NICE® Intent. Insight. Impact.™

NICE Perform eXpress

Release 3.0

Troubleshooting Guide

July 2011
385A0828-03 Rev. A2

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5,911,134	5,937,029	6,044,355	6,115,746	6,122,665	6,192,346	6,246,752
6,249,570	6,252,946	6,252,947	6,311,194	6,330,025	6,542,602	6,615,193
6,694,374	6,728,345	6,775,372	6,785,369	6,785,370	6,856,343	6,865,604
6,871,229	6,880,004	6,937,706	6,959,079	6,965,886	6,970,829	7,010,106
7,010,109	7,058,589	7,085,728	7,152,018	7,203,655	7,240,328	7,305,082
7,333,445	7,346,186	7,383,199	7,386,105	7,392,160	7,436,887	7,474,633
7,532,744	7,545,803	7,546,173	7,573,421	7,577,246	7,581,001	7,587,454
7,599,475	7,631,046	7,660,297	7,664,794	7,665,114	7,683,929	7,705,880
7,714,878	7,716,048	7,720,706	7,725,318	7,728,870	7,738,459	7,751,590
7,761,544	7,770,221	7,788,095	7,801,288	7,822,605	7,848,947	7,933,407
7,953,219						

385A0828-03 Rev. A2

For assistance, contact your local supplier or nearest **NICE Systems Customer Service Center**:

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Fax: +852-2802-1800
email: support.apac@nice.com

The Americas Region: (North, Central, South America)

Tel: 1-800-6423-611
Fax: +720-264-4012
email: support.americas@nice.com

Israel:

Tel: 09-775-3333
Fax: 09-775-3000
email: support@nice.com

*NICE invites you to join the **NICE User Group (NUG)**.*

*Visit the NUG Website at **www.niceusergroup.org**, and follow the online instructions.*

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All queries, comments, and suggestions are welcome! *Please e*mail: ***nicebooks@nice.com***

For more information about NICE*, visit* ***www.nice.com***

Revision History

Revision	Modification Date	Description

A1	December 2010	• Updated FAQs. See:
		  • **Board Name Different in Microsoft Device Manager** on **page 29**.
		  • **(FTF Environments after Upgrade) Interaction Details Not Displayed** on **page 42**.
		• Updated application error messages. See **Responding to Application Messages** on **page 168**.
		• Added copying the MIB file from NICE Perform eXpress system to the appropriate location on the external SNMP manager. See **Defining the SNMP Settings for an External SNMP Manager** on **page 180**.

A2	July 2011	• Added the following FAQs:
		  • **Caller ID is not Numeric** on **page 33**
		  • **TDM System Not Recording** on **page 63**
		• Expanded Solution for **SQL Server 2008 Component Fails to Install** on **page 62**
		• Added Suggested Action for Playback error code 3993. See **Table 10-1** on **page 143**
		• Added instructions for licensing after reinstalling NICE Perform eXpress. See **Reactivating a NICE Perform eXpress License** on **page 56**

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1

Overview

This chapter describes the high level system architecture of the NICE Perform eXpress system and a drill down of its components as well as an overview of the system documentation.

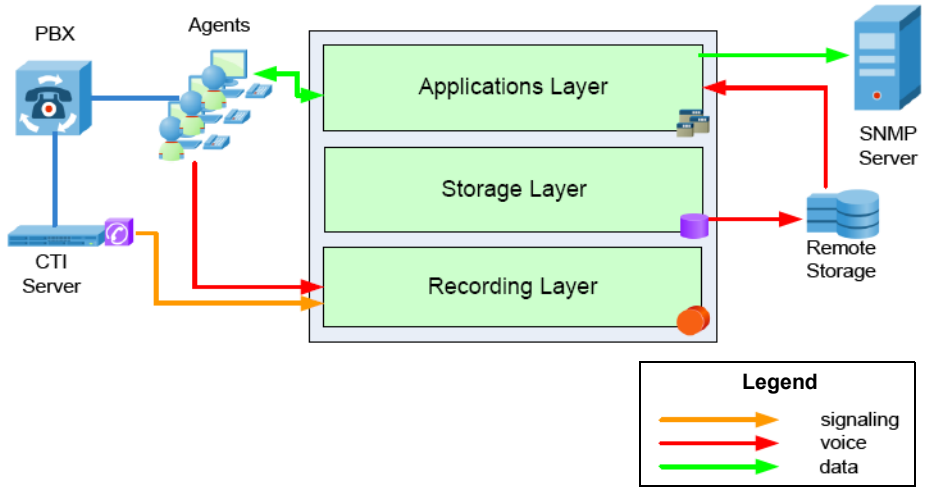
Contents

NICE Perform eXpress System Architecture

The architecture of the NICE Perform eXpress system consists of three layers, as follows:

- **Recording Layer**: Responsible for recording the audio in phone conversations within an organization. The Recording Layer processes the audio and its accompanying metadata by means of telephony equipment.
- **Storage Layer**: Responsible for managing the archiving of the recorded interactions in remote storage and backup devices. The Storage Layer also provides business logic processing that serves the Application Layer.
- **Application Layer**: Responsible for the interface between the NICE Perform eXpress system and the user. The Applications Layer employs an HTML-based user interface and is accessed from the desktops of the NICE Perform eXpress users.

Figure 1-1 NICE Perform eXpress System Architecture



For a drill down of the components in each layer, see **Drill Down of System Architecture** in the next section. The data flows within each layer are described in the following sections:

- **Understanding the Recording Data Flow** on **page 54**
- **Understanding the Query and Playback Data Flow** on **page 80**
- **Understanding the Archiving Data Flow** on **page 72**

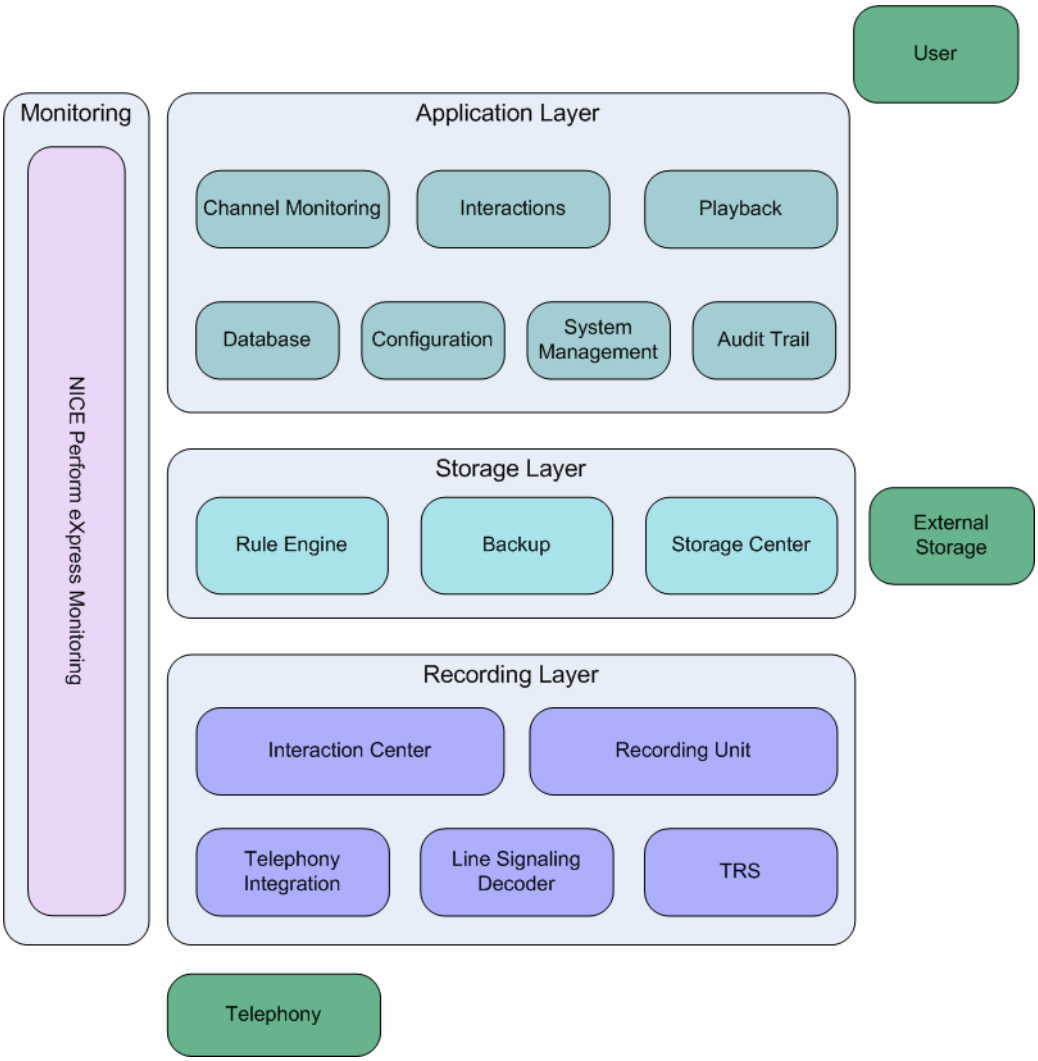
Drill Down of System Architecture

Each of the Application, Storage, and Recording layers are made up of components.

- **Application Layer Components** on **page 17**
- **Storage Layer Components** on **page 18**
- **Recording Layer Components** on **page 18**

Figure 1-2 illustrates a drill down of the components in each layer.

Figure 1-2 Drill Down of Components in NICE Perform eXpress System Architecture



Application Layer Components

Channel Monitoring

Channel Monitoring monitors channels in real time.

Interactions

Interactions queries the Database component for interactions.

Playback

The Playback component searches the Storage Center and the Recording Unit for the audio associated with the interaction and plays it back.

Database

The Database component holds interaction information and administrative information.

Configuration

The Configuration component integrates the NICE Perform eXpress system with the telephony environment of the site and sets up channel mapping and storage.

System Management

The System Management component enables displaying a summary of system information including the recording environment, mapped channels, and available storage space. System alerts (SNMP messages) are also displayed through this component. In addition, the System Management component is responsible for managing license keys and software versions.

Audit Trail

Audit Trail enables querying system messages.

Storage Layer Components

Rule Engine

The Rule Engine collects interactions that need to be archived and creates a task in the Database to archive these interactions.

Backup

When a backup device is installed, the Backup component continuously archives audio as well as retrieves and deletes audio from archived media.

Storage Center

The Storage Center archives the audio data to the storage device for long term storage.

Recording Layer Components

Interactions Center

The Interactions Center is responsible for coordinating all events between the switch and the NICE Perform eXpress system and captures the information about the customer-agent interactions.

Recording Unit

The Recording Unit records the audio of the interaction.

Telephony Integration

The Telephony Integration receives CTI information from the telephony and then reports this information to the Interactions Center.

Line Signaling Decoder

The Line Signaling Decoder creates an interaction by mapping line activity to the caller ID, dialed number, and direction of the call. It then sends this interaction information to the Interaction Center.

TRS

In case of a CTI failure, the Total Recording Solution (TRS) component ensures that all recorded Logger sessions are reported to the Database component.

Backing Up Data Before Maintenance

Back up NICE databases and copy configuration files and registry keys before starting any maintenance procedure.

- Back up NICE databases. See **Backing Up NICE Perform eXpress Databases** on **page 107**.
- From the NICE Perform eXpress installation folder, copy the following configuration files, and save them to an alternative location:
  - ...\NICE Stream Server\Bin\NiceApplications.Playback.Administration.Startup.exe.config
  - ...\NICE Stream Server\Bin\NiceApplications.Playback.Streaming.Encoder.exe.config
  - ...\NICE Stream Server\Bin\NiceApplications.Playback.Streaming.Startup.exe.config
  - ...\NICE Stream Server\WMRM\web.config
  - ...\Applications\ServerBin\NiceApplications.AuditTrail.Host.exe.config
  - ...\Applications\ServerBin\NiceApplications.RuleEngine.Service.exe.config
  - ...\Applications\ServerBin\NiceApplications.SystemAdministrator.Host.exe.config
  - ...\Applications\ServerBin\Playback\Web.Config
  - ...\SystemMonitoring\Bin\NICE.Perform.Express.SystemMonitoring.Service.exe.config
- Back up the following registry keys:

Registry Key	Value
SOFTWARE\NICECTI\SYSTEM	SysAdminHostURL
SOFTWARE\NICECTI\Integrations	SystemAdministratorLocation
SOFTWARE\Nice systems\Setup\NICE Storage Center\Administration\CLS1	SysAdminIpAddress

Guidelines for Installing Anti-virus Software

A list of general instructions follows:

- Before installation of the antivirus software, you must review the *Third Party Security and Backup Application Guidelines* document on ExtraNICE.
- During the installation of the antivirus software, all applications and screens must be closed.
- When upgrading the antivirus software, all applications and screens must be closed.
- Scan and Live Updates should be scheduled to run in system idle time.
- Do not run Scan or Live Update during NICE software installation.
- Always set Scan Priority to **Low**.

Which NICE Perform eXpress Guide Do I Need?

The documentation for NICE Perform eXpress is divided into a number of guides. The following table explains the audience and main tasks for each of these guide types:

NICE Perform eXpress Guide	Audience	Provides Instruction To...
Administrator's Guide	IT Professional	• Understand system alerts and backup device status. • Update licenses. • Verify channel activity. • Monitor channels in real time. • Define users and groups. • Query audit messages. • Define extended retention for storage.
Central Administration Guide	IT Professional	• Define CTI and storage parameters at one central location for use at all locations (Branches). • Deploy CTI and storage definitions to the Branches. • Create IT administrators who can access and manage all the Branches. • Update existing CTI and Storage configurations at all NICE Perform eXpress Branches.
Installation Guides	NICE Installer	• Install the NICE Perform eXpress hardware and software. • Configure NICE Perform eXpress for the telephony environment. • Prepare the CTI for NICE Perform eXpress. (Guidelines are provided: The CTI setup is the responsibility of its manufacturer.)
Interactions Guide: Query and Playback	Manager or Agent/Trader	• Run a built-in query to find interactions and play them back. • Create a customized query to find specific interactions. • Save an interaction from NICE Perform eXpress to a standard format in order to play it back on any media player.

NICE Perform eXpress Guide (Continued)	Audience	Provides Instruction To...
Maintenance Guide	IT Professional, NICE Installer	• Verify the NICE Perform eXpress system is functioning correctly by means of a Support Calendar. • Maintain the NICE databases. • Expand an existing NICE Perform eXpress system on the same server and to a replacement machine. • Replace faulty boards. • Recover a system. • Manage NICE Services and logs. • Respond to SNMP traps. • Manage NICE Perform eXpress versions and updates. • Change the server name. (Business Partners only)
Migrating from NiceCall Focus III and NiceUniverse 8.9	Business Partner	• Migrates NiceCall Focus III and NiceUniverse 8.9 systems to NICE Perform eXpress.
Pre-Installation Guide	NICE Installer	• Select the correct server/PC for the NICE Perform eXpress system. • Harden the machine in order to prepare a secure environment for the NICE Perform eXpress system. • Install the required software before installing the NICE Perform eXpress system. • Verify the necessary anti-virus requirements.
Quality Management Guide	Manager, Agent/Trader or IT Professional	• Configure quality management, which includes setting up screen recording, defining QM rules, monitoring client machines, and defining QM users. • Create forms for quality management. • Query for interactions marked for QM. • Evaluate agents/traders. • Generate reports.

NICE Perform eXpress Guide (Continued)	Audience	Provides Instruction To...

Troubleshooting Guide	IT Professional, NICE Installer, Business Partner	• Manage NICE Services and logs.
		• Respond to SNMP traps.
		• Troubleshoot:
		  • Licensing
		  • Archiving
		  • Playback
		  • Recording
		  • PCIe Interface Boards
		  • Integrations (Vendor-side)

Upgrade Guide	NICE Installer	• Upgrade NICE Perform eXpress from Releases 1.0 and 2.1 to Release 3.0.

Locating Documentation for Tools

The following is an alphabetical list of tools available on your NICE Perform eXpress server. Consult the relevant guide as needed.

NICE Perform eXpress Tools			
Tool	**What it does**	**When to use**	**NICE Perform eXpress Guide**
Archive Tool	Retrieves media from a NiceCall Focus III or NiceUniverse 8.9 system that was backed up to a DVD.	As part of the process for upgrading from NiceCall Focus III or NiceUniverse 8.9 to NICE Perform eXpress.	*Migrating NiceCall Focus III and NiceUniverse 8.9*
Board Diagnostic Tool	Enables testing the functionality for PCIe Interface boards.	• To test a suspected faulty board. • To create a log file to accompany a Service Request for a faulty board.	*Troubleshooting Guide*

NICE Perform eXpress Tools (Continued)			
Tool	**What it does**	**When to use**	**NICE Perform eXpress Guide**
Board Numbering Tool Not applicable for boards from NICE Perform eXpress 1.0	• Defines Board IDs. • Enables you to locate and view details for all NICE Perform eXpress 3.0 PCIe interface boards.	• When installing one of the following boards: DP6409-eh PCM6409-eh DT6409-eh • To determine the Board ID on any PCIe interface board.	*Installation Guides* *-and-* *Troubleshooting Guide*
eXpress Assistant	Tests your system and recommends steps for repair if errors are found with any of the following: • Connected Devices • Connected Channels • User Mapping • Records and plays back an interaction	• After initial configuration is complete and users are defined. • Whenever a configuration change is made, such as adding or remapping channels to ensure that the entire system is working. • To begin troubleshooting.	*Installation Guides* *-and-* *Troubleshooting Guide*
Log Collector	Gathers information from the NICE Perform eXpress server and application into a compressed zip file to be sent to NICE Customer Support.	As instructed by NICE Customer Support.	*Maintenance Guide* *-and-* *Troubleshooting Guide*
Log Viewer	Enables you to view the Log files.	As instructed by NICE Customer Support.	*Maintenance Guide* *-and-* *Troubleshooting Guide*
NICE Migration Application	Migrates the NICE databases from NiceCall Focus III and NiceUniverse 8.9 to NICE Perform eXpress.	As part of the process for upgrading from NiceCall Focus III or NiceUniverse 8.9 to NICE Perform eXpress.	*Migrating NiceCall Focus III and NiceUniverse 8.9*
Performance Collector	• Creates a trace file and log file to send to NICE Customer Support. • Collects information for the SQL Profiler to aid in debugging the SQL.	SQL Performance problems such as: • Queries do not run • Archiving Error	*Troubleshooting Guide*

NICE Perform eXpress Tools (Continued)			
Tool	**What it does**	**When to use**	**NICE Perform eXpress Guide**
Rename Host	Replaces default host server names in the NICE Perform eXpress machine with the actual server names at your site.	• During expansion to a new machine. • During system recovery on a new machine. • During initial setup to complete host name resolution (only NICE Business Partners are authorized to make this change).	*Maintenance Guide*
Security Configuration Tool	In an Active Directory environment, switches between NICE Authentication mode (default) and Windows Authentication mode.	• To define Single Sign-On (SSO). This is part of the initial installation procedures. • If your organization's user authentication mode changes.	*Installation Guides* *-and-* *Maintenance Guide*
Services Configuration Manager	Enables the following: • Start/stop NICE Services. • View Service Logs and change Reporting levels. • Create a Memory Dump file for troubleshooting (requires Windows Debugging Tools)	As instructed by NICE Customer Support.	*Maintenance Guide* *-and-* *Troubleshooting Guide*
Site Readiness Tool	Automatically verifies the prerequisites required for successfully installing NICE Perform eXpress.	After completing all pre-installation procedures, before installing boards and NICE Perform eXpress software.	*Pre-Installation Guide*

2

Frequently Asked Questions

Contents

Archiving Error Appears for 24 Hours After Installation

The following error might appear in the **System Alerts** area within 24 hours after installing the NICE Perform eXpress system:

Error in archiving recorded data. The system detected failure to archive some of the calls.

You can safely ignore this error for the first 24 hours after installing the system.

Board Name Different in Microsoft Device Manager

Symptom

The NICE Perform eXpress board name in the Microsoft Device Manager is not the same as the name in the NICE Board Numbering Tool or the Board Diagnostic Tool.

Cause

The Microsoft Device Manager shows the board details as defined by the PnP device ID. This ID shows the wrong board name.

The NICE Board Numbering Tool and the Board Diagnostic Tool both show the board details as defined by Audio Codes API, which shows the correct board name.

Solution

Use the Board Numbering Tool or the Board Diagnostic Tool for the correct NICE Perform eXpress board name.

Buttons on Message Boxes Do Not Function

Symptom

The buttons in the message boxes, such as **OK** or **Cancel**, do not work.

Cause

In the Internet Explorer, the Enhanced Security Configuration does not allow the buttons to function.

Solution

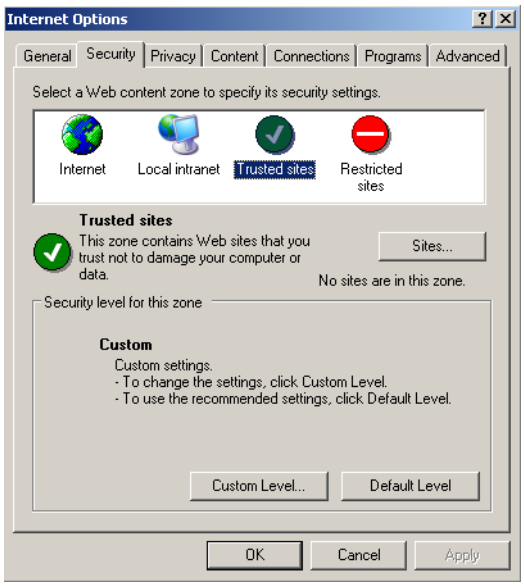
In the Internet Explorer, the Enhanced Security Configuration needs to be changed to include the **about:blank** page as a Trusted Site. **Note**: By default, the Enhanced Security Configuration does include the **about:blank** page as a Trusted Site. This issue occurs when the default security settings are changed.

To troubleshoot:

1. In the Internet Explorer, go to **Tools > Internet Options**, and click the **Security** tab.

2. Select **Trusted Sites**.

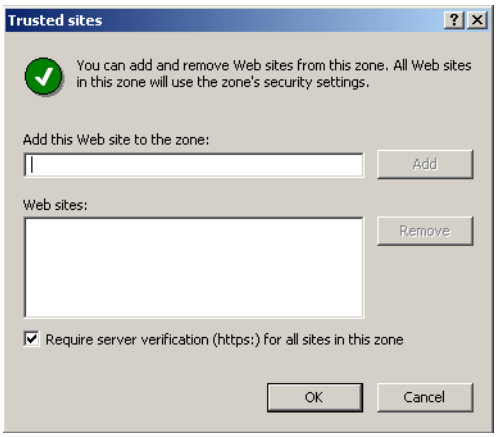
Figure 2-1 Internet Options Window



3. Click **Sites**.

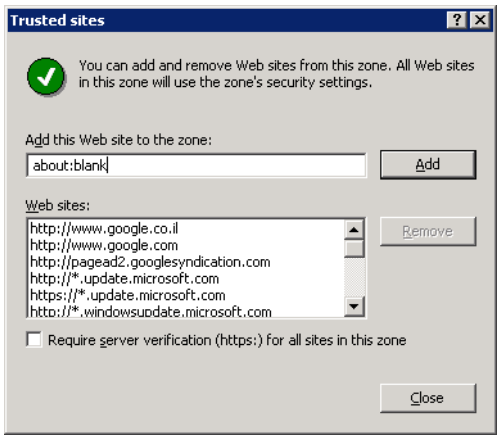
The Trusted Sites window appears.

Figure 2-2 Trusted Sites Window



4. Clear the **Require secure verification (https:) for all sites in this zone** checkbox.
5. In the **Add this Web site to the zone** field, enter `about:blank`.

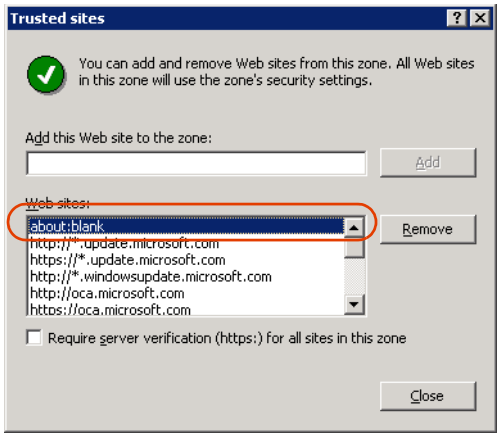
Figure 2-3 Trusted Sites Window



6. Click **Add**.

   The **about:blank** site appears in the **Web sites** area.

Figure 2-4 about:blank Added to Trusted Sites



7. Click **OK**.

Cannot Set Up Channels (Mixed Environment)

Symptom

In the Channel Monitor application, no channel activity is evident, and there is an error message: **Setup is not possible for the selected channel type**.

Cause

The DIP switches of the boards are not set up correctly.

Solution

- When the NPX machine has two boards of **different** types (*Example*: ALI and NATI) both boards must be set with the DIP switches set to ***off***.

- When the NPX machine has two boards of the **same** type (*Example*: Two ALI boards), the first board must be set with the DIP switches set to ***off***, and the second board must be set according to the DIP switch requirements of the board. See the relevant *NICE Perform eXpress Installation Guide*.

Channels Not Listed in Channel Monitor Application

Symptom

(*TDM Environments Only*) In the **Channel List** area of the Channel Monitor application, physically connected channels do not appear.

Cause

The channels are not mapped.

Solution

In the Configuration application, map the channels. See the relevant *NICE Perform eXpress Installation Guide*.

Caller ID is not Numeric

Symptom

When E1 ISDN is selected, the Caller ID is not numeric.

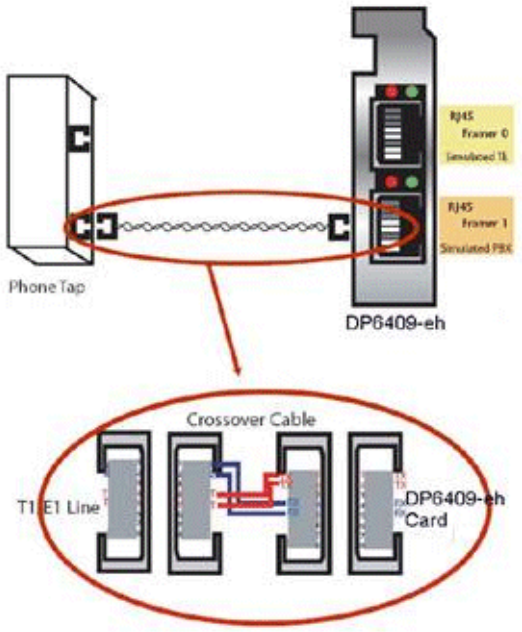
Cause

In a Line Signaling Based (VOX) TDM environment recording of Control and Signaling information does not work (no Control and Signaling information is received for interactions).

Troubleshooting

1. In the Recording Settings section, make sure that the **Trunk Type** parameter is defined as **E1 ISDN** (The dialed number and caller ID can only be received at ISDN). See the relevant Installation Guide for further information.
2. Contact the Switch technician and make sure that the appropriate frame format is selected. If the frame format is wrong it may affect the Control and Signaling information.
3. Make sure the RJ45 cable is crossed, as displayed in **Figure 2-5**, and as described in the Hardware Installation chapter of the *NICE Perform eXpress Installation Guide*. If the cable is not crossed it can record, but Control and Signaling information is lost.

Figure 2-5 Crossover Cable



4. Confirm that the system is now configured correctly, by checking the Dialed Number and Caller ID in the Query Results area of the Interactions window.
5. If the problem persists, contact your local support representative or NICE Customer Support.

Data Execution Prevention (DEP) Prevents TDM Gateway from Starting

Cause

After installing NICE Perform eXpress, the system is restarted, and an MS Windows message appears stating that the Data Execution Prevention (DEP) prevented the TDMGateway service from starting.

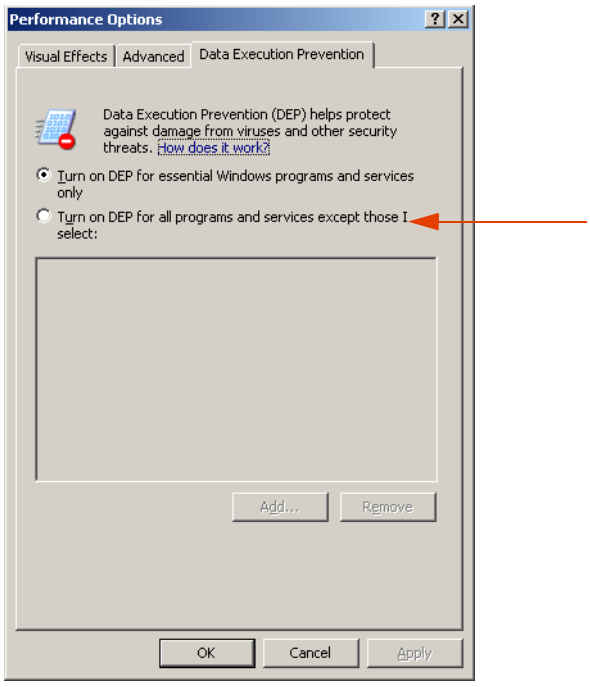
Solution

1. Right-click My Computer, and select **Properties**.
2. Click the **Advanced** tab.
3. In the **Performance** area, click **Settings**.

   The Performance Options window appears.
4. Click the **Data Execution Prevention** tab.

   The **Data Execution Prevention** tab appears.

Figure 2-6 Performance Options Window

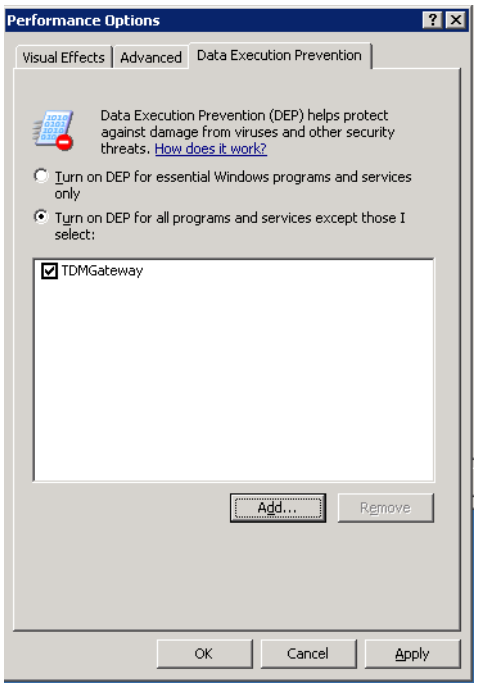


5. Select **Turn on DEP for all programs and services except those I select**.
6. Click **Add**, and browse to: **D:\Program Files\NICE Systems\NICE Perform eXpress\VoiceCapture\Bin**.

7. Select **TDMGateway.exe**, and click **Open**.

   The TDM Gateway service appears in the list of services the DEP will ignore.

Figure 2-7 Performance Options Window - DEP Ignore List



8. Restart the NICE Perform eXpress machine.

Dates of Interactions in Incorrect Format

Symptom:

Dates of the interactions appear in the wrong format.

Cause:

The local language is not correctly defined in the Internet Options.

Solution:

To use NICE Perform eXpress in your local language, the language must have the highest priority in your Internet Options. Use the following procedure to select a language and set priority.

This procedure must be completed on the NICE Perform eXpress machine and on each workstation that accesses the NICE Perform eXpress.

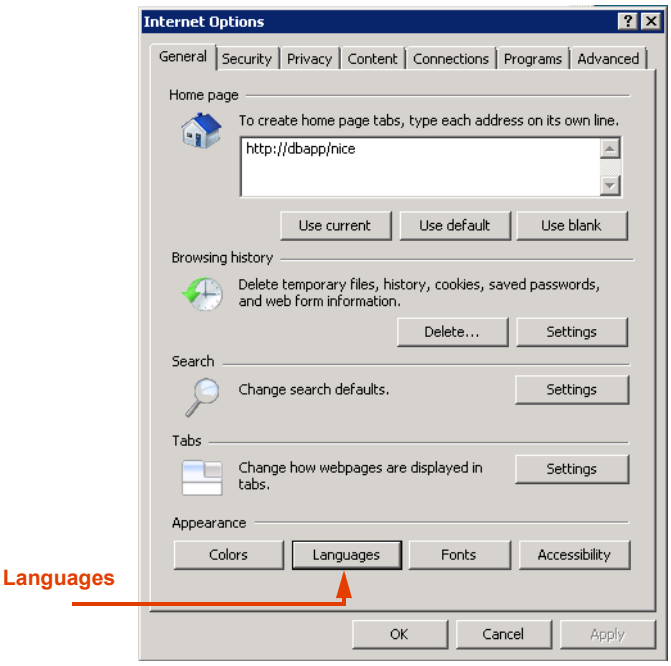
The language that has priority determines the language and format of your calendar and how dates appear on your screen. If dates do not appear correctly, verify that the correct language has priority in the Language Preference window using the following procedure.

To set Language Preferences in Internet Explorer:

1. Open Internet Explorer and select **Tools > Internet Options**.

   The Internet Options window appears.

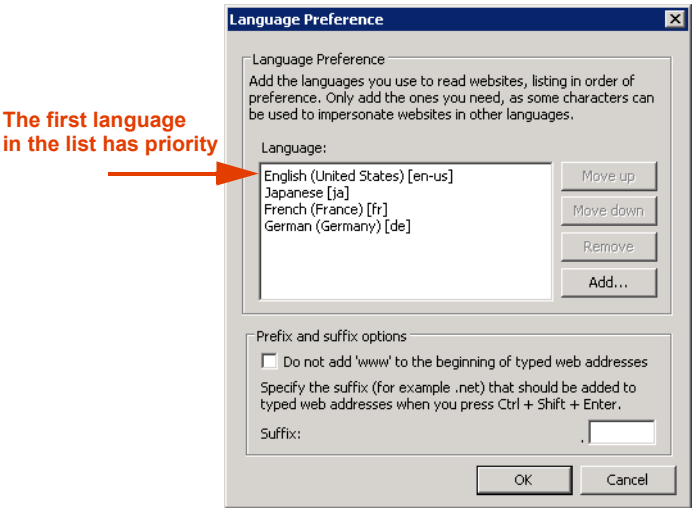
Figure 2-8 Internet Options Window



2. In the **Appearance** section, click **Languages**.

   The Language Preference window appears.

Figure 2-9 Language Preferences Window

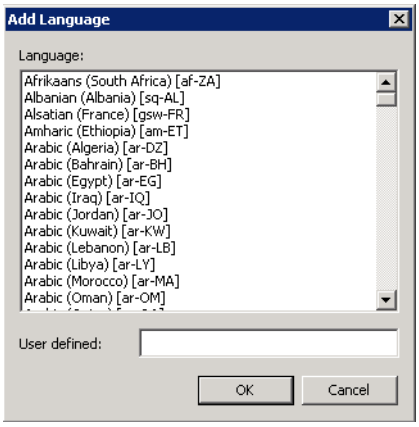


3. If your local language does not appear in the list, do the following:

   a. Click **Add**.

      The Add Language window appears.

      Figure 2-10 Add Language Window

   b. Select a language. Then click **OK**.

      If more than one dialect appears for your language, select any of them.

      The language is added to the list in the Language Preferences window.

4. The Local language must be the first one in the list. To move a language to the top of the list, select the language. Then click **Move Up**.
5. Click **OK** to close the Language Preferences window.
6. Click **OK** to close the Internet Options window.
7. This procedure must be repeated on each workstation that accesses the NICE Perform eXpress.

Decreased Functionality in the User Interface

Cause

When Internet Explorer 8 is installed on a client workstation, some options do not function in NICE Perform eXpress applications.

Solution

NICE Perform eXpress needs to be displayed in Internet Explorer in Compatibility View. From the **Command Bar**, select **Tools**, and then select **Compatibility View Settings** to add the URL of the NICE Perform eXpress site to the list.

Electric Power Cut Off During Software Installation

Cause

The electric power is cut off during the software installation, such as an accidently unplugged power cable, and the software installation fails.

Solution

All software required for the NICE Perform eXpress system needs to be reinstalled.

1. Install all required software as listed in the *NICE Perform eXpress Pre-installation Guide*.
2. Install the NICE Perform eXpress software. See the relevant *NICE Perform eXpress Installation Guide*.

Error 2002 Appears Constantly in System Alerts Area

Symptom

The 2002 error appears constantly in the **System Alerts** area. The error message states that there is a telephony connectivity error and to check the cable connections.

Cause

- The value in the **Configured Channels** field is greater than the number of mapped channels.

  and/or

- There is a problem with the channel's cable connection to the PABX.

Solution

Decrease the number of configured channels so that it is the same value as the number of mapped channels. **Note**: Sometimes site constraints do not support this solution. If the 2002 error continues to appear, check the status of the channels in the Channel Monitor application.

To troubleshoot:

1. In the Configuration application, click the **CTI and Recording** tab, and note the value in the **Configured Channels** field in the **Recording Settings** area.
2. Click the **Channel Mapping** tab, and note the number of mapped channels.
3. Click the **CTI and Recording** tab, and change the value in the **Configured Channels** field to match the number of mapped channels.
4. *If the 2002 error continues to appear in the **System Alerts** area*, go to the Channel Monitor application and verify that the status of all channels is **OK**.

Error 3505 After Renaming Machine

Symptom:

3505 error appears stating that channel monitoring failed.

Cause:

NICE Perform eXpress uses the NICE Playback Streaming service, by means of the Windows Media Services component, to monitor channels in real time. When the Windows Media Services component is installed a user is created. This user includes the machine name. *For example*, a user might be *WMUS_HOSTNAME* where *HOSTNAME* is the name of the machine where Windows Media Services is installed.

When the machine name is changed, the name of the user includes the previous machine name. Therefore, the Windows Media Services fails to handle the NICE Playback Streaming service request to monitor the channel.

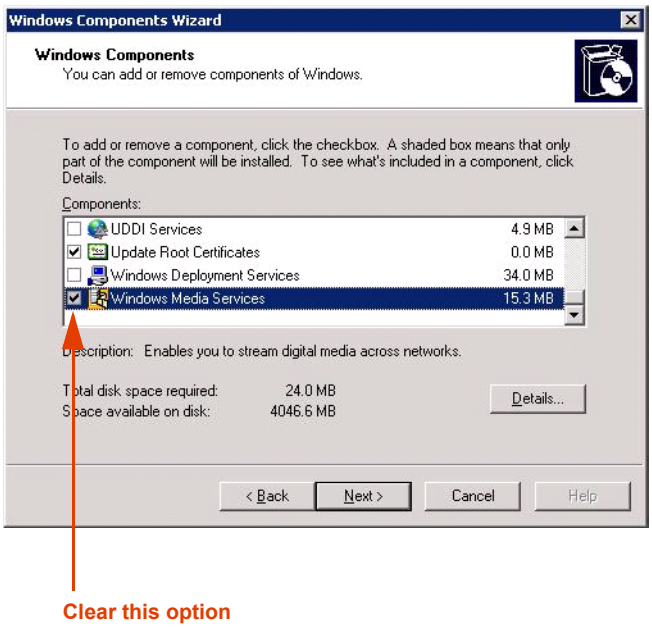
Solution:

You must uninstall Microsoft Windows Media Services and then reinstall it again so that the machine name will be correct for the Windows Media Services user. After reinstalling the component, you run the **AddPublishingPoint.vbs** script to create an on-demand Publishing Point, which adds the NICE Stream Server as a content source.

To troubleshoot:

1. From the Control Panel, select **Add or Remove Programs**. The Add or Remove Programs window appears.
2. In the Add and Remove Programs window, select **Add/Remove Window Components**. The Windows Components Wizard appears.

Figure 2-11 Windows Components Wizard



3. In the **Components** list, clear the Windows Media Services option, and click **Next**.
4. Click **Next**. The Completing the Windows Components Wizard window appears.
5. Click **Finish**, and restart the machine.
6. After the computer restarts, from the Control Panel, select **Add or Remove Programs**. The Add or Remove Programs window appears.
7. In the Add and Remove Programs window, select **Add/Remove Window Components**. The Windows Components Wizard appears.
8. In the **Components** list, select the Windows Media Services option, and click **Next**. The Completing the Windows Components Wizard window appears.
9. Click **Finish**.
10. Navigate to *<Installation Folder>***\NICE Perform eXpress\Tools\Rename Host Tool**, and run the **AddPublishingPoint.vbs** script.

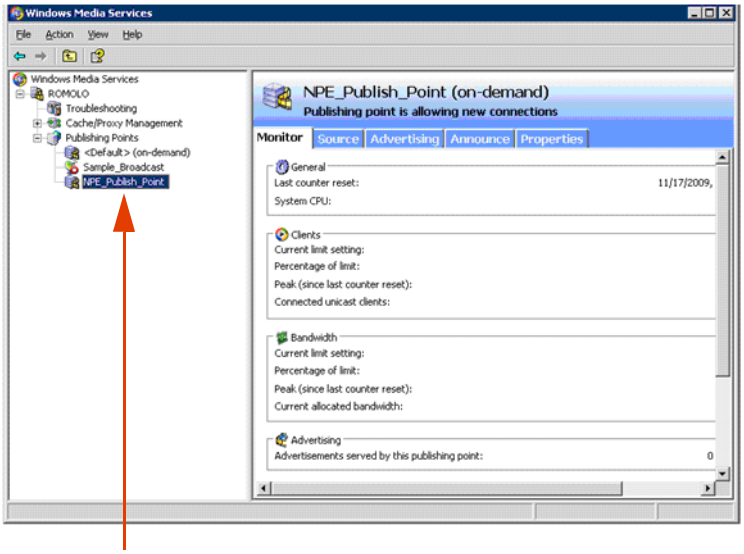
    If the script does not run after double-clicking it, run it from the command line as follows:

    a. From the command line, navigate to the location of the **AddPublishingPoint.vbs** file.

    b. Run the following command: **`cscript AddPublishingPoint.vbs`**.

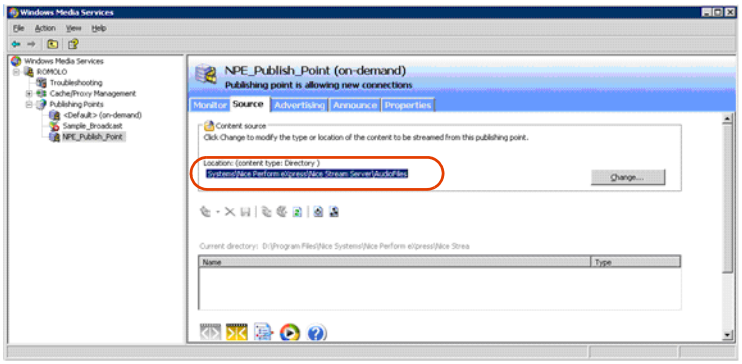
11. From the Control Panel, select **Administrative Tools > Windows Media Services**, and verify that Publishing Point **NPE_Publish_Point** appears.

Figure 2-12 Windows Media Services Window



12. Select the **Source** tab. Verify that the location path is local to the computer and is inside the **NICE Stream Server** installation folder.

Figure 2-13 Windows Media Services Window



13. Restart the NICE Playback Streaming service.

Installation Process Stalls with High CPU

Cause

The HP StorageWorks DAT72 USB backup device is installed, but its driver is not installed, or the device was disabled. The NICE Perform eXpress installation stalls with a high CPU.

Solution

1. Stop the NICE Perform eXpress installation.
2. Verify that the HP StorageWorks DAT72 USB driver is installed. If it is not, install it.
3. In the Device Manager, verify that the device is enabled.
4. Install NICE Perform eXpress.

(FTF Environments after Upgrade) Interaction Details Not Displayed

Symptom

(*Financial Trading Floor environments - BT, Etrali, and IPC - after upgrading from a previous version of NICE Perform eXpress*) The recorded interactions appear in the Interactions application, but the interaction cannot be expanded to view the interaction details.

Cause

When upgrading from a previous version of NICE Perform eXpress, business data is not automatically saved in NICE Perform eXpress 3.0.

Resolution

On the **CTI and Recording** tab in the Configuration application, click **Save** to save the business data. When the business data is saved, the interaction details are available for viewing.

Here's how:

1. In the Configuration applications, click the **CTI and Recording** tab.
2. Click 

.
3. In the Interactions application, expand an interaction to view its details.

   The interaction details appear.

Interactions Not Displayed

Symptom

Recorded interactions do not appear in the Interactions application.

Cause

The SQL job that is responsible for a specific population is not running. For example, if the OS administrative user who installed NICE Perform eXpress was changed, the SQL job cannot run.

Resolution

The OS administrative user is necessary to run NICE services and SQL jobs. If you need to change this user, you must also do the following:

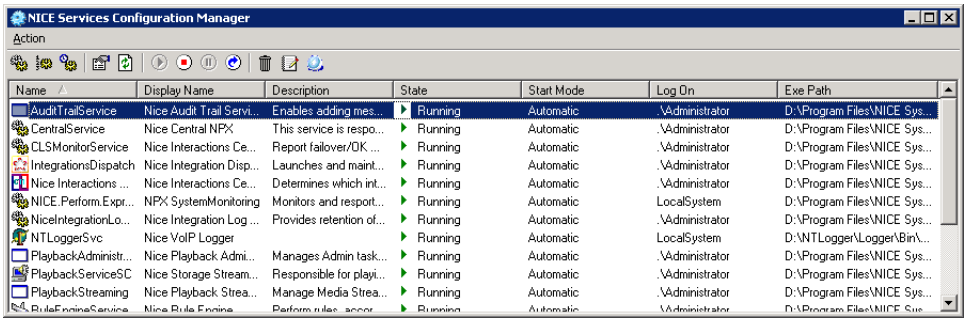
1. Create a new OS administrative user.
2. Change the name of the user who runs services that require a log-on.
3. Run the **ReplaceJobsOwner.sql** script that changes the name of the user in SQL jobs.

Here's how:

1. Create the OS administrative user with which you want to replace the user who installed the NICE Perform eXpress software. This new user must have the following privileges:
   - **Log on as service**
   - **Log on as a batch job**
   - **Act as part of the operating system**
   - **Create a token object**
   - **Replace a process-level token**
   - **Manage auditing and security log**
2. Write down the username and password of this new user.
3. Change the user who runs NICE Perform eXpress services to the new OS administrative user:
   a. From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Services Configuration Manager**.

      The Services Configuration Manager opens.

      Figure 2-14 Services Configuration Manager

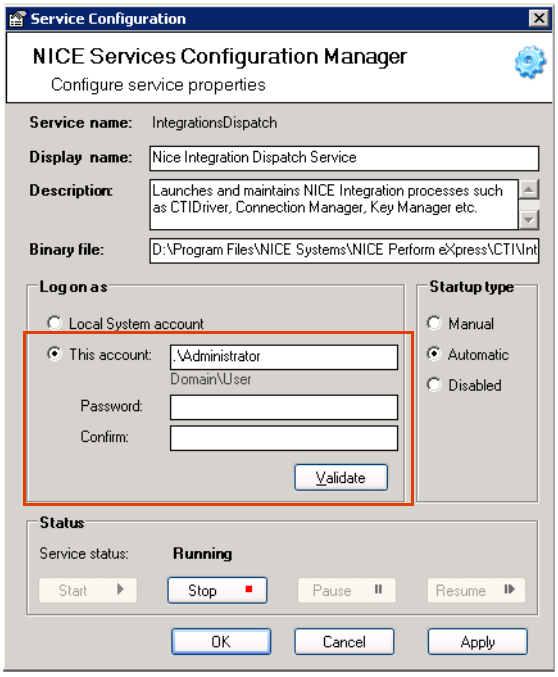


   b. Stop all services.
      - Press the **Ctrl** and **A** keys.
      - Click the **Stop** button. In the **State** column, the state changes from **Running** to **Stopped**.
   c. Verify the user name in the the **Log On** column. You need to update the user name for all the services ***except*** the ones that use the **Local System** user.

d. *For each service whose user name needs to be changed*, right-click the service and select **Properties**.

- In the **Log on as** area, in the **This Account** field, type **.** and then enter the user name of the new OS administrator. *For example*: **.\Administrator1**.
- In the **Password** and **Confirm** fields, enter the password and confirm it, respectively.
- Click **OK**.

Figure 2-15 Service Properties Window



The **Log On** user name is updated to the new OS administrator for all the services.

e. Start all services.

- Press the **Ctrl** and **A** keys.
- Click the **Start** button. In the **State** column, the state changes from **Stopped** to **Running**.

4. Change the user who runs the Microsoft SQL services to the new OS administrative user.

a. From the Control Panel, select **Administrative Tools > Services**.

b. Find the **SQL Server** service in the list of services.

c. Click the **Log On** tab.

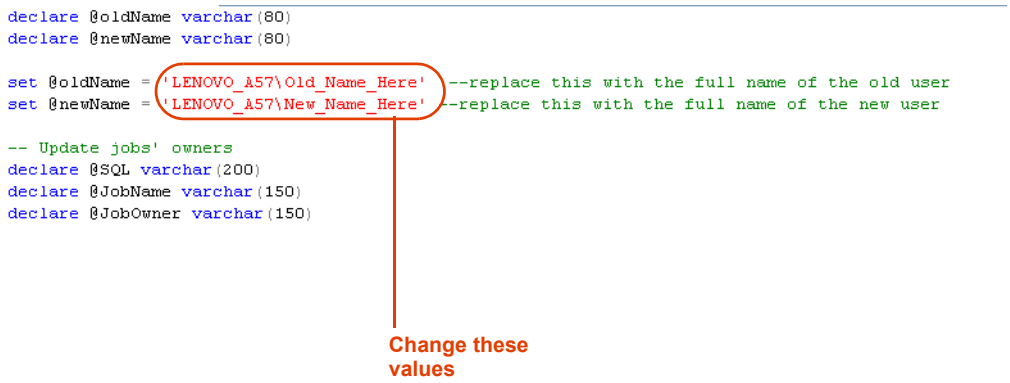
- In the **Log on as** area, in the **This Account** field, type **.** and then enter the user name of the new OS administrator. *For example*: **.\Administrator1**.
- In the **Password** and **Confirm** fields, enter the password and confirm it, respectively.
- Click **OK**.

d. Repeat Step b and Step c for the **SQL Server Agent** and **SQL Server Reporting** services.

5. Edit the **ReplaceJobsOwner.sql** script to include the former and current name of the OS administrator by completing the following.

a. Navigate to **D:\Program Files\NICE Systems\NICE Perform eXpress\Tools\Rename Host Tool**, and open the **ReplaceJobsOwner.sql** script.

Figure 2-16 SQL Script



b. Edit the **ReplaceJobsOwner.sql** script as follows:

- In the **`set @oldName = '`**[*previous name of the OS Administrator*]**`'`** command, between the single quotation marks, enter the previous name of the OS administrator, including the domain name.

  For example, **`set @oldName = 'NICE_Systems\Administrator'`**.

- In the **`set @newName = '`**[*new name of the OS Administrator*]**`'`** command, between the single quotation marks, enter the new name of the OS administrator, including the domain name.

  For example, **`set @newName = 'NICE_Systems\Administrator1'`**.

c. Save the changes to the script.

d. On the NICE Perform eXpress machine, run the **ReplaceJobsOwner.sql** script.

License State Displayed Incorrectly

Cause

The updated license state does not display.

Resolution

You reset the IIS server and refresh the NICE Perform eXpress URL.

Here's how:

1. From the **Run** menu, in the **Open** field, enter **`iisreset`**.

The Command Prompt window opens, and the IIS server is reset.

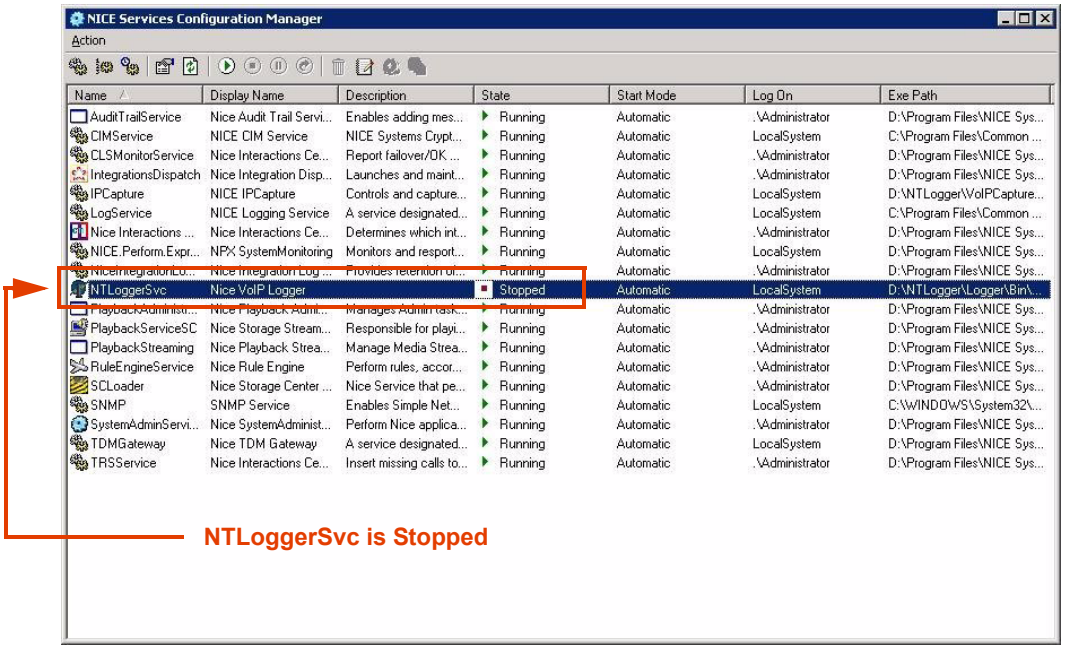
2. From the NICE Perform eXpress window, click **Refresh** .
3. In the System Management application, go to the **System Settings** tab > **Licensing** area.

   In the **License Information** field, the license state is updated.

Logger Service does not Start after Upgrade

Symptom

After upgrading to NICE Perform eXpress 2.1.10, the Logger Service, **NTLoggerSvc**, does not start.

