



SARA Server Software
Installation Instructions
For System Release 2.7/3.7/4.2
Service Pack 2 and later

Please Read

Important

Please read this entire guide. If this guide provides installation or operation instructions, give particular attention to all safety statements included in this guide.

Notices

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About This Guide

Introduction

This document provides procedures for installing SARA Server software on the Application Server. This document also contains instructions for restoring the previous version of SARA Server software in the unlikely event that the upgrade is not successful.

Important: Use this document in conjunction with the release notes for the software version that you are installing. The release notes provide information about the software, such as new features, compatibility with system releases, and the installation media and tools.

Scope

This document provides instructions for installing SARA Server software on the Application Server. It does not provide instructions for installing the SARA server hardware in your headend.

Audience

This document is written for operators of digital cable television systems that use the SARA. System operators, field service engineers, and Cisco Services engineers may also find the information in this document helpful.

Document Version

This is the first release of this document.

1

Preparing to Install the Software

Before installing SARA Server software, there are several tasks you must complete to ensure a successful installation. This chapter provides instructions on how to complete these tasks. It also provides recommendations and prerequisites that are essential to a successful installation.

In This Chapter

- Information You Should Know..... 2
- Pre-Installation System Checks..... 3
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Information You Should Know

This section provides information you need to know before installing the software. Review the information in this section to ensure a successful installation.

What Are the Site Requirements?

The procedures in this guide apply to systems running System Release (SR) 2.7/3.7/4.2 Service Pack 2 (SP2) or later along with Solaris 10.

What Skills and Expertise Are Required?

System operators or engineers who upgrade the SARA server software need advanced knowledge of the UNIX vi editor. To install the software, you may need to use the UNIX vi editor to modify the parameters of some files. The UNIX vi editor is not intuitive. The instructions provided in this document are not a substitute for an advanced working knowledge of the vi editor.

When Is the Best Time to Upgrade the Software?

The optimum time to upgrade your system is when you are least likely to intrude on subscribers' purchasing opportunities and least likely to impact your revenue-generating opportunities.

Traditionally, upgrades have been done during the night between 11:00 p.m. and 6:00 a.m. However, systems can be upgraded anytime during the day or night. You know your system and the habits of your subscribers better than anyone else. If you determine that there is a lot of xOD, VOD, or PPV revenue-generating activity on your system during the nighttime hours, you may opt to upgrade your system sometime during the day. For example, you may determine that there is little interactivity or few revenue-generating opportunities occurring in the early morning hours. This may be the best time to upgrade your system. Your subscriber base can continue to watch digital broadcasts (as long as the DHCT is not rebooted) and analog TV programs, without interruption, while the system is being upgraded.

Pre-Installation System Checks

This section provides procedures for the following system checks to be completed before you begin installing SARA Server software. The following list summarizes these checks. The remainder of this chapter provides procedures for tasks listed here.

- 1 Identify and locate the versions of SAIaprsrv and SAItools currently installed so that you have them readily available. Having these items at hand is helpful in the unlikely event that you experience a problem installing the software and need to restore the version of software that is currently installed.
- 2 Run the Doctor Report and correct any problems it may indicate.
- 3 Verify that the TAPPEDEV and LTAPPEDEV parameters are set correctly in the Informix Configuration file onconfig. If these parameters are set incorrectly, you may encounter difficulties during the installation.
- 4 Verify that your DBDS is stable.
- 5 Suspend the billing system and, if necessary, third-party (non-Cisco) applications.
- 6 Find out when the IPG collector will run so that you can ensure IPG data is correctly updated after the software is completely installed.

Identify and Locate the Versions of SAIaprsrv and SAItools Currently Installed

Follow this procedure to identify the current versions of SAIaprsrv and SAItools packages and locate them so they are readily available in the unlikely event you experience a problem installing the software. Should you experience a problem and need to restore the version of software currently installed on your system, you will need to reinstall SAIaprsrv and SAItools packages.

Note: See Roll Back the Software for instructions on reinstalling these software packages.

- 1 In an xterm window on the SARA Server type **pkginfo -l SAIaprsrv** and press **Enter**. The current SARA Server version displays.
- 2 Write the current SARA Server version here: _____
- 3 In the same xterm window on the SARA Server type **pkginfo -l SAItools** and press **Enter**. The current SAItools version displays.
- 4 Write the tools version here: _____
- 5 Locate the CD(s) and keep them on hand so that the CD(s) are readily available if you should need to roll back.

Important: If you cannot find these CDs, back up the SARA Server before beginning this procedure. For assistance backing up the SARA Server, refer to the backup and restore document for your system release.

- 6 Go to *Run the Doctor Report* (on page 4).

Run the Doctor Report

Before you upgrade the SARA Server software, run the Doctor Report. Refer to the *DBDS Utilities Version 6.1 Installation Instructions and DNCS Utilities User Guide* for detailed instructions.

Introduction

The Doctor Report provides key system configuration data.

How Long Does It Take?

On a typical system, the Doctor Report takes about 10 minutes to run.

Running the Doctor Report

Follow the procedures in the *DBDS Utilities Version 6.1 Installation Instructions and DNCS Utilities User Guide* to run the Doctor Report.

Analyzing the Doctor Report

Refer to the *DBDS Utilities Version 6.1 Installation Instructions and DNCS Utilities User Guide* for help in interpreting the data generated by the Doctor Report. If you need help resolving any issues reported by the Doctor Report, call Cisco Services.

What's Next?

After you have run and analyzed the Doctor Report, and have corrected any problems it may indicate, go to *Verify Key Parameters in the Informix Configuration File* (on page 4).

Important: Do not proceed with the other procedures necessary to install the software until you have run and analyzed the Doctor Report, and you have corrected any problems it may indicate.

Verify Key Parameters in the Informix Configuration File

Before you upgrade the SARA Server software, verify that the TAPEDEV and LTAPEDEV parameters are set correctly in the Informix Configuration file `onconfig`. If these parameters are set incorrectly, you may encounter difficulties during the installation.

How Long Does It Take?

On a typical system, it takes about 1 minute to determine the current settings of the key parameters TAPEDEV and LTAPEDEV. It takes about 5 minutes to change the settings.

Verifying TAPEDEV and LTAPEDEV Parameters

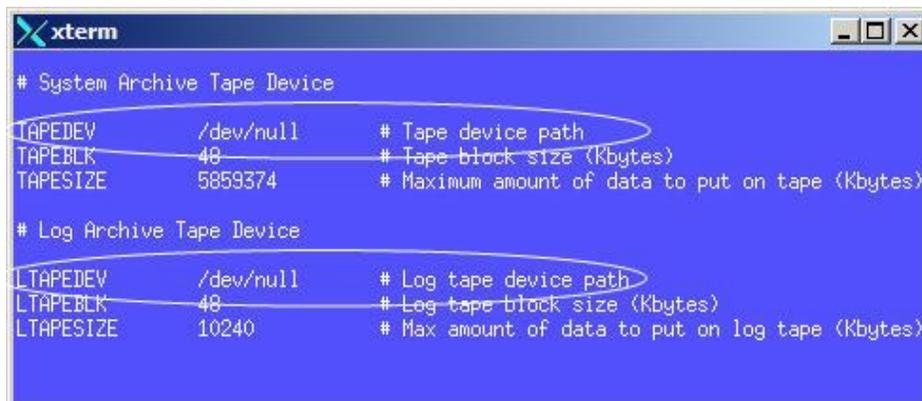
- 1 On the DNCS, open an xterm window and log on as **root**.
- 2 Type **cd /export/home/informix/etc** and press **Enter**. The system makes /export/home/Informix/etc the working directory.
- 3 Type **grep -i tapedev onconfig** and press **Enter**. The system searches the onconfig file and displays lines that contain "tapedev," similar to the example shown here.



```
xterm
oliveoil:/export/home/informix/etc$ grep -i tapedev onconfig
TAPEDEV      /dev/null      # Tape device path
LTAPEDEV     /dev/null      # Log tape device path
oliveoil:/export/home/informix/etc$
```

- 4 Did the system display **/dev/null** as the tape device path and log tape device path?
 - If **yes**, the TAPEDEV and LTAPEDEV parameters are set correctly. You have successfully completed this procedure.
 - If **no**, type **cp onconfig onconfig.DATE** and press **Enter**. The system makes a copy of the onconfig file and names the copy onconfig.DATE.

Note: In this command, DATE represents today's date in DDMMYY format. For example, if today is March 15, 2008, you would type **cp onconfig onconfig.031508**.
- 5 Type **vi onconfig** and press **Enter**. The onconfig file opens for editing using the UNIX vi text editor.
- 6 Edit the TAPE DEV and LTAPEDEV parameters so that they use **/dev/null** for both the tape device path and log tape device path, as shown in the following example.



```
xterm
# System Archive Tape Device
TAPEDEV      /dev/null      # Tape device path
TAPEBLK      48             # Tape block size (Kbytes)
TAPESIZE     5859374    # Maximum amount of data to put on tape (Kbytes)

# Log Archive Tape Device
LTAPEDEV     /dev/null      # Log tape device path
LTAPEBLK     48             # Log tape block size (Kbytes)
LTAPESIZE    10240    # Max amount of data to put on log tape (Kbytes)
```

- 7 Save the file and close the vi text editor. You have successfully completed this procedure.

