAGEWEB

Transport: NetBT_CpqNF31, 00-08-C7-CF-A6-BE, VC's: 1, Wan: Wan

Character Wait: 3,600
```

```
Collection Time: 250
Maximum Collection Count: 16
Keep Connection: 600
Maximum Commands: 5
Session Time Out: 45
Character Buffer Size: 512
Maximum Threads: 17
Lock Quota: 6,144
Lock Increment: 10
Maximum Locks: 500
Pipe Increment: 10
Maximum Pipes: 500
Cache Time Out: 40
Dormant File Limit: 45
Read Ahead Throughput: 4,294,967,295
Mailslot Buffers: 3
Server Announce Buffers: 20
Illegal Datagrams: 5
Datagram Reset Frequency: 60
Bytes Received: 311,880,776
SMB's Received: 274,957
Paged Read Bytes Requested: 35,523,584
Non Paged Read Bytes Requested: 15,856,181
Cache Read Bytes Requested: 2,164,499
Network Read Bytes Requested: 40,946,707
Bytes Transmitted: 23,744,515
SMB's Transmitted: 232,760
Paged Read Bytes Requested: 65,536
Non Paged Read Bytes Requested: 158,136
Server File Opens: 396,502
.
.
Directory Report
------------------------------------------------------------

 Directory of \\stageweb\c$\apps

[.]                 [ControlIT]         [SA-FileUp]
[..]                [dtSearch]          [VERITAS]
[CA]                [Remotely Possible] [WinVNC]
               9 File(s)              0 bytes
                          2,432,632,320 bytes free
```

```
 Directory of \\stageweb\c$\program files

[.]                         [Outlook Express]
[..]                        [Plus!]
[Common Files]              [Windows Media Player]
[Microsoft Script Debugger] [Windows NT]
[Network Associates]        [WindowsUpdate]
[Oracle]
              11 File(s)              0 bytes
                          2,432,632,320 bytes free


 Directory of \\stageweb\c$\WINNT\Profiles\All Users\Start
Menu\Programs

[.]                             [Network Associates]
[..]                            [Oracle - OraHome81]
[Administrative Tools (Common)] [Oracle for Windows NT]
[CA Registration]               [Oracle Installation Products]
[Clarify]                       [Remotely Possible 32]
[Compaq System Tools]           [SoftArtisans SA-FileUp]
[Imparto Web Marketing Suite]   [Startup]
[Microsoft Site Server]         [VisiBroker]
[Microsoft SQL Server - Switch] [Windows NT 4.0 Option Pack]
[Microsoft SQL Server 7.0]      [WinZip]
[NetBackup]
              21 File(s)              0 bytes
                          2,432,632,320 bytes free


 Directory of \\stageweb\d$\apps

[.]                   [Inprise]             [PATROL3-3]
[..]                  [Microsoft FrontPage] [WinZip]
[BrowserHawk]         [Microsoft Internet]
[CA]                  [MTS]
[Imparto]             [Network Associates]
              12 File(s)              0 bytes
                         16,525,979,648 bytes free
```

2.2.12. rssnet

Name: rssnet.nb.conexant.com
Address: 157.152.183.247

2.2.12.1. migration report > npbintranet1

The web directories (paths) below were accessed in November and contact is being made by marketing to the users listed in the migration report to determine if the webs need to be migrated.

Migration Report – rssnet

locagroup	Access Date	Path	Members
bpr-it	11/30/2000	\div\bpr-it	hayesdj(Hayes Donna)
network_comm an_wan sd	11/30/2000	\div\bpr-it\network_comm\an_wan\sd	ballespf(Pepe Ballesteros), edgeap(Alvin Edge), kinseyb(Beau Kinseyb), carriebb(Ben Carrier), SDIS\cherry
bpr-it training	11/30/2000	\div\bpr-it\training	dwyersa(Sharon Dwyer), perezrm(Donna Perez), russelm(Mark Russell),
div comm honor_pgm	12/12/2000	\div\comm\honer_pgm	dawsonjk(Jim Dawson)
div finance	11/30/2000	\div\finance	barnesjw(John Barnes), hibbenvm(Veronica Hibben), tant(Thavery Tan),
finance accounting	11/30/2000	\div\finance\accounting	cookrd(Raymond Cook), martintd(David Martinez), reesesk(Symm Reese), tant(Thavery Tan), SDIS\felicia
hr safety	12/5/2000	\div\hr\safety	goochms(Michael Gooch), izaguila(Leigh Izaquirre), moscheek(Eric Moschet), nortonk(Kathy Norton),
div nad	12/1/2000	\div\nad	poneb(Bob Pone), alis(Ali Schlichting), davej(Dave Johnson), hensonjv(Jim Henson), SDIS\KARENC
div nad ads	12/13/2000	\div\nad\ads	nguyenmv(My Nguyen),
app_support	12/14/2000	\div\nad\app_support	HARLEY(Harley Holub),
div nad cd	11/30/2000	\div\nad\cd	defeo(Paul Defeo), poneb(Bob Pone),
div operations foundry	11/30/2000	\div\operations\foundry	dorsimj(Michael Dorsi), ekambasr(Shankar Ekambaram), jacksobn(Brian Jackson), mazurm(Mindy Mazur),
operations pecab	11/30/2000	\div\operations\pecab	chene(Elsa Chen), claudigg(Gordon Claudius), elkinspc(Pat Elkins), katariv(Vinod Kataria), NBRSS\meiqm
operations process_engr cmp	11/30/2000	\div\operations\process_engr\cmp	visserjd(Jeffrey Visser),
operations process_engr photo	12/7/2000	\div\operations\process_engr\photo	giacchjm(Jeff Giacchetto), leejj(Jasopn Lee),
operations process_engr sd	11/30/2000	\div\operations\process_engr\sd	coy(Bob Coy),
div operations san_diego	11/30/2000	\div\operations\san_diego	aladro(Felipe Aladro), alis(Ali Schlichting), almaz(Almaz Bakit), batuhan(Julie Batuhan), bonniej(Bonnie
div operations subcontract	11/30/2000	\div\operations\subcontract	fazioc (Clay Fazio)
div operations yied_engr	12/1/2000	\div\operations\yied_engr	hurwitpd(Paul Hurwitz), keelersj(Steve Keeler), kinmanpk(Peter Kinman), parkerge(George Parker),
div pcd marketing ads	11/30/2000	\div\pcd\marketing\ads	chud(David Chud), demossjc(Jeffrey Demoss), gottlije(Jay Gottlieb), songyh(Yong Song), NBRSS\yangjc
div pcd marketing audio_modem	12/7/2000	\div\pcd\marketing\audio_modem	foleym(Michael Foley),
div pcd marketing techdoc	12/5/2000	\div\pcd\marketing\techdoc	rustjc(Jerry Rust), stowra(Bob Stow),
div pcd sys_engr	12/11/2000	\div\pcd\sys_engr	andershr(Dick Andershr),
div pid	12/18/2000	\div\pid	bonnelrj(Rex BOnnell), paip(Prasen Pai),
saes	12/1/2000	\div\saes	gussbr(Brad Guss), jueh(Eileen Ju), myerstm(Tim Myers), stockje(James Stock),
div saes audio	11/30/2000	\div\saes\audio	demossjc(Jeffrey Demoss), wihardjw(James Wihardja), yangjc(Jennifer Yang), yangsb(Stewart Yang),
saes wwq	12/11/2000	\div\saes\wwq	felkergl(Gary Felker),
div wcd	12/4/2000	\div\wcd	fregosr(Roberto Freqoso),
wcd gps	12/5/2000	\div\wcd\gps	blairjw(John Blair),
div wcd gsm	12/6/2000	\div\wcd\gsm	blairjw(John Blair), NBRSS\omahond
div wcd rfic_design	11/30/2000	\div\wcd\rfic_design	barrowel(Elaine Barrows),
wcd sd	12/20/2000	\div\wcd\sd	mreese(Michael Reese),
fun cub hang_giding	12/1/2000	\fun\cub\hang_giding	gerbers(Shawn Gerber), hamannfc(Frank Hamann),
Toast Master	12/1/2000	\fun\cub\toastmaster	beamesm(Micael Beames), CARLB(Carl Browing), ROLY(Roland Jones),
project epaso_sap	12/1/2000	\project\epaso_sap	petzergn(Gary petzer)
project rosie	11/30/2000	\project\rosie	ksb(Kalpana Bartlett), leor(Leo Rodriguez), shafiea(Abdolreza Shafie),

project sap_inbound	12/18/2000	\project\sap_inbound	petzergn(Gary petzer),
project y2k	12/11/2000	\project\y2k	rosebl(Bob Rose),
site herzia	11/30/2000	\site\herzia	PCDDVT(PCD Production Account)
site tokyo	11/30/2000	\site\tokyo	HarigPB(Paul Harig), taniguk(Kanako Taniquchi),

2.3. Applications

Applications/Servers Table

Applications\Server			clarify	clarify2	nbcbsapps1	nbcbsapps2	nbextricity	nbfinance1	nbnsops1	nbnstrain1	nbnsweb07	nbtsmc	nextweb	stageweb
Adobe Acrobat Reader	CC	[Adobe Acrobat]		x									x	x
Avalan		[Avalan]		x				x		x			x	
Browser hawk		[BrowserHawk]											x	x
Cold Fusion Server		[ColdFusion Server 4.0]								x				
CA		[CA Registration], [CA]												x
Clarify eFrontOffice 9	LT+Puneet	[Clarify eFrontOffice]	x	x										x
Clarify Server	LT+Puneet	[Clarify Server]	x	x										x
ClearExpress WebAdmin App Server	LT+Puneet	[ClearExpress WebAdmin App Server]	x	x										x
ClearExpress WebAdmin Proxy	LT+Puneet	[ClearExpress WebAdmin Proxy]		x										x
ClearExpress WebSupport App Server	LT+Puneet	[ClearExpress WebSupport App Server]	x	x										x
ClearExpress WebSupport Proxy	LT+Puneet	[ClearExpress WebSupport Proxy]		x										x
Content Analyzer	CC	[Content Analyzer Express]		x				x		x	x		x	
Control IT	NTadmin	[ControlIT]			x	x					x			x
Developer 2000		[Developer 2000 for NT]						x						
Fulcrum Full Text Search Engine	LT+Puneet	[Fulcrum]	x	x										x
Imparto Web Marketing Suite		[Imparto Web Marketing Suite]												x
Jet Form		[JetForm Central]						x						
Map Info		[MapInfo MapX]	x	x										
Mark Vis		[MarkVis]			x								x	
McAfee Virus Scan/Shield	NTadmin	[mcafee]	x		x			x		x		x		x
MS Office	Ntadmin+CC	[office2000]	x		x	x					x			
MS FronPage	Ntadmin+CC	[Microsoft FrontPage]		x	x	x		x		x	x		x	
MS IE 4.01 + SP 2	Ntadmin+CC	[Microsoft Internet]						x						x
MS IS	Ntadmin+CC	[Microsoft Internet Server (Common)]						x						
MS Option Pack -- IIS 4.0	Ntadmin+CC	[Windows NT 4.0 Option Pack]		x	x	x	x			x			x	x
MS Site Server Express 3.0	CC	[Microsoft Site Server]												x
MS Site Server 3.0	HH+JY	[Microsoft Site Server]												x
MS SQL 7.0	SP	[Microsoft SQL Server 7.0]	x	x							x			x
MKS Toolkit	LT+Puneet	[MKS Toolkit]	x	x							x			x
MTS	CC	[Mts]		x	x	x				x			x	x
Netscape Suitespot	CC	[Netscape SuiteSpot]								x				
Network Associate ControlIt/RemotelyPossible		[Remotely Possible 32]	x					x		x	x	x	x	x
Network Associate Netshield	NTadmin	[Network Associates NetShield NT]	x					x						
Oracle Enterprise Manager	LL+CC	[Oracle Enterprise Manager]			x	x		x						
Oracke Developer		[Oracle Developer 6.0]												
Oracle Client	LL+CC	[Oracle for Windows NT]			x	x		x		x			x	x
Patrol	NTadmin+PH	[PATROL3-3]												x

Quantum		[quantum dlt7000 for NT4.0]						x						
SAP frontend		[SAP Frontend 3.1H]			x	x							x	
Seagate Crystal Report	LT+Puneet	[Seagate Crystal Reports]	x	x										x
SoftArtisans SA-FileUp	CC	[SoftArtisans SA-FileUp]												x
Veritas NetBackup	NTadmin	[VERITAS NetBackup]	x	x	x	x				x		x		x
Visibroker		[VisiBroker]												x
Visual Mining		[Visual Mining]						x						
VNC	NTadmin	[WinVNC]	x	x						x		x	x	x
WebTrends	CC	[WebTrends Enterprise Suite]									x		x	
WinZip 7.0	CC	[WinZip]		x	x	x		x			x			x
Zebra		[Zebra BAR-ONE v4.3]						x						

LT	Lan Ton	(x-7401)
Puneet	Puneet	(snehasis@ggn.hcltech.com)
SS	Shobha Pai	(x-6802)
CC	Calvin Chi	(x-6724)
HH	Hamid Heidari	(x-????)
JY	Justin Yeh	(x-1223)
NTadmin	common software	that NT admin should have installed
Ntadmin+CC	software	that NT admin is responsible, with a specific contact person

2.4. Directories

Applications/Directories Table

clarify	clarify2	nbcbsapps1	nbcbsapps2	nbfinance1
[Administrative Tools (Common)]	[Administrative Tools (Common)]	[Administrative Tools (Common)]	[Administrative Tools (Common)]	[Accessories]
[Clarify eFrontOffice]	[Adobe Acrobat 4.0]	[CA Registration]	[CA Registration]	[Analyzer]
[Clarify Server]	[Adobe]	[CA]	[CA]	[Common Files]
[ClearExpress WebAdmin App Server]	[Avalan]	[CA]	[CA]	[Compaq]
[ClearExpress WebSupport App Server]	[Clarify eFrontOffice]	[CMAK]	[CMAK]	[ComPlus Applications]
[Common Files]	[Clarify eFrontOffice9]	[Common Files]	[Common Files]	[essbase]
[Compaq System Tools]	[Clarify Server]	[Compaq System Tools]	[Compaq System Tools]	[Internet Explorer]
[Fulcrum]	[ClearExpress WebAdmin App Server]	[ControlIT]	[ControlIT]	[Microsoft FrontPage]
[HTML Help Workshop]	[ClearExpress WebAdmin Proxy]	[ICW-Internet Connection Wizard]	[ICW-Internet Connection Wizard]	[Microsoft Script Debugger]
[ICW-Internet Connection Wizard]	[ClearExpress WebSupport App Server]	[MarkVis]	[Java RFC]	[NetMeeting]
[MapInfo MapX]	[ClearExpress WebSupport Proxy]	[mcafee]	[mcafee]	[Network Associates]
[mcafee]	[Common Files]	[Microsoft FrontPage]	[Microsoft FrontPage]	[New Folder]
[Microsoft SQL Server 7.0]	[Compaq System Tools]	[Microsoft Script Debugger]	[Microsoft Script Debugger]	[Outlook Express]
[MKS Toolkit]	[Content Analyzer Express]	[MS Office Startup]	[MS Office Startup]	[Windows Media Player]
[Network Associates NetShield NT]	[Fulcrum]	[msoffice]	[msoffice]	[Windows NT]
[office2000]	[HTML Help Workshop]	[Mts]	[Mts]	[WindowsUpdate]
[Outlook Express]	[MapInfo MapX]	[NetBackup]	[NetBackup]	[WinVNC]
[Plus!]	[Microsoft FrontPage Express]	[NetDynamics 4.1]	[NetDynamics 4.1]	
[Remotely Possible 32]	[Microsoft FrontPage]	[NetDynamics]	[NetDynamics]	
[RP32]	[Microsoft SQL Server - Switch]	[Network Associates]	[Network Associates]	
[Seagate Crystal Reports]	[Microsoft SQL Server 7.0]	[Network Associates]	[Network Associates]	
[Seagate Software]	[MKS Toolkit]	[ODBC 3.0]	[ODBC 3.0]	
[Startup]	[Mts]	[Oracle Enterprise Manager]	[Oracle Enterprise Manager]	
[VERITAS NetBackup]	[NetMeetingNT]	[Oracle for Windows NT]	[Oracle for Windows NT]	
[veritas]	[network associates]	[Outlook Express]	[Outlook Express]	
[Veritas32]	[Network Associates]	[pba]	[pba]	
[VNC]	[ODBC]	[Plus!]	[Plus!]	
[Windows NT]	[office]	[SAP Frontend 3.1H]	[SAP Frontend 3.1H]	
[WinVNC]	[Outlook Express]	[Startup]	[Startup]	
	[Plus!]	[veritas]	[Veritas]	
	[Remotely Possible 32]	[Windows NT 4.0 Option Pack]	[Windows NT 4.0 Option Pack]	
	[Seagate Crystal Reports]	[Windows NT]	[Windows NT]	
	[Seagate Software]	[WinZip]	[WinZip]	
	[Startup]			
	[UA Express]			
	[VERITAS NetBackup]			
	[Web Publish]			

[Windows Media Player]
[Windows NT 4.0 Option Pack]
[Windows NT]
[WinVNC]
[WinZip]

nbnsops1

[Administrative Tools (Common)]
[Avalan]
[CIMU]
[Common Files]
[Compaq System Tools]
[Developer 2000 Comps for NT]
[Developer 2000 Doc for NT]
[Developer 2000 for NT]
[JetForm Central]
[Mcafee]
[mcafee]
[Microsoft Internet Server (Common)]
[NetBackup]
[Network Associates NetShield NT]
[Network Associates]
[Oracle Book]
[Oracle Developer 6.0 Demos]
[Oracle Developer 6.0 Doc]
[Oracle Developer 6.0]
[Oracle for Windows NT]
[Perl Resource Kit]
[Plus!]
[quantum dlt7000 for NT4.0]
[Remotely Possible 32]
[Remotely Possible]
[Startup]
[Veritas]
[Visual Mining]
[Visual Mining]
[Windows Media Player]
[Windows NT]
[WinZip]
[Zebra BAR-ONE v4.3]

nbnstrain1

[Administrative Tools (Common)]
[Altiris LabExpert 4]
[Avalan]
[CIMU]
[ColdFusion Server 4.0]
[Common Files]
[Compaq System Tools]
[Content Analyzer Express]
[Data Access]
[LabExpert]
[McAfee]
[Microsoft FrontPage]
[Microsoft Script Debugger]
[Microsoft SQL Server 6.5]
[Mts]
[NetBackup]
[Netscape SuiteSpot]
[Network Associates]
[NTRESKIT]
[ODBC]
[OpenVision]
[Oracle for Windows NT]
[Outlook Express]
[Plus!]
[Remotely Possible 32]
[Remotely Possible]
[SkillVantage]
[Startup]
[Syscom]
[TrainingServer 4.6.1]
[UA Express]
[Web Publish]
[Windows Media Player]
[Windows NT 4.0 Option Pack]
[Windows NT]
[Windows Script Encoder]
[WindowsUpdate]
[WinVNC]

nbnsweb07

[CMAK]
[Common Files]
[Content Analyzer Express]
[ControlIT]
[ICW-Internet Connection Wizard]
[Imparto]
[Macro Express]
[MarkVis]
[Microsoft Chat]
[Microsoft FrontPage Express]
[Microsoft FrontPage]
[Microsoft NetShow]
[Microsoft Office]
[Microsoft Script Debugger]
[Microsoft Site Server Express]
[mks]
[MSSQL]
[Mts]
[NetMeetingNT]
[Netscape]
[Netscape]
[Network Associates]
[Outlook Express]
[pba]
[Perl]
[Plus!]
[Plus!]
[Real]
[Remotely Possible]
[Small Wonders]
[UA Express]
[Veritas]
[Web Publish]
[WEBTREND]
[WebTrends Enterprise Suite]
[Windows NT]
[WindowsUpdate]
[WinZip]
[WS_FTP Pro]

nbtsmc

[Administrative Tools (Common)]
[Common Files]
[Compaq System Tools]
[Mcafee]
[NetBackup]
[Network Associates]
[Network Associates]
[NTRESKIT]
[Oracle - OraHome81]
[Oracle - oramanager]
[Oracle Installation Products]
[Oracle]
[oramanager]
[Plus!]
[Remotely Possible 32]
[RP32]
[Startup]
[VERITAS]
[Windows Media Player]
[Windows NT]
[WinVNC]

nextweb

[admin]
[Administrative Tools (Common)]
[Adobe Acrobat 4.0]
[Avalan]
[BrowserHawk]
[CMAK]
[Common Files]
[Compaq System Tools]
[Content Analyzer Express]
[dtSearch]
[Java RFC]
[MarkVis]
[Microsoft FrontPage]
[Microsoft Script Debugger]
[Microsoft Site Server]
[Mts]
[NetBackup]
[Network Associates]
[Oracle - OraHome81]
[Oracle]
[Outlook Express]
[pba]
[Plus!]
[Remotely Possible 32]
[Remotely Possible]
[SAP]
[Startup]
[UA Express]
[Veritas]
[Web Publish]
[Web Server Extensions]
[WebTrends Enterprise Suite]
[Windows Media Player]
[Windows NT 4.0 Option Pack]
[Windows NT]
[WindowsUpdate]
[WinVNC]

stageweb

[Administrative Tools (Common)]
[BrowserHawk]
[CA Registration]
[CA]
[CA]
[Clarify]
[Common Files]
[Compaq System Tools]
[ControlIT]
[dtSearch]
[Imparto Web Marketing Suite]
[Imparto]
[Inprise]
[Microsoft FrontPage]
[Microsoft Internet]
[Microsoft Script Debugger]
[Microsoft Site Server]
[Microsoft SQL Server - Switch]
[Microsoft SQL Server 7.0]
[MTS]
[NetBackup]
[Network Associates]
[Oracle - OraHome81]
[Oracle for Windows NT]
[Oracle Installation Products]
[Oracle]
[Outlook Express]
[PATROL3-3]
[Plus!]
[Remotely Possible 32]
[Remotely Possible]
[SA-FileUp]
[SoftArtisans SA-FileUp]
[Startup]
[VERITAS]
[VisiBroker]
[Windows Media Player]
[Windows NT 4.0 Option Pack]
[WinVNC]

3. SPIN OFF SERVERS

3.1. *External*

3.1.1. npbepoxy

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.1.2. npbproxy

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.1.3. npbbbs

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.1.4. npbrealvideo

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.1.5. npbnetpodium

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.1.6. npbftp1

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.1.6.1. iis report

3.1.6.1.1. ftp services

```
NPBFTP1_MSFTPSVC_1_ROOT.TXT
'Server Dump File
[/MSFTPSVC/1/ROOT]
KeyType                        : (STRING) "IIsFtpVirtualDir"
Path                        : (STRING) "D:\inetpub\ftproot"
AccessFlags                    : (INTEGER) 1
AccessRead                     : (BOOLEAN) True
AccessWrite                    : (BOOLEAN) False
[/MSFTPSVC/1/ROOT/3gpp2]
[/MSFTPSVC/1/ROOT/adpcm]
[/MSFTPSVC/1/ROOT/alcatel]
[/MSFTPSVC/1/ROOT/apptel]
[/MSFTPSVC/1/ROOT/asek]
[/MSFTPSVC/1/ROOT/aset]
[/MSFTPSVC/1/ROOT/atm]
[/MSFTPSVC/1/ROOT/bluetooth]
[/MSFTPSVC/1/ROOT/chasemellon]
[/MSFTPSVC/1/ROOT/compaq]
[/MSFTPSVC/1/ROOT/denali]
[/MSFTPSVC/1/ROOT/entridia]
[/MSFTPSVC/1/ROOT/huawei]
[/MSFTPSVC/1/ROOT/itu4k]
[/MSFTPSVC/1/ROOT/legal2]
[/MSFTPSVC/1/ROOT/lucent]
[/MSFTPSVC/1/ROOT/maker]
[/MSFTPSVC/1/ROOT/mosys]
[/MSFTPSVC/1/ROOT/novanet]
[/MSFTPSVC/1/ROOT/rok_collins]
[/MSFTPSVC/1/ROOT/satevk]
[/MSFTPSVC/1/ROOT/smc]
[/MSFTPSVC/1/ROOT/sonet]
[/MSFTPSVC/1/ROOT/sony]
[/MSFTPSVC/1/ROOT/syntest]
[/MSFTPSVC/1/ROOT/tong_hsing]
[/MSFTPSVC/1/ROOT/uwashington]
[/MSFTPSVC/1/ROOT/whitepine]
```

3.1.6.1.2. w3 services

