

User Guide

Application Management Service

Release 5.0



Contact Center Express

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CHAPTER 1

Introduction

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What is the Application Management Service?

The management and monitoring of all Contact Center Express media stores, License Directors, XML Servers and Media Directors is accomplished by the Application Management Service. This service enables you to:

- View the status of servers
- Configure servers in real time
- Manage servers
- Gather statistics

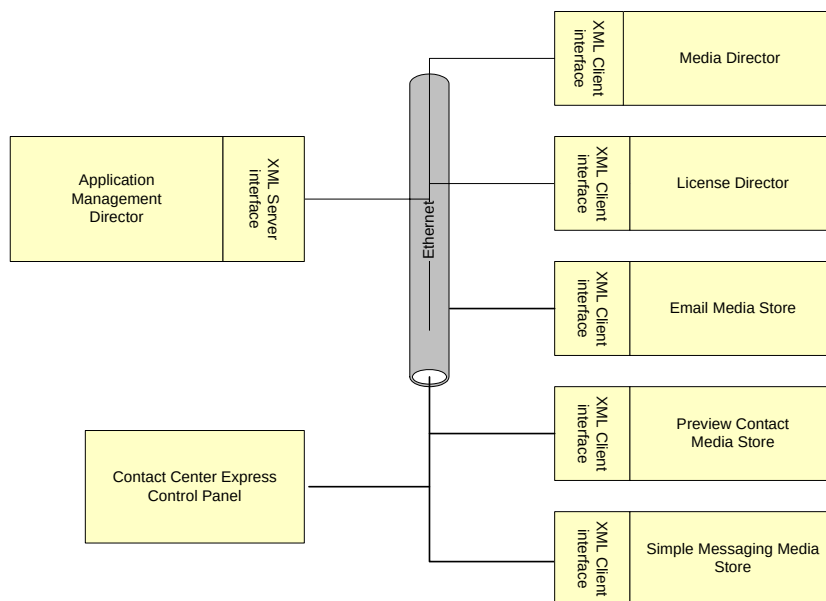
In addition, the Application Management Service allows you to add and manage the following data in the ASMediastore Database:

- Programs
- Schedules
- AutoText
- Priority contacts
- Denied contacts
- Allowed contacts.