Note: Changes to the onconfig file are effective as soon as you save the file. It is not necessary to restart system components for these changes to take effect.

- 8 Type **exit** to close the xterm window.
- 9 Go to *Verify DBDS Stability* (on page 6).

Verify DBDS Stability

Before you upgrade the software, use this procedure on one or more test DHCTs to verify that your DBDS is stable. Your DBDS must be stable before you can upgrade the SARA Server software.

Preconditions for Verifying DBDS Stability

Before you can verify DBDS stability, make sure that your test DHCTs meet the following conditions:

- Test DHCTs must be authorized for all third-party applications.
- Test DHCTs must not be authorized to view a pay-per-view (PPV) event without specifically buying the event.
- Test DHCTs must have a working return path and be capable of booting into two-way mode.

Verifying DBDS Stability

After you have ensured that your test DHCTs meet the qualifications listed above, follow these steps to verify that your DBDS is stable.

Important: If this procedure fails, do not continue with this procedure. Instead, contact Cisco Services.

- 1 Perform a slow-and-fast boot on a test DHCT as follows:
 - a Boot a DHCT.

Note: Do not press the power button.
 - b Access the Power On Self Test and Boot Status Diagnostic Screen on the DHCT and verify that all parameters, except UNcfg, display **Ready**.

Note: UNcfg displays **Broadcast**.
 - c Wait 5 minutes.
 - d Press the power button on the DHCT. The DHCT powers on.
 - e Access the Power On Self Test and Boot Status Diagnostic Screen on the DHCT.
 - f Do all of the parameters, including UNcfg, display **Ready**?
 - If **yes**, ping the DHCT.
 - If **no**, contact Cisco Services.
- 2 Did the DHCT receive the ping?
 - If **yes**, stage at least one new DHCT to the system operator's specifications.
 - If **no**, contact Cisco Services.

- 3 Did the newly staged DHCT successfully load the current client release software?
 - If **yes**, verify that the DHCT received at least 33 EMMs and its Entitlement Agent.
 - If **no**, contact Cisco Services.
- 4 Did the DHCT receive at least 33 EMMs and its Entitlement Agent?
 - If **yes**, go to step 5.
 - If **no**, contact Cisco Services.
- 5 Does the IPG display 7 days of valid and accurate data?
 - If **yes**, verify that the IPG supports multiple languages.
 - If **no**, contact Cisco Services.
- 6 Does the IPG support multiple languages?
 - If **yes**, verify that the PPV barkers appear correctly on the PPV channels.
 - If **no**, contact Cisco Services.
- 7 Do the PPV barkers appear on the PPV channels correctly?
 - If **yes**, verify that test DHCTs can purchase a VOD event.
 - If **no**, contact Cisco Services.
- 8 Did the test DHCTs purchase a VOD event?
 - If **yes**, verify that third-party applications load properly.
 - If **no**, contact Cisco Services.
- 9 Do third-party applications load properly?
 - If **yes**, you have successfully verified the stability of the DBDS.
 - If **no**, contact Cisco Services.
- 10 Go to *Suspend the Billing System and Other Third-Party Applications* (on page 7).

Suspend the Billing System and Other Third-Party Applications

Before you upgrade the SARA Server software, follow these instructions to stop the billing system and other third-party (non-Cisco) applications.

Suspending Billing and Other Third-Party Applications

Before installing the software, suspend the billing system and any other third-party applications that communicate with the DNCS. Contact the billing vendor in order to suspend the billing interface. In addition, contact the providers of any third-party applications that your system supports. Follow their guidance in determining whether these third-party interfaces should be stopped as well.

What's Next?

After you have suspended the billing system and any other third-party applications, determine when the IPG collector will run. Go to *Find Out When the IPG Collector Will Run* (on page 8).

Find Out When the IPG Collector Will Run

Before installing the SARA Server software, use the procedure in this section to obtain the following information so you can determine which action to take to ensure IPG data is correctly updated after the installation is complete:

- Find out whether an IPG collection is currently active.
- Find out when an IPG collection is scheduled.

Obtaining this information can help you decide which of the following actions to take to ensure IPG data is correctly updated after the software is completely installed:

- Run the IPG collector manually after the installation is complete to ensure that IPG data is correctly updated.
- Allow the IPG collector to run automatically after the installation is complete to ensure that IPG data is correctly updated.

For example, if the IPG collector is scheduled to run at midnight and you are beginning to stop system components at 11:30 p.m., you will want to run the IPG collector manually after the installation is complete to prevent a missed or incomplete collection. On the other hand, if you are beginning to stop system components at 11:30 p.m. and the IPG collector is scheduled to run at 3:00 a.m., you will probably allow the collector to run automatically because you will have completed the installation before the start of the scheduled collection time.

Finding Out When the IPG Collector Will Run

Complete the following steps to determine when the IPG collector will run.

- 1 From the DNCS Administrative Console, click the **Server Applications** tab.
- 2 Click **IPG**. The IPG Server List window opens.
- 3 Double-click the icon (📄) for the **IPG server**. The IPG collectors display beneath the IPG server icon.
- 4 Select the icon (📄) for the **IPG collector**, and click **File** and choose **Open**. The Set Up IPG Collector window opens. The Set Up IPG Collector window opens.
- 5 Find the setting for the **Daily Collection Time** to determine when the collector is scheduled to run, or if a collection is currently running.

Note: Use this information to determine whether or not you should run the IPG collector manually or allow it to run automatically after the installation is complete. If a collection is in progress, allow it to finish running before proceeding to the next pre-installation task.

- 6 Do you have more than one IPG server (for example, an English and French server)?
 - If **yes**, repeat steps 3 to 5 for each additional IPG server. When you have finished, go to *Stop System Components* (on page 10).
 - If **no**, go to *Stop System Components* (on page 10).

Stop System Components

Before installing the software, use the procedures in this section to stop system components in the proper order. Failing to stop system components in the order described in this section may cause you to encounter difficulties during the installation.

Important: System components must be stopped prior to installing SARA Server software.

Stopping System Components

To stop system components, follow this process:

Note: Detailed instructions for each task shown here are provided later in this section.

- 1 If your system uses the Regional Control System (RCS) option, stop the Remote Network Control Server (RNCS) processes at each site in your RCS.
Note: The RCS feature is available with SR 2.5/SR 3.5 and later.
- 2 Stop the Spectrum Network Management Service (NMS).
- 3 Stop SARA Server cron jobs and processes.
- 4 Stop DNCS cron jobs and processes.
- 5 Ensure no active database sessions are on the DNCS.

Stopping RNCS Processes

If your system uses the RCS feature, use one of the following methods to stop RNCS processes at each remote site in your RCS:

- Use the **siteControl** command to stop RNCS processes at *each* site in your system, one site at a time. Go to *Stopping RNCS Processes at One Site* (on page 12).
- Use the **siteCmd** command to stop RNCS processes at *all* sites in your system. Go to *Stopping RNCS Processes at All Sites* (on page 12).

Note: If you are unsure whether or not the RCS feature is enabled, use the licenseAud utility to verify the status of this option. For assistance, go to *Determining Whether RCS Is Enabled* (on page 11).



CAUTION:

When RNCS processes are stopped, two-way communication also stops at this site. This site will not be able to offer any PPV, VOD, other on-demand services, or other third-party applications during this time. In addition, this site will provide only limited IPG functionality, and you will be unable to stage DHCTs or update modulator/demodulator code.

Determining Whether RCS Is Enabled

If you do not know whether or not the RCS option is enabled on your system, complete the following steps to find out.

- 1 Open an xterm window on the DNCS as the dncs user.
- 2 Type **cd /dvs/dnCS/bin** and press **Enter**. The system makes /dvs/dnCS/bin the working directory
- 3 Type **licenseAud** and press **Enter**. The main menu of the License Audit utility opens.
- 4 Type **1** and press **Enter**. The utility displays the license status for all licensable features, similar to the following example.

```

xterm
.....
*
* 1. Display all features' license status *
* 2. Display selected feature license status *
* 3. (Q)uit *
*
*
.....
Select option: 1

EAS FIPS Code Filtering          licensed
DOCSIS DHCT Support             licensed
Enhanced VOD Session Throughput  licensed
VOD Session Encryption          licensed
Distributed DNCS                 not_licensed
Open Cable Applications Platform (OCAP) licensed

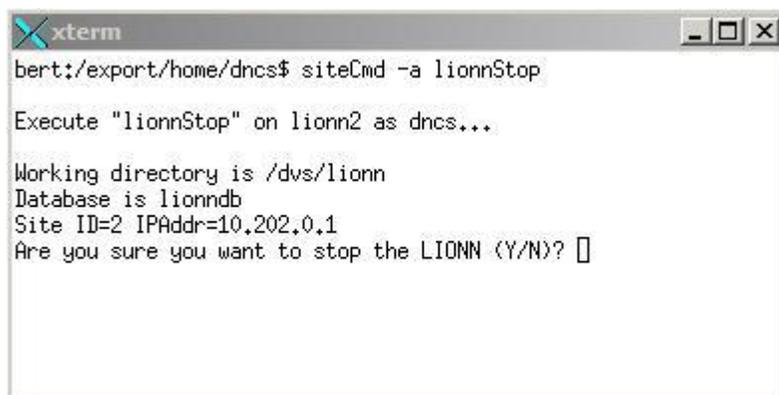
Hit Enter to continue.