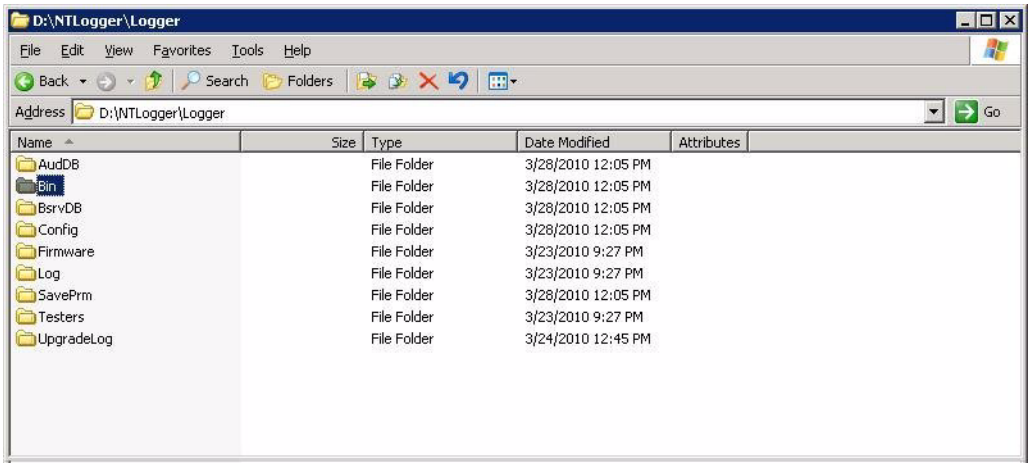


Cause

The **Bin** folder for the Logger was not created or is missing files.

To determine if there is an error with the Bin folder:

1. Navigate to the Logger directory: **...\NTLogger\Logger**



2. If the **Bin** folder does not exist then see the **Solution** below.
3. Open the **Bin** folder.
4. If the file **Ntlogger.exe** does not exist in the Bin folder, see the **Solution** below.
5. If there are **less than 50 files** in the Bin folder, see the **Solution** below.

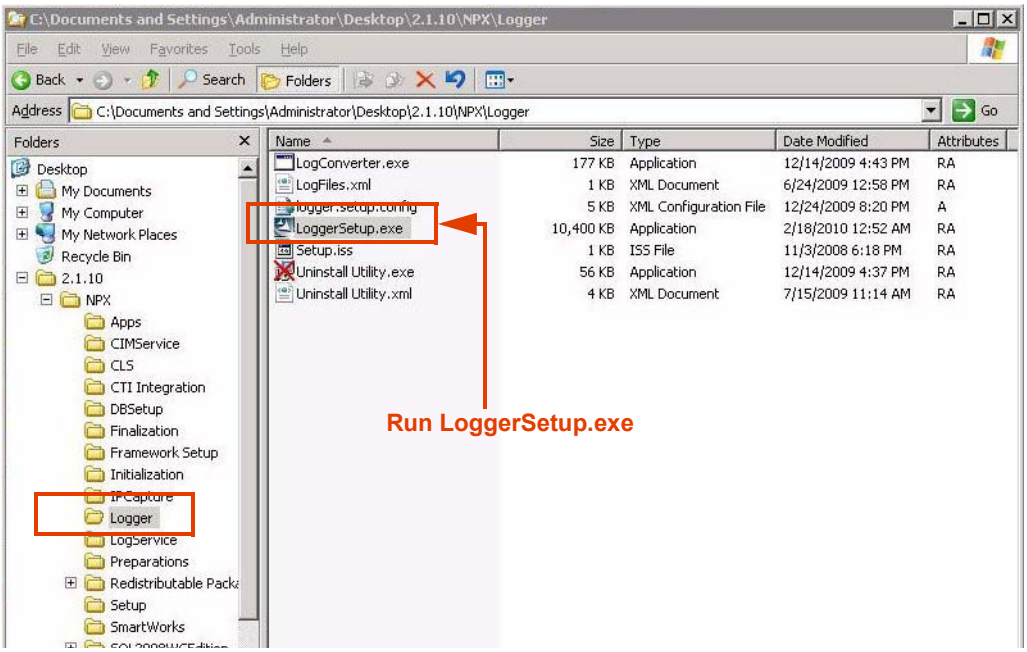
Solution

The Logger service must be reinstalled using the following procedure. At the end of this procedure you must restart your machine.

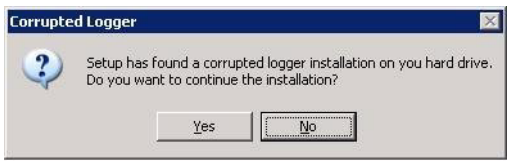
To reinstall the Logger service:

1. Stop all NICE services.
2. In the NICE Services Configuration Manager, from the **Action** menu select **Exit**. This closes the NICE Services Configuration Manager which must be closed, not minimized.

3. Navigate to the NICE Perform eXpress installation folder: **...\2.1.10\NPX\Logger**.



4. Run **LoggerSetup.exe**.
5. If the Corrupted Logger message appears, do the following:



   a. Click **Yes**.

      The Logger Setup creates a backup of the Logger files. The Choose Destination window appears.

   b. Choose a location for this backup. Then click **Next**.

   c. Continue with Step 7.

-or-

6. If the Corrupted Logger message does not appear, continue with Step 7.
7. When the Setup Complete window appears, select **Yes, I want to restart my computer now**. Then click **Finish**.
8. Open the NICE Services Configuration Manager and verify that all NICE services are running.
9. Verify that your system is recording and playing back recordings correctly.

Machine Not in Sync with Local Time

Cause

The time settings on the NICE Perform eXpress machine were not set to change when Daylight Savings time went into effect.

Solution

Preparing your NICE Perform eXpress for time synchronization when Daylight Saving Time begins or ends involves setting the correct properties in the Date and Time Properties window on your NICE Perform eXpress Machine.

WARNING

If you make any changes to the **Date**, **Time** or **Time Zone** after your system is installed, **your license will become invalidated**. In this event, contact NICE Support and see the *Troubleshooting Guide* for further information.

- If your site *does not* use an NTP server for time synchronization, you define Daylight Saving Time on the **Time Zone** tab as described in Preparing for Daylight Saving Time without an NTP Server on page 49.

  -or-

- If your site uses an NTP server for time synchronization, you define the server on the **Internet Time** tab as described in Preparing for Daylight Saving Time with an NTP Server on page 50.

Do this procedure now and you will be prepared in advance when Daylight Saving Time changes.

REMEMBER!

After you have completed the procedure below, you do not have to reset any clocks or restart your machine when Daylight Savings Time begins or ends.

Preparing for Daylight Saving Time without an NTP Server

If your environment *does not* use an NTP server for time synchronization, use the following procedure to prepare for Daylight Saving Time.

To prepare for Daylight Saving Time:

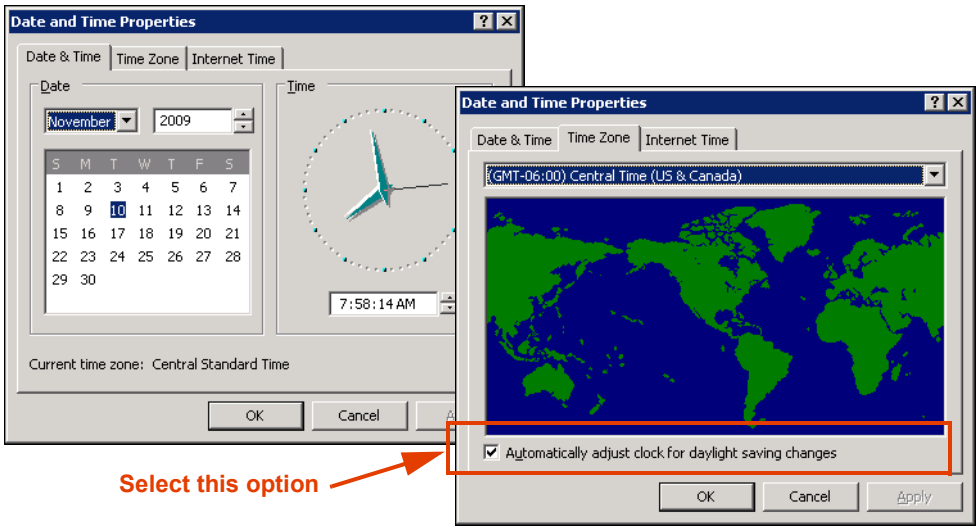
1. From the **Start** menu, select **Settings > Control Panel > Date and Time**.

   -or-

   Double-click the clock in the Notification area.

   The Date and Time Properties window appears.

Figure 2-17 Date and Time Properties Window



2. Select the **Time Zone** tab.
3. Select **Automatically adjust clock for daylight saving changes**.
4. Click **OK**.

   Automatic adjustments will be made for Daylight Saving Time. You do not need to restart your machine. When daylight saving time begins or ends, your NICE Perform eXpress will be automatically adjusted.

Preparing for Daylight Saving Time with an NTP Server

If your environment uses an **NTP server** for time synchronization, use the following procedure to prepare for Daylight Saving Time.

For sites that use a NTP server:

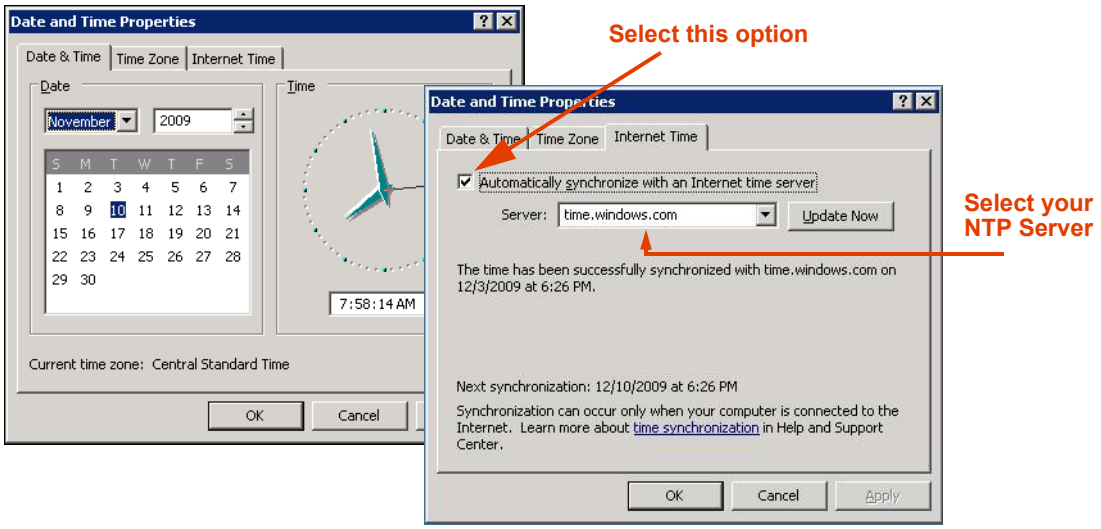
1. From the **Start** menu, select **Settings > Control Panel > Date and Time**.

   -or-

   Double-click the clock in the Notification area.

   The Date and Time Properties window appears.

Figure 2-18 Date and Time Properties Window



2. Select the **Internet Time** tab.
3. Select **Automatically synchronize with an Internet time server**.
4. In the **Server** field, select your NTP server. Then click **Update Now**.
5. Click **OK**.

   Automatic adjustments will be made for Daylight Saving Time. You do not need to restart your machine. When daylight saving time begins or ends, your NICE Perform eXpress will be automatically adjusted.

Message: Windows Media Player Not Installed

Cause

When the memory use of the Internet Explorer browser is too high, the following error message appears stating that the Windows Media Player 9.0 must be installed on the machine, even though the Media Player is already installed.

Figure 2-19 Windows Media Player Error Message

Solution

Open a new instance of the Internet Explorer browser, and try again to play back the interaction or monitor the channel.

Nice Differential Backup Job Failed during the ITP

Symptom

After installing the NICE Perform eXpress system, installers perform an Installation Test Procedure (ITP). One part of the ITP is verifying that the SQL jobs are running without errors. At this point in the ITP, the following error appears:

Cannot perform a differential backup for database "nice_express", because a current database backup does not exist.

Cause

NICE Perform eXpress automatically runs a full backup on all NICE databases every Saturday. On the other days of the week, it automatically runs a differential backup to back up the changes to the database since the full backup.

When the NICE Perform eXpress system is installed on any day except Saturday, the automatic differential backup fails, since no full backup is available. This failure means that no NICE Perform eXpress databases are backed up until the first full backup, which will take place on the first Saturday after the installation.

Solution

You need to run the Nice Full Backup job.

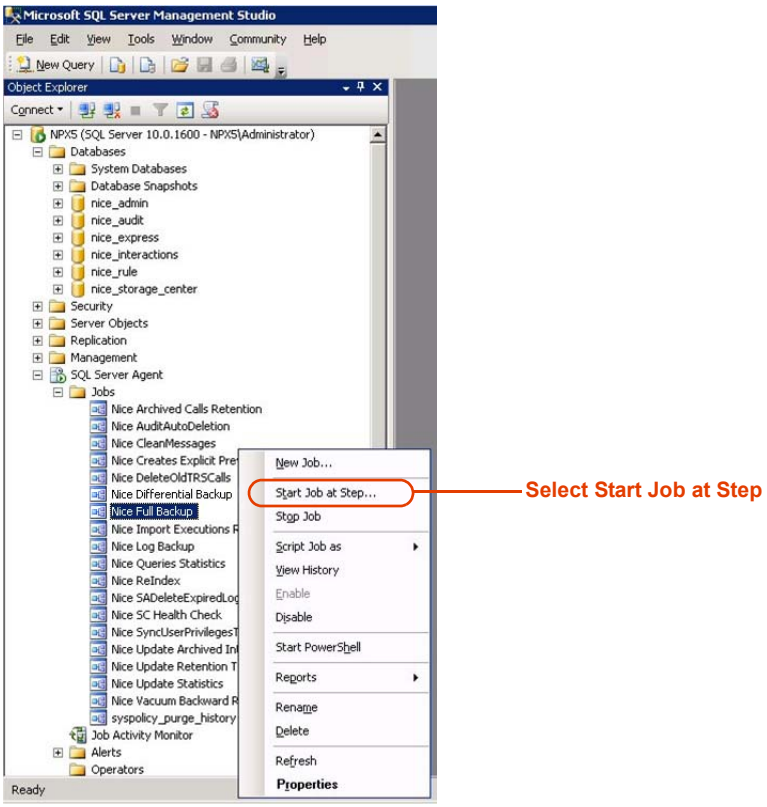
To troubleshoot:

1. From the **Start** menu, navigate to **Programs > Microsoft SQL Server 2008 > SQL Server Management Studio**.

   The SQL Server Management Studio opens.

2. Expand **SQL Server Agent > Jobs**, and right-click **Nice Full Backup**.

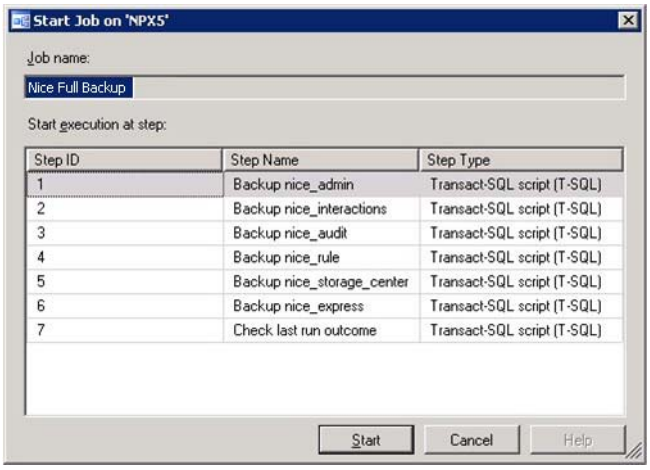
Figure 2-20 Nice Full Backup Job



3. Select **Start Job at Step**.

The Start Job window appears.

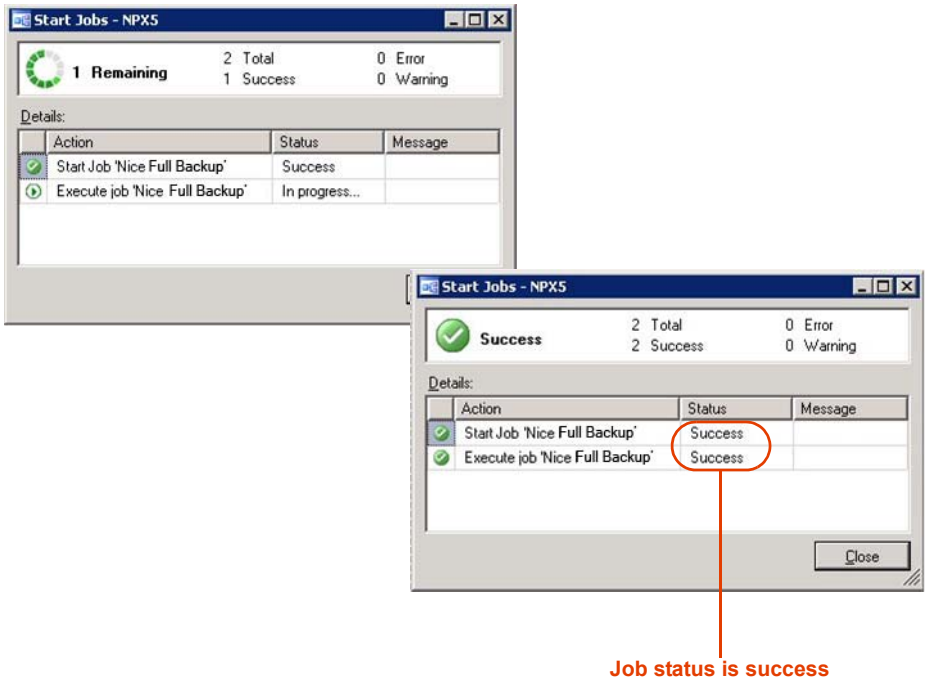
Figure 2-21 Start Job Window



4. Click **Start** to back up all the databases in the NICE Perform eXpress system.

The Start Jobs progress window appears to display the status of each backup job as it progresses.

Figure 2-22 Start Jobs Window



5. In the **Status** column, verify that the status of the backup jobs is **Success**, and click **Close**.

   The NICE Perform eXpress databases are backed up.

Player Stops During Playback

Symptom

When the anti-virus application is scanning the system, interactions that are over six minutes cannot be played back.

Cause

The WAV encoding causes the anti-virus scan to stop, which makes Player stop as well.

Solution

When the anti-virus application is Microsoft ForeFront Antivirus, a workaround comprises adding a parameter to Stream Server configuration files.

Note: A drawback of this workaround is that playback will be slower for all interactions.

To troubleshoot:

1. On the NICE Perform eXpress machine, navigate to: **...\Program Files\NICE Systems\NICE Perform eXpress\NICE Stream Server\Bin**.
2. Locate the following files:
   - **NiceApplications.Playback.Streaming.Startup.exe.config**
   - **NiceApplications.Playback.Streaming.Encoder.exe.config**
   - **NiceApplications.Playback.Administration.Startup.exe.config**
3. In each file, search for the string **CustomConfiguration**. An *example* of the parameters in this configuration is below:

```
<CustomConfiguration>
    <ApplicationName name="Default">
      <Settings>
        <add key="MaxReconnectTimes" value="2" />
        <add key="UseCTIAnalysis" value="true" />
        <add key="LocateServiceDebugMode" value="false" />
</Settings>
    </ApplicationName>
  </CustomConfiguration>
```

4. Under the **<Settings>** section, add this key: **<add key="ASFProfile" value="Default" />**.
5. Save the configuration file.
6. Repeat Step 3 to Step 5 for the configuration files listed in Step 2.
7. Restart the following services:
   - **Playback Streaming**
   - **Playback Administration**

Reactivating a NICE Perform eXpress License

In the following scenarios you can reactivate your original NICE Perform eXpress license:

- When initial license activation is on a temporary server. If you remove NICE Perform eXpress and reinstall it on a more permanent server, you can reactivate your original NICE Perform eXpress license.
- If the physical server where NICE Perform eXpress is installed fails, causing you to replace the physical server, you can reactivate your original NICE Perform eXpress license.
- If you change the time on your NICE Perform eXpress server, the license becomes invalidated. You can reactivate the original license.

NOTE: After activating a license for a second time, in future upgrades, you might receive two *.v2c files. Only one of them will be valid on your current NICE Perform eXpress machine.

Limitations when reactivating a NICE Perform eXpress license

- The original NICE Perform eXpress license can only be activated one extra time, for a total of two times.
- The license key includes only the original system resources. If you upgraded your system at any point, contact NICE Support for a new license file.

How to Proceed

Your NICE Perform eXpress is installed with a default license that is valid for recording five channels for a three month period. The status of this license is **Provisional**. You must activate a new license before the temporary one reaches its expiration date. There are two ways to activate a license.

- If you have direct internet access from the NICE Perform eXpress machine, use **Automatic Activation**. This option is only available while your license status is **Provisional**. For instructions, see **Automatic License Activation** on **page 56**.

  -or-

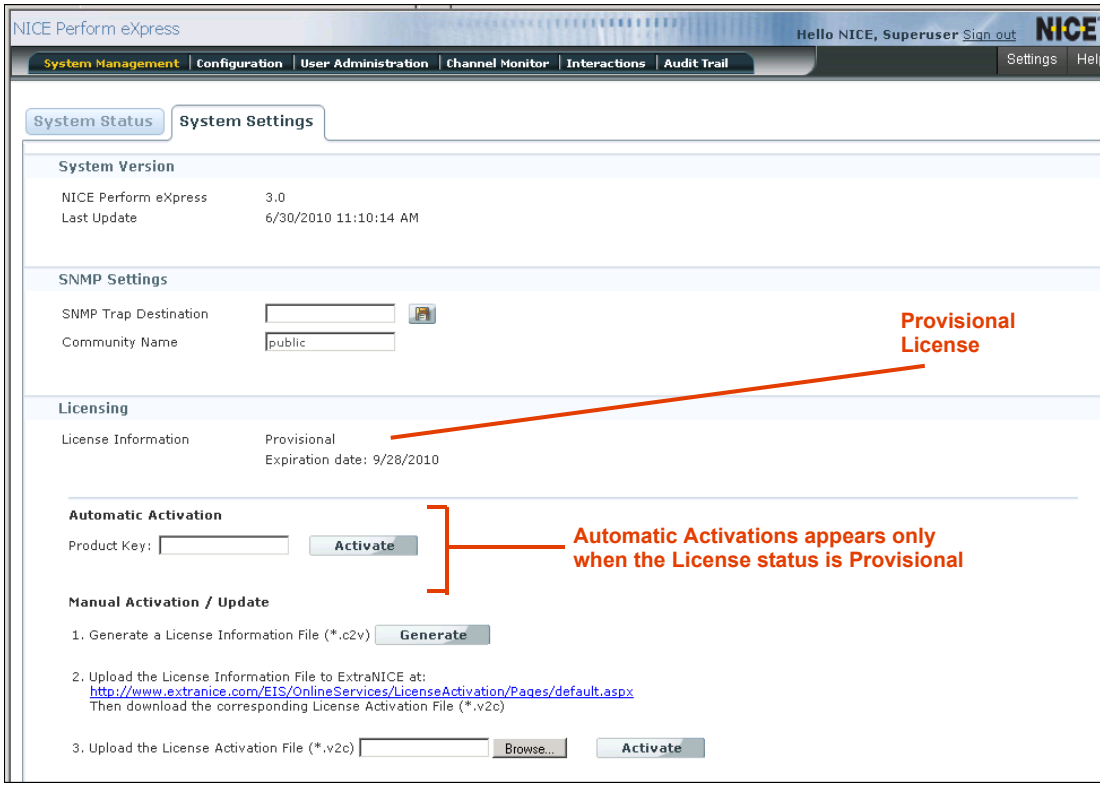
- If you do not have direct internet access from the NICE Perform eXpress machine, use **Manual Activation/Update**. For instructions, see **Manual License Activation** on **page 58**.

Automatic License Activation

You will require a valid **Product Key** to complete this process.

To activate a First-Time License:

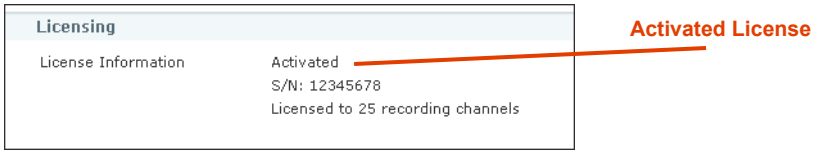
1. In **System Management**, click the **System Settings** tab.



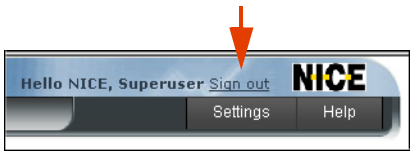
The License Information shows the status as **Provisional**, with an expiration date. You will need to update the license to a permanent one before this expiration date is reached.

2. In the Automatic Activation area, enter a valid **Product Key**. Then click **Activate**.

The license is updated to **Activated**. You have completed this procedure.



3. To begin configuring your NICE Perform eXpress, click **Sign out**. Then log in again and all your tabs will appear.



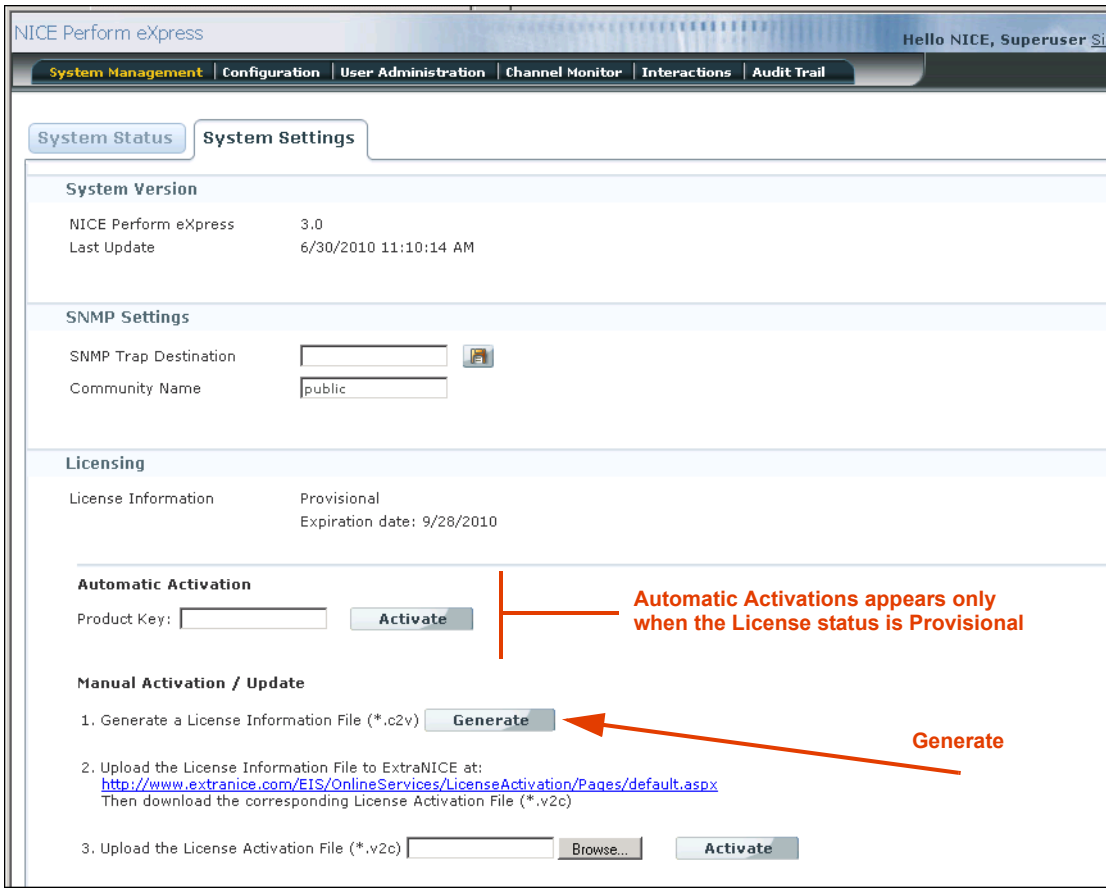
Manual License Activation

In this procedure you will be instructed on how to generate a License Information File from your NICE Perform eXpress. Then you will be instructed how to use this License Information File (*.c2v) to obtain a valid License Activation File (*.v2c). You will require the following:

- Access to a machine with internet access to NICE's ExtraNICE site. This does not have to be the same machine as the NICE Perform eXpress machine.
- A valid **ExtraNICE** Username and Password.
- A valid **Product Key** to obtain your License Activation File from the ExtraNICE.

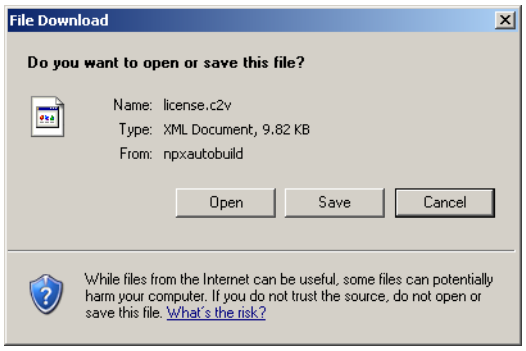
To manually activate or update a License:

1. In **System Management**, click the **System Settings** tab.



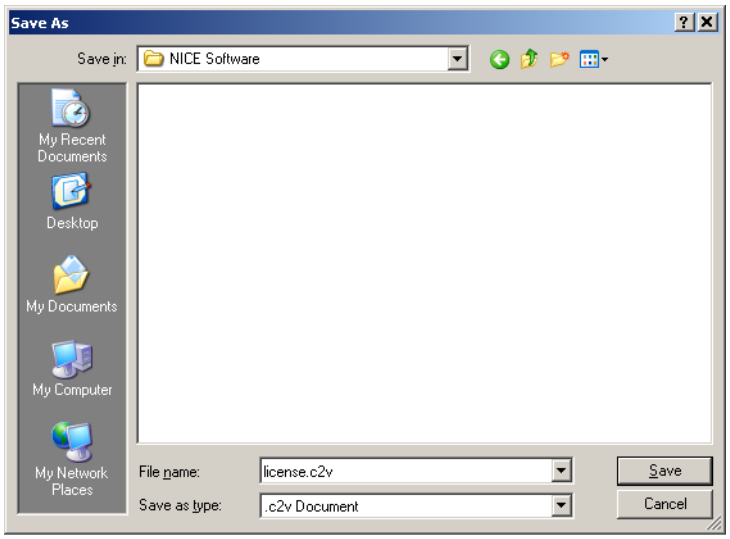
2. In the **Manual Activation / Update** area, click **Generate**.

The File Download window appears with the License Information File.



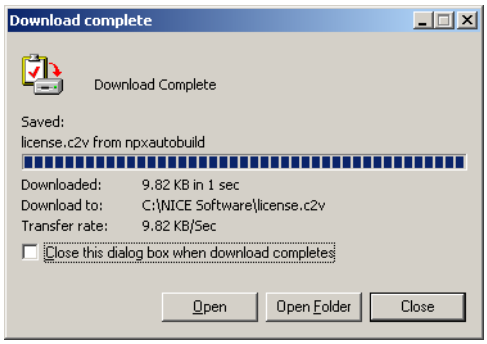
3. Click **Save** to save the License Information File.

   The Save As window appears.



4. Select a location for the License Information File (**license.c2v**). Then click **Save**. You will need this file to receive your License Activation File.

   The Download Complete window appears.

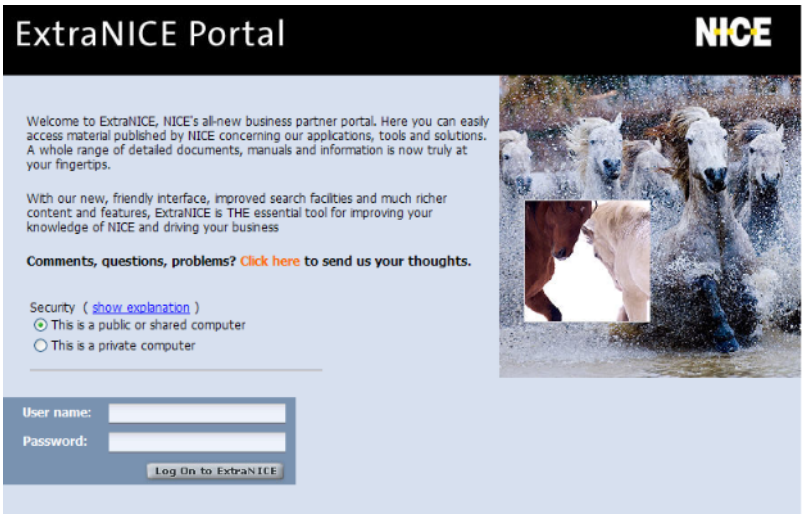


5. Click **Close**.

6. Transfer the **license.c2v** file to a machine with Internet access to NICE's **ExtraNICE** site.
7. On the machine with Internet access to the **ExtraNICE** do the following:
   a. Open an Internet Explorer window and enter the following URL:

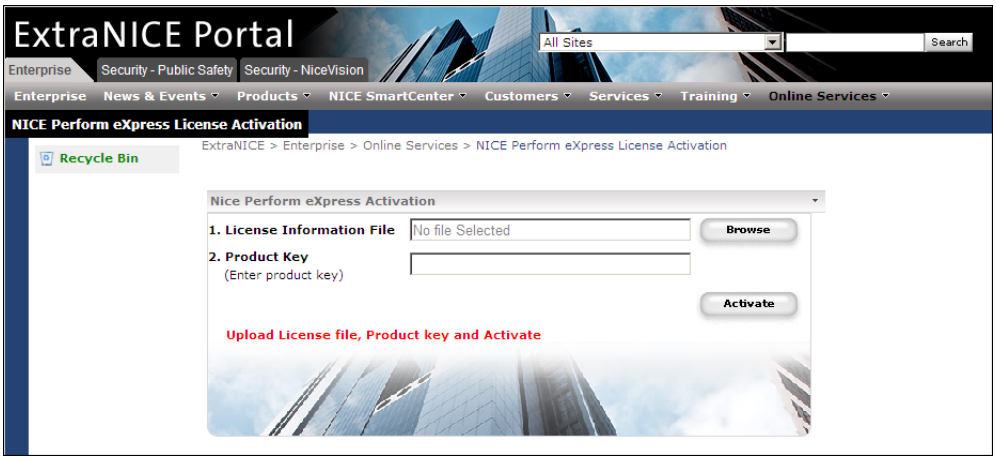
      http://www.extranice.com/EIS/OnlineServices/LicenseActivation/Pages/default.aspx

      If you have not previously logged in to ExtraNICE, the following window appears.



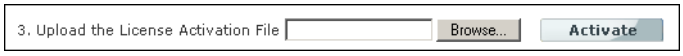
   b. Enter a valid ExtraNICE **Username** and **Password**. Then click **Log On to ExtraNICE**.

      The NICE Perform eXpress License Activation window appears.



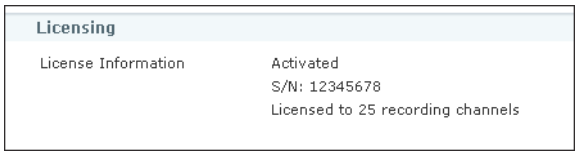
   c. Click **Browse** and select the License Information File (**license.c2v**) from Step 6.
   d. Enter a valid **Product Key**. Then click **Activate**.
   e. Download the corresponding License Activation File (**license.v2c**).
   f. Transfer the License Activation File (license.v2c) to the NICE Perform eXpress machine.

8. On the NICE Perform eXpress machine, click **Browse** and select the License Activation File (license.v2c).

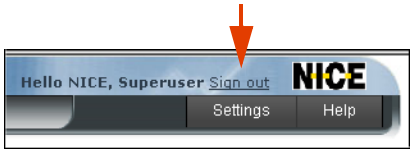


9. Click **Activate**.

   The license is updated.



10. Click **Sign out**. Then log in again and all the tabs will appear.



SQL Server 2008 Component Fails to Install

Symptom

- During NICE Perform eXpress installation, a **Setup Error** appears during the process for **Installing Microsoft SQL Server**.
- In the SQL installation log, located at **...\Program Files\Microsoft SQL Server\100\Setup Bootstrap\Log**, the following message appears:

  SQL Server installation media on a network share or in a custom folder can cause installation failure if the total length of the path exceeds 260 characters. To correct this issue, utilize Net Use functionality or shorten the path name to the SQL Server setup.exe file.

Cause

The reason that the SQL Server 2008 component fails to install can be one or both of the following:

- The path to the SQL Server installation folder exceeds the 260 character limit, which will prevent installation files from being copied. As a result, files are missing, and the SQL Server installation will fail. This occurs with nested folders and/or long file names.

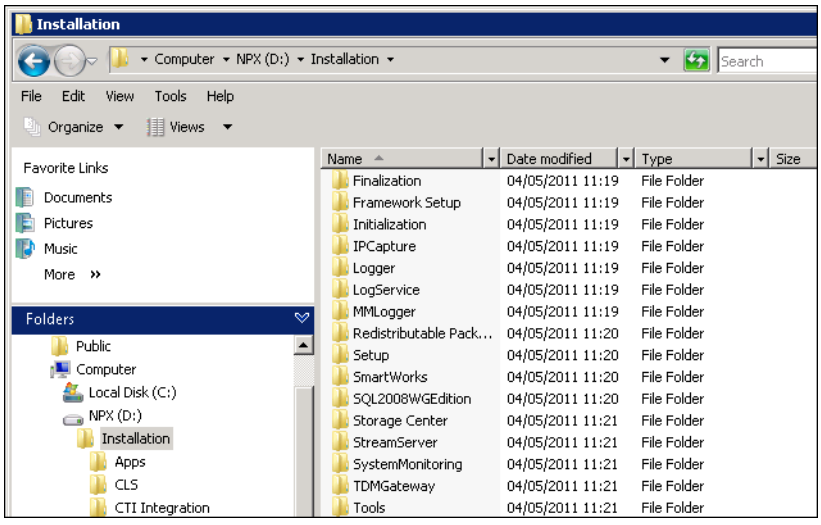
  Example: D:\809A1197-11 - NICE Perform eXpress version 3.0.10 - installation\809A1197-11 - NICE Perform eXpress version 3.0.10 - installation\installation
- The server needs to be restarted.

Solution

To resolve:

1. Copy the installation folder to the root of a drive, such as **D:** so that there are no nested folders.

Figure 2-23 Sample Installation Folder Path



TIP: After completing the installation, the installation folder just copied, *not the installation itself*, can be deleted from this location to free up space.

2. If the installation folder has a long name, rename the folder to short name, such as **Installation**.
3. Restart the server.
4. Start the installation again.

TDM System Not Recording

Symptom

NICE Perform eXpress is using a TDM environment, and the system is not recording.

Cause

When a LAN is connected to the NICE Perform eXpress, the Network Interface Card (NIC) may not be properly configured.

Solution

Verify that the NIC is properly configured.

NOTE: Errors will appear in the log, but the system will record.

Windows Media Server Failed Message

Symptom

In the **Server Manager > Streaming Media Services**, the following error appears:

The Windows Media server failed.

Error code: 0xc00d1583

Error text: The plug-in 'WMS Advanced FF/RW Format Media Parser' cannot be loaded on this version of Windows.

Cause

The NICE Perform eXpress machine does not have a sound card, or the sound card is disabled.

Solution

This error has no impact and can be ignored.

3

Using eXpress Assistant to Start Troubleshooting

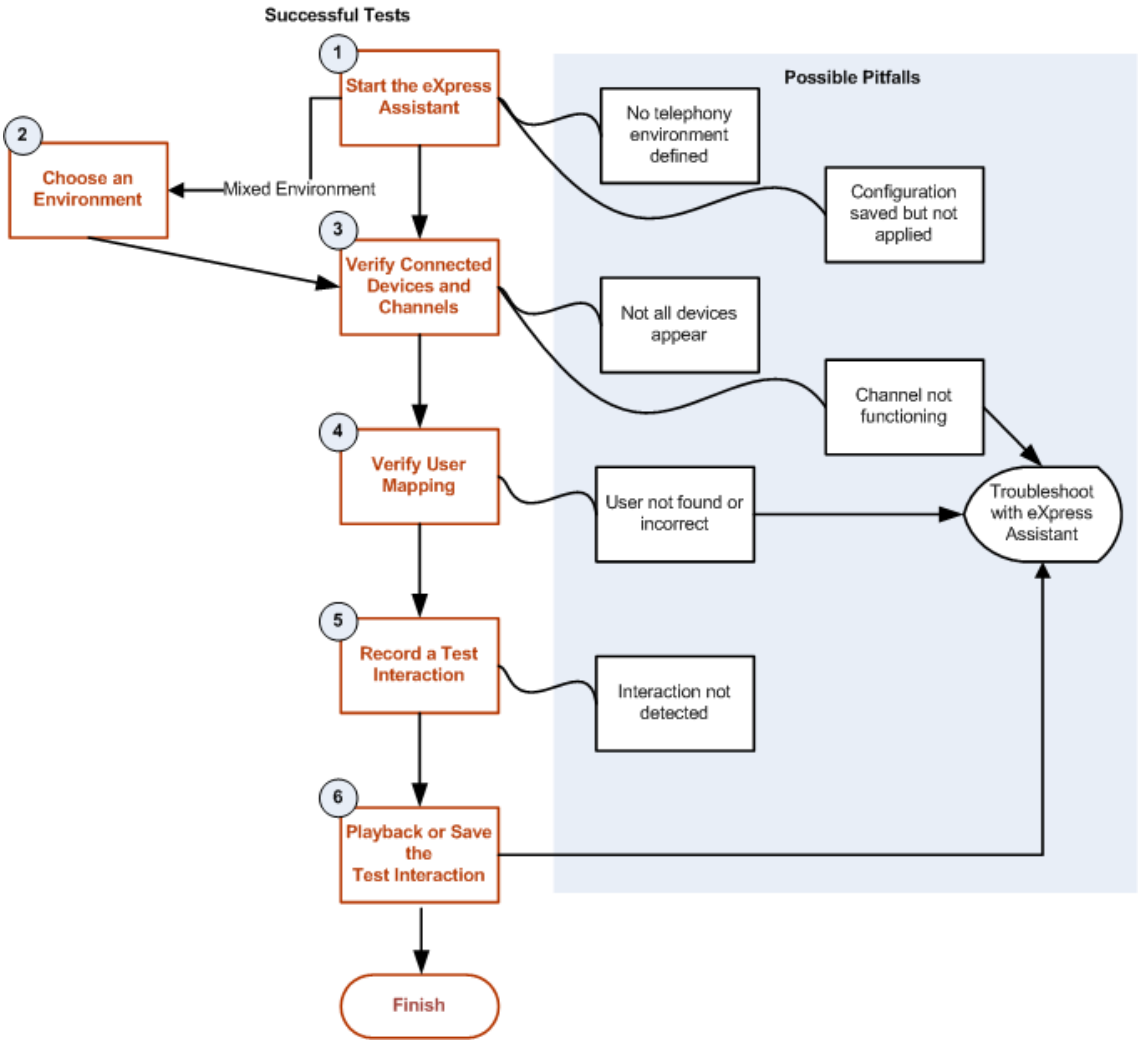
The **eXpress Assistant** tests the NICE Perform eXpress to ensure that the entire system is working. Run the eXpress Assistant to start troubleshooting. At the end of the process, the eXpress Assistant gives suggestions to solve issues discovered with the system. These issues are covered in this *Troubleshooting Guide*. See **Resolving Issues Found in eXpress Assistant** on **page 78**.

Contents

eXpress Assistant Workflow

Below is a flowchart for the eXpress Assistant. For a detailed procedure, see **Using the eXpress Assistant** on **page 67**.

Figure 3-1 eXpress Assistant Flowchart



Using the eXpress Assistant

The following procedure describes how to use the eXpress Assistant. Each step is immediately followed with Possible Pitfalls for that step. For a graphic flow, see **eXpress Assistant Workflow** on **page 66**.

The eXpress Assistant should be run after configuration is complete and users are defined. If users are not defined, the eXpress Assistant can still test recording on a channel.

Step 1: Starting the eXpress Assistant

What is verified in this step:

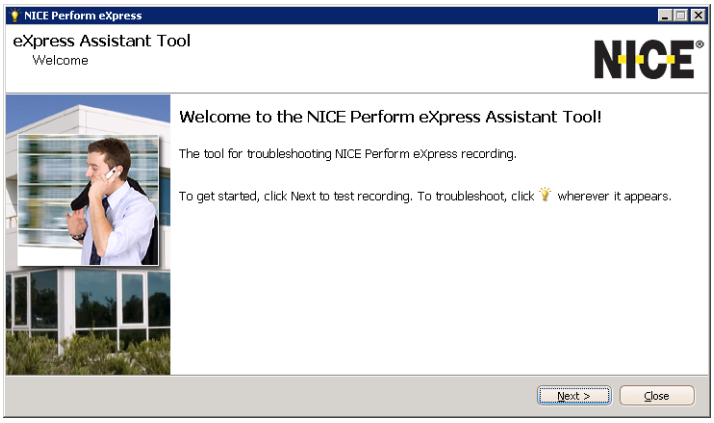
- *If a Telephony Environment has been defined*
- *That the latest configuration changes have been applied*

To start the eXpress Assistant:

1. On the NICE Perform eXpress server, select **Start > Programs > NICE Perform eXpress > Tools > eXpress Assistant**.

   The eXpress Assistant Tool opens.

   Figure 3-2 Welcome Window



2. In the Welcome window, click **Next**.

   In a Mixed Environment, the Choosing Environment window appears. Continue with **Step 2: (Mixed Environments only) Choosing an Environment** on **page 69**.

   In a Single Environment, the Choosing Device window appears. Continue with **Step 3: Verifying Connected Devices and Channels** on **page 70**.

Possible Pitfalls for Step 1

The following scenarios can occur as an outcome of Step 1.

- **Telephony Environment not defined**

  An error message appears.

  What to do:

  a. Close the message box.

  b. Close the eXpress Assistant.

  c. Open NICE Perform eXpress and click the **Configuration** tab.

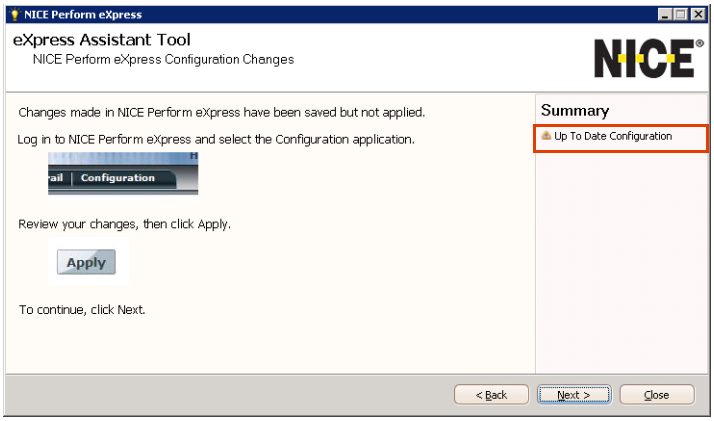
  d. Define your system (Telephony Environment, channels, users, etc.).

  e. Restart the eXpress Assistant.

- **Changes were saved, but not Applied**

  Changes made in **Configuration** were saved, but not applied.

  Figure 3-3 Configuration Changes Window



  What to do:

  a. Open NICE Perform eXpress and click the **Configuration** tab.

  b. Click **Apply**.

  c. In this window, click **Next**.

  In a Mixed Environment, the Choosing Environment window appears. Continue with **Step 2: (Mixed Environments only) Choosing an Environment** on **page 69**.

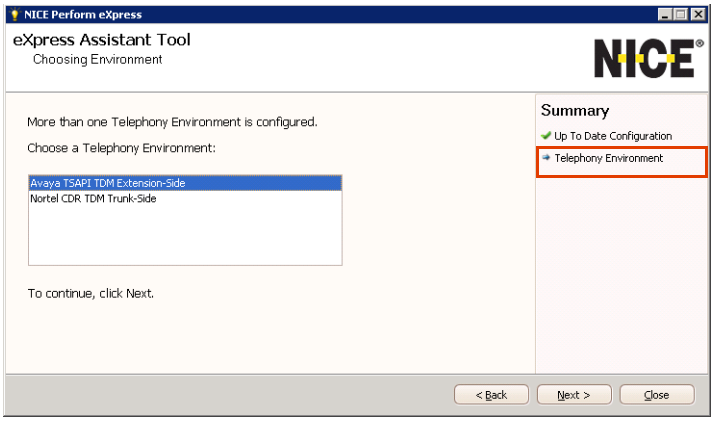
  In a Single Environment, the Choosing Device window appears. Continue with **Step 3: Verifying Connected Devices and Channels** on **page 70**.

Step 2: (Mixed Environments only) Choosing an Environment

This step must be preceded by **Step 1: Starting the eXpress Assistant** on **page 67**.

There is no verification in this step; In a Mixed Environment, select the Telephony Environment being tested.

Figure 3-4 Choosing Environment Window



How to choose a Telephony Environment:

1. Select a Telephony Environment.
2. Click **Next**.

   The Choosing Device window appears.
3. Continue with **Step 3: Verifying Connected Devices and Channels** on **page 70**.

Step 3: Verifying Connected Devices and Channels

This step must be preceded by one or both of the following:

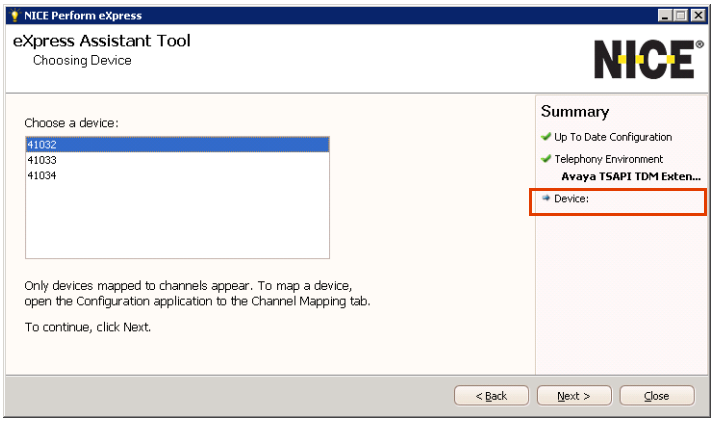
Step 1: Starting the eXpress Assistant on **page 67**

Step 2: (Mixed Environments only) Choosing an Environment on **page 69**

What is verified in this step:

- *That all devices are recognized for recording (visual verification by the tester)*
- *That the channel selected for this test is functioning properly*
- *It is possible to repeat this step as needed to test several channels*

Figure 3-5 Choosing Device Window



How to verify connected devices and channels:

1. Verify that all devices being recorded appear.

   In Extension and VoIP environments, only devices mapped to channels appear in the eXpress Assistant. In trunk environments, devices do not have to be mapped; therefore all monitored devices appear.

2. Select a device to use for the rest of this test.
3. Click **Next**.

   The User Mapping window appears.

4. Continue with **Step 4: Verifying User Mapping** on **page 72**.

Possible Pitfalls for Step 3

The following scenarios can occur as an outcome of Step 3.

- **Not all devices appear in the list**

  Note that in Extension and VoIP environments, only devices mapped to channels appear in the eXpress Assistant. In trunk environments, devices do not have to be mapped; therefore all monitored devices appear.

  What to do:

  a. Open NICE Perform eXpress and click the **Configuration** tab.

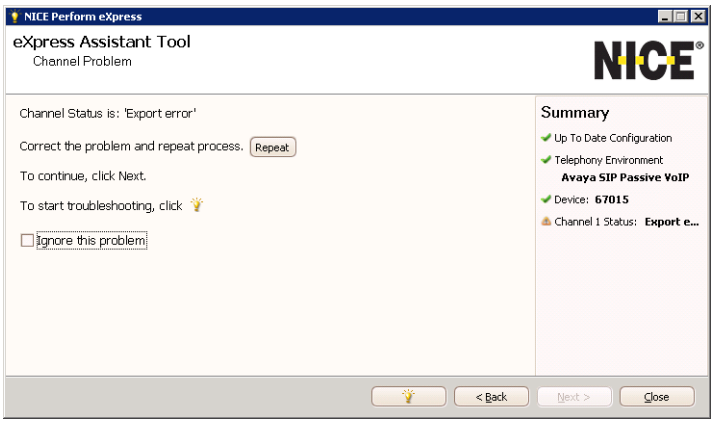
  b. In the Channel Mapping tab, add the devices to the list of Monitored Devices.

  c. If necessary, map the devices to Channels.

- **The selected device is mapped to a channel which is not functioning properly**

  The Channel Problem window appears.

  Figure 3-6 Channel Problem Window



  Do one of the following:

  - Correct the problem with the channel. Then click **Repeat**.
  - Select a different device: Click **Back**.
  - Troubleshoot: Click **Troubleshooting**  . For a troubleshooting overview, see **Navigating Troubleshooting Windows** on **page 76**.
  - Ignore the problem: Select **Ignore this Problem**. Then click **Next**. Continue with **Step 4: Verifying User Mapping** on **page 72**.

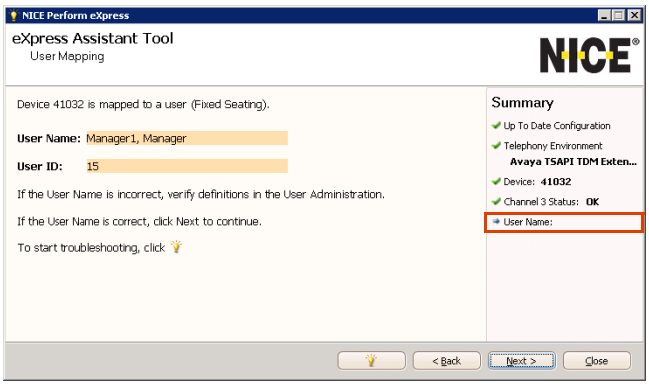
Step 4: Verifying User Mapping

This step must be preceded by **Step 3: Verifying Connected Devices and Channels** on **page 70**.