```
NPBFTP1_W3SVC_1_ROOT.TXT
'Server Dump File
[/W3SVC/1/ROOT]
KeyType                    : (STRING) "IIsWebVirtualDir"
AppRoot                    : (STRING) "/LM/W3SVC/1/ROOT"
AppFriendlyName            : (STRING) "Default Application"
AppIsolated                : (INTEGER) 2
AccessRead                 : (BOOLEAN) True
AccessWrite                : (BOOLEAN) False
AccessExecute              : (BOOLEAN) False
AccessScript               : (BOOLEAN) True
AccessSource               : (BOOLEAN) False
AccessNoRemoteRead         : (BOOLEAN) False
AccessNoRemoteWrite        : (BOOLEAN) False
AccessNoRemoteExecute      : (BOOLEAN) False
AccessNoRemoteScript       : (BOOLEAN) False
HttpErrors                 : (LIST) (32 Items)
  "400,*,FILE,C:\WINNT\help\iisHelp\common\400.htm"
  "401,1,FILE,C:\WINNT\help\iisHelp\common\401-1.htm"
  "401,2,FILE,C:\WINNT\help\iisHelp\common\401-2.htm"
  "401,3,FILE,C:\WINNT\help\iisHelp\common\401-3.htm"
  "401,4,FILE,C:\WINNT\help\iisHelp\common\401-4.htm"
  "401,5,FILE,C:\WINNT\help\iisHelp\common\401-5.htm"
  "403,1,FILE,C:\WINNT\help\iisHelp\common\403-1.htm"
  "403,2,FILE,C:\WINNT\help\iisHelp\common\403-2.htm"
  "403,3,FILE,C:\WINNT\help\iisHelp\common\403-3.htm"
  "403,4,FILE,C:\WINNT\help\iisHelp\common\403-4.htm"
  "403,5,FILE,C:\WINNT\help\iisHelp\common\403-5.htm"
  "403,6,FILE,C:\WINNT\help\iisHelp\common\403-6.htm"
  "403,7,FILE,C:\WINNT\help\iisHelp\common\403-7.htm"
  "403,8,FILE,C:\WINNT\help\iisHelp\common\403-8.htm"
  "403,9,FILE,C:\WINNT\help\iisHelp\common\403-9.htm"
  "403,10,FILE,C:\WINNT\help\iisHelp\common\403-10.htm"
  "403,11,FILE,C:\WINNT\help\iisHelp\common\403-11.htm"
  "403,12,FILE,C:\WINNT\help\iisHelp\common\403-12.htm"
  "403,13,FILE,C:\WINNT\help\iisHelp\common\403-13.htm"
  "403,15,FILE,C:\WINNT\help\iisHelp\common\403-15.htm"
  "403,16,FILE,C:\WINNT\help\iisHelp\common\403-16.htm"
  "403,17,FILE,C:\WINNT\help\iisHelp\common\403-17.htm"
  "404,*,FILE,C:\WINNT\help\iisHelp\common\404b.htm"
  "405,*,FILE,C:\WINNT\help\iisHelp\common\405.htm"
  "406,*,FILE,C:\WINNT\help\iisHelp\common\406.htm"
  "407,*,FILE,C:\WINNT\help\iisHelp\common\407.htm"
  "412,*,FILE,C:\WINNT\help\iisHelp\common\412.htm"
  "414,*,FILE,C:\WINNT\help\iisHelp\common\414.htm"
  "500,12,FILE,C:\WINNT\help\iisHelp\common\500-12.htm"
  "500,13,FILE,C:\WINNT\help\iisHelp\common\500-13.htm"
  "500,15,FILE,C:\WINNT\help\iisHelp\common\500-15.htm"
  "500,100,URL,/iisHelp/common/500-100.asp"

FrontPageWeb               : (BOOLEAN) True
Path                       : (STRING) "D:\inetpub\wwwroot"
AccessFlags                : (INTEGER) 513
[/W3SVC/1/ROOT/Scripts]
```

```
[/W3SVC/1/ROOT/IISHelp]
[/W3SVC/1/ROOT/localstart.asp]
[/W3SVC/1/ROOT/IISAdmin]
[/W3SVC/1/ROOT/IISSamples]
[/W3SVC/1/ROOT/MSADC]
[/W3SVC/1/ROOT/_vti_bin]
[/W3SVC/1/ROOT/Printers]
[/W3SVC/1/ROOT/3gpp2]
[/W3SVC/1/ROOT/apptel]
[/W3SVC/1/ROOT/asek]
[/W3SVC/1/ROOT/aset]
[/W3SVC/1/ROOT/atm]
[/W3SVC/1/ROOT/entridia]
[/W3SVC/1/ROOT/huawei]
[/W3SVC/1/ROOT/itu4k]
[/W3SVC/1/ROOT/lucent]
[/W3SVC/1/ROOT/maker]
[/W3SVC/1/ROOT/mosys]
[/W3SVC/1/ROOT/novanet]
[/W3SVC/1/ROOT/satevk]
[/W3SVC/1/ROOT/sonet]
[/W3SVC/1/ROOT/sony]
[/W3SVC/1/ROOT/tong_hsing]
[/W3SVC/1/ROOT/uwashington]
```

3.2. *Internal*

3.2.1. npbclarify

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.2. npbclarify2

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.3. npbapps1

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.4. npbapps2

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.5. npbextricity

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.6. npbfinance1

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.7. npbsops1

Name: epoxy.conexant.com
Address: 198.62.8.39

Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.8. npbstrain1

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.9. npbtsmc

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.10. npbnextweb

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.11. npbintranet1

Name: epoxy.conexant.com
Address: 198.62.8.39
Available: 12/00
Operating Systems Install: 12/00
Application Installations: 12/00

3.2.11.1. iis report

3.2.11.1.1. ftp services

NPBFTP1_MSFTPSVC_1_ROOT.TXT

3.2.11.1.2. w3 services

NPBFTP1_W3SVC_1_ROOT.TXT

3.3. Configuration

4. DOCUMENTATION

4.1. Batch Files

4.1.1. CSR.bat

Conexant Server Report . batch file is used to query a server for it’s configuration information (using winmsd.exe built into NT) and it’s directory information (using the dir command) to list the installed applications on the server.

```
@echo off
rem \\nbnsweb02\share\csr.bar
rem
rem Conexant Server Report  in  %1.txt
rem
rem written by Gary Neshanian contracted from Kimtec on 11-15-00
rem

rem created temporary directory for msd report
mkdir ~csr~
cd ~csr~

rem run winmsd.exe, which is built into NT, and dumps in %1.txt
winmsd /s /f \\%1
rem find "Microsoft Diagnostics Report For \\" *.txt | find "\\"
move *.txt %1.txt

rem append a directory listing to the %1.txt
echo . >> %1.txt
echo . >> %1.txt
echo Directory Report >> %1.txt
echo ---------------------------------------------------------------------- >> %1.txt
dir /d "\\%1\c$\apps" | find /v "Volume" >> %1.txt
dir /d "\\%1\c$\program files"  | find /v "Volume" >> %1.txt
dir /d "\\%1\c$\WINNT\Profiles\All Users\Start Menu\Programs"  | find /v "Volume" >> %1.txt
dir /d "\\%1\d$\apps"  | find /v "Volume" >> %1.txt
dir /d "\\%1\d$\program files"  | find /v "Volume" >> %1.txt
dir /d "\\%1\e$\apps"  | find /v "Volume" >> %1.txt
dir /d "\\%1\e$\program files"  | find /v "Volume" >> %1.txt

rem move %1.txt back to shared drive for assimulation
del ..\%1.txt
move %1.txt ..
cd ..
rmdir ~csr~
dir %1.txt
:end
```

4.1.2. dif.bat

```
C:\>type dif.bat

Rem dif >dif.doc
Rem diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_3GPP2.TXT
NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_3GPP2.TXT

rem ftps
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ADPCM.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ADPCM.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ALCATEL.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ALCATEL.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_APPTEL.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_APPTEL.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ASEK.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ASEK.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ASET.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ASET.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ATM.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ATM.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_BLUETOOTH.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_BLUETOOTH.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_CHASEMELLON.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_CHASEMELLON.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_COMPAQ.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_COMPAQ.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_DATACAST.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_DATACAST.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_DENALI.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_DENALI.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_DESTDEVL.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_DESTDEVL.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_DNP.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_DNP.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ENTRIDIA.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ENTRIDIA.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_HDSL.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_HDSL.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_HUAWEI.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_HUAWEI.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ITU4K.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ITU4K.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_LEGAL2.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_LEGAL2.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_LUCENT.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_LUCENT.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_MAKER.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_MAKER.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_MOSYS.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_MOSYS.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_NOVANET.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_NOVANET.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ORCKIT.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ORCKIT.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_ROK_COLLINS.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_ROK_COLLINS.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_RS8973.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_RS8973.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SATEVK.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SATEVK.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SMC.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SMC.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SONET.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SONET.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SONY.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SONY.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SYMBIONICS.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SYMBIONICS.TXT
```

```
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_SYNTEST.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_SYNTEST.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_TONG_HSING.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_TONG_HSING.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_UWASHINGTON.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_UWASHINGTON.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_VVL.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_VVL.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_WHITEPINE.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_WHITEPINE.TXT
diff NBNSWEB07_MSFTPSVC/NBNSWEB07_MSFTPSVC_1_ROOT_3GPP2.TXT
        NPBFTP1_MSFTPSVC/NPBFTP1_MSFTPSVC_1_ROOT_3GPP2.TXT

rem webs
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_HUAWEI.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_HUAWEI.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_APPTEL.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_APPTEL.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ASEK.TXT        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ASEK.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ASET.TXT        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ASET.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ATM.TXT         NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ATM.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ENTRIDIA.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ENTRIDIA.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_3GPP2.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_3GPP2.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_ITU4K.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_ITU4K.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_LUCENT.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_LUCENT.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_MAKER.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_MAKER.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_MOSYS.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_MOSYS.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_NOVANET.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_NOVANET.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_SATEVK.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_SATEVK.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_SONET.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_SONET.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_SONY.TXT        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_SONY.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_TONG_HSING.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_TONG_HSING.TXT
diff NBNSWEB07_W3SVC/NBNSWEB07_W3SVC_1_ROOT_UWASHINGTON.TXT
        NPBFTP1_W3SVC/NPBFTP1_W3SVC_1_ROOT_UWASHINGTON.TXT

dir NBNSWEB07_MSFTPSVC
dir NPBFTP1_MSFTPSVC

dir NBNSWEB07_MSFTPSVC
dir NPBFTP1_W3SVC

type NBNSWEB07_MSFTPSVC\NBNSWEB07_MSFTPSVC_1_ROOT_ALCATEL.TXT
type NPBFTP1_MSFTPSVC\NPBFTP1_MSFTPSVC_1_ROOT_ALCATEL.TXT

type NBNSWEB07_MSFTPSVC\NBNSWEB07_MSFTPSVC_1_ROOT_APPTEL.TXT
type NPBFTP1_MSFTPSVC\NPBFTP1_MSFTPSVC_1_ROOT_APPTEL.TXT

type dif.bat
```

4.2. Doc Files

4.2.1. CSR.doc

Conexant Server Report. document file is a Microsoft Word template that the CSR.txt files can be inserted into to format the reports in a condensed form (2 column, 6 point) for summary reporting.
Is located in \\nbnsweb02\servers\csr.doc

4.3. Visual Basic

4.3.1. IIS Metabase Migration Utility

4.3.1.1. Program specifications

Requirements:

Provide a utility to Migrate IIS Configuration Settings (IIS METABASE) from a current server to a new server.
Provide a utility to enumerate properties of a selected node. (i.e. msftpsvc/1)
The utility has the option to traverse all sub nodes of a node and enumerate their properties. This must be down to the deepest level sub node. For example, all the sub-directories of a virtual directory node. (i.e. msftpsvc/1/root/virdir/folder)
The utility has the option to enumerate all the properties from the root node down to a specific node.
The utility must use ADSUTIL.VBS.
The utility must be a wrapper type program that will capture the output of ADSUTIL.VBS, massage the data and display onscreen and save to a dump file named by the user.
The dump file will be used to SET the configuration settings on the new IIS server.

Notes:

Use ENUMALL command of ADSUTIL to enumerate through all the node and sub node properties.
Use ENUM command of ADSUTIL to enumerate only the properties of a node including a listing of its sub nodes.

Specifications for Virtual Directories:

1. Create the wrapper script in VBS and allow the following arguments to be passed:
ENUMALL command
ADSPATH of Virtual Directory
Output File path and name
2. Create function in wrapper VBS to call ADSUTIL.VBS.
Pass the ENUMALL and ADSPATH arguments to ADSUTIL.VBS. i.e. **‘CSCRIPT ADSUTIL.VBS ENUMALL**
This will enumerate through all the properties of the IIS server
Capture raw output of ADSUTIL in a variable. I.e.

```
[/w3svc/1/ROOT]
KeyType                   : (STRING) "IIsWebVirtualDir"
AppRoot                   : (STRING) "/LM/W3SVC/1/ROOT"
AppFriendlyName           : (STRING) "Default Application"
AppIsolated               : (BOOLEAN) False
AccessRead                : (BOOLEAN) True
AccessWrite               : (BOOLEAN) False
AccessExecute             : (BOOLEAN) False
AccessScript              : (BOOLEAN) True
AccessNoRemoteRead        : (BOOLEAN) False
```

Add character “[/” and ADSPATH and character “]” to line above ‘KeyType’
Display raw data on screen.
Create Function to massage the raw data
For each path i.e. “[/adspath]” in the raw data.
Remove the “[/” and “]” from the path.
Add/Concatenate the characters “cscript.exe adsutil.vbs set” before to the path
For each property name, add/concatenate the path
Remove the “:” and “(value)”
Add/Concatenate the property value to the path/property name.
Do this for each sub node.
Store the text stream in a variable.

When end of file, create a function to create the dump file. Use the “file path and name” argument passed by the user.
A line in the dump file will look like:
“cscript adsutil.vbs set w3svc/KeyType "IIsWebVirtualDir"”

Specifications for enumerating properties from the root to a specific node:

Create the wrapper script in VBS and allow the following arguments to be passed:
ADSPATH
Create function in wrapper VBS to call ADSUTIL.VBS.
Pass the ENUMALL and ADSPATH arguments to ADSUTIL.VBS. i.e. **‘CSCRIPT ADSUTIL.VBS ENUMALL**
Capture raw output of ADSUTIL in a variable. I.e.

```
[//localhost]
KeyType                     : (STRING) "IIsComputer"
MaxBandwidth                : (INTEGER) -1
[/IISADMIN]
[/IISADMIN/EXTENSIONS]
[/IISADMIN/EXTENSIONS/DCOMCLSIDS]
```

Store raw data in a variable.
Insert characters “[\\localhost]” above ‘Key Type’ line
Get the ADSPATH argument
Parse the argument string. Get the string before the “/”.
Add/Concatenate the characters “[/” before the string and “]” after the string.
Get all lines from the RAW data matching the string. Store this in a variable. Do until character “[\” is reached.
Parse the rest of the argument string.
Do same as 9 and 10.
When there are no more strings to parse, get variable.
Create Function to massage the raw data
Create a variable.
For each path i.e. “[/adspath]” in the raw data.
Remove the “[/” and “]” from the path.
Add/Concatenate the characters **“cscript.exe adsutil.vbs set”** before the path
For each property name Add/Concatenate the path
Remove the “:” and “(value)”
Add/Concatenate the property value to the path/property name.
Do this for each sub node.
Store the text stream in a variable.
When end of file, create a function to create the dump file. Use the “file path and name” argument passed by the user.
A line in the dump file will look like:
“cscript adsutil.vbs set w3svc/KeyType "IIsWebVirtualDir"”

4.3.1.2. Usage Manual

IIS Metabase Migration Utility

AUTHOR: JAKE PISON 12/07/2000

INTRODUCTION
The following utilities may be used to migrate IIS metabase settings. It includes a dump utility to retreive IIS Metabase settings from the source server and a set utility which sets the IIS Metabase settings on the target server.
These utilities require the ADSUTIL.VBS and MDUTIL.EXE from Microsoft.

GENERAL USAGE
a. The dump and set utilities must be executed from the main directory called .\IISMIGRATE
b. The batch file created by the SET utility must be run in the same subdirectory where adsutil.vbs, mdutil.exe and setipsev.vbs exists.
c. The following is a description of the directory structure:

\IISMIGRATE ---> main directory where the utilities are stored.
    .\SRCFILES ---> sub dir where the dump file and batch files are stored.
    .\NEWVDIRSRC ---> sub dir where the dump file and batch file for creating a "NEW" virtual directory are stored.
    .\IPSECFILES ---> sub dir where the temporary files for dumping IPSECURITY settings are stored. These .TXT files may be deleted.
    .\OLDFILE ---> sub dir where old and backup files are stored.

d. !!!NOTE: Please avoid using the keyboard when the utility is running!!!

INSTRUCTIONS
I. Files for dumping the settings:

1. DMPVDIR.VBS - DUMP A VIRTUAL DIRECTORY

a.Usage: CSCRIPT DMPVDIR ADSPATH
For example: "cscript dmpvdir.vbs MSFTPSVC\1\ROOT\MYFTPVIRDIR"

b.DMPVDIR.VBS will create a ".TXT dump file" in the .\SRCFILES sub-directory with the following naming conventions...

SERVERNAME_ADSPATH.TXT
i.e. NBNSWEB02_MSFTPSVC_1_ROOT_MYFTPVIRDIR.TXT

2. DMPVSVR.VBS - DUMP A VIRTUAL SERVER

a.Usage: CSCRIPT DMPSVR ADSPATH
For example: "cscript dmpsvr W3SVC\1"

b.DMPSVR will create a ".TXT dump file" in the .\SRCFILES sub-directory with the following naming conventions...

SERVERNAME_ADSPATH.TXT
i.e. NBNSWEB02_MSFTPSVC_1.TXT

II. Files for settings existing virtual directories:

1. SETVIRVAL.CMD - A BATCH FILE THAT SETS A VIRTUAL DIRECTORY ON THE TARGET SERVER

a. Calls the SETVDIR.VBS file. (see details in preceeding section)
b. Executes the .BAT file created SETVDIR.VBS.

2. SETVDIR.VBS - RETREIVES THE DATA FROM THE DUMP FILE IN THE .\SRCFILES sub-directory and CREATES A .BAT FILE IN THE SAME DIRECTORY

a. Usage: cscript setvdir.vbs [".TXT dump file"] ---> Do not specify the path.
For example: cscript setvirdir.vbs NBNSWEB02_MSFTPSVC_1_ROOT_MYFTPVIRIDR.TXT

b. The output will be a batch file with ADSUTIL SET/CREATE commands. The .BAT file is located in the same .\SRCFILES sub-directory with the same file name as the source file except with a .BAT extension.

c. Note: SETVDIR.VBS may be run individually, however the output .BAT file it creates needs to be executed manually.

3. SETIPSEC.VBS - SETS THE IPSECURITY SETTING OF A PARTICULAR NODE

a. Usage: cscript setipsec [ADSPATH], [PROPERTYFLAG] and [PROPERTY_VALUE]

III. Files for setting a "NEW" virtual directory:

1. SETNEWVDIR.VBS - CREATES A BATCH FILE TO SET A NEW VIRTUAL DIRECTORY

a. Usage: setnewvdir.vbs [virtual directory name] [virtual directory path] [sourcefile] ---> Do not specify the path.
For example: setnewvdir.vbs MYVDIR D:\INETPUB\FTPROOT\MYVDIR FTP1 ---> creates a FTP VDIR
For example: setnewvdir.vbs MYVDIR D:\INETPUB\FTPROOT\MYVDIR WWW1 ---> create a WWW VDIR

b. When creating a FTP or WWW virtual directory in a server intance other than the first one or "/1/" (i.e. MSFTPSVC/1"), change the settings in the FTP1 or WWW1 file to reflect the server instance.

4.3.1.3. Source code

4.3.1.3.1. dmpvdir.vbs

```
'DUMPVIRDIR.VBS
'LAST MODIFIED ON 12/06/2000 BY JAKE PISON FOR CONEXANT CORP.
'*****
'ADDED GET OF IPSECURITY DUMP 12/06/2000 - JPISON
'*****
'REQUIREMENTS:
'1.ADSUTIL.VBS
'2.PROMPT.LNK
'3.Command Prompt.LNK
'4.MUST BE RUN LOCAL ON IIS SERVER
'5.WORKS IN CONJUNCTION TO SETVDIR.VBS
'BEGIN HERE

Dim ArgObj ' Object which contains the command line argument
Dim Result ' Result of the command function call
Dim Args(1) ' Array that contains all of the non-global arguments
Dim ArgCount ' Tracks the size of the Args array

Dim varAdsoutput
Dim cmdAds
Dim Return

Dim strCmd 'The ADSUTIL command ENUM or ENUMALL
Dim strAdsPath 'The AdsPath to enumerate
Dim strFileName 'The File path and Name which will store the results


Set ArgObj=Wscript.Arguments 'Get the arguments

        if ArgObj.Count < 1 then
                Wscript.Echo
                Wscript.Echo "Please enter the VIRTUAL_DIRECTORY_ADSPATH"
                Wscript.Echo "i.e. dmpvdir.vbs MSFTPSVC/1/ROOT/VIRDIR1"
                Wscript.Quit
        end if

'strCmd=UCase(ArgObj.Item(0))
strCmd="ENUMALL"
strAdsPath=(ArgObj.Item(0))
strFileName=ConvFileName(strAdsPath)

if ArgObj.Count > 1 then

                if UCase(ArgObj.Item(1)) = "STEP2" then
                        dim strGetFile
                        wscript.echo "STP2 TRUE"
                        strGetFile = GetTheFile(strAdsPath, strFileName)
                End if
        Wscript.Quit
End If
```

```
cmdAds = "cscript adsutil.vbs " & strCmd & " " & strAdsPath & " " & "> .\srcfiles\" & _
                    strFileName  & " //nologo"
cmdAds = cmdAds & " & cscript dmpvdir.vbs " & strAdsPath & " STEP2"

'Execute the Adsutil command
Set wshShell=Createobject("Wscript.Shell")
'THE FOLLOWING WERE REMMED OUT BECAUSE OF OLDER VERSION OF WINDOWS SCRIPTING HOST
'WshShell.Run("Prompt.lnk")
'WshShell.AppActivate ("Prompt")
'WScript.Sleep 200
WshShell.SendKeys cmdAds & "~"
'Wscript.Sleep 200

'DISPLAY FILE
'wshShell.AppActivate ("Command Prompt")
'WScript.Sleep 2000
'WshShell.SendKeys "cls~"
'QUIT SCRIPT
Wscript.Quit

'CONVERT THE ADSPATH THE FILENAME
Function ConvFileName(strAdsPath)
Dim strServer
Dim strResult
Dim strPath

Set WshNetwork = WScript.CreateObject("WScript.Network")
strServer=WshNetWork.ComputerName
strPath=Replace(strAdsPath,"/","_")
strResult=strServer & "_" & strPath & ".txt"

ConvFileName=UCase(strResult)