```

- 5 Is the **Distributed DNCS** feature listed as **licensed**?
 - If **yes**, the RCS feature is enabled on your system.
 - If **no**, the RCS feature is disabled on your system.
- 6 Press **Enter** to continue.
- 7 Type **3** and press **Enter** to close the License Audit utility.
- 8 Type **exit** and press **Enter** to close the xterm window.
- 9 Is the RCS feature enabled on your system?
 - If **yes**, go to *Stopping RNCS Processes* (on page 10).
 - If **no**, go to *Stopping Spectrum NMS* (on page 14).

Stopping RNCS Processes at All Sites

- 1 Open an xterm window on the DNCS as the dncs user.
- 2 To stop RNCS processes at all sites in your system, type **siteCmd -a lionnStop** and press **Enter**.



```
xterm
bert:/export/home/dncs$ siteCmd -a lionnStop

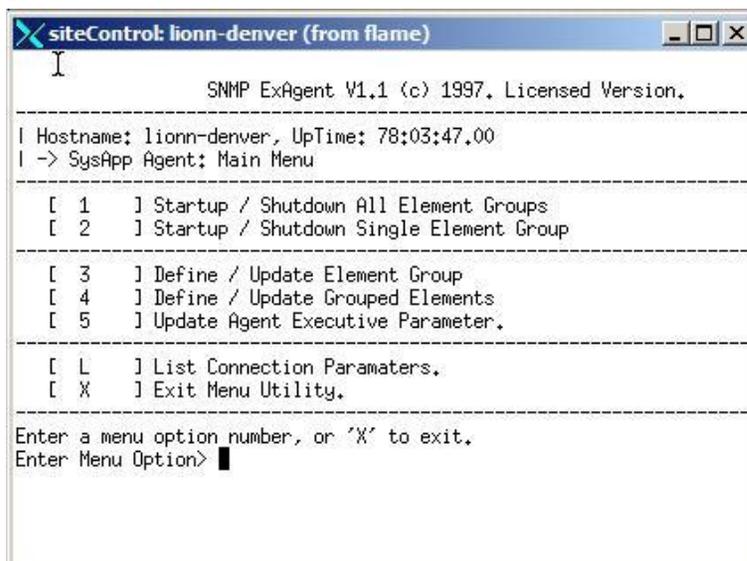
Execute "lionnStop" on lionn2 as dncs...

Working directory is /dvs/lionn
Database is lionndb
Site ID=2 IPAddr=10.202.0.1
Are you sure you want to stop the LIONN (Y/N)?
```

- 3 When the system prompts you to verify that you want to "stop the LIONN" (all RNCS processes at all sites), type **Y** (yes) and press **Enter** to confirm that you want to stop the processes on all sites in your system. The system informs you that it is stopping LIONN Applications (processes on all sites in your system), and displays the command prompt for the DNCS user.
- 4 Follow the on-screen instructions to exit the utility. Then go to *Stopping Spectrum NMS* (on page 14).

Stopping RNCS Processes at One Site

- 1 Open an xterm window on the DNCS as the dncs user.
- 2 To stop RNCS processes at each site in your system, one at a time, type **siteControl (host name of the RNCS)** and press **Enter**. For example if "houston" is the name of the RNCS host, you would type **siteControl houston**. A menu opens, similar to the following example, that allows you to stop the RNCS processes at this site.



```
siteControl: lionn-denver (from flame)
SNMP ExAgent V1.1 (c) 1997. Licensed Version.
-----
| Hostname: lionn-denver, UpTime: 78:03:47.00
| -> SysApp Agent: Main Menu
-----
[ 1 ] Startup / Shutdown All Element Groups
[ 2 ] Startup / Shutdown Single Element Group
-----
[ 3 ] Define / Update Element Group
[ 4 ] Define / Update Grouped Elements
[ 5 ] Update Agent Executive Parameter.
-----
[ L ] List Connection Paramaters.
[ X ] Exit Menu Utility.
-----
Enter a menu option number, or 'X' to exit.
Enter Menu Option>
```

- 3 Type **1** to select **Startup/Shutdown All Element Groups** and press **Enter**. The system prompts you to select the target state of the element groups, similar to the following example.

```

Set No.      get St.      System
-----
Enter master target state for system, in the range 1-4.
Possible values are:

[ 1 ] stopped(1)
[ 2 ] running(2)
[ 3 ] paused(3)
[ 4 ] disabled(3)

Default value: running(2)
(Enter Number / X=Return To Menu)> █

```

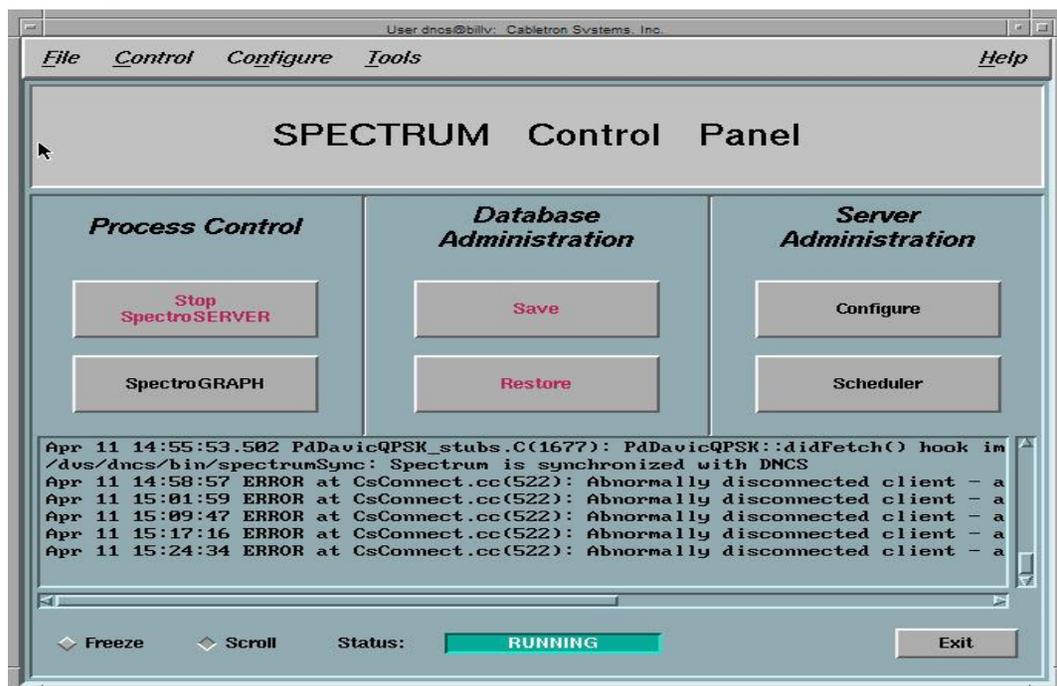
- 4 Type **1** to select **Stopped**, and press **Enter**. A confirmation prompt appears.
- 5 Type **y** to select **yes**, and press **Enter**. The main menu displays.
- 6 Type **2** and press **Enter**. The system displays the status of each process.
- 7 When all processes show a status of “stopped,” follow the on-screen instructions to exit the utility.
- 8 Have you stopped RNCS processes at all sites in your RCS?
 - If **yes**, type **x** and press **Enter** to exit the utility. Then go to *Stopping Spectrum NMS* (on page 14).
 - If **no**, repeat steps 2 to 7 to stop the processes on another RNCS at another site in your system.

Stopping Spectrum NMS

- 1 On the DNCS Administrative Console Status window, click **Control** in the NMS area. The Select Host Machine window opens, similar to the following example, with the Spectrum Control Panel in the background.



- 2 Click **OK** to accept the default. The Select Host Machine window closes and the Spectrum Control Panel window moves to the forefront and displays a Status of Running.

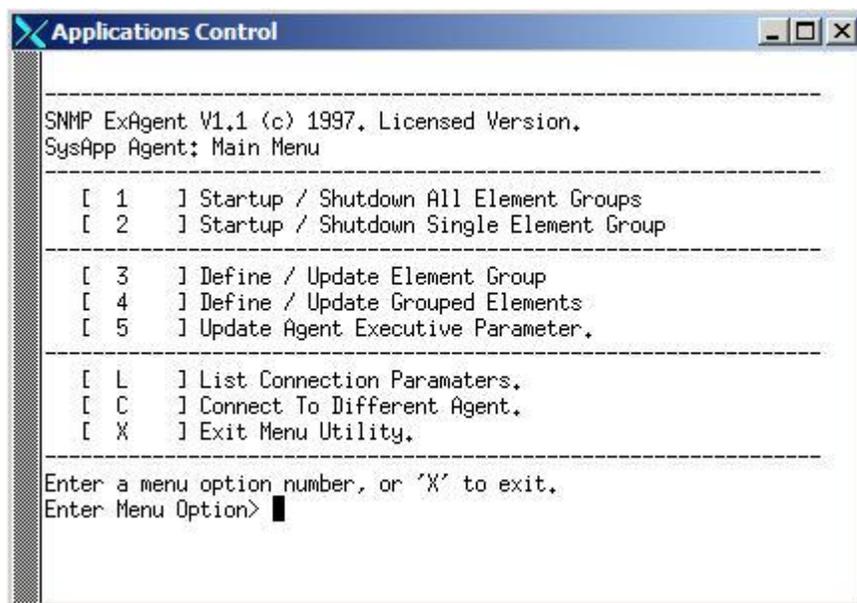


- 3 Click **Stop SpectroSERVER**. A confirmation window opens.

