Media Server 2000 Series Security and Administration

This NTP contains security and administration procedures for the Nortel Media Server 2000 Series and the Audio Provisioning Server (APS). These procedures are listed in tables shown below.

Media Server 2000 Series security and administration

The primary Media Server 2000 Series security and administration activities include changing the password for accessing the embedded web server utility and backing up the configuration files. These tasks, performed through the Media Server 2000 Series Configuration Tool and Embedded Web Server utility, are in the Media Server 2000 Series Configuration Management document (NN10340-511).

APS security and administration

APS security and administration tasks include changing passwords for accessing the APS GUI and monitoring the APS provisioning database.

Security management procedures

The following table lists user-related security and administration procedures that pertain to the APS.

APS user-related security and administration procedures

Procedure and page	Interface/ Tool used
Changing the APS GUI password	APS GUI
Logging in to the APS GUI	APS GUI
Logging out of the APS GUI	APS GUI

The following table lists device-related security and administration procedures that pertain to the APS.

APS device-related security and administration procedures

Procedure and page	Interface/ Tool used
Listing APS patches and releases	APS GUI
Downloading the Java runtime environment plug-in	APS GUI
Running the APS command line interface	APS CLI
Displaying APS mounted file systems	Command line
Changing the APS IP/Hostname configuration	Command line
Monitoring nightly cleanup	Command line
Monitoring audio provisioning activity	Command line
Checking APS provisioning activity	Command line
Checking the APS Oracle database	Command line
Verifying that the APS CD drive is mounted	Command line
Set APS security	Command line
Setting the APS administrator (UNIX) password	Command line
Restarting the SNMP agent	Command line
Verifying that the Web server is running	Command line
Verifying that the Web server is running	Command line
Changing the APS Oracle account password	Command line
Performing a backup of APS audio files into a single tar archive (FTP)	Command line
Performing an APS-only Data Base Backup to Disk and to CD	Command line
Performing an APS-only Data Base Backup to 4mm DAT	Command line
Performing an APS-only Data Base Restore from a 4mm DAT	Command line
Performing an APS-only Database restore from a CD	Command line
Performing a restore of APS audio from 4mm DAT	Command line

Changing the APS GUI password

This procedure enables you to change the password of a user currently logged into the APS GUI. To perform this procedure, you must have a valid user ID and password.

Changing the APS GUI password

At the APS user menu

1   Click Change Password.

The APS Password Change Utility screen opens.

2   Enter the existing password in the Old password field.

3   Enter the new password in the New password field.

> *Note:* The new password must be alphanumeric and 4–8 characters long. The password is also case-sensitive.

4   Reenter the new password in the Verify new password field.

If	Do
you want to submit the password change	step 5
you want to cancel the password change	step 7

5   Click Submit.

The Change Password Result window opens.

6   Click OK. Go to step 8.

7   Click Cancel.

8   You have completed this procedure.

Logging in to the APS GUI

This procedure is used for logging in to the APS GUI either to establish a new session, to re-establish a session that has timed out, or to log in to a standby CS 2000 Management Tool to which operation has been redirected.

The APS GUIs are web-based applications. When you launch your web browser to the APS URL, the login page is displayed. While the login page is being downloaded as a JAVA applet, a check is made for the presence of the appropriate JAVA run-time plug-in. If your desktop does not have this plug-in, the CS 2000 Management Tool downloads and installs it if you are operating from a Windows platform.

The recommended client machine for performing APS activities is a Windows 95, 98, ME, XP, NT, or 2000 PC with a minimum of 64 MByte (or greater) of memory, running Netscape 4.7 or Internet Explorer 5.0. Due to the size of the APS application and its memory requirements, it is recommended that no other Windows applications be running at the same time as the APS application.

 To log in to the APS GUI, you must have a valid user ID and password and your user account must be active.

Logging in to the APS GUI

At your Web browser screen

1   Type in the following address: http://*<host name or IP address of the APS>*:8080/aps/

Press the Enter key on the keyboard.

The APS login screen opens.

a Enter your user ID and password.

If	Do
you want to submit the user ID and password	step 2
you want to cancel the login operation	step 6

2   Click OK.

If	Do
your user ID is a member of only one program group	step 3

If	Do
your user ID is a member of more than one program group	step <u>4</u>
your user ID is not a member of a program group	step <u>5</u>
you want to cancel the login operation	step <u>6</u>
access is denied because your user account is not active	step <u>7</u>
you entered an invalid user ID or password	step <u>8</u>
you do not have the Java runtime environment plug-in	Procedure <u>Downloading the Java runtime environment plug-in</u>

3   The APS main menu screen opens.

> ***Note 1:*** The administration and audio management functions you are allowed to perform are based on the administration and audio management permissions allowed for your user ID.

> ***Note 2:*** When your user ID is associated with only one program group, you are restricted to the administration and audio management functions allowed for that program group.

APS main menu screen

a   Go to step 9.

4   Select the active program group from the pull-down list.

   Note: The program group you select determines the audio data that you will have access to when you use the APS Audio Management Tool.

a   Click OK.

   The APS main menu screen opens.

b   Go to step 9.

5   Click OK in the Missing Program Group window.

   The APS main menu screen opens.