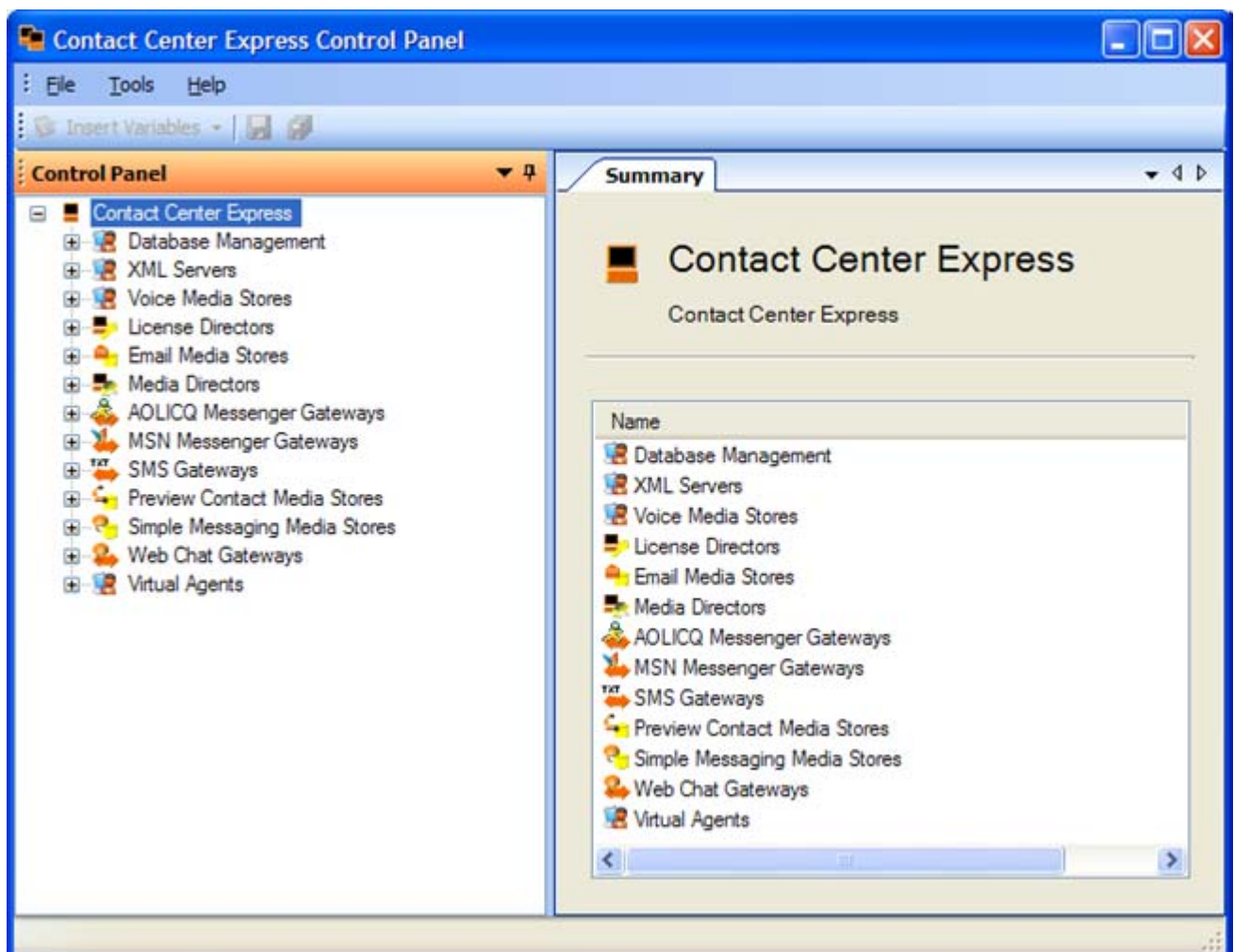
The Application Management Service consists of two components:

- **Application Management Director.** An application that runs in a Microsoft server environment and gathers status and health information about Contact Center Express servers.
- **Contact Center Express Control Panel.** A component built using .Net Framework that connects to Application Management Director to display the state of currently available servers. Using the console, a user can view and change configuration and operation information about currently monitored servers.

Important Note: This document discusses the configuration of the Application Management Director. For information on configuring and operating Contact Center Express Control Panel, refer to the Contact Center Express Control Panel User Guide.



When Application Management Director starts up, it opens a connection to all running Contact Center Express media stores, License Directors, XML Servers and Media Directors it finds on the network. It asks those applications to forward information relating to their configuration and operation. Contact Center Express Control Panel then displays that information in graphical tree structure.



Connections to Application Management Director are established either by the multicast functionality or via the pre-configured data from the configuration set or both. When a connection is established to Application Management Director, Contact Center Express Control Panel indicates that it is a management interface and asks the Application Management Director to send a complete list of available information. The console receives a collection of XML documents that allow it to accurately display that information within a hierarchical node structure.

How does the Application Management Service Work?

Application Management Director starts with the application operating system, extracting its configuration data via the Configuration Client. Configuration Client manages the process of retrieving and storing configuration data to either the system registry, a configuration file or the Configuration Server.

Server Discovery

Servers can be discovered on the network in one of two methods:

- 1 Fixed configuration via the server's configuration set. When the IP address and port number of the Application Management Director are supplied in the server's .ini file, the server connects to the Application Management Director.
- 2 Automatic discovery mechanism (using the multicast functionality available with the Winsock protocol). Application Management Director uses TCP multicast functionality to broadcast to the network, on a periodic basis, its desire to know about Contact Center Express servers. The client functionality built into Contact Center Express servers will be listening for these multicast parameters. If the client receives a multicast parameter from an Application Management Director to which it is not attached, it will try to connect to the Application Management Director using the IP address and IP port number provided in the multicast packets. If the connection is established, Application Management Director asks the client for its identity. When Application Management Director receives the identify and establishes this information is correct, the connection is confirmed and the exchange of information is enabled.