End Function



Function GetTheFile(strAdsPath, strFileName)
Dim txtStream
Dim objFSO
Dim oneline
Dim pathname
Dim objNodes
Dim strA

pathname = ".\srcfiles\" & UCase(strFileName)

Set objNodes = CreateObject("Scripting.Dictionary")

Set objFSO = CreateObject("Scripting.FileSystemObject")
Set txtStream = objFSO.OpenTextFile(pathname, 1)

booleanfirsttime = True
While Not txtStream.AtEndOfStream
```

```
                If booleanfirsttime = True Then
                                booleanfirsttime = False
                                oneLine = "[/" & strAdsPath & "]"
                        Else
                                oneLine = txtStream.ReadLine
                End If


   'oneline = txtStream.Readline
   Trim (oneline)
   If Len(oneline) > 0 Then
   'GET THE PATH OF THE SUBNODES


        If Left(oneline, 1) = "[" Then
           Path = Mid(oneline, 3, Len(oneline) - 3)
           UCase (Trim(Path))

              If InStr(1, Path, "]") > 0 Then
                 Path = Mid(Path, 1, InStr(1, Path, "]") - 1)
              End If


                                                        If Len(Path) > 0 Then

                                                                Dim z
                                                                Dim y

                                                                z = GetIpList(Path)
                                                                        If z <> "" Then
                                                                                y = y & "[/" & Path & "]" & vbCrLf & z &
vbCrLf
                                                                        End If

                                                        End If
                        End If
   End If


Wend

txtStream.Close

passTheresult = WriteFile(strFileName, y)

End Function


Function WriteFile(strFileName, y)
Dim strOut
Dim objFSO
Dim strC
Dim strA

Set objFSO = CreateObject("Scripting.FileSystemObject")
```

```
                              strOut = strBatFile & ".txt"
                              strOut = ".\srcfiles\" & strFileName

                              Set strC = objFSO.OpenTextFile(strOut, 8)
                              strC.Write (y)
                              strC.Close
                              wscript.echo "The file " & strOut & " written."
                              Set WshShell = WScript.CreateObject("WScript.Shell")
                              'THE FOLLOWING WERE REMMED OUT BECAUSE OF OLDER VERSION OF WINDOWS
SCRIPTING HOST
                              'WshShell.Run ("%windir%\notepad.exe " & strOut)
                              'WScript.Sleep 800
                              'wshShell.AppActivate ("Prompt")
                              'WScript.Sleep 200
                              'WshShell.SendKeys "exit~"

wscript.quit
End Function



Function GetIpList(strAdsPath)
  Dim SecObj
  Dim MyIPSec
  Dim IPList
  Dim ipAddrlist

  On Error Resume Next
  ' Get the IIS object that holds the info for the default site.
  ' This could be any site root/vdir, or IIS://LocalHost/W3SVC for global
  ' properties.
  Set SecObj = GetObject("IIS://LocalHost/" & strAdsPath & "")
  ' Get the IIsIPSecurity object
  Err.Clear
  On Error Resume Next
  Set MyIPSec = SecObj.IPSecurity
  If Err.Number = 0 Then

  ' Make sure GrantByDefault=FALSE or your changes will not count
  ipAddrlist = ""

    If (False = MyIPSec.GrantByDefault) Then
        IPList = MyIPSec.IPGrant

        ipaddlist = "IPGRANT                          : (IPSEC) "

        For Each Item In IPList

            ipaddlist = ipaddlist & """" & Item & """ "

        Next


    Else
```

```
        If (True = MyIPSec.GrantByDefault) Then

            IPList = MyIPSec.IPDeny

            ipaddlist = "IPGRANT                          : (IPSEC) "

            For Each Item In IPList

                ipaddlist = ipaddlist & """" & Item & """ "

            Next

        End If
    End If

                    Trim(ipaddlist)
        If Len(ipaddlist) <= 44 Then
               ipaddlist = ""
           Else
            Trim (ipaddlist)
        End If




            If ipaddlist <> "" Then
                ipaddlist = Mid(ipaddlist, 1, Len(ipaddlist) - 1)
            End If



End If

GetIpList = ipaddlist

End Function
```

4.3.1.3.2. setvdir.vbs

```
'SETVIRDIR.VBS
'LAST MODIFIED ON 11/29/2000 BY JAKE PISON FOR CONEXANT CORP.
'
'SET THE VIRTUAL DIRECTORY
'STEPS:
'1.GET THE FILE AND THE TARGET PATH FROM ARGUMENTS
'2.GET THE FILENAME
'3.CONVERT THE FILENAME TO ADSPATH
'4.BUILD THE BAT FILE SET COMMANDS
'5.REPLACE THE VIRDIR PATH VALUE WITH ARGUMENT
'6.WRITE THE BAT FILE
'
'REQUIREMENTS:
'1.ADSUTIL.VBS
'2.COMMAND PROMPT.LNK
'3.MUST BE RUN LOCAL ON IIS SERVER
'4.WORKS IN CONJUNCTION TO SETVIRDIR.VBS

'BEGIN HERE
Dim ArgObj ' Object which contains the command line argument
Dim Args(3) ' Array that contains all of the non-global arguments
Dim ArgCount ' Tracks the size of the Args array
Dim Result

Dim strFileName 'The File Path and Name which stores the ADSUTIL OUTPUT
Dim strVirDirTargetPath 'Optional. The AdsPath Virtual Directory Path

Set ArgObj=Wscript.Arguments 'Get the arguments

        if ArgObj.Count < 1 then
                Wscript.Echo "Please enter the ADSOUTPUT_FILENAME and the VIRTUAL DIRECTORY TARGET
PATH"
                Wscript.Echo "i.e. setvirdir.vbs NBNSWEB02_W3SVC_1_ROOT_FTPVIRDIR1.TXT
D:\INETPUB\FTPROOT\USER\VIRDIR1"
                Wscript.Quit
        end if

strFileName=UCase(ArgObj.Item(0))
        'CHECK IF THE TARGET VIRTUAL DIRECTORY PATH WAS INCLUDED IN ARGUMENTS
        'IF NONE SPECIFIED, EXISTING VALUE IN THE SOURCE FILE WILL BE USED
        if ArgObj.Count > 1 then
                strVirDirTargetPath=UCase(ArgObj.Item(1))
                Trim(strVirDirTargetPath)
        Else
                strVirDirTargetPath=""
        end if

'strVirDirTargetPath = """ & strVirDirTargetPath & """

'CHECK IF THE TARGET PATH AND SOURCE FILE EXISTS.
Result=FSOExist(strFileName, strVirDirTargetPath)

wscript.echo Result
```

```
'CHECK FILE EXISTS
Function FSOExist(strFileName, strVirDirTargetPath)

Dim strC
Dim objFSO
Dim strOut
Dim strBatFile
Dim strPath

Set objFSO = CreateObject("Scripting.FileSystemObject")

        strPath = ".\srcfiles\" & Trim(strFileName)

        If objFSO.FileExists(strPath) Then

                If strVirDirTargetPath <> "" then
                        If objFSO.FolderExists(strVirDirTargetPath) = False Then
                                objFSO.CreateFolder (strVirDirTargetPath)
                        End If
                End if

                strOut = stringPath(strPath, strVirDirTargetPath)

                'NAME THE BAT FILE
                strBatFile = Mid(strFileName, 1, Len(strFileName) - 4)
                strBatFile = strBatFile & ".BAT"
                strBatFile = ".\srcfiles\" & strBatFile
                'CREATE AND WRITE TO BAT FILE
                Set strA = objFSO.CreateTextFile(strBatFile)
                strA.Close
                Set strC = objFSO.OpenTextFile(strBatFile, 2)
                strC.Write (strOut)
                strC.Close
                wscript.echo "The batch file " & strBatFile & " written."
                'Set WshShell = WScript.CreateObject("WScript.Shell")
                'WshShell.Run ("%windir%\notepad.exe " & strBatFile)

        Else
                wscript.echo strPath
                wscript.echo "Can't find file"
        End If


Wscript.Quit

End Function

'PARSE THE ADSOUTPUT FILE
Function stringPath(strFileName, strVirDirTargetPath)
   'Reference:  Microsoft Scripting Runtime
   Dim fs

   Dim strOutput
   Dim pathName
   Dim txtStream
   Dim oneLine
Dim path

On Error Resume Next

Set fs = CreateObject("Scripting.FileSystemObject")
pathName = Trim(strFileName)
Set txtStream = fs.OpenTextFile(pathName, 1)
   If Err.Number = 0 Then
      wscript.echo
      wscript.echo "The source file " & pathName & " opened successfully"
                             wscript.echo
                  Else
                             wscript.echo "Source TXT file not found"
                             wscript.echo pathname
                             wscript.quit
   End If

strAdsPath = ConvToAdsPath(pathName)

'WRITE THE HEADER LINE OF THE BAT FILE
strOutput = "ECHO Setting values for the IIS Metabase path... " & strAdsPath & vbCrlf

booleanfirsttime = True
While Not txtStream.AtEndOfStream

   If booleanfirsttime = True Then
      booleanfirsttime = False
      oneLine = "[/" & strAdsPath & "]"
   Else
      oneLine = txtStream.ReadLine
   End If

   'GET ONELINE
   oneLine = Trim(oneLine)


   If Len(oneLine) > 0 Then

                             'CHECK IF LINE IS A COMMENT
                             If Left(oneLine, 1) = "'" Then
         Dim strRemMe
         strOutput = strOutput & "REM "
         oneLine = Mid(oneLine, 2)
                             end if

      'IF PATH, GET THE PATH
      If Left(oneLine, 1) = "[" Then
         path = Mid(oneLine, 3, Len(oneLine) - 3)
      'ELSE, GET THE PROPERTY AND VALUES
      Else
         Dim strProperty
         Dim strValue
         Dim strType
         Dim intPos
         'INITIALIZE VARIABLES
         strProperty = ""
```

```
            strType = ""
            strValue = ""
            'GET THE PROPERTYNAME
            intPos = InStr(1, oneLine, " : ")
            strProperty = Mid(oneLine, 1, intPos)
            strProperty = Trim(strProperty)
            'GET THE PROPERTY TYPE
            intPos = InStr(intPos, oneLine, "(") + 1
            strType = Mid(oneLine, intPos, Len(oneLine) - intPos + 1)
            strType = Trim(strType)
            strType = Left(strType, InStr(1, strType, ")") - 1)
            intPos = InStr(intPos, oneLine, ")") + 1

            Select Case UCase(strType)
              Case "INTEGER", "BOOLEAN", "STRING", "EXPANDSZ", "MIMEMAPLIST"
              'get value
                While Len(strValue) = 0
                  strValue = Mid(oneLine, intPos, Len(oneLine) - intPos + 1)
                  strValue = Trim(strValue)

                  'BUILD ADSUTIL 'CREATE' COMMAND FOR A VIRTUAL DIRECTORY
                  If strProperty = "KeyType" Then
                    Select Case strValue
                                                        Case """IIsFtpVirtualDir""",
"""IIsWebVirtualDir""", """IIsWebDirectory""", _
                                                            """IIsWebServer""",
"""IIsFtpServer"""

                                                            strOutput = strOutput & "cscript
adsutil.vbs create " & path & " " & "" & strValue & " >> SETVDIR.LOG" & vbCrLf

                                                    End Select
                  End If

                                                    If strProperty = "Path" Then
                                                        If strVirDirTargetPath <> "" then
                                                            strValue = """" &
strVirDirTargetPath & """"

                                                        End if
                                                    End If

                                                        If Len(strValue) = 0 Then
                                                            oneLine = txtStream.ReadLine
                                                            oneLine = Trim(oneLine)
                                                            intPos = 1
                                                        End If

                                          Wend

              Case "LIST"
                'get list values
                Dim intListCnt
                Dim strListCnt
                Dim x
                intPos = InStr(intPos, oneLine, "(") + 1
                strListCnt = Mid(oneLine, intPos, Len(oneLine) - intPos + 1)
                strListCnt = Trim(strListCnt)
                strListCnt = Left(strListCnt, InStr(1, strListCnt, " "))
                intListCnt = CInt(strListCnt)
                For x = 0 To intListCnt - 1
                  Dim strTemp
                  strTemp = ""
                  While Len(strTemp) = 0
                    strTemp = txtStream.ReadLine
                    strTemp = Trim(strTemp)
                  Wend
                  strValue = strValue & " " & strTemp
                Next

            Case "IPSEC"
                                                    While Len(strValue) = 0
                  strValue = Mid(oneLine, intPos, Len(oneLine) - intPos + 1)
                  strValue = Trim(strValue)

                Wend



            End Select

                                            If strValue = "" then
                                                    strOutput = strOutput & "REM ERROR IN SETTING: " & oneline &
" "
                                            End if

                                                    'USE MDUTIL.EXE FOR THESE PROPERTYNAMES
                                                    If strType = "LIST" then

                                                            Select Case UCase(strProperty)
                                                                    Case "HTTPERRORS"
                                                                            strProperty = "CustomError"
                                                                    Case "CUSTOMERRORDESCRIPTIONS"
                                                                            strProperty = "CustomErrorDesc"
                                                            End Select

                                                            strOutput = strOutput & "call mdutil.exe set " & path & "/" &
strProperty & " " & strValue & " >> SETVDIR.LOG " & vbCrLf
                                                            else

                                                                    if strType = "IPSEC" then
                                                                            'if strProperty = "IPGRANT" then
                                                                            strValue = """157.152.0.0, 255.255.0.0""" &
" " & """10.1.0.0, 255.255.0.0"""
                                                                            strOutput = strOutput & "cscript
setipsec.vbs " & path & " " & strProperty & " " & strValue & " //nologo >> SETVDIR.LOG " & vbCrLf
                                                                    else

                                                                            strOutput = strOutput & "cscript adsutil.vbs
set " & path & "/" & strProperty & " " & strValue & " //nologo >> SETVDIR.LOG " & vbCrLf
                                                                            'End if
                                                                    End if
                                                    End if
                                        End If
     End If
   Wend

stringPath = strOutput

End Function

'Get the ADSPATH from the OUTPUT_FILENAME
Function ConvToAdsPath(strFileName)

Dim result
Dim begPos
Dim endPos

begPos = InStr(1, strFileName, "_")

result = Mid(strFileName, begPos + 1)
result = Mid(result, 1, Len(result) - 4)

endPos = InStr(1, result, "_ROOT_")
vdirname = Mid(result,endPos + 6)

result = Mid(result,1,endPos + 5)

result = Replace(result, "_", "/")

vdirname = Trim(LCase(vdirname))
result = Trim(LCase(result))
result = result & vdirname
ConvToAdsPath = Trim(result)

End Function
```

4.3.1.3.3. setnewvdir.vbs

```
'SETVIRDIR.VBS
'LAST MODIFIED ON 11/29/2000 BY JAKE PISON FOR CONEXANT CORP.
'
'SET THE VIRTUAL DIRECTORY
'STEPS:
'1.GET THE FILE AND THE TARGET PATH FROM ARGUMENTS
'2.GET THE FILENAME
'3.CONVERT THE FILENAME TO ADSPATH
'4.BUILD THE BAT FILE SET COMMANDS
'5.REPLACE THE VIRDIR PATH VALUE WITH ARGUMENT
'6.WRITE THE BAT FILE
'
'REQUIREMENTS:
'1.ADSUTIL.VBS
'2.COMMAND PROMPT.LNK
'3.MUST BE RUN LOCAL ON IIS SERVER
'4.WORKS IN CONJUNCTION TO SETVIRDIR.VBS

'BEGIN HERE
Dim ArgObj ' Object which contains the command line argument
Dim Args(2) ' Array that contains all of the non-global arguments
Dim ArgCount ' Tracks the size of the Args array
Dim Result
Dim setVDirname
Dim strFileName 'The File Path and Name which stores the ADSUTIL OUTPUT
Dim strVirDirTargetPath 'Optional. The AdsPath Virtual Directory Path

Set ArgObj=Wscript.Arguments 'Get the arguments

        if ArgObj.Count < 3 then
                Wscript.Echo "Please enter the new [VIRTUAL DIRECTORY NAME], [VIRTUAL DIRECTORY
TARGET PATH] and [SOURCE_FILE]"
                Wscript.Echo "i.e. setnewvdir.vbs VIR_DIR_NAME D:\XXX FTP1"
                Wscript.Echo "i.e. setnewvdir.vbs VIR_DIR_NAME D:\XXX WWW1"
                Wscript.Quit
        end if


strVDirname=Trim(UCase(ArgObj.Item(0)))

        'CHECK IF THE TARGET VIRTUAL DIRECTORY PATH WAS INCLUDED IN ARGUMENTS
        'IF NONE SPECIFIED, EXISTING VALUE IN THE SOURCE FILE WILL BE USED
        if ArgObj.Count > 1 then
                strVirDirTargetPath=UCase(ArgObj.Item(1))
                Trim(strVirDirTargetPath)
        Else
                strVirDirTargetPath=""
        end if

strFileName=UCase(ArgObj.Item(2))
strFileName=".\newvdirsrc\" & strFileName
```

```
'CHECK IF THE TARGET PATH AND SOURCE FILE EXISTS.
Result=FSOExist(strVDirname,strVirDirTargetPath,strFileName)

wscript.echo Result

'CHECK FILE EXISTS
Function FSOExist(strVDirname,strVirDirTargetPath,strFileName)

Dim strC
Dim objFSO
Dim strOut
Dim strBatFile
Dim strReplace

Set objFSO = CreateObject("Scripting.FileSystemObject")

        If objFSO.FileExists(strFileName) Then

                If strVirDirTargetPath <> "" then
                        If objFSO.FolderExists(strVirDirTargetPath) = False Then
                                objFSO.CreateFolder (strVirDirTargetPath)
                        End If
                End if

                strOut = stringPath(strVDirname,strVirDirTargetPath,strFileName)

                'NAME THE BAT FILE
                strBatFile = Mid(strVDirname, 1)
                strBatFile = ".\newvdirsrc\" & strBatFile & ".BAT"
                'CREATE AND WRITE TO BAT FILE
                Set strA = objFSO.CreateTextFile(strBatFile)
                strA.Close
                Set strC = objFSO.OpenTextFile(strBatFile, 2)
                strC.Write (strOut)
                strC.Close
                wscript.echo strBatFile & " written."
        Else
                wscript.echo "Cant find file"
        End If


Wscript.Quit

End Function

'PARSE THE ADSOUTPUT FILE
Function stringPath(strVDirname,strVirDirTargetPath,strFileName)
  'Reference:  Microsoft Scripting Runtime
  Dim fs

  Dim strOutput
  Dim pathName
  Dim txtStream
  Dim oneLine
  Dim path
```

```
On Error Resume Next

Set fs = CreateObject("Scripting.FileSystemObject")

wscript.echo "Pathname=" & pathname
Set txtStream = fs.OpenTextFile(strFileName, 1)
  If Err.Number = 0 Then
    wscript.echo "File Opened Successfully"
  End If



'WRITE THE HEADER LINE OF THE BAT FILE
strOutput = "ECHO Setting values for the IIS Metabase path... " & strAdsPath & vbCrlf

booleanfirsttime = True
While Not txtStream.AtEndOfStream


    oneLine = txtStream.ReadLine

  'GET ONELINE
  oneLine = Trim(oneLine)

  If Instr(1, oneline, "ReplaceThis") > 0 Then
                                  oneline=Replace(oneline, "ReplaceThis", strVDirname)
            End if

  If Len(oneLine) > 0 Then

                   'CHECK IF LINE IS A COMMENT
                   If Left(oneLine, 1) = "'" Then
      Dim strRemMe
      strOutput = strOutput & "REM "
      oneLine = Mid(oneLine, 2)
                   End if


    'IF PATH, GET THE PATH

    If Left(oneLine, 1) = "[" Then
      strpath = Mid(oneLine, 3, Len(oneLine) - 3)

    'ELSE, GET THE PROPERTY AND VALUES
    Else
      Dim strProperty
      Dim strValue
      Dim strType
      Dim intPos
      'INITIALIZE VARIABLES
      strProperty = ""
      strType = ""
      strValue = ""
      'GET THE PROPERTYNAME
      intPos = InStr(1, oneLine, " : ")
      strProperty = Mid(oneLine, 1, intPos)
```

```
        strProperty = Trim(strProperty)
        'GET THE PROPERTY TYPE
        intPos = InStr(intPos, oneLine, "(") + 1
        strType = Mid(oneLine, intPos, Len(oneLine) - intPos + 1)
        strType = Trim(strType)
        strType = Left(strType, InStr(1, strType, ")") - 1)
        intPos = InStr(intPos, oneLine, ")") + 1

        Select Case UCase(strType)
          Case "INTEGER", "BOOLEAN", "STRING", "EXPANDSZ", "MIMEMAPLIST"
          'get value
            While Len(strValue) = 0
              strValue = Mid(oneLine, intPos, Len(oneLine) - intPos + 1)
              strValue = Trim(strValue)


              'BUILD ADSUTIL 'CREATE' COMMAND FOR A VIRTUAL DIRECTORY
              If strProperty = "KeyType" Then
                Select Case strValue
                                                                Case """IIsFtpVirtualDir""",
"""IIsWebVirtualDir""", """IIsWebDirectory""", _
                                                                       """IIsWebServer""",
"""IIsFtpServer"""

                                                                       strOutput = strOutput & "adsutil
create " & strpath & " " & "" & strValue & "" & vbCrLf

                                                         End Select
              End If

                                                         If strProperty = "Path" Then
                                                                If strVirDirTargetPath <> "" then
                                                                       strValue = """" &
strVirDirTargetPath & """"
                                                                End if
                                                         End If

                                                                If Len(strValue) = 0 Then
                                                                       oneLine = txtStream.ReadLine
                                                                       oneLine = Trim(oneLine)
                                                                       intPos = 1
                                                                End If

                                           Wend

          Case "LIST"
            'get list values
            Dim intListCnt
            Dim strListCnt
            Dim x
            intPos = InStr(intPos, oneLine, "(") + 1
            strListCnt = Mid(oneLine, intPos, Len(oneLine) - intPos + 1)
            strListCnt = Trim(strListCnt)
            strListCnt = Left(strListCnt, InStr(1, strListCnt, " "))
            intListCnt = CInt(strListCnt)
            For x = 0 To intListCnt - 1
```

```
                    Dim strTemp
                    strTemp = ""
                    While Len(strTemp) = 0
                       strTemp = txtStream.ReadLine
                       strTemp = Trim(strTemp)
                    Wend
                    strValue = strValue & " " & strTemp
                 Next

              End Select

                                                If strValue = "" then
                                                       strOutput = strOutput & "REM ERROR IN SETTING: " & oneline &
" "
                                                End if

                                                       'USE MDUTIL.EXE FOR THESE PROPERTYNAMES
                                                       If strType = "LIST" then

                                                              Select Case UCase(strProperty)
                                                                     Case "HTTPERRORS"
                                                                            strProperty = "CustomError"
                                                                     Case "CUSTOMERRORDESCRIPTIONS"
                                                                            strProperty = "CustomErrorDesc"
                                                              End Select

                                                              strOutput = strOutput & "call mdutil.exe set " & strpath & "/"
& strProperty & " " & strValue & " " & vbCrLf
                                                              else
                                                                     strOutput = strOutput & "cscript adsutil.vbs set " &
strpath & "/" & strProperty & " " & strValue & " //nologo" & vbCrLf
                                                       End if



                          End If
      End If
   Wend

stringPath = strOutput

End Function

'Get the ADSPATH from the OUTPUT_FILENAME
Function ConvToAdsPath(strFileName)

Dim result
Dim begPos

begPos = InStr(1, strFileName, "_")
result = Mid(strFileName, begPos + 1)
result = Mid(result, 1, Len(result) - 4)
result = Replace(result, "_", "/")
result = LCase(result)
ConvToAdsPath = Trim(result)
```