   Note: When your user ID is not associated with a program group, you do not have access to any audio data. If your user ID has administration permission, you are still able, however, to perform administration functions that do not involve audio

data, using the APS Administration Tool, and to perform the following two functions using the APS Audio Management Tool:

- upload files (File Upload button on the APS Audio Management Tool menu tool bar)

- distribute audio packages (Distribute Packages button on the APS Audio Management Tool menu tool bar.

　a　Go to step 9.

6　Click the Cancel button. Go to step 9.

7　An "un-authorized user" message displays. Activate the user ID (for instructions, refer to the procedure "Editing user profiles" in the document, NN10340-511, "MS 2000 Series Operational Configuration"), and then attempt to log in again.

8　Attempt to log in again or contact your next level of support for assistance.

9　You have completed this procedure.

Logging out of the APS GUI

This procedure enables you to log out of an established APS GUI session.

Logging out of the APS GUI

At the APS Administration Tool or APS Audio Management Tool screen

1 Close any dialog boxes that are open.

2 Click the Exit button.

The APS main menu screen opens.

3 Click Logout.

4 You have completed this procedure.

Listing APS patches and release information

This procedure enables you to list the current APS release and patches installed on the CS 2000 Management Tools server. For additional information about this server, refer to your solution's Basics document.

Listing APS patches and releases

At your Web browser screen

1 Type in the following address: http://*<host name or IP address of the APS>*:8080/aps/

Press the Enter key on the keyboard.

The APS login screen opens.

2 On the "Audio Provisioning Server" title banner, click the "Software Release *x*" statement below the Nortel Networks logo located on the right side of the banner.

An "Audio Provisioning Server Software Load Information" screen displays, showing the current time and date, Sun operation system version, APS-specific packages installed on the Call Server, all application packages installed on the Call Server, and SSPFS load information.

3 To return to the APS login screen, close the Web browser screen.

4 You have completed this procedure.

Downloading the Java runtime environment plug-in

This procedure enables you to download the appropriate Java Runtime Environment (JRE) plug-in for your operating system.

The correct version of the JRE plug-in software, a product of Sun Microsystems, Inc., is required to run the APS software in a web browser. The JRE plug-in software allows enterprise web managers to direct Java applets and JavaBeans components on their intranet web pages to run.

The recommended JRE plug-in needed to run the APS software in the Windows environment is JRE 1.4.1. To select and download this plug-in, address your browser (either Internet Explorer or Netscape) to: http://*<IP Address of APS Machine>*:8080/aps/PluginDownload.html

Note: Different versions of the JRE can coexist on the same Windows machine. When the APS software is loaded, your browser should detect and use the correct JRE 1.4.1 software version. On the Sun Solaris platform, however, only one version of the Java plug-in can be resident on a single machine. If you are using the Sun Solaris platform, and if the appropriate JRE plug-in is not installed on your machine, your browser should detect and report to you the need for installing the correct Java plug-in. Note that you must normally be logged in as the "root" user in order to install the Java plug-in.

Downloading the Java runtime environment plug-in

At the APS Welcome screen

1   After you click Login, the Plug-in Download page opens. Read the information on the page to download the plug-in for your operating system.

2   Select your platform.

3   Click Download.

4   Download the plug-in to a directory of your choice.

If	Do
you are running Netscape Navigator	step 5
you are running Internet Explorer	step 7

5   Click Close X.

6   Double-click the JRE file in the specified directory.

7   Follow the instructions in the JRE setup screen.

8   Exit from the web browser and restart the operating system.

9   Log in to the APS GUI. Refer to the procedure <u>Logging in to the APS GUI</u> for instructions.

10   You have completed this procedure.

Running the APS command line interface

The APS command line interface is a tool that enables you to perform basic APS-related maintenance tasks. Through the tool, you can perform the following tasks:

- query APS-related data bases
- perform audio provisioner maintenance activities
- restart APS-related CS 2000 Management Tool processes
- list the software loaded on your APS
- query and perform database backups and restorations
- manipulate the APS SNMP Agent, view APS log files
- view information about backed-up files for MS 2000 Series nodes

The tool can be accessed when you are logged as the "root" user.

Running the APS command line interface

In a telnet connection to the CS 2000 Management Tool

1 Open an xterm window and log in to the system as the root user.

2 Run the APS command line interface tool by entering the following command:

apscli

The APS Command Line Interface main menu displays.

3 In response to the prompt that displays, enter the number of the task that you wish to perform.

4 You have completed this procedure.

Displaying APS mounted file systems

This procedure enables you to view a complete directory structure, including the root directory (/) and all directories and files contained within the root directory, in order to determine whether any file systems are approaching maximum capacity.

Displaying APS mounted file systems

In a telnet connection to the CS 2000 Management Tool

1   Open an xterm window and log in using the "maint" login and password.

2   Become the "root" user by entering:

`su - root`

3   Enter the following command:

`df -k`

The output of this command consists of a single line of information for each specified file system. Each line of information includes a file system name (filesystem), the total space allocated in the file system (kbytes), the amount of space allocated to existing files (used), the amount of space available for the creation of new files by unprivileged users (avail), the percentage of normally-available space that is currently allocated to all files on the file system (capacity), and the device on which the file system is mounted (mounted on).

