Rancho Los Amigos National Rehabilitation Center
INFORMATION MANAGEMENT SERVICES
POLICY AND PROCEDURE

PURPOSE

The purpose of this policy and procedure is to ensure comprehensive and reliable backup information, secured storage of backup media, and routine testing of system recovery procedures from backup.

POLICY

NetWare networked core information systems program, application, and data files are backed-up nightly over the LAN using the ARCserveiT 9.0 software and Compaq DLT Library. The core information systems include:

- Automated Nursing Scheduling Office System
- Operating Room Scheduling Office System
- ZenWorks
- GroupWise
- SNA Gateway
- User data files

Data and system configuration files are backed-up for core information systems running on a Windows operated Server, including:

- Clinical Data Repository
- Rehabilitation Therapy Information System
- Intranet
- Portal.Net (ASP.Net)
- User data files

It is the responsibility of the System Administrator for each application to test the procedures for system restoration from backup at least annually. Tape cartridges used for the backup procedure will be stored in the Compaq DLT IV Library in the Computer Operations Room.

OFF-SITE STORAGE
Tape cartridges from the DLT Library are stored off-site on a daily rotation. Tapes are inventoried, logged, and placed in a locked container in preparation for transport. The off-site storage is process by the DHS contracted vendor, Iron Mountain.

EQUIPMENT/FUNCTIONS

Hardware
The Compaq DLT (Digital Linear Tape) Library contains up to 24 tape cartridges (2 magazines with 12 Type IV Plus tape cartridges). A separate cleaning cartridge utilizes one slot of the Library allowing the read/write drive to be cleaned via software control. Each tape stores

approximately 300GB of data (depending on file compression), yielding a total capacity of7.2 TB of online tape data storage.

Tapes are allocated per week of backup data, creating a 4-week tape rotation (storage). The Compaq DLT Library is located in the Computer Operations Room, Building 100 room 012. It is connected via Small Computer System Interface-Wide (SCSI-Wide) connection to the RLABACKUP server controller.

Software
The software used for the system backup procedure is the ARCserveiT for Netware version 9.0, Windows edition. Software application access is limited to: the Network Administrator, Network Analyst, and the E-mail Administrator.

Novell Servers, Novell Directory Services (NDS), and Windows Servers (PC Clients)
Novell Servers- All program, application and data files that reside on Servers running the Novell Netware 4.X, or 5.X operating system are included in the backup. The Novell servers and associated applications are as follows:

SERVER NAME	APPLICATION
RLANW1	User authentication and file storage
RLAI	GroupWise
RLABACKUP	ARCserveiT backup system
RLA ANSOS	Automat d Nursing Scheduling Office System
RLA ORSOS	Operating Room Scheduling Office System

Novell Directory Services - The NDS contains system configuration files, e.g., user accounts, restrictions and are backed-up through the same process.

DIRECTORY NAME	APPLICATION
RANCHO	Serves applications on servers: RLAO 1 and RLA02
RLABACKUP	ARCserveiT backup system
RLANURSING	Serves the Automated Nursing Scheduling Office System and Operating Room Scheduling Office System

Windows Servers - Select subdirectories of information are included in the backup procedure from applications residing on servers running the Windows 2000 or Windows 2003 operating system. The information included in the backup generally include data and system configuration files that are typically generated daily from a stored application procedure and placed in a designated location on the server. The application's System Administrator determines the files (i.e., type, content, time period, naming convention, etc.) that are included in the backup.

SERVER NAME	APPLICATION
RLANTI	Rehab Therapy Information Sys (RTIS), Intranet
RLANT4	RIIS
RLANT6	Microsoft SQL Server
RLANT7	Microsoft SQL Server
RLANASI	GroupWise archive storage
RLAFIN1	Finance department data files
RLAFIN1	Finance department data files
RLAFOUNDA TION	Rancho Foundation department data files

QuadraMed Servers - The information included in the backup generally include data and system configuration files that are typically generated daily from a stored application procedure and placed in a designated location on the server. Backup set includes Affinity and Quantim servers.