What is verified in this step:

- *That the correct user is mapped to the selected device*

Figure 3-7 User Mapping Window



How to verify user mapping:

1. The **User Name** and **User ID** of the User mapped to the selected device are displayed. Verify that the expected user appears. Use the following guidelines:
   - **Fixed seating** indicates that each agent is directly associated with an extension, in a one-to-one relationship.
   - **Free seating** indicates that seating is dynamic. The user in this window is the agent currently logged in to the extension.
   - **N/A** indicates that no agent is currently connected to (fixed seating), or logged in to (free seating) the extension. You can still test the channel for recording.
2. Click **Next**.

   The Call Recording window appears.
3. Continue with **Step 5: Recording a Test Interaction** on **page 73**

Possible Pitfalls for Step 4

The following scenario can occur as an outcome of Step 4.

- **No User or the User is incorrect**

  What to do:

  a. Open NICE Perform eXpress and verify/correct one of the following:
     - In the **User Administration**, correct the User definition.
     - In the **Configuration**, change the extension mapped to the channel.

b. Troubleshoot: Click **Troubleshooting** . For a troubleshooting overview, see **Navigating Troubleshooting Windows** on **page 76**.

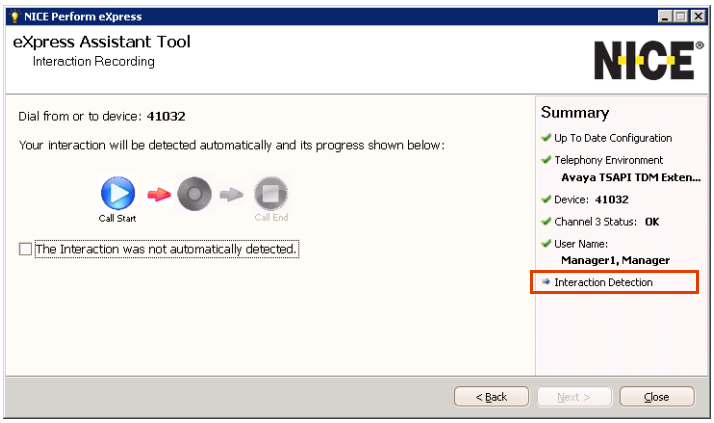
Step 5: Recording a Test Interaction

This step must be preceded by **Step 4: Verifying User Mapping** on **page 72**.

What is verified in this step:

- *Incoming and outgoing interactions can be recorded on the selected device*

Figure 3-8 Interaction Recording Window



How to record a test interaction:

1. To test **incoming** interactions: From a different phone, dial the indicated extension.

   -or-

   To test **outgoing** interactions: From the indicated extension, dial to a different phone.

   The progress of the interaction is shown.

2. Click **Next**.

   The Searching Call window appears.

3. Continue with **Step 6: Playing Back or Saving the Test Interaction** on **page 75**

Possible Pitfalls for Step 5

The following scenario can occur as an outcome of Step 5.

- **Progress does not advance**

  This indicates that the interaction was not automatically detected. You can search this or other devices for an interaction to test playback.

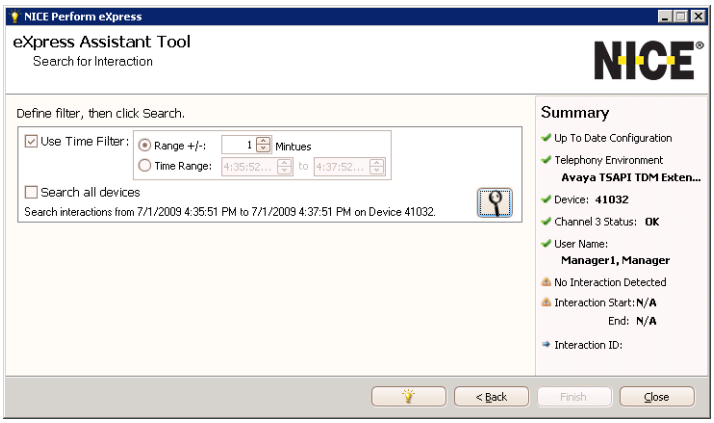
  What to do:

  a. Select **Interaction was not detected**.

  b. Click **Next**.

The Searching Call window appear.

Figure 3-9 Search for Interaction Window



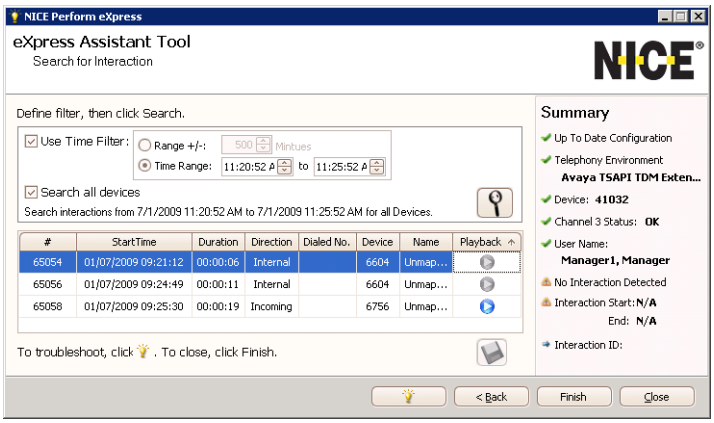
c. Define a search filter.

d. The default is to search only the selected device. To search all devices, mark **Search all Devices**.

e. Click **Search** .

A list of interactions appears.

Figure 3-10 Search for Interaction Window



f. Continue with **Step 6: Playing Back or Saving the Test Interaction** on **page 75**.

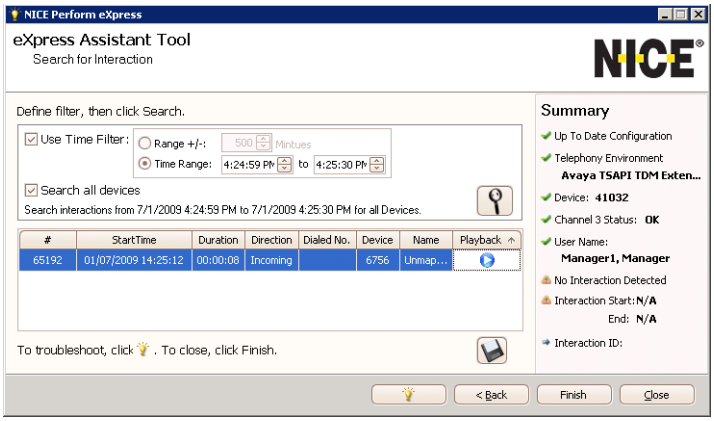
Step 6: Playing Back or Saving the Test Interaction

This step must be preceded by **Step 5: Recording a Test Interaction** on **page 73**.

What is verified in this step:

- *Listen to the interaction from the previous step, or save it to another location. You need a sound card to hear the interaction*

Figure 3-11 Search for Interaction Window



How to play back or save an interaction:

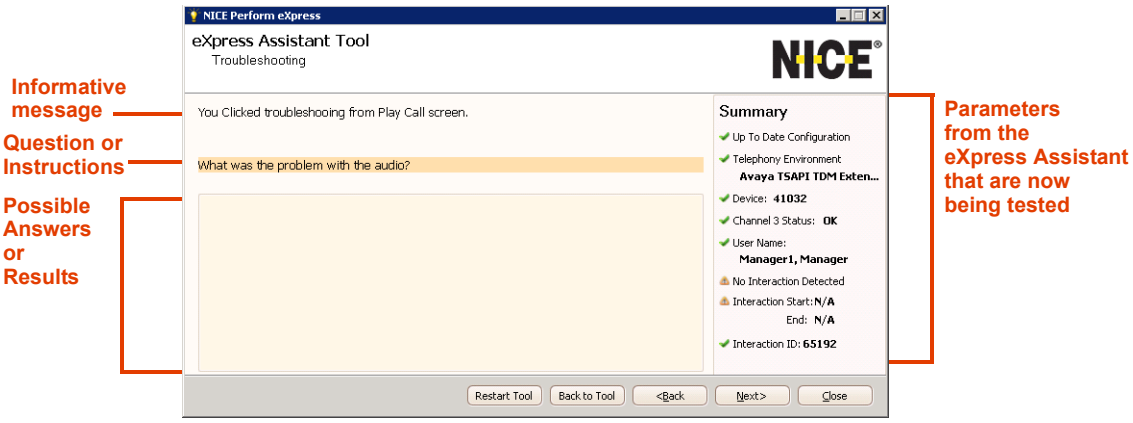
1. To hear the interaction, select the interaction and click **Play**. A sound card must be installed on your machine. **A playback window does not open.**
2. To save the interaction, click **Save**.
3. To search for and play back or save other interactions, see **Possible Pitfalls for Step 5** on **page 73**.
4. Click **Finish**.

   Your NICE Perform eXpress has tested successfully.

Navigating Troubleshooting Windows

Troubleshooting is initiated from within the eXpress Assistant. There are two basic troubleshooting windows. The contents of each window is dynamic and changes according to the current state and the choices you make in the Troubleshooting process. A sample of each window is shown below.

Figure 3-12 Troubleshooting Window



The following options are available from all steps:

Restart Tool - return to the beginning of the eXpress Assistant.

Back to Tool - return to window from where you initiated troubleshooting.

Keyboard Shortcuts:

Backspace = Back to previous window

Enter = Next

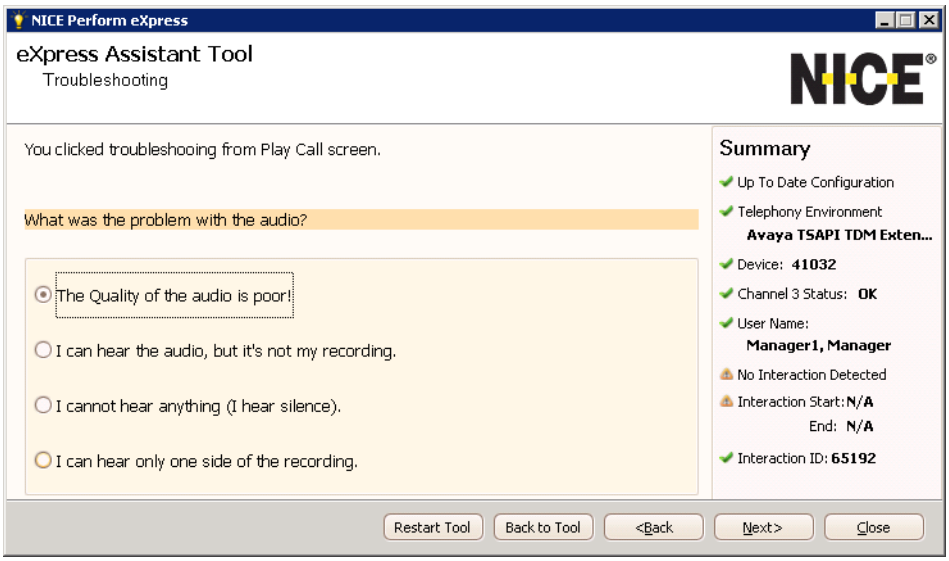
Up arrow = Select the previous option

Down arrow = Select the next option

Troubleshooting Workflow

The Troubleshooting window presents a question to help the eXpress Assistant pinpoint the problem. Select one of the possible answers. Then click Next to advance to the next window.

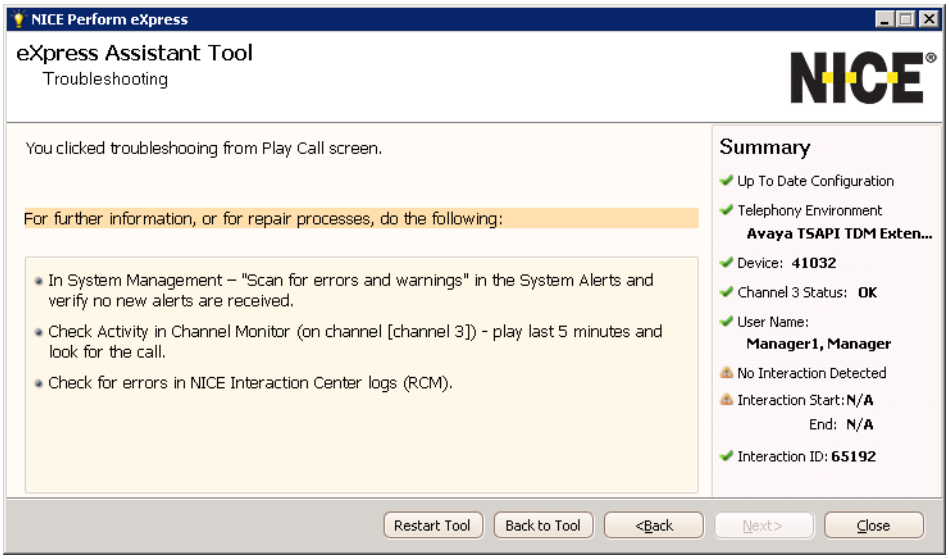
Figure 3-13 Troubleshooting Window



Troubleshooting Solutions

The Troubleshooting window presents a list of recommended actions to correct the problem determined by the Troubleshooting Workflow. Use this list as a guideline in resolving open issues.

Figure 3-14 Troubleshooting Window



Resolving Issues Found in eXpress Assistant

Table 3-1 provides an index of the suggestions that the eXpress Assistant offers at the end of the troubleshooting process. These suggestions are listed alphabetically and include a reference to more complete documentation for solving the issue.

Table 3-1: Resolving Issues in eXpress Assistant

Suggestion in eXpress Assistant	How to...
Channel Status was not fully identified by the system. See the *Troubleshooting Guide*.	See **Channel Not Recording** on **page 119** for a list of channel statuses.
Check for errors in NICE TDM Gateway service logs.	From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Services Configuration Manager**. Right-click the NICE TDM Gateway log, and select **Show Log**. See **Viewing the Service Logs** on **page 152**.
Check for errors in the NICE Interaction Center logs (RCM).	From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Services Configuration Manager**. Right-click the RCM log, and select **Show Log**. See **Viewing the Service Logs** on **page 152**.
Check for exceptions regarding the specific interaction.	See **Checking Exceptions** on **page 121**.
Check for monitor failures in the integration logs.	From the Log Viewer, open the CTI log, and search for the string “monitor failure”. See **Finding Text Strings in Open Logs** on **page 162**.
Check for network errors or high packet loss.	Use a third-party application, such as Wireshark (http://www.wireshark.org/).
Check that the line is connected properly.	Verify that the lines that connect the NICE Perform eXpress machine to the PABX are connected properly. See **Verifying the PABX Configuration and Physical Line Connectivity** on **page 118**.
Check the channel settings in the Channel Monitor application.	Adjust the **Energy Threshold**, **Automatic Gain Control**, and **Manual Gain Control** settings in the Channel Monitoring application. See the *Administrator’s Guide* for more information.
Check the integration logs for errors.	
Check the limitations for the telephony environment at your site in the Installation Guide.	See the *Installation Guide* for your telephony environment.

Table 3-1: Resolving Issues in eXpress Assistant (Continued)

Suggestion in eXpress Assistant	How to...
Check the NIC.	If a NIC is not connected to the network, it must be disabled. Verify that all installed NICs are configured to **Auto Negotiation**. **Auto Negotiation** ensures that the maximum speed will be used.
Check the PABX configuration, physical line connectivity, regularity, and the distance from the Recording Unit.	• **PABX configuration and physical line Connectivity**: See the documentation from your PABX vendor and **Verifying the PABX Configuration and Physical Line Connectivity** on **page 118**. • **Regularity**: See **Verifying the Distance from the Recording Unit** on **page 118**. • **Distance from Recording Unit**: Each PABX has different requirements for the distance between the Recording Unit and the PABX. Verify the requirements for your site in the *Installation Guides*.
Check the wiring of the device.	Contact the IT administrator, and ensure that the wiring is correct for the PABX.
Collect all log files and contact NICE support.	From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Log Collector**. After the Log Collector runs, you are prompted to save the ZIP file. Send this ZIP file to NICE support. See **Collecting Logs** on **page 158**.
Device wiring or mapping might be incorrect. Verify the configuration and wiring.	• Contact the IT administrator, and ensure that the wiring is correct for the PABX. • In the Configuration application, on the **Channel Mapping** tab, verify that the channel mapping is correct for your site.
Go to the Channel Monitor application, and look for activity on other channels. Verify that the interaction you need was not recorded on a different channel. This can happen due to a channel mapping problem.	See the *Administrator's Guide* for more information regarding monitoring channels.
Go to the Channel Monitor application, and play the last 5 minutes on channel <Channel ID>, and search for the interaction you need. Try to make another interaction and check if there's activity on the channel (Channel monitoring has a delay of 10-20 seconds).	See the *Administrator's Guide* for more information regarding monitoring channels.

Table 3-1: Resolving Issues in eXpress Assistant (Continued)

Suggestion in eXpress Assistant	How to...
If this is a static IP environment, verify that the IP address is defined correctly in the Configuration application, on the Channel Mapping tab.	You need the IP address for your site.
If you recently changed the user mapping, it might take up to 10 minutes for NICE Perform eXpress to be updated with the new definitions. Try again later.	N/A
In the Channel Monitor application, check activity (on channel [Channel Name]) by playing the last 5 minutes and looking for the interaction.	See the *Administrator's Guide*.
In the Channel Monitor application, check the channel settings.	See the *Administrator's Guide*.
In the Configuration application, go to the CTI and Recording tab and verify that Source-Side Summation is configured correctly.	You need the Source-Side Summation setting for your site.
In the Configuration application, go to the CTI and Recording tab, and verify that the Recording Settings match those in the installation guide for your telephony environment.	You need the Recording Settings that are correct for your site.
In the Configuration application, go to the CTI and Recording tab, and verify the frame format configuration.	You need the Frame Format that is correct for your site.
In the Configuration application, go to the CTI and Recording tab, and verify the trunk configuration.	You need the trunk configuration that is correct for your site. See the *Installation Guide* for your telephony environment.
In the System Management application, go to the System Alerts area, and click Scan for errors and warnings. Verify that no new alerts are received.	See **Understanding SNMP Messages and Settings** on **page 179**.
No user is mapped to the device <Device ID>, or the agent is not logged on.	Go to the User Administration application, and edit the user definition to include the correct extension.

Table 3-1: Resolving Issues in eXpress Assistant (Continued)

Suggestion in eXpress Assistant	How to...
Restart the NICE Interactions Center service and try again.	From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Services Configuration Manager**. Select the NICE Interactions Center service, and click the **Start** button. See **Starting and Stopping Nice Services** on **page 151**.
Restart the NICE Perform eXpress system to refresh the channel.	Restart the NICE Perform eXpress machine. Verify that NICE services are up and running.
The interaction was mapped to the incorrect user.	Go to the User Administration application, and edit the user definition to include the correct extension or Agent ID.
The interaction was not mapped to a user.	Go to the User Administration application, and edit the user definition to include the correct extension or Agent ID.
Trunk information is not mapped to a channel, and therefore it is not recorded.	See the *Installation Guide* for your telephony environment.
Try to play the interaction from the Interaction application. If the Player displays a white line, which indicates silence, there might be a line problem. Check channel status.	See the *User's Guide* for more information regarding playback.
Verify that channels are mapped correctly.	You need the correct channel mapping for your site. In the Configuration application, go to the **Channel Mapping** tab and verify the channel mapping.
Verify that device <Device ID> is configured for monitoring at your CTI provider.	Contact the IT administrator and ask him/her whether the CTI is configured for monitoring devices.
Verify the trunk configuration.	See the *Installation Guide* for your telephony environment.

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4

Managing Interface Boards

The Board Numbering Tool is used for defining the Board ID of the DP6409-eh, PCM6409-eh, or DT6409-eh PCIe interface board.

The tool can also be used for locating and viewing details for all NICE Perform eXpress 3.0 PCIe interface boards, whether for extension-side, trunk-side, or dedicated trunk environments. This tool cannot be used for boards from NICE Perform eXpress 1.0.

Contents

Overview

When you access the Board Numbering Tool, all boards installed in the NICE Perform eXpress machine are displayed in the main window. The board details include:

- **Board Type** - Indicates the type of board (view only)
- **Serial Number** - Displays the serial number of the board (view only)
- **Bus and Device** - Displays the bus and device number (view only)
- **Ports** - Displays the number of channels that the board can support (view only)
- **Board ID** - The ID number of the board. See **Defining the Board ID** on **page 85** and **Determining the Board ID** on **page 87** for further information.

The Board Numbering Tool is used for:

- Defining the logical position (Board ID) of DP6409-eh, PCM6409-eh, and DT6409-eh PCIe interface boards. See **Defining the Board ID** on **page 85**.

IMPORTANT

The PCM6409-eh, DP6409-eh and DT6409-eh boards may be received with or without a thumb wheel switch. If they are received with the thumb wheel switch, the logical position (Board ID) of the boards should still be defined using the Board Numbering Tool.

- Identifying the logical position (Board ID) of all NICE Perform eXpress 2.1 PCIe interface boards. See **Determining the Board ID** on **page 87**.
- Identifying the physical positions (bus and device) of the boards (for all board types). See **Identifying the Physical Location of a Board** on **page 88**.
- Providing details for each board. For example, board type, number of ports, serial number.

Defining the Board ID

You must run the Board Numbering Tool and define the Board ID position for each board:

- The first time you start up the NICE Perform eXpress machine, if your site is using a DP6409-eh, PCM6409-eh, or DT6409-eh PCIe interface board.
- If you are adding or removing a DP6409-eh, PCM6409-eh, or DT6409-eh PCIe interface board to an existing NICE Perform eXpress 2.1 machine.

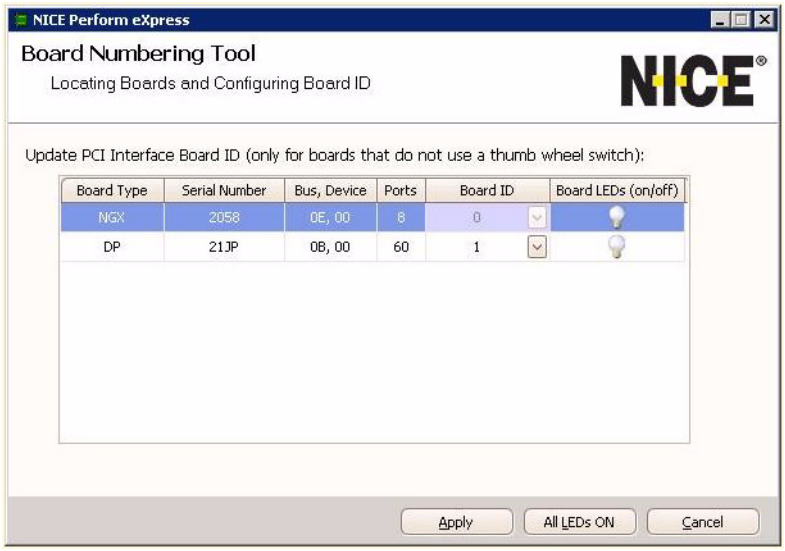
NOTE:
Although the PCIe interface boards that use the Thumb Wheel Switch are displayed, they are marked as disabled, and their Board ID cannot be changed. If there is an error in the Board ID of one or more of these boards, you must change the position by using the Thumb Wheel Switch located on the board itself.

To define the Board ID position:

1. From the **Start** menu, select **NICE Perform eXpress > Tools > Board Numbering**.

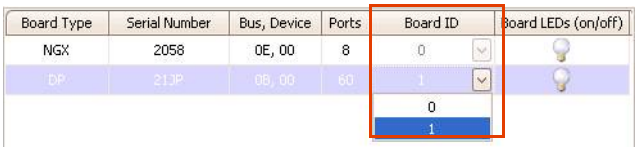
   The Board Numbering Tool window appears.

Figure 4-1 Board Numbering Tool Window



2. Select the board that you want to define. Then from the **Board ID** drop-down list, select a position for the board.

Figure 4-2 Board ID Drop-Down List



IMPORTANT

The board numbering must be continuous (starting from zero) and without duplication.

In a mixed environment the Board IDs for both environments are numbered consecutively across both environments and without duplication.

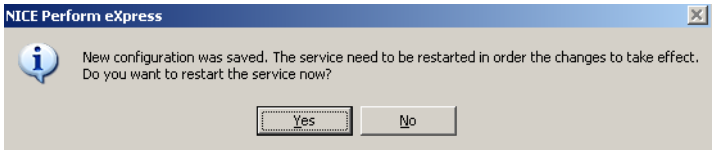
Example: If you have 2 boards, their Board IDs must be 0 and 1. They cannot be numbered 0 and 4, or 1 and 2.

If you have two environments with one board each, the Board ID for one environment is 0 and for the other environment it is 1.

3. Repeat step 2 for each board that you want to define.
4. Click **Apply**.

   The Restart Service window appears.

Figure 4-3 Restart Window



5. Click **Yes**, to restart the TDM Gateway service.

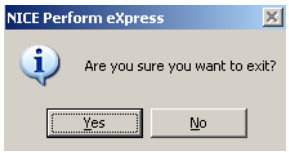
IMPORTANT

- When installing NICE Perform eXpress 2.1 for the first time, you must restart the TDM Gateway service before you can proceed to configure NICE Perform eXpress.
- For systems with existing NICE Perform eXpress 2.1 boards, if you do not restart the TDM Gateway service, the system configures according to the existing Board ID definitions.

6. Click **Close**.

   The Exit Confirmation window appears.

Figure 4-4 Exit Confirmation Window



7. Click **Yes**.

Determining the Board ID

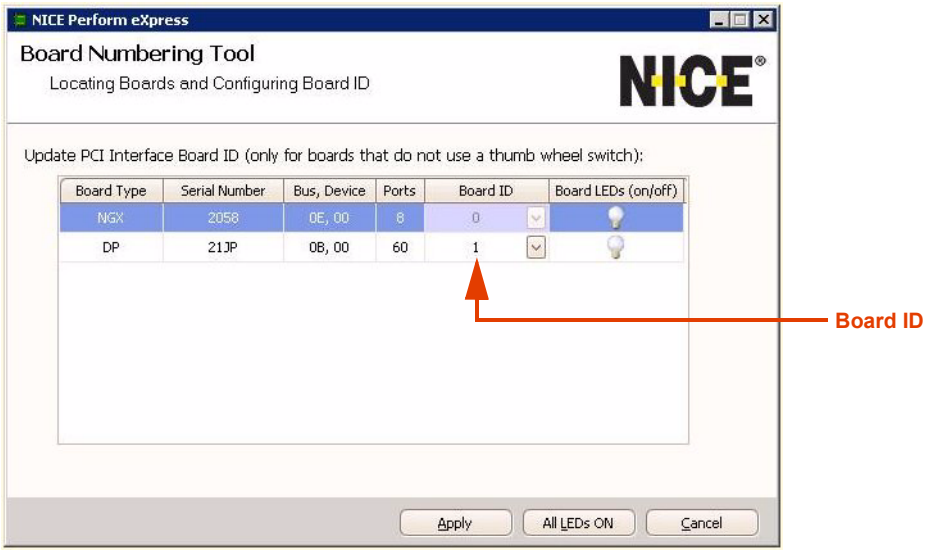
When you access the Board Numbering Tool, all boards installed in the NICE Perform eXpress machine are displayed in the main window.

To determine the logical board position (Board ID):

- From the **Start** menu, select **NICE Perform eXpress > Tools > Board Numbering**.

  The Board Numbering Tool window appears.

Figure 4-5 Board Numbering Tool Window



The Board ID is the value that appears in the **Board ID** column.

If the Board does not have a value for **Board ID**, see **Defining the Board ID** on **page 85**.

Identifying the Physical Location of a Board

You can use the Board Numbering Tool to assist in identifying the physical location of boards in the NICE Perform eXpress machine. Each board is inserted into a PCIe slot. Use this procedure if you need to identify the bus and device location, or to easily identify the board(s).

WARNING

In order to view the PCIe slot locations, the cover of the NICE Perform eXpress machine must be removed.

This procedure must only be performed by authorized personnel, following safety precautions.

To identify NICE Perform eXpress PCIe interface boards:

1. From the **Start** menu, select **NICE Perform eXpress > Tools > Board Numbering**.

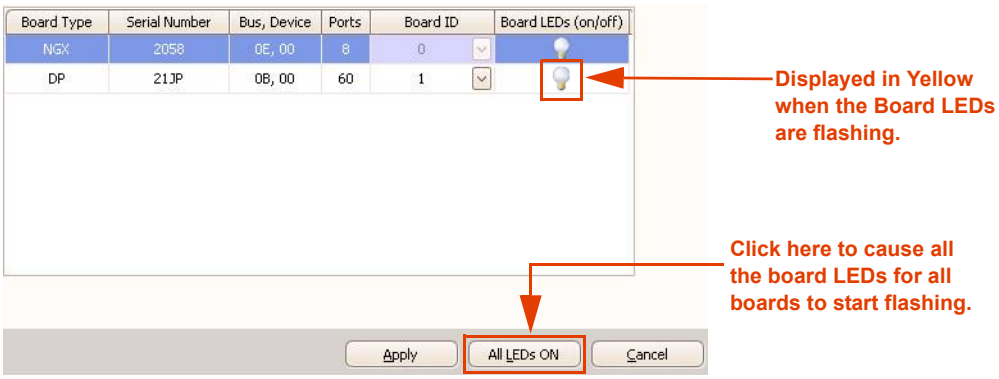
   The Board Numbering Tool window appears.

   Figure 4-6 Board Numbering Tool Window

2. Select the board that you want to physically identify, and click  .

   The board LED on the selected board starts to blink. In the Board Numbering Tool window, under the **Board LEDs (On/Off)** column, the light bulb is displayed in yellow. See Figure 4-7.

Figure 4-7 Board LEDs (On/Off)



-or-

3. Click **All LEDs ON**.

   The LEDs on all the boards start to blink, and on the Board Numbering Tool window, under the **Board LEDs (On/Off)** column, all the lightbulbs are displayed in yellow.

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5

Testing PCIe Interface Boards

Contents

System Specifications and Requirements

This section describes the systems specifications and requirements.

- The following boards, in both PCI and PCI-e formats, are supported:
  - **NGX**: 2400, 1600, 800
  - **LD**: 2409, 1609, 809
  - **DT**: 6409, 3209
  - **DP**: 6409, 3209
  - **PCM**: 6409, 3209

NOTE:
DP, DT, and PCM boards with rotary switches are not supported.

- By default, SmartWORKS 5.3 is installed during the NICE Perform eXpress installation. Verify that it is installed on the NICE Perform eXpress machine. SmartWORKS 5.3 is backwards compatible with SmartWORKS 5.2.

Service Request Requirements

When you send a Service Request to NICE, you must include the following information:

- **NICE part number**: NICE catalog number for the board.
- **Manufacturer part number**: AudioCodes catalog number for the board.
- **Serial number**: Identifying number for the board.
- **Diagnostic report**: Log file that is generated by the Board Diagnostic Tool. **Note**: If the system cannot boot, you cannot generate a report.
- **Problem/failure details**: Specific problem or failure of the boards. *Example*: Channels not functioning.

Using the Board Diagnostic Tool

The Board Diagnostic Tool enables testing the functionality for PCIe Interface boards. By means of the tool, you can:

- Test one or more PCIe Interface boards in a chassis.
- Detect PCIe Interface boards.
- Generate a log file.

You use these functions to find out information regarding faulty boards. When a board is faulty, you open a Service Request with your local support representative. See **Service Request Requirements** on **page 92**.

When you suspect that a board is faulty, even though it has passed the tests in the Board Diagnostic Tool, you need to further investigate the problem before sending the board back to NICE. See **Do You Suspect a False PASSED Test Result?** on **page 97**.

Example Workflow

An example workflow for using the Board Diagnostic Tool is below:

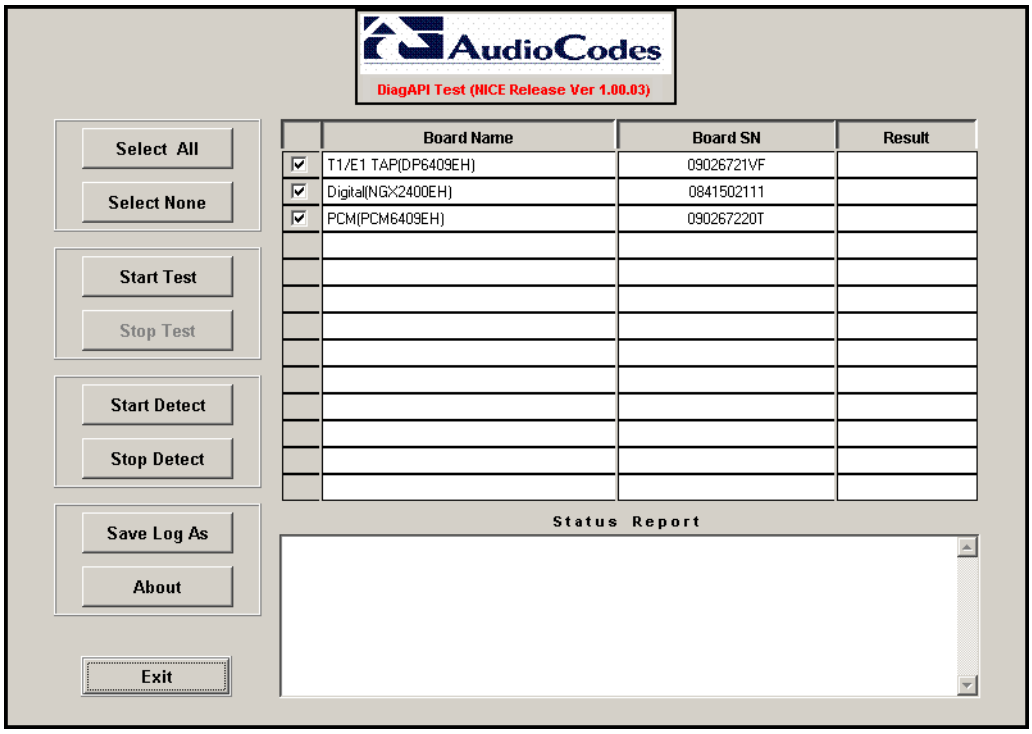
You test several boards, and the **Test Status** of one board is **Failed**. You generate a log file and then remove the cover of the NICE Perform eXpress machine. You use the detect functionality of the tool to pinpoint the board whose LED is not blinking. You shut down the system, and then remove the board whose LED was not blinking. You verify that the serial number on the board matches the serial number of the failed board in the log file.

To use the Board Diagnostic Tool:

1. Close all applications.
2. Stop the **Nice TDM Gateway** service. For more information, see **Starting and Stopping Nice Services** on **page 117**.
3. From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Board Diagnostic Tool**.

   The Board Diagnostic Tool appears.

Figure 5-1 Board Diagnostic Tool



4. *To test the boards*, complete the following:

   a. Select the boards to test.

   To select a single board, select the checkbox next to the board name.

   To select all the boards, click **Select All**.

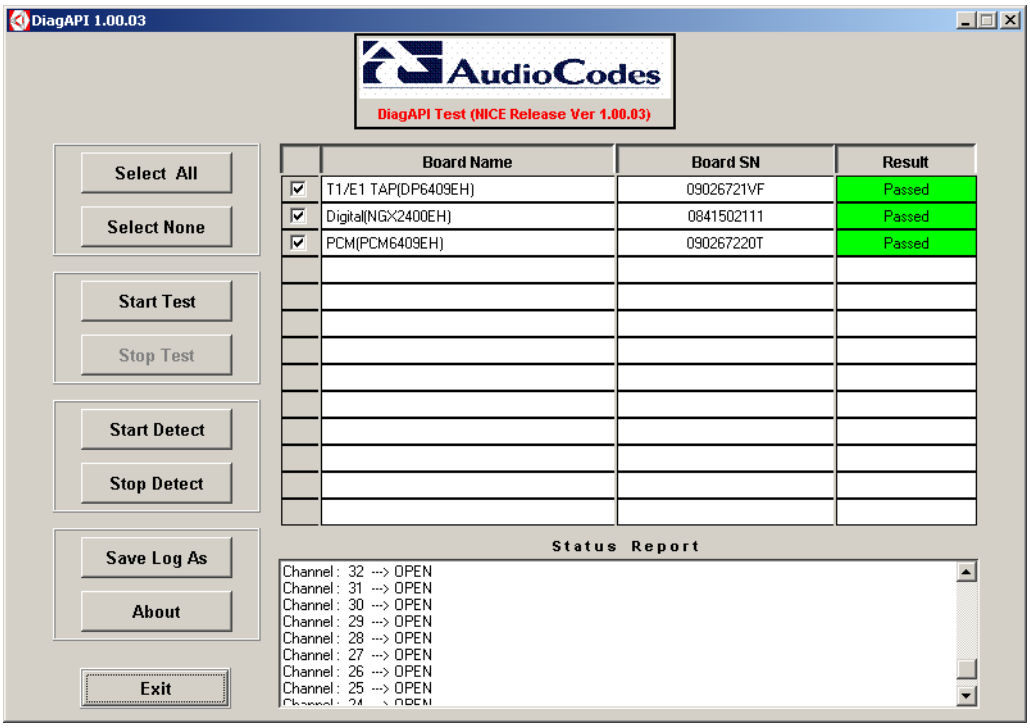
   To deselect all the boards, click **Select None**.

   b. Click **Start Test**.

   Note: The test may take several minutes. To stop the test manually, click **Stop Test**.

   Test results appear, indicating whether or not the board **Passed** or **Failed**.

Figure 5-2 Board Diagnostic Tool Test Results



5. *To detect the boards*, complete the following:

   a. Select the boards to detect.

      To select a single board, select the checkbox next to the board name.

      To select all the boards, click **Select All**.

      To deselect all the boards, click **Select None**.

   b. Click **Start Detect**.

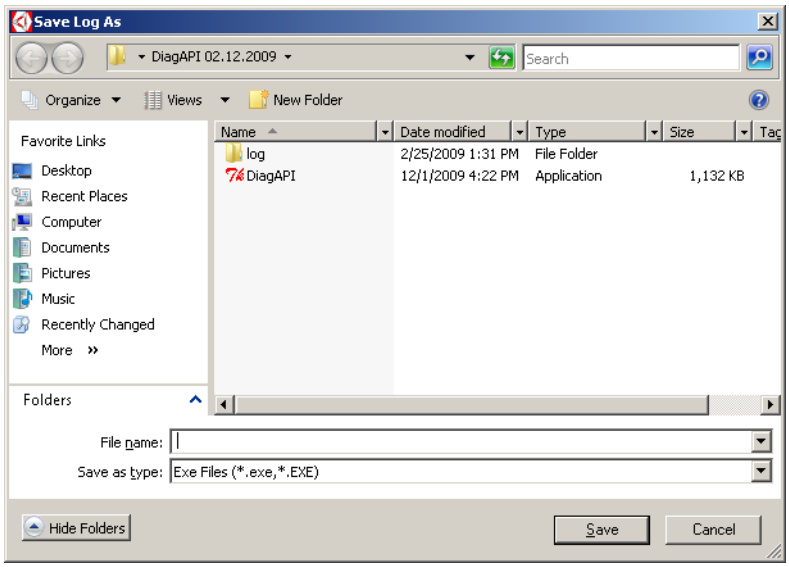
      The CR17 LED for each of the selected boards blinks.

      Note: The CR17 LED is visible only after opening the chassis.

6. *To generate a log file*, click **Save Log File**.

   The Save Log As window appears.

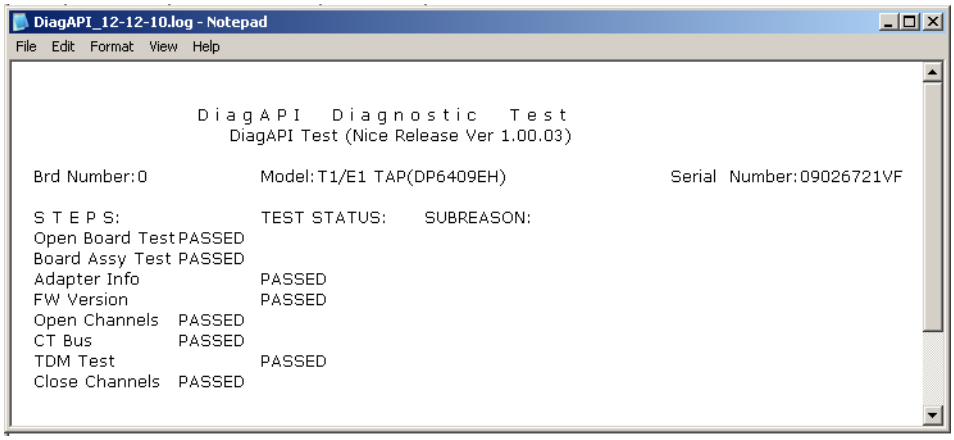
Figure 5-3 Save Log As Window



7. In the **File name** field, enter a name for the log file, and click **Save**.

   A text file of the data in the **Status Report** area is saved.

Figure 5-4 Log File



8. Click **Exit** to stop the Board Diagnostic Tool.
9. Start the **Nice TDM Gateway** service. For more information, see **Starting and Stopping Nice Services** on **page 117**.
10. *If the board is faulty*, open a Service Request with your local support representative. See **Service Request Requirements** on **page 92**.

Common Scenarios

Do You Suspect a False PASSED Test Result?

This section describes how to diagnose a faulty board that has passed the Board Diagnostic Tool. ***Before sending a PASSED board back to NICE, you must complete this diagnostic workflow***.

Diagnostic Workflow

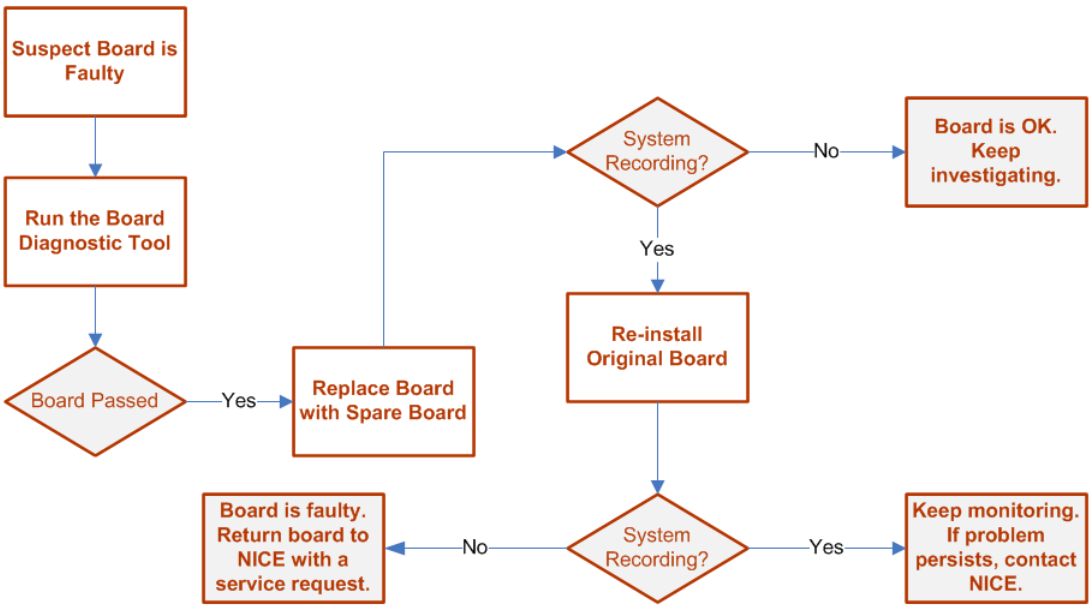
The diagnostic workflow for testing a board you suspect to be faulty is below:

1. Stop the TDM Gateway Service. See **Starting and Stopping Nice Services** on **page 117**.
2. Test the suspected board with the Board Diagnostic Tool.
3. (*Spare board available*) If the Test Status of the board is PASSED, replace this board with a spare board, if you have one.
4. If the system is now recording, ***re-install the original board***. This step is necessary to confirm that the PASSED board is indeed faulty.

   If the system stops recording, the board is faulty. Send the board back to NICE with a Service Request. See **Service Request Requirements** on **page 92**.
5. Start the TDM Gateway Service. See **Starting and Stopping Nice Services** on **page 117**.

Figure 5-5 summarizes this workflow:

Figure 5-5 Diagnostic Workflow



System Cannot Boot

Sometimes, when a board is faulty, the system cannot boot. In this case, ***before sending the board back to NICE***, complete the troubleshooting procedure in this section. You need a spare board to complete this procedure.

To troubleshoot:

1. Install a spare board.

   One of the following occurs:

   - The system starts as expected. Proceed to Step 2.
   - The system still does not boot. The problem is not the board. Keep investigating.

2. Install the suspected board a second time.
3. *If the system still does not boot*, send the board back to NICE with a Service Request. See **Service Request Requirements** on **page 92**.

6

Troubleshooting Licenses

Licensing issues have three main sources:

- **License Expired**
- **Channels Allocated Incorrectly**
- **Partitions Reformatted on NICE Perform eXpress Machine**

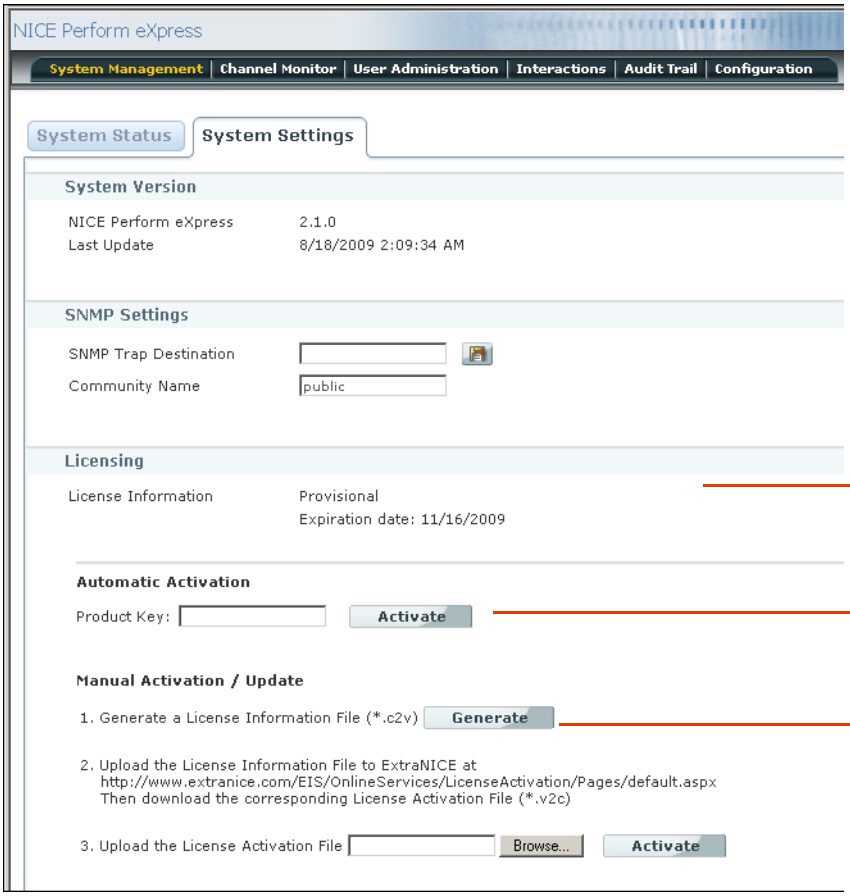
To resolve these issues, it is necessary to contact your local support representative.

Contents

Licensing Overview

In the System Management application, the **Licensing** area in the **System Settings** tab displays the state of the license, the serial number of the NICE Perform eXpress, and the number of licensed channels. When the NICE Perform eXpress machine has connectivity to ExtraNICE, the **Automatic Activation** area enables activating a new license by means of the Product Key. The **Manual Activation/Update** area enables activating a license offline and updating the license status.

Figure 6-1 Licensing Information



Resolving Licensing Issues

Licensing issues have three main sources:

- **License Expired**
- **Channels Allocated Incorrectly**
- **Partitions Reformatted on NICE Perform eXpress Machine**

To resolve these issues, contact your local support representative and send him/her the information listed in **Contacting Support for Licensing Issues** on **page 103**.

License Expired

When the license is expired, recording continues. However, you can only access the System Management and Configuration applications.

The license can be expired for a number of reasons. The reason for the expiration is noted in the **License Information** field.

Figure 6-2 Licensing Information with Expired License

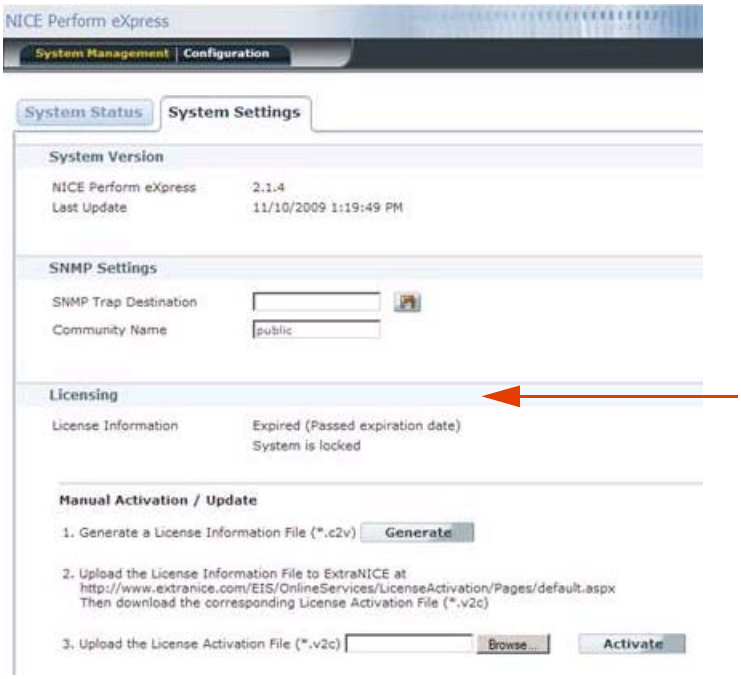


Table 6-1: Reasons for License Expiration

Reason for Expiration	Description
VM	NICE Perform eXpress is running on a Virtual Machine and needs to be activated in order to play back interactions.
TS	NICE Perform eXpress is accessed from a Terminal Server and needs to be activated in order to play back interactions.
Passed Expiration Date	Trial period of 90 days is over.
System Time Changed	Time was changed on the machine.
Clone Detected/Hardware Change	NICE Perform eXpress software was copied to another machine, or the hardware, such as the motherboard, was changed.

Figure 6-3 Main Toolbar With No Access to Applications

Contact your local support representative and send him/her the information listed in **Contacting Support for Licensing Issues** on **page 103**.

Channels Allocated Incorrectly

This scenario occurs when there is more than one NICE Perform eXpress machine and the licenses need to be divided between them. Some or all of the licensed channels from one NICE Perform eXpress machine need to be transferred to a second machine. Contact your local support representative and send him/her the information listed in **Contacting Support for Licensing Issues** on **page 103**.

Partitions Reformatted on NICE Perform eXpress Machine

Reformatting partitions on a NICE Perform eXpress system sometimes requires re-licensing, as follows:

- **Physical machine**: When ***all*** the partitions on the NICE Perform eXpress machine are reformatted, it is necessary to re-license the system.
- **Virtual machine**: When ***one*** the partitions on the NICE Perform eXpress virtual machine is reformatted, it is necessary to re-license the system.

In the above cases, contact your local support representative and send him/her the information listed in **Contacting Support for Licensing Issues** on **page 103**.

Contacting Support for Licensing Issues

When contacting your local support representative for licensing issues, send him/her the following information:

- NICE Perform eXpress serial number
- Contact details of the person troubleshooting the license
- Log files. See **Collecting Logs** on **page 124** to run the Log Collector.
- License Information File. *To create a License Information File*, in the **System Settings** tab, in the **Manual Activation/Update** area, click **Generate**.

Figure 6-4 Generate License Information File

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7

Troubleshooting Business Data

The Event Spy and CAPI Spy tools enable viewing the business data transferred from the Connection Manager to the driver and then from the driver to the Interactions Center, respectively. Troubleshooting business data in the Interactions Center comprises verifying that the business data is correctly defined.

Contents

Generating Reports with Transferred Business Data

The Integrations Dispatch service includes the Event Spy and CAPI Spy tools, which generate reports regarding business data transferred from the Connection Manager to the driver (Event Spy) and then from the driver to the Interactions Center (CAPI Spy).

To generate reports with transferred business data:

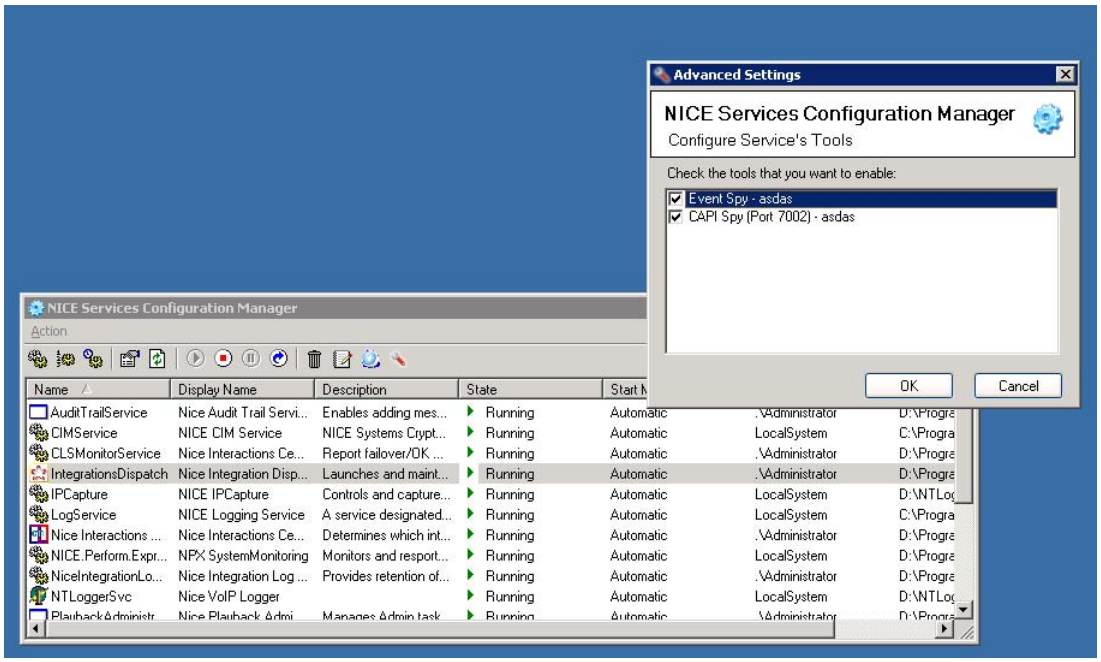
1. From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Services Configuration Manager**.