- 4 Click **OK**. The confirmation window closes and the system begins shutting down the Spectrum NMS. When finished, the Status on the Spectrum Control Panel window changes to Inactive.
- 5 Click **Exit**. A confirmation window opens.
- 6 Click **OK**. The confirmation and Spectrum Control Panel windows close.
- 7 Go to *Stopping SARA Server Processes* (on page 15).

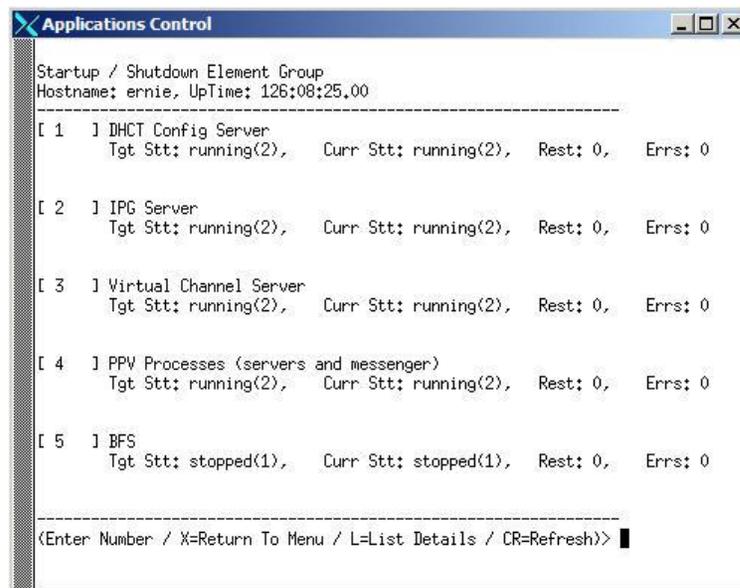
Stopping SARA Server Processes

- 1 From the SARA server console, open an xterm window.
- 2 At the prompt, type **appControl** and press **Enter**. The Applications Control window opens, similar to the example shown here.



Chapter 1 Preparing to Install the Software

- 3 Type **2** to select Startup/Shutdown Single Element Group and press **Enter**. A list appears of all the SARA Server processes and shows their current working states (running or stopped).



```
Applications Control
-----
Startup / Shutdown Element Group
Hostname: ernie, UpTime: 126:08:25,00
-----
[ 1 ] DHCT Config Server
      Tgt Stt: running(2), Curr Stt: running(2), Rest: 0, Erns: 0

[ 2 ] IPG Server
      Tgt Stt: running(2), Curr Stt: running(2), Rest: 0, Erns: 0

[ 3 ] Virtual Channel Server
      Tgt Stt: running(2), Curr Stt: running(2), Rest: 0, Erns: 0

[ 4 ] PPV Processes (servers and messenger)
      Tgt Stt: running(2), Curr Stt: running(2), Rest: 0, Erns: 0

[ 5 ] BFS
      Tgt Stt: stopped(1), Curr Stt: stopped(1), Rest: 0, Erns: 0
-----
<Enter Number / X=Return To Menu / L=List Details / CR=Refresh>> █
```

- 4 Click the middle mouse button and select **App Serv Stop**. The SARA Server begins shutting down all of its processes. This takes approximately 2 minutes to complete.
- 5 On the Applications Control window, press **Enter** to update the working states of the SARA Server processes.

Notes:

- Continue to press Enter every few seconds until all processes show Curr Stt: stopped(1).
 - You will not see a status message while the processes are shutting down.
- 6 When all processes show Curr Stt: stopped(1), you have successfully stopped SARA Server processes.
 - 7 Follow the on-screen instructions to close the Applications Control window.
 - 8 Close any windows that may be open on the SARA Server, except the xterm window.
 - 9 Close all remote connections to the SARA Server, and then go to *Stopping the cron Jobs on the SARA Server* (on page 16).

Stopping the cron Jobs on the SARA Server

- 1 If you have not already done so, log on to the DNCS as **root**.
- 2 From an xterm window on the DNCS type **"rsh appservatm"** and press **Enter** to initiate a remote login to the Application Server.

Important: Be certain to not include the quotation marks.

- 3 Type **pgrep -fl cron** and then press **Enter**. The DNCS displays the cron process ID (PID).

Examples: The following examples are examples of sample output. Your output is likely to be different.

- If the cron process is running without any child processes, you should see something similar to this example:

```
pgrep -fl cron
209 /usr/sbin/cron
```

- If the cron process has spawned a child process, you should see something similar to this example:

```
pgrep -fl cron
209 /usr/sbin/cron
14651 sh -c /export/home/dnccs/test/tst 2>&1
14652 sh -c /export/home/dnccs/tst2 2>&1
```

Note: The cron process may have spawned multiple child processes.

- 4 Use the cron PID from step 3 and type **ptree <PID>** and press **Enter**. The DNCS displays the process tree of all cron processes.
- 5 Did the results from step 4 only include /usr/sbin/cron?
- If **yes**, choose one of the following options:
 - On a Solaris 8 system, type **/etc/rc2.d/S75cron stop** and then press **Enter**.
 - On a Solaris 10 system, type **svcadm -v disable -s cron** and press **Enter**.
 - If **no**, (results from step 4 show multiple cron processes) type:


```
kill -9 <PIDs>
```

 and press **Enter**.

Important: List the PIDs in reverse order.

Example: **kill -9 14652 14651 209**
- Note:** If the results from step 4 did not show /usr/sbin/cron, skip the rest of this section and go to *Ensuring No Active Database Sessions on the DNCS* (on page 20).
- 6 To confirm that the cron jobs have stopped, type **pgrep -fl cron** and press **Enter**.
- Note:** The "l" in "fl" is a lowercase "L".
- Result:** The command prompt should be the only item displayed; no processes should be displayed.
- 7 If the results from step 7 show that the cron process is still running, repeat steps 4 through 7
- Note:** Call Cisco Services for assistance, if necessary.
- 8 Type **exit** and press **Enter** to close the remote session and return to the DNCS

- 9 Type **exit** and press **Enter** to log out as the root user.
- 10 Is the grep process the only process listed?
 - If **yes**, go to *Stopping the DNCS Processes* (on page 18).
 - If **no**, call Cisco Services.

Stopping the DNCS Processes

- 1 Close all remote connections to the DNCS.
- 2 On the DNCS, click the middle mouse button and select **DNCS Stop**. The DNCS begins shutting down all of its processes. This takes approximately 2 minutes to complete.
- 3 Open an xterm window on the DNCS.
- 4 At the prompt, type **dncsControl** and press **Enter**. The DNCS Control window opens.
- 5 Type **2** to select **Startup/Shutdown Single Element Group** and press **Enter**. A list appears of all the DNCS processes and shows their current working states (running or stopped).
- 6 On the DNCS Control window, press **Enter** to update the working states of the DNCS processes. Continue to press **Enter** every few seconds until all processes show **Curr Stt: stopped(1)**.

Note: You will not see a status message while the processes are shutting down.
- 7 When all processes show **Curr Stt: stopped(1)**, follow the on-screen instructions to close the DNCS Control window.
- 8 Close any windows that may be open on the DNCS, except the xterm window.
- 9 Go to *Stopping the cron Jobs on the DNCS* (on page 18).

Stopping the cron Jobs on the DNCS

Note: A cron job is a program that runs automatically without specific user intervention.

- 1 Are you logged into the DNCS as root user?
 - If **yes**, go to step 5.
 - If **no**, go to step 2.
- 2 Open an xterm window on the DNCS.
- 3 At the prompt, type **su -** and press **Enter**. A password prompt appears.
- 4 Type the root user password and press **Enter**. A prompt for the root user appears.

- 5 From the root user prompt, type **pgrep -fl cron** and press **Enter**. The DNCS displays the cron process ID (PID).

Example: The following are only examples of sample output. Your output is likely to be different.

- If the cron process is running without any child processes, you should see something similar to this example:

```
pgrep -fl cron
209 /usr/sbin/cron
```

- If the cron process has spawned a child process, you should see something similar to this example:

```
pgrep -fl cron
209 /usr/sbin/cron
14651 sh -c /export/home/dnscs/test/tst 2>&1
14652 sh -c /export/home/dnscs/tst2 2>&1
```

Note: The cron process may have spawned multiple child processes.

- 6 Use the cron PID from step 5 and type **ptree <PID>** and press **Enter**.
- 7 Does the resulting list only include **/usr/sbin/cron**?

