April 2004

Preventing Slow Booting Explorer 3250HD Set-Tops

Overview

Introduction

Cisco engineers have determined that the presence of inband SAM files in DNCS release 2.2 causes Explorer® 3250HD™ Set-Tops using Cisco Resident Application (SARA) 1.52 and PowerTV High Definition Edition 1.0 Application Platform Release to boot very slowly. The boot time can range from 5 to 20 minutes depending upon the number of files currently on the inband BFS carousel.

Additional investigation has determined that the DNCS is not required to generate inband SAM files for any existing set-tops or CableCARD™ modules. You can use a database setting to enable or disable the creation of inband SAM files. We believe this setting was incorrectly changed during some SR 2.2. upgrades. Although investigation into this aspect of the problem continues, we want to provide an immediate remedy to our customers. We encourage all sites using 3250HDs with Cisco Resident Application (SARA) 1.52 and PowerTV High Definition Edition 1.0 Application Platform Release to remove inband SAM files and to configure the system to no longer generate inband SAM.

Purpose

This technical bulletin provides procedures for checking for inband SAM files and for turning off inband SAM.

Audience

This technical bulletin is intended for system operators of Cisco's Digital Broadband Delivery System (DBDS) using the Cisco Resident Application (SARA). If you are using another resident application, contact that provider for information on how their application provides control for inband SAM files. Cisco field service engineers who help system operators manage their systems may also find the contents of this technical bulletin useful.

Document Version

This is the second release of this technical bulletin.

In This Technical Bulletin

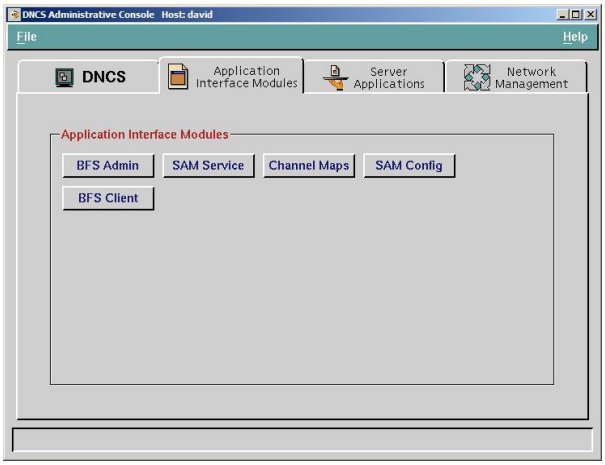
This technical bulletin contains the following topics.

Check the SAM Configuration

Checking the SAM Configuration

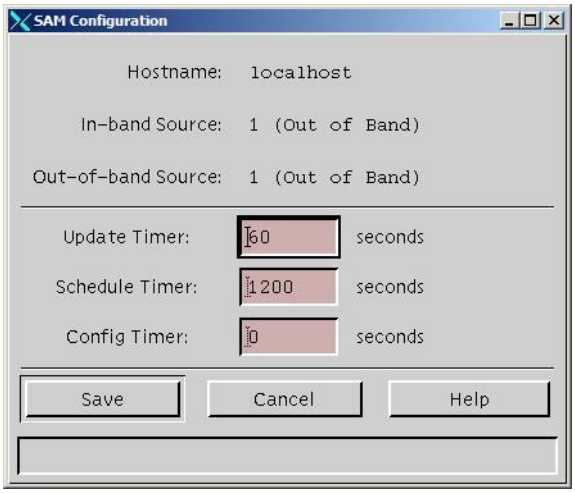
Complete the following steps to check the SAM Configuration.

1. On the DNCS Administrative console, select the **Application Interface Modules** tab.



2. On the Application Interface Modules tab, click **SAM Config**.

   Result: The SAM Configuration window opens.



3. Look at the configuration for both sources. Do both sources show 1 (Out of Band)?
   - If **yes**, your system is configured properly. If your 3250HDs have boot times that are noticeably longer than other set-tops, contact Cisco Services for assistance.
   - If **no**, you need to turn off inband SAM. Go to **Turn Off Inband SAM**, next in this bulletin.

Turn Off Inband SAM

Turning Off Inband SAM

Complete the following steps to turn off inband SAM.

1. On the DNCS Administrative console, select the **Application Interface Modules** tab.
2. On the Application Interface Modules tab, click **BFS Client**.
3. Find the "sam" cabinet and single-click to select the cabinet.
4. Select **File** and then select **Delete**.
5. Open an xterm window.
6. Type the following command and press **Enter:**

   dbaccess dncsdb -

   Result: The system displays the following message:

   Database selected.
7. Type the following command and press **Enter**:

   unload to samconfig.bak. select * from samconfig;

   Result: The system displays the following message:

   1 row(s) unloaded.
8. Type the following command and press **Enter:**

   update samconfig set inbandsrc=1;

   Result: The system displays the following message:

   1 row(s) updated.
9. Type **Ctrl** and **C** at the same time to return to the prompt.
10. The next step is to stop the system components. Go to **Stop System Components**, next in this bulletin.