   The Services Configuration Manager opens.

2. Select the **IntegrationsDispatch** service, and click **Advanced**.

   The Advanced Settings window appears.

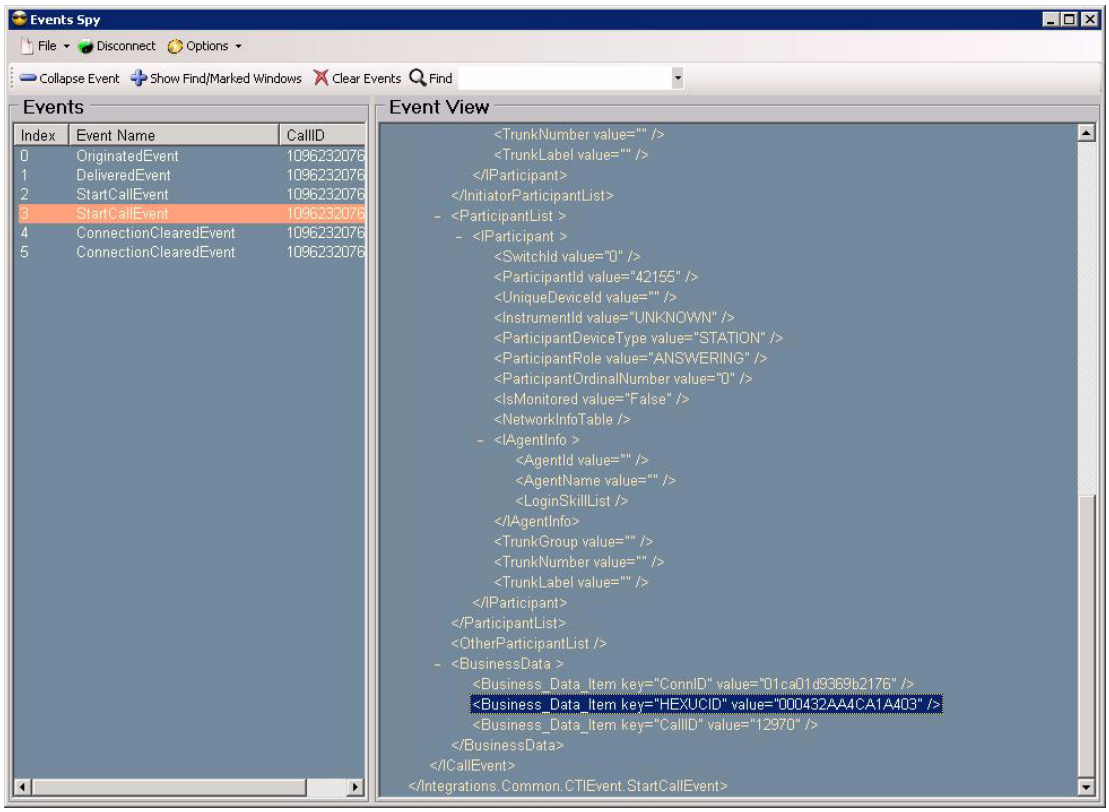
Figure 7-1 Advanced Settings Window



3. Select **Event Spy** and **CAPI Spy**, and then click **OK**.
4. Restart the **IntegrationsDispatch** service.
5. To verify that the business data was transferred from the Connection Manager to the driver, navigate to **Programs > NICE Perform eXpress > CTI Tools**, and select **Event Spy**.

The transferred business data appears in the Business Data section.

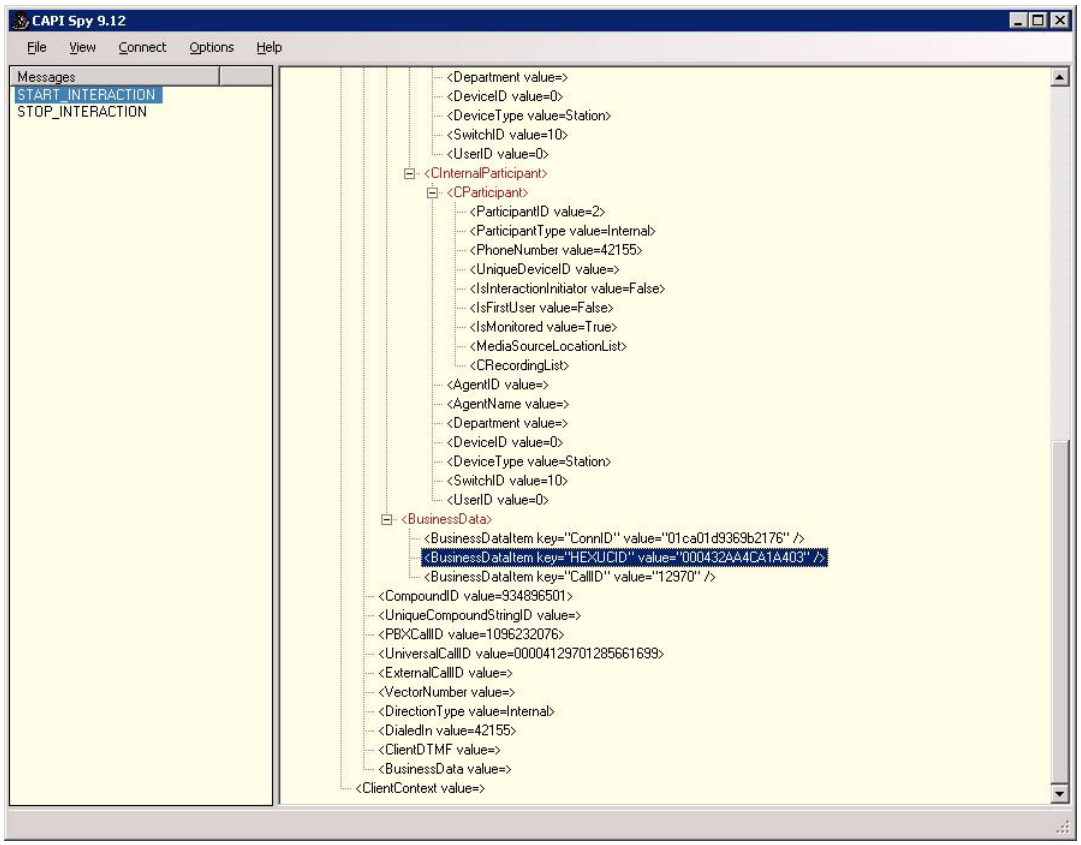
Figure 7-2 Events Spy



6. To verify that the business data was transferred from the driver to the Interactions Center, navigate to **Programs > NICE Perform eXpress > CTI Tools**, and select **CAPI Spy**.

The transferred business data appears in the Business Data section.

Figure 7-3 CAPI Spy



Troubleshooting Business Data in the Interactions Center

You cannot directly troubleshoot the business data in the Interactions Center component. Instead, you verify that the business data was correctly configured.

This section explains how to configure business data and covers the following topics:

Overview

Business Data fields can be added according to the following guidelines:

- **The Name field is case-sensitive!** It must exactly match the CTI field name. Take care to enter it correctly!
- The number of fields of each type and size is as follows:

Field Type	Text Field Size in bytes	Number of Available fields
Number	n/a	6
Text	20	6
Text	30	2
Text	40	8
Text	80	8
Text	120	2

- If you are defining a **Text** field, then select a **Text Field Size** according to the following guidelines:
  - **1 character = 1 byte** in the NICE Perform eXpress database.
  - In **Unicode** systems, **1 character** requires **2 bytes** in the NICE Perform eXpress database.

    Example: In a Unicode system, if you are receiving a field is that is 20 characters long, you will require a business data field that is 40 bytes.
  - You must select a size that is equal to or greater than the actual or maximum size of the CTI field.
  - The amount of fields of each size is limited. Once you define the maximum amount of fields for a size, you will no longer be able to select that field size.
  - If you select a size that is smaller than the CTI field, information will be truncated.

    Examples:

- *You have 2 data fields that are 100 bytes each, select Text Field Type = 120 for each.*
- *You have 3 data fields that are 100 bytes each, select Text Field Type = 120 for 2 of the data fields. For the third data field, select Text Field Type = 80; the last 20 bytes of information will get truncated.*

- **IMPORTANT:** In a **Mixed Environment**, only one set of Business Data fields is available. If you have two different CTIs, make sure to plan accordingly. Business Data fields used for one CTI will not be available for the other CTI.

  Example: *If you define 2 text fields of size 30 for the first CTI, there will not be a text field of size 30 available for the second CTI.*

- Once you define a field, you can edit only its Alias and Assign to Role values. You cannot edit its Name, Field Type, or Text Field Size.
- If you delete a Business Data definition, you can later add the same CTI field as a new Business Data field with different parameters. However, all information from the first definition will be lost.

  Example: *You define a Business Data field for ibirthday with alias Birthday and field Number. You then delete this field and redefine ibirthday with alias Birth and field Text 20. All data received from the ibirthday field while ibirthday was defined as Number will be lost.*

Where will you see Business Data?

The next time a user, whose Role has access to a Business Data field logs in:

- There will be an additional column in the Interactions application labeled with the field's Alias name.
- When defining a query, there will be an additional field for the Business Data, according to the Alias name.

Defining Business Data

Use the following procedure to define Business Data fields.

To define Business Data:

1. On the **CTI and Recording** tab, scroll down to the **Business Data Settings** section.
2. Click **Add**  .

A new row appears.

3. In the **Name** field, enter the Name of the field ***exactly*** as it appears in the CTI. **This field is case-sensitive!**
4. In the **Alias Name** field, enter a user-friendly name. This is the name that will appear in queries and as a column heading in the **Interactions** window. The Alias Name can contain special characters and spaces.
5. To define a numeric field, select **Number**. The **Text Field Size** field becomes disabled. Continue with Step 6.

   -or-

   To define a text field, select **Text**. Then use these guidelines to select a **Text Field Size**.

   - The amount of fields of each type and size is as follows:

Type	Size	Available fields
Number	n/a	6
Text	20	6
Text	30	2
Text	40	8
Text	80	8
Text	120	2

   - Select a **Text Field Size** that is equal to or greater than the size of the CTI field. If you select a size that is smaller than the CTI field, information will be truncated.

     Example: The CTI field size is 30. You can select 40. Do not select 20; data will be truncated.

   - **Remember:** The amount of fields of each size is limited. Once you define the maximum amount of fields for a size, you will no longer be able to select that size.

     Example: Only two fields are available at size 120. Once you define two different fields as size 120, 120 will no longer appear in the drop-down list.

- In a **Mixed Environment**, only one set of Business Data fields is available. If you have two different CTIs, make sure to plan accordingly. Business Data fields used for one CTI will not be available for the other CTI.

6. In the **Assign to Role** field, select the Roles who will have access to this field.
7. In the new row, click **Add**.
8. Repeat this entire procedure for each Business Data field.
9. Click **Save** to save your changes.
10. Click **Apply** to active your changes in the system. Recording is not interrupted.

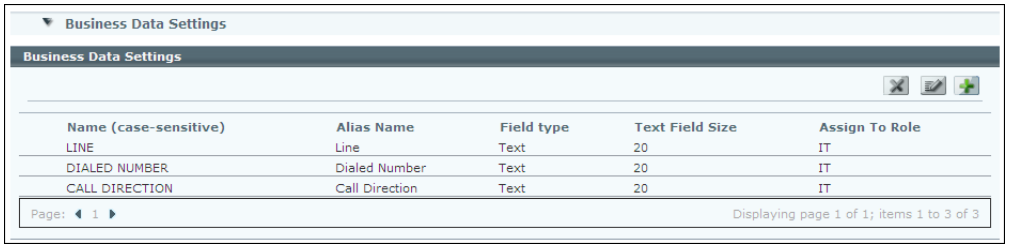
Deleting Business Data

If a Business Data field is deleted, then the following occurs:

- All filters in Quality Management rules based on the Business Data field are removed. The Quality Management rule that contained the Business Data field will remain.
- Data saved in the Business Data field will be lost. If the same field is later added again, the previous data will not be found.

To delete a Business Data field:

1. On the **CTI and Recording** tab, scroll down to the **Business Data Settings** section.



2. Select a row. Then click **Delete**  .

   A Confirmation message appears.

3. Click **OK**.
4. Click **Save** to save your changes.
5. Click **Apply** to active your changes in the system. Recording is not interrupted.

   The Business Data field is deleted.

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8

Verifying Recording

Contents

Understanding the Recording Data Flow

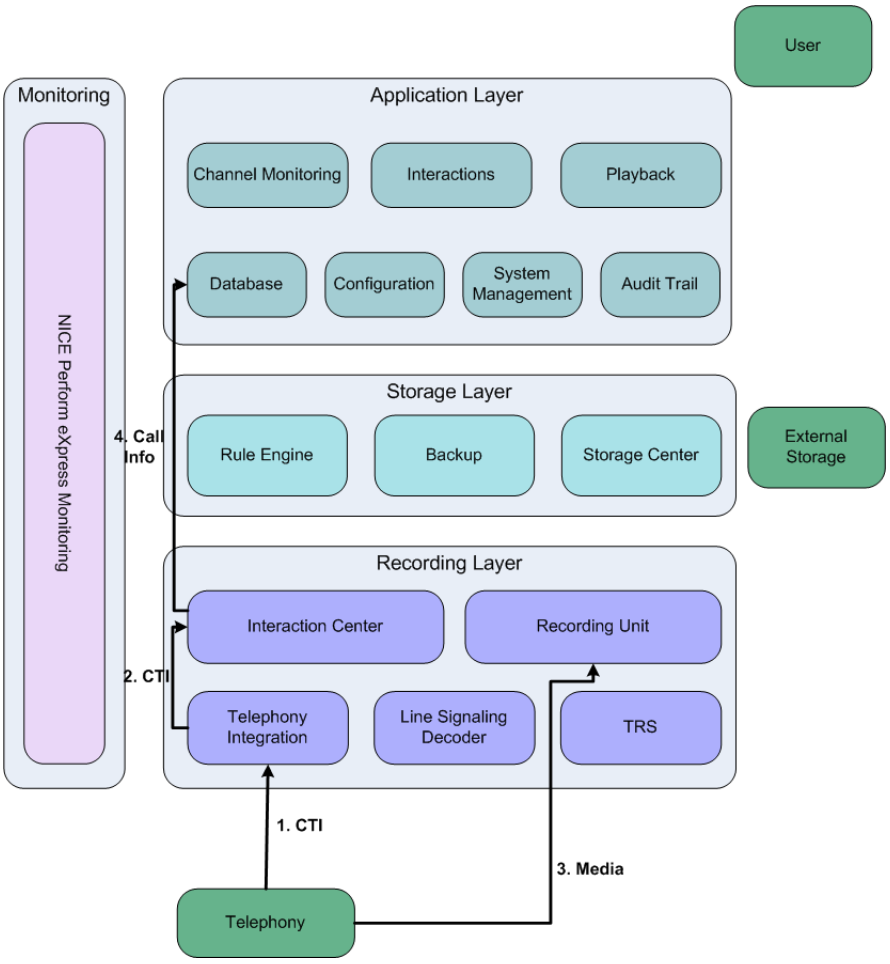
This section describes the data flows for recording with and without a CTI.

Recording Data Flow with a CTI

The data flow for recording with a CTI is as follows:

1. The Telephony Integration receives CTI information from the telephony, such as Call Start Time, Caller ID, Dialed Number, and Direction (incoming, outgoing, internal).
2. The Telephony Integration reports to the Interactions Center, which maps the CTI information with the agent and channel associated with the interaction.
3. In parallel to **Step 2**, the Recording Unit records the audio of the interaction.
4. The Interactions Center enters the CTI, agent, and channel information for the interaction into the Database.

Figure 8-1 Recording Data Flow with a CTI

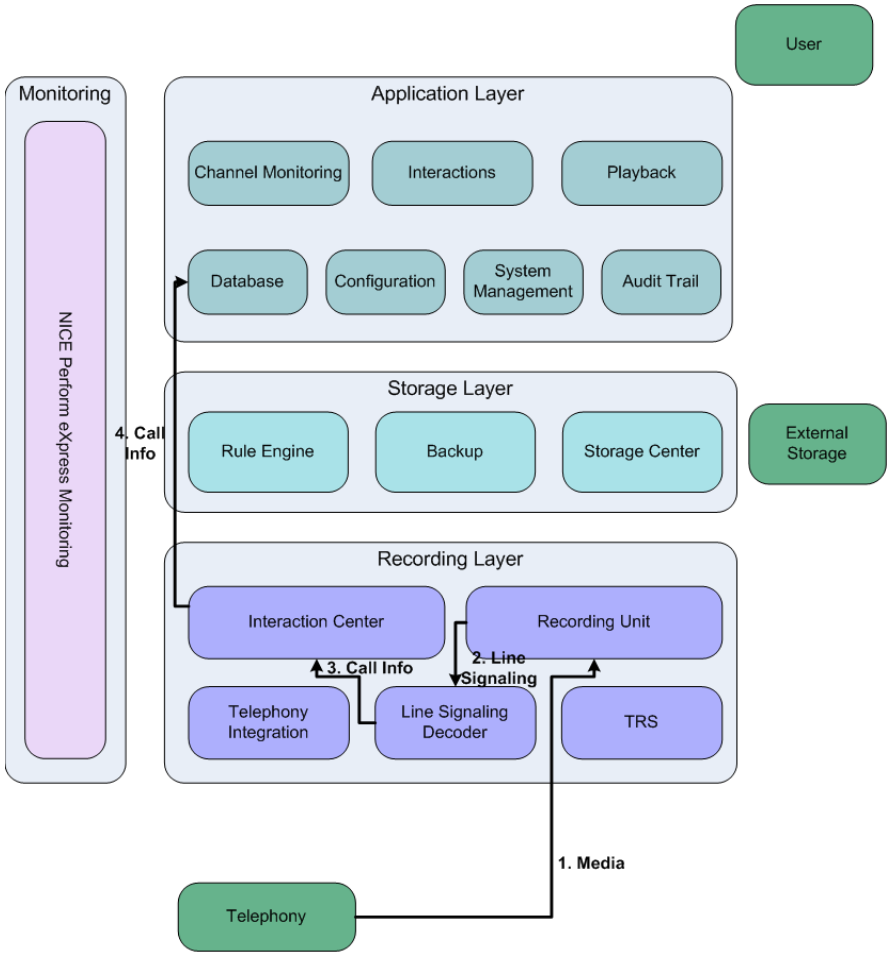


Recording Data Flow without a CTI (Line Signaling)

The data flow for recording without a CTI is as follows:

1. The Recording Unit captures events, such as On/Off Hook and DMTF, and identifies activity on the line.
2. The Recording Unit reports this information to the Line Signaling Decoder, which creates an interaction and maps this information to the Caller ID, Dialed Number, and Direction (incoming, outgoing, and internal).
3. The Line Signaling Decoder sends the interaction information to the Interactions Center, which maps it to an agent and channel information.
4. The Interactions Center enters the agent, interaction, and channel information into the Database.

Figure 8-2 Recording Data Flow without a CTI (Line Signaling)



Verifying PABX Issues

This section comprises the following topics:

Verifying the PABX Configuration and Physical Line Connectivity

You verify the PABX configuration and the physical line connectivity together. This section describes the ways to verify the configuration and connectivity for analog extensions, digital extensions, and trunks.

Analog Extensions - Verifying the Configuration and Connectivity

With analog extensions, there are phone lines and non-phone lines. Sometimes, the PABX is configured for phone lines, and the extensions are configured for non-phone lines and vise versa. From the System Management application, on the **System Status** tab, verify that no system alerts appear in the **System Alerts** area. See **SNMP Messages** on **page 179** for more information.

(*NICE Perform eXpress 1.0 Boards*) On the board, verify that the jumper settings are correct for your recording type. The *NICE Perform eXpress 1.0 Installation Guides* include the jumper settings for non-phone lines.

Digital Extensions - Verifying the Configuration and Connectivity

- From the Configuration application, verify that the following settings match those documented in the *Installation Guides*:
  - On the **Telephony Environment** tab, verify that the correct telephony environment is selected.
  - On the **CTI and Recording** tab, verify that the board is connected to the correct PABX.
- On each board, verify that the DIP switch settings are correct. See the *Installation Guides* for the correct DIP switch settings.

Trunks - Verifying the Configuration and Connectivity

- Contact the IT administrator, and from the Configuration application, on the **CTI and Recording** tab, *verify that each recording setting* is correct for the PABX.
- (*More than one trunk*) Check the board ID and trunk settings to verify that each trunk is connected to the correct board.
- On each board, verify that the DIP switch settings are correct. See the *Installation Guides* for the correct DIP switch settings.

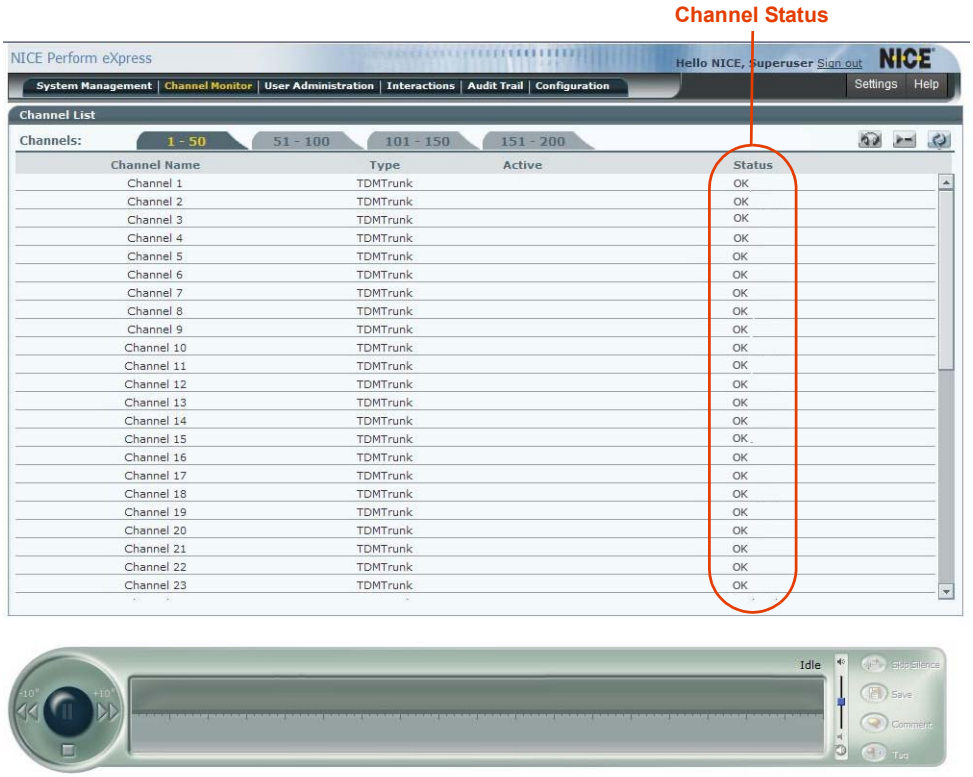
Verifying the Distance from the Recording Unit

The Recording Unit must be connected a certain distance from the PABX. See the *Installation Guides* for your site for the correct distance.

Channel Not Recording

This section lists the possible channel status for VoIP and TDM channels. The channel status appears in the Channel Monitor application in the **Status** column.

Figure 8-3 Channel Status in the Channel Monitor Application



VoIP Channel Status

The following channel statuses related to VoIP channels might appear.

Channel Status	Description	Suggested Action
Channel Critical Error	Critical error occurred on the channel.	Collect all log files and contact your Customer Support. See **Collecting Logs** on **page 124**. Restart the system to refresh the channel.
Export Error	Some or all of the channels failed to export buffers to the NICE Perform eXpress.	
General Error	IP Capture General error.	
OK	No channel error.	
Reception Error	IP Capture data reception error.	Check the NIC.

TDM Channel Status

The following possible channel statuses related to TDM channels might appear. If one does appear, verify the PABX configuration, physical line connectivity, and the distance from the NICE Perform eXpress system.

Channel Status	Description
AIS	Alarm Indication Signal. Signal with the digit “one” only, indicating an alarm on the far end (PABX).
Channel Indicators timeout	No phone indicators (LED, display…) where received for the last 30 minutes. The line most probably cannot function properly.
Frame error	Frame found with errors.
Frame loss	Frame was not found.
Line Error	Indicates a problem with the line (Synchronization, loss problem, etc.)
Multiframe alignment was lost	Loss of multiframe alignment signal.
No Multiframe Synchronization	No synchronization on Multiframe level due to multiframe error or loss.
No Signal	No input signal. Check line connectivity. See **Verifying the PABX Configuration and Physical Line Connectivity** on **page 118**.
No Signaling Capabilities are Available	
OK	No channel error.
RAI	Remote Alarm Indication. Sent by the far end (PABX), indicating a problem with the signal it is receiving from the local end (ETAI-III board).
RS	Receiver SLIP (time discrepancy)
Signal is Unbalanced	Positive and negative signal peaks are not equal.
Signal was lost	No input signal. Check line connectivity. **Verifying the PABX Configuration and Physical Line Connectivity** on **page 118**.
Unknown Status	
XS	Transmitter SLIP (time discrepancy) - ISDN only.

Checking Exceptions

Query the database to see the exceptions. Most of the time exceptions are connected to recordings and not directly to the interaction IDs. In order to see the connection between an exception and interaction ID, query both the exception details and the related recording (which includes the interaction ID).

To check the CLS Exceptions in the Database:

1. Query the **tblInteractionCatalog** table to check for which period the calls occur.
2. Get all the exceptions related to interactions:

   SELECT * FROM tblExceptionXX, tblInteractionXX

   WHERE

   tblExceptionXX.iInteractionID = tblInteractionXX.iInteractionID
3. Get all exceptions related to recordings:

   SELECT * FROM tblExceptionXX, tblRecordingXX

   WHERE

   tblExceptionXX.iRecordingID = tblRecordingXX.iRecordingID
4. Check the **vcExceptionDetail** field in **tblException**.
5. See Table 8-1 for a list of exceptions, their possible cause, and the recommended action.

Table 8-1: List of Exceptions

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
1	Duplicate call start.	Duplicate start of call – another call with the same call key has started while this call was open.	Problem with the driver or PABX reports.	Check the driver or PABX. Collect the driver and CLS log files.

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
2	Maximum duration exceeded.	Call too long – the call was open for more seconds than the value of the registry parameter **MaxOpenCallDuration** and was therefore forcibly closed.	Either the call was longer than the parameters value, or there is a problem with the driver or PABX reports.	Check if the value of the Call Server parameter **op_MaxOpenCallDuration** matches the length of calls in the site.
3	Call flushed while open.	Call flushed – a flush command was executed while the call was open.	The driver may have gone down and come up.	Check that the driver is up. Review the driver log files, look for errors. If there is no error no action is needed.
4	N/A	N/A	N/A	N/A
5	Call start not reported.	End call without start (Default Start Time).	Problem with the driver or PABX reports. Could be followed by reports with exp02 because the start and end call reports have different information.	Check the driver or PABX. Review the driver log files, look for errors. If there are errors, collect the driver and CLS log files.
6	N/A	N/A	N/A	N/A

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
7	No available recording resource.	No available recording resource.	There are not enough recording channels to handle the number of recording requests in the site.	Could be caused by unclosed recorded calls. Check for exp02 calls. If there is a substantial amount of calls with these exceptions, check the RCM logs for Logger disconnections (Logger down) and if channels were allocated after connection reestablished with Logger. Relevant for voice and screen resources.
8	Logger not responding.	Logger not responding.	Problem with Logger or connection to Logger.	Check the Logger. Check the network connectivity between the Logger and the CLS. Check the RCM logs.
9	Unspecified recording failure.	Unspecified recording failure.	Unknown failure cause. Received from the RCM.	Collect the Integration and CLS log files.
10	Agent logout during call.	Agent logout during the call.	Problem with the driver or PABX call or logout reports.	Check if it is physically possible to logout during a call. Collect the Integration and CLS log files.
11	Too many calls for agent/extension.	**MaxExtentionOpenCall** - too many open calls for the same agent/extension when compared to the **op_MaxCallPerExt** registry parameter.	The agent had more simultaneous open segments than the parameter value. Could be a problem with the driver or PABX call reports.	Check if the parameter value meets the requirements of the site. Look for calls with **exp02** to see if there is a problem with the call reports.

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
12	Voice recording failed.	Voice recording failed.	Error code received from the telephony server or if RCM was down on start of Call. If this appears as **e12** check the sub-exception ID for more information.	• Collect the Integration and CLS log files. • Sub-exception 12 310 indicates the Logger is down. • Sub-exception 12 1702 indicates no VoIP audio due to a configuration problem. This is dependant on the VoIP integration. Check the configuration, the forwarding data passed to the Capture (RCM logs), the Capture logs, as well as the forwarding device configuration. For example, no audio is received if no or wrong forwarding information is passed to Capture, or if the audio is not forwarded by the telephony switch/forwarding device.
13	Screen Logger not responding.	Screen logger not responding.	Logger is down or network issue.	Check the NiceScreen Logger and ScreenAgent. Check the RCM logs for errors when calling screen capture to start record.

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
14	Screen recording failed.	Screen recording failed.	An Error code that might indicate RCM was down on start of Call. If this appears as **e14**, check the sub-exception ID for more information.	• Check the NiceScreen Logger. • Check the RCM logs. • Sub-exception **14 1002** indicates an error was received during screen recording. Either ScreenAgent was disconnected from the Interactions Center or ScreenAgent recording failed. Partial recording (up until the time of the error) may be available. • Sub-exception **14 4** indicates there was an unspecified failure.
15	Unmapped voice recording.	Unmapped voice recording.	Problem in the voice channel configuration.	Switch the logs to DEBUG. Check channels configuration. See if there is a mapping configured for this call. Check the RCM logs. Check what the RCM received in the Start request.
16	Unmapped screen recording.	Unmapped screen recording.	The recording request was received with empty Station or IP address (depends on the screen allocation mode).	If the allocation mode is by IP address then check if the agent logged in. Check ports. Verify in RCM logs that the start request for recording the agent's screen contained the screen agent's IP.

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
17	Voice recording retry.	Recording voice succeeded only after retry (partial retry).	May be a temporary failure on the Logger.	Check Logger for possible reasons for temporary failures.
18	Call Server service shutdown.	Call Server was down during the call.	Call Server was down.	Check reason for Call Server failure. Collect CLS logs, event viewer and CPU Performance Monitor.
19	N/A	N/A	N/A	N/A
20	Logger not responding.	The Logger did not respond to the start record command.	Stop record command arrived before a response for the start record request arrived. This may occur for one of the following reasons: • The call was very short (1 or 2 seconds). • The request was for 2 medias. • Success in both was required (usually QA). • One media failed immediately. • Stop record is sent for both medias.	No action is needed if there was indeed a short call; otherwise collect CLS and driver log files. If the request was for 2 medias, try to understand the recording problem with the first media. Check the RCM logs. Check the Call Server logs.
21	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
23	Call start not reported.	Stop record without start (screen or voice).	Usually happens with very short calls. The request was for 2 medias. Success in both was required (usually QA). One media failed immediately. Stop record was sent for both medias. Or may be an internal problem.	No action is needed if there was indeed a short call; otherwise collect CLS and driver log files. If the request was for 2 medias, try to understand the recording problem with the first media. Check the RCM logs. Check the Call Server logs.
24	Error in stop record request.	Stop record with wrong ID. No start call request was found with this CLS Call ID.	Usually happens with very short calls. The request was for 2 medias. Success in both was required (usually QA). One media failed immediately. Stop record was sent for both medias. Or may be an internal problem.	No action is needed if there was indeed a short call; otherwise collect CLS and driver log files. If the request was for 2 medias, try to understand the recording problem with the first media. Check the RCM logs. Check the Call Server logs.
25	Too many requests for channel.	Too many recording requests for the same Logger and channel (more than 30).	May occur due to a problem with the driver or PABX call reports – calls are not closed.	Collect CLS and driver log files. Check the Call Server logs.

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
26	RCM service down during call.	RCM was down during the call.	RCM was down.	Collect CLS logs, event viewer and CPU Performance Monitor. Check the RCM logs. Check the reason that the RCM went down.
27	Error on complete interaction start.	The contact started after its segment.	Problem in the driver or PABX call or logout reports.	Check the driver or PABX. Collect CLS and driver log files. Check the RCM logs for a long period in DEBUG mode.
28	No available recording resource.	No available recording resource. The RCM (Resource Call Manager) cannot allocate more resources for this initiator.	Not enough Logger recording channels. Bad resource management configuration. There maybe a problem with calls that are not closed and therefore resources are not being freed up.	See if the configuration meets the site needs. If not change it. Collect CLS and driver log files. Restart RCM. Check the RCM logs. Could be a problem with the driver or PABX reports.
29	Error on complete interaction close.	Segment was open when the contact closed.	Could be a problem with the drivers or PABX call reports.	Check the driver or PABX. Collect CLS and driver log files.
30	Time Interval recording aborted.	Block dummy call was closed due to a Call Server restart.	Call Server restarted.	Collect CLS log files. Check why Call Server was closed.

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
31	Client disconnect.	Client was disconnected during the open block.	Client was disconnected.	Collect CLS log files. Check why the client was disconnected. Check the Call Server logs.
32	N/A	N/A	N/A	N/A
33	Stop on demand not by initiator.	Stop on demand was performed on the interaction recording by a client who was not the recording initiator.	Stop on demand was performed on the interaction recording by a client who was not the recording initiator.	No action required.
34	Invalid call time report.	Time field was changed by the DB Server. Interaction was inserted with time value lower then 1970. Stop time was lower than start time.	Call Server error. Illegal time parameters were reported.	Collect CLS log files. Check the Call Server logs.
35	RCM service not responding.	The Call Server received a **timeout** error on the request to the RCM.	RCM is too busy. Internal RCM error. Event caused the RCM not to respond, for example, detected many Loggers initializing.	Collect CLS logs, event viewer and CPU Performance Monitor. Check the RCM logs.
36	Business data value too long.	String field was truncated by the DB Server. Call Server sent a string longer than allowed by the DB schema.	Business data length is incorrectly specified.	Collect CLS and driver log files. Check the maximum business data length, change it in the DB and restart the CLS.

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
37	Failed to record VoIP.	Failed to record. Audio not found in VoIP recording.	This usually results from a failure to sniff VoIP packets by the Logger. After the Start command to the Logger, the RCM waits 2.5 seconds and checks if the audio packets were received.	• Run a sniffer to check if packets were coming in. • Collect CLS and Logger log files. • Check for channel mapping failures. • Check the RCM logs for the allocated channel. • Check the Capture logs.
38	Failed to update VoIP data.	Update VoIP (which updates the IP for an open request and its participant) sent by the Driver failed.	Occurs, for example, when the update is for an unmapped device or a closed request, or because the update was not received by the RCM.	Check that the device in the Update VoIP sent from driver is mapped.
39	Complete interaction handled on multiple servers.	Split Contact - Segments for contact handled on more than one Interactions Center.	Interaction Router could not find mapped segment on the Interactions Center that was selected for the other open segment under the same contact.	No action required.
40	Recording time mismatch.	Recording Time Mismatch – recording time was out of call time range.	Problem with integration. Calls may be reported late to the CLS when the system is under stress.	Check the Call Server logs.

Table 8-1: List of Exceptions (Continued)

ID	Exception Short Description	Meaning	Possible Cause	Recommended Action
41	Unknown Initiator.	At the start of the call, the initiator participant has no User ID, that is, the User ID was not found in the UserAdmin Database.	User is not defined under **UserAdmin**.	Ensure the user exists and is defined in the DB.

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9

Verifying Archiving

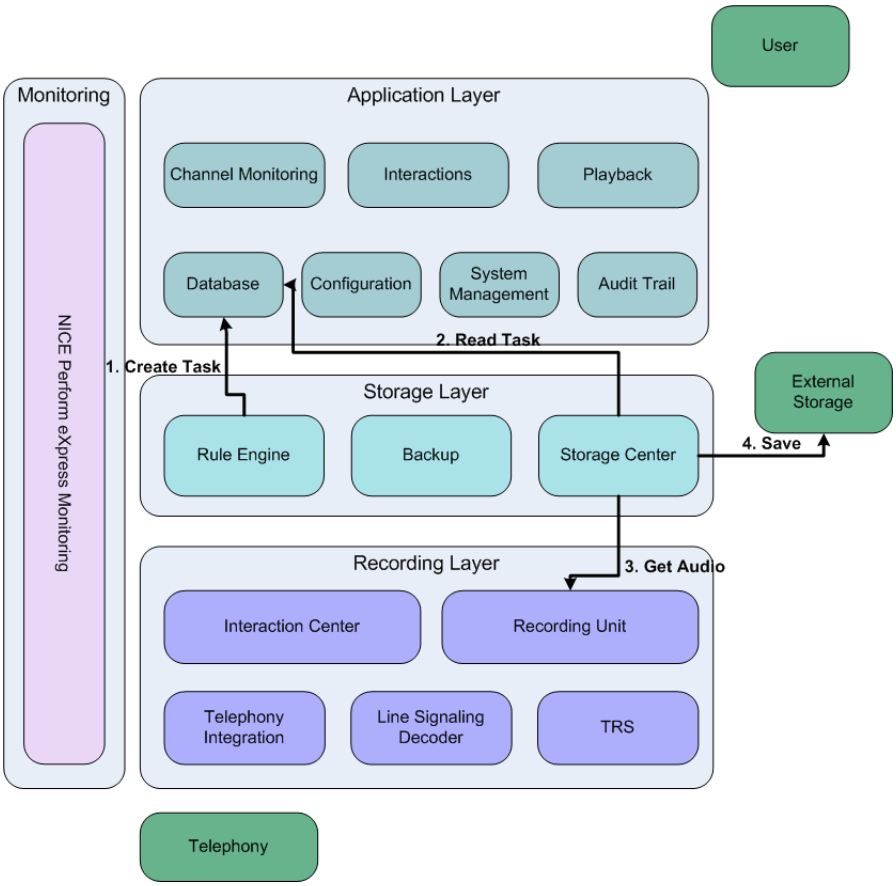
Contents

Understanding the Archiving Data Flow

In the NICE Perform eXpress system, all interactions are archived. The data flow for archiving interactions with NICE Perform eXpress is as follows:

1. The Rule Engine collects interactions that need to be archived and creates a task in the Database to archive these interactions.
2. The Storage Center reads the task from the Database.
3. The Storage Center gets the audio stored on the Recording Unit.
4. The Storage Center saves the audio to a remote storage path or to an ESM.
5. *If there is a backup device*, the audio is continuously backed up to this device.

Figure 9-1 Archiving Data Flow



Archiving and Backup Troubleshooting Issues

Most archiving issues, such as an error in archiving recorded interactions, appear as an SNMP message in the System Management application. See **SNMP Messages** on **page 179** for suggested actions if an SNMP message appears.

Other issues, however can be solved before contacting your local support representative. These issues are described in this section.

- **Archiving Troubleshooting** on **page 135**
- **Backup Troubleshooting** on **page 139**

Archiving Troubleshooting

In the System Management application, the **System Status** tab summarizes pertinent archiving and storage information. See **Understanding Displayed System Information** in the next section. If you see that there is not enough storage space available, create another Remote Storage Path on a partition with free space. See the *Installation Guide* of your telephony environment for more information.

Understanding Displayed System Information

The **System View** area summarizes the information relevant to the recording environment. When data in the System View area needs the attention of the system administrator, it is displayed in orange or red, depending on whether a warning or critical threshold was reached.

Figure 9-2 System View Area

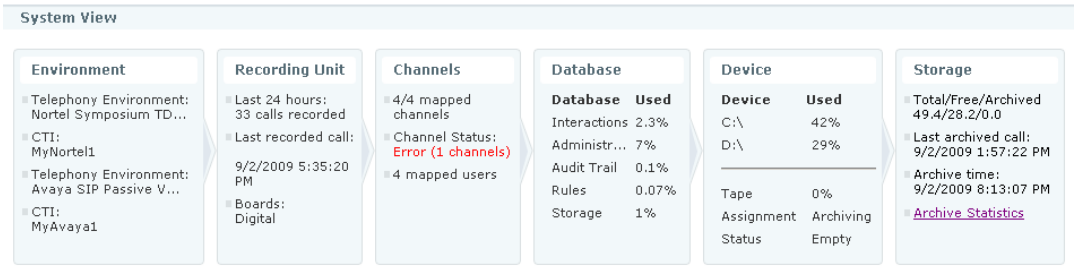


Table 9-1 describes the information in the **System View** area.

Table 9-1: Information in System View

Information	Description
Environment	Telephony environment and CTI name.
Recording Unit	• Number of interactions recorded in the last 24 hours. • Date and time of the last recorded interaction. • Name of the board, if installed. If no board is installed, **None** appears.

Table 9-1: Information in System View (Continued)

Information	Description
Channels	• Number of mapped channels out of the total number of available channels. **Example**: **4/75 mapped channels** means that 4 channels are mapped out of 75 available channels. • **Channel Status**: Describes the status of the channels. When an error occurs, the problmatic status appears in red. Go to the Channel Monitor application to verify the problem. • Number of users assigned to an extension through the User Administration application. **Example**: **5 mapped users** means that 5 users are assigned extensions.
Database	Percentage of space used by each component in the database.
Device	• Percentage of space used by each drive on the NICE Perform eXpress machine. • Information regarding the backup device, if enabled.
Storage	Storage area of the system. More than one NICE Perform eXpress system might be attached to the same partition. With an ESM storage type, the data stored on this partition is later moved to the ESM. With remote storage, the data remains on this partition: **Important**: The **Free** and **Archived** values refer to the size of the interactions data and do not include other files on the partition. Parameters included in this area are: • **Total**: Size of entire space available on the partition. • **Free**: Size of remaining free storage space on the partition after archiving by all NICE Perform eXpress systems that are attached to this storage space. • **Archived**: Size of the storage space used by the current NICE Perform eXpress system. **Note**: 100 MB is the smallest size displayed. • **Last archived call**: Date and time when the interaction listed in the **Archive time** column actually occurred. • **Archive time**: Date and time when the interaction listed in the **Last archived call** column was saved to the configured storage path. • **Archive Statistics**: Link to a report that summarizes information regarding Retention Rules. **Important**: Make sure that the time difference between the **Last archived call** and the **Archive time** stays relatively constant. If the time changes drastically, there could be an archiving backlog.

Differences in Data Retention according to Storage Type

Depending on whether you are using an ESM or remote storage, NICE Perform eXpress responds differently when the partition reaches its capacity.

For ESMs: When the partition reaches its capacity, oldest interactions are *automatically* deleted.

For remote storage: When the partition reaches its capacity, **one** of the following occurs:

- Oldest interactions are automatically deleted.
- If the retention period is still in effect, new interactions are not stored.

In the **System Status** tab, in the **Storage** column, the **Free** value displays exactly the size of storage space left for all the systems together in the configured storage path.

Alerts in the System View Area

When the data displayed in the **System View** area needs the attention of a system administrator, the data is displayed in orange or red, depending on whether a warning or critical threshold was reached. In Table 9-2, the warning and critical thresholds for displayed information are listed.

Table 9-2: Warning and Critical Thresholds

Area	Information Title	Warning Alert Threshold (Orange)	Critical Alert Threshold (Red)
Recording Unit	Last 24 hours	When 0 calls are recorded.	
	Last recorded call	When **N/A** or if the last recorded call was more than 24 hours ago.	
Database	Interactions	When the value is: > or = 95.	
	Administration	When the value is: > or = 80 but < 95.	When the value is: > or = 95.
	Audit Trail	When the value is: > or = 80 but < 95.	When the value is: > or = 95.
	Rules	When the value is: > or = 80 but < 95.	When the value is: > or = 95.
	Storage	When the value is: > or = 80 but < 95.	When the value is: > or = 95.
Device	Status		Error
		When the value is: > or = 90 but < 95.	When the value is: > or = 95.

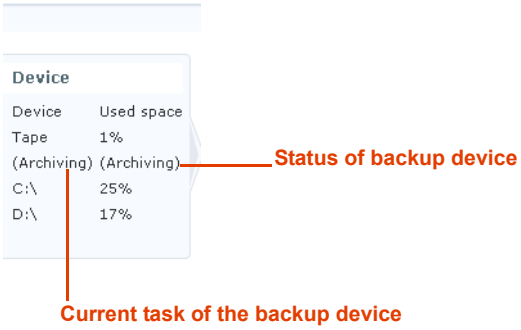
Table 9-2: Warning and Critical Thresholds

Area	Information Title	Warning Alert Threshold (Orange)	Critical Alert Threshold (Red)
Storage	Total/Free/Archived	Less than 2% of total free space.	
	Last archived call	Older than 1 day.	
	Archived time	Older than 1 day.	

Backup Device Tasks and Statuses

When a backup device is enabled, its current task and status appear in the **System View** area in the **Device** column.

Figure 9-3 Device Column



Backup Device Task

The *task* of the backup device is its currently assigned function. A backup device can perform one of the following tasks:

- **Archiving**: Device is saving interactions from the Recording Unit to its recording media.
- **Retrieval**: Device is accessing interactions from its recording media and transferring them to the Recording Unit for playback.
- **None**: No archiving or retrieval is taking place, or the backup device is disabled.

Backup Device Statuses

The different backup device statuses are described in the table below:

Table 9-3: Backup Device Statuses

Status	Description
Archiving	Device is archiving data from the Recording Unit to the recording media.

Table 9-3: Backup Device Statuses (Continued)

Status	Description
Cannot Append Old Media	Media with data from a previous version of the Recording Unit is in the device, and it cannot be appended.
Cleaning	Cleaning media is inserted in the device.
Closing	Device is ejecting the media.
Empty	No media is in the backup device.
Error	Error in the device or in the recording media.
Loading for Reading	Device is loading the media before retrieving data from it.
Loading for Write	Device is loading the media before archiving to it.
None	No archiving or retrieval is taking place.
Ready for Reading	Device is ready for retrieval requests.
Ready for Write	Device is ready to archive, but there is no data on the Recording Unit.
Recovering	The media did not eject properly, and the device is attempting to recover data from the media.
Retrieving	Device is retrieving data from the media and transferring it to the Recording Unit for playback.
Waiting for User Eject	DVD media is full, and the administrator needs to eject it. (Shown only for DVD media)

Backup Troubleshooting

USB Tapes Not Detected

When NICE Perform eXpress does not detect USB tapes, check that the certified drivers are installed for the tapes and that no other backup devices are installed.

To troubleshoot USB tapes not detected by the system:

1. Check that certified drivers are installed for the USB tapes.
2. Additional installed backup devices prevent the detection of USB tapes. Check that no DVD-RAM devices or SCSI/IDE tapes are connected to the NICE Perform eXpress machine.

SCSI Tapes Not Detected

When NICE Perform eXpress does not detect SCSI tapes, make sure that no DVD-RAM devices are connected to the machine.

To troubleshoot SCSI tapes not detected by the system:

- Installed DVD-RAM devices prevent the detection of SCSI tapes. Check that no DVD-RAM devices are connected to the Backup Server.

Other Backup Issues

When browsing in the **My Computer** folder, do not browse in the removable disk drives or CD drives as this might interrupt archiving.

10

Verifying Playback

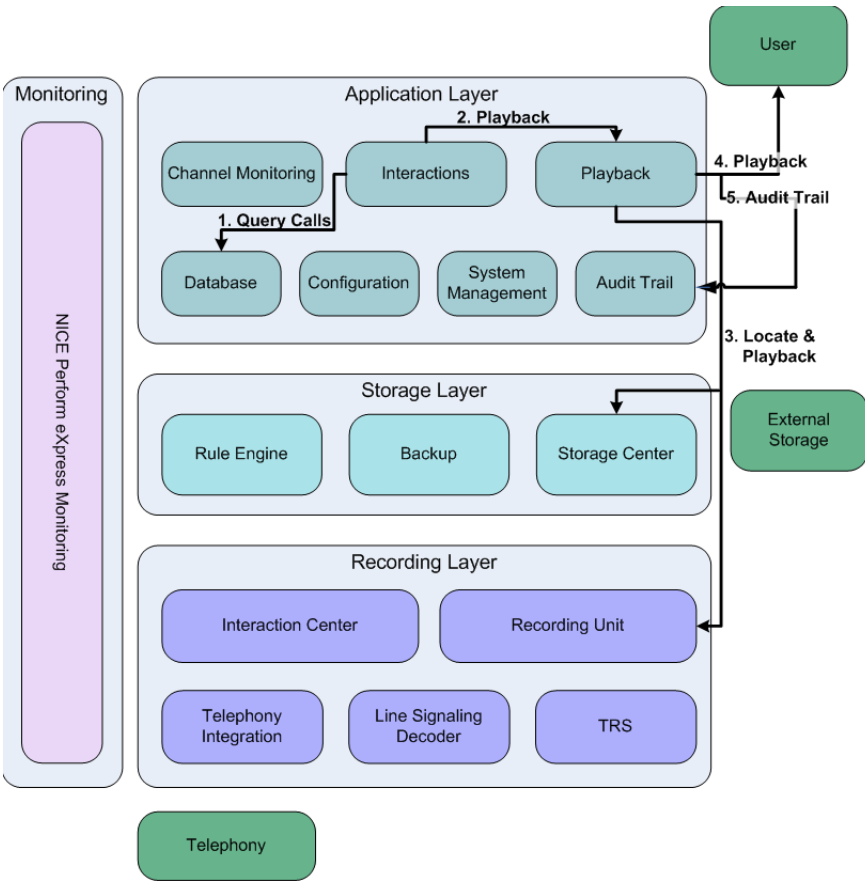
Contents

Understanding the Query and Playback Data Flow

The data flow for querying and playing back interactions with NICE Perform eXpress is as follows:

1. In the Interactions application, the user searches interactions by querying the database.
2. From the query results, the user selects an interaction and clicks the **Play** button, which transfers the interaction information to the Playback component.
3. The Playback component locates the interaction in the Storage Center or in the Recording Unit.
4. The Playback component streams the audio to the user and plays it back in Player.
5. The Playback component sends Audit Trail a message with details of the user who played back the interaction as well as details of the interaction itself.

Figure 10-1 Query and Playback Data Flow



Understanding Playback Error Messages

This section describes playback error messages.

Key to Internal Playback Error Messages

Internal playback error messages appear with only a number. **Table 10-1** displays the error message number, a description of the error, and suggested actions to fix the problem.

Resolving Playback Error Messages

The descriptions of the error messages and the suggested actions cover a wide range of possible issues. When there is no suggested action, or the suggested action does not solve the problem, complete the following steps:

1. Run the Log Collector tool. See **Collecting Logs** on **page 158**. A ZIP file of the logs is created.
2. Send support the ZIP file of the logs, the site configuration, and any changes on the PBX.

Table 10-1: Playback Error Messages

ID	Source	Description	Suggested Actions
3500	Server	Operation successful.	None
3501	Server	No recordings found.	Go to the System Management application, and then in the **Backup Management** tab, verify that the audio is stored on backup media.
3502	Server	User is not authorized to play the selected interaction.	None
3503	Server	Failed to play back the interaction.	
3504	Server	Failed to save the interaction.	
3505	Server	Failed to monitor the channel.	See **Error 3505 After Renaming Machine** on **page 39**.

Table 10-1: Playback Error Messages (Continued)

ID	Source	Description	Suggested Actions
3506	Server	Error occurred while trying to report to the Audit Trail application when saving an interaction.	None
3507	Server	Get user confirmation to retrieve the audio from an offline storage device.	
3508	Server	Tag or Comment handling generated an error.	
3509	Server	Failed to retrieve the audio from offline storage. Recordings are inaccessible.	
3991	Client	Sound card problem.	Verify that a sound device is installed on your computer. Verify that the sound device is functioning properly.
3992	Client	Windows Media Player failed to play the URL that was received from the Web service.	None

Table 10-1: Playback Error Messages (Continued)

ID	Source	Description	Suggested Actions
3993	Client	*When playing back in the Interactions application*, WMS is not active. *When monitoring channels in the Channel Monitor application*, broadcast is not active. The WMS Anonymous User Authentication plug-in is using a password that is out of sync with the Windows user account.	1. Uninstall WMS and then reinstall. 2. From the **Start** menu, select **Run**. Enter `compmgmt.msc` and click **OK**. 3. In the **Computer Management (local)** tree, select **Local Users and Groups**, and select **Users** 4. Locate the Windows Media anonymous account. This is **WMUS_<*machine name*>**. 5. Right-click this user account and select **Set Password**. 6. Proceed with setting the password and give the account a new password, then click **OK**. 7. In Windows Media Services, select the server name. In the **Properties** tab, select **Authentication**. 8. Double-click the **WMS Anonymous User Authentication** plug-in. 9. Verify that the user account name is the same as that in Computer Management. 10. Set the password to be the same as what you set in Computer Management. 11. Click **OK** and enable the **WMS Anonymous User Authentication** plug-in.
3994	Client	Stop monitoring when monitor session reaches 1 hour.	Go to the Channel Monitor application, and start a new monitor session.
3995	Client	Windows Media Player is not installed – ActiveX object allocation failure.	See **Windows Media Player Not Installed Message** below.

Table 10-1: Playback Error Messages (Continued)

ID	Source	Description	Suggested Actions
3996	Client	Windows Media Player version is lower than 9.0.	None
3997	Client	Web service proxy call returned with failure.	
3998	Client	The file path returned by the Web service is empty or null.	
3999	Client	Error occurred while connecting to the Web service. The Web service was not reached.	

Windows Media Player Not Installed Message

Cause

When the memory use of the Internet Explorer browser is too high, the following error message appears stating that the Windows Media Player 9.0 must be installed on the machine, even though it is already installed.

Figure 10-2 Information Window

Solution

Open a new instance of the Internet Explorer browser, and try again to play back the interaction or monitor the channel.

11

Managing Nice Services

You manage Nice services through the Services Configuration Manager.