It is important to note file systems that are approaching maximum capacity (90% or more). For a procedure used to increase (grow) the size of a file system, see your solution's Configuration Management document.

4   You have completed this procedure

Changing the APS IP/Hostname configuration

This procedure enables you to change the IP address and hostname configuration of the APS, after the APS has been installed.

Changing the APS IP/Hostname configuration

In a telnet connection to the CS 2000 Management Tools server

1   Open an xterm window and log in using the "maint" login and password.

2   Become the "root" user by entering:

`su root`

3   Enter the following command:

`cli`

The system displays a Command Line Interface command menu.

4   In response to the "select" prompt, enter **2** (Configuration)

The system displays a Configuration command menu.

5   In response to the "select" prompt, enter **3** (IP Configuration)

The system displays an IP Configuration command menu.

6   In response to the "select" prompt, enter **3** (Change system hostname, IP address, or router)

A series of prompts display, asking you for the hostname, IP address, and router IP address. Enter the appropriate information in response to each prompt.

7   Enter the following command to reboot the server:

`shutdown -i 6 -y`

8   After the reboot has completed, log into the system as the "root" user and enter the following command:

`aps_cli.sh`

The system displays the messages, "local_parms.sh is set up - Successfully set up site specific information." If you do not see this message displayed, contact your next level of support.

9   You have completed this procedure.

Monitoring nightly cleanup

Every night, during off-peak service hours, the "nightly_cleanup.sh" script runs automatically. The script cleans files that are known to fill up file systems, before damage can be done to your APS system. Specifically, the script cleans the following files:

- /var/adm/wtmpx (2000 lines of this file are retained)

- /var/adm/sulog (2000 lines of this file are retained)

- provisioner audit files (retains logs of the last known successful provisioning)

- provisioner logs (3 days worth are retained)

Two days worth of output and error files are stored in the /APS_spool directory. Review these files to ensure that the cleanup process is being performed successfully.

Monitoring audio provisioning activity

The "script" programs in the procedure below create reports that enable you to monitor the audio provisioning activity that you have performed.

Note: All of the reports generated below can also be created through a special APS command line interface tool. For a procedure containing instructions for running the tool, see <u>Running the APS command line interface</u>.

Monitoring audio provisioning activity

In a telnet connection to the CS 2000 Management Tool

1   Open an xterm window and log in using the "maint" login and password.

2   Become the "root" user by entering:

    su - root

3   Change directory to the "scripts" directory by entering the following command:

    cd /usr/ntdb/uas/scripts

4   Determine the report you wish to create.

If	Do
you wish to display information about segments that you have provisioned	step 5
you wish to display information about export packages that you have provisioned	step 6
you wish to display information about program groups that you have provisioned	step 7
you wish to display information about segments you have provisioned that are not associated with a program group	step 8
you wish to determine that free disk space to be used during audio provisioning is available	step 12
you wish to display users for which administration information was changed	step 10

If	**Do**
you wish to display a list of all nodes define in the APS database	step 11
you wish to display data about all of the nodes in the APS database	step 12
you wish to display a list of configuration parameters for your APS system	step 13

5 To display information about the segments that have provisioned in the database, enter the following command:

`audio_added.sh <start date> <end date>`

   Note: The date parameters must be entered in the format, *dd-mmm-yy* (the *mmm* variable consists of the first three letters of the name of the month, for example 16-JUL-02).

   A list of segment IDs and the data and time at which the segments they represent were last modified, in the date and time range that you specified, displays.

   a Either return to step 4 and create a different report or go to step 14.

6 To display information about the export packages that you have provisioned, enter the following command:

`packages_report.sh <start date> <end date>`

   Note: The date parameters must be entered in the format, *dd-mmm-yy* (the *mmm* variable consists of the first three letters of the name of the month, for example 16-JUL-02).

   A list of export package IDs, the creator of each of the packages they represent, and the date and time at which the packages were created, within the date and time range that you specified, displays.

   a Either return to step 4 and create a different report or go to step 14.

7 To display information about the program groups that you have either added or deleted, enter the following command:

`prg_grp_report.sh <start date> <end date>`

   Note: The date parameters must be entered in the format, *dd-mmm-yy* (the *mmm* variable consists of the first three letters of the name of the month, for example 16-JUL-02).

   For each program group you have either added or deleted, the following information displays:

Status

Program Group name

Provision Set it is associated with

ID of the users it is associated with

Date of the last modification

   a Either return to step 4 and create a different report or go to step 14.

8   To display information about segments that are not associated with a program group, enter the following command:

`segment_no_prg_grp.sh`

A list of segment IDs that are not associated with any program groups, displays.

   a Either return to step 4 and create a different report or go to step 14.

9   To display the amount of free disk space available for audio provisioning, enter the following command:

`freespace.sh`

A listing of each table-space and disk-space, and the number of free bytes and blocks within each, displays.

   Note: Although this data may require more detailed review to determine system health, by looking for free-space values <u>at or near zero</u> you should be able to determine whether system maintenance is required. If system maintenance is required, contact your Oracle database administrator.

   a Either return to step 4 and create a different report or go to step 14.