- If **yes**, choose one of the following options:
 - On a Solaris 8 system type **/etc/rc2.d/S75cron stop** and press **Enter**. The system stops all cron jobs on the DNCS.
 - On a Solaris 10 system type **svcadm -v disable -s cron** and then press **Enter**.

- If **no**, (the results from step 6 show multiple cron processes), type **kill -9 <PIDS>** and press **Enter**.

Important: List the PIDs in reverse order.

Example: **kill -9 14652 14651 209**

Note: If the results from step 6 did not show **/usr/sbin/cron**, skip the rest of this section and go to *Ensuring No Active Database Sessions on the DNCS* (on page 20).

- 8 To confirm that the cron jobs have stopped, type **pgrep -fl cron** and press **Enter**. The command prompt should be the only item displayed; no processes should be displayed.

Note: the “l” in “fl” is a lowercase “L.”

- 9 Is the pgrep process the only process that is listed?

- If **yes**, go to *Ensuring No Active Database Sessions on the DNCS* (on page 20).
- If **no**, call Cisco Services.

Ensuring No Active Database Sessions on the DNCS

Note: You should still be logged into the DNCS as root user.

- 1 Are you logged into the DNCS as root user?
 - If **yes**, go to step 5.
 - If **no**, go to step 2.
- 2 Open an xterm window on the DNCS.
- 3 At the prompt, type **su -** and press **Enter**. A password prompt appears.
- 4 Type the root user password and press **Enter**. A prompt for the root user appears.
- 5 From a root user prompt, type **. /dvs/dnCS/bin/dnCSSetup** and press **Enter**. The system establishes the dnCS user environment followed by a prompt.

Important: Be sure to type a period (.) followed by a space at the beginning of this command.
- 6 Type **showActiveSessions** and press **Enter**. A message appears.
- 7 Your next step depends on whether the message indicates active sessions exist.
 - If the message indicates that the **INFORMIXSERVER is idle**, there are no active database sessions on the DNCS.
 - If the message indicates that there are **active sessions**, type **killActiveSessions** and press **Enter**. The system removes all active sessions from the database.
- 8 Type **showActiveSessions** again and press **Enter** to confirm that there are no active sessions.
- 9 Did a message appear indicating that there are active sessions?
 - If **yes**, contact Cisco Services.
 - If **no**, there are no active database sessions on the DNCS.
- 10 Now that you have confirmed that there are no active database sessions on the DNCS, go to **Chapter 2, *Installing the Software*** (on page 21).

2

Installing the Software

Introduction

This chapter provides procedures for installing the SARA Server software.

Important: Before completing any of the procedures in this chapter, make certain that you have first completed all of the procedures in **Chapter 1, *Preparing to Install the Software*** (on page 1).

In This Chapter

■ Install the SARA Server Software.....	22
■ Verify SARA Server Versions	24
■ Reboot the DNCS and the SARA Server	26
■ Restart System Components	27
■ Complete System Validation Tests.....	35

Install the SARA Server Software

Before You Begin

Before you install the new software, verify that you have the CDs for the previous versions of SARA Server code in case you need to roll back.

Installing the Software

Note: It should take about 15 minutes to install the software onto the SARA Server.

- 1 Open an xterm window on the SARA server. A prompt appears.
- 2 From a prompt on the SARA Server xterm window, type **su -** and press **Enter**. A password prompt appears.
- 3 Type the root user password and press **Enter**. A prompt for the root user appears.
- 4 Place the CD containing the new SARA Server software version into the CD drive of the SARA Server. The system automatically mounts the CD to `/cdrom` within 30 seconds.
- 5 Type **df -n** and then press **Enter**. A list of the mounted and unmounted file systems appears.

Note: The presence of `/cdrom` in the output confirms that the system correctly mounted the CD.

- 6 Type **cd /cdrom/cdrom0** and then press **Enter**. The `/cdrom/cdrom0` directory becomes the working directory.
- 7 Type **./install_pkg** and then press **Enter**. The system prompts you to confirm that you want to proceed with the installation.

Important: Make certain that there are no spaces between the dot (`.`) and slash (`/`).

- 8 Type **y** (for yes) and press **Enter** to start the installation. The Install Configuration screen opens and lists the installation configuration settings.

- 9 Do the settings listed match those of your installation environment?
 - If **yes**, type **c** (to continue) and press **Enter** to start the installation.
 - If **no**, follow these instructions to change one or more settings:

Important: The Install Configuration settings are case-sensitive. For this reason, make certain that the option you enter exactly matches the option displayed. Otherwise, the system rejects your entry. For example, if the system lists “USA” as an option for `INSTALLED_IN_COUNTRY`, do not type “usa.”

 - a Type the number that corresponds to the setting you want to change, and press **Enter**. The system prompts you to select an option, and provides available options in parentheses. The default setting appears in brackets.

Example: To change the setting for `INSTALLED_IN_COUNTRY`, type 6 and press Enter.
 - b Type the option appropriate to your installation, and press **Enter**. The Installation Configuration settings change to show the option you just entered.

Example: To change the `INSTALLED_IN_COUNTRY` setting from the default [USA] to Canada, type Canada and press Enter.
 - c Repeat steps a and b to change another setting. After all settings are correct, type **c** (to continue) and then press **Enter** to start the installation.
- 10 When the installation is complete, the system displays a message stating that the installation was successful, lists the directory where installation messages were stored, and displays a root user prompt.

Notes:

 - The installation should take about 5 minutes.
 - The log file for the SARA Server software is in this directory on the SARA Server: `/var/sadm/system/logs`.
 - The log file for the SARA Server software is named **SAIaprv_3.5.0.x_install.log**.
- 11 Did the system indicate that the installation was successful?
 - If **yes**, type **cd /** and press **Enter** to move to the root directory. Then continue with the next step in this procedure.
 - If **no**, contact Cisco Services for assistance.
- 12 Type **eject cdrom** and press **Enter**. The CD ejects.
- 13 Remove the CD from the CD drive and store it in a secure location.
- 14 Go to *Verify SARA Server Versions* (on page 24).

Verify SARA Server Versions

Introduction

After you install the required software for your SARA Server, next ensure that the correct software version was installed on the SARA Server as described in this section.

To verify that the correct version was installed during the upgrade, use `pkginfo`, a Solaris software management tool. The `pkginfo` tool displays details about a software package, including the version number and status of the package.

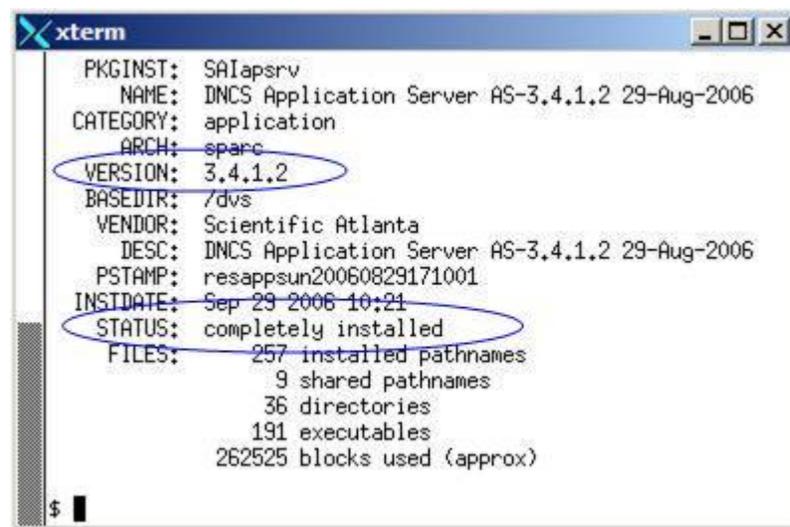
Important: If `pkginfo` indicates the status of the software is not completely installed, contact Cisco Services for assistance.

Verifying SARA Server Software Versions

After you verify the DNCS software versions, complete these steps to verify the software versions installed on the SARA Server during the upgrade.

- 1 On the SARA Server xterm window, type `pkginfo -l SAIaprv` and press **Enter**. The system displays details about the SARA Server software package (SAIaprv), similar to the following example. The software version number and status are circled in this example.

Note: The "l" in "-l" is a lowercase "L."



```

xterm
  PKGINST: SAIaprv
    NAME: DNCS Application Server AS-3.4.1.2 29-Aug-2006
  CATEGORY: application
    ARCH: sparc
  VERSION: 3.4.1.2
  BASEDIR: /dvs
  VENDOR: Scientific Atlanta
    DESC: DNCS Application Server AS-3.4.1.2 29-Aug-2006
  PSTAMP: resappsun20060829171001
  INSTDATE: Sep 29 2006 10:21
  STATUS: completely installed
  FILES: 257 installed pathnames
         9 shared pathnames
         36 directories
         191 executables
         262525 blocks used (approx)
$

```

- 2 Does the **VERSION** field show the **<current software version number installed>** and the **STATUS** field show **completely installed**?
 - If **yes**, type **pkginfo -l SAIttools** and press **Enter**. The system displays details about the SARA Server Toolkit software package (SAIttools).
 - If **no**, contact Cisco Services for assistance.