Contents

Introducing the Services Configuration Manager

This section describes how to start the Services Configuration Manager, introduces the user interface, and lists available services.

Starting the Services Configuration Manager

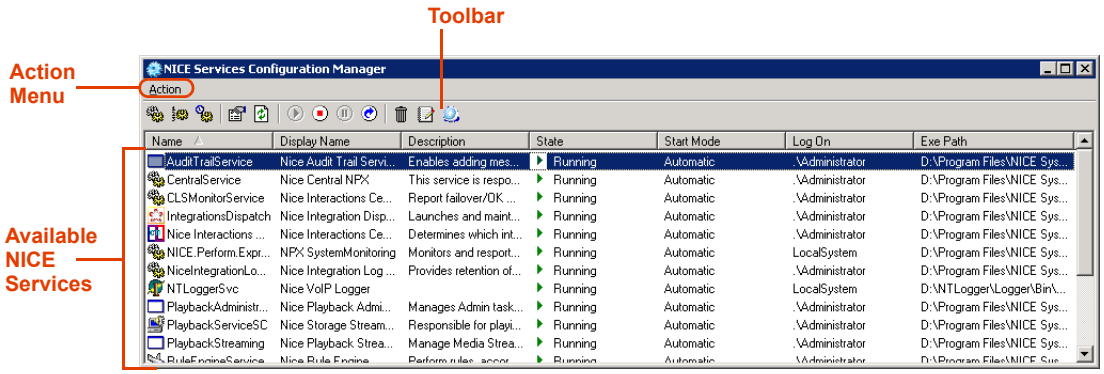
The Services Configuration Manager is installed along with NICE Perform eXpress. You start it from the **Start** menu on the NICE Perform eXpress machine.

To start the Services Configuration Manager:

- From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Services Configuration Manager**.

  The Services Configuration Manager opens.

Figure 11-1 Services Configuration Manager



Getting Around the Services Configuration Manager

The Services Configuration Manager (**Figure 11-1** on **page 148**) lists all available NICE services and enables performing a number of actions on them, which can be executed both from the **Action** menu and from the tool bar.

Each service listed in the Services Configuration Manager includes the following information:

Table 11-1: Service Information Listed in the Services Configuration Manager

Column Name	Description
Name	Name of the EXE file
Display Name	Name displayed in the Microsoft Services window

Table 11-1: Service Information Listed in the Services Configuration Manager

Column Name	Description
Description	Explanation of the actions the service performs
State	• Running • Stopped • Paused
Start Mode	• Manual • Disabled
Log On	User who has permission to run the service
Exe Path	Path of the EXE file for the service

Available Nice Services

Nice services that run with NICE Perform eXpress are listed below:

Table 11-2: NICE Services

Service Name	Description
Nice Audit Trail Service	Enables adding messages and events issued by NICE CEM applications to the Audit Trail database.
Nice Central NPX	Responsible for synchronizing the Central Administration and NICE Perform eXpress servers data. **Note**: This service only appears on machines where the Central Administration is installed.
Nice Interactions Center Monitor	Reports failover/OK messages to the session controller.
Nice Integration Dispatch Service	Launches and maintains NICE integration processes such as the CTI driver, Connection Manager, Key Manager, and others.
Nice Interaction Center	Determines which interactions to record and how to record them, based on the configuration and recording rules of the system.
NPX SystemMonitoring	Monitors and reports the status of the NPX system.
Nice Integrations Log Retention	Provides retention of the NICE integration log files.

Table 11-2: NICE Services (Continued)

Service Name	Description
Nice VoIP Logger	NICE recording service for VoIP.
Nice Playback Administration	Manages administrative tasks for the Player.
Nice Storage Streaming Service	Plays back the Storage Center files to NICE Perform eXpress.
Nice Playback Streaming	Manages media streaming for Player.
Nice Rule Engine	Performs rules, according to rules defined in the Rules Manager.
Nice Storage Center Service	Performs long term archiving for all NICE interactions.
SNMP Service	Enables Simple Network Management Protocol (SNMP) requests to be processed by this computer. If this service is stopped, the computer will be unable to process SNMP requests. If this service is disabled, any services that explicitly depend on it will fail to start.
Nice SystemAdministrator	Performs administrative tasks for NICE applications.
Nice TDM Gateway	TDM to VoIP service.
Nice Interactions Center TRS	Inserts missing calls into the CLS database.

Starting and Stopping Nice Services

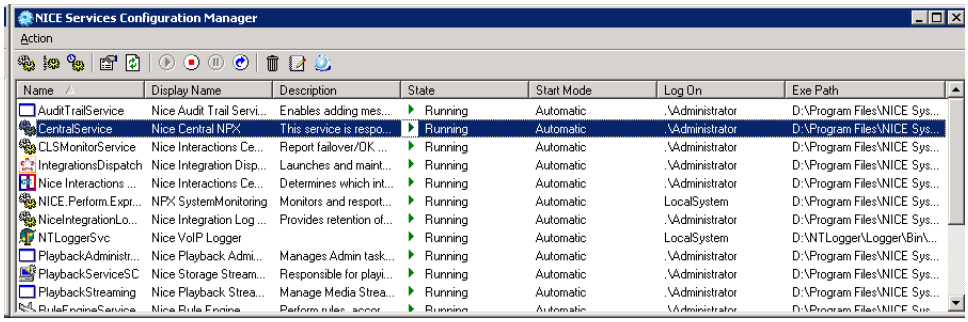
BEST PRACTICE:
Starting and stopping Nice services momentarily shuts down the NICE Perform eXpress machine, which results in data loss. Wait until off-hours before performing these maintenance tasks.

You start and stop Nice services from the Services Configuration Manager.

To start and stop Nice services:

1. Start the Services Configuration Manager. See **Starting the Services Configuration Manager** on **page 148**.
2. Select the service you want to start or stop. *To select all services*, press the **Ctrl** and **A** keys.

Figure 11-2 Service Selected in the Services Configuration Manager



3. Do **one** of the following:
   - *To start a service*, click the **Start** button. In the **State** column, the state changes from **Stopped** to **Running**.
   - *To stop a service*, click the **Stop** button. In the **State** column, the state changes from **Running** to **Stopped**.
4. (Recommended) *To verify that the services have started or stopped*, complete the following:
   a. From the Control Panel, select **Administrative Tools > Services**. The Services window appears.
   b. In the **Status** column, verify that the service has started or stopped.

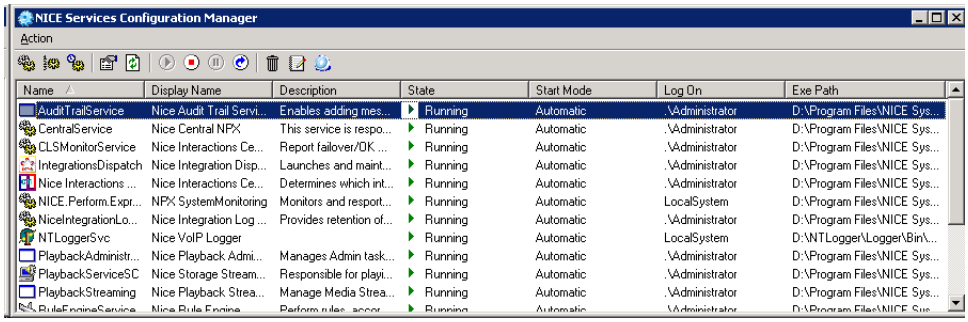
Viewing the Service Logs

You can view the NICE service logs from the Services Configuration Manager. Logs that are supported by the Log Viewer application, open in Log Viewer. Logs that are not supported by the Log Viewer application, open as TXT files in Notepad.

To view service logs:

1. Start the Services Configuration Manager. See **Starting the Services Configuration Manager** on **page 148**.
2. Select the service whose log you want to view.

Figure 11-3 Service Selected in the Services Configuration Manager



3. Do **one** of the following:

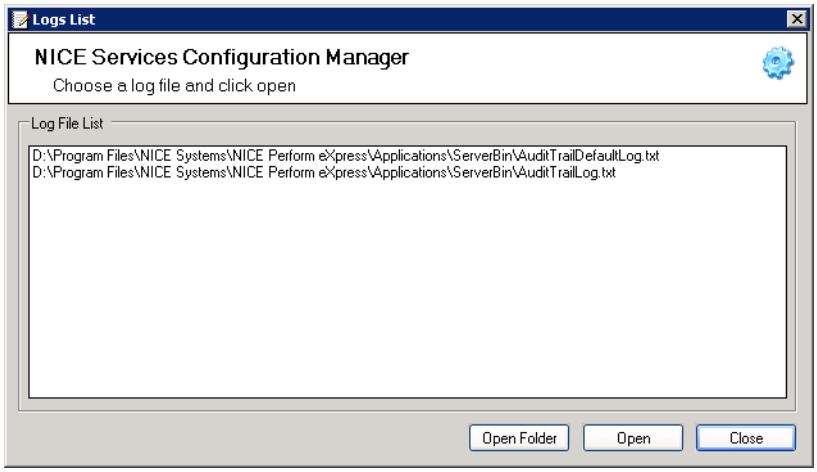
   - Click **Show Log**  .

     -or-

   - Right click the service, and select **Show Log**.

   The Logs List window appears.

Figure 11-4 Logs List Window



4. Select the log you want to view, and click **Open**.

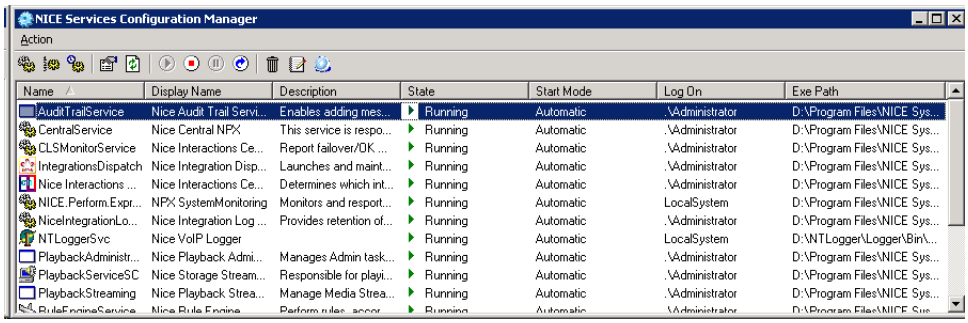
Changing the Reporting Level of Service Logs

You can change the reporting level of service logs to include more or less information. For example, if the reporting level is set to **Warning**, and you want more information, you might change the reporting level to **Info**. The possible reporting levels change according to each specific service.

To change the reporting levels of service logs:

1. Start the Services Configuration Manager. See **Starting the Services Configuration Manager** on **page 148**.
2. Select the service for whose log you want to change the reporting level.

Figure 11-5 Service Selected in the Services Configuration Manager



3. Do one of the following:

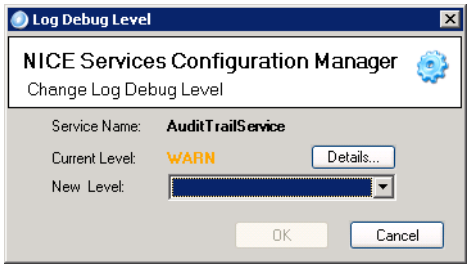
   - Click **Change Debug Level**  .

     -or-

   - Right-click the service, and select **Change Debug Level**.

   The Change Log Debug Level window appears.

Figure 11-6 Change Log Debug Level Window



4. (Optional) Click **Details** to view the logs that will be affected by the new debug level.
5. In the **New Level** drop-down list, select the new reporting level.
6. Click **OK**.

NOTE:

- You might be prompted to restart the service in order to change the Reporting Level. Click **OK**.
- Some services take up to 10 minutes to change the Reporting Level.

The reporting level is changed.

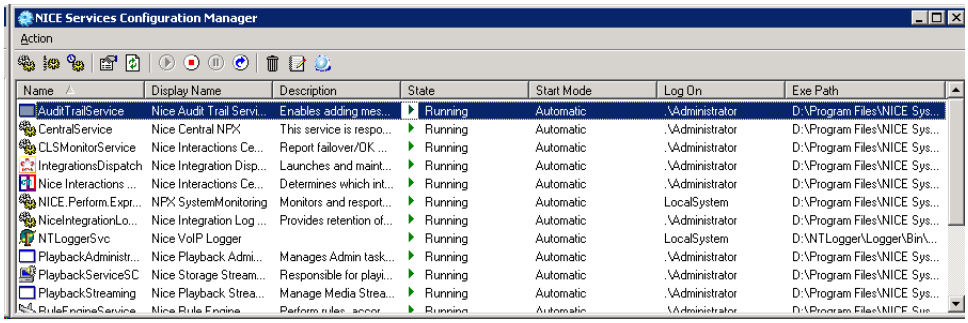
Creating a Memory Dump File

For troubleshooting purposes, you can create a memory dump file for any service. You need to install Debugging Tools for Windows before creating the memory dump file. See **Installing Debugging Tools for Windows** on **page 156**.

To create a memory dump file:

1. Download and install Debugging Tools for Windows. See **Installing Debugging Tools for Windows** on **page 156**.
2. Start the Services Configuration Manager. See **Starting the Services Configuration Manager** on **page 148**.
3. Select the service for which you want to create a memory dump file.

Figure 11-7 Service Selected in the Services Configuration Manager



4. Do one of the following:

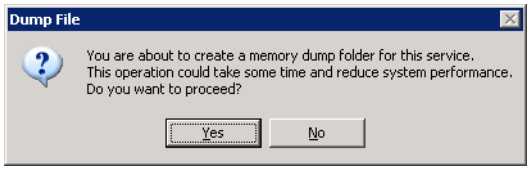
   - Click **Memory Dump File**  .

     -or-

   - Right-click the service, and select **Memory Dump File**.

   The following message appears in the Dump File window.

Figure 11-8 Dump File Window



5. Click **Yes**.

   The first time you create a memory dump file, you are prompted to locate the Debugging Tools for Windows. Browse to the location where you installed it on the NICE Perform eXpress machine.

   You are prompted to indicate a location to save the memory dump file.

6. Click **OK**.

   The memory dump file is created at the location you indicated in **Step 5**.

Installing Debugging Tools for Windows

Microsoft has a free download of debugging tools at the following link:

http://www.microsoft.com/whdc/devtools/debugging/default.mspx

Download the application and install it according to the documentation at the link.

12

Collecting Information

NICE Perform eXpress includes tools for collecting and viewing logs as well as collecting SQL performance information.

Contents

Collecting Logs

The Log Collector gathers information from the NICE Perform eXpress server and application and then automatically compresses this information into a ZIP file. At the same time, it also gathers site information and creates a second ZIP file.

The ZIP file with the server and application information is named: **LCReports*[<Date><Time>]*.zip**

The ZIP file with the site information is named: **LCSICReports*[<Date><Time>]*.zip**

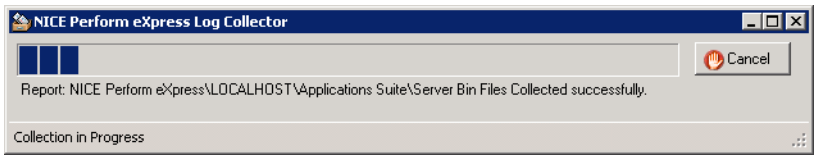
You send these files to your local support representative for further analysis.

To collect logs:

1. From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Log Collector**.

   The Log Collector begins collecting information from the NICE Perform eXpress server and application, and a progress bar appears.

   Figure 12-1 Progress Bar of the Log Collector



   After the information is collected, the Browse For Folder window appears.

   Figure 12-2 Browse for Folder Window

2. In the Browse For Folder window, navigate to the folder where the information will be saved, and click **OK**.

   Two ZIP files are created.

   The ZIP file with the server and application information is named: **LCReports*[<Date><Time>]*.zip**

The ZIP file with the site information is named: **LCSICReports*[<Date><Time>]*.zip**

3. Send both of these ZIP files to your local support representative for further analysis.

Viewing Logs with Log Viewer

This section describes the following topics:

Opening Logs

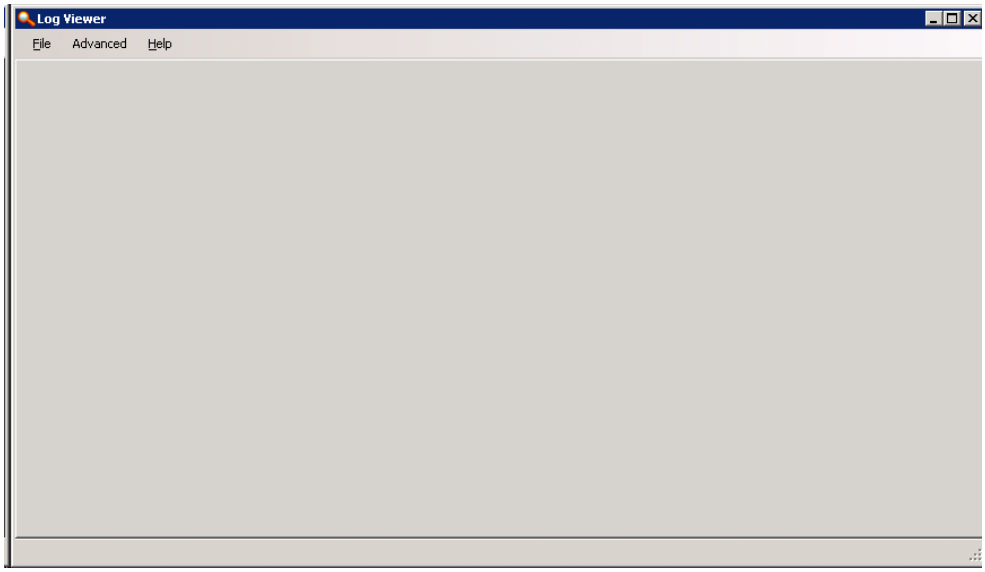
You can open multiple logs in Log Viewer and toggle between them by clicking their tabs.

To open logs:

1. From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Log Viewer**.

   The Log Viewer opens.

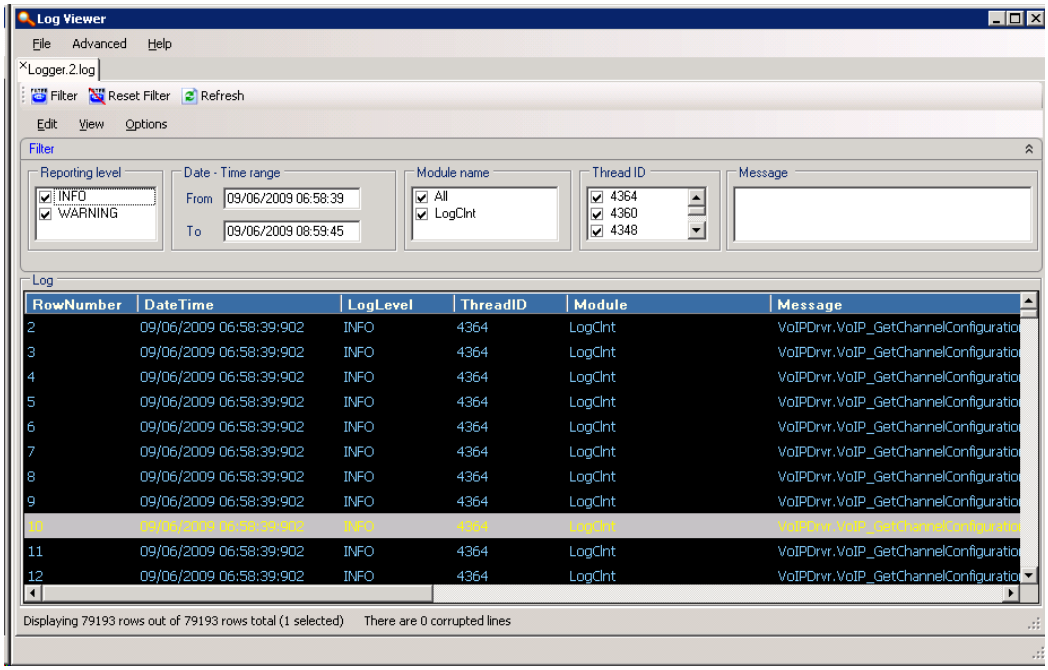
   Figure 12-3 Log Viewer



2. From the **File** menu, select **Open**, and browse to the log you want to view.

   The log opens in Log Viewer as a tab.

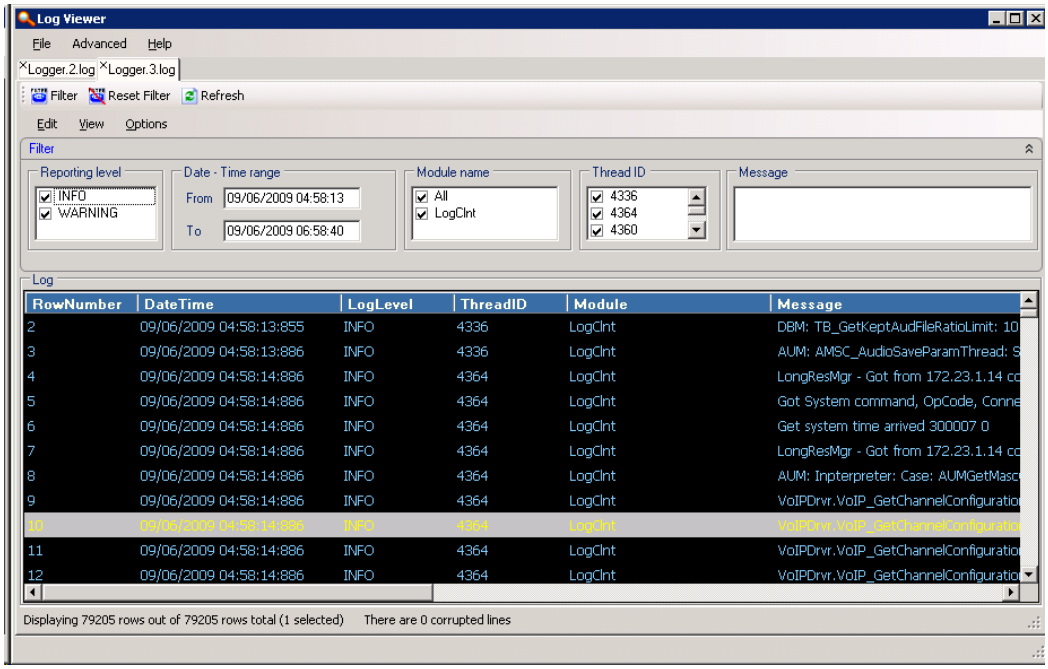
Figure 12-4 Log Open in Log Viewer



3. *If you want to open an additional log*, repeat **Step 2**.

The log opens as a new tab in the Log Viewer.

Figure 12-5 Log Open in Log Viewer



Filtering Logs

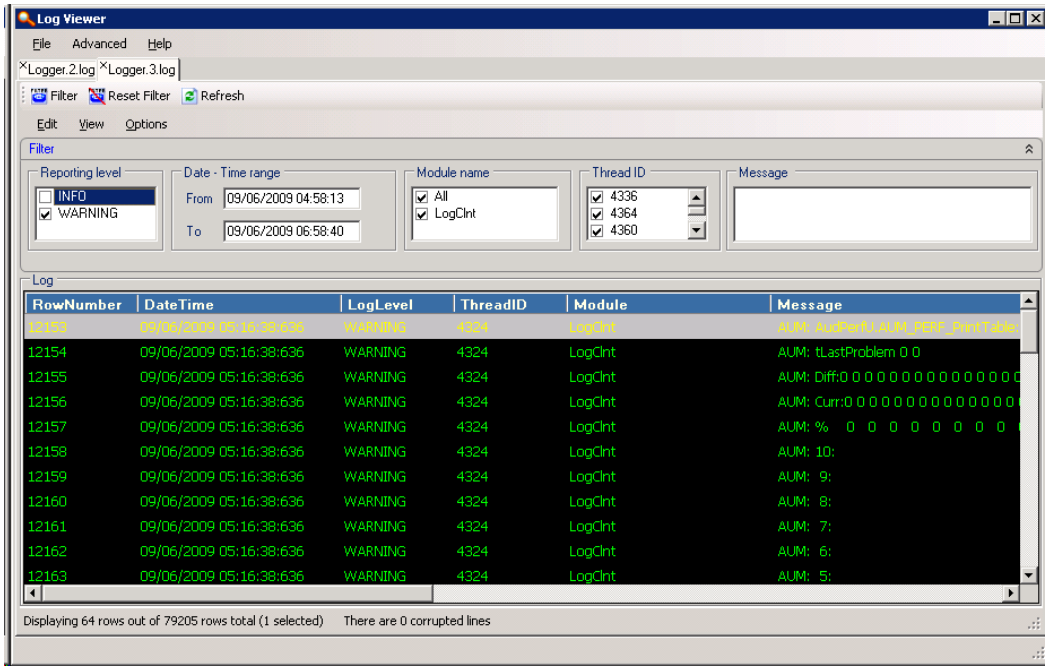
You can filter the active log to only display the required information in the log.

To filter logs:

1. Open at least one log in Log Viewer. See **Opening Logs** on **page 159**.
2. If more than one log is open, click the tab of the log you want to filter.
3. In the **Filter** area, define the filter as follows:
   - **Reporting Level**: By default, all Reporting Levels are selected. Clear the Reporting Levels you do not need.
   - **Date - Time Range**: In the **From** and **To** fields, enter the date and time of the information to view.
   - **Module Name**: By default, all modules are selected. Clear the modules you do not need.
   - **Thread ID**: By default, all thread IDs are selected. Clear the thread IDs you do not need.
   - **Message**: Enter the Message text that you want to find.
4. Click the **Filter** button.

   The Log Viewer filters the information in the log according to the filter definition you set.

Figure 12-6 Log Filtered to Include Warnings



5. *To filter according to the default settings*, click the **Reset Filter** button.

6. *To refresh the results of a filter*, click the **Refresh** button.

Finding Text Strings in Open Logs

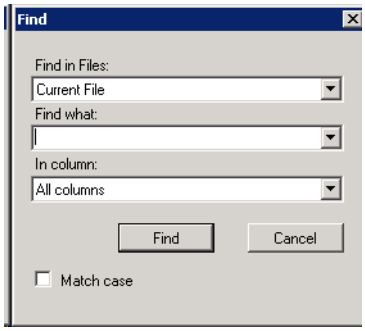
You can search across all open logs for specific text strings.

To find text strings in open logs:

1. From the **File** menu, select **Find**.

   The Find window appears.

   Figure 12-7 Find Window

2. From the **Find in Files** drop-down list, select a single log file or all the open log files.
3. From the **Find what** drop-down list, enter the text you want to find.
4. From the **In column** drop-down list, select the columns in which you want to find the text.
5. Click **Find**.
6. The results appear in a split pane under the log. If more than one log is open, click the tab of the each log to view the results.
7. *To return to the full-screen view of the log*, from the **Advanced** menu, select **Collapse Find**.
8. *To review the find results again*, from the **Advanced** menu, select **Expand Find**.

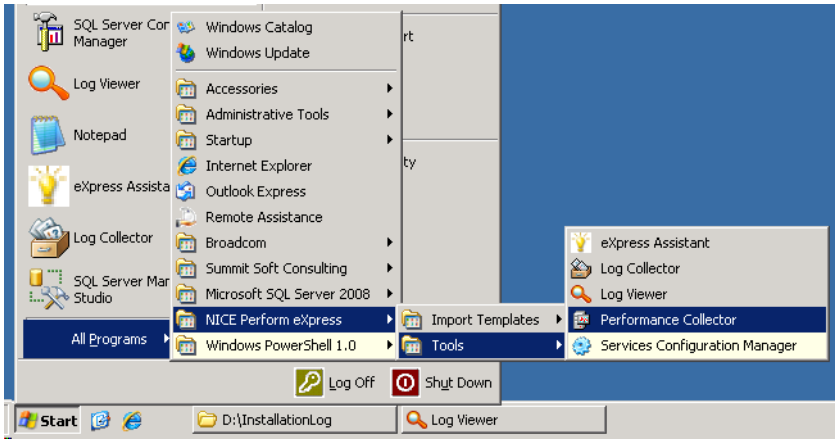
Collecting Information from SQL Processes

When there is a problem with SQL performance, such as query that does not run, you use the SQL Performance Collector tool to collect information from SQL processes. This tool creates a trace file and log file, which you send to NICE support. You can also use this tool to collect information for the SQL Profiler.

To collect information from SQL processes:

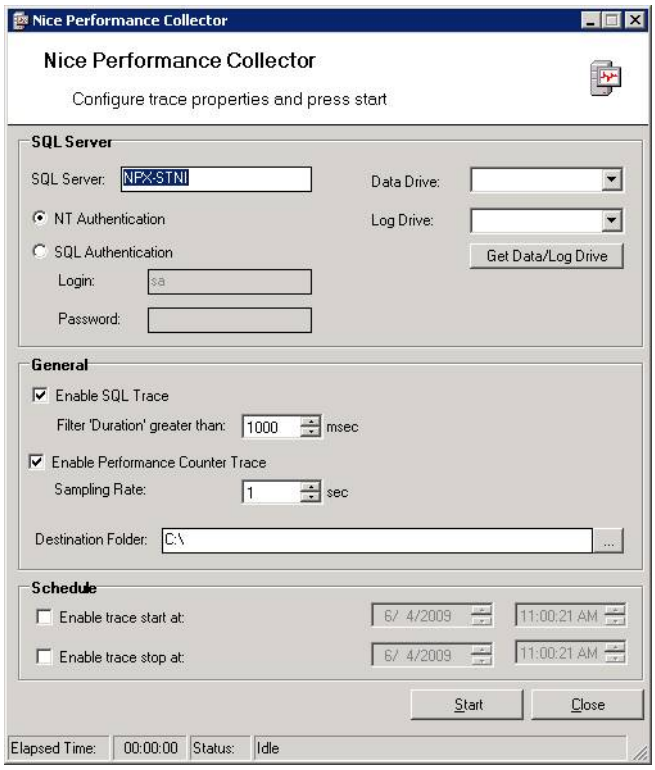
1. From the **Start** menu, select **All Programs > NICE Perform eXpress > Tools > Performance Collector**.

Figure 12-8 Shortcut to the Performance Collector



The Performance Collector opens.

Figure 12-9 Performance Collector



2. Click **Get Data/Log Drive**.

   The location of the data and log drives appear.

3. In the **Destination Folder** field, enter the destination folder for the trace files that the Performance Collector creates.

4. *If you need the SQL profiler*, do this:

   a. In the **Filter Duration greater than** field, enter **0**.

   b. Click **Start**.

   c. Continue to **Step 7**.

5. *If you want to schedule the Performance Collector to run at times when performance issues often occur*, you set a schedule:

   a. In the **Schedule** area, select **Enable trace start at**, and then enter the start time for the Performance Collector to run.

   b. Select **Enable trace stop at**, and then enter the stop time for the Performance Collector to stop.

   c. Click **Start**.

   d. Continue to **Step 7**.

6. *If you want to check a problematic query*, do this:

   a. Click **Start**.

b. Run the problematic query.

c. Click **Stop**.

d. Continue to Step 7.

7. Go to the destination folder you set in Step 3, and send the following files to NICE Support:

   - **Sql_<*date*>_<*start time*>_Trace.trc**
   - **counters.log**

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13

System Messages

Contents

Responding to Application Messages

Table 13-1 lists application messages that might appear when running NICE Perform eXpress applications. If there is no suggested action, or the suggested action does not solve the issue, open an SR with NICE support. For playback errors that are not listed here, see Key to Internal Playback Error Messages on page 143.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
1000	Information	Failed to log in.	Enter a different User Name or Password.
1001	Information	Your user account is locked.	Contact your System Administrator.
1002	Information	Your user account is inactive.	Contact your System Administrator.
1003	System Error	Unknown error.	Contact your System Administrator.
1004	Confirmation	Are you sure you want to perform this action?	N/A
1005	Connection Error	Failed to connect to server.	Try again later.
1006	Information	Unauthorized login attempted.	Contact your System Administrator.
1501	System Error	Failed to delete telephony environment.	Try again.
1502	System Error	Failed to define new telephony environment.	Try again.
1601	Invalid Data	T1 ISDN capture type cannot have more than 23 channels.	Reduce the number of channels.
1602	Invalid Data	The ID of the first board must be 0.	Change the ID of the board with the maximum number of channels to 0.
1603	Invalid Data	Boards with the same Board Type cannot have the same Board ID.	Change one Board ID.
1604	Invalid Data	In summed mode, the second board port must be 2.	Change the second board port ID to 2.
1605	Invalid Data	In unsummed mode, the second board port must be 3.	Change the second board port ID to 3.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
1606	Invalid Data	For each Board Type, there must be at least one board with Board ID 0.	Change one Board ID to 0.
1607	Invalid Data	Only 2 trunks can be assigned to each board.	Reduce the number of trunks for boards with more than 2 trunks.
1608	Invalid Data	Only the last trunk may have less than the maximum number of channels.	Change the configuration so that only the last trunk uses less channels than the maximum.
1609	Invalid Data	Cannot define 2 trunks with different Trunk Types on same Board.	Verify that all trunks connected to the same board are of the same type.
1610	Invalid Data	The number of configured channels cannot exceed the number of available channels.	Reduce the number of configured channels on one of the boards.
1612	Incomplete Data	Companding Law must be identical in all Telephony Environments.	Choose identical Companding Laws for all Telephony Environments.
1613	Incomplete Data	Some required data is missing.	Verify that all the required fields are filled.
1614	Incomplete Data	Each Board ID must have a Board Port numbered 1.	Verify as detailed in the message.
1615	Invalid Data	The entire Board ID must have the same Source-Side Summation.	Verify as detailed in the message.
1616	Invalid Data	All trunks on the same board must have the same Frame Format.	Verify as detailed in the message.
1617	Information	Digital Board Type does not match the installed board.	Edit Recording Settings. Then select the correct Digital Board Type.
1620	System Error	Failed to initialize capture settings.	Try again later.
1621	System Error	Failed to update Recording Settings.	Try again later.
1622	System Error	Failed to save Recording Settings.	Try again later.
1623	Invalid Data	Duplicate board IDs are not supported.	Change one of the board IDs.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
1624	Invalid Data	All trunks on the same board must have the same Amplifier Value.	Verify as detailed in the message.
1651	System Error	Failed to save Telephony CTI Settings.	Try again later.
1652	System Error	One of the CTI configurations was not saved because it is already defined in another active package.	
1655	Confirmation	Deleting a Business Data field will automatically delete all QM rules based on this field. Do you want to continue?	
1701	System Error	Failed to save channel mapping.	Try again later.
1702	System Error	Failed to update channel mapping.	Try again later.
1703	System Error	Failed to add device(s).	Try again later.
1704	System Error	Failed to delete device(s).	Try again later.
1705	Invalid Data	Monitored Devices range cannot have more than 100 devices.	To add more than 100 devices, enter additional ranges separated by commas.
1706	Information	All of the devices entered already exist in the system.	No new devices were added.Define different devices.
1707	Invalid Data	Monitored Device name cannot be empty.	Enter a device name.
1708	System Error	Failed to initialize channel mapping module.	Try again later.
1709	System Error	Failed to initialize IP Address range data.	Try again later.
1710	Invalid Data	Failed to validate Remote Storage Path.	Verify the path and try again.
1711	System Error	Failed to load Channel Mapping data.	Return to the CTI and Recording tab and verify the CTI Settings.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
1712	Invalid Data	The range entered for Monitored Devices is invalid.Enter a range or single values separated by commas.	A range cannot contain more than 100 devices.
1713	Insufficient Data	Either Extension or Position is missing.	Ensure that values are selected for both an Extension and Position.
1714	Invalid Data	Invalid range.	
1719	Invalid Data	At least one NEQT is required.	
1720	Insufficient Data	Select a Trunk Group for NEQT mapping.	Select a Trunk Group from the list.
1721	Invalid Data	Invalid NEQT range.	
1722	Invalid Data	A device cannot be mapped to itself.	
1801	System Error	Failed to save storage data.	Try again later.
1802	Invalid Data	This Remote Storage Path already exists.	Enter a different Remote Storage Path.
1803	Invalid Data	Illegal IP address.	Enter a valid IP address.
1804	Insufficient Data	Storage Name field cannot be empty.	Enter a valid Storage Name.
1805	Insufficient Data	Remote Storage Path field cannot be empty.	Enter at least one valid Remote Storage Path.
1806	Insufficient Data	At least one Remote Storage Path is required.	Enter at least one valid Remote Storage Path.
1807	Invalid Data	At least one IP address must be entered for EMC Centera storage type.	Enter at least one valid IP address for EMC Centera.
1808	Invalid Data	This IP address already exists in the system.	Enter a different IP address.
1809	System Error	Failed to add the Retention Rule.	
1810	System Error	Failed to update the Retention Rule.	

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
1811	System Error	Failed to delete the Retention Rule.	
1812	Information	Select a Retention Rule.	
1817	Invalid Data	Screen Recording Path could not be validated.	Enter Screen Recording Path again.
1818	System Error	Failed to save Screen Recording configuration.	
1901	System Error	Failed to Apply changes.	Try again later.
1902	System Error	Failed to navigate between tabs.	Try again.
1903	System Error	A failure occurred while loading the page. As a result, Apply Changes might not work properly.	Refresh the page.
1904	Confirmation	This action might temporarily interrupt recording, resulting in lost data. Are you sure you want to proceed?	Proceed with this action when system is not recording.
1905	System Error	Error while loading Configuration tab.	See system log for details.
1906	Invalid Data	The system has detected boards manufactured by different vendors. All installed boards must be manufactured by the same vendor.	Verify that all installed boards are manufactured by the same vendor.
1907	System Error	Board is not configured.	Use the Board Numbering Tool to make changes. Click **Save** to save the data.
1908	Information	Invalid board configuration. The system was updated, however recording might not work.	Validate board numbering using the Board Numbering Tool on the NICE Perform eXpress server.
1909	Information	TDM board firmware is currently being updated. Temporarily, changes cannot be applied.	
2000	Insufficient Data	User must be either an agent or system user.	Verify as detailed in the message.
2001	Invalid Data	The user name already exists.	Use a different user name.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
2002	Invalid Data	The OS login already exists.	Use a different OS login.
2003	Invalid Data	The Agent ID already exists.	Use a different Agent ID.
2004	Invalid Data	The password does not meet the password strength requirements.	The password must be at least 4 characters. See the Administrator's Guide for more password requirements.
2005	Insufficient Data	Recording settings not supplied.	Enter the Recording settings.
2006	Invalid Data	The Group Name already exists.	Enter a different Group Name.
2007	Insufficient Data	Agent must have at least one Agent ID or Extension.	Define an Agent ID or Extension for the agent.
2008	Invalid Data	The Telephony Environment is not defined.	Define the Telephony Environment in the Configuration application.
2009	Information	All Users group cannot be deleted.	
2010	Information	A group that contains users cannot be deleted.	
2011	Invalid Data	Failed to upload file.	Verify that file format is correct.
2012	System Error	Import failed.	Try again later.
2013	System Error	Failed to add new user	Delete all users from the group before deleting the group.
2014	System Error	Failed to update selected user	
2016	Invalid Data	This Domain name already exists.	
2500	Information	Setup is enabled only for channels of the same type.	Select channels of the same type.
2501	Information	Setup is not possible for the selected channel type.	
2502	System Error	Channel Setup is currently not available.	Try again later.
2503	Insufficient Data	No channels selected for setup.	Select one or more channels of the same type.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
2504	Invalid Data	Only one channel can be selected for monitoring.	Select one channel only.
2505	Invalid Data	No channels were selected for monitoring.	Select one channel only.
2506	Invalid Data	Only one channel can be selected for playback	Select one channel only.
2507	Invalid Data	No channels selected for playback	Select one channel only.
2508	System Error	Failed to save channel setup.	Check the following: 1. The Recording Unit is properly connected. 2. The NICE TDM Gateway and the NICE VoIP Logger services are up and running.
2509	System Error	Failed to load channel information.	Check the following: 1. The Recording Unit is properly connected. 2. The NICE TDM Gateway and the NICE VoIP Logger services are up and running.
2510	Information	No channels are currently mapped. Configuration is incomplete.	Select the Configuration application to continue.
3000	Invalid Data	Query/Folder with same name already exists.	Enter a different name.
3001	System Error	Query execution timed out.	Narrow the search criteria.
3002	Insufficient Privileges	You are not authorized to modify/delete public queries.	
3003	Insufficient Privileges	You are not authorized to modify/delete public folders.	
3004	Invalid Data	Query is not defined properly.	Correct the invalid parameters.
3005	System Error	Failed to access the database.	Contact your System Administrator.
3006	Invalid Data	Query/Folder name cannot be empty.	Enter a valid name.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
3007	Invalid Data	Query/Folder name contains an illegal string.	Enter a valid name that does not include the following characters: <;:%%:?;%>
3008	Invalid Data	Invalid time range.	Enter a numerical value.
3009	Invalid Data	Query time range is invalid.	Check the validity of the defined time range.
3010	Confirmation	Are you sure you want to delete the selected folder?	
3011	Confirmation	Are you sure you want to delete the selected query?	
3012	Connection Error	Failed to connect to server.	Try again later.
3013	System Error	Failed to execute query.Contact your System Administrator.	
3014	Confirmation	Do you want to save changes?	
4500	System Error	Failed to save SNMP Settings.	Verify SNMP service is installed.
4501	System Error	Failed to read SNMP Settings.	
4502	System Error	Failed to update license.	Verify SNMP service is installed.
4503	System Error	Failed to load System Alerts.Try again later.	
4504	System Error	Failed to upload license file.	Verify that a valid file is selected.
4505	System Error	Unable to connect to Recording Unit, or the Backup device is not running.	If the problem persists contact your System Administrator.
4506	System Error	Unable to connect to Recording Unit or the Backup Assignment is mismatched.	If the problem persists contact your System Administrator.
4507	Connection Error	Unable to connect to Recording Unit.	If the problem persists contact your System Administrator.
4508	Information	The scan for errors and warnings is complete.	No new messages found.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
4509	System Error	Failed to save screen agent configuration due to an internal server error.	Contact your System Administrator.
4510	System Error	Failed to save screen agent configuration due to invalid configuration data.	Contact your System Administrator.
4511	System Error	One or more clients could not be deleted.Contact your System Administrator	
4512	System Error	One or more clients are active and therefore cannot be deleted.	
4600	System Error	General licensing error	
4601	System Error	Automatic Activation failed.	Perform Manual Activation.
4611	Connection Error	Automatic Activation failed due to communication failure	Verify Internet connectivity.
4612	Connection Error	Automatic Activation failed due to communication timeout	Verify Internet connectivity.
4613	System Error	Automatic Activation failed due to invalid activation server URLPerform Manual Activation.	Perform Manual Activation.
4621	Invalid Data	Invalid Product Key.	Verify that Product Key is entered correctly.
4622	Invalid Data	Product Key has already been activated.	Verify that Product Key is correct
4623	Invalid Data	Product Key is based on a previous Product Key which must be activated first ({0})	Activate all previous Product Keys first.
4642	Invalid Data	License Activation File (*.v2c) is older than the current activated license ({0})	Verify that the correct License Activation File (*.v2c) is being used.
4643	Invalid Data	An older License Activation File (*.v2c) exists and must be activated first ({0})	Activate all previous License Activation Files (*.v2c) first.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
4644	Invalid Data	License Activation File (*.v2c) is corrupt or does not belong to this machine ({0})	Verify that you are uploading the correct *.v2c file for this NICE Perform eXpress machine
4645	Invalid Data	The License Activation File (*.v2c) contains an update for an activated license.	Licenses cannot be updated before they are activated. First activate the license. Then update the license with this License Activation File (*.v2c)
4655	Invalid Data	License Activation File (*.v2c) is incompatible with existing license	Verify that the correct License Activation File (*.v2c) is being used.
5000	System Error	Failed to apply changes for this branch.Try again later.	Try again later.
5001	System Error	Failed to recover this branch.	Try again later.
5500	Invalid Data	Unknown error	Contact your System Administrator.
5501	8;Functionality Disabled	Extend retention functionality is disabled.	Contact your System Administrator.
5502	Insufficient Privileges	You do not have privileges to use Extend Retention	Contact your System Administrator.
5503	9;Insufficient License	Insufficient License	Contact your System Administrator.
5504	Invalid Data	Extend retention period cannot exceed 10 years.	
6500	System Error	Unknown error	
6501	Connection Error	Error connecting to the Reporter Server.	
6502	Confirmation	Are you sure you want to delete the selected Report?	
6503	Invalid Data	High score threshold must be greater than or equal to low score threshold.	Verify as detailed in the message.

Table 13-1: Application Messages and Corrective Actions

Code	Type	Message	Suggested Action
6504	Invalid Data	Report/folder with this name already exists.	Enter a different name.
6505	Invalid Data	Report/folder name cannot be empty.Enter a valid name.	Enter a valid name.

SNMP Messages

This section comprises the following two topics:

- **Understanding SNMP Messages and Settings**
- **Responding to SNMP Messages**

Understanding SNMP Messages and Settings

This section describes how to manage the list of SNMP messages in the System Management application and how to integrate an external SNMP manager with NICE Perform eXpress.

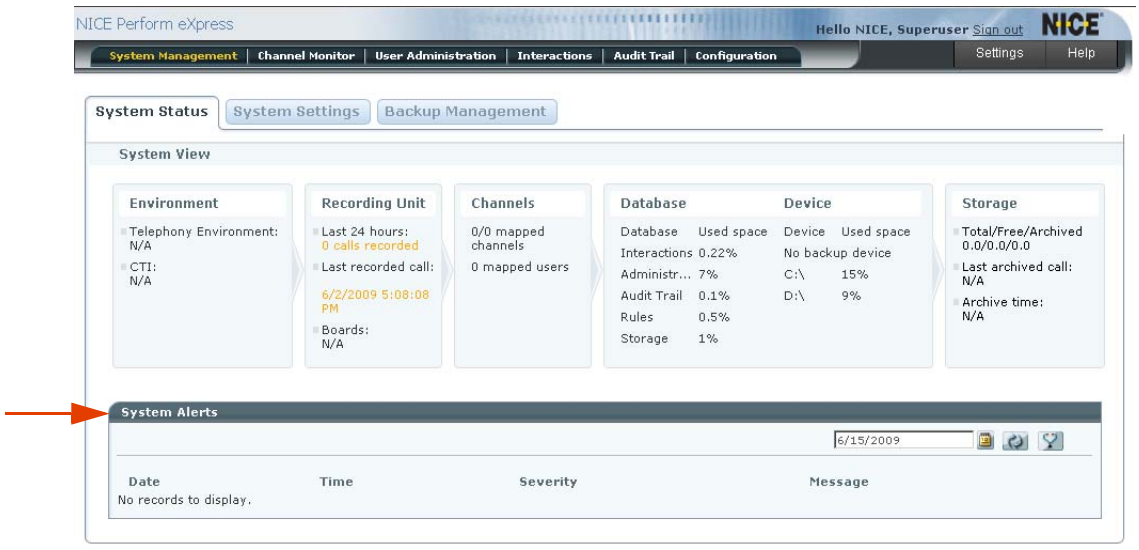
It comprises the following topics:

- **Managing SNMP Messages** on **page 179**
- **Defining the SNMP Settings for an External SNMP Manager** on **page 180**

Managing SNMP Messages

From the **System Management** application, you manage SNMP messages in the **System Alerts** area of the **System Status** tab.

Figure 13-1 System Status Tab



The **System Alerts** area lists the SNMP messages and enables managing this message list. **Table 13-2** explains the tasks you can perform.

Figure 13-2 : System Alerts Area

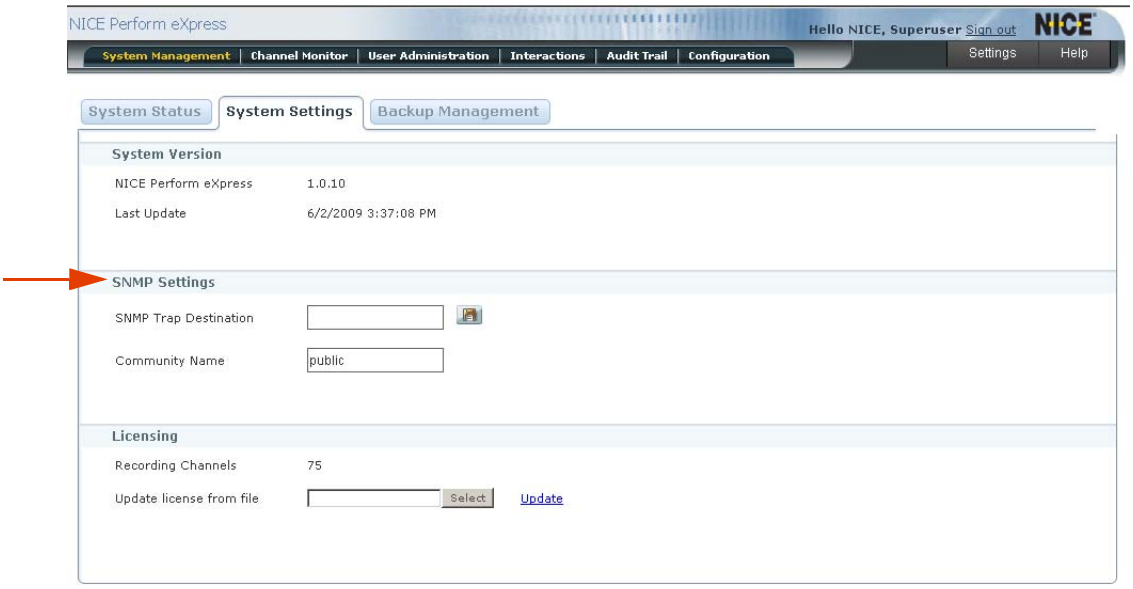
Table 13-2: Message List Functionality

If you want to...	Do this...
Sort SNMP messages by the column title.	Click the column title. For example, click **Date** to sort the messages by date. After sorting, a small arrow appears next to the column title. Date — Sorted
Filter SNMP messages by a specific date.	Enter a date in the **Date** field. 3/31/2009 - Or - Click **Calendar** , and select a date.
Refresh the message list.	Click **Refresh** .
Scan the NICE Perform eXpress system for warnings and errors.	Click **Scan for warnings and errors** . SNMP messages appear in the **System Alerts** area. (The scan can take several minutes.)

Defining the SNMP Settings for an External SNMP Manager

When NICE Perform eXpress uses an external SNMP manager, you define the SNMP settings from the **System Settings** tab of the **System Management** application.

Figure 13-3 System Settings Tab



IMPORTANT

- It is best practice to integrate an external SNMP Manager with the NICE Perform eXpress system.
- Only define the SNMP settings if the NICE Perform eXpress system has an external SNMP manager.
- Before you begin, you need the:
  - IP or host name of the server that receives the SNMP traps
  - Community Name for the SNMP messages originating from the NICE Perform eXpress machine
  - Location on the external SNMP manager for the **NPX-MIB.mib** file

The **SNMP Settings** area in the **System Settings** tab enables integrating an external SNMP manager with NICE Perform eXpress.

You need to:

- Copy the MIB file from NICE Perform eXpress system to the appropriate location on the external SNMP manager.
- Define the SNMP trap destination and the Community Name of the SNMP messages originating from the NICE Perform eXpress machine.

To define the SNMP settings:

1. Navigate to: **...\NICE Systems\NICE Perform eXpress\SystemMonitoring\ExternalProducts**. The **NPX-MIB.mib** file is saved here.
2. Copy the **NPX-MIB.mib** file to the appropriate location on the external SNMP manager. See the documentation of the SNMP manager for more details.
3. In the **SNMP Settings** area of the **System Settings** tab, enter the following information:

Table 13-3: SNMP Settings Fields

Field Name	Description	Example
SNMP Trap Destination	IP or host name of the server that functions as an external SNMP manager.	snmp-server
Community Name	Name of the group by which SNMP communities are identified.	public

4. Click **Save**.

Responding to SNMP Messages

For the most part, NICE Perform eXpress generates an SNMP error message to alert you to contact support and to give a starting point to troubleshoot the problem with the system.

NOTE: SNMP message 20008 informs you that the backup media needs to be replaced. In this case, you do not need to alert NICE support.

When an SNMP error message appears, complete the following:

1. Complete the actions listed in the **Suggested Action** column. If this does not solve the problem, continue to **Step 2**.
2. Run the Log Collector tool. A ZIP file of the logs is created.
3. Send support the ZIP file of the logs, the site configuration, and any changes on the PBX.

Table 13-4: Suggested Actions for SNMP Messages

ID	Type	Message	Trigger	Suggested Action
20000	Error	The system detected a recording software error. The loss of calls is probable.	The Recording Unit reported a software error.	Verify that the following processes are up and running: • CommMgr.exe • Dmaprcss.exe
20001	Error	The system detected a recording hardware error. The loss of calls is probable.		
20002	Error	The system detected a telephony connectivity error. The loss of calls is probable. It is recommended to check cable connections.	The Recording Unit reported that a line is disconnected.	Check cable connections.

Table 13-4: Suggested Actions for SNMP Messages (Continued)

ID	Type	Message	Trigger	Suggested Action
20003	Error	Error in archiving recorded data. The system detected that not all recorded calls are being archived.	Recorded interactions are not archived, which creates an archiving backlog.	Check that the NICE Rule Engine service is up and running. (From the **Start** menu, select **All Programs > Tools > Services Configuration Manager**. Check database parameters by running the Performance Collector tool, and send the trace file to support. (From the **Start** menu, select **All Programs > Tools > Performance Collector**. Save the trace file.)
20003	Error	Error in archiving recorded data. The system detected failure to archive some of the calls.	NICE Perform eXpress failed to archive interactions.	In the System Management application, check the capacity of the storage area. Ping the network connection to the Remote Storage Path.
20003	Error	Error in archiving recorded data. The system detected that the archiving backlog is greater than expected.	Interactions have been stored in the database for more than 24 hours without being archived by NICE Perform eXpress.	Check the network connectivity of the storage area by pinging it. Ping the network connection to the ESM.
20004	Error	Error in collecting the call metadata. The system detected recorded calls that are missing CTI information.	Too many interactions completed by the Total Recording Solution (TRS).	Check whether the following occurred on the PBX: • The PBX had been disconnected. • Recent maintenance activities. • Parameter changes.