```
End Function
```

4.3.1.3.4. dmpsvr.vbs

```
'DUMPVIRSVR.VBS
'LAST MODIFIED ON 11/29/2000 BY JAKE PISON FOR CONEXANT CORP.
'
'DUMP THE VIRTUAL SERVER SETTINGS
'1.GET THE ARGUMENTS
'2.ARGUMENTS MUST BE (A)THE ADSCOMMAND ENUM OR ENUMALL,(B) THE ADSI PATH FOR THE VIRDIR
'3.BUILD THE ADSUTIL STATEMENT USING THE ARGUMENTS
'4.BUILD THE OUTPUT FILENAME USING THE LOCAL SERVERNAME AND THE ADSI PATH
'5.EXECUTE THE ADSTUIL STATEMENT AND PIPE TO THE OUTPUT FILENAME
'	NOTE: THE OUTPUT WILL BE IN THE SAME FOLDER AS SCRIPT FILES
'
'REQUIREMENTS:
'1.ADSUTIL.VBS
'2.PROMPT.LNK
'3.COMMAND PROMPT.LNK
'4.MUST BE RUN LOCAL ON IIS SERVER
'5.WORKS IN CONJUNCTION TO SETVIRSVR.VBS
'BEGIN HERE

Dim ArgObj ' Object which contains the command line argument
Dim Result ' Result of the command function call
Dim Args(0) ' Array that contains all of the non-global arguments
Dim ArgCount ' Tracks the size of the Args array

Dim strAdsPath 'The AdsPath to enumerate
Dim strFileName 'The File path and Name which will store the results


Set ArgObj=Wscript.Arguments 'Get the arguments

	if ArgObj.Count < 1 then
		Wscript.Echo "Please enter the VIRTUAL SERVER ADSPATH"
		Wscript.Echo "i.e. DUMPVIRSVR.VBS W3SVC/1"
		Wscript.Quit
	end if

strAdsPath=UCase(ArgObj.Item(0))

strFileName=ConvFileName(strAdsPath)

if ArgObj.Count > 1 then

	if UCase(ArgObj.Item(1)) = "STEP2" then
		dim strGetFile
		strGetFile = GetTheFile(strAdsPath, strFileName)
	End if
Wscript.quit
End if

strWriteFile=WriteFile(strAdsPath,strFileName,strAppendCmd)


'Make the output file
Function WriteFile(strAdsPath,strFileName,strAppendCmd)
```

```
Dim strFile
Dim strCmd

if strAppendCmd <> "" then
        strCmd = strAppendCmd
        Set wshShell=Createobject("Wscript.Shell")
        'THE FOLLOWING WERE REMMED OUT BECAUSE OF OLDER VERSION OF WINDOWS SCRIPTING
HOST
        'WshShell.Run("Prompt.lnk")
        'wshShell.AppActivate ("Prompt")
        WScript.Sleep 200
        WshShell.SendKeys strCmd & "~"
        'Wscript.Sleep 200

else
        strCmd = "echo [/" & strAdsPath & "] > .\srcfiles\" & strFileName & " " & vbCrlf
        strCmd = strCmd & "cscript adsutil.vbs enumall /p " & strAdspath & " >> .\srcfiles\" & strFileName & " //nologo"
& " " & vbCrlf
        strCmd = strCmd & "cscript dmpsvr.vbs " & strAdspath & " STEP2"

        Set wshShell=Createobject("Wscript.Shell")
        'THE FOLLOWING WERE REMMED OUT BECAUSE OF OLDER VERSION OF WINDOWS SCRIPTING
HOST

        'WshShell.Run("Prompt.lnk")
        'wshShell.AppActivate ("Prompt")
        WScript.Sleep 200
        WshShell.SendKeys strCmd & "~"
        Wscript.Sleep 200
End if

Wscript.quit

End function

Function GetTheFile(strAdsPath, strFileName)
Dim txtStream
Dim objFSO
Dim oneline
Dim pathname
Dim objNodes
'Dim arrSubnodes(2)
Dim strA

pathname = ".\srcfiles\" & Ucase(strFileName)

Set objNodes = CreateObject("Scripting.Dictionary")

Set objFSO = CreateObject("Scripting.FileSystemObject")
Set txtStream = objFSO.OpenTextFile(pathname, 1)


  While Not txtStream.AtEndOfStream

  oneline = txtStream.ReadLine
```

```
    Trim(oneline)
    If Len(oneline) > 0 Then
    'GET THE PATH OF THE SUBNODES

        If Left(oneline, 1) = "[" Then



                                        Path = Mid(oneline, 3, Len(oneline) - 3)
                                        UCase (Trim(Path))

                                               If InStr(1, Path, "]") > 0 Then
                                                      Path = Mid(Path, 1, InStr(1, Path, "]") - 1)
                                               End If




            If InStr(1, Path, "/ROOT/") = 0 Then
              objNodes.Add nkey, Path
              nkey = nkey + 1
            End If

        End If
    End If

    Wend

txtStream.Close

arrSubNodes = objNodes.Items

strA = IterateNodes(arrSubNodes, strAdsPath, strFileName)

End Function

'ITERATE EACH SUBNODE AND BUILD ADSUTIL COMMAND
Function IterateNodes(arrSubNodes, strAdsPath, strFileName)

Dim strNodePath
Dim strCmd
Dim strCompare

strCmd = ""
strCmd = "echo 'Server Dump File > .\srcfiles\"  & strFileName & " " & vbCrlf

For Each Item In arrSubNodes
    strNodePath = Item
     strNodePath=Ucase(strNodePath)

      strCmd = strCmd & "echo [/" & strNodePath & "] >> .\srcfiles\" & strFileName & " " & vbCrlf
      strCmd = strCmd & "cscript adsutil.vbs enum " & strNodePath & " >> .\srcfiles\" & strFileName & " //nologo " & " " &
vbCrlf
                  'strCmd = strCmd & "exit && "


Next
```

```
strCmd=strCmd & "notepad .\srcfiles\" & strFilename

'debug
'wscript.echo strcmd
'wscript.quit


Dim strAppendCmd
strAdsPath=""
strFileName=""
strAppendCmd=WriteFile(strAdsPath,strFileName,strCmd)

Wscript.quit
End Function

'CONVERT THE ADSPATH THE FILENAME
Function ConvFileName(strAdsPath)
Dim strServer
Dim strResult
Dim strPath

Set WshNetwork = WScript.CreateObject("WScript.Network")
strServer=WshNetWork.ComputerName
strPath=Replace(strAdsPath,"/","_")
strResult=strServer & "_" & strPath & ".txt"

ConvFileName=UCase(strResult)

End Function
```

4.3.1.3.5. dmpipsec.vbs

```
Dim ArgObj ' Object which contains the command line argument
Dim Result ' Result of the command function call
Dim Args(0) ' Array that contains all of the non-global arguments
Dim ArgCount ' Tracks the size of the Args array

Dim varAdsoutput
Dim cmdAds
Dim Return

Dim strCmd 'The ADSUTIL command ENUM or ENUMALL
Dim strAdsPath 'The AdsPath to enumerate
Dim strFileName 'The File path and Name which will store the results


Set ArgObj=Wscript.Arguments 'Get the arguments

        if ArgObj.Count < 1 then
                Wscript.Echo
                Wscript.Echo "Please enter the VIRTUAL_DIRECTORY_ADSPATH"
                Wscript.Echo "i.e. dmpip.vbs MSFTPSVC/1/ROOT/VIRDIR1"
                Wscript.Quit
        end if

strAdsPath=(ArgObj.Item(0))

strFileName=ConvFileName(strAdsPath)


        if ArgObj.Count > 1 then

                if UCase(ArgObj.Item(1)) = "STEP2" then
                        dim strGetFile
                        strGetFile = GetTheFile(strFileName)
                End if

                Wscript.quit
        End if


strWriteFile=WritePath(strAdsPath,strFileName)


'Make the output file
Function WritePath(strAdsPath,strFileName)

Dim strFile
Dim strCmd

        strCmd = "echo [/" & strAdsPath & "] > .\ipsecfiles\" & strFileName & " " & vbCrlf
        strCmd = strCmd & "cscript adsutil.vbs enumall /p " & strAdspath & " >> .\ipsecfiles\" & strFileName & "
//nologo" & " " & vbCrlf
        strCmd = strCmd & "cscript dmpip.vbs " & strAdspath & " STEP2"

        Set wshShell=Createobject("Wscript.Shell")
        WshShell.Run("Prompt.lnk")
        wshShell.AppActivate ("Prompt")
        WScript.Sleep 200
        WshShell.SendKeys strCmd & "~"
        Wscript.Sleep 200

Wscript.quit

End function


Function GetTheFile(strFileName)
Dim txtStream
Dim objFSO
Dim oneline
Dim pathname
Dim objNodes
'Dim arrSubnodes(2)
Dim strA

pathname = ".\ipsecfiles\" & UCase(strFileName)

Set objNodes = CreateObject("Scripting.Dictionary")

Set objFSO = CreateObject("Scripting.FileSystemObject")
Set txtStream = objFSO.OpenTextFile(pathname, 1)


    While Not txtStream.AtEndOfStream

    oneline = txtStream.Readline
    Trim (oneline)
    If Len(oneline) > 0 Then
    'GET THE PATH OF THE SUBNODES


            If Left(oneline, 1) = "[" Then
                Path = Mid(oneline, 3, Len(oneline) - 3)
                UCase (Trim(Path))
           End If
                If InStr(1, Path, "]") > 0 Then
                    Path = Mid(Path, 1, InStr(1, Path, "]") - 1)
                End If






                If Len(Path) > 0 Then

                    Dim z
                    Dim y
                    z = GetIpList(Path)
                        If z <> "" Then
                            y = y & "[/" & Path & "]" & vbCrLf & z & vbCrLf
                        End If
                End If

      End If


    Wend

txtStream.Close

passTheresult = WriteFile(strFileName, y)

End Function


Function WriteFile(strFileName, y)
Dim strOut
Dim objFSO
Dim strC
Dim strA

Set objFSO = CreateObject("Scripting.FileSystemObject")

                        strOut = strBatFile & ".txt"
                        strOut = ".\srcfiles\" & strFileName

                        Set strC = objFSO.OpenTextFile(strOut, 8)
                        strC.Write (y)
                        strC.Close
                        wscript.echo "The file " & strOut & " written."
                        Set WshShell = WScript.CreateObject("WScript.Shell")
                        WshShell.Run ("%windir%\notepad.exe " & strOut)
                        WScript.Sleep 800
                        wshShell.AppActivate ("Prompt")
                        WScript.Sleep 200
                        WshShell.SendKeys "exit~"
                        Wscript.Sleep 200
wscript.quit
End Function



Function GetIpList(strAdsPath)
  Dim SecObj
  Dim MyIPSec
  Dim IPList
  Dim ipAddrlist
  ' Get the IIS object that holds the info for the default site.
  ' This could be any site root/vdir, or IIS://LocalHost/W3SVC for global
  ' properties.
  Set SecObj = GetObject("IIS://LocalHost/" & strAdsPath & "")
  ' Get the IIsIPSecurity object
  Err.Clear
  On Error Resume Next
  Set MyIPSec = SecObj.IPSecurity
  If Err.Number = 0 Then
```

```
 ' Make sure GrantByDefault=FALSE or your changes will not count
 ipAddrlist = ""

   If (False = MyIPSec.GrantByDefault) Then
      IPList = MyIPSec.IPGrant

      ipaddlist = "IPSEC                                        : (IPGRANT) "

      For Each Item In IPList

         ipaddlist = ipaddlist & """" & Item & ""","

      Next


   Else

      If (True = MyIPSec.GrantByDefault) Then

         IPList = MyIPSec.IPDeny

         ipaddlist = "IPSEC                                   : (IPDENY) "

         For Each Item In IPList

            ipaddlist = ipaddlist & """" & Item & ""","

         Next

      End If
   End If

      If Len(ipaddlist) <= 44 Then
           ipaddlist = ""
         Else
          Trim (ipaddlist)
      End If





         If ipaddlist <> "" Then
            ipaddlist = Mid(ipaddlist, 1, Len(ipaddlist) - 1)
         End If



End If

GetIpList = ipaddlist

End Function

'CONVERT THE ADSPATH THE FILENAME
```

```
Function ConvFileName(strAdsPath)
Dim strServer
Dim strResult
Dim strPath

Set WshNetwork = WScript.CreateObject("WScript.Network")
strServer=WshNetWork.ComputerName
strPath=Replace(strAdsPath,"/","_")
strResult=strServer & "_" & strPath & ".txt"

ConvFileName=UCase(strResult)

End Function
```

4.3.1.3.6. setipsec.vbs

```
'BEGIN HERE
Dim ArgObj ' Object which contains the command line argument
Dim Args(2) ' Array that contains all of the non-global arguments
Dim ArgCount ' Tracks the size of the Args array
Dim Result
Dim strValues
Set ArgObj=Wscript.Arguments 'Get the arguments

        if ArgObj.Count < 3 then
                Wscript.Echo "Please enter the correct arguments"
                Wscript.Echo "setipsec [ADSPATH], [PROPERTYFLAG] and [PROPERTY_VALUE]"
                'Wscript.Echo "i.e. setipsec.vbs MSFTPSVC/1/ROOT/FTPVIRDIR1 IPGRANT 122.122.8.8,255.255.0.0"
                Wscript.Quit
        end if


strAdsPath=Trim(UCase(ArgObj.Item(0)))
strPropFlag=Trim(UCase(ArgObj.Item(1)))


if ArgObj.Count => 3 then

Dim i
Dim objNodes
Dim strValue
nkey=0
Set objNodes = CreateObject("Scripting.Dictionary")


        For i = 2 to ArgObj.Count - 1

                strValue=Trim(UCase(ArgObj.Item(i)))


                strValue = "" & strValue & ""

                objNodes.Add nkey ,strValue

                nkey = nkey + 1

        Next

        strPropValues = objNodes.Items

End if

'wscript.quit
'CHECK IF THE TARGET PATH AND SOURCE FILE EXISTS.
Result=SetIpList(strAdsPath,strPropFlag,strPropValues)




Function SetIpList(strAdsPath, strPropFlag, strPropValues)
```

```
 Dim SecObj
 Dim MyIPSec
 Dim IPList
 Dim ipAddrlist



 Set SecObj = GetObject("IIS://LocalHost/" & strAdsPath & "")
 ' Get the IIsIPSecurity object
 Err.Clear

 On Error Resume Next
 Set MyIPSec = SecObj.IPSecurity
   If Err.Number = 0 Then

 ' Make sure GrantByDefault=FALSE or your changes will not count

       If strPropFlag = "IPGRANT" Then
          MyIPSec.GrantByDefault = False
          MyIPSec.IPGRANT = strPropValues
       Else

          If strPropFlag = "IPDENY" Then
             MyIPSec.GrantByDefault = True
             MyIPSec.IPDENY = strPropValues

          End If


       End If

          SecObj.IPSecurity = MyIPSec
          SecObj.Setinfo
   End If

End Function
```

4.4. Applications

4.4.1. Adobe Acrobat Reader
4.4.2. Avalan
4.4.3. Browser Hawk
4.4.4. Cold Fusion Server
4.4.5. CA
4.4.6. Clarify eFrontOffice 9
4.4.7. Clarify Server
4.4.8. ClearExpress WebAdmin App Server
4.4.9. ClearExpress WebAdmin Proxy
4.4.10. ClearExpress WebSupport App Server
4.4.11. ClearExpress WebSupport Proxy
4.4.12. Content Analyzer
4.4.13. Control IT
4.4.14. Developer 2000
4.4.15. Fulcrum Full Text Search Engine
4.4.16. Imparto Web Marketing Suite
4.4.17. Jet Form
4.4.18. Map Info
4.4.19. Mark Vis
4.4.20. McAfee Virus Scan/Shield
4.4.21. MS Office
4.4.22. MS FrontPage
4.4.23. MS IE 4.01 + SP 2
4.4.24. MS IIS
4.4.25. MS Option Pack -- IIS 4.0
4.4.26. MS Site Server Express 3.0
4.4.27. MS Site Server 3.0
4.4.28. MS SQL 7.0
4.4.29. MKS Toolkit
4.4.30. MTS
4.4.31. Netscape Suitespot
4.4.32. Network Associate ControlIt/RemotelyPossible
4.4.33. Network Associate Netshield
4.4.34. Oracle Enterprise Manager
4.4.35. Oracke Developer
4.4.36. Oracle Client
4.4.37. Patrol
4.4.38. Quantum
4.4.39. SAP frontend
4.4.40. Seagate Crystal Report
4.4.41. SoftArtisans SA-FileUp
4.4.42. Veritas NetBackup
4.4.43. Visibroker
4.4.44. Visual Mining
4.4.45. VNC

4.4.46. WebTrends

4.4.47. WinZip 7.0

4.4.48. Zebra

Appendix A - REFERENCES

When ever possible, all referenced material has been merged with this document.

Appendix B - CONTACT INFORMATION

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Annuities Division

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Version 1.0
(8/9/2003)

Version 1.0 – April, 2000
(8/9/2003)

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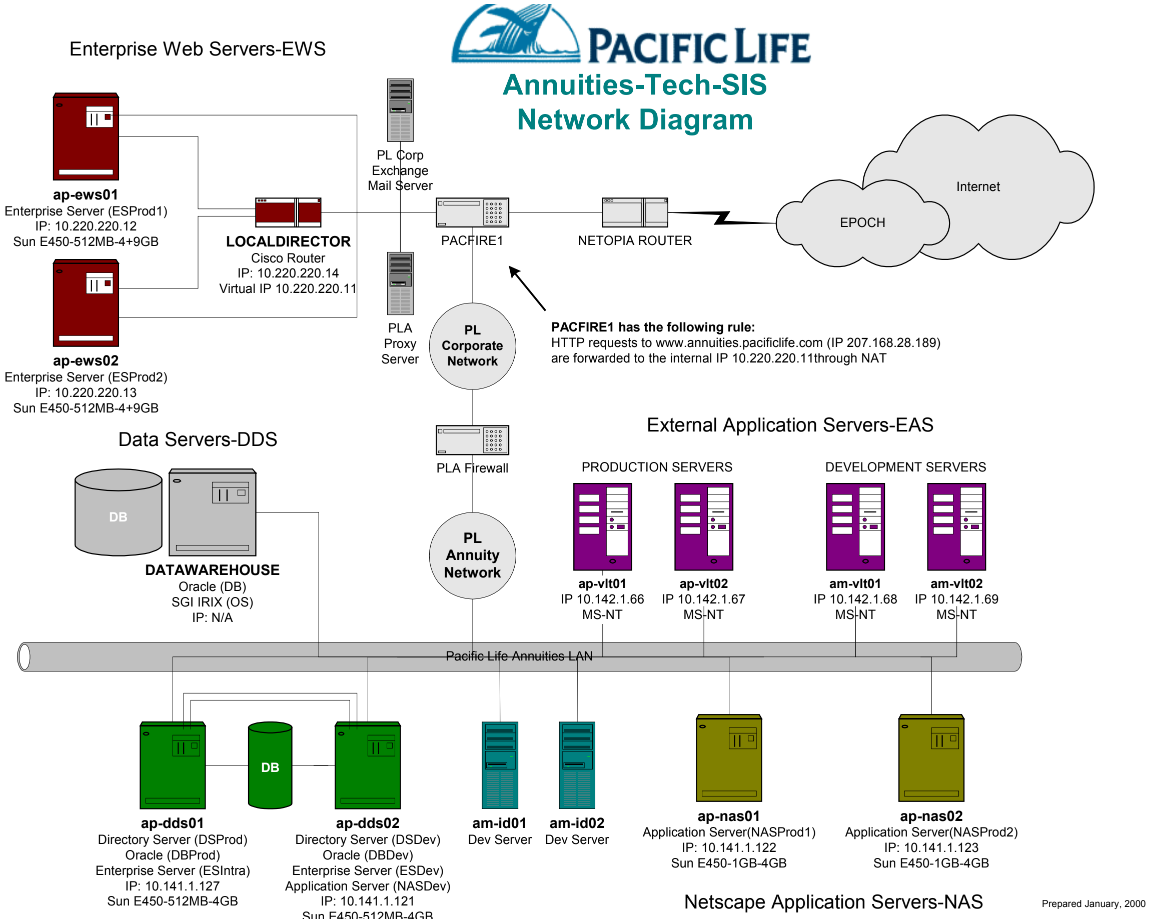
Figures

1. Servers

Network Diagram



1.1. Domains

198.181.8.21	annuities.pacificlife.com	(PLA-Extranet Web Server)

1.2. Hosts

10.220.220.11	Cisco Router	Load Distributor (LocalDirector)
10.220.220.12	ap-ews01, annuities1	Annuities1 (mirror1)
10.220.220.13	ap-ews02, annuities2	Annuities2 (mirror2)
10.141.1.121	ap-dds02	WebTrends Server
10.141.1.124	stage , stage.annuities.pacificlife.com	Stage Server (ap-dds02:/stg)

2. Documentation

2.1. Notes

2.1.1. Operation:

The Pacific Life Annuities - Web Log Manager (logs)

Centralizes the management and processing of the web server logs on the I-Nets of the Annuities Division - http://annuities.pacificlife.com

It is a self managed/maintained menu interface that allows Telnet, FTP and other network connectivity to the web servers providing a convenient mechanism for the retrieval of web server logs.

Additionally provides for the processing and report generation of the logs and a menu based interface for log retrieval to WebTrends and it's management.

MENUs
All menus (sample):

```
   menu:Title
1) s)hort  description and notes
2) r)eturn to main menu
menu #)number, c)ommand or [enter-menu] ?
```

the menu then accepts a response of either a number from the menu list (sample "1"), the letter before the left parenthesis (sample "s"), a "r" to return to the main menu, a "q" to quit the program or the "[enter]" key to redisplay the menu.

SUB-MENUs
Many sub-menus prompt for a confirmation (sample):

```
confirm <y>/n:
```

the sub-menu displays the default response in <brackets> (sample is "y"es) and the alternate response(s) after the /slash (sample is "n"o).

MORE
The "--More--" prompt will display the "next line" after hitting the [enter-key], the "next screen" after pressing the [space bar], "quit" displaying data after hitting the "q" key and finish displaying data after displaying the "--No more--" prompt.

Almost all responses have been designed around a single key response, a number or letter, followed by the [enter-key].

Any bug reports, problems or comments should be sent to the author Gary Neshanian x7595, gneshanian@pacificlife.com

2.1.2. Menus:

2.1.2.1. Main (accesses the functional sub-menus):

```
   Pacific Life Annuities - Web Log Manager

   Web Log Directories on ap-dds02 under /stg/logs

1) e)dit       web server list, configuration files
2) g)et        ftp web log files, from web servers
3) l)ist       log files retrieved-got from servers
4) r)eports    generate reports and preprocess logs
5) s)ervers    management and communications
6) w)ebtrends  management; status, start, stop
7) h)elp       documentation and notes
8) q)uit       exit, web log manager

enter #)number, c)ommand or [enter-menu] ?
```

2.1.2.2. Edit (web server list, configuration files):

```
   edit:lists and configurations

Servers: annuities1 annuities2 myaccount1 myaccount2
 secure1 secure2 nas1 nas2 vaintranet mirror

1) a)dd    a server to the list
2) d)el    a server from the list
3) h)osts  system /etc/hosts file
4) f)tp    retrieval config .netrc
5) l)og    manage the log file
6) r)eturn to main menu

edit #)number, c)ommand or [enter-menu] ?
```

2.1.2.3. Reports (generate reports and preprocess logs):

```
   reports:Process Log Files

 1) v)iew   generated report
 2) l)ist   reports with their size and date
 3) d)elete report from the Reports folder
 4) c)ount  count string lines in log file access...
 5) a)ol    convert access... to AOL browsers aol...
 6) au)th   filter access... for auth-enticated users
 7) s)ort   sort auth-enticated by id and by days into reports
 8) o)racle merge auth-enticated with Oracle-authorized reports
 9) ap)pend one report to another report
10) r)eturn to main menu

reports #)number, c)ommand or [enter-menu] ?
```

2.1.2.4. Servers (management and communications):