Note: Any number can appear for the build number (the fourth digit of the version number).
- 3 Does the **VERSION** field show **<current software version number installed>** and the **STATUS** field show **completely installed**?
 - If **yes**, you have verified that the correct software version was installed on the SARA Server.
 - If **no**, contact Cisco Services for assistance.

Note: Any number can appear for the build number (the fourth digit of the version number).
- 4 Go to *Reboot the DNCS and the SARA Server* (on page 26).

Reboot the DNCS and the SARA Server

After you verify installed software component versions, follow these steps to reboot the DNCS and SARA Server.

- 1 From a root user prompt on the SARA Server, type **/usr/sbin/shutdown -y -g0 -i0** and press **Enter**. The SARA Server shuts down and an ok prompt appears.
- 2 At the root prompt on the DNCS, type **/usr/sbin/shutdown -y -g0 -i6** and press **Enter**. The DNCS reboots, and the CDE Login window appears.
- 3 Log on to the DNCS as **dncs** user.
- 4 At the ok prompt on the SARA Server, type **boot** and press **Enter**. The SARA Server reboots and the CDE Login window appears.
- 5 Log on to the SARA Server as **dncs** user.
- 6 Go to *Restart System Components* (on page 27).

Restart System Components

Introduction

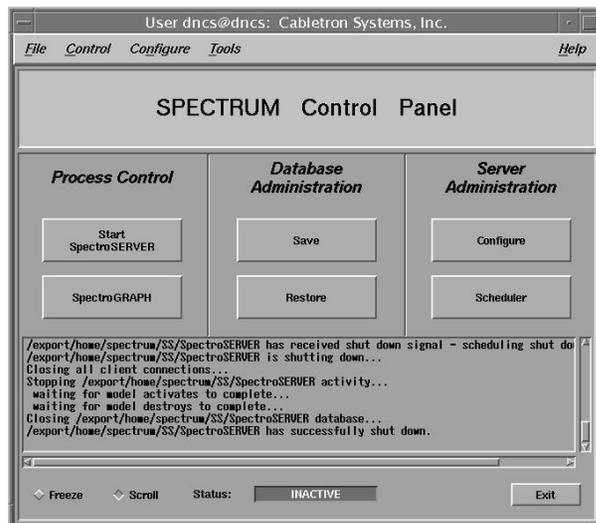
After you reboot the DNCS and the SARA Server, you must complete the procedures in this section to restart the following system components in the order listed:

- 1 Restart Spectrum NMS.
- 2 Restart DNCS processes.
- 3 Restart SARA Server processes.
- 4 Complete required procedures for Aptiv and MDN servers, if necessary
- 5 Restart cron jobs, if necessary.
- 6 Restart the billing system and other third-party applications.
- 7 If using the RCS feature, restart RNCS processes at each remote site.

Restarting Spectrum

Note: Skip this procedure if you are using DBDS Alarm Manager 1.0 instead of Spectrum.

- 1 On the DNCS, click the middle mouse button and select **Administrative Console**.
- 2 On the DNCS Administrative Console Status window, click **Control** in the NMS area. The Select Host Machine window opens with the Spectrum Control Panel in the background.
- 3 Click **OK**. The Select Host Machine window closes and the Spectrum Control Panel moves to the forefront.



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- 4 Click **Start SpectroSERVER**. The system begins restarting the Spectrum NMS. When finished, the Status field at the bottom of the Spectrum Control Panel changes to Running.
- 5 Click **Exit**. A confirmation window opens.
- 6 Click **OK**. The confirmation and Spectrum Control Panel windows close.
- 7 Go to *Restarting the DNCS* (on page 28).

Restarting the DNCS

- 1 On the DNCS, click the middle mouse button and select **Administrative Console**. The DNCS Administrative Console window opens, along with the DNCS Administrative Console Status window.
- 2 On the DNCS Administrative Console Status window, click the **Control** (or **Monitor**) button in the DNCS area. The DNCS Control (or Monitor) window opens with a list of all the DNCS processes and their working states. A red state indicates that a process is not running. At this point, all processes should show a red state.
- 3 Click the middle mouse button and select **DNCS Start**. On the DNCS Control window, all of the processes begin changing to a green state, which indicates that they are running.
Note: It may take several minutes before all processes show a green state.
- 4 Open an xterm window on the DNCS.
- 5 At the prompt, type **dncsControl** and press **Enter**. The DNCS Control window appears.
- 6 Type **2** to select **Startup/Shutdown Single Element Group** and press **Enter**. A list appears of all the DNCS processes and shows their current working states (running or stopped).
- 7 Press **Enter** to update the working states of the DNCS processes. Continue to press **Enter** every few seconds until all processes show **Curr Stt: running(2)**.
Note: You will not see a status message while the processes are starting up.
- 8 When all processes, except [17] GUI Servers, show **Curr Stt: running(2)**, follow the on-screen instructions to close the DNCS Control window.
Note: GUI Servers will always show **Curr Stt: stopped (1)**.
- 9 Close any windows that may be open on the DNCS, except the xterm and the DNCS Monitor windows.
- 10 Go to *Restarting the SARA Server* (on page 29).

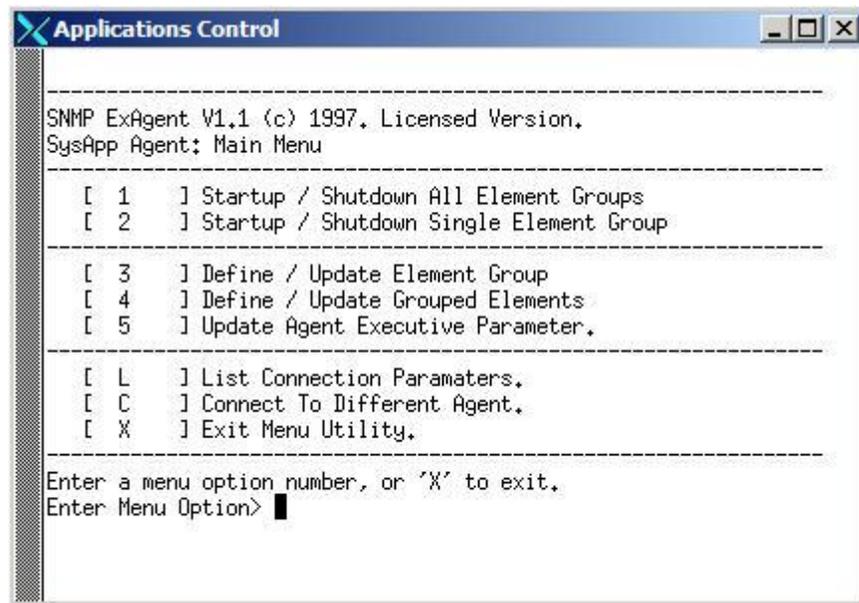
Restarting the SARA Server

The SARA Server processes may have restarted on their own. Follow these instructions to check if the SARA Server processes have started, and then to start them, if necessary.

If your site supports SARA, complete these steps to restart the SARA Server after you restart the cron jobs on the DNCS.

Note: The SARA Server may have restarted automatically. This procedure will help you determine whether or not it has before you try to restart it.

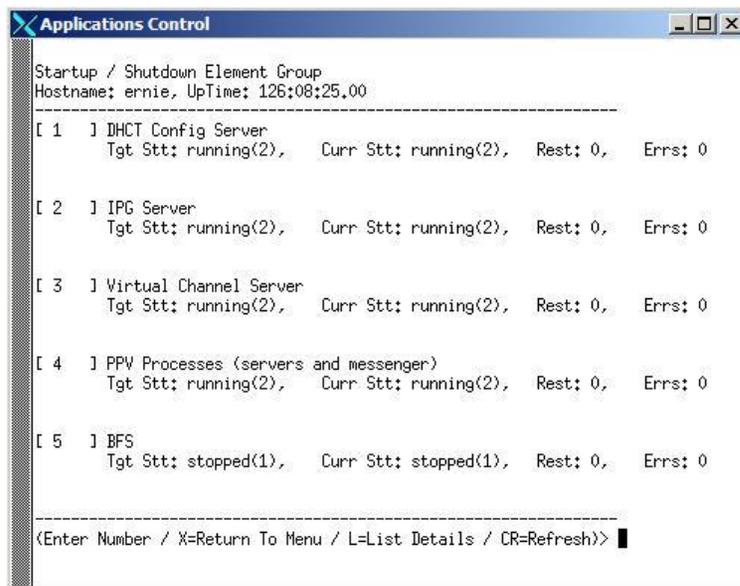
- 1 On the SARA Server xterm window, type **appControl** and press **Enter**. The Applications Control window opens, similar to the following example.



```
Applications Control
-----
SNMP ExAgent V1.1 (c) 1997. Licensed Version.
SysApp Agent: Main Menu
-----
[ 1 ] Startup / Shutdown All Element Groups
[ 2 ] Startup / Shutdown Single Element Group
-----
[ 3 ] Define / Update Element Group
[ 4 ] Define / Update Grouped Elements
[ 5 ] Update Agent Executive Parameter.
-----
[ L ] List Connection Parameters.
[ C ] Connect To Different Agent.
[ X ] Exit Menu Utility.
-----
Enter a menu option number, or 'X' to exit.
Enter Menu Option> █
```

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- 2 Type **2** to select Startup/Shutdown Single Element Group and press **Enter**. A list of all the SARA Server processes appears and shows their current working states (running or stopped).