Table 13-4: Suggested Actions for SNMP Messages (Continued)

ID	Type	Message	Trigger	Suggested Action
20005	Error	Database error. The system detected that a database backup operation failed.	Database backup process failed.	Check the space available for database backup. If the system was installed less than a week ago, run the Nice Full Backup job.
20005	Error	Database error. The system detected a general database error.	General database failure.	Check that the SQL server is up and running. Connect to the SQL server. Run the Performance Collector tool.
20006	Error	The system detected a backup device hardware error.	Backup device failure.	Replace the backup device.
20007	Error	The system detected a backup device software error.	Backup device failure.	
20008	Info	The system detected that a manual maintenance action is required on the backup device.	Backup device requires replacing or inserting recording media.	In the backup device, replace or insert recording media.

14

NICE Perform eXpress Integration Testing Tools

Contents

Connection Manager Monitor

The NICE Connection Manager Monitor tool enables you to view the contents of the Connection Manager's tables. It also enables you to verify if:

- Devices are monitored
- Monitored devices are filtered

  and

- Displays the loaded CTI links
- Displays connected clients.

Your next step is to connect the Connection Manager Monitor tool to the Connection Manager as a client. It then receives events in addition to monitoring devices, enabling you to conduct simple tests without running a driver.

This section includes:

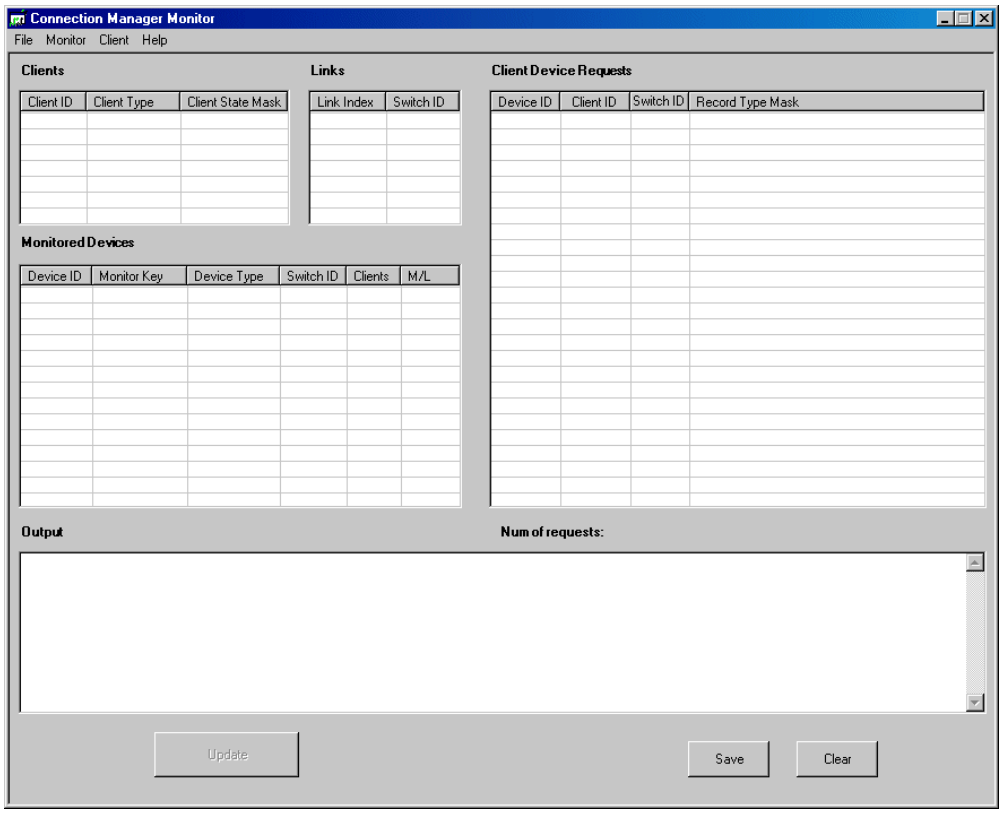
Setting Up the Connection Manager Monitor

To set up the Connection Manager Monitor, follow the procedures below.

To set up Connection Manager Monitor:

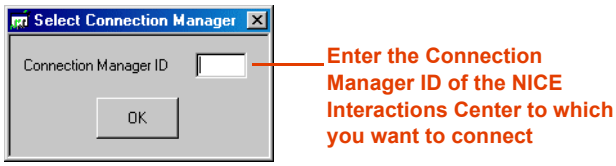
1. In the NICE Interactions Center, navigate to the **Integrations** folder (the default location is **D:\Program Files\NICE Systems\NICE Perform eXpress\CTI**. Double-click **ConnectionManagerMonitor.exe**. The Connection Manager Monitor window appears.

Figure 14-1 Connection Manager Monitor Window



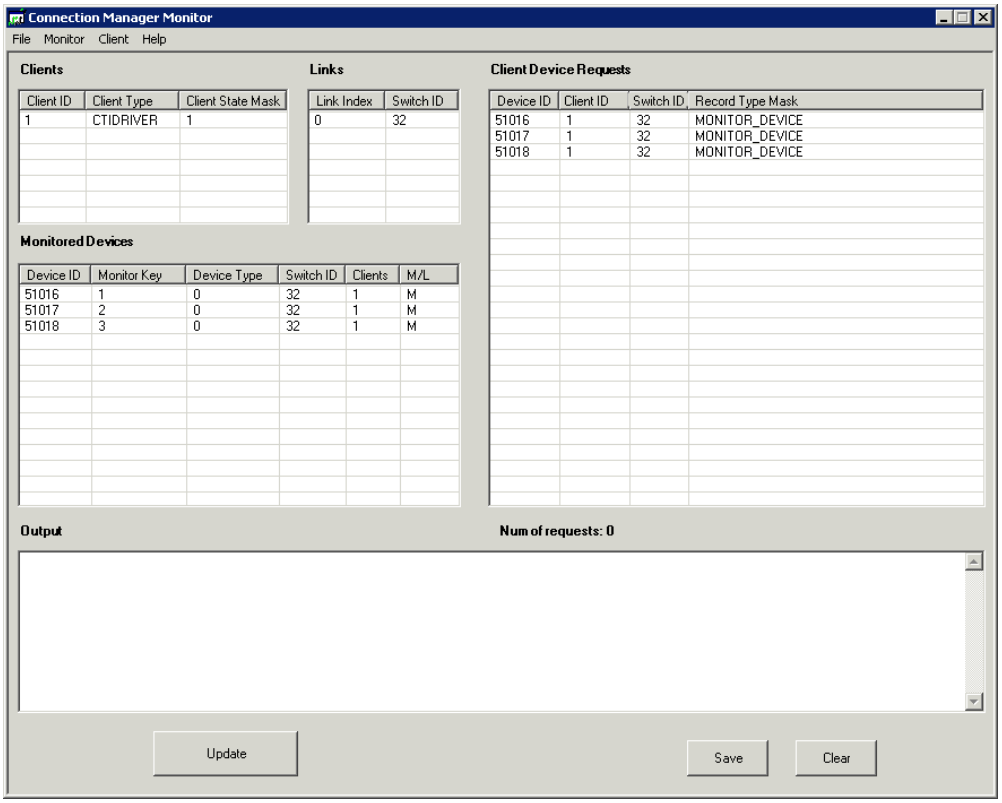
2. From the **Monitor** menu, select **Connect**. The Select Connection Manager window appears.

Figure 14-2 Select Connection Manager Window



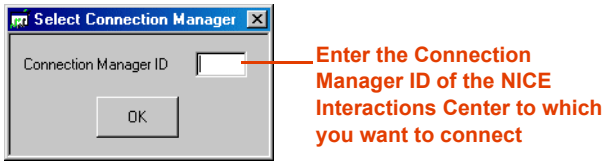
3. Enter the **Connection Manager ID** of the NICE Interactions Center to which you want to connect. Click **OK**. The Connection Manager Monitor displays the contents of the Connection Manager tables.

Figure 14-3 Connection Manager Window - Tables



4. From the **Client** menu of the Connection Manager Monitor window, select **Connect**. The Select Connection Manager window appears.

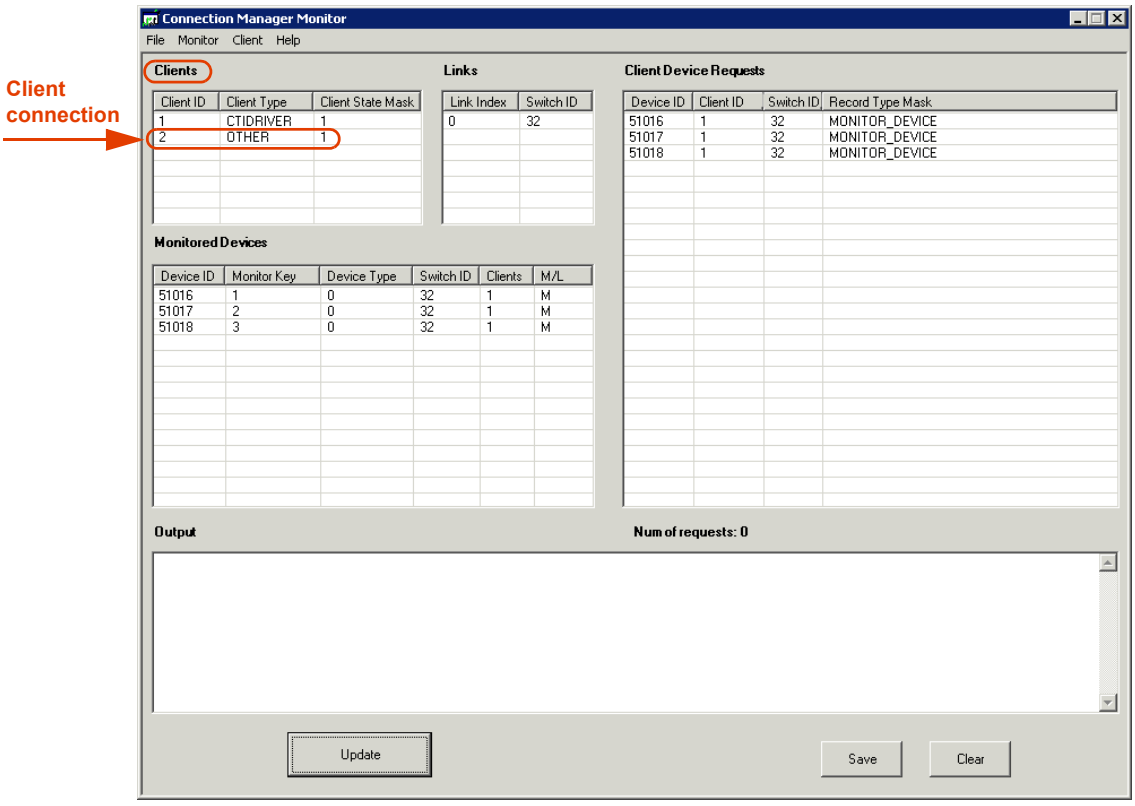
Figure 14-4 Connection Manager Window - Client Menu



5. Enter the **Connection Manager ID** of the NICE Interactions Center to which you want to connect. Click **OK**.

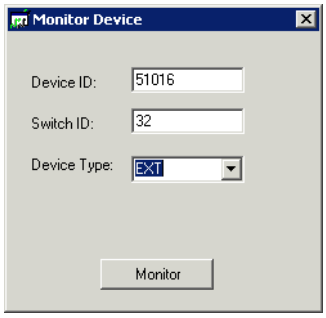
   After the Connection Manager Monitor establishes connection to the desired Connection Manager, the **Monitor**, **Stop Monitor**, and **Disconnect** options in the **Client** menu become enabled. The Client connection appears in the **Clients** area.

Figure 14-5 Connection Manager Monitor - Client Connection in Clients Area



6. From the **Client** menu, select **Monitor**. The Monitor Device window appears.

Figure 14-6 Monitor Device Window



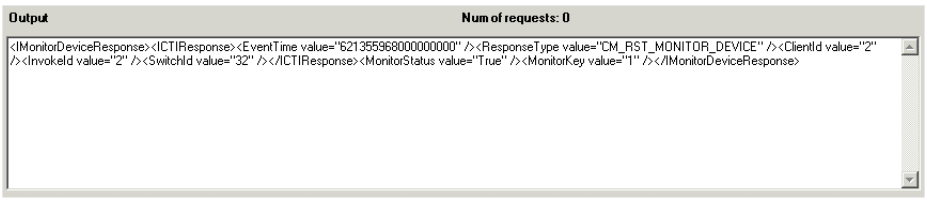
a. In the **Device ID** field, enter the Device ID number of the Connection Manager to which you want to connect.

b. In the **Switch ID** field, enter the Switch ID number.

c. From the **Device Type** drop-down list, select the appropriate device type.

d. Click **Monitor**. The response appears in the **Output** area.

Figure 14-7 Output Area

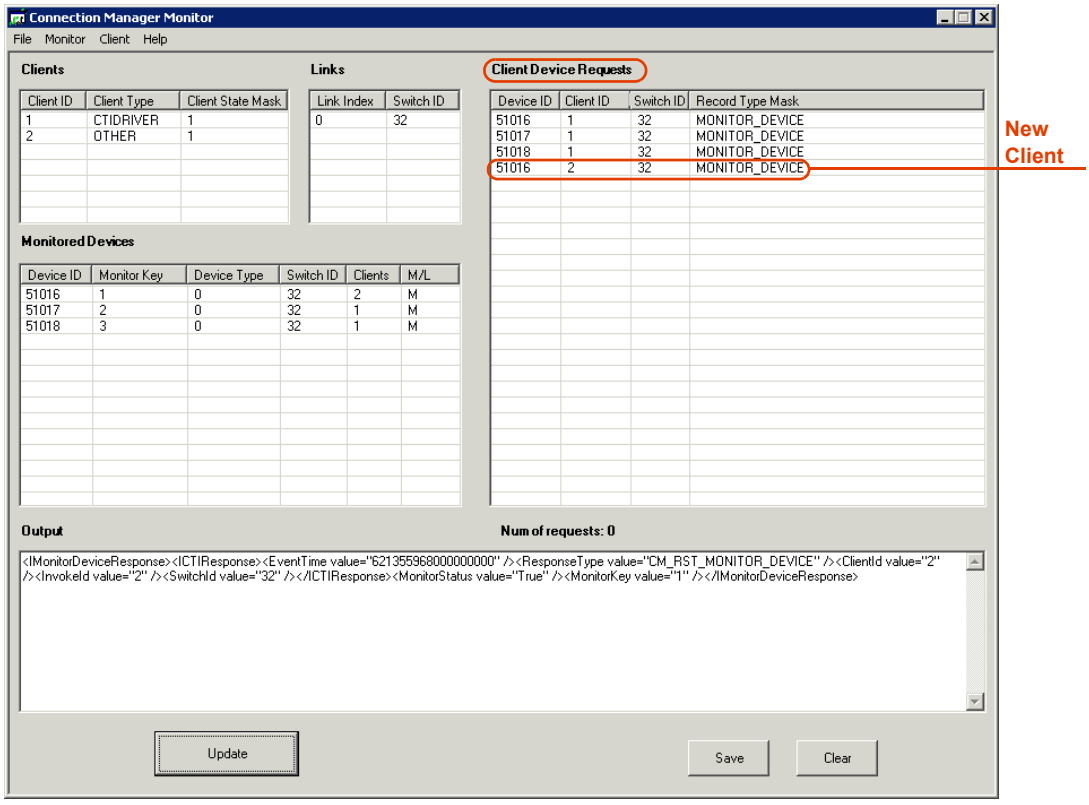


IMPORTANT

The Connection Manager Monitor window does not continuously refresh the data displayed in the window; it only displays the data current at the time you establish the connection. To update the data displayed in the window, click **Update**.

7. Click **Update**. The new Client appears in the **Client Device Requests** area.

Figure 14-8 Connection Manager Monitor - Client Device Requests Area



Managing the Connection Manager Monitor

This section includes the following topics:

- Stopping the Connection Manager Monitor
- Disconnecting the Connection Manager Monitor Client

Stopping the Connection Manager Monitor

This procedure describes how to stop the Connection Manager Monitor when it is functioning as a client.

To stop the Connection Manager Monitor:

1. From the **Client** menu of the Connection Manager Monitor window, select **Stop Monitor**. The Stop Monitor Device window appears.

   Figure 14-9 Stop Monitor Device Window

2. Enter the **Device ID** number and the **Switch ID** of the device you want to stop monitoring.
3. Click **Stop Monitor**. The response appears in the **Output** area.

Disconnecting the Connection Manager Monitor Client

This procedure describes how to disconnect the Connection Manager Monitor when it is functioning as a client.

To disconnect the Connection Manager Monitor Client:

- From the **Client** menu of the Connection Manager Monitor window, select **Disconnect**.

  The Client connection of the Connection Manager no longer appears in the **Clients** area and in the **Client Device Requests** area.

Log Manager System

The Log Manager system logs all significant system activity and maintains a log of all data, enabling you to view the history of all relevant system activity.

The Log Manager system has the following main components:

- Log Manager
- **CTI Console Viewer**
- **Log Manager Services**
- **Log Viewer**

Using the Log Manager

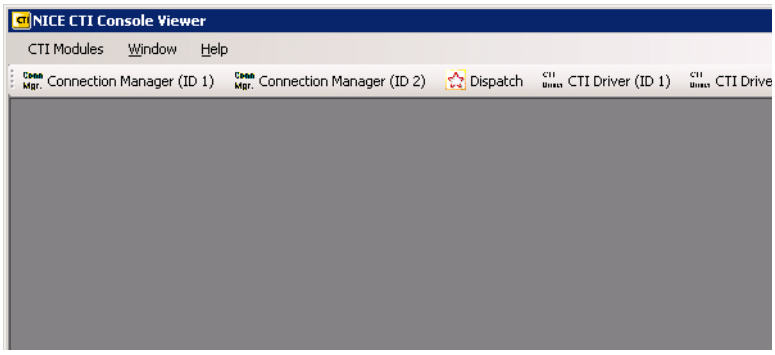
The Log Manager creates log message files and/or sends information to the CTI Console Viewer, the log file, and the Event Log according to the predefined Reporting Level filter.

Using the CTI Console Viewer

The CTI Console Viewer enables real-time log tracking of the screens of all integration components installed on the local machine. This application replaces the Console windows in the Reporting Level of the integration process, and provides the user with filtering capability.

CTI Console Viewer has a separate window for each integration process. You can view and filter an event, as well as change the Reporting Level. You cannot do this in the System Administrator. Files are saved automatically in the Log Manager and can be viewed afterwards in the Log Viewer.

Figure 14-10 CTI Console Viewer



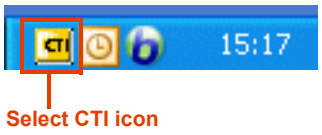
Opening the CTI Console Viewer

Follow the procedure below.

To open the CTI Console viewer:

- Double-click the icon in the system tray.

Figure 14-11 System Tray



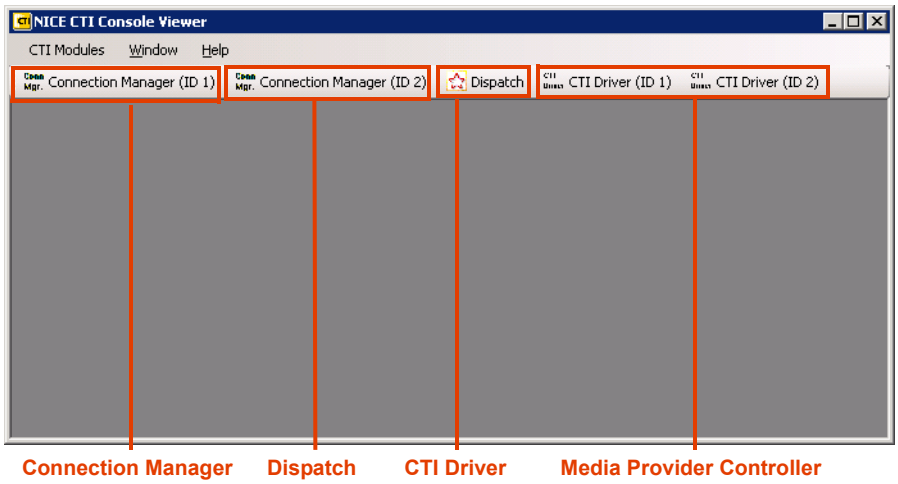
-or-

- Right-click the icon, and select **Open NICE CTI Console Viewer**.

To open a specific integration process window:

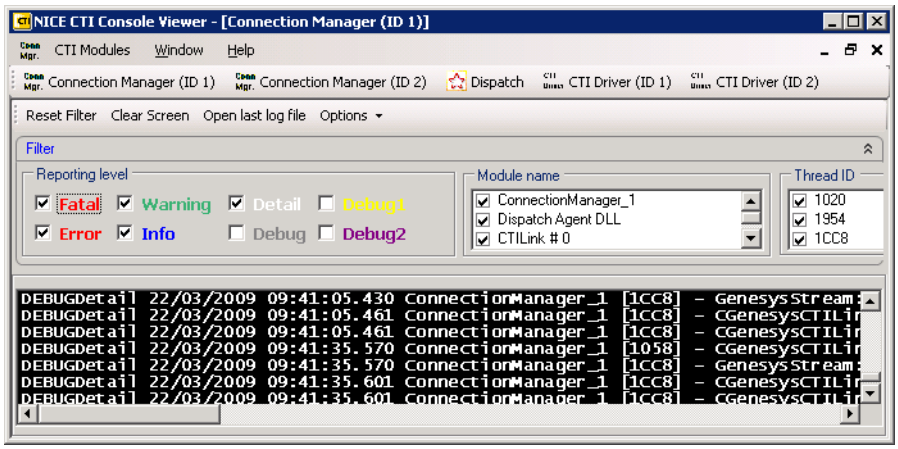
- From the **NICE CTI Console Viewer** window, select the relevant integration process.

Figure 14-12 NICE CTI Console Viewer



A log window opens and the integration modules installed on the local machine are listed. (This list is updated when you add/remove any integration modules in the NICE System Administrator.)

Figure 14-13 CTI Log Window



NOTE: These Reporting Levels are only relevant for the CTI Console.

WARNING

Reporting Levels may be helpful for troubleshooting. However, making changes to the Reporting Levels can greatly add to the load on your system. Changing Reporting Levels should therefore be done **only** by authorized personnel and in conjunction with NICE Customer Support.

Filtering Messages

You can filter messages in any of the following manners:

- **Reporting Level:** Clear the checkboxes of the Reporting Levels that are irrelevant (message importance).
- **Module name:** Clear the checkboxes of any modules that are irrelevant.
- **Thread ID:** Clear the checkboxes of any Thread IDs that are irrelevant.

Resetting the Filter

To reset the filter:

NOTE: The filter is applied to new messages. It does not affect old messages.

- Click the **Reset Filter** button.

  The filter in Module Name and Thread ID is reset, and all the messages are printed. (The Reset filter option does not affect the reporting level).

Figure 14-14 Reset Filter

Managing the CTI Console Viewer

To clear the screen of messages:

- Click the **Clear Screen** button.

  All the messages are cleared from the screen.

To open the last log file:

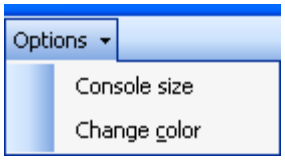
- Click the **Open last log file** button.

  The current log file with Log Viewer opens (see Log Viewer section). You can see log messages from the specific modules in real-time as they are displayed.

To change console size and color:

1. From the **Options** menu, select **Console size**.

   Figure 14-15 Options Menu

   When the log window is filled with the maximum number of messages, the top rows are automatically deleted.

2. From the **Options** menu, select **Change color**.

   a. Select a background color.

   b. Select a color for each reporting level.

Blank page for double-sided printing.

15

Troubleshooting Cisco Integrations

Contents

Cisco Skinny and SIP Troubleshooting

If the CTI Driver does not receive any CTI events from the SIP Decoder/Cisco Skinny Interface, verify the network configuration is correctly configured to capture the signaling packet between the CUCM/CUCMX and the endpoints.

To verify the Network configuration:

1. For the network configuration to capture the signalling packets between the CUCM/CUCMX and the endpoints, it should be configured in one of the following ways:
   - Both the driver and the IP phones should be connected on the same Hub (less common).
   - The switch should be configured to mirror the traffic. Verify this with your Site Engineer.
2. Verify with your Site Engineer that the network adapter configuration conforms to your site.

Cisco Passive Troubleshooting

Using TAPIMonitor

Follow the relevant procedure:

- **Setting Up TAPIMonitor as a Debug Tool**
- **Collecting the TAPIMonitor Log Files** on **page 204**
- **Resetting TAPI** on **page 204**

Setting Up TAPIMonitor as a Debug Tool

The TAPIMonitor enables you to see the events occurring from the Cisco TSP. You can view the lines that are open and see the events on those lines.

NOTE: This tool should only be used for debugging purposes when you are instructed to do so by the NICE Customer Support.

Before opening an Open Service Request Procedure, set up the TAPIMonitor to run as a debug tool. You should perform **open line** for a specific Directory Number (DN) and recreate the problematic call scenario.

You can also use the TAPIMonitor to verify that the Directory Numbers (DNs) are being monitored. In this case too, you should perform open line.

Remember to send the TapiMonitor.exe log file when you open the Service Request.

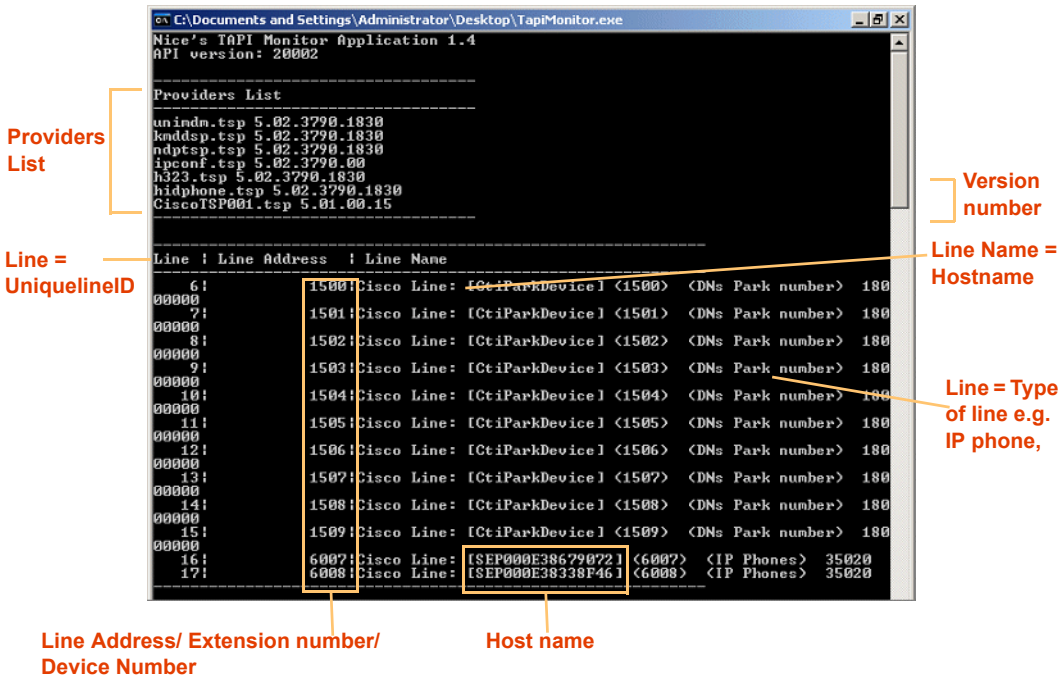
IMPORTANT

When running TAPIMonitor as a debug tool, it is highly recommended that you stop the NICE Integration Dispatch Service. If you cannot stop it for operational reasons, contact NICE Customer Support.

To run the TAPIMonitor as a debug tool:

1. From the NICE Perform eXpress machine, navigate to **..\Program Files\NICE Systems\NICE Perform eXpress\CTI**.
2. Double-click **TAPIMonitor.exe**.
3. Run the TAPI monitor application. A window appears with the connection details. A successful connection should look similar to **Figure 15-1** on **page 200**.

Figure 15-1 TAPIMonitor.exe Connection Details Window



4. Verify all extensions appear in the **Line Address** column.
5. In the TAPIMonitor.exe window, enter one of the lines of the phone devices (in **Figure 15-1**, Line 16 or 17). Press **<Enter>**.

EXAMPLE:

*Type **317** and press **<Enter>** to monitor DN **6100** on the physical device with the MAC address **SEP0015F97E28D8** for an Open Line.*

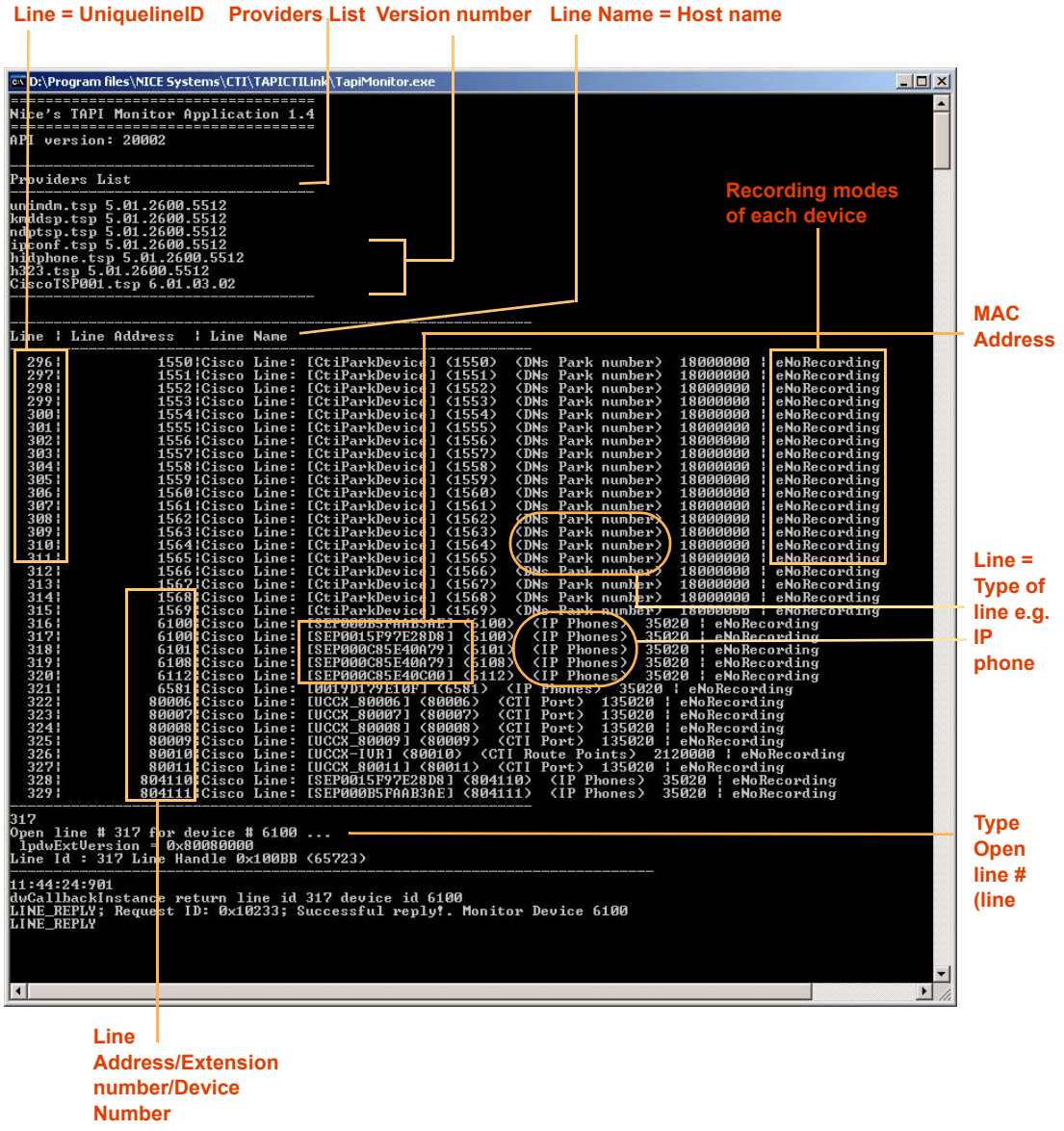
6. Make a phone call from one device to another.

EXAMPLE:

*For line 16, use device **6007** that is on the device with the MAC Address* - **SEP000E38679072**.

7. If you configured your system for security (SRTP), verify that a padlock icon appears on the phone's screen. (**NOTE**: This is only for internal calls.)
8. Verify that the TAPIMonitor.exe window displays all of the information for the call coming from the switch, (including the keys for this session - SRTP).

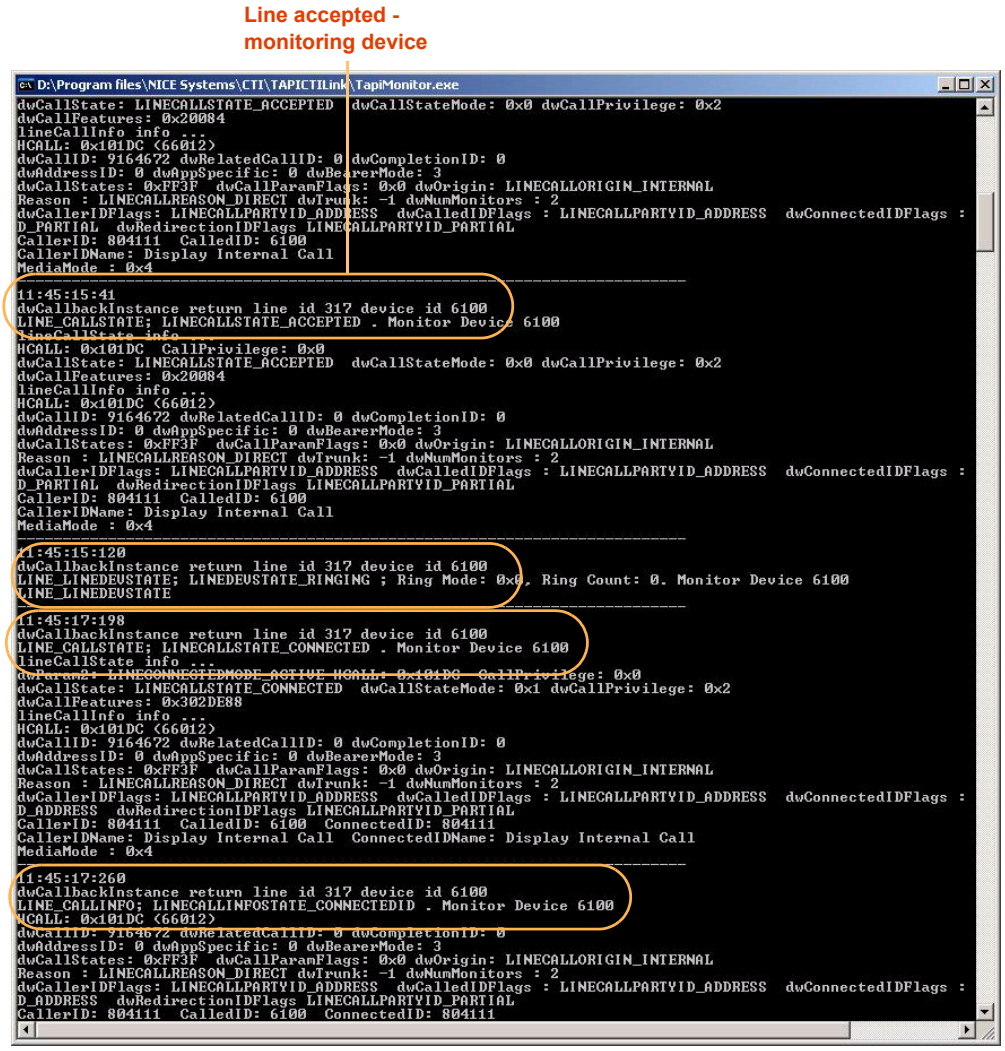
Figure 15-2 TAPIMonitor.exe - Successful Connection Example



NOTE: You can also see the host name (SEP + MAC address) for each device. This can be useful for future troubleshooting.

9. Perform the scenario and verify that events are received.

Figure 15-3 Example - Verify the Events are Received

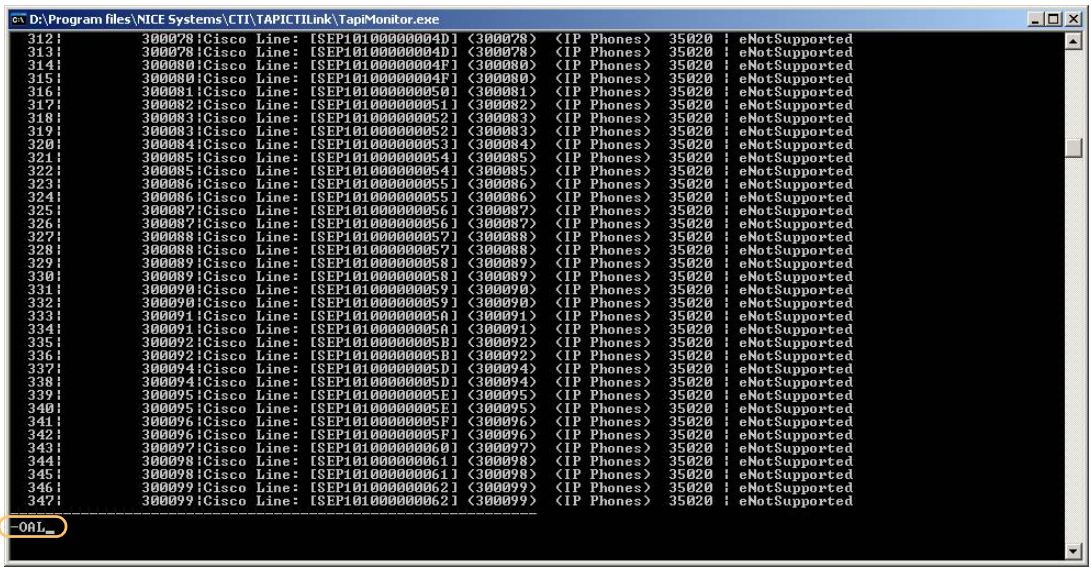


After you have verified the connection, the TSP Client is able to monitor the devices configured in the CUCM and receive the relevant information required to decrypt the call packets and to allow proper recordings.

NOTE: You can view all information regarding the TAPIMonitor results in the TAPIMonitor.txt file - **NICE Perform eXpress\CTI\TAPICTILink**.

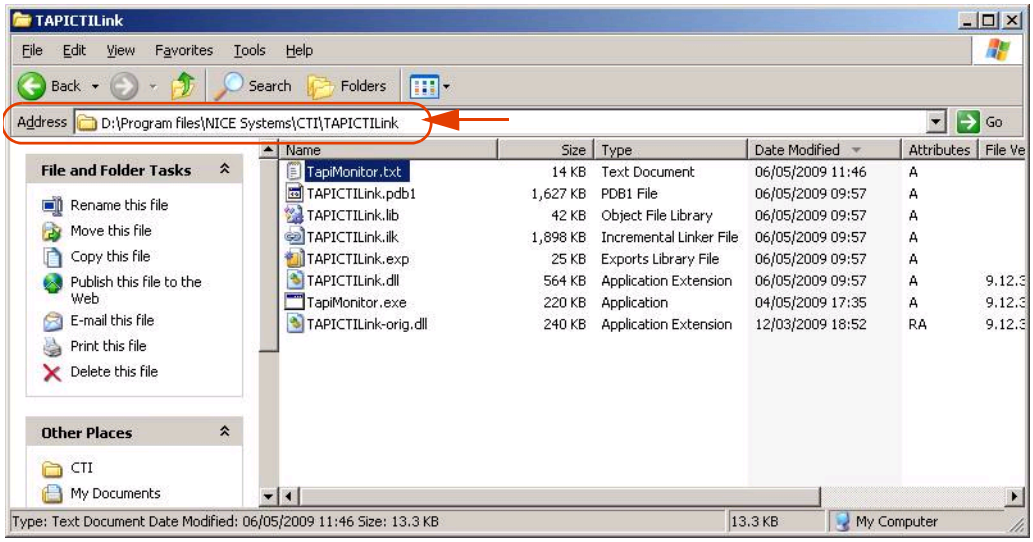
10. To monitor all lines in this list, type **-OAL** and press **<Enter>**.

Figure 15-4 Monitor All Lines



11. Exit the program after the scenario is completed.
12. Navigate to **D:\Program Files\NICE Perform eXpress\CTI\TAPICTILink.**

Figure 15-5 TAPIMonitor Folder



13. Zip the files and send the **TAPIMonitor.txt** file to NICE Customer Support.

Collecting the TAPIMonitor Log Files

You should send the TAPIMonitor files to NICE Customer Support.

To collect the TAPIMonitor files:

1. In the NICE Interactions Center, navigate to the **TAPICTILink** folder. (The default location is **D:\Program Files\Nice Systems\NICE Perform eXpress\CTI\TAPICTILink)**.
2. Zip the files and send them to NICE Customer Support.

Resetting TAPI

No reset is required for the TAPIMonitor.

Remember to close the application when you have finished debugging the system.

Using TSP as a Debug Tool

Follow the relevant procedure:

- **Collecting and Saving TSP Log Files** on **page 204**
- **Resetting the TSP** on **page 206**

Collecting and Saving TSP Log Files

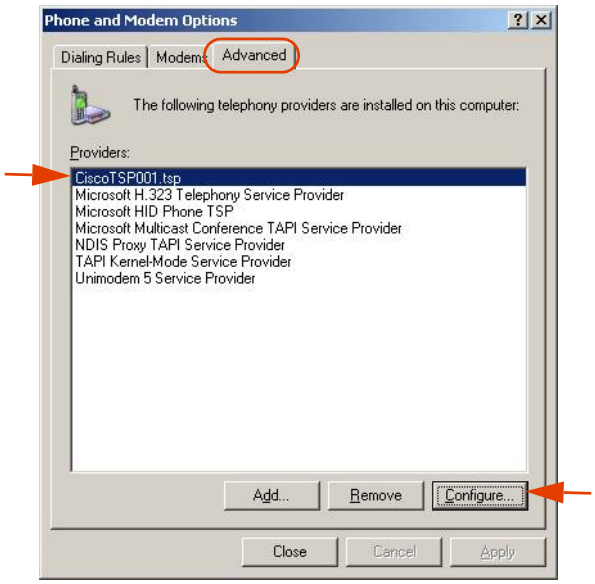
The TSP Log files are very useful for troubleshooting purposes. You should send these files together with the other log files.

Before you repeat the scenario for troubleshooting purposes, you should delete existing log files. You then need to set up the TSP for troubleshooting, repeat the problematic scenario, zip the log files for sending to NICE Customer Support, and then return the TSP to its original settings.

To collect and save TSP log files:

1. Navigate to **C:\Temp** and delete all existing TSP log directories.
2. Navigate to **Start > Settings > Control Panel** and point to **Phone and Modem Options**.
3. Click the **Advanced** tab.

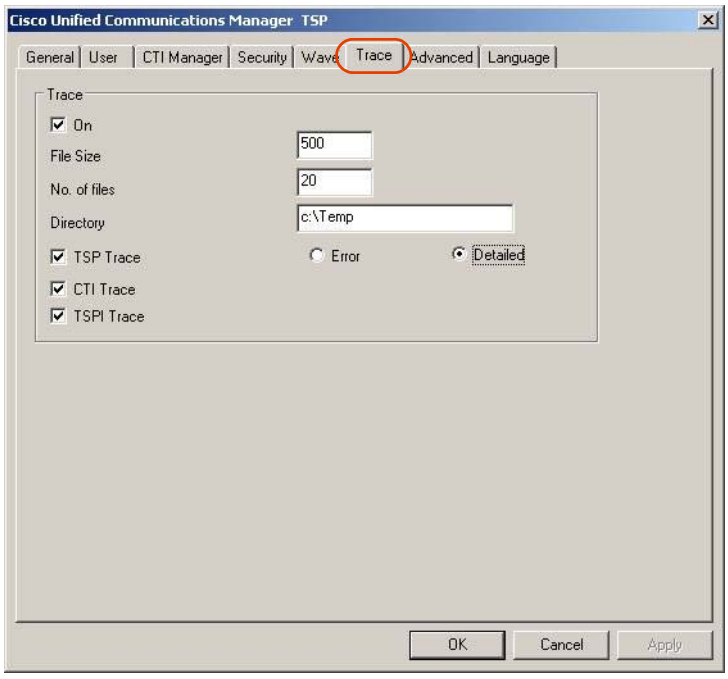
Figure 15-6 Phone and Modem Options Window - Advanced Tab



4. In the **Providers** list, select **CiscoTSP001.tsp** and click **Configure**. The Cisco Unified Communications Manager TSP window appears.

   a. Click the **Trace** tab.

Figure 15-7 CUCM TSP Window - Trace Tab



IMPORTANT

Consider the available free disk space on the relevant drive BEFORE setting your **File Size** and **No. of files** fields.

b. In the **File Size** field, enter **500**. (This value is in MB.)

c. In the **No. of files** field, enter **20**.

EXAMPLE:

In the example above, the available disk space required will be:
500 x 20 = 10 GB.

d. Select **Detailed**.

e. Select the **CTI Trace** and **TSPI Trace** checkboxes.

f. Leave the default directory setting as **C:\Temp**.

g. Click **OK**.

5. Repeat the problematic scenario.
6. Navigate to **C:\Temp** and zip the relevant log file directories and send them to NICE Customer Support together with all other relevant log files and the completed Open Service Request Procedure checklist.
7. After sending the Open Service Request Procedure's log files, reset the TSP to its original settings, see **Resetting the TSP** on **page 206**.

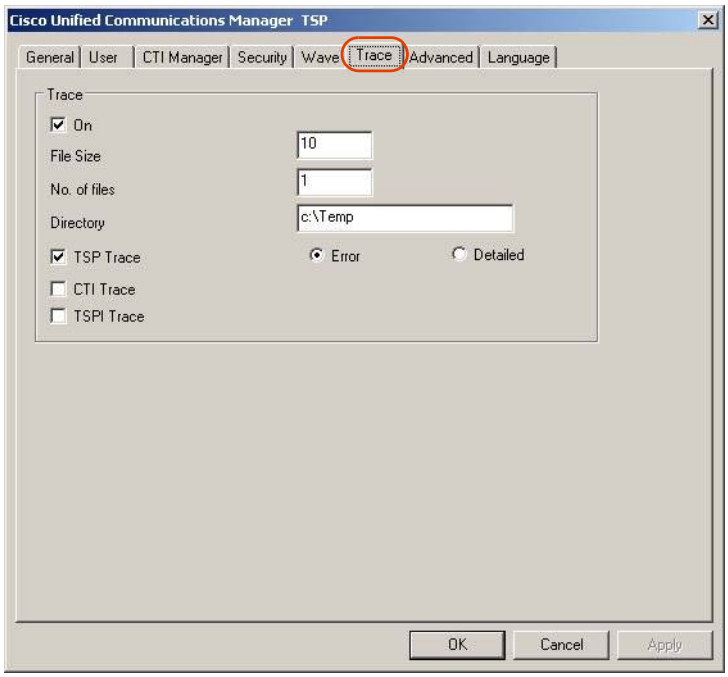
Resetting the TSP

After sending the TSP log files to NICE Customer Support, return the system to its original configuration.

To access and save TSP log files:

1. Navigate to **Start > Settings > Control Panel**. From the **Control Panel**, select **Phone and Modem Options**. Click the **Advanced** tab. In the **Providers** list, select **CiscoTSP001.tsp** and click **Configure**.
2. Click the **Trace** tab.

Figure 15-8 CUCM TSP Window - Trace Tab



3. In the **File Size** field, enter **10**.
4. In the **No. of files** field, enter **1**.
5. Select **Error**.
6. Clear the **CTI Trace** and **TSPI Trace** checkboxes. (Only the **TSP Trace** checkbox should be selected.)
7. Click **OK**.

TAPI Troubleshooting

This section comprises common troubleshooting scenarios and solution procedures:

A Complete List of Lines Does Not Appear

Scenario: After installing and configuring the Cisco TSP, you run **TapiMonitor.exe**. However, a complete list of lines does not appear.

Solution: Reboot the computer. The Telephony Service must be synchronized with the CUCM. For this to happen, the computer must be rebooted. See the following section, **Resetting the CTI service on the CUCM cluster**.

Resetting the CTI service on the CUCM cluster

Follow this procedure to reset the CTI service on the CUCM cluster.

To reset the CTI service on the CUCM cluster:

1. From the **Navigation** drop-down list, select **Cisco Unified Serviceability** and click **Go**.

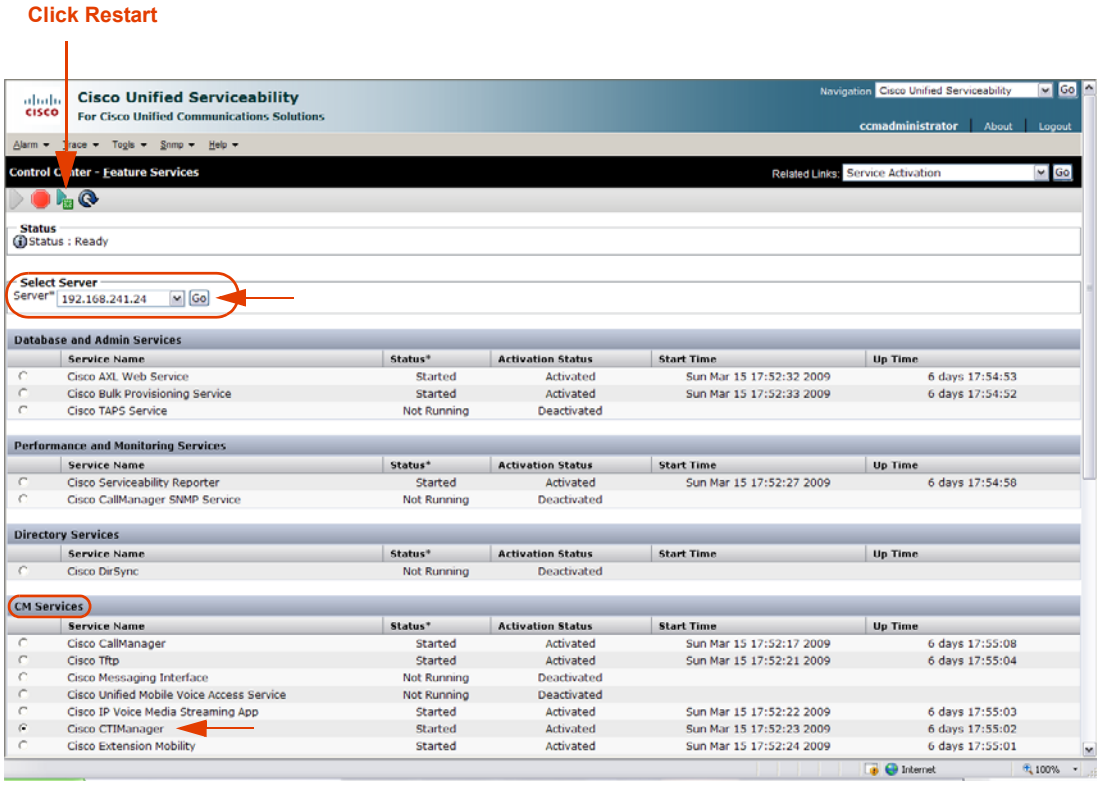
Figure 15-9 Navigation Drop-down List

2. Login to **Cisco Unified Serviceability**.
3. From the **Tools** menu, select **Control Center - Feature Services**.

Figure 15-10 Navigation Drop-down List

4. In the **Select Server** area, from the **Server** drop-down list, select the server where the CTI service is installed.

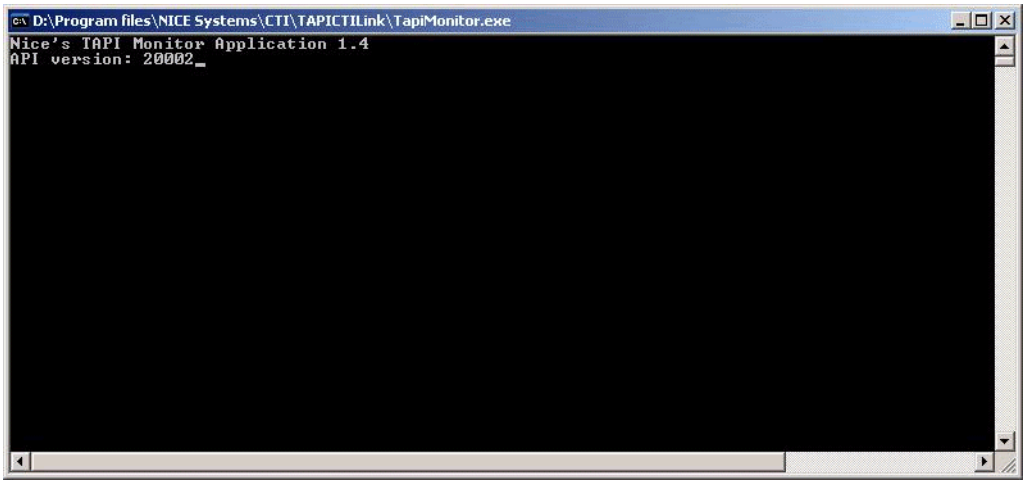
Figure 15-11 Select Server Area



5. Click **Go**.
6. In the **CM Services** area, select **Cisco CTIManager** and click **Restart**.

No Lines Appear in TAPIMonitor

Figure 15-12 TAPIMonitor - No Lines Appear

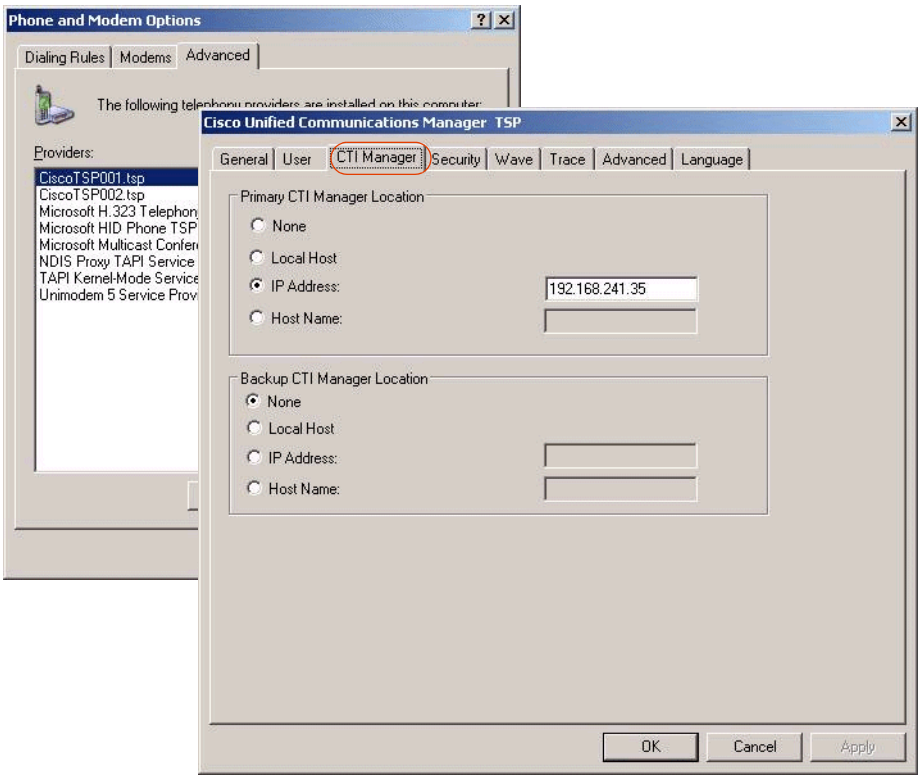


If no lines appear in the TAPIMonitor, troubleshoot this problem using the scenarios below:

Scenario 1: While you are configuring the TSP client (see **Figure 15-13** on **page 210**), you try to run the TAPIMonitor. No lines appear in the TAPIMonitor.