10   To display the users for which administrative information was changed, enter the following command:

`users_modified.sh`

A listing for each user modified, including the status of the modification, who made the modification, and the date on which the modification was made, displays.

   a Either return to step 4 and create a different report or go to step 14.

11   To display a list of all MS 2000 Series nodes defined in the APS database, enter the following command:

`list_uas_nodes.sh`

A listing of the nodes and their associated IP addresses defined in the APS database, displays.

a Either return to step 4 and create a different report or go to step 14.

12 To display provisioning data for all MS 2000 Series nodes defined in the APS database, enter the following command:

`list_uas_nodes.sh -all`

A listing of the nodes displays, which includes for each node the node's name and IP address, provision sets associated with the node, whether the node is enabled for provisioning (under column E in the listing, 1 = yes, 2 = no) and the date the node was last updated with new audio.

a Either return to step 4 and create a different report or go to step 14.

13 To display a list of your APS system's configured parameters, enter the following command:

`list_sys_parms.sh`

A listing of the system parameters displays. The parameters include:

- response timer (UAS_RESPONSE_TIMER) (This parameter can be changed through the APS Administration GUI.)

- maximum number of physical segment versions (UAS_MAX_PHYS_SEG_VER) (This parameter can be changed through the APS Administration GUI.)

- maximum number of package versions (UAS_MAX_PKG_VER) (This parameter can be changed through the APS Administration GUI.)

- maximum segment depth (MAX_SEG_DEPTH) (This parameter can be changed through the APS Administration GUI.)

- user audio file path (UAS_USER_AUDIO_FILEPATH)

- IPS database provisioning file path (IPS_PROV_PATH)

- maximum number of language versions (UAS_MAX_LANG_VERS) (This parameter can be changed through the APS Administration GUI.)

- maximum number of users (UAS_MAX_USERS)

- maximum number of program groups (UAS_MAX_PROGRAM_GROUPS)

- maximum number of provision sets (UAS_MAX_PROVISION_SETS)

- maximum number of UAS nodes (UAS_MAX_NODES)

  a   Either return to step 4 and create a different report or go to step 14.

14   You have completed this procedure.

Checking APS provisioning activity

This procedure enables you to check the provisioning activity in your MS 2000 Series system. This helps you ensure that the audio you have created using the APS GUIs has actually been provisioned to an MS 2000 Series node.

Checking APS provisioning activity

In a telnet connection to the CS 2000 Management Tool

1   Open an xterm window and log in using the "maint" login and password.

2   Become the "root" user by entering:

```
su - root
```

3   Display the "provisioner" log file content by entering the following command:

```
more /PROV_data/provisioner.log
```

Examine the file content display and look for entries like those described below, pertaining to the audio file distribution you have just performed, to ensure that all of the audio files have been successfully provisioned in the MS 2000 Series node.

Each time a provisioner process runs, an entry is appended to the log for the related CS 2000 Management Tool, in the format:

PROVISIONER START on *<hostname>* at *<date>* [PID: *<pid>*]
<single provision or full provision information>

Each time a provisioner process exits, an entry is also appended to the log for the related CS 2000 Management Tool, in the format:

PROVISIONER END on *<hostname>* at *<date>* [PID: *<pid>*]
<single provision or full provision information>

During normal operation, progress messages are entered in the provisioner logs. For example, when a provisioner creates transaction files for a node, the following entries are made in the related provisioner log:

Attempting to provision node *<node name>* from host *<hostname>* at
***<date>*. [PID: *<pid>*]**

Attempting to transfer files for node *<node name>* from *<hostname>*
at *<date>*. [PID: *<pid>*]

Last prov date updated for node *<node name>* on host *<hostname>* at
<date>. [PID: *<pid>*]

If a provisioner process exits abnormally, an entry is appended to the log for the related CS 2000 Management Tool, in the format:

PROVISIONER STOP on *<hostname>* at *<date>* because *<fault*
information>* [PID: *<pid>*] *<single provision or full provision
information>

If an abnormal exit occurs, indicating that provisioning did not succeed, contact your Nortel Networks service representative.

4   You have completed this procedure.

Checking the APS Oracle database

This procedure enables you to check the status of the Oracle database.

Checking the APS Oracle database

In a telnet connection to the CS 2000 Management Tool

1   Open an xterm window and log in using the "maint" login and password.

2   Become the "root" user by entering:

```
su - root
```

3   Perform the following steps to verify that you can connect to the Oracle database:

    a   Enter the following command to verify that you can connect to the Oracle database:

```
sql
```

    b   At the prompt, enter the following command:

```
select count(*) from tab;
```

        A number other than zero should display.

    c   Enter the following command to disconnect from the Oracle database:

```
sql > quit
```

    d   If you are unable to connect to the database, ensure that your database is on-line by entering the following command:

```
look ora
```

        A listing of Oracle processes should display.