```
   servers:Server information

1) p)ing   servers
2) w)ho    is logged on
3) l)ogs   on web servers
4) d)isk   space free
5) c)ron   tab listing
6) f)tp    file transfer protocol
7) t)elnet terminal connection
8) r)eturn to main menu

servers #)number, c)ommand or [enter-menu] ?
```

2.1.2.5. WebTrends (management; status, start, stop):

```
   webtrends:WebTrends information

1) l)ist   webtrends reports
2) s)tatus of webtrends report server
3) r)eturn to main menu

webtrends #)number, c)ommand or [enter-menu] ?
```

2.1.2.6. Help (documentation and notes):

```
   help:Help and Documentation

1) n)otes  menu operation and notes
2) m)an    manual pages
3) p)rg    programmers pseudo code
4) r)eturn to main menu

help #)number, c)ommand or [enter-menu] ?
```

2.2. Documentation

2.2.1. Manual Page:

```
NAME
    wlm - Annuities Web Log File Management interface

SYNOPSIS
    wlm - menu driven user interface to manage Annuities Web Logs

DESCRIPTION
   downloads and manages the log files from the various annuities web servers

HOSTS(s)
    ap-dds02

USERS(s)
    nsuser

DIRECTORY(s)
    /stg/logs   - logs directory for each server
    ~/.netrc    - ftp configuration file

AUTHORED
    4/5/00 written by gary neshanian
```

2.2.2. Programmers Pseudo Code:

```
#~ programmers note#~ programmers notess
if [[ "$1" == "?" && "$2" == "?" ]]; then               #~ ? help programmer
(grep "#\~" $0|sed 's/^  /: /g;s/: : /: : /g;s/: : /: : /g;s/: : /: : /g;s/: : /
: : /g;s/: : /: : /g;s/: : /: : /g;s/: : /: : /g;s/  /  /g;s/   #~/     #~/g';\
if [[ "$1" == "?" ]]; then                      #~ ? help man
function getvarinfile {         #~f read the file and get the variable
function putvarinfile {         #~f rewrite self with new data vars
function banner {  # menu title                 #~f set/display banner & prompt
function rebanner {                     #~f redisplay banner
function chop {  # length string list           #~f display server list
function telr {  # server                       #~f telnet to server
function check_reply_quit {  # REPLY var        #~f check for return quit
function check_yes_no {  # yn                   #~f check for rq from yes no
function logit {  # string                      #~f put entries in log file
function restart {                      #~f restart manager
# generate reports ##########                   #~ generate reports process logs
function paol {                                 #~f convert access to aol
: banner "r)eports:aol" "Select log server";                    #~
: select aolsrvr in $data "r)eturn to main menu";               #~
: do                                            #~
: : banner "r)eports:aol" "Select log file";                    #~
: : select acsflr in `ls $aolsrvr/access??*` "r)eturn to main menu";    #~
: : do                                          #~
: : : read yn?"to $aolflr <y>/n:";                      #~
: : : : print "aol reportsing";                         #~
: : done;                                       #~
: done;                                         #~
}                                               #~
function pauthen {                              #~f filter authenticated
: banner "r)eports:authenticated" "Select log server";          #~
: select authsrvr in $data "r)eturn to main menu";              #~
: do                                            #~
: : banner "r)eports:authenticated" "Select log file";          #~
: : select acsflr in `ls $authsrvr/access??*` "r)eturn to main menu";   #~
: : do                                          #~
: : : read yn?"to $authflr <y>/n:";                     #~
: : : : print "authenticate reportsing";                #~
: : done;                                       #~
: done;                                         #~
}                                               #~
function psort {                                #~f sort authenticated
: banner "r)eports:sort" "Select Authenticated log report";     #~
: : "r)eturn to main menu";     #~
: do                                            #~
: : read yn?"to $authflr-sorted-by-days -sorted-by-ids <y>/n:";         #~
: : : print "sorting by days reportsing";               #~ sort days
: : : print "sorting by ids reportsing";                #~ sort ids
: : : ls -nog $authflr $authflr-sorted-*|cut -c15-;             #~
: done;                                         #~
}                                               #~
function poracle {                              #~f merge auth with oracle
: banner "r)eports:oracle" "Select Authenticated log report";   #~
: : "r)eturn to main menu";     #~
: do                                            #~
: : banner "r)eports:oracle" "Select Oracle authorized file";   #~
: : : "r)eturn to main menu";   #~
: : do                                          #~
: : : read yn?" into $mrgflr <y>/n:";                   #~
: : : : print "merging reports";                        #~
: : done;                                       #~
: done;                                         #~
}                                               #~
function pcount {                               #~f count string in access
: banner "r)eports:count" "Select log server";                  #~
: do                                            #~
: : check_reply_quit $REPLY $csrvr;                     #~ quit/return
: : if [[ $csrvr == "l)ast" || $csrvr == "l" ]]; then           #~ last 10
: : if [[ $csrvr == "r)eports" || $csrvr == "p" ]]; then        #~ reports
: : select cslg in `ls -C $csrvr*` "r)eturn to main menu";      #~
: : do                                          #~ logs
: : done;                                       #~
: done;                                         #~
}                                               #~
# global variables ##########                   #~ global declaration and init
# main program loop ##########          #~ main program loop
do                                      #~ sub-menus and commands
: case $cmd in                                  #~
: : g*)  banner "get" "FTP to a server";                #~c get
: : l*)  banner "list" "List retrieved log files";      #~c list
: : r*)  banner "reports" "Process Log Files";          #~m reports
: : : : do                                      #~
: : : :    case $cmd in                         #~
: : : : : : l*)  ls -nog "Reports"|cut -c15-|more -w;           #~p list
: : : : : : v*)  banner "reports:view" "Select Report to view"; #~p view
: : : : : : d*)  banner "reports:delete" "Select Report to delete";     #~p
: : : : : : ap*|p) banner "reports:append:from" "Append Report from";   #~p
: : : : : : c*)  pcount;                        #~p count
: : : : : : au*|u) pauthen;                     #~p authenticate
: : : : : : s*)  psort;                         #~p auth sort
: : : : : : o*)  poracle;                       #~p sort oracle
: : : : : : a*)  paol;                          #~p aol
: : : : done;;                                  #~end reports
: : e*)  banner "edit" "lists and configurations";      #~m edit
: : : : do                                      #~
: : : :    case $cmd in                         #~
: : : : : : a*)  banner "edit:add" "Add a server";      #~c add
: : : : : : d*)  banner "edit:delete" "Delete a server";        #~c delete
: : : : : : h*)  su - root -c "vi /etc/hosts";          #~c hosts
: : : : : : f*)  cp ~/.netrc ~/.netrc.bu;               #~c ftp
: : : : : : l*)  getvarinfile "logging=" $0;    #~c logging status
: : : :    esac;                                #~
: : : : done;;                                  #~end edit
: : s*)  banner "servers" "Server information";         #~m server
: : : : do                              #~
: : : :    case $cmd in                         #~
: : : : : : p*)  banner "servers:ping" "Pinging servers";       #~c ping
: : : : : : w*)  banner "servers:who" "Who is logged on";       #~c who
: : : : : : l*)  banner "servers:logs" "Log file listing";      #~c logs
: : : : : : c*)  banner "servers:cron" "Crontab listings";      #~c crontab
: : : : : : d*)  banner "servers:disk" "Disk free space";       #~c space
: : : : : : f*)  banner "servers:ftp" "FTP session";            #~c ftp
: : : : : : t*)  banner "servers:telnet" "Telnet session";      #~c telnet
: : : :    esac;                                #~
: : : : done;;                                  #~end server
: : w*)  banner "webtrends" "WebTrends information";    #~m webtrends
: : : : do                                      #~
: : : :    case $cmd in                         #~
: : : : : : l*)  wt="/stg/webtrends/wtm_wtx/datfiles/reports";  #~c
: : : : : : s*)  /stg/webtrends/wtrs.server -status;            #~c
: : : : : : up)  read yn?"start webtrends $lsrvr <n>/yes:";     #~c
: : : : : : down)  read yn?"stop webtrends $lsrvr <n>/yes:";    #~c
: : : :    esac;                                #~
: : : : done;;                          #~end webtrends
: : r*)   print "q)uit to exit log manager";;           #~c return
: : q*)  exit;;                                 #~c exit
: : ~~*)  cp $0 $0.bu;cp $0 ~/$0.bu;ls -al $0* ~/$0*;   #~c backup self
: : ~*)  cp $0 $0.bu;vi $0;restart;;            #~c edit self
: : \?\?)  $0 ? ?; restart;;                    #~c prg doc
: : h*|\?*) banner "help" "Help and Documentation";     #~c help-doc
: : : : do                                      #~
: : : :    case $cmd in                         #~
: : /*)  clear; restart;;                       #~c clear screen
: : *)    print "what $cmd?";;                  #~c unknown
: esac;                                         #~
done;                                           #~
```

2.3. Code

2.3.1. /stg/logs/wlm (korn shell script):

```
#!/bin/ksh
#
# NAME
#      wlm - Annuities Web Log File Management interface
#
# SYNOPSIS
#      wlm - menu driven user interface to manage Annuities Web Logs
#
# DESCRIPTION
#     downloads and manages the log files from the various annuities web servers
#
# HOSTS(s)
#      ap-dds02
#
# USERS(s)
#      nsuser
#
# DIRECTORY(s)
#      /stg/logs   - logs directory for each server
#      ~/.netrc    - ftp configuration file
#
# AUTHORED
#      4/5/00 written by gary neshanian
#.

trap 'print "\nq)uit to exit log manager";restart;' 2; # force exit no ctrl-c

#~ programmers note#~ programmers notess
if [[ "$1" == "?" && "$2" == "?" ]]; then           #~ ? help programmer
(grep "#\~" $0|sed 's/^  /: /g;s/:   /: : /g;s/:    /: : /g;s/:  /: : /g;s/:  /: :
/g;s/:  /: : /g;s/:    /: : /g;s/:   /: : /g;s/  /  /g;s/ #~/   #~/g';\
)|more -w; exit; fi;
if [[ "$1" == "?" ]]; then                        #~ ? help man
(sed -n "1,`head -50 $0|grep -n "#"|grep "#\.$"|cut -d":" -f1`p" $0|\
grep "^#"|grep -v "^#!"|sed 's/^#.//g;s/^#//g;s/^ //g')|more -w; exit; fi;

function getvarinfile {          #~f read the file and get the variable
 dvar=`grep "^$1" $2|cut -d\" -f1`;       # data variable
 data=`grep "^$1" $2|cut -d\" -f2`;       # data values
 dend=`grep "^$1" $2|cut -d\" -f3-`;      # data end of line
 dline=`grep -n "^$1" $2|cut -d":" -f1`;  # data line number
 integer dab=$dline-1;dabove=$dab;      # above
 integer dbe=$dline+1; dbelow=$dbe;       # below
 integer dbt=`cat $2|wc -l`;dbottm=$dbt;  # last line number
}

function putvarinfile {          #~f rewrite self with new data vars
#print "$dvar|$data|$end";
 sed -n "1,${dabove}p" $0 >$0.tmp;                # above
 print ${dvar}\"${data}\"${dend} >>$0.tmp;             # new data
 sed -n "${dbelow},${dbottm}p" $0 >>$0.tmp;         # below
 mv $0 $0.bu; mv $0.tmp $0;                      # bu
 chmod 750 $0*;                                # chmod
}

function banner { # menu title              #~f set/display banner & prompt
 bnr="\n${gb}   $1${1:+:}$2   ${gf}\n";       # banner title
 menu="$1";                               # menu tree
 title="$2";                              # title
 print "${bnr}";                          # display
PS3="
${1:-enter} #)number, c)ommand or [enter-menu] ?";           # menu prompt
}

function rebanner {                       #~f redisplay banner
 banner "$menu" "$title";
}

function chop { # length string list        #~f display server list
 print -n "$2 "; lngth=${#2};
 for s in $3; do
   print -n "$s "; integer lngth=$lngth+${#s};
   if [ $lngth -gt $1 ]; then print -n "\n "; lngth=1; fi;
 done;
}

function telr { # server                  #~f telnet to server
 print ${gu}$1:$2${gf};
 (print nsuser;sleep 1;print nsadmin;
 print "set prompt='';PS1='';";print $2;
 sleep 1;print logout)|telnet $1|sed -n "12,$"p|more -w;
}

function check_reply_quit {  # REPLY var       #~f check for return quit
 if [[ $1 == "/" ]]; then clear; restart; fi;
 if [[ $1 == "q" || $1 == "r" || \
 $2 == "return" || $2 == "quit" || \
 $2 == "r)eturn" || $2 == "q)uit" ]]; then
   restart;
 fi;
}

function check_yes_no {  # yn               #~f check for rq from yes no
 if [[ $1 == R||$1 == r||$1 == Q||$1 == q ]]; then
   restart;
 fi;
}

function logit {  # string                #~f put entries in log file
 if [[ $logging == on ]]; then
   user="[`who am i|cut -d' ' -f1`@`who am i|cut -d'(' -f2|cut -d')' -f1|\
      sed s'/annuities.pacificlife.com/a.pl.com/g'`]";
   print "`date`${user}$menu:$1" >>$logfile;
 fi;
}

function restart {                        #~f restart manager
```

```
 exec $0 -rerun $*;
}


# generate reports ##########                #~ generate reports process logs

function paol {                              #~f convert access to aol
 banner "r)eports:aol" "Select log server";                #~
 select aolsrvr in $data "r)eturn to main menu";             #~
 do                                                 #~
   check_reply_quit $REPLY $aolsrvr;
   banner "r)eports:aol" "Select log file";                #~
   select acsflr in `ls $aolsrvr/access??*` "r)eturn to main menu"; #~
   do                                               #~
     check_reply_quit $REPLY $acsflr;
     aolflr=`print $acsflr|sed 's/access/aol/g';`
     print;
     print "aol reports $acsflr";
     read yn?"to $aolflr <y>/n:";                         #~
     check_yes_no $yn;
     if [[ $yn != N && $yn != n ]]; then
#      paol $acsflr $aolflr;
       print "aol reportsing";                            #~
       cat $acsflr | sed '
s|Mozilla/4.0 (compatible; MSIE 5.0; AOL 5.0;.*)|AOL (5.0)|g;
s|Mozilla/4.0 (compatible; MSIE 5.0; AOL 4.0;.*)|AOL (4.0)|g;
s|Mozilla/4.0 (compatible; MSIE 4.01; AOL 4.0;.*)|AOL (4.0)|g;
s|Mozilla/4.0 (compatible; MSIE 5.0; MSNIA; AOL 5.0;.*)|AOL (5.0)|g;
' >$aolflr
       print "aol reportsed:";
       ls -nog $acsflr $aolflr|cut -c15-;
     fi;
     restart;
   done;                                              #~
 done;                                                #~
 return;
}                                                   #~

function pauthen {                             #~f filter authenticated
 banner "r)eports:authenticated" "Select log server";        #~
 select authsrvr in $data "r)eturn to main menu";            #~
 do                                                 #~
   check_reply_quit $REPLY $authsrvr;
   banner "r)eports:authenticated" "Select log file";        #~
   select acsflr in `ls $authsrvr/access??*` "r)eturn to main menu"; #~
   do                                               #~
     check_reply_quit $REPLY $acsflr;
     authflr=`print $acsflr|sed "s/access/auth/g;s|/|:|g;s|^|Reports/|g";`
     print;
     print "authenticate $acsflr";
     read yn?"to $authflr <y>/n:";                          #~
     check_yes_no $yn;
     if [[ $yn != N && $yn != n ]]; then
       print "authenticate reportsing";                     #~
       cat $acsflr | grep -v "\- \- \["|\
         cut -d: -f1|cut -d- -f2|\
         sort -u|sort -t"[" +1|sort >$authflr
       print "auth reportsed:";
       ls -nog $acsflr $authflr|cut -c15-;
     fi;
     restart;
   done;                                              #~
 done;                                                #~
 return;
}                                                   #~

function psort {                               #~f sort authenticated
 banner "r)eports:sort" "Select Authenticated log report"; #~
 select authflr in `ls Reports/*auth*|grep -v TXT|grep -v sort` \
   "r)eturn to main menu"; #~
 do                                               #~
   check_reply_quit $REPLY $authflr;
   print;
   print "sort $authflr";
   read yn?"to $authflr-sorted-by-days -sorted-by-ids <y>/n:"; #~
   check_yes_no $yn;
   if [[ $yn != N && $yn != n ]]; then
     print "sorting by days reportsing";                #~ sort days
     # authenticated
     # PBRUNNER [01/Feb/2000
     # # days PBRUNNER ()
     cat $authflr | sed 's/\[//g'|cut -d/ -f1| \
     awk 'BEGIN {peodays=0;avgdaytotal=0;people=0;daycount=0;}
     { if ($1!=lastperson)
       {printf "%2d days %10s (%s)\n",persondaycount,lastperson,peolist;
       daycount[persondaycount]+=1;
       people+=1;lastperson=$1;avgdaytotal+=persondaycount;
       persondaycount=1; peolist="";}
     else {
       persondaycount+=1;
     }
     if (persondaycount > 1) peolist=peolist",";peolist=peolist$2;
     peodays+=1; #print $0;
     }
     END {avgdays=avgdaytotal;avgdays/=people;
       print "  total user days=",\
         peodays,"users=",people,"average days per user=",avgdays;
       printf "   days visited:visitors ";
       for (nc = 1;nc < 32; nc++) printf "%d:%d ",nc,daycount[nc];
     }' | sort -r >$authflr-sorted-by-days;
     print "sorting by ids reportsing";                 #~ sort ids
     # authenticated
     # PBRUNNER [01/Feb/2000
     # PBRUNNER on # days ()
     cat $authflr | sed 's/\[//g'|cut -d/ -f1| \
     awk 'BEGIN {peodays=0;avgdaytotal=0;people=0;}
     { if ($1!=lastperson)
       {printf "%10s on %2d days (%s)\n",lastperson,persondaycount,peolist;
       people+=1;lastperson=$1;avgdaytotal+=persondaycount;
       persondaycount=1; peolist="";}
     else {
        persondaycount+=1;
     }
     if (persondaycount > 1) peolist=peolist",";peolist=peolist$2;
     peodays+=1; #print $0;
     }
     END {avgdays=avgdaytotal;avgdays/=people;
       print "  total user days=",\
       peodays,"users=",people,"average days per user=",avgdays;
     }' >$authflr-sorted-by-ids;
     ls -nog $authflr $authflr-sorted-*|cut -c15-;        #~
   fi;
   restart;
 done;                                                  #~
 return;
}                                                       #~

function poracle {                              #~f merge auth with oracle
 banner "r)eports:oracle" "Select Authenticated log report"; #~
 select authflr in `ls Reports/*auth*-sorted-by-ids` \
   "r)eturn to main menu"; #~
 do                                                  #~
   check_reply_quit $REPLY $authflr;
   banner "r)eports:oracle" "Select Oracle authorized file"; #~
   select oraflr in `ls Reports/*|grep -v auth` \
     "r)eturn to main menu"; #~
   do                                                  #~
     check_reply_quit $REPLY $oraflr;
     mrgflr=$oraflr-`print $authflr|sed 's|Reports/||g'`;
     print;
     print "merge $authflr (Authenticated)";
     print " with $oraflr (Authorized)";
     read yn?" into $mrgflr <y>/n:";                     #~
     check_yes_no $yn;
     if [[ $yn != N && $yn != n ]]; then
       print "merging reports";                          #~
       # oracle
       # strip trailing spaces, sort
       # PBRUNNER
       cat $oraflr|\
       sed 's/          / /g;s/     / /g;s/   / /;s/  / /g;s/  / /g;s/^ //g;s/
$//g'|\
       sort|sed 's/$/ ~/g' >$0.tmp
       # authenticated
       # PBRUNNER [01/Feb/2000
       # strip date, convert to uppercase, sort, filter uniques
       # PBRUNNER
       cat $authflr|tr -s '[:lower:]' '[:upper:']|\
       sort -u|sed 's/     //g;s/   //g;s/^  //g;s/^ //g;s/ $//g;' >>$0.tmp
       # merged
       # PBRUBBER on # days ()
       sort $0.tmp | \
       awk 'BEGIN {file1=".";file2=":";file2p="";people=0;}
       {  if ($1!=lastperson)
         {printf "%10s     %10s %s\n",file1,file2,file2p;
         people+=1;
         lastperson=$1;file1=".";file2=":";file2p="";}
       if ($2 == "~") file1=$1;
       if ($2 == "ON") {file2=$1;file2p=$3" days "$5;}
       }
       END {print "  total users=",people;}' >$mrgflr;
```

```
         rm $0.tmp;
         ls -nog $mrgflr|cut -c15-;
      fi;
      restart;
    done;                                               #~
 done;                                                  #~
 return;
}                                                    #~

function pcount {                            #~f count string in access
 lfs="";                              # servers
 banner "r)eports:count" "Select log server";              #~
 select csrvr in $data \
    "l)ast    10 counts, pick from" \
    "r)eports current count request" \
    "r)eturn  to main menu";
 do                                                #~
    check_reply_quit $REPLY $csrvr;                    #~ quit/return
    csrvr=`print $csrvr | awk '{ print $1 }'`;
         if ((${#csrvr} == 0)); then csrvr=$REPLY; fi;
    if [[ $csrvr == "l)ast" || $csrvr == "l" ]]; then       #~ last 10
      lastlist="`grep "count:" $logfile|cut -d! -f2`";
      select last in `grep ":count:" $logfile|tail -10|cut -d! -f2` \
         "r)eturn to main menu"; do
         check_reply_quit $REPLY $last;
         cmd="`print $last|sed 's/_/ /g'`";
         print;
         read yn?"Recount: $cmd <y>/n:";
         check_yes_no $yn;                 # confirm
         if [[ $yn != N && $yn != n ]]; then
                print "$cmd" >$0.tmp;   # rereports
                chmod 700 $0.tmp;$0.tmp;rm $0.tmp;
           menu="recount";logit "$cmd";
         fi;
      done;
    restart; fi;
    if [[ $csrvr == "r)eports" || $csrvr == "p" ]]; then   #~ reports
      print;
      read stg?"String to count:";        # string
      if [[ $stg == "q" || $stg == "r" ]]; then
         restart; fi;
      read yn?"Count \"$stg\"s in $lfs <y>/n:";
      check_yes_no $yn;                    # confirm
      if [[ $yn != N && $yn != n ]]; then
              cat $lfs | grep $stg | wc -l;  # reports
         cmd="cat $lfs | grep $stg | wc -l";
         cmdd=`print $cmd|sed 's/ /_/g'`;
         logit "!$cmdd";
      fi;
      restart;
    fi;
    banner "r)eports:count" "Select log file [$csrvr]";    # more logs
    select cslg in `ls -C $csrvr*` "r)eturn to main menu";  #~
    do                                             #~ logs
      check_reply_quit $REPLY $cslg;
      lfs="$lfs $csrvr/$cslg";
      print "\nSelected log file(s):$lfs\n";
      print 'Type "p" to reports or [Enter] for more';
      break;
    done;                                            #~
    restart;
 done;                                                #~
 return;
}                                                    #~


# global variables ##########             #~ global declaration and init
gb=`tput bold`;gu=`tput smul`;gf=`tput sgr0`;  # graphics strings
PS3="
enter #)number or c)ommand ?";              # menu prompt
title="Pacific Life Annuities - Web Log Manager";

logservers="annuities1 annuities2 myaccount1 myaccount2 secure1 secure2 nas1 nas2
vaintranet mirror";
getvarinfile "logservers=" $0;              # set data variables
logging="on"; # logging on/off
logfile=".${0}_logfile";                  # logfile