Solution: Finish configuring the TSP client and then run TAPIMonitor.

Figure 15-13 Scenario 1



Scenario 2: If one of the parameters in the TSP client are not configured properly, then no lines appear in the TAPIMonitor.

Solution: Verify the following parameters:

- user name
- password
- IP address

Scenario 3: If there is a problem of connectivity from the NICE Perform eXpress system to the CUCM, then no lines appear in the TAPIMonitor.

Solution: Perform all normal connectivity tests e.g. ping the CUCM, firewall, etc.

Scenario 4: If no devices were configured on the CUCM, then no lines appear in the TAPIMonitor.

Solution: Verify that all relevant devices are configured on the CUCM in the **nicecti user**:

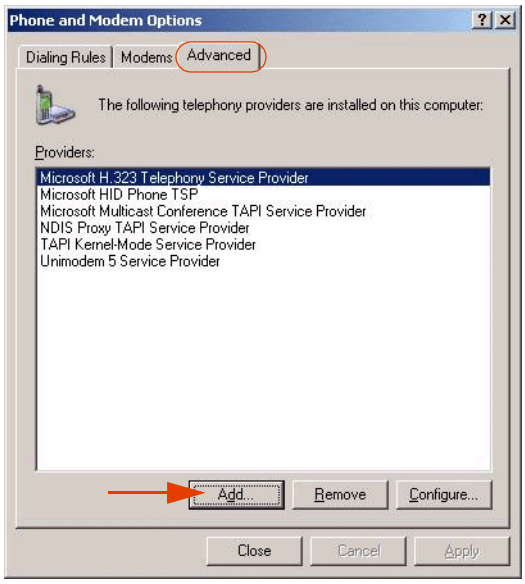
Scenario 5: If the TSP client does not appear under the Phones and Modems Options window, then no lines appear in the TAPIMonitor.

Solution: You need to add the TSP client.

To add the TSP client:

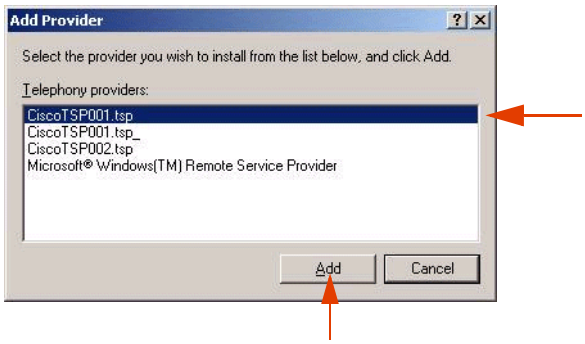
1. Navigate to **Start > Settings > Control Panel > Phone and Modem Options**. The Phone and Modem Options window appears.
2. Click **Advanced**.

Figure 15-14 Phone and Modem Options Window - Advanced Tab



3. Click **Add**.

Figure 15-15 Phone and Modem Options Window - Advanced Tab



4. Select the relevant Cisco TSP client.
5. Click **Add**. The selected TSP client appears in the Phone and Modem Options window.
6. Click **Configure** and verify that it is configured properly.

TSP's STATUS Certificate Not Available

Scenario: (Secured Connections Only) In the **Security** tab, the TSP's **STATUS** certificate is not available.

Solution: Ask the Cisco Site Engineer for a new authorization string. Select Fetch Certificate and try to fetch the certificate again. Then, reboot. If this doesn't work, reboot the CTI server.

Call Park Scenarios are not Reported Correctly

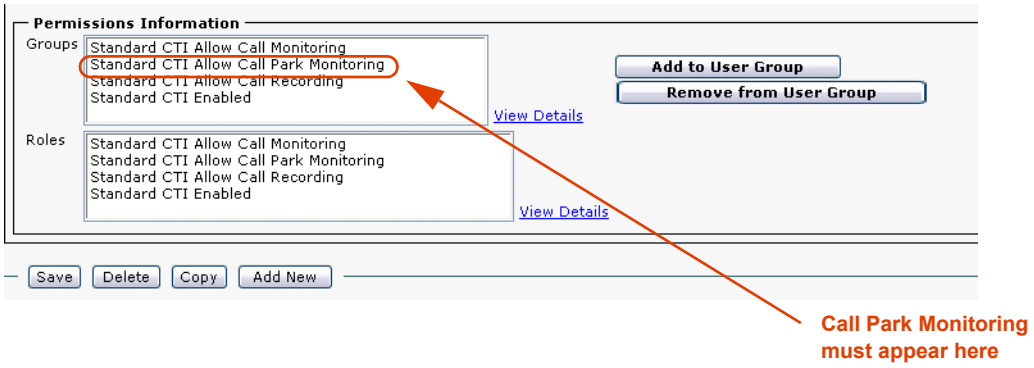
Scenario: Call Park scenarios are not reported correctly.

Solution: Ensure that the Call Park numbers are attached to your **nicecti user**.

To ensure that all Call Park numbers are attached to the nicecti user:

- *If using an Application User*, ensure that all Call Park numbers are attached to your **nicecti user** appear in the **Permissions Information** area.

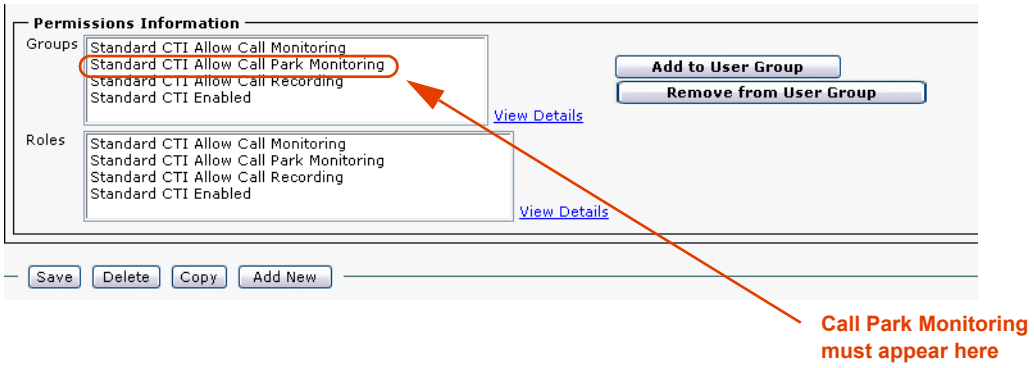
Figure 15-16 Permissions Information Area



-or-

- *If using an End User*, ensure that all Call Park numbers are attached to your **nicecti user** appear in the **Permissions Information** area.

Figure 15-17 Permissions Information Area



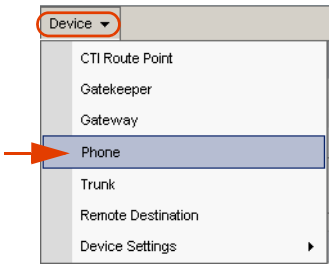
Receiving No Events for a Specific Device

If you have performed all the required configuration for the Application User and you still receive no events for a specific device, follow the procedure below.

To enable control of device from CTI:

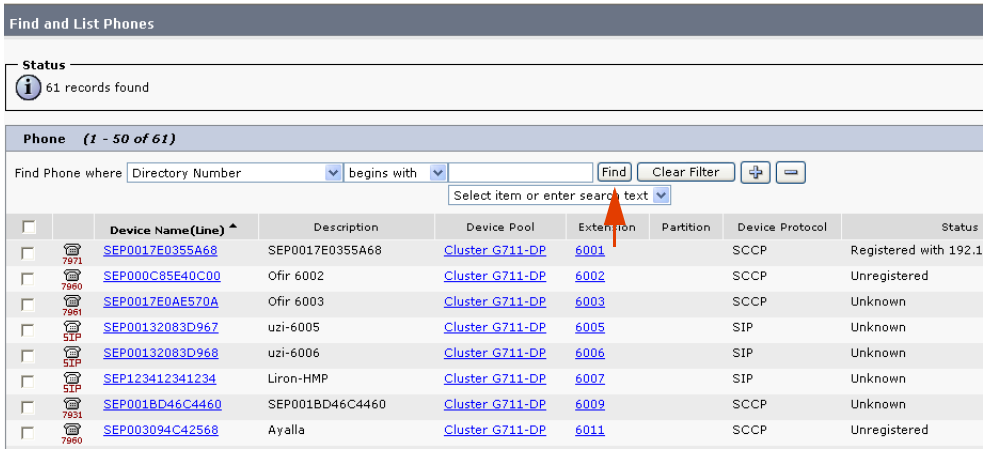
1. From the **Device** menu, select **Phone**.

Figure 15-18 Device Menu



The Find and List Phones window appears.

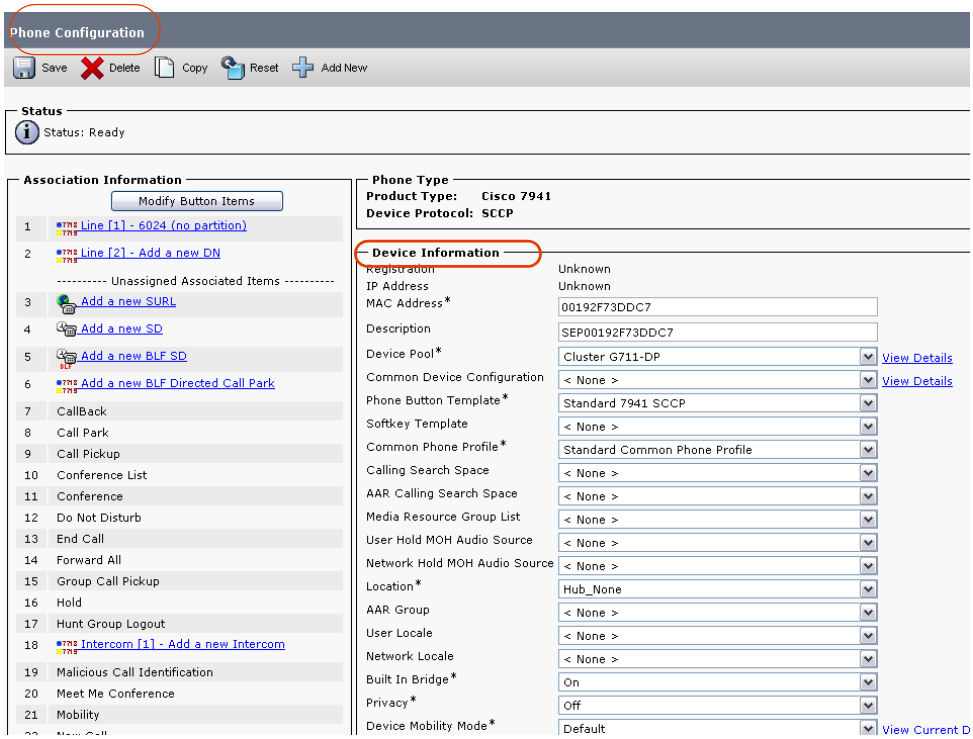
Figure 15-19 Find and List Phones Window



2. In the **Find Phone where** area, enter the information for the phone/s that you want to record.
3. Click **Find**. The Find and List Phones window appears.

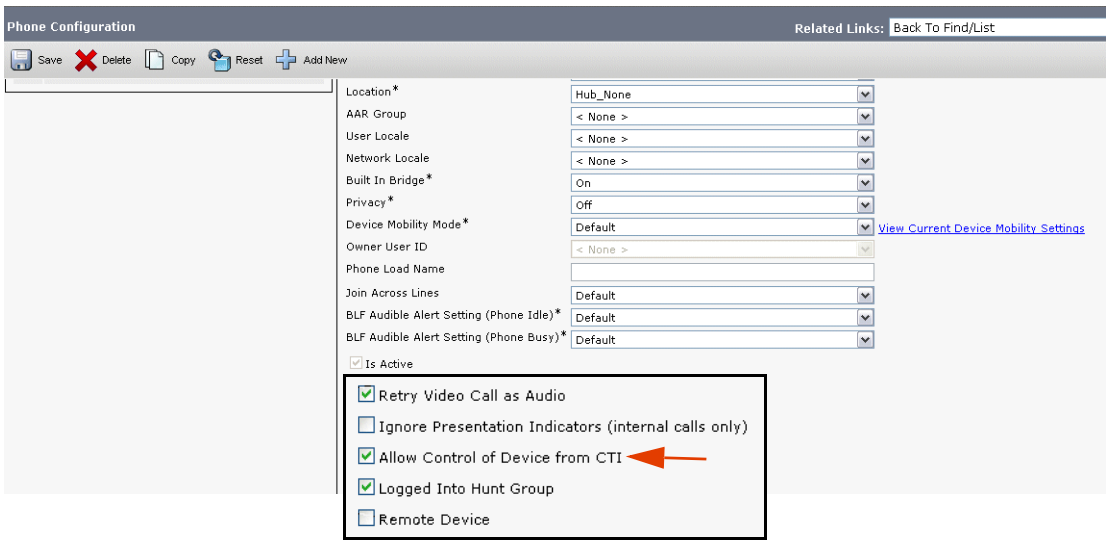
   The Phone Configuration window appears.

Figure 15-20 Phone Configuration Window



4. In the **Device Information** area, select **Allow Control of Device from CTI**.

Figure 15-21 Phone Configuration Window - Allow Control of Device from CTI



5. Click **Save**.
6. If you still receive no events from this specific device, see **Receiving No Events for a Specific Device #2**.

Receiving No Events for a Specific Device #2

IMPORTANT

If there is still a problem after you have performed the configuration above, verify that this device is associated with the Application User and NOT an End User as recommended by Cisco

If the problem continues, see **Receiving No Events for a Specific Device #3**.

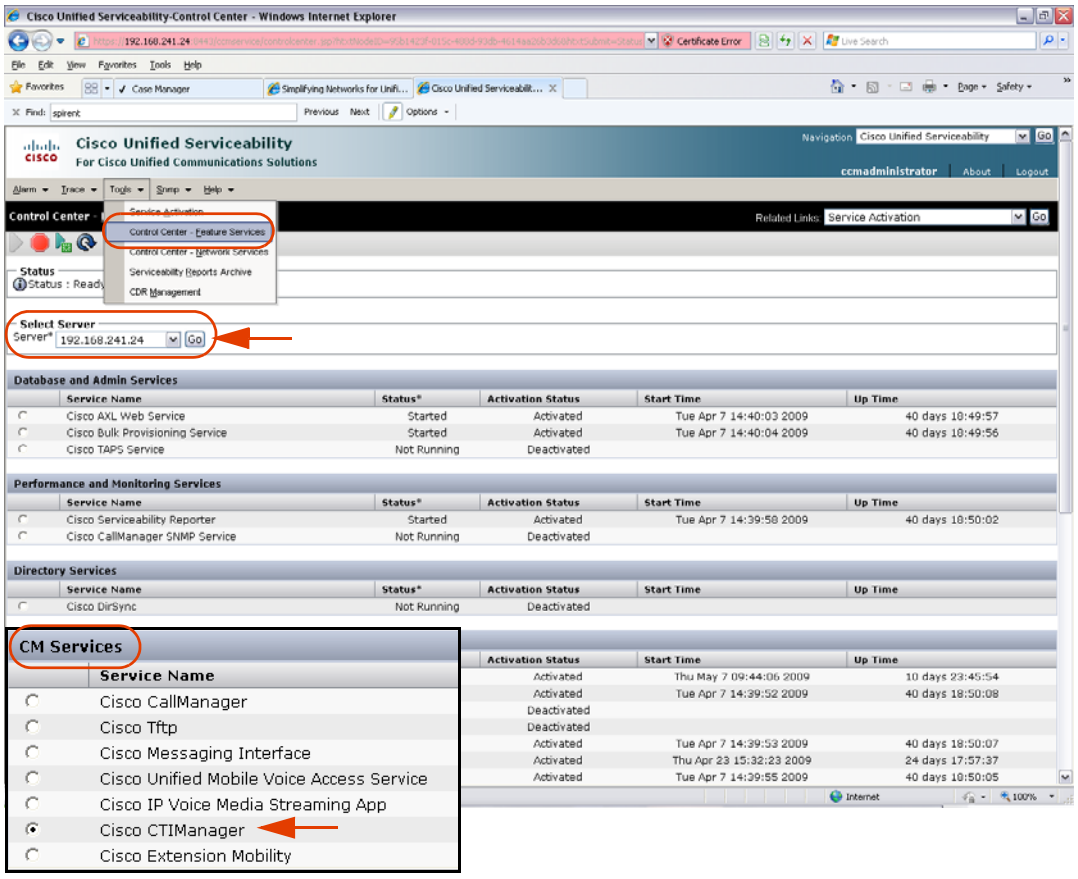
Receiving No Events for a Specific Device #3

If you have verified that **Allow Control of Device from CTI** is selected and that the device is associated with the Application User/End User and you are still receiving no events for a specific device, you should reset the Cisco CTIManager Service.

To reset the CTIManager Service:

1. Navigate to the **Cisco Unified Serviceability** window.
2. From the **Tools** menu, select **Control Center - Feature Services**.

Figure 15-22 Control Center - Feature Services



3. For the relevant server, reset the relevant **Cisco CTIManager**.

Events Are Not Received

If your site is experiencing problems when receiving events, verify that the **nicecti user** is configured as an **Application User** and not as an **End User**.

Extension Mobility Log In/Log Out Problems

If your site is experiencing extension mobility login/logout problems, verify that the **nicecti user** is configured as an **Application User** and not as an **End User**.

16

Troubleshooting Avaya Integrations

Contents

Troubleshooting Avaya SIP

No CTI Events Received by CTI Driver from Interface

Problem

If the CTI Driver does not receive any CTI events from the SIP Decoder Interface, verify the network configuration as described in the next section.

Verifying the Network Configuration

In order for the SIP Decoder Driver to capture the signaling packet between the SES and the endpoints, verify the network configuration is correctly configured.

To verify the Network configuration:

1. For the network configuration to capture the signalling packets between the SES and the endpoints, it should be configured in one of the following ways:
   - Both the driver and the IP Phones should be connected on the same Hub.
   - The switch should be configured to mirror the traffic. Verify this with your Site Engineer.
2. Verify that the network adapter configuration conforms to the requirements of your site. See the *Installation Guide* for more information.

Troubleshooting Avaya IP Mappers

SNMP/Push/RAS Troubleshooting

For the Push Monitor Tester, contact NICE Customer Support.

SMS Troubleshooting

If Avaya SMS CTI link does not function correctly, check the following:

- The local host is connected to the network and that you can reach the SMS host.
- Avaya SMS is installed and configured correctly.

  To confirm Avaya SMS is installed and configured correctly, use the following tests:

  - **Avaya SMS Web Interface Test Application Page**
  - **Avaya Sms Monitor Test**

Avaya SMS Web Interface Test Application Page

In order to test interactions with the System Management Service, use Avaya SMS web interface test page.

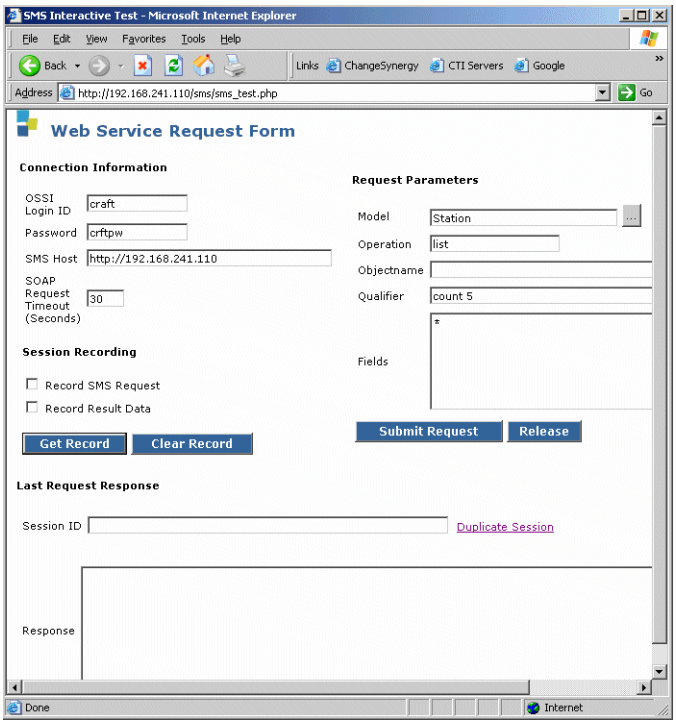
To access the Avaya SMS web interface test page:

1. Go to **http://<smshost>/sms/sms_test.php**. The .php web page opens.

NOTE: If the web page does not display, this may be a problem with the SMS configuration.

If you get an error message, follow the instructions.

Figure 16-1 Avaya SMS Web Interface Test Page

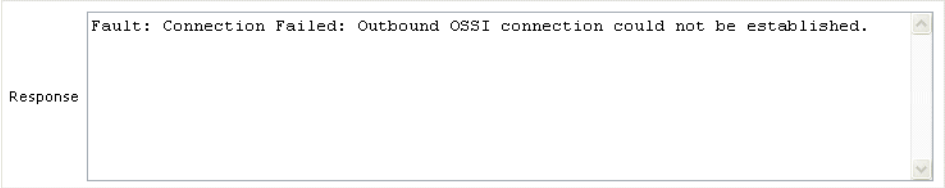


2. Complete the relevant information using the following guidelines:
   - **OSSI Login ID**: Enter the username for the Communication Manager.
   - **Password**: Enter the password for the Communication Manager.
   - **Model**: Enter **Station**.
   - **Operation**: Enter **List**.
   - **Objectname**: Leave this field blank.
   - **Qualifier**: Enter **count 5**.
   - **Fields**: Enter *****.
3. Click Submit Request.
4. The test result appears in the **Response** area.
   - Below is an example where the test connection *succeeded*.

Response

```
Response {
  var $result_code = 0
  var $result_data = 'Extension[0]=40001|Extension[1]=40002|Extension[2]
=40003|Extension[3]=40004|Extension[4]=40005|Type[0]=2500|Type[1]=2500|Type[2]
=2500|Type[3]=2500|Type[4]=2500|Port[0]=02A0601|Port[1]=02A0602|Port[2]
=02A0603|Port[3]=02A0604|Port[4]=02A0605|Name[0]=Analog|Name[1]=|Name[2]=|Name
[3]=|Name[4]=|Native_Name[0]=|Native_Name[1]=|Native_Name[2]=|Native_Name[3]
=|Native_Name[4]=|Coverage_Path_1[0]=|Coverage_Path_1[1]=|Coverage_Path_1[2]
```

- Below is an example where the test connection *failed*.



Avaya Sms Monitor Test

Another tool that can be used to test interactions with the System Management Service is the Avaya Sms Monitor.

The main difference between the Avaya Sms Monitor testing tool and the **Avaya SMS Web Interface Test Application Page**, is the Avaya SMS web interface *only* tests Avaya SMS functionality but the Avaya Sms Monitor *also* tests the **smsHandler**.

The **smsHandler** is the connector between the System Management Service and the Avaya SMS CTI link.

The Avaya Sms Monitor is located under **Program Files\NICE Systems\NICE Perform eXpress\CTI\AvayaSmsCTILink**.

Before running the Avaya Sms Monitor application:

Ensure that the **InitApplication.xml** file and the **Commands.xml** file are located in the **Config** folder in the application folder.

The **InitApplication.xml** file should include:

- SMS Connection parameters which consist of the following:
  - **Timeout**: The timeout for SMS web service requests.
  - **Url**: http://<smsHostIpAddress>/sms/SystemManagementService.php
  - **Mode**: **BASIC_AUTHORIZATION**
  - **Username** - Username for the Communication Manager (*Example*: mylogin@cmserveraddr).
  - **Password** - Password for the Communication Manager.
- Load and results parameters which consist of the following:
  - SMS Commands file name (optional).
  - Log fie name and whether to write to this file (optional).
  - Results file name and whether to write to this file (optional).

The **Commands.xml** file should include the commands you want to load into the system.

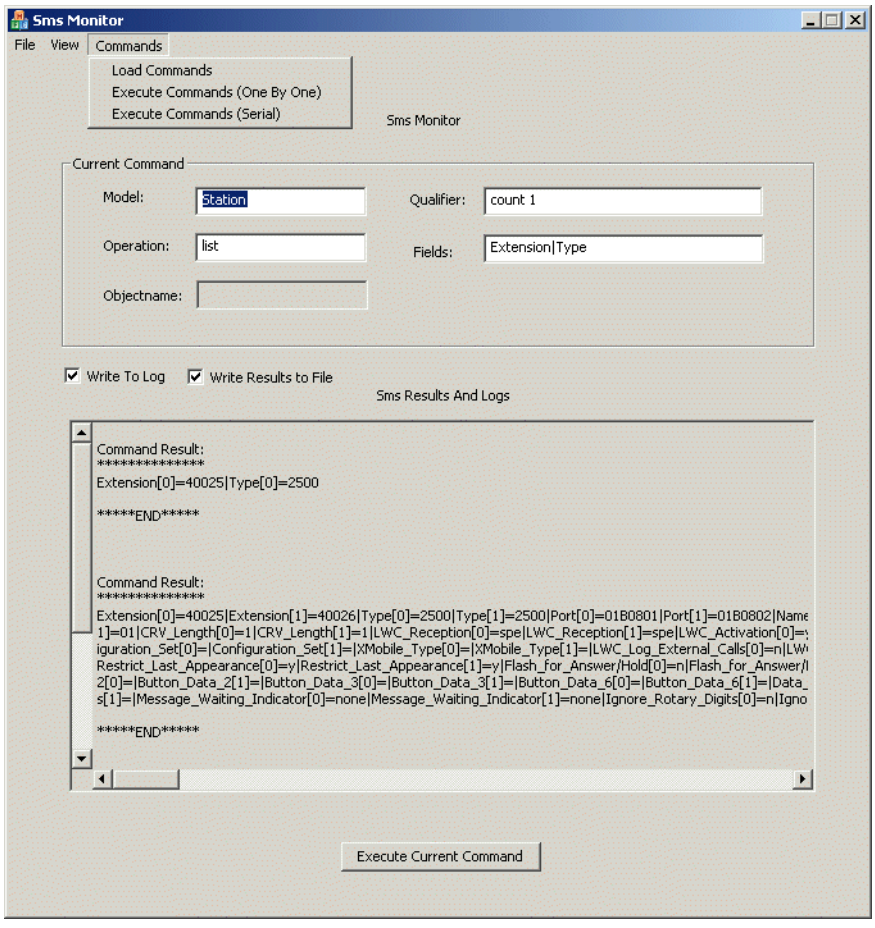
Figure 16-2 Commands.xml File Window

```
<?xml version="1.0" ?>
- <Root>
  - <Commands>
      <Command IsDefaultCommand="true" Model="Station" Operation="list" Objectname="" Qualifier="count 5" Fields="Extension" />
      <Command Model="Station" Operation="list" Objectname="" Qualifier="count 1" Fields="Extension|Type" />
      <Command Model="Station" Operation="list" Objectname="" Qualifier="count 2" Fields="*" />
      <Command Model="Station" Operation="list" Objectname="" Qualifier="count 3" Fields="Type" />
    </Commands>
  </Root>
```

After running the Avaya Sms Monitor application you can:

- Load new configured commands [Load Commands].
- Run the configured command either one by one or in a series [Execute Commands (One By One) / Execute Commands (Serial)].
- Run the currently displayed command [Execute Current Command].
- Enter a command manually.
- Choose to write to the Log file or to the Results file [Write To Log] [Write Results to File].

Figure 16-3 Sms Monitor - Commands Window



Troubleshooting Avaya CVLAN

This section comprises the following topics:

Checking the Connection Manager Log

Locate the error on the Connection Manager Log. This should provide you with an understanding of the error that occurred. The error is either reported with an associated cause, or as an error number.

See **Connection Manager Monitor** on **page 186**.

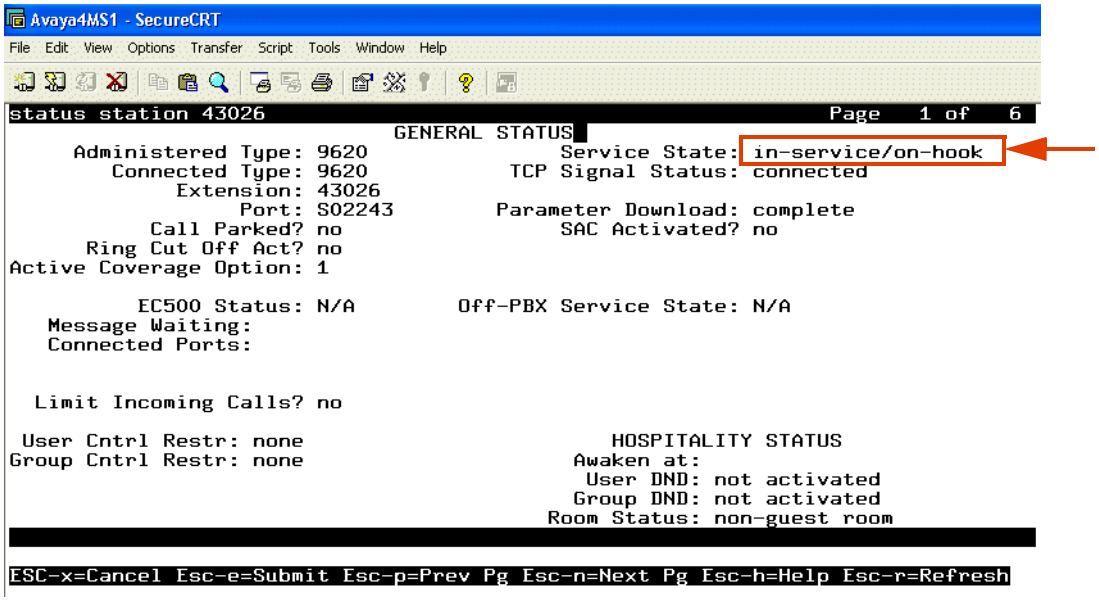
To locate the error on the Connection Manager log, see **Finding Text Strings in Open Logs** on **page 162**.

Checking for Unsuccessful Device Monitoring

A device was not monitored successfully.

1. Check the switch connectivity (see **Verifying the PABX Configuration and Physical Line Connectivity** on **page 118**).
2. Locate the error on the Connection Manager Log (see **Checking the Connection Manager Log** on **page 223**).
3. Check that there are no other processes (other CTI Servers or applications) monitoring the device, by asking the customer if they are running other applications.
4. Check that the device status on the switch is in-service.

Figure 16-4 Device Monitoring - General Status



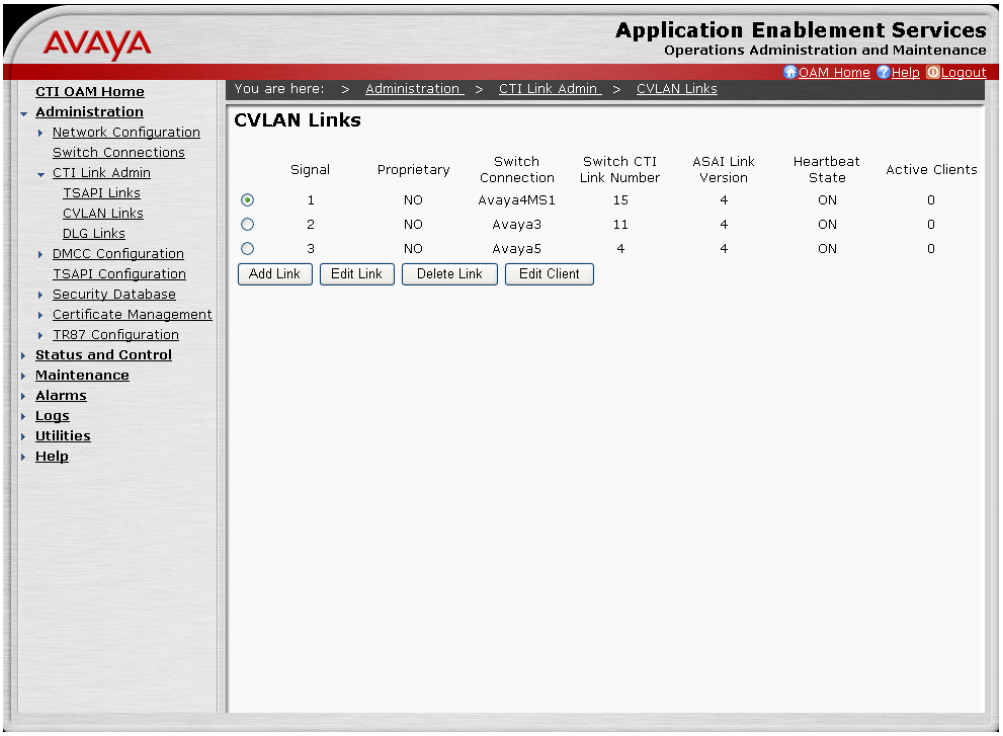
Checking a Connection Problem

If Avaya CVLAN has a connection problem it may be due to a change on the switch. You will need to check for an Avaya CVLAN client software version problem (see the *Integration Description Document (IDD)*.

To check a connection problem:

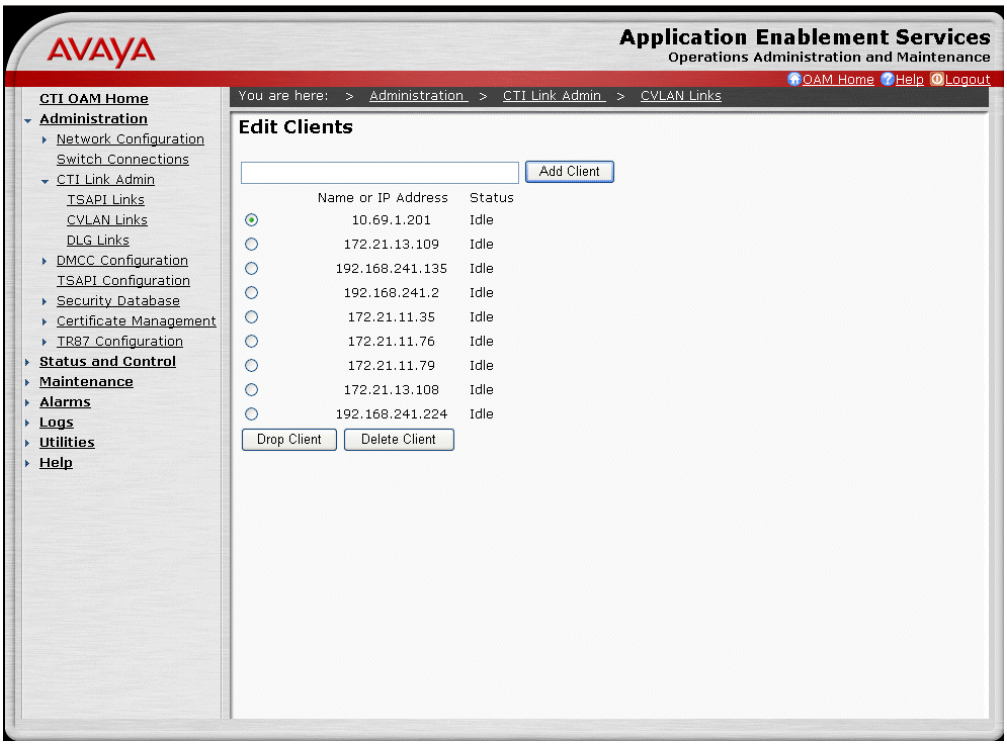
1. Restart the AES twice. If the driver log shows a CVLAN client version mismatch, install the correct Avaya CVLAN client software version (see the *Installation Guide*).
2. Restart the NICE Perform eXpress machine.
3. Check the physical and network connections.
4. Check if the CVLAN interfaces and CVLAN clients that are configured on the AES server exist. To do this:
   a. In the OAM, go to **CTI Admin on AES Server > Administration > CTI Link Admin > CVLAN Links**.

Figure 16-5 Avaya CVLAN Links



b. Select the required CTI link and click **Edit Client**.

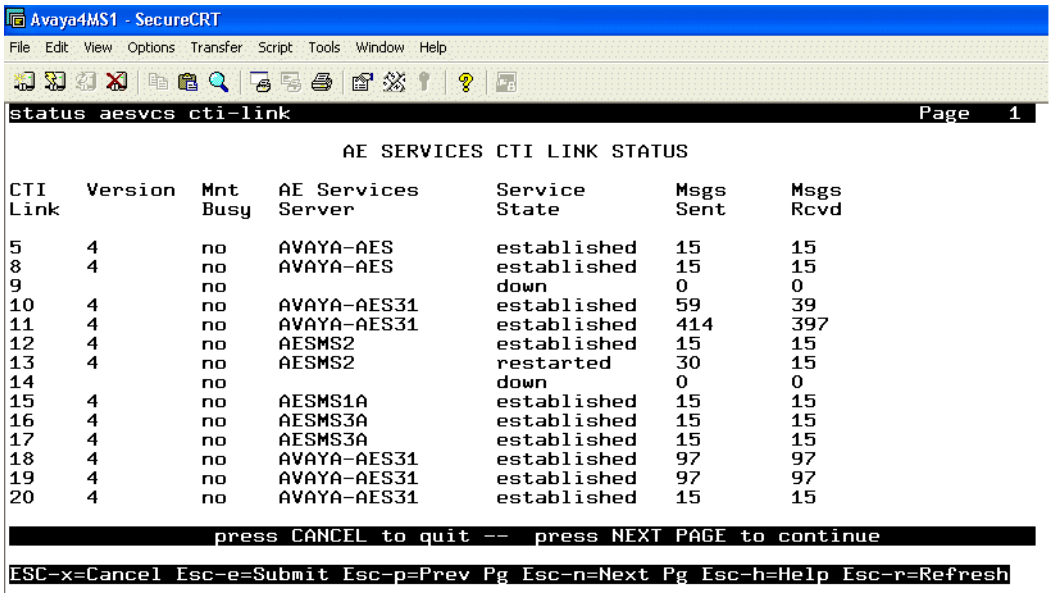
Figure 16-6 Avaya CVLAN - Edit Clients



c. Verify that the clients exist.

5. Check the ASAI-IP link. To do this, go to the ACM and run the command **status aesvcs cti**.

Figure 16-7 Avaya AES Status - CTI Link



6. Verify that the AES is communicating with the switch. To do this:

   a. In the OAM, navigate to **Status and Control > Switch Conn Summary**.

   b. Verify that the **Conn Status** is **Talking**.

7. Verify that the CVLAN link is communicating. To do this:

   a. Click **Per Service Connection Details**.

   b. Check that the **Connection State** for the link is **Talking**.

8. Verify that the IP address of the AES for client connectivity is defined (the IP address of one network card).

   The client connectivity cannot be defined as ***Any*** (meaning any network card). CVLAN does not support the option **Any**.

   To do this:

   a. In the OAM, navigate to **Administration > Local IP**.

   b. Check **Client Connectivity**.

NOTE: When a site is configured with two separate NIC, the two IP addresses could appear here. One IP is configured to reside on the NIC designated for the Switch connection and the other IP is configured to reside on the NIC designated for the Client connection. Ensure that you select the correct IP address.

9. Verify host connectivity. To do this:

   a. In the OAM, navigate to **Utilities > Ping Host**.

b. In the **Host/IP** field, enter the IP address of the C-LAN board, and click **Ping**.

If the ping is successful, the system displays a message indicating a packet size and packet count.

10. Locate the error on the Connection Manager Log (see **Checking the Connection Manager Log** on **page 223**).

This should provide you with an understanding of the error that occurred. The error is either reported with an associated cause or as an error number.

Checking Monitor End is Received

Problem:

The Monitor End event is received in the NMS when the CVLAN Interface configured on the AES server cannot receive events for a specific device (**Event Monitor End Received**). This usually indicates that a device was deleted in the switch or a CVLAN Interface configured on the AES server failure occurred.

Solution:

1. Check the device configuration in the switch.
2. Check that the CVLAN Interface configured on the AES server is running. To do this:
   a. In the OAM, navigate to **Status and Control > Switch Conn Summary**.
   b. Click **Per Service Connection Details**.
   c. Check that the **Connection State** for the link is **Talking**.

Checking ISDN Trunk Alerting Event

Problem:

A trunk with PRI facility (ISDN Trunk), the Alerting Event will contain (######).

Solution:

Once the call is connected, the value can be updated if the trunk or facility is properly administered.

Checking the Connection Manager and Driver Connection to the AES

Problem:

NICE Connection Manager failed to open a connection to the Avaya CVLAN server.

Solution:

The CVLAN Client IP is configured on the CVLAN server. Therefore, if trying to connect via the DHCP IP, the server will not accept the client.

1. To resolve this, the client must use the static IP address to connect to the server.

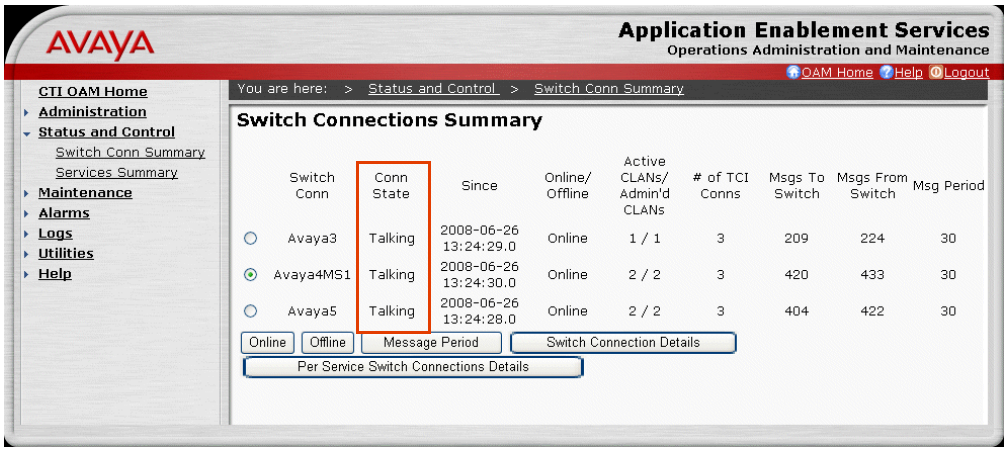
2. *In the event that the Connection Manager has more than one NIC card,* the static IP network card must be set as the default network card.

General AES Environment Troubleshooting Tips

In an AES environment, verify the following details when troubleshooting communication problems.

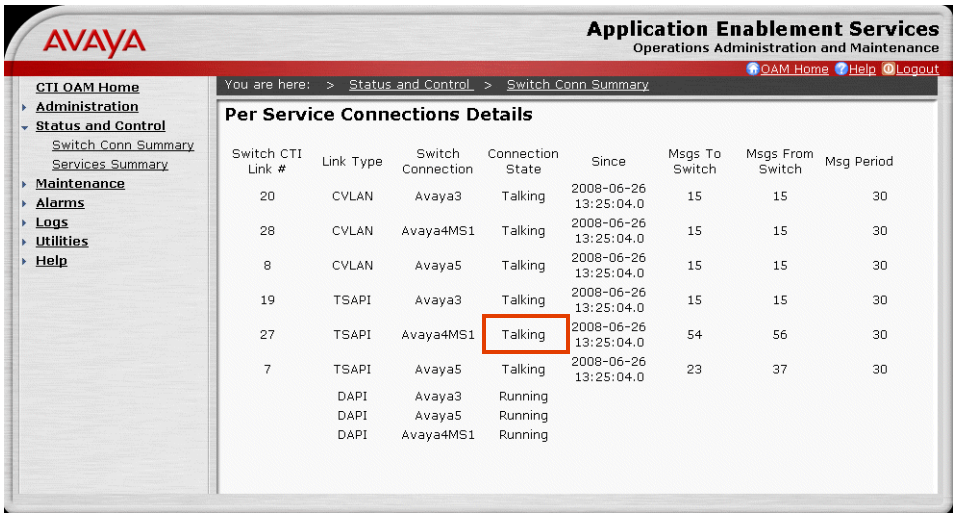
1. Verify the AES version in the site. See the *Integration Description Document (IDD)*.
2. Verify that the AES is communicating with the switch.
   a. In the OAM, navigate to **Status and Control > Switch Conn Summary**.
   b. In the **Conn State** column, verify that the switch status shows **Talking**.

Figure 16-8 OAM: Switch Connections Summary



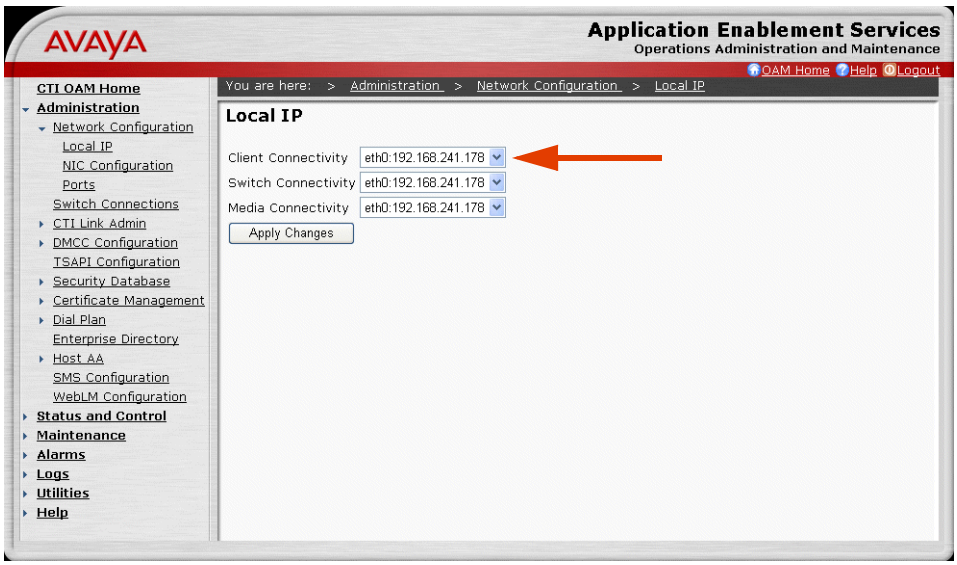
3. Verify that the CVLAN link is communicating.
   a. Click Per Service Switch Connections Details. The Per Service Connection Details appear.
   b. Check that the **Connection State** for the link is **Talking**.

Figure 16-9 OAM: Per Service Connections Details



4. Verify that the IP address of the AES for client connectivity is defined (the IP address of one network card). The client connectivity ***cannot*** be defined as **Any** (meaning any network card). CVLAN does not support the option **Any**.

Figure 16-10 OAM: Local IP



NOTE: When a site is configured with two separate NIC, the two IP addresses could appear here. One IP address is configured to reside on the NIC designated for the Switch connection and the other IP address is configured to reside on the NIC designated for the Client connection. *Ensure that you select the correct IP address.*

5. Verify host connectivity as follows:

   a. From the menu bar, click **Ping host**. The Ping Host/IP page appears.

Figure 16-11 Avaya OAM - Ping Host/IP Page

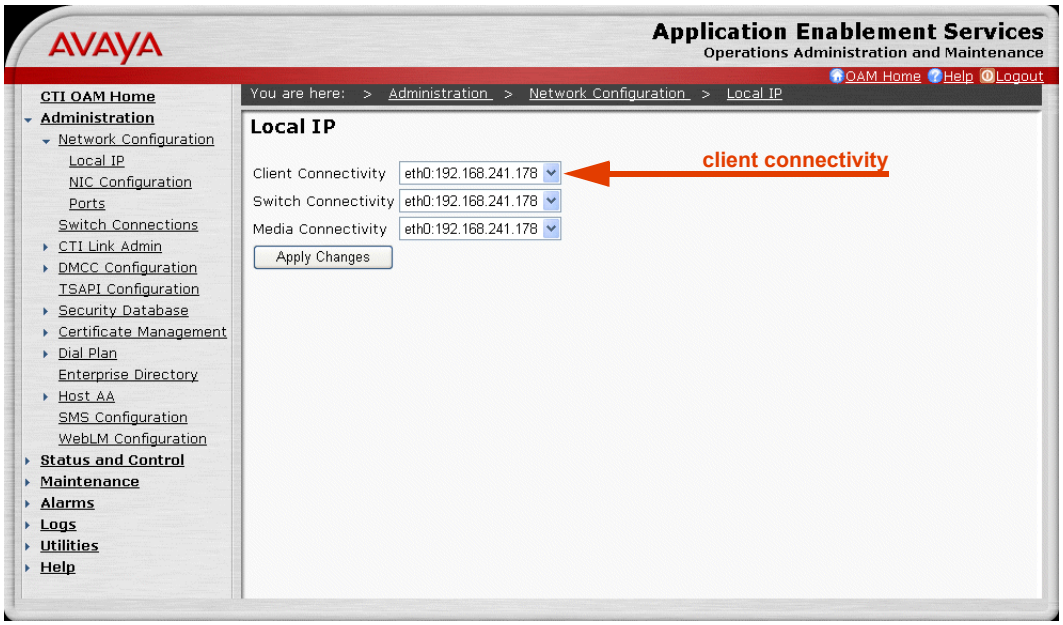
b. In the **Host/IP** field, type the IP address of the CLAN board and click **Ping**. If the ping is successful, the system displays a message indicating a packet size and packet count.

Client Cannot Connect to CVLAN Server

- Verify that the IP address of the CVLAN for client connectivity is defined (the IP address of one network card). The client connectivity ***cannot*** be defined as **Any** (meaning any network card). CVLAN does not support **Any**.

NOTE: When a site is configured with two separate NIC, the two IP addresses could appear here. One IP address is configured to reside on the NIC designated for the Switch connection and the other IP address is configured to reside on the NIC designated for the Client connection. *Ensure that you select the correct IP address.*

Figure 16-12 OAM: Local IP



CVLAN Dump Utility

The CVLAN Dump Utility saves the output from the CVLAN Interface and is used to check the server connection as well as specific information flows. The utility should only be used for a few devices.

Prerequisites

Before running the CVLAN Dump Utility, verify:

- CVLAN Client version 4.2.2 is installed.
- The IP address of the machine where the CVLAN Dump Utility is running, is registered on the AES server.

To use the CVLAN Dump Utility:

1. In the command line, enter the following commands:

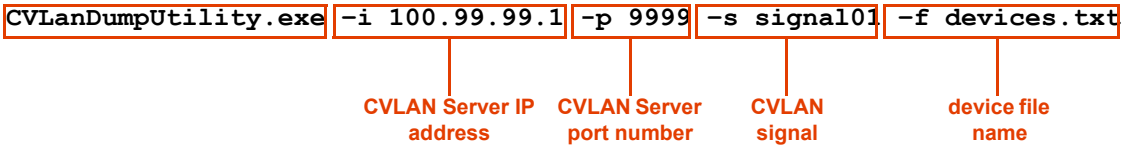
   ```
   CVLanDumpUtility.exe -i <CVLAN Server IP address> -p <CVLAN Server
   port number> -s <CVLAN signal> -f <device file name>
   ```

   (<device file name> where the file contains the devices that should be monitored by the utility)

EXAMPLE:

```
CVLanDumpUtility.exe -i 100.99.99.1 -p 9999 -s signal01 -f devices.txt
```

Where:



2. Press **Enter**.

   The CVLAN Dump Utility connects to a *non-secure* connection for port number 9999, and a secure connection for any other port number, that is defined in the Avaya switch.

   The CVLAN Dump Utility creates 3 files in the local directory:

   - **CtiText.log**: Text file containing the CVLAN outputs.
   - **CtiBinary.log**: Binary file containing the CVLAN outputs.
   - **ApplicationLog.log**: CVLAN Dump Utility outputs.

Troubleshooting Avaya TSAPI

This section covers the following topics:

Missing Login/Logout Error

IMPORTANT

During startup, when the driver initializes, the driver queries the Avaya CT/AES TSAPI Server monitored devices. For each device that is currently logged in to the switch, the driver creates a Login event. The driver sends these Login events to the Call Server. There are no corresponding Logout events for these Login events. This is the normal behavior of the driver.

Problem:

The NICE Perform eXpress system did not receive login or logout events from the agent **in real-time**.

Solution:

Monitor the ACD number (hunt group extension number). Add the ACD number to the **nicecti** group of monitored devices.

In an AES environment, configure as follows:

IMPORTANT

An Avaya System Administrator is responsible for all procedures in the Avaya environment.