4   Enter the following command to check the status of the database:

```
/opt/servman/bin/servman query -status -g
DATABASE -v
```

A status report like the following should display:

Connecting to
(DESCRIPTION=(ADDRESS-(PROTOCOL=TCP))HOST=*<ip address>* (PORT=*<port #>*)))
STATUS OF THE LISTENER
Alias   LISTENER
Version   TNSLL+SNR for Solaris: Version 8.1.7.0.0
Start Date   *<date and time>*
Uptime   *<days; hours; minutes; seconds>*
Trace Level   off
Security   off
SNMP   off
Listener Parameter File
/opt/oracle/product/8.1.7/network/admin/listener.ora
Listener Log File
/opt/oracle/product/8.1.7/network/log/listener.log

```
Services Summary ...
   PSLExtProc has 1 service handler
  pfs has 1 service handler
  pfs has 1 service handler
The command completed successfully.
oracle 694 1 0 14:07:59 ?  0:00 ora_pmon_pfs
oracle 696 1 0 14:07:59 ?  0:00 ora_dbw0_pfs
oracle 698 1 0 14:07:59 ?  0:00 ora_lgwr_pfs
oracle 700 1 0 14:07:59 ?  0:00 ora_ckpt_pfs
oracle 702 1 0 14:07:59 ?  0:00 ora_smon_pfs
oracle 704 1 0 14:07:59 ?  0:00 ora_reco_pfs
oracle 70 6 1 0 14:07:59 ?  0:00 ora_snp0_pfs
oracle 708 1 0 14:07:59 ?  0:00 ora_arc0_pfs
```

If	Do
you saw information like this display	step 8
you did not see information like this display	step 5

5   Start the Oracle database by entering the following commands:

/opt/servman/bin/servstart DATABASE

6   Kill the CS 2000 Management Tool process and let the server restart automatically, by entering the following command:

/opt/uas/aps/scripts/killDbServer.sh

A message eventually displays indicating that the server is restarting.

7   Enter the following command to check the status:

```
/opt/servman/bin/servman query -status -g
DATABASE -v
```

The display should indicate that the Oracle processes, listed at the end of the display (that is, entries in the display that begin with "oracle <pid>"), are running. If the processes are not running, contact your next level of support.

8   You have completed this procedure.

Verifying that the APS CD drive is mounted

This procedure enables you to determine whether the APS CD drive is accessible and that the APS CD is inserted in the drive. This is normal operating condition.

Verifying that the APS CD drive is mounted

In a telnet connection to the CS 2000 Management Tool

1   Open an xterm window and log in using the "maint" login and password.

2   Become the "root" user by entering:

`su - root`

3   Enter the following command:

`df -k`

A status report displays, indicating for each device, capacity measurements. If the CD drive is mounted you should see a "/cdrom/ ..." entry.

If	Do
you saw a "/cdrom/ ..." entry	step 10
you did not see a "/cdrom/ ..." entry	step 4

4   Enter the following command to the display the contents of the "/etc/vold.conf" file:

`cat /etc/vold.conf`

The contents of the file displays. In the display, look for the command, "use cdrom drive /dev/rdsk/c*s2 dev_cdrom.so cdrom%d" .

If	Do
the command, "use cdrom drive /dev/rdsk/c*s2 dev_cdrom.so cdrom%d" appears in the file	step 6
the command, "use cdrom drive /dev/rdsk/c*s2 dev_cdrom.so cdrom%d" doesn't appear in the file	step 5

5   Contact your next level of support. You cannot perform this procedure.

6   Enter the following command:

`ps -fea | grep vold`

The resulting display should show that the vold (volume manager daemon) process ("usr/sbin/vold") is running. Record the process ID associated with this process.

7   Enter the following command to stop the volume manager daemon:

`kill -HUP <process ID of vold process>`

(The *process ID of vold process* was obtained in step 6.)

The operating system will restart, and then re-read the "vold" process and any changes that have been made to the "/etc/vold.conf" file.

8   Enter the following command:

`df -k`

A status report displays, indicating for each device, capacity measurements. If the CD drive <u>is</u> mounted you should see a "/cdrom/ ..." entry.

If	Do
you saw a "/cdrom/ ..." entry	step 10
you did not see a "/cdrom/ ..." entry	step 9

9   Reboot the CS 2000 Management Tool by entering the following command:

`shutdown -i 6 -y`

10   You have completed this procedure.

Set APS security

There are a number of ways to make access to the APS more secure, including configuring SNMP community read and write community strings to non-default values (see the procedure, "Configuring the SNMP agent" in the document NN10340-511, "MS 2000 Series Operational Configuration"), choosing user passwords that different from login IDs or that cannot be easily guessed. Another way to secure APS access is to add a password to the Oracle Listener port, 1521. For procedures used to set and change the Oracle Listener password, refer to your solution's Security and Administration document.

Setting the APS administrator (UNIX) password

The APS software is pre-configured with a UNIX Administrator user without a UNIX Administrator password. This procedure enables you to secure the access to your CS 2000 Management Tool by creating a UNIX Administrator password.

After you have initially set the Administrator password to secure CS 2000 Management Tool access, this procedure enables you to then change the Administrator password, as required.