Note: Many network routers do not allow for the forwarding of multicast packets. In this situation, Contact Center Express servers that do not exist on the same network segment as Application Management Director will not be discovered. Manual configuration must be used for this connectivity to be successful.

CHAPTER 2

Alerting and Alarming

Significant strides have been made with Contact Center Express to bring together a common management interface. Today we have the Application Management Director and the Control Panel which work in concert to allow Contact Center Express service applications to be managed from a central point. Currently all major Contact Center Express applications can now be managed via the Contact Center Express Control Panel and these applications can register themselves with the Application Management Director.

Until now however, Contact Center Express Control Panel has not given any indication of the status of an application or the different sections within it. Contact Center Express 5.0 introduces a mechanism that allows alerting and alarming to be incorporated into the Contact Center Express product suite. The addition of alarming and notification will be an ongoing exercise and existing applications will have this functionality fitted over the next few releases of these products.

Currently only License Director, Media Director and some aspects of XML Server has support for this new alerting and alarm feature.

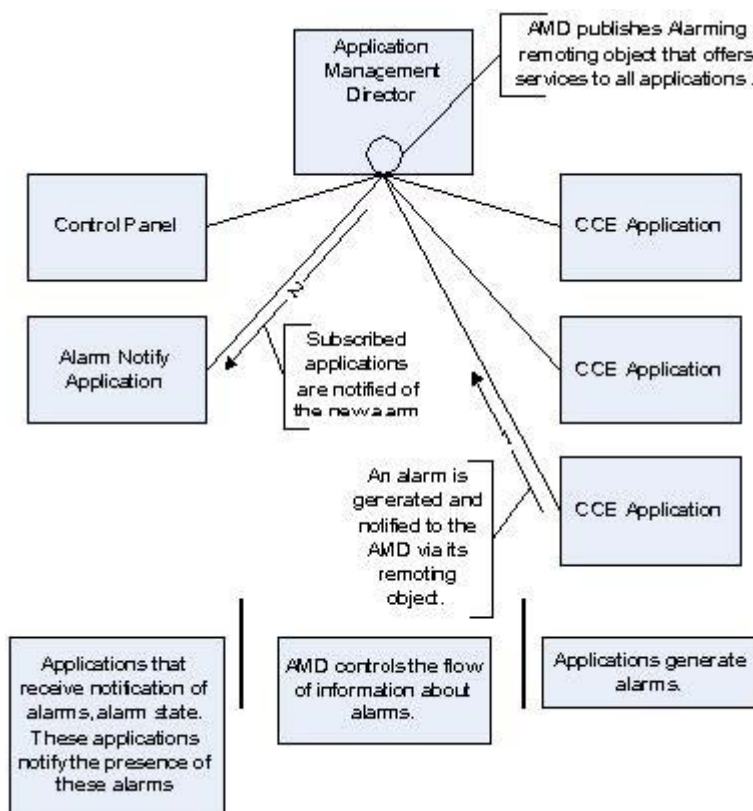
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Overview

The Alerting and Alarming solution can be broken into three specific parts:

- 1 Applications that generate alarms or state change notifications – essentially any Contact Center Express application that has a working state that may need to be conveyed to a remote entity.
- 2 Application that collects alarms – this role is filled by Application Management Director.
- 3 Applications that alert users – this could be a number of separate applications whose role is to watch for alarms being generated by applications in the Contact Center Express suite, and relay this information to a point where it can be actioned by an appropriate person (e.g. System Administrator).



Note: The term “Alarming” is used to cover the notification by a monitored application that there has been some change in operational status - for example, a link to XML Server disconnecting or reconnecting. The term “Alerting” is used to cover the process by which this change in operational state (the “Alarm”) is notified to the appropriate entity. An Alerting service is something that some Contact Center Express services offer the Contact Center Express suite.

Alarms and Notifications

There are two types of information that is passed from the Contact Center Express application to the central server to be disseminated to alerting applications.