# main program loop ##########            #~ main program loop
if [[ "$1" == "-rerun" ]]; then shift 1; rerun="yes"; else rerun="no"; fi;
if [[ $rerun == no ]]; then logit "login";fi;  # log user entry login

banner "" "$title";                       # display banner and prompt
print "${gu}   Web Log Directories on `hostname` under `pwd`   ${gf}\n";
#print "${gu}$data${gf}\n";                 # main menu

select cmd in \
"e)dit       web server list, configuration files" \
"g)et        ftp web log files, from web servers" \
"l)ist       log files retrieved-got from servers" \
"r)eports    generate reports and preprocess logs" \
"s)ervers    management and communications" \
"w)ebtrends  management; status, start, stop" \
"h)elp       documentation and notes" \
"q)uit       exit, web log manager";
do                                      #~ sub-menus and commands
 print; cmd=`print $cmd | awk '{ print $1 }'`;
 if ((${#cmd} == 0)); then cmd=$REPLY; fi;  #print "cmd:$cmd";
 case $cmd in                                        #~
    g*)  banner "get" "FTP to a server";            #~c get
        select gsrvr in $data "r)eturn to main menu"; do
          check_reply_quit $REPLY $gsrvr;
          print "ftping $gsrvr";
          ftp $gsrvr;
          restart;
        done;;                                    #end retrieve
    l*)  banner "list" "List retrieved log files";       #~c list
        for lsrvr in $data; do
          read yn?"list $lsrvr <y>/n/r:";
          check_yes_no $yn;
          if [[ $yn != N && $yn != n ]]; then
          (print "\n${gu}$lsrvr logs:${gf}";
          ls -algno $lsrvr|grep -v "^total "|grep -v "\.$"|grep -v " _";
```

```
       print "`du -sk $lsrvr|sed 's/  / Kbytes for /g'`";
       print); else print; fi;
     done;
     print "Total `du -sk /stg/logs|sed 's/ / Kbytes under /g'`";
     print;;                               #end list
r*)  banner "reports" "Process Log Files";        #~m reports
     select cmd in \
       "v)iew   generated report" \
       "l)ist   reports with their size and date" \
       "d)elete report from the Reports folder" \
       "c)ount  count string lines in log file access..." \
       "a)ol    convert access... to AOL browsers aol..." \
       "au)th   filter access... for auth-enticated users" \
       "s)ort   sort auth-enticated by id and by days into reports" \
       "o)racle merge auth-enticated with Oracle-authorized reports" \
       "ap)pend one report to another report" \
       "r)eturn to main menu";
     do                                    #~
       check_reply_quit $REPLY $cmd;
       print; cmd=`print $cmd | awk '{ print $1 }'`;
        if ((${#cmd} == 0)); then cmd=$REPLY; fi; #print "cmd:$cmd";
        case $cmd in                          #~
          l*)  ls -nog "Reports"|cut -c15-|more -w;       #~p list
               rebanner;;
          v*)  banner "reports:view" "Select Report to view"; #~p view
               select vwflr in `ls Reports/??*` "r)eturn to main menu";
               do
                 check_reply_quit $REPLY $vwflr;
                 print "$vwflr:";
                 more $vwflr;
                 banner "reports:view" "Select another Report";
                 break; #restart;
               done;
               banner "reports" "Process Log Files";;#restart;;
          d*)  banner "reports:delete" "Select Report to delete"; #~p
               select rmflr in `ls Reports/??*` "r)eturn to main menu";
               do
                 check_reply_quit $REPLY $rmflr;
                 read yn?"delete $rmflr <n>/y:"; check_yes_no $yn;
                 if [[ $yn != Y || $yn != y ]]; then
                   rm $rmflr;
                 fi;
                 ls -nog "Reports"|cut -c15-|more -w;
                 restart;
               done;
               banner "reports" "Process Log Files";; #restart;;
          ap*|p) banner "reports:append:from" "Append Report from"; #~p
               select afflr in `ls Reports/??*` "r)eturn to main menu";
               do
                 check_reply_quit $REPLY $afflr;          # from
                 if [[ $afflr == "" ]]; then restart; fi;
                 banner "reports:append:to" "Append Report to";
                 select atflr in `ls Reports/??*` \
                   "c)reate new report" "r)eturn to main menu";
                 do
                   check_reply_quit $REPLY $atflr;        # to
                    if ((${#atflr} == 0)); then atflr=$REPLY; fi;
```

```
                if [[ $atflr == "" ]]; then restart; fi;
                print; atflr=`print $atflr | awk '{ print $1 }'`;
                if [[ $atflr == "c" || $REPLY == "c" ]]; then
                  read atflr?"New report file name:";    # create
                  if [[ $atflr == "q" || $atflr == "r" ]]; then
                    restart; fi;
                  atflr="Reports/$atflr";
                  print "copy/create $afflr\n         to $atflr";
                  read yn?"copy <y>/n:"; check_yes_no $yn;
                  if [[ $yn != N && $yn != n ]]; then
                    cp $afflr $atflr; print;
                    ls -nog $atflr $afflr|cut -c15-;
                  fi;
                  restart;
                fi;
                if [ -f $atflr ]; then                 # append
                  print "append $afflr\n    to $atflr";
                  read yn?"append <y>/n:"; check_yes_no $yn;
                  if [[ $yn != N && $yn != n ]]; then
                    cat $afflr >>$atflr; print;
                    ls -nog $atflr $afflr|cut -c15-;
                  fi;
                  restart;
                fi;
                restart;
              done;
              restart;
            done;
            banner "reports" "Process Log Files";; #restart;;
        c*)  pcount;                       #~p count
            restart;;
        au*|u) pauthen;                      #~p authenticate
            banner "reports" "Process Log Files";; #restart;;
        s*)  psort;                        #~p auth sort
            banner "reports" "Process Log Files";; #restart;;
        o*)  poracle;                        #~p sort oracle
            banner "reports" "Process Log Files";; #restart;;
        a*)  paol;                           #~p aol
            banner "reports" "Process Log Files";; #restart;;
        r*|q*) restart;;
         *)    print "what $cmd?";;
      esac;
      #restart;
    done;;                                #~end reports
e*)  banner "edit" "lists and configurations";       #~m edit
    #print "${gu}Servers: $data${gf}\n";
    print -n "${gu}"; chop 40 "Servers:" "$data"; print "${gf}\n";
    select cmd in \
      "a)dd    a server to the list" \
      "d)el    a server from the list" \
      "h)osts  system /etc/hosts file" \
      "f)tp    retrieval config .netrc" \
      "l)og    manage the log file" \
      "r)eturn to main menu";
    do                                    #~
      check_reply_quit $REPLY $cmd;
      print; cmd=`print $cmd | awk '{ print $1 }'`;
```

```
        if ((${#cmd} == 0)); then cmd=$REPLY; fi; #print "cmd:$cmd";
        case $cmd in                          #~
          a*)  banner "edit:add" "Add a server"; #~c add
               read asrvr?"Server to add:";
               if [[ $asrvr == "" ]]; then restart;fi;
               print "adding $asrvr to $data in $0";
               data="$data $asrvr";
               putvarinfile;
               mkdir $asrvr; chmod 764 $asrvr;;
          d*)  banner "edit:delete" "Delete a server";  #~c delete
               select dsrvr in $data "r)eturn to main menu"; do
                 check_reply_quit $REPLY $dsrvr;
                 read yn?"delete $dsrvr <y>/n:";
                 check_yes_no $yn;
                 if [[ $yn != N && $yn != n ]]; then
                   print "deleting $dsrvr from $data in $0";
                   data=`print $data|sed "s|$dsrvr||g"`;
                   putvarinfile;
                 fi;
                 restart;
               done;;
          h*)  su - root -c "vi /etc/hosts";       #~c hosts
               rebanner;; #restart;;
          f*)  cp ~/.netrc ~/.netrc.bu;            #~c ftp
               vi ~/.netrc; rebanner;; #restart;;
          l*)  getvarinfile "logging=" $0;    #~c logging status
               banner "edit:log" "logging is currently[$data]";
               select onf in "c)at    tail the log file" \
                 "o)n     turn logging on" "of)f    turn logging off" \
                 "r)eturn to main menu";
                 do
                 check_reply_quit $REPLY $onf;
                 if ((${#onf} == 0)); then onf=$REPLY; fi;
                 case $onf in
                   c*)    tail -100r $logfile|more -w;;
                   o|on)     logging="on"; logit "log on";
                          data="$logging";putvarinfile;;
                   f|off) logit "log off"; logging="off";
                          data="$logging";putvarinfile;;
                   v*)    vi $logfile;;
                 esac;
                 getvarinfile "logging=" $0;
                 banner "edit:log" "logging is currently[$data]";
                 #restart;
               done;
               restart;;
           r*|q*) restart;;
           *)    print "what $cmd?";;
        esac;                               #~
       #restart;
     done;;                                 #~end edit
s*)  banner "servers" "Server information";     #~m server
     select cmd in \
       "p)ing   servers" \
       "w)ho    is logged on" \
       "l)ogs   on web servers" \
       "d)isk   space free" \
       "c)ron   tab listing" \
       "f)tp    file transfer protocol" \
       "t)elnet terminal connection" \
       "r)eturn to main menu";
     do                                  #~
       check_reply_quit $REPLY $cmd;
       print; cmd=`print $cmd | awk '{ print $1 }'`;
        if ((${#cmd} == 0)); then cmd=$REPLY; fi; #print "cmd:$cmd";
        case $cmd in                       #~
          p*)  banner "servers:ping" "Pinging servers";   #~c ping
               (for h in $data; do
                 ping $h 1|sed "s/no answer/${gb}no answer/g";
                 print -n "${gf}";
               done;) | more -w;
               banner "servers" "Server information";; #restart;;
          w*)  banner "servers:who" "Who is logged on";   #~c who
               select wsrvr in $data "a)ll" "r)eturn to main menu"; do
                 check_reply_quit $REPLY $wsrvr;
                 if [[ $REPLY == "a"||$wsrvr == "a)ll" ]]; then
                   wsrvrs=$data; else wsrvrs=$wsrvr; fi;
                 for c in $wsrvrs; do
                   telr $c "who -q;who";
                 done; break;
                 banner "servers" "Server information";#restart;
               done;
               banner "servers" "Server information";; #restart;;
          l*)  banner "servers:logs" "Log file listing";     #~c logs
               select lsrvr in $data "a)ll" "r)eturn to main menu"; do
                 check_reply_quit $REPLY $lsrvr;
                 if [[ $REPLY == "a"||$lsrvr == "a)ll" ]]; then
                   srvrs=$data; else srvrs=$lsrvr; fi;
                 for c in $srvrs; do lgf="/logs";
                   if [[ $c == "annuities1"||$c == "annuities2" ]];
                     then lgf="/home/logs/annuities/*";fi;
                   if [[ $c == "myaccount1"||$c == "myaccount2" ]];
                     then lgf="/home/logs/myaccount/*";fi;
                   if [[ $c == "secure1"||$c == "secure2" ]];
                     then lgf="/home/logs/secure/*";fi;
                   if [[ $c == "nas1"||$c == "nas2" ]]; then
                     lgf="/export/home/netscape/nas/logs/k*";fi;
                   if [[ $c == "vaintranet" ]]; then
                     lgf="/opt/netscape/suitespot/https-vaintranet/logs/";fi;
                   telr $c "ls -nog $lgf";
                 done; break;
                 banner "servers" "Server information";#restart;
               done;
               banner "servers" "Server information";; #restart;;
          c*)  banner "servers:cron" "Crontab listings";     #~c crontab
               select csrvr in $data "a)ll" "r)eturn to main menu"; do
                 check_reply_quit $REPLY $csrvr;
                 if [[ $REPLY == "a"||$csrvr == "a)ll" ]]; then
                   srvrs=$data; else srvrs=$csrvr; fi;
                 for c in $srvrs;do
                   telr $c "crontab -l";
                 done; break;
                 banner "servers" "Server information";#restart;
               done;
```

```
               banner "servers" "Server information";; #restart;;
          d*)  banner "servers:disk" "Disk free space";    #~c space
               select dsrvr in $data "a)ll" "r)eturn to main menu"; do
                 check_reply_quit $REPLY $dsrvr;
                 if [[ $REPLY == "a"||$csrvr == "a)ll" ]]; then
                   for d in $data;do telr $d "df -k";done;
                 else telr $dsrvr "df -k"; fi;
                 break; #restart;
               done;
               banner "servers" "Server information";; #restart;;
          f*)  banner "servers:ftp" "FTP session";        #~c ftp
               select fsrvr in $data "r)eturn to main menu"; do
                 check_reply_quit $REPLY $fsrvr;
                 ftp -n $fsrvr;
                 break; #restart;
               done;
               banner "servers" "Server information";; #restart;;
          t*)  banner "servers:telnet" "Telnet session";    #~c telnet
               select tsrvr in $data "r)eturn to main menu"; do
                 check_reply_quit $REPLY $tsrvr;
                 telnet $tsrvr;
                 break; #restart;
               done;
               banner "servers" "Server information";; #restart;;
          r*|q*) restart;;
           *)    print "what $cmd?";;
        esac;                             #~
       #restart;
     done;;                               #~end server
w*)  banner "webtrends" "WebTrends information";   #~m webtrends
     select cmd in \
       "l)ist   webtrends reports" \
       "s)tatus of webtrends report server" \
       "r)eturn to main menu";
     do                                   #~
       check_reply_quit $REPLY $cmd;
       print; cmd=`print $cmd | awk '{ print $1 }'`;
        if ((${#cmd} == 0)); then cmd=$REPLY; fi; #print "cmd:$cmd";
        case $cmd in                        #~
          l*)  wt="/stg/webtrends/wtm_wtx/datfiles/reports"; #~c
               rps=`ls $wt|grep -v cluster|grep -v sample|sort -n`;
               (print "WebTrends Reports:$wt\n";
                for r in $rps; do
                 integer t=`grep -n "Title:" $wt/$r/index_s.html|\
                   cut -d: -f1`+1;
                 print "($r) \t`head -$t $wt/$r/index_s.html|\
                 tail -1|cut -d'>' -f3|cut -d'<' -f1`";
               done)|more -w;
               print -n;; #restart;;
          s*)  /stg/webtrends/wtrs.server -status;        #~c
               print "\n"`ps -ef|grep wtrs|grep -v grep`;
               print -n;; #restart;;
          up)  read yn?"start webtrends $lsrvr <n>/yes:"; #~c
               if [[ $yn == yes||$yn == Yes||$yn == YES ]]; then
                 print ${gb}; /stg/webtrends/wtrs -start; print ${gf};
               fi;; #restart;;
          down)  read yn?"stop webtrends $lsrvr <n>/yes:";     #~c
```

```
                   if [[ $yn == yes||$yn == Yes||$yn == YES ]]; then
                     print ${gb}; /stg/webtrends/wtrs -stop; print ${gf};
                   fi;; #restart;;
              r*|q*) restart;;
               *)    print "what $cmd?";;
            esac;                             #~
           #restart;
         done;;                               #~end webtrends
    r*)   print "q)uit to exit log manager";;          #~c return
    q*)  exit;;                               #~c exit
    ~~*) cp $0 $0.bu;cp $0 ~/$0.bu;ls -al $0* ~/$0*;#~c backup self
         restart;;
    ~*)  cp $0 $0.bu;vi $0;restart;;               #~c edit self
    \?\?)  $0 ? ?; restart;;                         #~c prg doc
    h*|\?*) banner "help" "Help and Documentation";    #~c help-doc
         select cmd in \
           "n)otes  menu operation and notes" \
           "m)an    manual pages" \
           "p)rg    programmers pseudo code" \
           "r)eturn to main menu";
         do                                     #~
           check_reply_quit $REPLY $cmd;
           print; cmd=`print $cmd | awk '{ print $1 }'`;
            if ((${#cmd} == 0)); then cmd=$REPLY; fi; #print "cmd:$cmd";
            case $cmd in                           #~
              n*)  grep "^#\." $0|sed 's/^#.//g'|more -w;
                   rebanner;;
              m*)  $0 '?';
                   rebanner;;
              p*)  $0 '?' '?';
                   rebanner;;
           /|r*|q*) restart;;
           *)   print "What $cmd";;
           esac;
           #restart;
         done;;
    /*)  clear; restart;;                       #~c clear screen
    *)    print "what $cmd?";;                     #~c unknown
 esac;                                          #~
 restart;
done;                                           #~
#.          The Pacific Life Annuities - Web Log Manager (logs)
#.
#.Centralizes the management and processing of the web server logs on the
#.I-Nets of the Annuities Division - http://annuities.pacificlife.com
#.
#.It is a self managed/maintained menu interface that allows Telnet, FTP and
#.other network connectivity to the web servers providing a convenient
#.mechanism for the retrieval of web server logs.
#.
#.Additionally provides for the processing and report generation of the logs
#.and a menu based interface for log retrieval to WebTrends and it's management.
#.
#.
#.MENUs
#.All menus (sample):
#.   menu:Title
```

```
#.1) s)hort  description and notes
#.2) r)eturn to main menu
#.menu #)number, c)ommand or [enter-menu] ?
#.
#.the menu then accepts a response of either a number from the menu list
#.(sample "1"), the letter before the left parenthesis (sample "s"),
#.a "r" to return to the main menu, a "q" to quit the program
#.or the "[enter]" key to redisplay the menu.
#.
#.
#.SUB-MENUs
#.Many sub-menus prompt for a confirmation (sample):
#.confirm <y>/n:
#.
#.the sub-menu displays the default response in <brackets> (sample is "y"es)
#.and the alternate response(s) after the /slash (sample is "n"o).
#.
#.
#.MORE
#.The "--More--" prompt will display the "next line" after hitting
#.the [enter-key], the "next screen" after pressing the [space bar],
#."quit" displaying data after hitting the "q" key and finish
#.displaying data after displaying the "--No more--" prompt.
#.
#.
#.Almost all responses have been designed around a single key
#.response, a number or letter, followed by the [enter-key].
#.
#.
#.Any bug reports, problems or comments should be sent to
#.the author Gary Neshanian x7595, gneshanian@pacificlife.com
#.
```

3. Configuration

3.1. Users

root	Administrator of Unix servers
nsuser	Administrator and user of the Web Log Manager

3.2. .

. .

4. Reference

4.1. Documents

SIS/I-Net – Network Operations
Documentation Folder delivered to Network Operations from I-Net team

4.2. Contacts

Gary Neshanian

PACIFIC LIFE

Annuities Division

WebTrends – Log Server

Web Log File Reporting

Documentation

Version 2.0

(8/9/2003)

Version 2.0 – February, 2000 (WT 2.0 implementation)
Version 1.0 – December, 1999
(8/9/2003)

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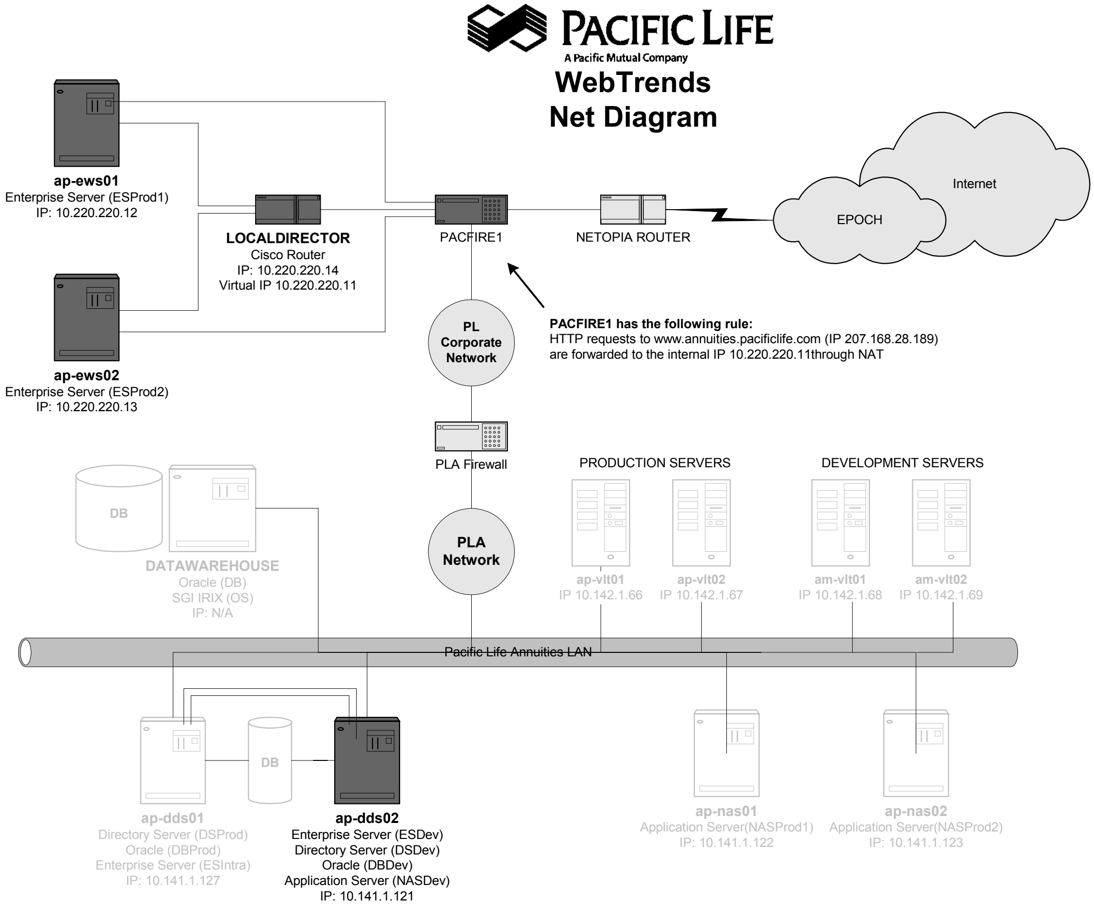
Office: 949.219.7595, Fax: 949.219.7063 CP2-1

WebTrends - Index

Figures

1. Servers

Network Diagram



1.1. Domains

198.181.8.21	annuities.pacificlife.com	(PLA-Extranet Web Server)

1.2. Hosts

10.220.220.11	Cisco Router	Load Distributor (LocalDirector)
10.220.220.12	ap-ews01, annuities1	Annuities1 (mirror1)
10.220.220.13	ap-ews02, annuities2	Annuities2 (mirror2)
10.141.1.121	ap-dds02	WebTrends Server
10.141.1.124	stage , stage.annuities.pacificlife.com	Stage Server (ap-dds02:/stg)

2. Logging

2.1. Directories & Files

2.1.1. Extranet Web Server (ap-ews01/2)

```
/export/home/netscape/suitespot (/export/home=/opt)
    /https-annuities/
    /https-secure-annuities/
        /logs/                              log file directories
            errors                              current error file
        /rotate                             rotate script (cron)
            errors.01Aug-12AM…                  rotated error files
/opt/weblogs/annuities/
    access                                      current log file
    access20000101…                             rotated log files *>
```

2.1.2. WebTrends Server (ap-dds02)

```
/stg                                        (8.7GB, 7.3GB used, 85%)
Log Files                                   log files from ap-ews01/2 (ftp)
/stg/logs/                                  log files for WebTrends (900MB)
/stg/logs/annuities1/                           Annuities1 Server (ap-ews01) copied
/stg/logs/annuities2/                           Annuities2 Server (ap-ews02) copied
    access20000101…                                 ftp/copied log files <*
/stg/logsTEST/                              TEST log files (<10MB) (filtered)
/stg/logsTEST/annuities1/                       filtered Annuities1
/stg/logsTEST/annuities2/                       filtered Annuities2
    access20000101…                                 ftp/copied log files <*filtered
WebTrends                                   data and configuration files
/stg/webtrends/                             main directory
    /wtm_wtx/datfiles/profiles                  profiles directory
    /wtm_wtx/datfiles/databases/%PROFILE%       database directory (cluster, sample, 3)
    /wtm_wtx/datfiles/reports/%PROFILE%.wlp     report files directory
    /wtm_wtx/images/webtlogo.gif                WebTrends logo file (blanked)
    /pl_logo.gif                                Pacific Life logo file