Setting the APS administrator (UNIX) password

At the system console (Windows desktop interface)

1   Decide whether you are setting the Administrator password for the first time

If	Do
you are setting the password for the first time	step 2
you are not setting the password for the first time	step 4

2   Log in as the root user.

3   Enter the following command:

`password Administrator`

a Go to step 5

4   Log in as Administrator.

> ***Note:*** The login is case-sensitive and must be entered in the form, Administrator.

The system responds with the message, Choosing a new password.

5   In response to the system prompt, enter your new password.

6   In response to the system prompt, re-enter the new password.

7   You have completed this procedure.

Restarting the SNMP agent

This procedure enables you to determine whether the SNMP agent is running and, if it has stopped, to restart it.

Note: The following procedure can also be performed through a special APS command line interface tool. For a procedure containing instructions for running the tool, see Running the APS command line interface.

Restarting the SNMP agent

In a telnet connection to the CS 2000 Management Tool

1   Open an xterm window and log in using the "maint" login and password.

2   Become the "root" user by entering:

`su - root`

3   Verify that the agent is, or was, running by entering the following:

`more /opt/uas/aps/scripts/SnmpAgent.pid`

A numeric process id (pid) associated with the agent should display.

If	Do
a process id displays	step 4
a process id doesn't display	step 5

4   Verify that the process associated with the agent is running by entering:

`ps -ef | grep nnnnn`

where *nnnnn* is the process id that was displayed in step 3.

If the process is running, a descriptive line of information about the process displays.

If	Do
the process is running	step 8
the process is not running	step 5

5   Enter the following command to start the SNMP agent:

/opt/uas/SnmpAgent/bin/agentctl start

6   Verify that the agent has started by entering the following command:

more /opt/uas/aps/scripts/SnmpAgent.pid

If the agent has started, a process id associated with the agent should display.

If	Do
the process id displays	step 7
the process id doesn't display	repeat steps 5 and 6 one more time and, if the process still doesn't display, contact your next level of support

7   Verify that the process associated with the agent is running by entering:

ps -ef | grep *nnnnn*

where *nnnnn* is the process id that was displayed in step 6.

If	Do
the process is running	step 8
the process is not running	repeat steps 5 through 7 one more time and, if the process is still not running, contact your next level of support

8   You have completed this procedure.

Verifying that the Web server is running

This procedure enables you to determine whether the Web server is running. The Web server enables you to access the APS Administration and Audio Management GUIs.

Verifying that the Web server is running

At your console

1 Start the APS GUI:

Start up Netscape or Internet Explorer.

Enter the URL for the APS GUI in your Web browser: http://<*ip address of the APS*>:8080/aps/

If	Do
the APS login screen displays	step 8
the APS login screen does not display	step 2

2 Enter the following URL in your Web browser: http://<*ip address*>

If	Do
Apache Web server page displays	step 3
the Apache Web server page does not display	step 5

3 Log in as the "root" user.

4 Enter the following command to restart the CS 2000 Management Tool processes:

/opt/uas/aps/scripts/killDbServer.sh

> *Note:* The web server and the Java servlet engine will be restarted as a result of this command. CS 2000 Management Tools users may be temporarily impacted while the web server restarts.

a Go to step 8.

5 Log in as the "root" user.

6 Enter the IP address of the CS 2000 Management Tool in the browser address window.

An Application Launch Point page should display.

If	Do
the Application Launch Point page displays	step 8
the Application Launch Point page does not display	step 7

7   Enter the following command to start the Apache server:

`/opt/servman/bin/servstart WEBSERVICES`

Messages that indicate the Apache server has started display.

8   You have completed this procedure.

Listing APS software load packages

This procedure enables you to list the installed APS software on an CS 2000 Management Tool. You may, instead, choose to use your web browser to view this information; refer to the procedure, <u>Listing APS patches and releases</u>.

Listing APS software load packages

In a telnet connection to the CS 2000 Management Tool

1   Open an xterm window and log in using the "maint" login and password.

2   Become the "root" user by entering:

    su - root

3   Enter the following command to list the installed software packages on the CS 2000 Management Tool:

    pkginfo | grep aps | more

    A list of the installed software packages displays.

4   If you would like a count of all installed application software packages on the CS 2000 Management Tool, enter the following command:

    pkginfo | grep application | wc

    A count of the installed software packages displays. The number of packages should be at least 37, depending on the number APS bug fixes.

5   If you would like to display the APS software load version that is currently using the APS Web server, perform the following steps:

    Start up Netscape or Internet Explorer.

    Enter the following URL in your Web browser: http://<*ip address of the APS*>:8080/aps/servlet/HelloASAM

    A window opens, displaying the current APS software version, a time stamp, and the version of the SUN operating system on which the APS software is running.

6   You have completed this procedure.

Changing the APS Oracle account password

When the APS is installed, a default password is assigned to the Oracle account. This procedure enables you to change the default password, for added system security.

Changing the APS Oracle account password

In a telnet connection to the CS 2000 Management Tool

1   Open an xterm window and log in using the "root" login and password.

2   When the APS is installed, the Oracle account password is "lionpwd". If you are unsure whether the password has been changed, obtain the current password by entering the following command:

   `/usr/ntdb/uas/scripts/getNTDBpasswd.ksh`

   The system displays the current Oracle account password.