SERVER NAME	APPLICATION
RANCHOAFFINITY	Affinity
QUANTIMAPPOl	QUANTIM
QUANTIMDB	QUANTIM
QUANTIMDBTEST	QUANTIM
QUANTIMAPPTEST	QUANTIM
QUANTIMAPP03	QUANTIM
QUANTIMAPP02	QUANTIM
QUANTIMFILES	QUANTIM

PROCEDURES

Schedule
The backup procedure is performed daily, with incremental backups occurring Monday through Thursday and a full backup procedure occurring on Friday. Incremental daily backups include only those changes that were made to data files up to that moment in time from the previous backup procedure. Full weekly backups include all files contained on the server being backed up at that moment in time. The backup procedure is scheduled to run automatically at 9:00p.m. (Monday through Friday).

NOTE: The approximate length of time to do a complete backup procedure is 36 hours (6 hours for an incremental backup procedure).

System Maintenance
System maintenance is the responsibility of the Network Manager or designee assigned to the backup procedure. The Network Manager or designee monitors the weekly backup capacity to ensure backup process completion. Files that were not included in the backup procedure appear on the Missed File Report generated by the software. This report is monitored weekly. Files that appear on the Missed Files Report are checked, verified, and reported to the appropriate System Administrator for resolution, if necessary.

Application Instructions
The ARCserveiT software can be accessed via ZenWorks with the Network Administrator's authorization only.

To create a backup process, use the following steps:

1. Start ARCserveiT software
2. Select the "Backup" function.
3. Under the "Source" tab, expand the appropriate tree to select server(s) and file(s).
4. Under the "Method" tab, select the type of backup to perform (custom, archive, rotation, or auto pilot).
5. Under the "Schedule" tab, select the date and time to start job.
6. Select the "Run" command to start job.
Note: ARCserveiT logs all backup jobs automatically.

Auto Pilot or rotation jobs will run automatically with preset schedule.

To start a restore process, use the following steps:

1. Start ARCserveiT software.
2. Select the "Restore" function.
3. Under the "Source" tab, expand the appropriate tree to select server(s) and file(s).
4. Under the "Destination" tab, select "Restore to Original Location" or expand the appropriate tree to select a server and subdirectory location.
5. Under the "Required Media List", follow the onscreen directions and tape(s) required for the job.
6. Select the "Run" command to start job.
Note: Restore functions should only be performed by the Network Administrator or authorized personnel only. Pay particular attention during restore functions to ensure system integrity.

Affinity Live Weekly

RANCHO (Bottom right hand side)
Load Rancho tape (HP DDS-4) into F drive (Green LED will be blinking when loading)
Wait for the blinking stop, and the first green LED becomes solid.

Press CTRL twice to wake up the screen
(or move cursor to the bottom Monitor icon, click to get the desired screen)

2nd LED begin blinking (it means data is backing to tape)
Check back 3 to 4 hours later (it takes 3 to 4 hours to fill the tape)

Make sure the light no longer blinking
Press Blue button twice to eject the tape

Operating Affinity Systems
QuadraMed- after hour tech support at 877-823-7263

Check on Tivoli backup system
Check the affinity backup to IBM Tivoli (Disk to Disk) at 20:30-23:00 (8:30pm- llpm) hours
Check the **affinity** backup tape creation at 00:05 – 02:50 (12:05 -2:50am)
Check the **quantim** backup tape creation at 04:30-3 (4:30- 3pm)
Check Tivoli daily maintenance at 16:01.-19:00 (4 -7pm)
Print out report to check for scratch tape available in the IBM 3582-TL
Print out report for affinity backup to IBM Tivoli disk completion status
Check out **affinity** tape and **quantim** tape (**LTO Ultrium 2**) daily
Check in two tapes to IBM 3582-Tape Library daily when there's no activate (idle).

Affinity systems
Check affinity Midnight Maintenance Process at 00:05-01:30
Making sure affinity runs smooth without a problem
If you encounter a lock file that stop affinity midnight maintenance to run, you can try to unlock the file and restart the midnight maintenance again.
Call Quadramed right away if midnight maintenance still having problem running
Print out midnight maintenance progress report daily

Every Friday run a **affinity** system file backup using a **DDS-4** data cartridge
Monitoring LSTC- Live STC (Lab) in Affinity
Monitoring Quantim - QEDM in Affinity

Please record or print out all the daily activity as request on the log binder
Affinity Backup Process (disk to disk)
Reports for Tivoli tape and completion
Midnight maintenance progress reports