Stop System Components

Introduction

Follow the instructions in this section to stop the billing and third-party interfaces, the Spectrum Network Management Service (Spectrum), the Application Server, and the DNCS.

Stop Billing and Third-Party Interfaces

Contact the billing vendor in order to suspend the billing interface. In addition, contact the provider(s) of any third-party applications that your system supports. Follow their guidance in determining whether these third-party interfaces should be stopped, as well.

Stop the Network Management Software

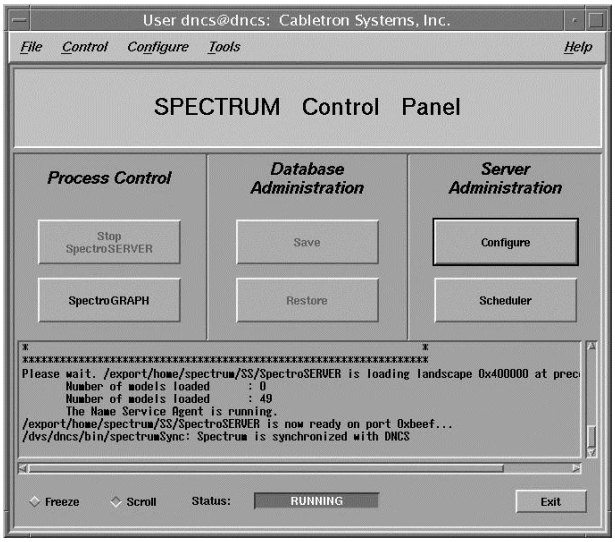
Complete these steps to stop Spectrum.

1. From the DNCS Administrative Console Status window, click **Control** in the NMS section of the window.

   Result: The Select Host to run on window appears.

2. From the **Select Host to run on** window, click **OK**.

   Result: The Spectrum Control Panel appears.



3. Click **Stop SpectroSERVER**.

   Result: A confirmation message appears.

4. Click **OK** at the confirmation message.

   Result: The **Status** message on the Spectrum Control Panel shows **Inactive.**

5. Click **Exit** on the Spectrum Control Panel.

   Result: A confirmation message appears.

6. Click **OK** at the confirmation message.

   Result: The Spectrum Control Panel closes.

7. Go to **Stopping the Application Server**, next in this section.

Stopping the Application Server

Complete these steps to stop the Application Server at sites that support SARA.

1. Press the middle mouse button on the Application Server and select **App Serv Stop**.

2. From an xterm window on the Application Server, type **appControl** and then press **Enter**.

   Result: The Applications Control window appears.

3. Type **2** (for Startup/Shutdown Single Element Group), and then press **Enter**.

   Result: The system displays all Application Server processes.

   Note: The system updates the display periodically, or you can press **Enter** to force an update.

4. When the **Curr Stt** (Current State) field of the Applications Control window indicates that all of the Application Server processes have stopped, follow the on-screen instructions to close the Applications Control window.

5. Go to **Stopping the cron Jobs on the Application Server**, next in this section.

Stopping the cron Jobs on the Application Server

Follow these instructions to stop cron jobs on the Application Server.

Important: This procedure pertains to Cisco application servers only. If the site you are upgrading supports the Pioneer application server, check with Pioneer for the appropriate procedure.

1. If necessary, open an xterm window on the Application Server.
2. Follow these instructions to log in to the xterm window as root user.
   a) Type **su -** and then press **Enter**.
      Result: The **password** prompt appears.
   b) Type the root password and then press **Enter**.
3. Type **ps -ef | grep cron** and then press **Enter**.

   Result: The system lists running processes that include the word cron.
4. Did the results from step 3 include **/usr/sbin/cron**?
   - If **yes**, follow these instructions.
     a) Type **/etc/rc2.d/S75cron stop** and then press **Enter**.
        Result: The system stops all cron jobs.
     b) Go to step 5.
   - If **no**, go to **Stopping the DNCS**, next in this section; the cron jobs are already stopped.
5. Confirm that the cron jobs have stopped by typing **ps -ef | grep cron** again and then press **Enter**.

   Result: The system should list only the grep process.
6. Go to **Stopping the DNCS**, next in this section.

Stopping the DNCS

Complete these steps to stop the DNCS.

1. At the DNCS, press the middle mouse button and then select **DNCS Stop**.
2. From an xterm window on the DNCS, type **dncsControl** and then press **Enter**.