3   Perform the following steps to change the Oracle account password:

   a   Enter the following command to run the script that enables you to change the password:

   `/usr/ntdb/uas/scripts/setNTDBpasswd.ksh`

   b   At the prompt, enter the current APS Oracle account password.

   > ***Note:*** This is either the default password, "lionpwd" or the password that you displayed in step 2.

   c   At the prompt, enter the new APS Oracle account password.

   d   At the prompt, reenter the new APS Oracle account password.

   The system changes the password in UNIX and in the Oracle database.

4   The following prompt displays.

   ```
   The APS dbserver software should be restarted to
   use the new password.
   ```

   ```
   Do you want to do this now? (Y/N)
   ```

   Enter Y to restart the APS dbserver software .

5   You can now check the password change you have made by entering the following command:

`/usr/ntdb/uas/scripts/getNTDBpasswd.ksh`

The system displays the current Oracle account password.

6   You have completed this procedure.

Performing a backup of APS audio files into a single tar archive (FTP)

Use this procedure to backup APS audio files intoa single tar archive to FTP off of the server for backup.

Prerequisites

This procedure is for sites with a SUN v240 server.

At the APS server

1 Become the root user by entering the following command and then entering the "root" password when prompted:

```
su - root
```

2 Change your working directory to the root file system by typing the following:

```
$ cd /
```

3 Create the tar archive by typing the following:

```
tar cvf AudioFiles.tar /audio_files
/user_audio_files /opt/uas/uas_conf_backup
```

4 Ftp the "AudioFiles.tar" file off of this server for backup purposes.

5 Perform APS-only database only backup to CD if not already performed.

6 You have completed this procedure.

Performing an APS-only Data Base Backup to Disk and to CD

Use this procedure to back up the APS database to disk and CD.

Prerequisites

This procedure is for sites with a SUN v240 server equipped with a CD-DVD drive that can burn CDs.

At the APS server

1 Become the root user by entering the following command and then entering the "root" password when prompted:

`su - root`

2 Back up the files to the disk on the server by typing the following:

`$ ips_export_db.sh -diskonly`

Note: This command backs up the APS tables to the disk on the server. The directory is /audio_files/aps_db_backup/*.

3

If	Do
you are backing up the APS files to disk	step 9
you are backing up the APS files to CD	step 4

4 Change to the audio_files directory by typing the following:

`cd /audio_files`

5 Ensure that there is a blank CD in the drive.

6 Burn the APS dmp files to CD by typing the following:

`/opt/nortel/sspfs/bks/cdwrite aps_db_backup`

7 Verify the files are on the CD by typing the following:

```
-rwxrwsrwx 1 root other 54272 May 13 11:11
ips_db_audit.dmp

-rwxrwsrwx 1 root other 4096 May 13 11:11
ips_node_config.dmp

-rwxrwsrwx 1 root other 2048 May 13 11:11
ips_prov_prg_grp.dmp

-rwxrwsrwx 1 root other 2048 May 13 11:11
ips_prov_set.dmp
```

```
-rwxrwsrwx 1 root other 3072 May 13 11:11
ips_user.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
ips_user_perm_group.dmp

-rwxrwsrwx 1 root other 71 May 13 11:11 README

-rwxrwsrwx 1 root other 4096 May 13 11:11
sys_parms.dmp

. . . . . .

-rwxrwsrwx 1 root other 44032 May 13 11:11
uas_segments.dmp

-rwxrwsrwx 1 root other 6144 May 13 11:11
uas_selector_relation.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_selector_type.dmp

-rwxrwsrwx 1 root other 7168 May 13 11:11
uas_selector_value.dmp

-rwxrwsrwx 1 root other 5120 May 13 11:11
uas_sequences.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_set_content.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_set_definition.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_user_perms.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_var_start_seg_id.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_variables.dmp

#
```

8   Back up the APS audio files if not already performed. Refer to procedure *Performing a backup of APS audio files into a single tar archive (FTP)*.

9   You have completed this procedure.

Performing an APS-only Data Base Backup to 4mm DAT

Use this procedure toback up the APS database to a blank 4mm Tape.

Prerequisites

This procedure is for sites with a SUN t1400 server equipped with a 4mm DAT drive.

Note: This procedure is not for sites with a SUN v240 and the CD-DVD drive.

At the APS server

1   Become the root user by entering the following command and then entering the "root" password when prompted:

```
su - root
```