- 3 Does the word **running** appear next to the current state field (Curr Stt) of each process?
 - If **yes**, the SARA Server restarted automatically. As a result, there is no need to complete this procedure.
 - If **no**, click the middle mouse button and select **App Serv Start**. The SARA Server begins restarting all of its processes.
- 4 On the Applications Control window, press **Enter** to update the working states of the SARA Server processes. Continue to press **Enter** every few seconds until all processes show Curr Stt: running(1).

Note: You will not see a status message while the processes are restarting.
- 5 When the Application Control window indicates that the current state of each process is running, follow the on-screen instructions to close the Applications Control window.
- 6 **Note:** On some systems, the BFS process may remain at stopped. This is normal.
- 7 Go to Restarting cron Jobs.

Restarting cron Jobs

After starting the system components, restart the cron jobs on the DNCS and the Application Server. Complete the procedures listed in this section to restart the cron jobs on the DNCS and on the SARA Server.

Note: The cron jobs may have restarted on their own when you restarted the DNCS and SARA Server processes, earlier in this chapter.

Restarting the cron Jobs on the DNCS

- 1 If necessary, open an xterm window on the DNCS.
- 2 To confirm that the cron jobs are not running type **pgrep -fl cron** and press **Enter**.
- 3 Have the cron jobs restarted on their own?
 - If **yes**, skip the rest of this procedure and go to *Restarting the cron Jobs on the Application Server* (on page 31).
 - If **no**, go to step 4.
- 4 Follow these instructions to log in to the xterm window as root user.
 - a Type **su -** and then press **Enter**. The password prompt appears.
 - b Type the root password and then press **Enter**.
- 5 Type **/svcadm -v enable -rs cron** and press **Enter**. The system restarts all cron jobs.
- 6 To confirm that the cron jobs have restarted, type **pgrep -fl cron** and then press **Enter**. The system should list **/usr/sbin/cron**.
- 7 Type **exit** and then press **Enter** to log out the root user.
- 8 If necessary, manually run the IPG collector.
- 9 Go to *Restarting Billing and Other Third-Party Applications* (on page 32).

Restarting the cron Jobs on the Application Server

Important: This procedure pertains to the SARA server, only. If the site you are upgrading supports the Aptiv Digital application server, check with Aptiv Digital for the appropriate procedure.

- 1 If necessary, open an xterm window on the Application Server.
- 2 To confirm that the cron jobs are not running, type **pgrep -fl cron** and then press **Enter**.
- 3 Have the cron jobs restarted on their own?
 - If **yes**, skip the rest of this procedure and to go *Restarting Billing and Other Third-Party Applications* (on page 32).
 - If **no**, continue with step 4.
- 4 Follow these instructions to log in to the xterm window as root user.
 - a Type **su -** and press **Enter**. The **password** prompt appears.
 - b Type the root password and press **Enter**.
- 5 Type **svcadm -v enable -rs cron** and then press **Enter**. The system The system restarts all cron jobs.
- 6 To confirm that the cron jobs have restarted, type **pgrep -fl cron** and then press **Enter**. The system should list **/usr/sbin/cron**.
- 7 Type **exit** and press **Enter** to log out as the root user.
- 8 Go to *Restarting Billing and Other Third-Party Applications* (on page 32).

Restarting Billing and Other Third-Party Applications

Contact your billing vendor to restart the billing interface. If you stopped any third-party interfaces, restart those interfaces as well.

What's Next?

The next action you take depends upon whether or not your system uses the Regional Control System (RCS) option.

- If your system uses the RCS option, go to *Restarting RNCS Processes* (on page 32).
- If your system does not use the RCS option, go to *Complete System Validation Tests* (on page 35).

Note: If you are unsure whether or not your system uses the RCS option, go to *Determining Whether RCS Is Enabled* (on page 11).

Restarting RNCS Processes

If you determined earlier that your system uses the RCS feature, use one of the following methods to restart Remote Network Control Server (RNCS) processes at each remote site in your RCS:

- Use the **siteCmd** command to restart RNCS processes at all sites in your system. Go to *Restarting RNCS Processes at All Sites* (on page 32).
- Use the **siteControl** command to restart RNCS processes at each site in your system, one site at a time. Go to *Restarting RNCS Processes at One Site* (on page 33).

Restarting RNCS Processes at All Sites

- 1 Open an xterm window on the DNCS, and log on as the dncs user.
- 2 To restart RNCS processes at all sites in your system, type **siteCmd -a lionnStart** and press **Enter**. When the system prompts you to verify that you want to “start the LIONN” (all RNCS processes at all sites).
- 3 Type **Y** (yes) and press **Enter** to confirm that you want to restart the processes on all sites in your system. The system informs you that it is starting LIONN Applications (processes on all sites in your system), and displays the command prompt for the DNCS user. If necessary, manually run the IPG collector, and then go to *Complete System Validation Tests* (on page 35).
- 4 To exit, type **x** and then press **Enter**.
- 5 If necessary, manually run the IPG collector.
- 6 Go to *Complete System Validation Tests* (on page 35).

Restarting RNCS Processes at One Site

- 1 Open an xterm window on the DNCS, and log on as the **dncs user**.
- 2 To restart RNCS processes at each site in your system, one at a time, type **siteControl (host name of the RNCS)** and press **Enter**. For example if "houston" is the name of the RNCS host, you would type **siteControl houston**. A menu opens, similar to the following example, that allows you to start the RNCS processes at this site.

```

siteControl: lionn-denver (from flame)
I
SNMP ExAgent V1.1 (c) 1997. Licensed Version.
-----
| Hostname: lionn-denver, UpTime: 78:03:47.00
| -> SysApp Agent: Main Menu
-----
[ 1 ] Startup / Shutdown All Element Groups
[ 2 ] Startup / Shutdown Single Element Group
-----
[ 3 ] Define / Update Element Group
[ 4 ] Define / Update Grouped Elements
[ 5 ] Update Agent Executive Parameter.
-----
[ L ] List Connection Parameters.
[ X ] Exit Menu Utility.
-----
Enter a menu option number, or 'X' to exit.
Enter Menu Option> █
  
```

- 3 Type **1** to select **Startup/Shutdown All Element Groups** and press **Enter**. The system prompts you to select the target state for the system, similar to the following example.

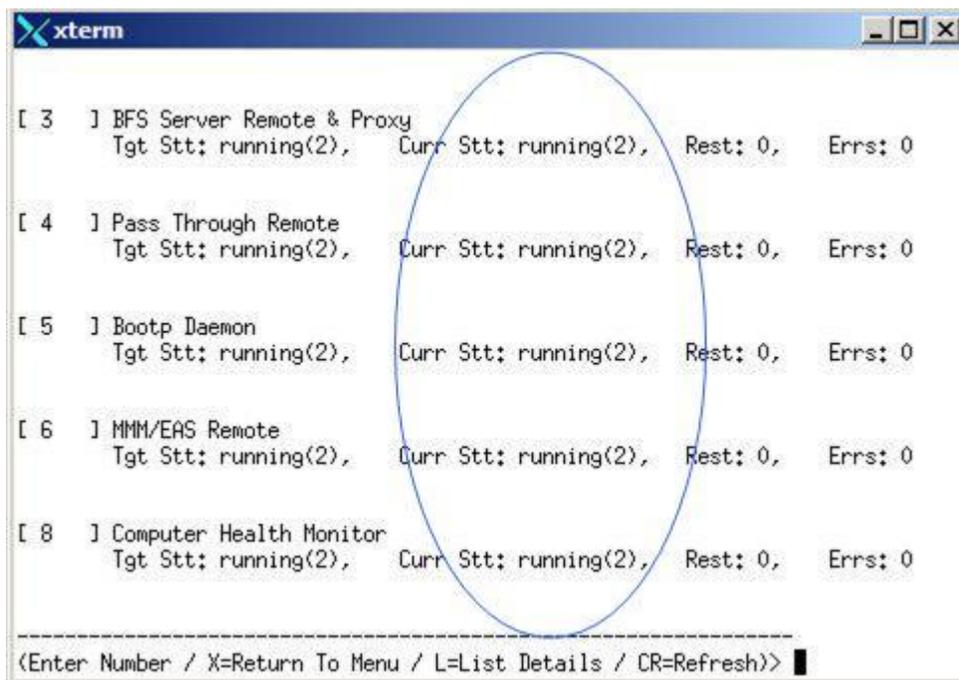
```

[ X ] Exit Menu Utility.
-----
Enter a menu option number, or 'X' to exit.
Enter Menu Option> 1
Enter master target state for system, in the range 1-4.
Possible values are:
[ 1 ] stopped(1)
[ 2 ] running(2)
[ 3 ] paused(3)
[ 4 ] disabled(3)
Default value: running(2)
cpExecMasterTargetState-----?> █
  
```

- 4 Type **2** to select **Running**, and press **Enter**. A confirmation prompt appears.
- 5 Type **y** to select **yes**, and press **Enter**. The main menu displays.
- 6 Type **2** and press **Enter**. The system displays the status of each process.