Alarms

Alarms are used to indicate to the Contact Center Express administrator that a condition has occurred within the application that is abnormal and should be investigated.

Alarms exist in the alarming application and within the Application Management Director until they are resolved or until the originating application is stopped.

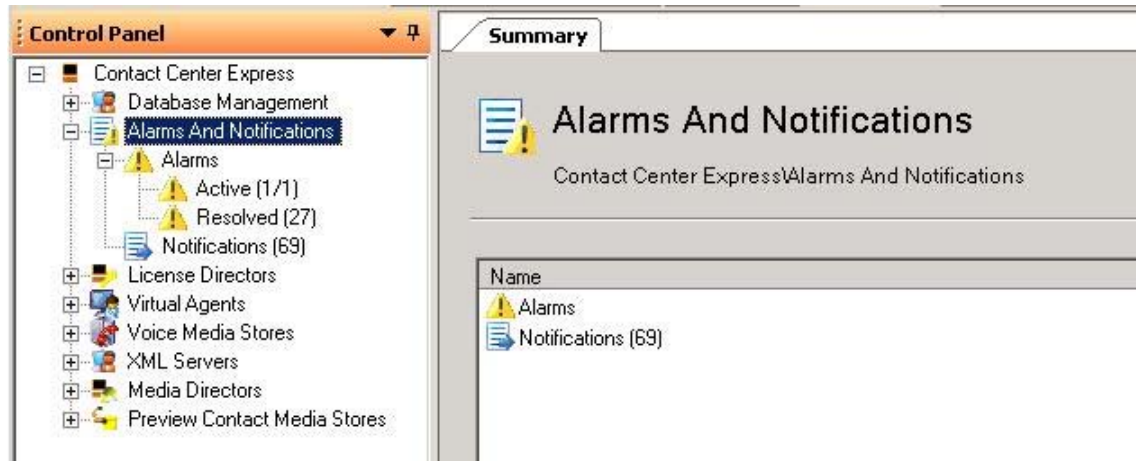
Notifications

Notifications are a way that the alarming application can indicate that a state change has happened that should be known to the Contact Center Express administrator. These state changes occur in the normal operation of the alarming application and are not events that require resolution. Examples would be the stopping/starting of the service, the stopping/starting of a program or the transition of a program from one schedule to another. Notifications will be stored in the Application Management Director until its internal list grows to its configured limit.