2   Ensure there is a write-enabled 4mm DAT tape in the drive

3   Back up the files to the tape by typing the following:

```
$ ips_export_db.sh -t /dev/rmt/0
```

4   Verify the files are on the tape by typing the following command and viewing the command output:

```
# tar tvf /dev/rmt/0
```

```
-rwxrwsrwx 1 root other 54272 May 13 11:11
ips_db_audit.dmp
```

```
-rwxrwsrwx 1 root other 4096 May 13 11:11
ips_node_config.dmp
```

```
-rwxrwsrwx 1 root other 2048 May 13 11:11
ips_prov_prg_grp.dmp
```

```
-rwxrwsrwx 1 root other 2048 May 13 11:11
ips_prov_set.dmp
```

```
-rwxrwsrwx 1 root other 3072 May 13 11:11
ips_user.dmp
```

```
-rwxrwsrwx 1 root other 3072 May 13 11:11
ips_user_perm_group.dmp
```

```
-rwxrwsrwx 1 root other 71 May 13 11:11 README
```

```
-rwxrwsrwx 1 root other 4096 May 13 11:11
sys_parms.dmp
```

```
. . . . . .
```

```
-rwxrwsrwx 1 root other 44032 May 13 11:11
uas_segments.dmp

-rwxrwsrwx 1 root other 6144 May 13 11:11
uas_selector_relation.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_selector_type.dmp

-rwxrwsrwx 1 root other 7168 May 13 11:11
uas_selector_value.dmp

-rwxrwsrwx 1 root other 5120 May 13 11:11
uas_sequences.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_set_content.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_set_definition.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_user_perms.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_var_start_seg_id.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_variables.dmp

#
```

5   Eject the tape and move the tape tab to read-only position. Label the tape and store in a safe place.

6   Backup the APS audio files to tape, if not already performed.

7   You have completed this procedure.

Performing an APS-only Data Base Restore from a 4mm DAT

Use this procedure to restore the APS DB from an APS DB tape backup in a 4mm DAT drive.

Prerequisites

This procedure is for sites with a SUN t1400 server equipped with a 4mm DAT drive.

Note: This procedure is not for sites with a SUN v240 and the CD-DVD drive.

At the APS server

1 Become the root user by entering the following command and then entering the "root" password when prompted:

`su - root`

2 Ensure the 4mm DAT tape in the drive is a write-protected.

3 Start the DB restore from the tape by typing:

`$ ips_export_db.sh -t /dev/rmt/0 -restore`

This command restores the APS DB from the tape to the following directory:

`/audio_files/aps_db_backup/*.dmp`

4 Restore the APS audio files to the file system if not already performed.

5 You have completed this procedure.

Performing an APS-only Database restore from a CD

Use this procedure on a SUN v240 server with a CD drive.

Prerequisites

This procedure is for sites with a SUN v240 and the CD-DVD drive.

Note: This procedure is not for sites with a SUN t1400 server equipped with a 4mm DAT drive.

At the APS server

1   Become the root user by entering the following command and then entering the "root" password when prompted:

su - root

2   Load the backup CD into the CD drive on the server.

3   Change to the aps backup directory on the server by typing:

cd /audio_files/aps_db_backup

4   Copy the dmp files on the CD to this directory by typing:

$ cp /cdrom/cdrom0/* ./

5   Verify the dmp files were copied from CD to the destination directory by typing the following command and then viewing the command output:

$ ls -l *

```
-rwxrwsrwx 1 root other 54272 May 13 11:11
ips_db_audit.dmp
```

```
-rwxrwsrwx 1 root other 4096 May 13 11:11
ips_node_config.dmp
```

```
-rwxrwsrwx 1 root other 2048 May 13 11:11
ips_prov_prg_grp.dmp
```

```
-rwxrwsrwx 1 root other 2048 May 13 11:11
ips_prov_set.dmp
```

```
-rwxrwsrwx 1 root other 3072 May 13 11:11
ips_user.dmp
```

```
-rwxrwsrwx 1 root other 3072 May 13 11:11
ips_user_perm_group.dmp
```

```
-rwxrwsrwx 1 root other 71 May 13 11:11 README
```

```
-rwxrwsrwx 1 root other 4096 May 13 11:11
sys_parms.dmp
```

```
.  .  .  .  .  .

-rwxrwsrwx 1 root other 44032 May 13 11:11
uas_segments.dmp

-rwxrwsrwx 1 root other 6144 May 13 11:11
uas_selector_relation.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_selector_type.dmp

-rwxrwsrwx 1 root other 7168 May 13 11:11
uas_selector_value.dmp

-rwxrwsrwx 1 root other 5120 May 13 11:11
uas_sequences.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_set_content.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_set_definition.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_user_perms.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_var_start_seg_id.dmp

-rwxrwsrwx 1 root other 3072 May 13 11:11
uas_variables.dmp

#
```

6   Start the DB restore from the disk files by typing:

`$ . ips_export_db.sh -diskonly -restore`

This command restores the APS DB from the disk files. The directory is:

`/audio_files/aps_db_backup/*.dmp`

7   Restore the APS audio files to the file system if not already performed.

8   You have completed this procedure.

Performing a restore of APS audio from 4mm DAT

Use this procedure to restore APS audio files from a tape.

Prerequisites

This procedure is for sites with a SUN t1400 server equipped with a 4mm DAT drive.

Note: This procedure is not for sites with a SUN v240 and the CD-DVD drive.

At the APS server

1   Become the root user by entering the following command and then entering the "root" password when prompted:

   `su - root`

2   Load the APS audio file tape into the drive.

3   Change directory to the root file system by typing:

   `$ cd /`

4   Restore audio files to the file system by entering:

   `$ tar xvf /dev/rmt/0`

   The file are read from tar and placed on the file systems.

5   Audio files should be placed in these filesystems: /audio_files and /user_audio_files

6   A corresponding restore of the APS database may be needed. Locate the backup tape for the APS database and restore the APS DB tables.

7   You have completed this procedure.