   Result: The Dncs Control window appears.
3. Type **2** (for Startup/Shutdown Single Element Group), and then press **Enter**.

   Result: The system displays all DNCS processes.

   Note: The system updates the display periodically, or you can press **Enter** to force an update.
4. When the **Curr Stt** (Current State) field of the Dncs Control window indicates that all of the DNCS processes have stopped, follow the on-screen instructions to close the Dncs Control window.
5. Close all GUIs that may be open on the DNCS, except the open xterm window.
6. Close all remote connections to the DNCS.
7. Go to **Stopping the cron Jobs on the DNCS**, next in this section.

Stopping the cron Jobs on the DNCS

Follow these instructions to stop cron jobs on the DNCS.

1. If necessary, open an xterm window on the DNCS.
2. If necessary, follow these instructions to log in to the xterm window as root user.
   a) Type **su -** and then press **Enter**.
   Result: The **password** prompt appears.
   b) Type the root password and then press **Enter**.
3. Type **ps -ef | grep cron** and then press **Enter**.
   Result: The system lists running processes that include the word cron.
4. Did the results from step 3 include **/usr/sbin/cron**?
   - If **yes**, follow these instructions.
     a) Type **/etc/rc2.d/S75cron stop** and then press **Enter**.
     Result: The system stops all cron jobs.
     b) Go to step 5.
   - If **no**, go to **Restart the System Components**, next in this section; the cron jobs are already stopped on the DNCS.
5. To confirm that the cron jobs have stopped, type **ps -ef | grep cron** again and then press **Enter**.
   Result: The system should list only the grep process.
6. Go to **Restart the System Components**, next in this bulletin.

Restart the System Components

Introduction

In this section, you will restart the DNCS, the Application Server, Spectrum, the billing system interface, and any third-party interfaces, if necessary.

Restarting the DNCS

Follow these instructions to restart the DNCS.

1. Click the middle mouse button on the DNCS and select **DNCS Start**.

   Result: The DNCS processes start.

2. Click the middle mouse button on the DNCS and select **Administrative Console**.

   Result: The DNCS Administrative Console opens.

3. From the DNCS Administrative Console Status window, click **DNCS Monitor**.

   Results:

   - The DNCS Monitor window opens.
   - Green indicators begin to replace red indicators on the DNCS Monitor window.

4. From an xterm window on the DNCS, type **dncsControl** and then press **Enter**.

   Result: The Dncs Control window opens.

5. Type **2** (for Startup / Shutdown Single Element Group) and then press **Enter**.

   Result: The Dncs Control window updates to list the status of all of the processes and servers running on the DNCS.

6. Wait for the Dncs Control window to list the current status (**Curr Stt**) of all the processes and servers as **running**.

   Notes:

   - The Dncs Control window updates automatically every few seconds or you can press **Enter** to force an update.
   - The indicators on the DNCS Control Monitor will all become green when the processes and servers have restarted.
   - On Pioneer systems, the saManager process may not start. This is normal.

7. Wait until all of the processes and servers have restarted and then go to **Restarting the cron Jobs on the DNCS**, next in this section.

Restarting the cron Jobs on the DNCS

Follow these instructions to restart the cron jobs on the DNCS.

1. If necessary, open an xterm window on the DNCS.
2. Follow these instructions to log in to the xterm window as root user.
   a) Type **su -** and then press **Enter**.
      Result: The **password** prompt appears.
   b) Type the root password and then press **Enter**.
3. Type **/etc/rc2.d/S75cron start** and then press **Enter**.
   Result: The system restarts all cron jobs.
4. To confirm that the cron jobs have restarted, type **ps -ef | grep cron** and then press **Enter**.
   Result: The system should list **/usr/sbin/cron**.
5. Type **exit** and then press **Enter** to log out of the xterm window as root user.
6. Go to **Restarting the Application Server**, next in this section.

Restarting the Application Server

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

Follow these instructions to check if SARA has started on the Application Server, and then to start it, if necessary.

1. If necessary, open an xterm window on the Application Server.
2. Type **appControl** and then press **Enter**.
   Result: The Applications Control window opens.
3. Select option **2** on the Applications Control window.
   Result: The system displays a list of Application Server processes and their current status.

4. Does the word **running** appear next to the current state field (**Curr Stt**) of each process?
   - If **yes**, skip the rest of this procedure and go to **Restarting the cron Jobs on the Application Server**, next in this section.
   - If **no**, go to step 5.
5. Press the middle mouse button, and then select **App Serv Start**.
6. When the Application Control window indicates that the current state (**Curr Stt**) of each process is **running**, go to step 7.

   Note: On some systems, the BFS Remote process may remain at **Stopped**; this is normal.
7. Follow the on-screen instructions to close the Applications Control window.
8. Go to **Restarting the cron Jobs on the Application Server**, next in this section.