/export/home/netscape/suitespot (/export/home=/opt)
    /https-develop –plugintest –reports –stage –test
        /logs/                              log file directories
            access                              current log file
            errors                              current error file
        /rotate                             rotate script (cron)
            access.01Aug-12AM…                  rotated files
            errors.01Aug-12AM…                  “
```

2.2. Scripts

2.2.1. Extranet Web Server (ap-ews01/2)

/opt/netscape/suitespot/https-securities/rotate (bourn shell script):

```
#!/bin/sh

# Rotates server log files, without affecting users who may be
# connected to the server.

# This can be run as a cron script

DATE=`date +%d%h-%I%p`
ROOTDIR=`dirname $0`

# Add here any additional hardcoded logfiles you want rotated.
LOGS='errors secure'
CUSTLOGS=`grep flex-init $ROOTDIR/config/obj.conf \
        | sed -e 's/\\\"//g' -e 's/Init //g' -e 's/\" /\"/g' \
        | awk 'BEGIN { FS = "\""; }  \
                { n = 0; \
                  while(n++ <= NF) if(index($n, "/") == 1) print $n; }'`

(cd $ROOTDIR/logs;

 for i in $LOGS; do
   if [ -f $i ]; then
     mv $i $i.$DATE
   fi
 done

 for j in $CUSTLOGS; do
   if [ -f $j ]; then
     mv $j $j.$DATE
   fi
 done

 if [ -f pid ]; then
   ../restart
 fi
)
```

2.2.2. WebTrends Server (ap-dds02)

/stg/logsTEST/filter (korn shell script):

```
#!/bin/ksh
```

2.3. Notes

Date command formats:

```
$ date +%d%h-%I%p
04Jan-11AM
$ date +%Y%m%d
20000104
```

Change:

```
DATE=`date +%Y%m%d`
mv $i $i$DATE
mv $j $j$DATE
```

3. Configuration

3.1. Users

telnet ap-ews01/2, ap-dds02

nsuser	Administrator of Unix web server log files

http://stage:99

admin	Administrator of WebTrends
viewer	General report viewer account

3.2. Schedule

rotate	cron job (run first of month) rotating the “access” log file into “accessDATE” on Extranet Web Server (ap-ews01/2:/opt/netscape/suitespot/https-annuities/logs)
ftp	manual copying (FTP) of “accessDATE“ log files from Extranet Web Server (ap-ews01/2:/opt/netscape/suitespot/https-annuities/logs) to WebTrends Server (ap-dds02:/stg/logs)

4. Reports

4.1. Web Server Log File Analysis

4.1.1. Annuities web analysis

Location: http://reports:99/reports/3.wlp/index.html

Scheduled: 12 AM

Filters:
topleft(file):
.txt left.htm top.htm* homepage.htm* headhome*.htm* home_rep.htm* login*.htm* logout*.htm*
pacificlife(address):
*.pacificlife.com
dir(directory):
/haht-bin

Reports: Yearly, Quarterly, Monthly, Weekly, Daily

Path: http://

4.1.2. Annuities VALET

Location: http://reports:99/reports/5.wlp/index.html

Scheduled: 9 PM

4.2. Web Site Link Analysis

4.3. Proxy Server Log File Analysis

4.4. Monitoring and Alerting

5. Reference

5.1. Documents

WebTrends Enterprise Reporting Server
Solaris - Version: 1.5
S/N: 1500084-EGE-1885302

5.2. Contacts

WebTrends Corporation
621 SW Morrison, Suite 1300, Portland, OR 97205 503-294-7130
http://www.webtrends.com/products/webtrend/support.htm

CCI - Mail Spooler

Manual and Documentation

Written by Gary Neshanian,
from RHI Consulting

September-December 1999

CCI – Mail Spooler - Index

1. Man-ual Pages

```
 NAME

mail_spooler

 PURPOSE

Take requests from the CCI system and email them to the Channels customers.

 DESCRIPTION

Mail spooler takes the CCI output requests from the spools directory
and emails them to the Channels customers.
The channel's config file-ccf contains the channels and their email customers.
The ftp config file-.netrc contains the ftp customer host user and password.
The configuration file-cfg contains the directory and file path
locations for the mail spooler application.

 SYNOPSIS

mail_spooler [ -start | -stop | -check | -status | -log | -empty | -edit | -help ]

 ARGUMENTS

start   - starts checking spools in bg program
stop    - stop the bg program that is checking the spools
check   - check spools for channel requests
status  - display the bg process status screen
log     - display the log files
empty   - empty the done and error folders
edit    - edit the channel configuration file
help    - display this help screen

 RELEASE

2.0
```

2. Configuration Files

2.1. ConFiGuration: mail_spooler.cfg

```
# . mail_cfg - mail spooler config file
base="/iohome/ccs/custprog"              # base path locations
ccf="$base/mail_ccf"                     # channel config file path
ftprc="/iohome/ccs/.netrc"               # ftp netrc file in user home
spool="/Baskets/Out/WireText"            # spooling dirs path
spool_work="/Baskets/Out/WireText_work"        # work path
spool_done="/Baskets/Out/WireText_done"        # done path
spool_error="/Baskets/Out/WireText_error" # error path
spool_logs="$base/spool_logs"            # log files path
done_log="$spool_logs/done_"             #  done log
error_log="$spool_logs/error_"                 #  error log
```

2.2. Channel Configuration File: mail_spooler.ccf

```
#
# cci mail channel configuration file records and rules
#
#.channel mail@address type-text/binary/ftp style-cron interval-1=on/0=off
AP suzanne_gribble@link.freedom.com text cron 1
KRT gina_pouchie@link.freedom.com text cron 1
FTPr newstest ftp cron 1
```

2.3. FTP configuration file: .netrc

```
machine newstest login garyn password garyn
macdef init
prompt off
type ascii
mput *
quit

machine ftp.krtinfo.com login caanr password CAANR
macdef init
cd WIRE
prompt off
type ascii
mput *
quit
```

3. Programmers Documentation

```
<<<<<<<<<< $ ms doc - Wed Dec 15 10:45:50 PST 1999 >>>>>>>>>>
<<<<<<<<<< function calls and external unix commands >>>>>>>>>>
#!/bin/ksh
######################################################################
#                                                                    #
# mail_spooler 2.0 - email spooler script                            #
#                                                                    #
# written by gary neshanian from rhi consulting 9/21-27/99           #
#                                                                    #
# please log any updates or enhancements here:                       #
# 1.0 baseline cci_spooler delivered to cci                 gn  9/27 #
# 1.1 renamed  mail_spooler with site specific cfg          gn  9/28 #
# 1.2 added    mail_cfg for site portability and versions   gn  9/28 #
# 1.3 added    log directory checking to status and log-s   gn 12/07 #
# 2.0 added    ftp capability for channels                  gn 12/14 #
#                                                                    #
######################################################################

# the mail_spooler program is run in the background with the start option
# "mail_spooler run " and runs until it is terminated "mail_spooler stop"
# it then checks the sub directories below($spool) for requests from mail
#
# when a file-request(cp-path cf-file) is found
# the channel configuration file(ccf) is checked and pulled
# record(rules-rr: rc-channel ra-address rt-type rs-style ri-interval)
# the channel config file-($ccf=$base/mail_ccf)
#
# if a valid record is found and the channel is active(ri-1) then the
# request processing is put in another background task and starts
# either the rt-text(mailrt) or rt-binary(mailrb) programs are used to
# mail(mt-to ms-subject mb-body mf-file) the request to the customer
# fi rt-ftp then the ($ftprc/.netrc) is used to ftp file to customer
#
# completed requests move to done directory($spool_done) and
# logged in($done_log/done_date)
#
# incomplete move to error directory($spool_error) and
# logged in($error_log/error_date)
#
# $spool/channel_name/file        mail request are written here
# $spool/channel_name/.file       is a request being worked on in background
# $spool_work/channel_name/file   moved here during processing (ftp only)
# $spool_done/channel_name/file   moved here after successful mailing
# $spool_error/channel_name/file  moved here after unsuccessful mailing
#
# options (mail_spooler [option]):
#
# the following options start,stop and status the system
# start <sec>        - check spools in bg program
#  run (bg)            background the run option
#   check_spools       check the spool channels directories
# stop               - kills running bg program
# status             - display the process status screen
#
# the following options are used to retrieve information from the system
# help                 - display help screen
# check                - check spools for channel requests
# log                  - display the log files
# edit                 - edit the channel configuration file
#                        a menu driven interface that adds/deletes/edits ccf
#
# hidden options (called by above options):
# doc                  - extract coded documentation
# run seconds          - runs program in background
# spool                - display all spooled files
# done                 - display all done files
# error                - display all error files
# logs                 - list log files and display todays
#
# options for command line or cgi interfacing:
# add channel address type style interval     - add a channel
# delete channel                              - delete a channel
#
# functions used by the options are documented below
# and had to be left in order use for lack of predefinition
#
# no code for a *cron* entry to restart the mail_spooler
# and no *trap* code to notify an operator has been written
# to notify if the systems goes down, but has been considered
#

# variables section
#
# default paths                      # get portability info from cfg file
#done_log="$spool_logs/done_"$datr        # done log
#error_log="$spool_logs/error_"$datr            # error log
if [ -f $cfg ]; then . $cfg; fi;    # get portability data

# structures
# rules-rr: rc-channel ra-address rt-type rs-style ri-interval
# mail: mt-to ms-subject mb-body mf-file
# channel: cp-path cf-file
# running: rfrq-frequency rpid:process id

##### help screen function #####
function help_screen {
}

##### retrival functions #####
# get cp-rule from ccf
function get_rule {
}
# get mail addresse-subject from ccf-rr
function get_mailr {
}

##### channel functions #####
# list only channels from ccf
function list_chnls {
}
# list channels & header from ccf
function list_channels {
}
```

```
# remove channel record-rc from ccf
function del_chnl {
}
# prompt and delete a channel
function delete_channel {
. . del_chnl;                 #~remove channel record
. . . rmdir $spool/$rc; #~remove channel spool dir
. . . rmdir $spool_work/$rc;  #~remove channel work dir
. . . rmdir $spool_done/$rc;  #~remove channel done dir
. . . rmdir $spool_error/$rc; #~remove channel error dir
}
# append channel record-newrule to ccf
function app_chnl {
}
# prompt add-edit a channel to ccf
function add_channel {
. . if [ "$aemode" = "Edit" ]; then #~edit channel
. . . del_chnl;               #~delete channel record
. . . app_chnl;               #~append edited record
. . . if [[ "$rt" = "ftp" ]]; the. . . #~ftp mode
. . if [ "$aemode" = "Add" ]; then  #~add channel
. . . app_chnl;               #~append add record
. . . mkdir $spool/$rc;       #~create spool dir
. . . mkdir $spool_work/$rc;        #~create work dir
. . . mkdir $spool_done/$rc;        #~create done dir
. . . mkdir $spool_error/$rc;       #~create error dir
. . .       cp $ftprc $ftprc-old;         #~ftp username password
}

##### channel config file-ccf functions #####
# editing the ccf rules-records
function edit_menu {
print "\n$banner - ccf edit menu\n";      #~prompt-banner
do                            #~command loop
. . l*)    list_channels;;                #~list channels
. . e*|a*) add_channel;;                  #~add/edit channel
. . d*)    delete_channel;;               #~delte channel
. . f*)    vi $ftprc;;              #~vi ftp config file
. . q*|x*) exit;;                   #~exit edit mode
. . v*)    vi $ccf;;                #~vi channels
done;                         #~end loop
}

##### background functions #####
# return pid and frequency if running
function loop_status {
}

##### spool functions #####
# get request from ccf rules-records
function parse_request {
. get_rule;                         #~get rule fields
. get_mailr;                              #~get mail fields
}
# check spools channels for requests
function check_spools {
. do                          #~request spooled
. . parse_request;                  #~parse request
. . . mv $request $spool_error/$cp/$cf; #~off
. . . mv $spool/$cp/$cf $spool_work/$cp/$cf;    #~mv to working
. . . mv $spool/$cp/$cf $spool/$cp/.$cf;  #~mv to working
. . . #$prg text $mt $ms $cp $cf $request;      #~type text
. . . mv $spool/$cp/$cf $spool/$cp/.$cf;  #~mv to working
. . . #$prg binary $mt $ms $cp $cf $request;    #~type binary
}

##### command options #####
# option ftp-process a ftp file request
if [ "$1" = "ftp" ];  then    # 2=ftp-address 3=subject 4=chnl-file 5=req
. rslt=`cd $spool_work/$4;ftp $2;`;             #~send ftp
. . mv $spool_work/$4/$5 $spool_done/$4/$5;           #~done
. . mv $spool_work/$4/$5 $spool_error/$4/$5;    #~error
exit; fi;
# option text-process a text file request
if [ "$1" = "text" ];  then   # 2=mail@address 3=subject 4=chnl-file 5=req
. cs1=`ls -al $spool/$c4/.$c5 | cut -c30-40`; sleep 5;      #~check size
. rslt=`$mailrt -s$3 $2 <$spool/$4/.$5`;             #~send text
. . mv $spool/$4/.$5 $spool_done/$4/$5;               #~done
. . mv $spool/$4/.$5 $spool_error/$4/$5;              #~error
exit; fi;
# option binary-process a binary file request
if [ "$1" = "binary" ];  then # 2=mail@address 3=subject 4=chnl-file 5=req
. cs1=`ls -al $spool/$c4/.$c5 | cut -c30-40`; sleep 5;      #~check size
. rslt=`$mailrb -s$3 $spool/$4/.$5 $2`;               #~send binary
. . mv $spool/$4/.$5 $spool_done/$4/$5;               #~done
. . mv $spool/$4/.$5 $spool_error/$4/$5;              #~error
exit; fi;
# option help-display help screen
if [[ "$1" = "help" || "$1" = "-help" || "$1" = "?" ]];     then clear;
. help_screen;                                  #~call func
exit; fi;
# option status-display running pid status
if [[ "$1" = "status" || "$1" = "-status" || "$1" = "s" ]]; then
. loop_status;                                  #~get pid freq
. . list_chnls;                     #~display chnls
exit; fi;
# option log-display logs files
if [[ "$1" = "log" || "$1" = "-log" || "$1" = "l" ]]; then clear;
. . tail $done_log$tdy 2>/dev/null;             #~done log
. . tail $error_log$tdy 2>/dev/null;            #~error log
exit; fi;
# option edit-edit ccf-channel configuration file
if [[ "$1" = "edit" || "$1" = "-edit" || "$1" = "e" ]]; then clear;
. edit_menu;                                    #~call func
exit; fi;
# option cfg-edit cfg-configuration file
if [[ "$1" = "cfg" || "$1" = "-cfg" ]]; then clear;
. vi $cfg;                                #~call func
exit; fi;
# option check-check spools
if [[ "$1" = "check" || "$1" = "-check" || "$1" = "c" ]]; then
. check_spools;                     #~check spools for request
exit; fi;
# option start-start running in a loop in the bg-background
if [[ "$1" = "start" || "$1" = "-start" ]]; then
. #$prg run $freq;                        #~run program at freq
. loop_status;                                  #~get pid freq
exit; fi;
# option stop-kill bg-background running pid
if [[ "$1" = "stop" || "$1" = "-stop" || "$1" = "kill" || "$1" = "9" ]]; then
. . kill -9 $rpid;                  #~kill pid
exit; fi;

##### hidden options #####
# option doc-extract documentation from the code
if [[ "$1" = "doc" ]]; then
exit; fi;
# option run-run in bg -  called by loop option
if [[ "$1" = "run" ]]; then
. do                          #~run loop
. . check_spools;                   #~check spools
. . sleep $dly;                     #~wait (seconds)
. done;                             #~repeat loop
exit; fi;
# option add-for direct cgi or command line access
if [[ "$1" = "add" ]]; then
. app_chnl;                   #~append new record
exit; fi;
# option delete-for direct cgi or command line access
if [[ "$1" = "delete" ]]; then
. del_chnl;                   #~remove channel record
exit; fi;
# option spool-display all spooled files
if [[ "$1" = "spool" ]]; then
. ls $spool/*;                      #~display all spooled files
exit; fi;
# option lost-display all working or lost spooled files
if [[ "$1" = "working" || "$1" = "lost" ]]; then
. ls $spool/*/.??*;                 #~display all working/lost
exit; fi;
# option done-display all done files
if [[ "$1" = "done" ]]; then
. ls $spool_done/*;                 #~display all files in done
exit; fi;
# option error-display all error files
if [[ "$1" = "error" ]]; then
. ls $spool_error/*;                #~display all files in error
exit; fi;
# option logs-list log files and tail todays
if [[ "$1" = "log" || "$1" = "logs" ]]; then
exit; fi;
# option empty-empties log folders
if [[ "$1" = "empty" || "$1" = "logs" ]]; then
exit; fi;

##### main program section - no command line option #####
help_screen;                        #~default - no options specified
#
```

4. Program Listing

```
#!/bin/ksh
######################################################################
#                                                                    #
# mail_spooler 2.0 - email spooler script                            #
#                                                                    #
# written by gary neshanian from rhi consulting 9/21-27/99           #
#                                                                    #
# please log any updates or enhancements here:                       #
# 1.0 baseline cci_spooler delivered to cci                gn  9/27 #
# 1.1 renamed  mail_spooler with site specific cfg          gn  9/28 #
# 1.2 added    mail_cfg for site portability and versions   gn  9/28 #
# 1.3 added    log directory checking to status and log-s   gn 12/07 #
# 2.0 added    ftp capability for channels                  gn 12/14 #
#                                                                    #
######################################################################
#~
# the mail_spooler program is run in the background with the start option
# "mail_spooler run " and runs until it is terminated "mail_spooler stop"
# it then checks the sub directories below($spool) for requests from mail
#
# when a file-request(cp-path cf-file) is found
# the channel configuration file(ccf) is checked and pulled
# record(rules-rr: rc-channel ra-address rt-type rs-style ri-interval)
# the channel config file-($ccf=$base/mail_ccf)
#
# if a valid record is found and the channel is active(ri-1) then the
# request processing is put in another background task and starts
# either the rt-text(mailrt) or rt-binary(mailrb) programs are used to
# mail(mt-to ms-subject mb-body mf-file) the request to the customer
# fi rt-ftp then the ($ftprc/.netrc) is used to ftp file to customer
#
# completed requests move to done directory($spool_done) and
# logged in($done_log/done_date)
#
# incomplete move to error directory($spool_error) and
# logged in($error_log/error_date)
#
# $spool/channel_name/file        mail request are written here
# $spool/channel_name/.file       is a request being worked on in background
# $spool_work/channel_name/file   moved here during processing (ftp only)
# $spool_done/channel_name/file   moved here after successful mailing
# $spool_error/channel_name/file  moved here after unsuccessful mailing
#
# options (mail_spooler [option]):
#
# the following options start,stop and status the system
# start <sec>        - check spools in bg program
#  run (bg)            background the run option
#   check_spools       check the spool channels directories
# stop               - kills running bg program
# status             - display the process status screen
#
# the following options are used to retrieve information from the system
# help               - display help screen
# check              - check spools for channel requests
# log                - display the log files
# edit               - edit the channel configuration file
#                      a menu driven interface that adds/deletes/edits ccf
#
# hidden options (called by above options):
# doc                - extract coded documentation
# run seconds        - runs program in background
# spool              - display all spooled files
# done               - display all done files
# error              - display all error files
# logs               - list log files and display todays
#
# options for command line or cgi interfacing:
# add channel address type style interval     - add a channel
# delete channel                              - delete a channel
#
# functions used by the options are documented below
# and had to be left in order use for lack of predefinition
#
# no code for a *cron* entry to restart the mail_spooler
# and no *trap* code to notify an operator has been written
# to notify if the systems goes down, but has been considered
#

#~
# variables section
alias ifd='if [ debug -eq 1 ] ; then ';
alias iflist='print;list_channels;print'; # comment to stop listing edit
#
debug=0;
datr="`date "+%Y%m%d"`";            # date field for log files
mailrt="mail"                       # mail text program
mailrb="/usr/local/bin/mpack"       # mail binary program
prg="mail_spooler";                 # program name
banner="$prg email interface";            # banner
vrsn="2.0";                   # version
shlr="/usr/bin/ksh"                 # shell for background processing
freq=60;                      # default frequency of scanning in secs
fql=60 fqh=3600;              #  frequency range low-high range
fqp=5;                              #  size check pause *must be less freq*
surep="are you sure [y]es (n)o";    # confirmation prompt
suren="are you sure [n]o (y)es";    # confirmation prompt no
cfg="mail_cfg";                     # configuration file
# default paths                     # get portability info from cfg file
base="/iohome/ccs/custprog"         # base path locations
ccf="$base/mail_ccf"                # channel config file path
ftprc="/iohome/ccs/.netrc"          # ftp netrc file - must be in users home directory
spool="/Baskets/Out/WireText"       # spooling dirs path
spool_work="/Baskets/Out/WireText_work"         # work path
spool_done="/Baskets/Out/WireText_done"         # done path
spool_error="/Baskets/Out/WireText_error" # error path
spool_logs="$base/spool_logs"       # log files path
done_log="$spool_logs/done_"              # done log
error_log="$spool_logs/error_"                  # error log
#done_log="$spool_logs/done_"$datr        # done log
#error_log="$spool_logs/error_"$datr            # error log
if [ -f $cfg ]; then . $cfg; fi;    # get portability data

#~
```

```
# structures
# rules-rr: rc-channel ra-address rt-type rs-style ri-interval
# mail: mt-to ms-subject mb-body mf-file
# channel: cp-path cf-file
# running: rfrq-frequency rpid:process id

#~
##### help screen function #####
function help_screen {
print "
 NAME

$prg

 PURPOSE

Take requests from the CCI system and email them to the Channels customers.

 DESCRIPTION

Mail spooler takes the CCI output requests from the spools directory
and emails them to the Channels customers.
The channels config file-ccf contains the channels and their email customers.
The ftp config file-.netrc contains the ftp customer host user and password.
The configuration file-cfg contains the directory and file path
locations for the mail spooler application.