All procedures in the Avaya environment are by recommendation only!

1. Log in to OAM.
2. In the Devices window, add the ACD number to the list of devices.

Missing VDN Information in Database

Problem:

In the **nice interactions** database, the VDN column remains empty.

Solution:

1. Add the VDN number to the monitored devices list.
2. *In a CT server environment*, check if the VDN information is reported in the **Called Device** field in the **Delivered** or **Established** events.
3. *In an AES server environment*, check if the VDN information is reported in the **distributingVDN** field in the private data.
4. Using the Avaya Exerciser, verify if the device type is VDN (for details, see **Avaya Exerciser** on **page 237**).

In an AES environment, configure as follows:

IMPORTANT
An Avaya System Administrator is responsible for all procedures in the Avaya environment.
All procedures in the Avaya environment are by recommendation only!

1. Log in to OAM.
2. In the Devices window, add the VDN number to the list of devices.

Failed to Monitor Device

Problem:

A device was not monitored successfully.

Solution:

First, run the Avaya Exerciser tool to isolate if the problem is a switch installation problem or a driver configuration problem. See **Avaya Exerciser** on **page 237**.

- If the Exerciser does not succeed in monitoring the device, contact the appropriate Avaya personnel.
- If the Exerciser succeeds in monitoring the device, then troubleshoot the driver configuration.

Now, analyze the information. Here's How:

1. Check that the monitored devices group is created and includes all monitored devices.

   See the *Installation Guide*.
2. Check that the number of associated monitored devices does not exceed the maximum monitored devices defined for the specific device.

3. Locate the error in the Avaya error list. This list is divided into categories; thereby providing you with an understanding of the type of error that occurred. See **Viewing Avaya Error Messages Documentation** on **page 237**.

Failed to Establish Connection to the Avaya AES Server

Problem:

The driver cannot open a connection to the switch.

Solution:

1. Check the physical and network connections.
2. Check if the CT client exists.
3. Check if the Avaya CT/AES TSAPI server is running.
4. Locate the error in the Avaya error list. This list is divided into categories; thereby providing you with an understanding of the type of error that occurred. See **Viewing Avaya Error Messages Documentation** on **page 237**.
5. Check that the TSAPI Client version is correct.

NOTE: It is recommended to install the same TSAPI Client version as the AES Server version.

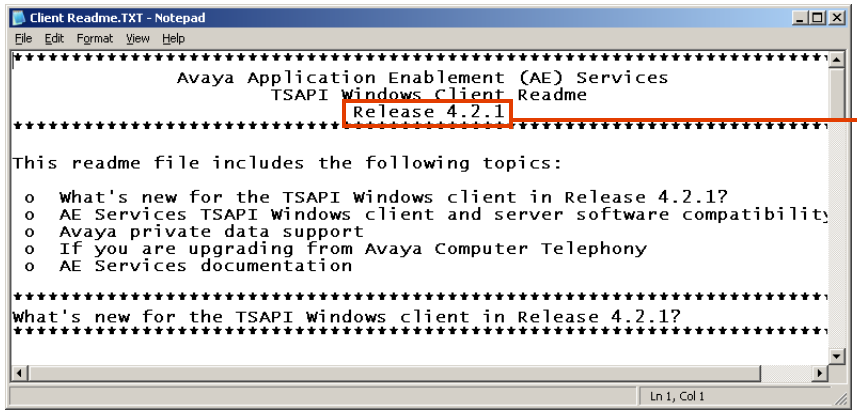
For Example: For the AES Server 4.2.1, install TSAPI Client 4.2.1.

To do this:

- Navigate to **Start > Programs > Avaya AE Services > TSAPI Client**, and click **TSAPI Client Readme**.

  The TSAPI Client Readme.TXT file opens.

Figure 16-13 TSAPI Client Readme.TXT File



The version number is at the top of the TXT file page.

Monitor End Event is Received

Problem:

The Monitor End event is received when the Avaya AES Server cannot receive events for a specific device. This usually indicates that a device was deleted in the switch or a Avaya AES Server failure occurred.

Solution:

1. Check the device configuration in the switch.
2. Check that the Avaya AES Server is running.

Calls are Reported with Wrong Direction, or Phone Number is Missing

Problem:

- Calls are reported as Tandem or outgoing in the CallServer, although the calls are normal incoming calls from a customer to an agent.

  -or-

- The phone number is missing from the call.

Solution:

1. The parameter **MaxLenOfInternalDevice** from the Avaya TSAPI CTI Interface plug-in may not contain the correct value.

   This parameter should contain the maximum length of the agent's extensions, the default value is 6. In case the site agent's extension value is higher than 6, you should update this parameter respectively, otherwise the agent's extensions will be reported as type trunk instead of station and the direction of the call will be wrong.

2. In the system administrator, check the parameters **TreatType20As** and **TreatType40As** from the Avaya TSAPI CTI Interface plug-in.

   The device type 20 is considered as Trunk by default, and device type 40 is considered as Station by default.

   If in the customer site the agent's extensions are reported with device type 20, they will be recognized as trunk and not station and the direction will be wrong. In this case you should update this parameter from trunk to station in the system administrator. The same procedure should be repeated for the **TreatType40** parameter.

NOTE: See the **Avaya Exerciser** on **page 237** to determine as what types the agent's extensions are being reported.

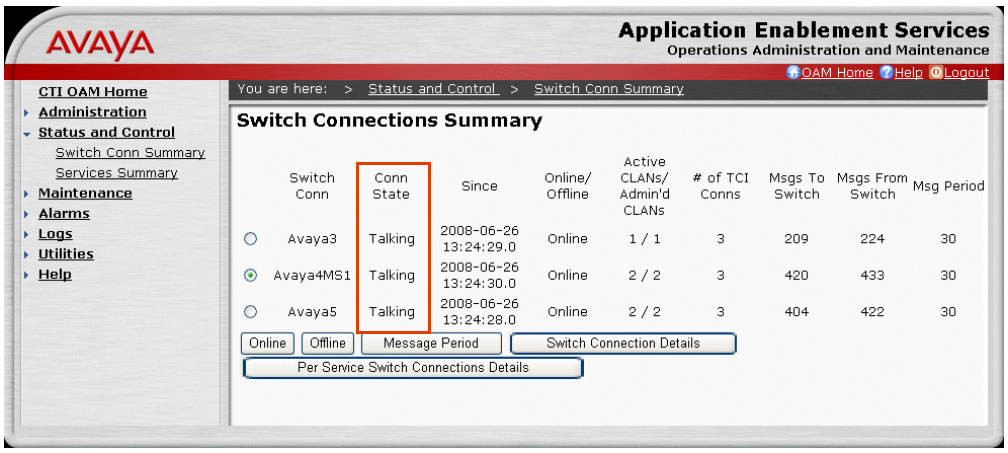
In Avaya terminology, type 20 is **IMPLICIT_PUBLIC** and type 40 is **IMPLICIT_PRIVATE**.

Verifying Communication Between AES Server and Avaya Switch

In an AES environment, verify the following details when troubleshooting communication problems.

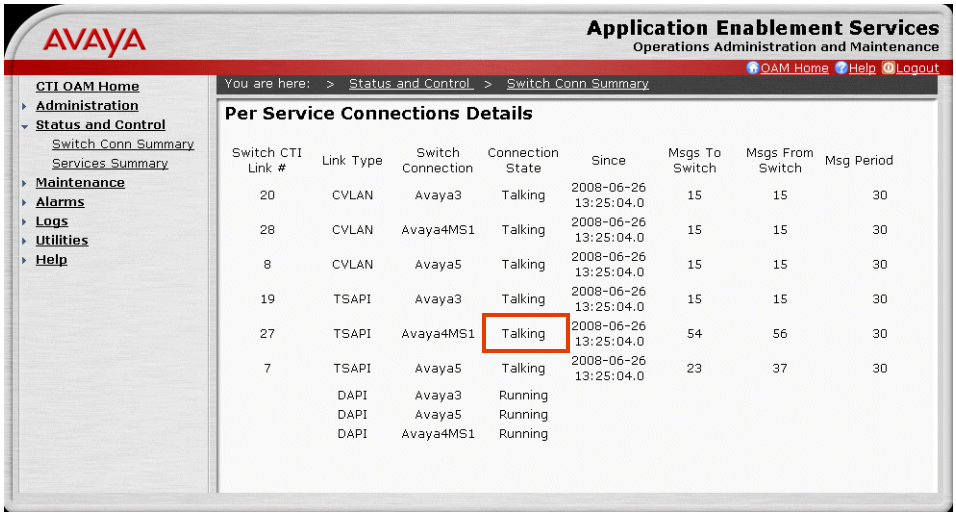
1. Verify the AES version in the site. See the *Integration Description Document (IDD)*.
2. Verify that the AES is communicating with the switch.
   a. In the OAM, navigate to **Status and Control > Switch Conn Summary**.
   b. In the **Conn State** column, verify that the switch status shows **Talking**.

Figure 16-14 OAM: Switch Connections Summary



3. Verify that the link is communicating.
   a. Click Per Service Switch Connections Details. The Per Service Connection Details appear.
   b. Check that the **Connection State** for the link is **Talking**.

Figure 16-15 OAM: Per Service Connections Details



Viewing Avaya Error Messages Documentation

You can view Avaya's online documentation to view a comprehensive list of operation error messages in the TSAPI Programmer's Reference. These messages can help you troubleshoot problems.

To view a PDF file of the Avaya error messages documentation:

1. Open a PDF file of the Avaya Programmer's Reference manual, by clicking on the link

   http://support.avaya.com/elmodocs2/AES/4.2/02-300544_i4.pdf

2. In the Avaya Programmer's Reference PDF, search for **ACSUniversalFailureConfEvent** to view the list of error values.

Avaya Exerciser

The Avaya Exerciser simulates every action performed by the Avaya AES stream. Use this tool to analyze the source of a problem.

When analyzing and troubleshooting a site, it is essential to isolate the stage where data was not transferred successfully, using a process of elimination. The TS Spy tool displays all the events that were reported by the Avaya CT or TSAPI on the AES server. By reviewing this data, you can analyze if data was transferred successfully at each stage.

NOTE: The Avaya Exerciser can also be used to simulate actions performed by the Avaya CT stream.

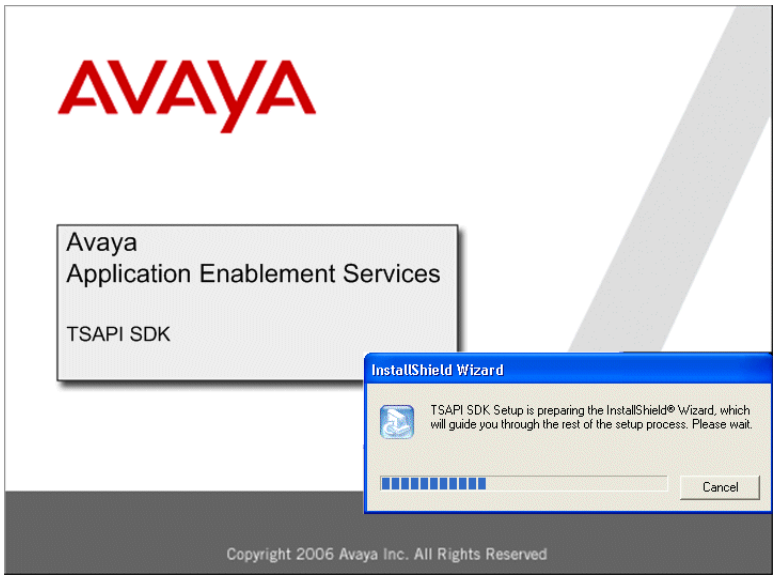
Installing the Avaya AES TSAPI Exerciser

To install the Avaya TSAPI Exerciser:

1. Insert the **Avaya Application Enablement Services TSAPI SDK Client installation** CD in the CD-ROM drive of the NICE Perform eXpress machine.

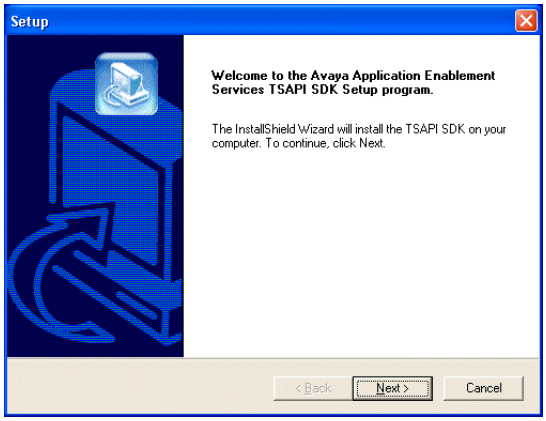
   The Avaya Application Enablement Services (AES) TSAPI SDK installation wizard starts.

Figure 16-16 Avaya AES TSAPI SDK Installation Wizard



After a few moments, the Avaya AES TSAPI SDK Welcome window appears.

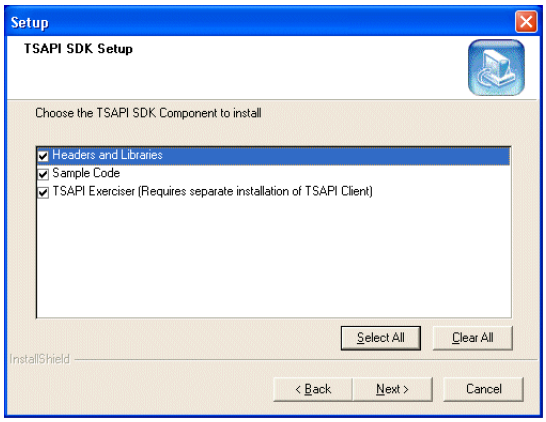
Figure 16-17 Avaya AES TSAPI SDK Welcome Window



2. Click **Next**.

   The TSAPI SDK Setup window appears.

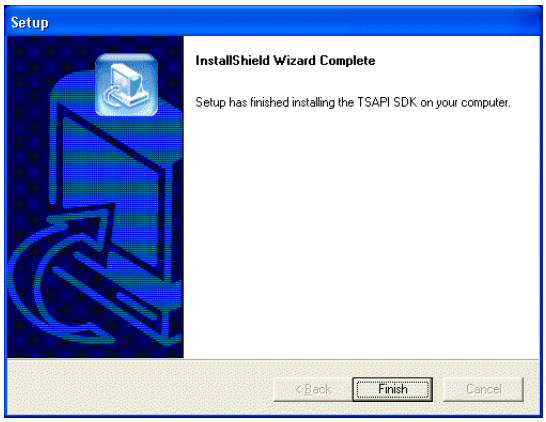
Figure 16-18 TSAPI SDK Setup Window



3. Click **Select All** to select all the components to install.
4. Click **Next**.

   The Wizard Complete window appears.

Figure 16-19 Wizard Complete Window



5. Click **Finish**.

   The Avaya Exerciser is installed.

Verifying User Groups and Configured Devices

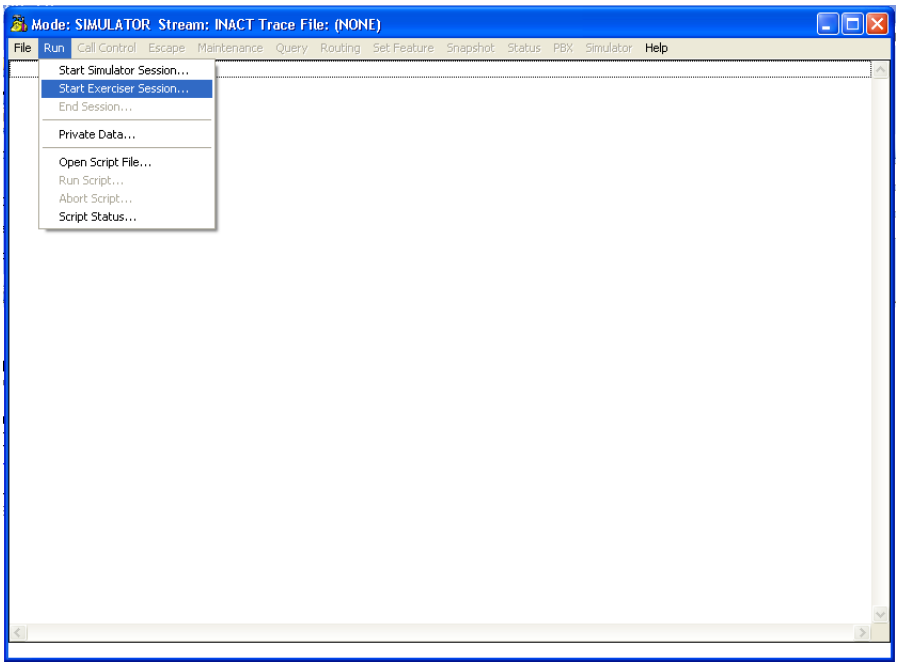
To verify user groups and configured devices using the TSAPI Exerciser:

NOTE: If you are able to run an Exerciser session, it indicates that connection exists between the Avaya AES Switch and NICE Perform.

1. From the **Start** menu on the NICE Perform eXpress machine, select **Programs > Avaya AE Services > SDKs > TSAPI > TSAPI Exerciser**.

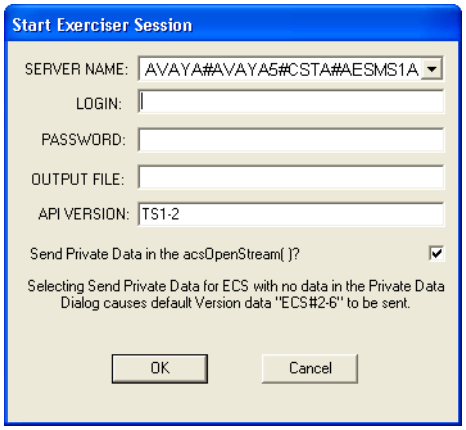
   The Exerciser window appears.

Figure 16-20 Exerciser Window - Blank



2. Select **Run > Start Exerciser Session**. The Start Exerciser Session window appears.

Figure 16-21 Start Exerciser Session Window



IMPORTANT

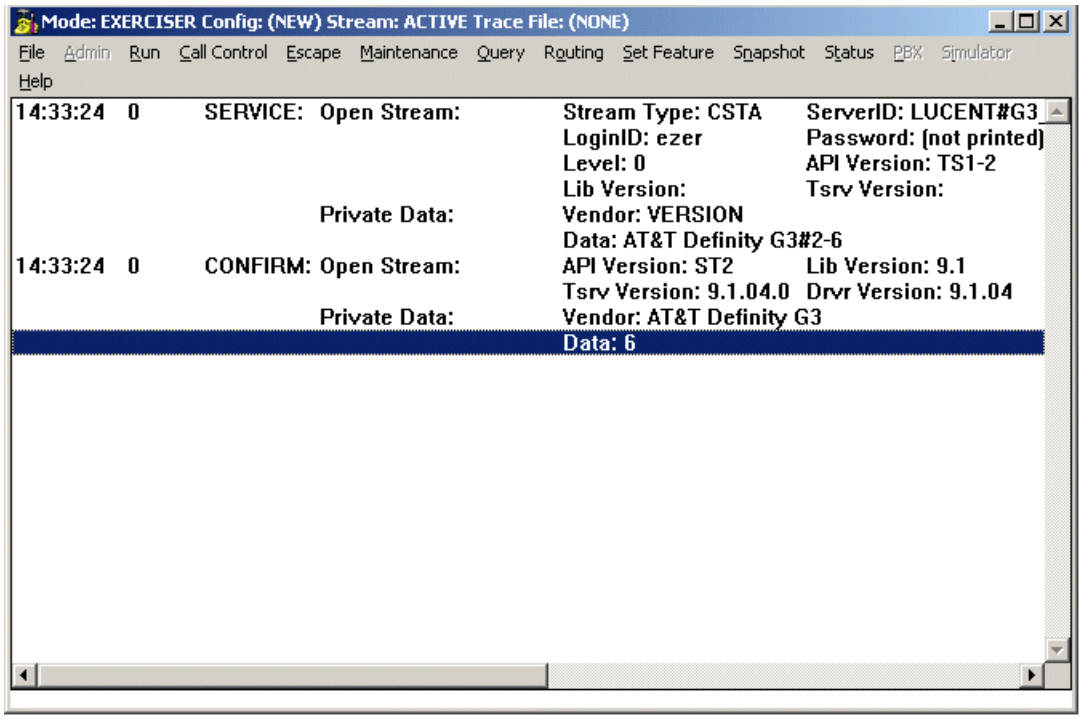
- Verify the AES Server IP address. To do this:
  - Click **Start > Programs > AvayaAE Services > TSAPI Client**, and click to open **Edit TSLIB.INI** file.
- The TLink that appears in the **SERVER NAME** field must be the same as the TLink that appeared in the TSAPI TLink window.

3. From the **SERVER NAME** drop-down menu, select your Avaya TSAPI TLink name.
4. Enter the **LOGIN**, **PASSWORD**, and keep the default **API VERSION**.

5. Click **OK**.

The Exerciser window appears displaying the actions performed by the Avaya TSAPI driver.

Figure 16-22 Exerciser Window with Information



You can now perform one or more of the following procedures:

- Get Device List (see page 241)
- Monitoring Device/ACD (see page 243)
- Monitoring VDN (see page 244)
- Query Device Info (see page 244)

Get Device List

To run Get Device List:

1. From the Exerciser window, select **Query > cstaGetDeviceList()**. The Get Device List window appears.

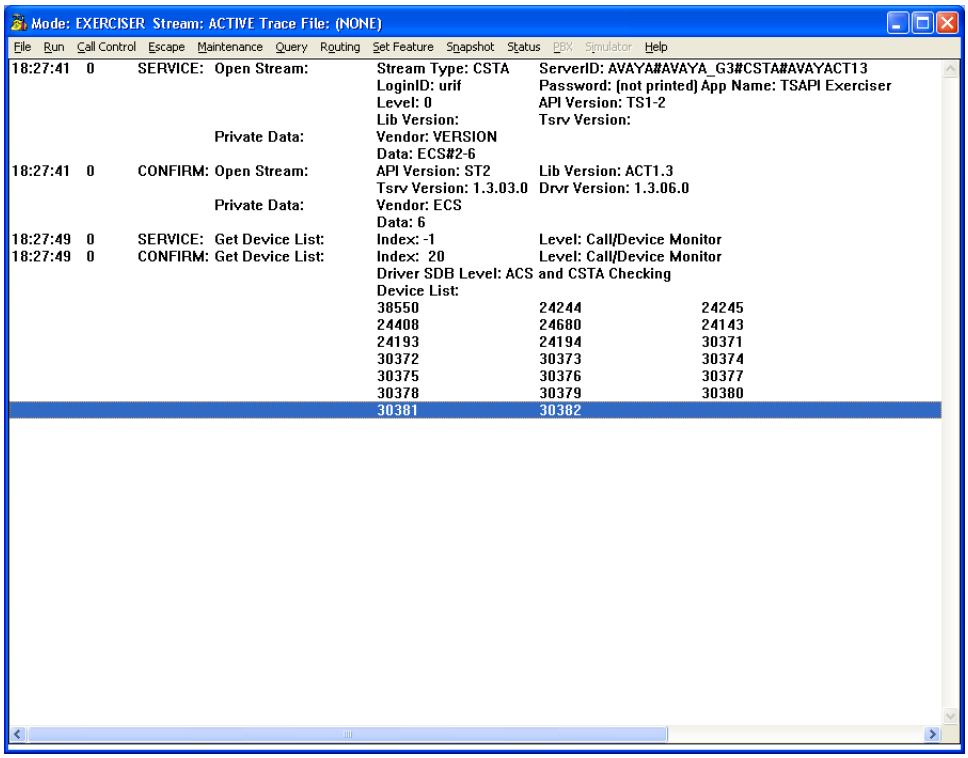
Figure 16-23 Get Device List Window

2. Select **Call/Device Monitor?** and click **Send Message**.

   The Exerciser window displays a list of devices that can be monitored.

NOTE: When you click the **Send Message** button, the query returns the first 20 devices. Each time you click **Send Message**, the query returns the next 20 messages. Continue to do so until **-1** appears in the **Index** field.

Figure 16-24 Exerciser Window



3. To close the Exerciser window, select **Run > End Session**.

Monitoring Device/ACD

To Monitor Device/ACD:

1. From the Exerciser window, select **Status > cstaMonitorDevice**.

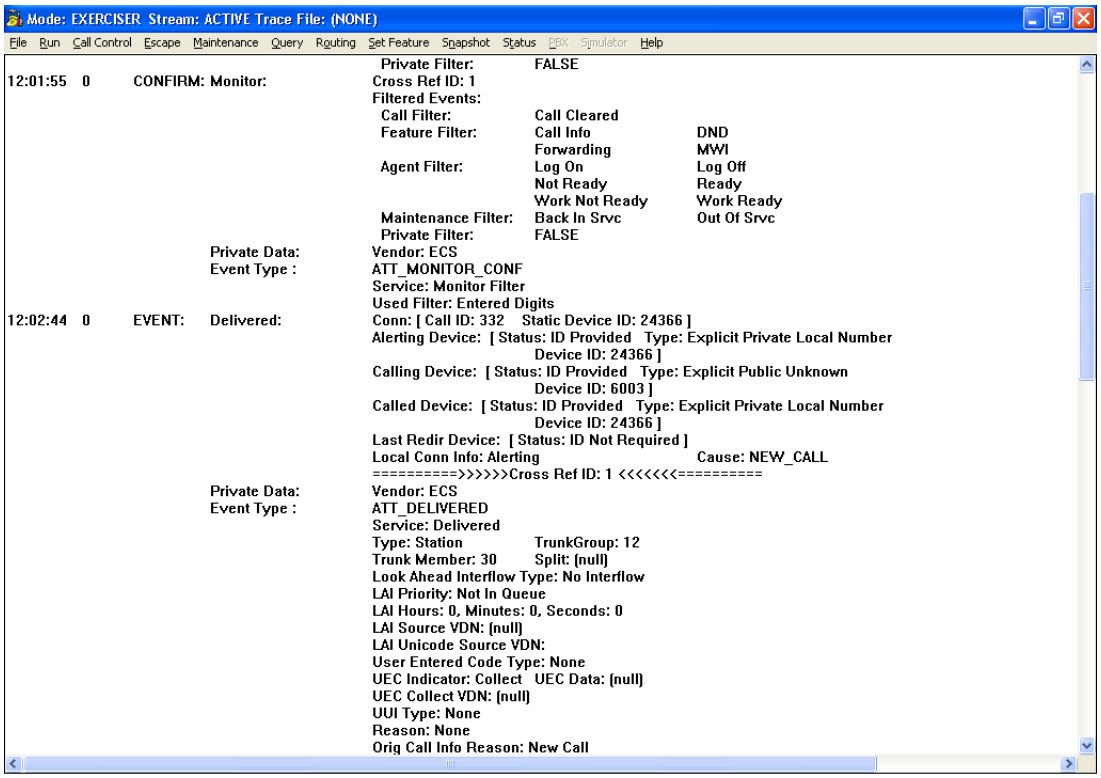
   The cstaMonitorDevice test checks one device at a time. The Monitor Device window appears.

Figure 16-25 Monitor Device Window

2. Enter a **Device ID** and click **Send Message**.
3. Make a call to the Device ID you defined in the Monitor Device window.

   The Exerciser window displays events generated by the monitored device.

Figure 16-26 Exerciser Window



4. To close the Exerciser window, select **Run > End Session**.

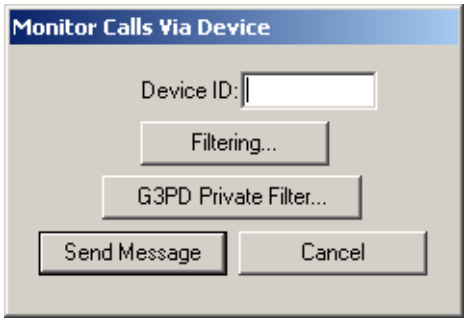
Monitoring VDN

To run Monitor VDN:

1. From the Exerciser window, select **Status > cstaMonitorCallsViaDevice**.

   The cstaMonitorCallsViaDevice test checks one device at a time. The Monitor Calls Via Device window appears.

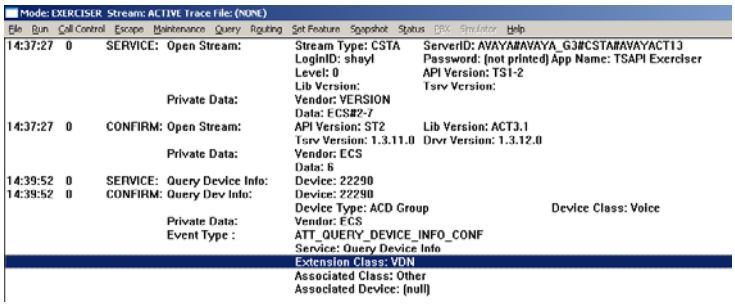
Figure 16-27 Monitor Calls Via Device Window



2. Enter a **Device ID** and click **Send Message**.
3. Make a call to the Device ID you defined in the Monitor Device window.

   The Exerciser window displays events generated by the monitored device.

Figure 16-28 Exerciser Window



4. To close the Exerciser window, select **Run > End Session**.

Query Device Info

To run Query Device Info:

1. From the Exerciser window, select **Query >cstaQueryDeviceInfo**.

   The Query Device Info window appears.

Figure 16-29 Query Device Info Window

2. Enter a **Device ID** and click **Send Message**.

   The Exerciser window displays the results as follows:

   - *If the device is **ACD***, see **Figure 16-30** (on **page 245**).
   - *If the device is **VDN***, see **Figure 16-31** (on **page 246**).
   - *If the device is **Device Type***, see **Figure 16-32** (on **page 246**).

Figure 16-30 Exerciser Window - ACD

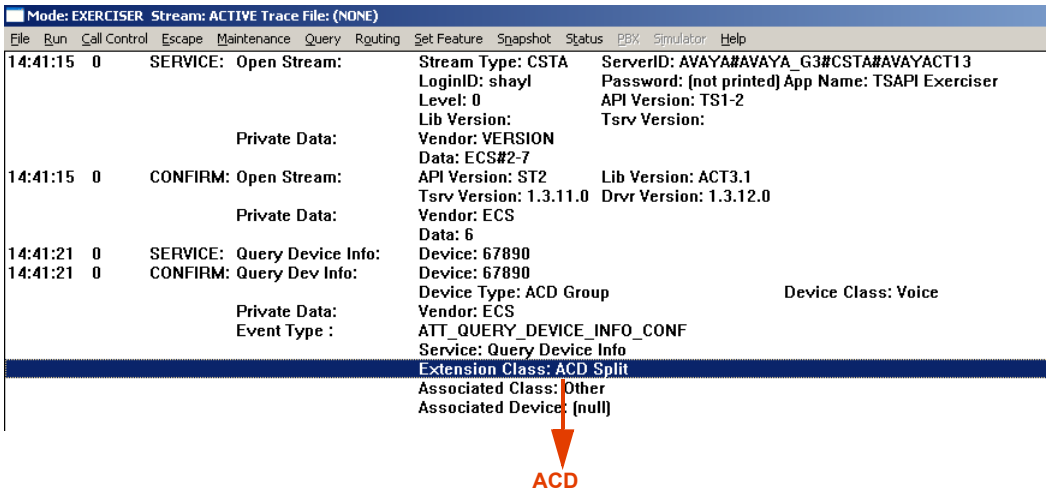


Figure 16-31 Exerciser Window - VDN

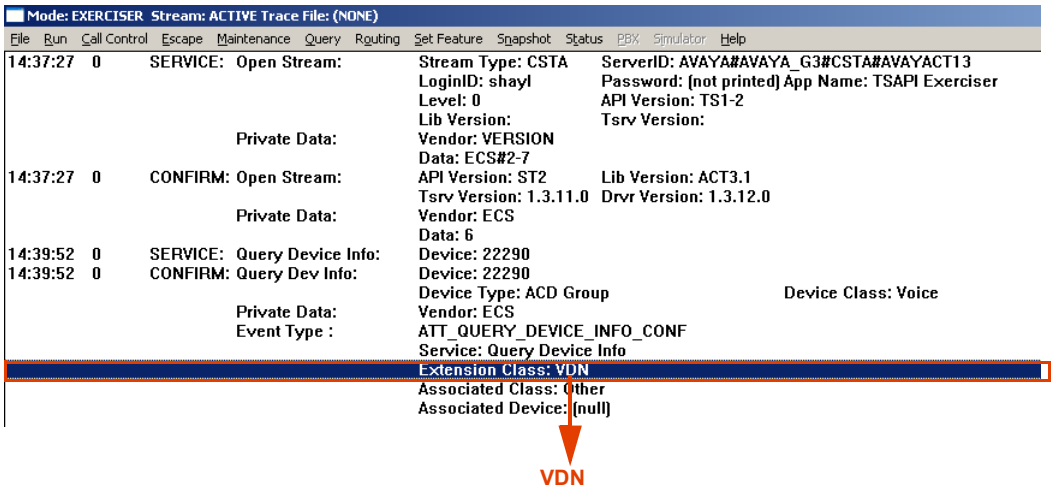
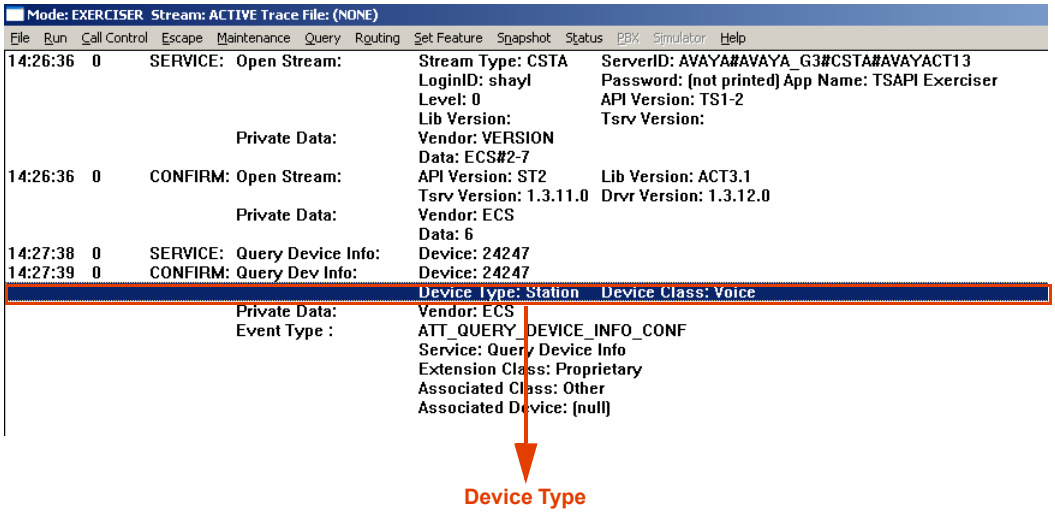


Figure 16-32 Exerciser Window - Device Type



3. To close the Exerciser window, select **Run > End Session**.

17

Troubleshooting Nortel Integrations

Contents

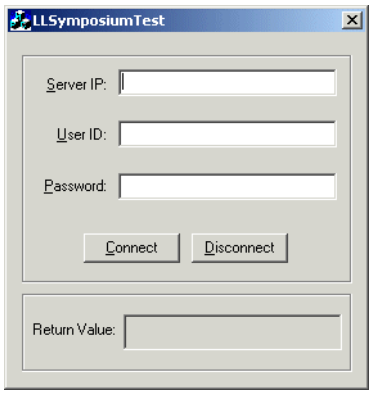
Using the RTD SDK Connection Tester

The RTD SDK Connection Tester checks the connection with CCMS/SCCS.

To use the RTD SDK Connection Tester:

1. Run the RTD SDK Connection Tester. The LLSymposiumTest window appears.

Figure 17-1 LLSymposium Test Window



2. In the LLSymposiumTest window:
   a. In the **Server IP** field, enter the CCMS/SCCS server IP.
   b. In the **User ID** field, enter the RTD user name.
   c. In the **Password** field, enter the password.
   d. Click **Connect**. The result appears in the **Return Value** area.

Using the Nortel Tester Tool

The purpose of this tool is to simulate interaction between the Nortel Symposium interface and the Nortel integration.

The tool allows you to send different types of requests and to receive responses and unsolicited events. All received events and responses are translated and printed and saved in the log file if chosen as an option. In addition, the Nortel Tester allows checking the RTP session activity by listening to given IP addresses and ports.

If required, the tool saves the log to a file.

NOTE: For the purpose of debugging, it is possible to save a log that appears in the log window to file. The log lines are saved only after choosing this option, and cannot be performed retroactively.

When the application has registered successfully, you can send the following:

1. **Monitor Request**
2. **Stop Monitor Request**

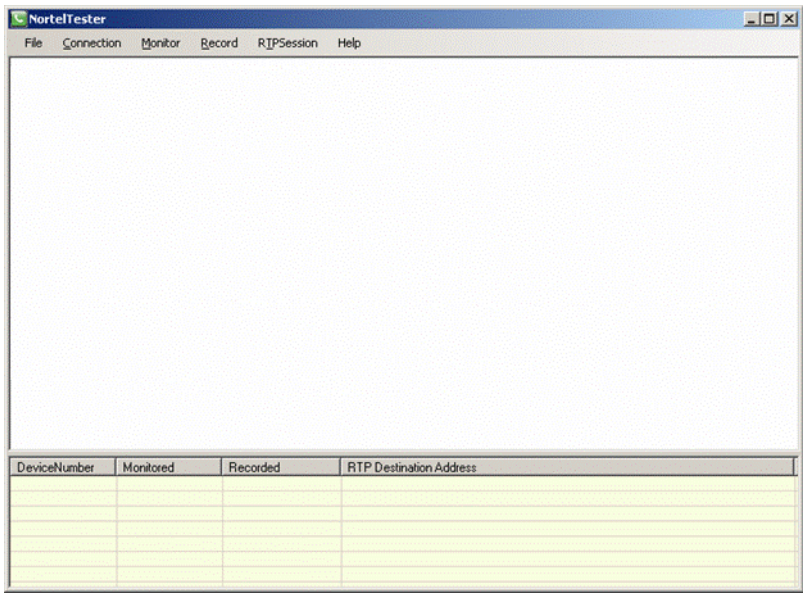
NOTE: The above order is recommended (and correct), but you can also send the requests in a different order.

Connecting to Symposium

In order to send requests the Nortel Tester connects to Symposium.

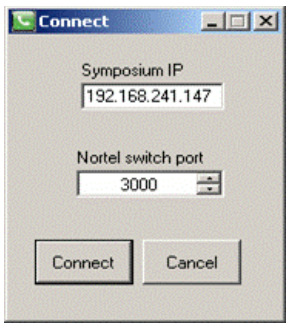
To connect to Symposium:

Figure 17-2 Log Window Flow



1. In the Nortel Tester window, from the **Connection** menu, select **Connect**. The Connect window appears.

Figure 17-3 Connect Window

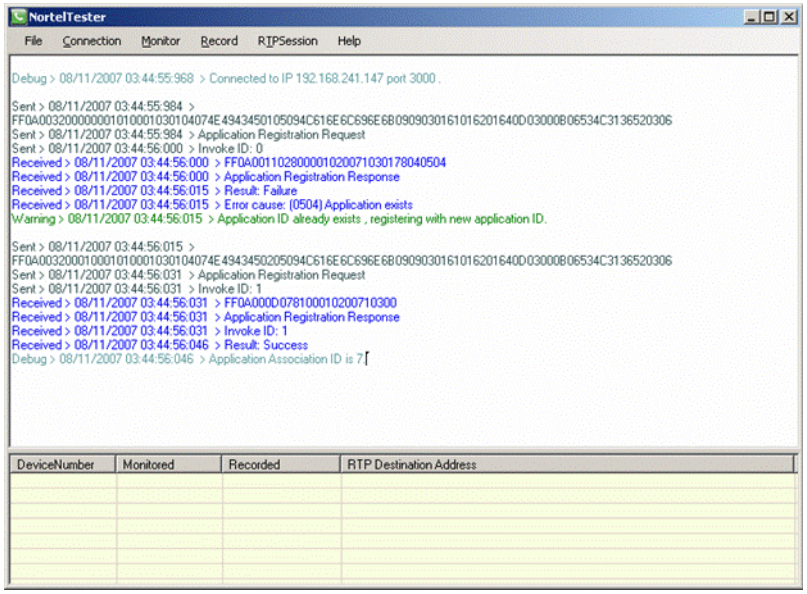


2. Enter the Symposium IP number in the **Symposium IP** field.
3. Enter the port number in the **Nortel switch port** field.
4. Click **Connect**.

   The Nortel Tester opens the TCP connection with Symposium and attempts to register the application, by sending application registration requests and checking the responses. It continues to do this, until it succeeds.

   You can see this flow in the log window.

Figure 17-4 Log Window Flow



NOTE: : The Nortel Tester prints to the log window, the sent/received message following its translation.

5. From the **File** menu, select **Save to log file** in order to be able to collect log files.

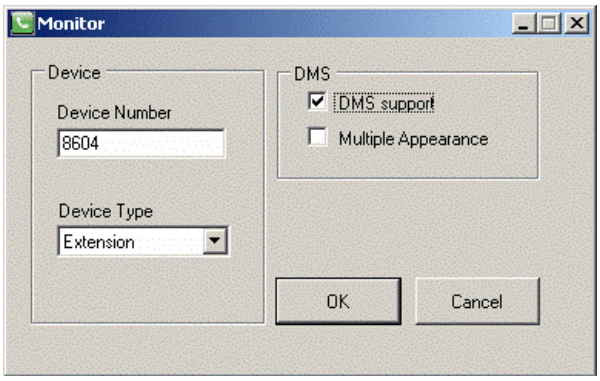
Monitor Request

This message lets the Nortel Tester register specified Directory Numbers (DNs) in order to receive its CTI events. Perform this procedure from the Monitor window.

To send a Monitor Request:

1. Select **Monitor > Start Monitor**. The Monitor window appears.

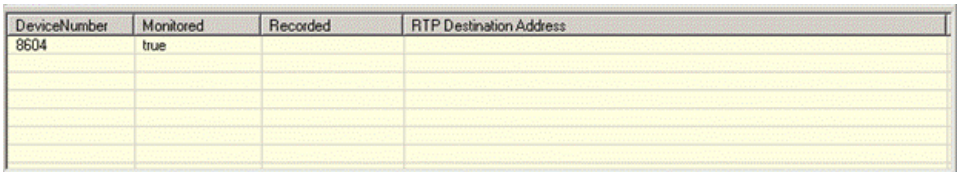
Figure 17-5 Monitor Window



2. Enter the device number in the **Device Number** field.
3. Select the device type from the **Device Type** drop-down list.
4. If you want to receive TNs in monitor response that are required for Start Record request, select **DMS support**.
5. If you are interested in multiple appearances of the same device number, select **Multiple Appearance**. If selected, the tester now receives Monitor responses and unsolicited events for all the appearances of the device type (partly supported).
6. Click **OK**.

   If the monitor request succeeded, the device is added to the Device Tracking table (in the log window).

Figure 17-6 Device Tracking Table



Stop Monitor Request

This stops the device from receiving events.

To perform a Stop Monitor request:

1. Select **Monitor > Stop Monitor**. The Stop Monitor window appears.

Figure 17-7 Stop Monitor Window

2. Enter the device number, or select it, from the **Choose device** drop-down list.

   The **Device Type** drop-down list is filled automatically.

3. Click **OK**.

Nortel Troubleshooting Issues

Exception Raised from CNortelCTILink

Problem

In the Nortel driver screen, the following message appears in red:

CTILink #x: An Exception has been raised from CNortelCTILink::Connect

Cause

1. Incorrect IP address: if you fail to ping the correct Symposium IP address, this error occurs.
2. Incorrect Port ID - the Port ID should be **3000**.
3. Problems with the network.

Solution

Test the connection using the Nortel Tester tool application, see **Using the Nortel Tester Tool** on **page 249**.

Events Not Inserted into the Database

Problem

On a specific extension, events are not inserted into the Database.

Cause

1. This device is not in the Monitored Devices list.
2. This device is in the Rejected Devices list.
3. Switch configuration.

Solution

Check the configurations.

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A

Log Collector Files

The Log Collector gathers the following files from the NICE Perform eXpress system. For more information regarding the NICE Perform eXpress components, see **NICE Perform eXpress System Architecture** on **page 16**.

Site Information Collector				
1.	Site Information Report	Collect site's component information	NPX10	NPX30
General				
2.	.Net Versions Registry	Collects .Net registry versions from HKLM\SOFTWARE\NDP	NPX10	NPX30
3.	Application Events	Collects Application events	NPX10	NPX30
4.	Computer Configuration	Collects system information data report	NPX10	NPX30
5.	NICE Registry	Collects the registry under HKLM\SOFTWARE\NICE SYSTEMS	NPX10	NPX30
6.	Security Events	Collects Security events	NPX10	NPX30
7.	System Events	Collects System events	NPX10	NPX30
8.	Time Settings	General	NPX10	NPX30
9.	Windows Services	Collects Windows Services details on the machine	NPX10	NPX30
10.	Windows Updates	Collects all Windows updates on the machine	NPX10	NPX30

Applications Suite				
11.	ActiveDirectory Tool Logs	ActiveDirectory Tool log files from the NICE Perform eXpress\Tools\ActiveDirectoryTool	NPX30	NPX30
12.	Administrative Database Data	Collects administrative data nice_admin database	NPX10	NPX30
13.	Administrative Parameters	Collects the Administrative Parameters data	NPX10	NPX30
14.	Applications Configuration	Collects Applications configuration files	NPX10	NPX30
15.	Applications Logs	Collects Applications log files	NPX10	NPX30
16.	Central Application Configuration	Collects Central Application configuration file	NPX10	NPX30
17.	Central Application Logs	Collects Central Application log files	NPX10	NPX30
18.	Configuration Database Data	Collects NPX configuration data from nice_express database	NPX10	NPX30
19.	Configured Channels View	Collects the current configured channels which are used by the Channel Monitoring	NPX10	NPX30
20.	IIS Configuration	Collects IIS configuration	NPX10	NPX30
21.	IIS Logs	Collects Internet Information Services (IIS) log files	NPX10	NPX30
22.	License Info	Collects information about the license state	NPX21	NPX30
23.	Locate Database Settings	Collects Locate setting from the nice_admin.dbo.tblApplicationsSystemSettings table	NPX10	NPX30
24.	LogService SelfLogging Logs for NPX2.1 and above	Collects LogService SelfLogging log files (%ALLUSERSPROFILE%\Application Data\NICE Systems\LogServiceSelfLogging)	NPX21	NPX30
25.	Migration Tool Logs	Migration Tool log files from the NICE Perform eXpress\Tools\NICE Migration Tool\Logs	NPX30	NPX30

26.	Migration Tool SQL Scripts' Logs	Migration Tool SQL scripts' log files from the NICE Perform eXpress\Tools\NICE Migration Tool\SqlScripts	NPX30	NPX30
27.	Playback Administrator Logs	Collects Playback Administrator log files	NPX10	NPX30
28.	Playback Gateway Configuration	Collects Playback Gateway configuration file	NPX10	NPX30
29.	Playback Gateway Files	Collects Playback Gateway files versions directory	NPX10	NPX30
30.	Report Server Events	Collects Report Server events	NPX10	NPX30
31.	Screen Agent Client Configuration	Collects Screen Agent client configuration file	NPX30	NPX30
32.	Screen Agent Client Status View	Collects the Screen Agent Client Status	NPX30	NPX30
33.	Server Bin Files	Collects versions of files in Applications\ServerBin directory	NPX10	NPX30
34.	Setup Framework Logs	Setup Framework log files from the %APPS_DATA%\NICE Perform eXpress	NPX10	NPX30
35.	SQL Server Reporting Service Performance Counters	Collects SQL Server Reporting Service performance counters values	NPX30	NPX30
36.	SQL Server Reporting Services Logs	Collects SQL Server Reporting Services log files	NPX30	NPX30
37.	Storage Streaming Events	Collects Storage Streaming events	NPX10	NPX30
38.	System Monitoring Events	Collects System Monitoring events	NPX10	NPX30
Telephony Services Server				
39.	Files Versions	Collects Playback Administration files versions	NPX10	NPX30

40.	Logs	Collects Playback Administration log files	NPX10	NPX30
41.	Playback Administration Configuration	Collects Playback Administration configuration file	NPX10	NPX30
Logger				
42.	Backup Server Logs	Collects Backup Server log files	NPX10	NPX30
43.	Backup Server Registry	Collects Backup Server registry branch under HKLM\SOFTWARE\NICE Systems\Backup	NPX10	NPX30
44.	Backup Server Version Registry	Collects Backup Server version registry branch under HKLM\SOFTWARE\NICE Systems\Setup\NICE Storage\BSRV	NPX10	NPX30
45.	CIMService Registry	Collects CIMService registry branch under HKLM\SOFTWARE\NICE Systems\CIMService	NPX10	NPX21
46.	Logger Configuration Files	Collects Logger configuration files	NPX10	NPX30
47.	Logger Files Versions	Collects Loggers file versions from D:\NTLogger\Logger\Bin	NPX10	NPX30
48.	Logger Logs	Collects Logger log files (D:\NTLogger\Logger\Log*.*)	NPX10	NPX10
49.	Logger Logs (Logger) (from NPX2.1 and above)	Collects Logger log files (Logger) (from NPX2.1 and above)	NPX21	NPX30
50.	Logger Version Registry	Collects Logger registry branch under HKLM\SOFTWARE\NICE Systems\Setup\NICE NiceLog	NPX10	NPX30
51.	SmartWorks Registry	Collects SmartWorks registry branch under HKLM\SYSTEM\CurrentControlSet\Services\Ntidrv	NPX10	NPX30
52.	Voice Capture Configuration	Collects Resource Manager configuration file	NPX10	NPX30
53.	Voice Capture Driver Registry	Collects Voice Logger Driver registry branch under HKLM\SOFTWARE\Nice systems\VoiceCaptureDriver	NPX10	NPX30

54.	Voice Capture Files Versions	Collects Voice Capture file versions	NPX10	NPX30
55.	Voice Capture Logs (VoiceCapture) (from NPX2.1 and above)	Collects Voice Capture log files (VoiceCapture) (from NPX2.1 and above)	NPX21	NPX30
56.	Voice Capture Registry	Collects Voice Logger registry branch under HKLM\SOFTWARE\Nice systems\VoiceCapture	NPX10	NPX30
57.	VoiceCapture Driver registry (OS settings)	Collects VoiceCapture driver registry branch under HKLM\SYSTEM\CurrentControlSet\Services\NiceLogVC	NPX10	NPX30
58.	VoiceCapture Log files	Collects VoiceCapture log files	NPX10	NPX10
59.	VoIP Configuration Files	Collects VoIP configuration files	NPX10	NPX30
60.	VoIP Files Versions	Collects VoIP file versions from D:\NTLogger\VoIPCapture\Bin	NPX10	NPX30
61.	VoIP Log files	Collects VoIP log files	NPX10	NPX10
62.	VoIP Log files (IPCapture) for NPX2.1 and above	Collects VoIP log files	NPX21	NPX30
63.	VoIP Versions Registry	Collects VoIP registry branch from HKLM\SOFTWARE\NICE Systems\Setup\IPCapture	NPX10	NPX30
SQL Server				
64.	Database Info	Collects Database disk size information data report	NPX10	NPX30
65.	DM Database Info	Collects DM Database disk size information data report	NPX10	NPX30
66.	Logs	Collects SQL error and log files	NPX10	NPX30
Interactions Center				
67.	.Net Memory Performance Counters	Collects .NET Memory performance counters values	NPX10	NPX30

68.	Configuration	Collects Interactions Center configuration	NPX10	NPX30
69.	Files Versions	Collects Interactions Center file versions	NPX10	NPX30
70.	Logs	Collects Interactions Center log files	NPX10	NPX30
71.	Process Performance Counters	Collects Process performance counters values	NPX10	NPX30
72.	SOAP files	Collects Interaction Center .SOAP files	NPX10	NPX30
73.	XML data	Collects Interaction Center .XML files	NPX10	NPX30
Storage Center				
74.	Configuration	Collects Storage Center configuration files	NPX10	NPX30
75.	Exception Log	Collects Exception log files from Windows\system32\	NPX10	NPX30
76.	Logs	Collects Storage Center log files	NPX10	NPX30
77.	Process Performance Counters	Collects Storage Center process performance counters values	NPX10	NPX30
78.	Registry Configuration	Collects Storage Center registry under HKLM\SOFTWARE\NICE Systems\Setup\NICE Storage Center	NPX10	NPX30
79.	Storage Center Database Configuration	Collects Storage Center data from nice_admin database	NPX10	NPX30
80.	Storage Streaming (NSS) Logs (from NPX2.1 and above)	Collects Storage Streaming (NSS) log files (from NPX2.1 and above)	NPX21	NPX30
81.	Storage Streaming (NSS) Logs (NPX1.0 only)	Collects Storage Streaming (NSS) log files (NPX1.0 only)	NPX10	NPX10
82.	Version	Collects Storage Center registry under HKLM\SOFTWARE\NICE Systems\NICE Storage Center [Installation]	NPX10	NPX30

NiceScreen Logger				
83.	Configuration	Collects NiceScreen Logger configuration file	NPX30	NPX30
84.	Files Versions	Collects NiceScreen Logger file versions	NPX30	NPX30
85.	Logs	Collects NiceScreen Logger log files	NPX30	NPX30
86.	Registry	Collects NiceScreen Logger registry under HKLM\SOFTWARE\Nice Systems Ltd.\Nice Multimedia Logger	NPX30	NPX30
CTI Integrations				
87.	ConfigCache.xml and VOX channel mapping files (when applicable)	Collects configuration cache and VOX channel mapping files (when applicable).	NPX10	NPX30
88.	Files Versions	Collects CTI file versions	NPX10	NPX30
89.	Logs	Collects NICE Perform CTI module logs	NPX10	NPX30
90.	NiceCTI Registry	Collects registry related to NICE Perform CTI installation.	NPX10	NPX30
System Monitor				
91.	Config	Collects System Monitor configuration file.	NPX10	NPX30
92.	Logs	Collects System Monitor log files.	NPX10	NPX30
Stream Server				
93.	Stream Server Logs	Collects Stream Server log files	NPX10	NPX30