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- When all processes show a status of “running,” similar to the following example, follow the on-screen instructions to exit the utility.



```
xterm
[ 3 ] BFS Server Remote & Proxy
      Tgt Stt: running(2),  Curr Stt: running(2),  Rest: 0,  Errs: 0
[ 4 ] Pass Through Remote
      Tgt Stt: running(2),  Curr Stt: running(2),  Rest: 0,  Errs: 0
[ 5 ] Bootp Daemon
      Tgt Stt: running(2),  Curr Stt: running(2),  Rest: 0,  Errs: 0
[ 6 ] MMM/EAS Remote
      Tgt Stt: running(2),  Curr Stt: running(2),  Rest: 0,  Errs: 0
[ 8 ] Computer Health Monitor
      Tgt Stt: running(2),  Curr Stt: running(2),  Rest: 0,  Errs: 0
-----
<Enter Number / X=Return To Menu / L=List Details / CR=Refresh>>
```

- Have you restarted RNCS processes at all sites in your RCS?
 - If **yes**, go to step 9.
 - If **no**, repeat steps 2 to 7 to restart the processes on another RNCS at another site in your system and then continue with step 9.
- Did you determine earlier that you should manually run IPG collectors after upgrading the SARA Server software?
 - If **yes**, manually run each IPG collector in your system and then go to *Complete System Validation Tests* (on page 35).
 - If **no**, go to *Complete System Validation Tests* (on page 35).

Complete System Validation Tests

Introduction

After you restart the cron jobs and the billing and other third-party applications, you must perform system validation tests.

Prerequisites

The test DHCT(s) you use for this procedure must meet the following conditions:

- Must be authorized for all third-party applications
- Must not be authorized to view a PPV event without specifically buying the PPV event
- Must have a working return path and be capable of booting into two-way mode

Verifying a Successful Installation

Complete the following steps to verify that the SARA Server software installed successfully.

Important: If this procedure fails, do not continue with the remaining procedures in this publication. Instead, contact Cisco Services.

- 1 Perform a slow-and-fast boot on a test DHCT as follows:
 - a Boot a DHCT.
Note: Do not press the power button.
 - b Access the Power On Self Test and Boot Status Diagnostic Screen on the DHCT and verify that all parameters, except UNcfg, display **Ready**.
Note: UNcfg displays **Broadcast**.
 - c Wait 5 minutes.
 - d Press the power button on the DHCT to power on the DHCT.
 - e Access the Power On Self Test and Boot Status Diagnostic Screen on the DHCT.

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- f Do all of the parameters, including UNcfg, display **Ready**?
 - If **yes**, go to step 2.
 - If **no**, contact Cisco Services.
- 2 Ping the DHCT.
- 3 Did the DHCT receive the ping?
 - If **yes**, go to step 4.
 - If **no**, contact Cisco Services.
- 4 Stage at least one new DHCT to the system operator's specifications.
- 5 Did the newly staged DHCT successfully load the current client release software?
 - If **yes**, go to step 6.
 - If **no**, contact Cisco Services.
- 6 Did the DHCT receive at least 33 EMMs and successfully receive its Entitlement Agent?
 - If **yes**, go to step 7.
 - If **no**, contact Cisco Services.
- 7 Does the IPG display 7 days of valid and accurate data?
 - If **yes**, go to step 8.
 - If **no**, contact Cisco Services.
- 8 Does the IPG support multiple languages?
 - If **yes**, go to step 9.
 - If **no**, contact Cisco Services.
- 9 Do the PPV barkers appear on the PPV channels correctly?
 - If **yes**, go to step 10.
 - If **no**, contact Cisco Services.
- 10 Do third-party applications load properly?
 - If **yes**, go to step 11.
 - If **no**, contact Cisco Services.

- 11 Did every test in this section pass?
 - If **yes**, go to step 12.
 - If **no**, contact Cisco Services.
- 12 Verify that your EAS equipment is working correctly by testing the system's ability to transmit EAS messages. Complete all of the procedures in the **Testing the EAS** section of *Configuring and Troubleshooting the Digital Emergency Alert System* (part number 4004455). Then, verify that you can generate an EAS message for the Emergency Alert Controller (EAC), itself.
- 13 Were you able to generate an EAS message?
 - If **yes**, you have successfully installed the SARA Server software on the SARA Server.
 - If **no**, contact Cisco Services.

3

Customer Information

If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.

Access your company's extranet site to view or order additional technical publications. For accessing instructions, contact the representative who handles your account. Check your extranet site often as the information is updated frequently.

A

Rollback Procedure

Introduction

If you notice that your system is unstable after having installed the new SARA Server software, contact Cisco Services. Cisco Services engineers may determine that you need to remove the SARA Server software and reinstall the previous version.

Follow the procedures in this appendix to restore your system to its condition before you installed the new SARA Server software. This procedure is known as a rollback.

Important: Do not start this rollback procedure without first contacting Cisco Services.

Database Changes Are Not Rolled Back

This rollback procedure rolls back only the executable files. Any database changes are not rolled back. These database changes are permanent and will have no negative impact upon systems that are rolled back.

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Roll Back the Software

Introduction

In the unlikely event that you experience a problem installing this SARA Server software, the rollback process involves reinstalling the previous versions of the SAIapshr and SAItools packages for the SARA Server.

Note: You identified these versions and set aside this CD in *Identify and Locate the Versions of SAIapshr and SAItools Currently Installed* (on page 3).

Rolling Back the Software

Complete these steps to roll the SARA Server software back to the previous release before you installed the new SARA Server software.

Important: Do not start this rollback procedure without first contacting Cisco Services.

- 1 Locate the previous version installation CD that you identified in *Identify and Locate the Versions of SAIapshr and SAItools Currently Installed* (on page 3).

Note: If you were unable to locate this CD and instead made a backup of the SARA Server version previously installed on your system, locate the backup tape that you made as instructed in *Identify and Locate the Versions of SAIapshr and SAItools Currently Installed* (on page 3).

- 2 Complete the procedures in the following sections of this publication:
 - a *Stopping System Components* (on page 10)
 - b *Stopping the cron Jobs on the SARA Server* (on page 16)
 - c *Stopping the cron Jobs on the DNCS* (on page 18)
 - d *Ensuring No Active Database Sessions on the DNCS* (on page 20)
- 3 Are you restoring from the previous installation CD?
 - If **yes**, go to step 4.
 - If **no**, refer to the backup and restore documents appropriate to your system for assistance restoring from a backup tape.
- 4 Open an xterm window on the SARA Server.
- 5 Type **su -** and press **Enter** to log in to the xterm window as **root** user. A password prompt appears.
- 6 Type the **root** user password. A prompt appears.
- 7 Type **pkgrm SAIapshr SAItools** and press **Enter**. The system prompts you to confirm that you want to remove the packages.
- 8 Type **y** for yes then press **Enter**.

- 9 Insert the CD labeled similar to **SAItools** into the CD drive of the SARA Server. The system automatically mounts the CD to /cdrom within 30 seconds.
Important: This is your previous version of SAIaprv software.
- 10 Type **df -n** and then press **Enter** to display a list of the file systems that have mounted.
Note: The presence of **/cdrom** in the output confirms that the system correctly mounted the CD.
- 11 Type **cd /cdrom/cdrom0** and then press **Enter**. The /cdrom/cdrom0 directory becomes the working directory.
- 12 Type **./install_pkg** and then press **Enter**. A message asks you to confirm that you want to proceed with the installation.
Important: Make certain that there are no spaces between the dot (.) And the slash (/).
- 13 Type **y** and press **Enter** to start the installation. The Installation Configuration screen opens and lists the installation configuration settings.
- 14 Type **cd/** and press **Enter**.
- 15 Type **eject cdrom** and press **Enter**.
- 16 Insert the CD labeled similar to **SARA Server** into the CD drive of the SARA Server. The system automatically mounts the CD to /cdrom within 30 seconds.
- 17 Type **df -n** and then press **Enter** to display a list of the files that have mounted.
Note: The presence of **/cdrom** in the output confirms that the system correctly mounted the CD.
- 18 Type **cd /cdrom/cdrom0** and then press **Enter**. The /cdrom/cdrom0 directory becomes the working directory.
- 19 Type **./install_pkg** and then press **Enter**. A message asks you to confirm that you want to proceed with the installation.
- 20 Type **y** and then press **Enter**.
- 21 Do the settings listed match those of your installation environment?
 - If **yes**, go to step 23.
 - If **no**, go to step 22.
- 22 Follow these instructions to change one or more settings:
Important: The Install Configuration settings are case-sensitive. For this reason, make certain that the option you enter matches the option that is displayed. Otherwise, the system rejects your entry. For example, if the system lists "USA" as an option for INSTALLED_IN_COUNTRY, do not type usa.
 - a Type the number that corresponds to the setting you want to change, and press **Enter**. The system prompts you to select an option, and provides available options in parentheses. (The default setting is shown in brackets.)
Example: To change the setting for INSTALLED_IN_COUNTRY, type 6 and press Enter.



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