 SYNOPSIS

$prg [ -start | -stop | -check | -status | -log | -empty | -edit | -help ]

 ARGUMENTS

start   - starts checking spools in bg program
stop    - stop the bg program that is checking the spools
check   - check spools for channel requests
status  - display the bg process status screen
log     - display the log files
empty   - empty the done and error folders
edit    - edit the channel configuration file
help    - display this help screen

 RELEASE

$vrsn
" | more;
}

#~
##### retrival functions #####

# get cp-rule from ccf
function get_rule {
      rr=`grep $cp $ccf`;                       # rules from ccf
      rc=`print $rr | cut -d' ' -f1`;                 #  channel
      ra=`print $rr | cut -d' ' -f2`;                 #  mail@address
      rt=`print $rr | cut -d' ' -f3`;                 #  type-binary/text/ftp
      rs=`print $rr | cut -d' ' -f4`;                 #  style-cron/pole/sched
      ri=`print $rr | cut -d' ' -f5`;                  #  interval-min
}

# get mail addresse-subject from ccf-rr
function get_mailr {
      mt=$ra;                                    # message to
      ms=$cf;                                    #  message subject
      mf=$cf;                                    #  message file
}

#~
##### channel functions #####

# list only channels from ccf
function list_chnls {
      tmp="`grep -v "^#" $ccf | sort | awk '{ print $1 }'`";
      print $tmp;
}
# list channels & header from ccf
function list_channels {
      print "***** Channel Configuration File *****";
      #grep "^#\." $ccf | sed "s/#.//g";
      grep "^#\." $ccf;
      grep -v "^#" $ccf | sort; print;
      print "***** FTP Configuration File *****";
      print "#.machine MACHINE login LOGIN password PASSWORD";
      grep "^machine " $ftprc;
}

# remove channel record-rc from ccf
function del_chnl {
      rslt=`grep "^$rc" $ccf|grep "ftp"|cut -d' ' -f2`;     # get ftp-address
      grep -v "^$rc" $ccf > $ccf.new;            # remove channel rule/record
      mv $ccf $ccf.old;
      mv $ccf.new $ccf;
      if [[ "$rslt" != "" ]]; then
            read yesno?"Delete $rslt from ftp-cfg $surep:";
            if [[ "$yesno" != "n" && "$yesno" != "no" ]]; then
                  cp $ftprc $ftprc-old;
                  cat $ftprc-old | sed "s/^machine $rslt/type dd-to delete lines:machine
$rslt/g" > $ftprc;
                  vi $ftprc;
            fi;
      fi;
}
# prompt and delete a channel
function delete_channel {
      iflist;
      read rc?"Channel to remove:";       # ask for channel
      if [ "$rc" = "" ]; then return; fi;
      read yesno?"Delete $rc from ccf $surep:";
      if [[ "$yesno" != "n" && "$yesno" != "no" ]]; then
            del_chnl;               #~remove channel record
            iflist;
            if [ -d $spool/$rc ]; then
                  rmdir $spool/$rc; #~remove channel spool dir
                  rmdir $spool_work/$rc;  #~remove channel work dir
                  rmdir $spool_done/$rc;  #~remove channel done dir
                  rmdir $spool_error/$rc; #~remove channel error dir
            else
                  print "No Channel: $rc exists!";
                  print "$rc deletion attempt on `date`" >>$error_log`date "+%Y%m%d"`;
            fi;
      fi;
}

# append channel record-newrule to ccf
function app_chnl {
      print $newrule >> $ccf;
}
# prompt add-edit a channel to ccf
function add_channel {
      iflist;
      read rc?"Add/Edit Channel:";             #  channel
      if [ "$rc" = "" ]; then return; fi;
      if [ "`grep $rc $ccf`" <> "" ]; then      # already exists-edit
            aemode="Edit";
            cp=$rc; get_rule;       # get rule to edit
            print "Editing $rc";
            ta=$ra; tt=$rt; ts=$rs; ti=$ri;     # fill in defaults
      else                          # new record-add
            edit=0;
            aemode="Add";
            ta="user@host.com";
            tt="text|binary|ftp";
            ts="cron|pole|sched";
            ti="1=on|0=off";
      fi;
      read ra?"Mail/ftp address [$ta]:";        #  mail@address
            if [ "$ra" = "" ]; then ra=$ta; fi;
      read rt?"Type [$tt]:";              #  type-binary/text/ftp
            if [ "$rt" = "" ]; then rt=$tt; fi;
            if [[ "$rt" = "text|binary|ftp" || "$rt" = "t" ]]; then
                  rt="text"; fi;
            if [[ "$rt" = "b" ]]; then
                  rt="binary"; fi;
            if [[ "$rt" = "f" ]]; then
                  rt="ftp"; fi;
      #read rs?"Style [$ts]:";                  #  style-pole/sched
      #     if [ "$rs" = "" ]; then rs=$ts; fi;
      #     if [[ "$rs" = "cron|pole|sched" || "$rs" = "c" ]]; then
      #           rs="cron"; fi;
      #     if [[ "$rs" = "p" ]]; then
      #           rs="pole"; fi;
      #     if [[ "$rs" = "s" ]]; then
      #           rs="sched"; fi;
      rs="cron";
      read ri?"Interval 1=on,0=off [$ti]:";           #  interval-min
            if [ "$ri" = "" ]; then ri=$ti; fi;
            if [ "$ri" = "1=on|0=off" ]; then ri="1"; fi;
      newrule="$rc $ra $rt $rs $ri";            # new rule
      read yesno?"$aemode $rc to ccf $surep:";
      if [[ "$yesno" != "n" && "$yesno" != "no" ]]; then
            if [ "$aemode" = "Edit" ]; then     #~edit channel
                  del_chnl;               #~delete channel record
                  app_chnl;               #~append edited record
                  if [[ "$rt" = "ftp" ]]; then        #~ftp mode
                        cp $ftprc $ftprc-old
                        vi $ftprc; fi;                # edit ftp config file
            fi;
            if [ "$aemode" = "Add" ]; then      #~add channel
                  app_chnl;               #~append add record
                  mkdir $spool/$rc;       #~create spool dir
                  mkdir $spool_work/$rc;        #~create work dir
                  mkdir $spool_done/$rc;        #~create done dir
                  mkdir $spool_error/$rc;       #~create error dir
                  if [[ "$rt" = "ftp" ]]; then
                        cp $ftprc $ftprc-old;         #~ftp username password
                        rfl="USERNAME"; read rfl?"Login [$rfl]:";
                        if [[ "$rfl" = "" ]]; then rfl="USERNAME"; fi;
                        rfp="PASSWORD"; read rfp?"Login [$rfp]:";
                        if [[ "$rfp" = "" ]]; then rfp="PASSWORD"; fi;
                        print "machine $ra login $rfl password $rfp" >$ftprc;
                        print 'macdef init' >>$ftprc;
                        print 'prompt off' >>$ftprc;
                        print 'type ascii' >>$ftprc;
                        print 'mput *' >>$ftprc;
                        print 'quit' >>$ftprc;
                        print '' >>$ftprc;
                        cat $ftprc-old >>$ftprc;
                        vi $ftprc; fi;
            fi;
            iflist;
      fi;
}

#~
##### channel config file-ccf functions #####

# editing the ccf rules-records
function edit_menu {
PS3="
ccf edit commands [enter-menu] c)ommand or #?";
print "\n$banner - ccf edit menu\n";      #~prompt-banner
select ch in \
      "l)ist     list defined channels" \
      "e)dit     add/edit a channel" \
      "d)elete   remove a channel" \
      "f)tp      vi ftp channel file" \
      "q)uit     end edit session"
do                            #~command loop
      print
      ch=`print $ch | awk '{ print $1 } ' `;          # extract first word
      if ((${#ch} == 0)); then ch=$REPLY; fi;         # keep non # choice
      case $ch in                         # execute command
            l*)    list_channels;;              #~list channels
            e*|a*) add_channel;;                #~add/edit channel
            d*)    delete_channel;;             #~delte channel
            f*)    vi $ftprc;;                  #~vi ftp config file
            q*|x*) exit;;                       #~exit edit mode
            v*)    vi $ccf;;              #~vi channels
            *)  print "Invalid choice |$choice|$REPLY|";;
      esac;
done;                         #~end loop
```

```
}

#~
##### background functions #####

# return pid and frequency if running
function loop_status {
      lps=`ps -ef | grep " $prg run " | grep -v "grep"`;
      rfrq=`print $lps | sed 's/ run /~/g' | cut -d'~' -f2`;      # run freq
      if [ "$rfrq" = "" ]; then rfrq="0"; fi;
      rpid=`print $lps | cut -c 6-11 | awk '{ print $1 }'`; # run pid
      if [ "$rpid" = "" ]; then rpid="none"; fi;
}

#~
##### spool functions #####

# get request from ccf rules-records
function parse_request {
      rq=`print $request | sed "s|$spool||g"`;  # channel and file paths
      cp=`print $rq | cut -d'/' -f2`;                 #  channel path
      cf=`print $rq | cut -d'/' -f3`;                 #  channel file
      get_rule;                           #~get rule fields
      get_mailr;                          #~get mail fields
}

# check spools channels for requests
function check_spools {
      requests="`ls $spool/*/* 2>/dev/null | grep -v ":$" | grep -v "^\."`";
      # request=`print $requests | awk '{ print $1 }'`;
      # nxquest=`print $requests | awk '{ print $2 }'`;
      request=`print $requests | cut -d' ' -f1`;
      nxquest=`print $requests | cut -d' ' -f2`;
      while [ "$request" <> "" ];
      do                            #~request spooled
            parse_request;                #~parse request
            if [ "$ri" = "0" ]; then
                  mv $request $spool_error/$cp/$cf; #~off
                  print "$rc-$cf channel off $mt on `date`" >>$error_log`date "+%Y%m%d"`;
                  return;
            fi;
            if [ "$rt" = "ftp" ]; then           # ftp request
                  mv $spool/$cp/$cf $spool_work/$cp/$cf;    #~mv to working
                  $prg ftp $mt $ms $cp $cf $request &
            fi;
            if [ "$rt" = "text" ]; then          # text request
                  mv $spool/$cp/$cf $spool/$cp/.$cf;  #~mv to working
                  #$prg text $mt $ms $cp $cf $request;      #~type text
                  $prg text $mt $ms $cp $cf $request &
            fi;
            if [ "$rt" = "binary" ]; then       # binary request
                  mv $spool/$cp/$cf $spool/$cp/.$cf;  #~mv to working
                  #$prg binary $mt $ms $cp $cf $request;    #~type binary
                  $prg binary $mt $ms $cp $cf $request &
            fi;
            # requests="`ls $spool/*/* 2>/dev/null`";# get next request
            # request=`print $requests | awk '{ print $1 }'`;
            requests="`ls $spool/*/* 2>/dev/null | grep -v ":$" | grep -v "^\."`";
            request=`print $requests | cut -d' ' -f1`;
      done;
}

#~
##### command options #####

# option ftp-process a ftp file request
if [ "$1" = "ftp" ];  then    # 2=ftp-address 3=subject 4=chnl-file 5=req
      rslt=`cd $spool_work/$4;ftp $2;`;               #~send ftp
      rscd=$?;
      if [[ "$rscd" = "0" ]]; then
            mv $spool_work/$4/$5 $spool_done/$4/$5;         #~done
            print "$4/$5 ftp-ed to $2 on `date`" >>$done_log`date "+%Y%m%d"`;
      else
            mv $spool_work/$4/$5 $spool_error/$4/$5;  #~error
            print "$4/$5 error ftp $2 on `date`" >>$error_log`date "+%Y%m%d"`;
            print "$rscd $rslt" >>$error_log`date "+%Y%m%d"`;
      fi;
exit; fi;

# option text-process a text file request
if [ "$1" = "text" ];  then   # 2=mail@address 3=subject 4=chnl-file 5=req
      cs1=`ls -al $spool/$c4/.$c5 | cut -c30-40`; sleep 5;  #~check size
      cs2=`ls -al $spool/$c4/.$c5 | cut -c30-40`;
      if [[ "$cs1" != "$cs2" ]]; then sleep 60; fi;
      rslt=`$mailrt -s$3 $2 <$spool/$4/.$5`;               #~send text
      rscd=$?;
      if [[ "$rscd" = "0" && "$rslt" = "" ]]; then
            mv $spool/$4/.$5 $spool_done/$4/$5;             #~done
            print "$4/$5 sent text to $2 on `date`" >>$done_log`date "+%Y%m%d"`;
      else
            mv $spool/$4/.$5 $spool_error/$4/$5;                  #~error
            print "$4/$5 error text $2 on `date`" >>$error_log`date "+%Y%m%d"`;
            print "$rscd $rslt" >>$error_log`date "+%Y%m%d"`;
      fi;
exit; fi;

# option binary-process a binary file request
if [ "$1" = "binary" ];  then # 2=mail@address 3=subject 4=chnl-file 5=req
      cs1=`ls -al $spool/$c4/.$c5 | cut -c30-40`; sleep 5;  #~check size
      cs2=`ls -al $spool/$c4/.$c5 | cut -c30-40`;
      if [[ "$cs1" != "$cs2" ]]; then sleep 60; fi;
      rslt=`$mailrb -s$3 $spool/$4/.$5 $2`;                 #~send binary
      rscd=$?;
      if [[ "$rscd" = "0" && "$rslt" = "" ]]; then
            mv $spool/$4/.$5 $spool_done/$4/$5;             #~done
            print "$4/$5 sent binary to $2 on `date`" >>$done_log`date "+%Y%m%d"`;
      else
            mv $spool/$4/.$5 $spool_error/$4/$5;                  #~error
            print "$4/$5 error binary $2 on `date`" >>$error_log`date "+%Y%m%d"`;
            print "$rscd $rslt" >>$error_log`date "+%Y%m%d"`;
      fi;
exit; fi;

# option help-display help screen
if [[ "$1" = "help" || "$1" = "-help" || "$1" = "?" ]];     then clear;
      help_screen;                                    #~call func
```

```
exit; fi;

# option status-display running pid status
if [[ "$1" = "status" || "$1" = "-status" || "$1" = "s" ]]; then
      loop_status;                                    #~get pid freq
      print "\nspool requests are being checked every $rfrq seconds"
      print "by pid=$rpid";
      print "$lps";
      if [ -d $spool ]; then print -n "spooling from:$spool ";
            print -n "in channels: "
            list_chnls;                   #~display chnls
      else  print "ERROR spool:$spool does not exist"; fi;
      if [ -d $spool_work ]; then print "spool_work:$spool_work";
      else  print "ERROR spool_work:$spool_work does not exist"; fi;
      if [ -d $spool_done ]; then print "spool_done:$spool_done";
      else  print "ERROR spool_done:$spool_done does not exist"; fi;
      if [ -d $spool_error ]; then print "spool_error:$spool_error";
      else print "ERROR spool_error:$spool_error does not exist"; fi;
      if [ -d $spool_logs ]; then print "spool_logs:$spool_logs";
      else print "ERROR spool_logs:$spool_logs does not exist"; fi;
      print
exit; fi;

# option log-display logs files
tdy=`date "+%Y%m%d"`;
if [[ "$1" = "log" || "$1" = "-log" || "$1" = "l" ]]; then clear;
      if [ -f $done_log$tdy ]; then
            print "\nDone log:$done_log$tdy `ls -al $done_log$tdy | cut -c 33-40` bytes";
            tail $done_log$tdy 2>/dev/null;                 #~done log
      else print "No done log:$done_log$tdy for today yet"; fi;
      if [ -f $error_log$tdy ]; then
            print "\nError log:$error_log$tdy `ls -al $error_log$tdy | cut -c 33-40`
bytes";
            tail $error_log$tdy 2>/dev/null;          #~error log
      else print "No error log:$error_log$tdy for today yet"; fi;
      print;                                          # 7 days <stub>
exit; fi;

# option edit-edit ccf-channel configuration file
if [[ "$1" = "edit" || "$1" = "-edit" || "$1" = "e" ]]; then clear;
      edit_menu;                                #~call func
exit; fi;

# option cfg-edit cfg-configuration file
if [[ "$1" = "cfg" || "$1" = "-cfg" ]]; then clear;
      vi $cfg;                                  #~call func
exit; fi;

# option check-check spools
if [[ "$1" = "check" || "$1" = "-check" || "$1" = "c" ]]; then
      check_spools;                       #~check spools for request
exit; fi;

# option start-start running in a loop in the bg-background
if [[ "$1" = "start" || "$1" = "-start" ]]; then
      loop_status;
      if [ "$rpid" != "none" ]; then                  # check if already run
            print "$prg already running on pid:$rpid every:$rfrq seconds";
      exit; fi;
      if [ "$2" != "" ]; then fret=$2;          # overide default
      else fret=$freq; fi;                      # prompt default
      #read freq?"Check spools every ($fql-$fqh seconds) [$fret]:";
      if [ "$freq" = "" ]; then freq=$fret; fi; # default
      if [ $freq -lt $fql ]; then               # check too low
            print "$freq is too low a interval";
      exit; fi;
      if [ $freq -gt $fqh ]; then               # check too high
            print "$freq is too high a interval";
      exit; fi;
      #$prg run $freq;                    #~run program at freq
      $prg run $freq &
      loop_status;                                    #~get pid freq
      print "\nspool requests are being checked every $rfrq seconds"
      print "by pid=$rpid";
      print "$lps";
exit; fi;

# option stop-kill bg-background running pid
if [[ "$1" = "stop" || "$1" = "-stop" || "$1" = "kill" || "$1" = "9" ]]; then
      loop_status;
      if [ "$rpid" = "none" ]; then print "$prg is not running";
      else
            kill -9 $rpid;                #~kill pid
      fi;
exit; fi;

#~
##### hidden options #####

# option doc-extract documentation from the code
if [[ "$1" = "doc" ]]; then
      print "<<<<<<<<<< \$ $0 doc - `date` >>>>>>>>>>";
      print "<<<<<<<<<< function calls and external unix commands >>>>>>>>>>";
      egrep '^#|^function|^}|#\~|^if |^exit' $prg|
      sed 's/^#\~//g'|sed 's/^      /. /g'|sed 's/.   /. . /g'|sed 's/.       /. . /g';
exit; fi;

# option run-run in bg -  called by loop option
if [[ "$1" = "run" ]]; then
      dly="$2";
      if [ $dly -lt $fql ]; then          # check too low
            print "$dly is too low a interval `date`" >>$error_log`date "+%Y%m%d"`;
      exit; fi;
      if [ $dly -gt $fqh ]; then          # check too high
            print "$dly is too high a interval `date`" >>$error_log`date "+%Y%m%d"`;
      exit; fi;
      while [ "$dly" != "" ];
      do                            #~run loop
            check_spools;                       #~check spools
            sleep $dly;                   #~wait (seconds)
      done;                         #~repeat loop
exit; fi;

# option add-for direct cgi or command line access
if [[ "$1" = "add" ]]; then
      rc=$2; ra=$3; rt=$4; rs=$5; ri=$6;  # get params from cgi-cl
      newrule="$rc $ra $rt $rs $ri";        # new rule
      app_chnl;                     #~append new record
exit; fi;

# option delete-for direct cgi or command line access
if [[ "$1" = "delete" ]]; then
      rc=$2;                              # get channel from cgi-cl
      del_chnl;                     #~remove channel record
exit; fi;

# option spool-display all spooled files
if [[ "$1" = "spool" ]]; then
      ls $spool/*;                        #~display all spooled files
exit; fi;

# option lost-display all working or lost spooled files
if [[ "$1" = "working" || "$1" = "lost" ]]; then
      ls $spool/*/.??*;             #~display all working/lost
exit; fi;

# option done-display all done files
if [[ "$1" = "done" ]]; then
      ls $spool_done/*;             #~display all files in done
exit; fi;

# option error-display all error files
if [[ "$1" = "error" ]]; then
      ls $spool_error/*;                  #~display all files in error
exit; fi;

# option logs-list log files and tail todays
if [[ "$1" = "log" || "$1" = "logs" ]]; then
      print "$spool_logs";
      ls -al $spool_logs | grep "^-";
      print "\nToday's done log $done_log`date "+%Y%m%d"`";
      tail $done_log`date "+%Y%m%d"` 2>/dev/null;
      print "\nToday's error log $error_log`date "+%Y%m%d"`";
      tail -5 $error_log`date "+%Y%m%d"` 2>/dev/null;
exit; fi;

# option empty-empties log folders
if [[ "$1" = "empty" || "$1" = "logs" ]]; then
      print "\nDone folders (`du -sk $spool_done|cut -d'    ' -f1` Kbytes):";
      du -k $spool_done;
      read yesno?"Empty done folders $suren:";
      if [[ "$yesno" = "y" || "$yesno" = "yes" ]]; then
            ls $spool_done/*|grep -v "^\."|grep -v "^/"|grep -v "^$";
            rm $spool_done/*/* 2>/dev/null;
            print ":deleted";
      fi;
      print "\nError folders (`du -sk $spool_error|cut -d'  ' -f1` Kbytes):";
      du -k $spool_error;
      read yesno?"Empty error folders $suren:";
      if [[ "$yesno" = "y" || "$yesno" = "yes" ]]; then
            ls $spool_error/*|grep -v "^\."|grep -v "^/"|grep -v "^$";
            rm $spool_error/*/* 2>/dev/null;
            print ":deleted";
      fi;
      print "\nLog files (`du -sk $spool_logs|cut -d' ' -f1` Kbytes):";
      du -k $spool_logs;
      read yesno?"Empty log files $suren:";
      if [[ "$yesno" = "y" || "$yesno" = "yes" ]]; then
            ls $spool_logs;
            rm $spool_logs/* 2>/dev/null;
            print ":deleted";
      fi;
exit; fi;



#~
##### main program section - no command line option #####

clear;
help_screen;                        #~default - no options specified

#
```

5. Additional Documentation

5.1. Additional Programs

5.1.1. Zombie

5.1.1.1. Man-ual Page

```
 NAME

zombies

 PURPOSE

Looked for orphaned process of the ccismgt process and confirm killing each.

 DESCRIPTION

This script look for all orphaned process from the ccismgt process,
they are assigned to parent pid (PPID) when orphaned.

After generating the list the operator is then asked to confirm
each killing unless the force option has been used.

 SYNOPSIS

zombies [ -force | -help ]

 ARGUMENTS

force   - delete all orphans without asking for confirmation
help    - display this help screen

 RELEASE

1.0
```

5.1.1.2. Program Listing

```
#!/bin/ksh
######################################################################
#                                                                    #
# zombies 1.0 - cci orphaned child script                            #
#                                                                    #
# written by gary neshanian from rhi consulting 11/17/99             #
#                                                                    #
# please log any updates or enhancements here:                       #
# 1.0 baseline zombie script                                gn 11/17 #
#                                                                    #
######################################################################
#~
# variables section
alias zombies='ps -ef | grep "ccismgt" | grep -v "grep" | grep "    1 "';
alias grepr='ps -ef | grep -v "grep" | grep '
#
debug=0;
prg="zombies";                      # program name
vrsn="1.0";                   # version


#~
##### help screen function #####
function help_screen {
print "
 NAME

$prg

 PURPOSE

Looked for orphaned process of the ccismgt process and confirm killing each.

 DESCRIPTION

This script look for all orphaned process from the ccismgt process,
they are assigned to parent pid (PPID) when orphaned.

After generating the list the operator is then asked to confirm
each killing unless the force option has been used.

 SYNOPSIS

$prg [ -force | -help ]

 ARGUMENTS

force   - delete all orphans without asking for confirmation
help    - display this help screen

 RELEASE

$vrsn
" | more;
}
```

```
#~

#~
##### main program section - no command line option #####

#clear;

# option help-display the help screen
if [[ "$1" = "help" || "$1" = "-help" || "$1" = "h" || "$1" = "?" ]]; then
      help_screen;
exit; fi;

# search for orphans
grepr "UID"
grepr "root      1 "
zombies;                                   # get orphaned ps
zs=`zombies | cut -c10-15 | awk '{printf "%s ",$1}'`; # get orphaned pids
print "Orphaned PIDS of ccismgt: "$zs
for p in $zs; do
      if [[ $1 != "force" ]] then                       # ask about each
            read yesno?"Kill $p [no] or <y>es:";
      else yesno="y"; fi;
      if [[ "$yesno" = "y" || "$yesno" = "yes" ]]; then
            kill -9 $p;                          # kill confirms
      fi;
done
```

5.2. On-Line Resources

5.2.1. Lotus Notes - Knowledge Base

ISKnowledge Mgmt – Database 1	created by Dan Boyer – stores any IS department emails or notes
CCI-systems (folder)	created by Gary Neshanian – contains folders for CCI related emails
custprog (folder)	created by Gary Neshanian – contains CCI-Mail Spooler related emails
auto-functions (folder)	created by Gary Neshanian – contains CCI-Auto Function documentation

5.2.2. Microsoft-Networked Shared File System/Folder

Host: jsundahl
Folder: CCIS

\\jsundahl\CCIS	created by Gary Neshanian for IS department support
@email_lotus_notes\	original storage for emails before ISKnowledge Mgmt – Database 1
cci-mail_spooler\	all source code, documentation and materials for mail_spooler application
downloads\	Internet downloaded applications supporting CCI
images\	images used by html pages in this shared folder
links\	links used to access documentation scattered around OCR network
problem_report_receipts\	receipts generated for all problem reports generated by Gary Neshanian
procedures\	procedures written by CCI and RHI personnel
Public\	shared space available for other departmental file transfer to this folder
*.txt *.xls	various documentation and procedural files written by Gary Neshanian
index.html	a web page intended to offer a graphical access of these documents

6. Contact

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Phone: 949-476-0879

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