Restarting the cron Jobs on the Application Server

Follow these instructions to restart the cron jobs on the Application Server.

Important: This procedure pertains to the Cisco Application Server, only. If the site you are upgrading supports the Pioneer application server, check with Pioneer for the appropriate procedure.

1. If necessary, open an xterm window on the Application Server.
2. Follow these instructions to log in to the xterm window as root user.
   a) Type **su -** and then press **Enter**.

      Result: The **password** prompt appears.
   b) Type the root password and then press **Enter**.
3. Type **/etc/rc2.d/S75cron start** and then press **Enter**.

   Result: The system restarts all cron jobs.
4. To confirm that the cron jobs have restarted, type **ps -ef | grep cron** and then press **Enter**.

   Result: The system should list **/usr/sbin/cron**.
5. Type **exit** and then press **Enter** to log out of the xterm window as root user.
6. The next step is to restart Spectrum. Go to **Restarting Spectrum**, next in this section.

Restarting Spectrum

Follow these instructions to restart Spectrum.

1. From the DNCS Administrative Console Status window, click **Control** in the NMS section of the window.

   Result: The Select Host to run on window opens.

2. Select the Host Machine (usually DEFAULT), and then click **OK**.

   Result: The Spectrum Control Panel window opens.

3. On the Spectrum Control Panel window, click **Start SpectroSERVER**.

   Result: The Spectrum Network Management System starts.

4. On the Spectrum Control Panel window, click **Exit**.

   Result: A confirmation message appears.

5. Click **OK** on the confirmation message.

   Result: The Spectrum Control Panel window closes.

Restart the Billing and Third-Party Interfaces

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

Verify System Changes

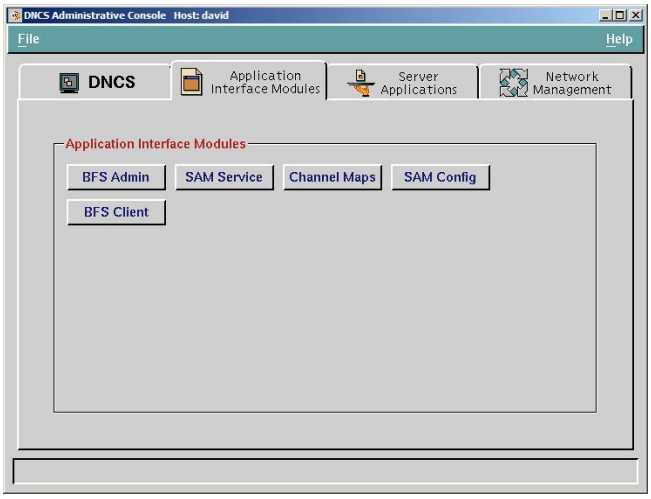
Introduction

After you restart the system components, follow the instructions in this section to verify that you have successfully turned off inband SAM.

Verifying the System Changes

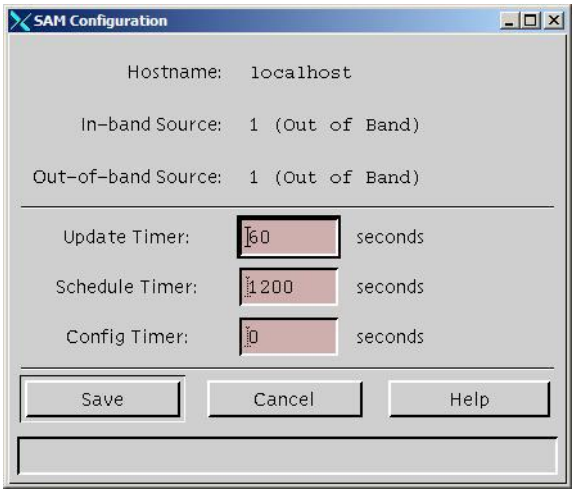
To verify your system changes, complete the following steps.

1. When the DNCS is finished restarting make sure that all processes have changed to a green status.
2. On the DNCS Administrative console, select the **Application Interface Modules** tab.



3. On the Application Interface Modules tab, click **SAM Config**.

   Result: The SAM Configuration window opens.



4. Look at the configuration for both sources.
5. Do both sources show 1 (Out of Band)?
   - If **yes**, your system is configured properly. Reboot the 3250HD and confirm that it boots properly.
   - If **no**, contact Cisco Services for assistance.

For 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.

Cisco Systems, Inc. 678 277-1120
5030 Sugarloaf Parkway, Box 465447 800 722-2009
Lawrenceville, GA 30042 www.cisco.com

May 2012 Printed in USA Part Number 745243 Rev B