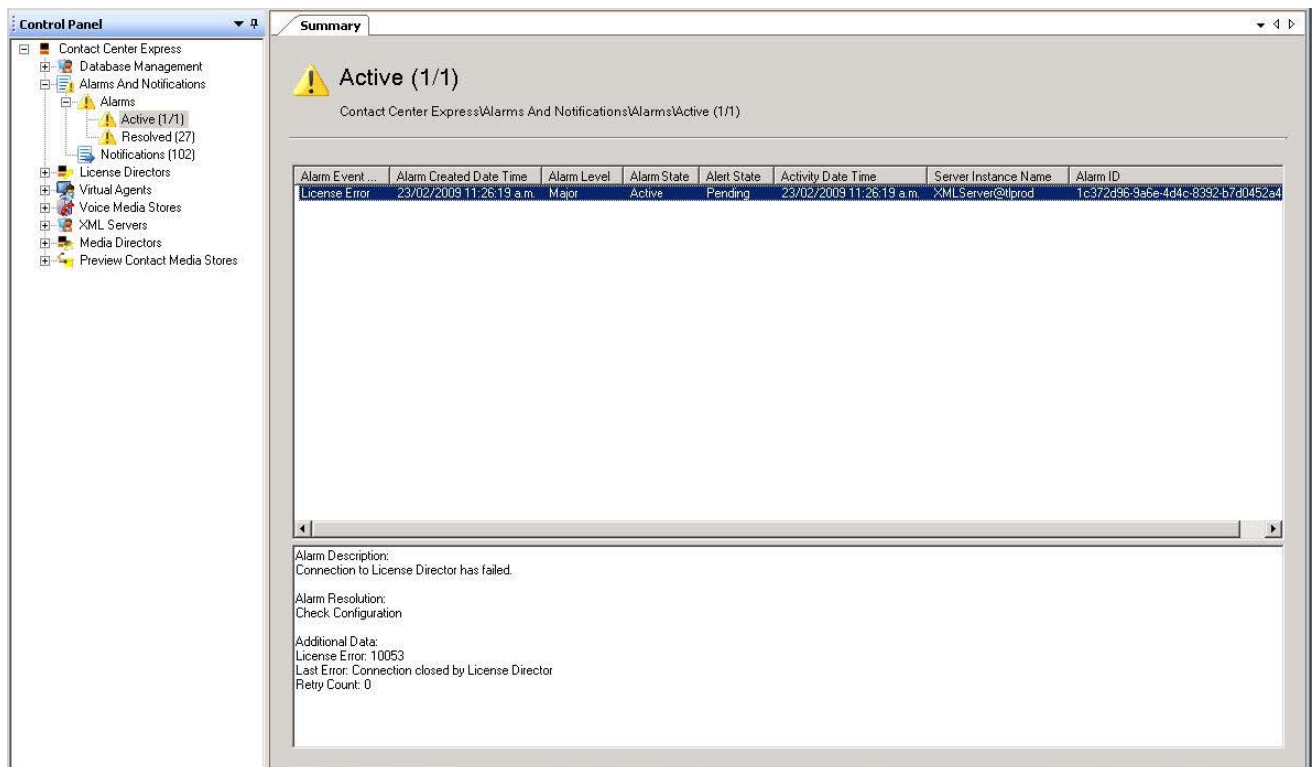
Note: While it is possible that a notification is the pre-cursor to an alarm event, the two would not be strictly related.

Using Alarms and Notifications

The Alarms and Notifications interface is offered by Application Management Director and is accessible via Contact Center Express Control Panel.



- 1 Expand the **Alarms And Notifications** node.



- 2 There is one node for Notifications and two for Alarms - one for those that are **Active** and the other for those that have been **Resolved**.

- 3 Selecting each Alarm Event in the **Summary Tab** presents detailed information regarding that particular event in the bottom window panel.

Control Panel

- Contact Center Express
 - Database Management
 - Alarms And Notifications
 - Alarms
 - Active (1/1)
 - Resolved (27)**
 - Notifications (102)
 - License Directors
 - Virtual Agents
 - Voice Media Stores
 - XML Servers
 - Media Directors
 - Preview Contact Media Stores

Summary

Resolved (27)

Contact Center Express\Alarms And Notifications\Alarms\Resolved (27)

Alarm Event Name	Alarm Created Date Time	Alarm Level	Alarm State	Alert State	Activity Date Time	Server Instance Name
XML Link Down	23/02/2009 11:26:19 a.m.	Major	Active	Pending	23/02/2009 11:28:21 a.m.	Media Director@TLPROD
License Director Link Down	23/02/2009 11:26:18 a.m.	Major	Active	Pending	23/02/2009 11:27:20 a.m.	Media Director@TEST26
XML Link Down	23/02/2009 11:26:18 a.m.	Major	Active	Pending	23/02/2009 11:28:20 a.m.	Media Director@TEST26
License Director Link Down	23/02/2009 11:26:17 a.m.	Major	Active	Pending	23/02/2009 11:27:22 a.m.	Media Director@TLPROD
XML Link Down	22/02/2009 6:11:19 p.m.	Major	Active	Pending	22/02/2009 6:17:25 p.m.	Media Director@TLPROD
XML Link Down	22/02/2009 6:11:18 p.m.	Major	Active	Pending	22/02/2009 6:17:25 p.m.	Media Director@TEST26
XML Link Down	18/02/2009 2:48:33 p.m.	Major	Active	Pending	18/02/2009 2:49:36 p.m.	Media Director@TEST26
XML Link Down	18/02/2009 2:48:33 p.m.	Major	Active	Pending	18/02/2009 2:49:38 p.m.	Media Director@TLPROD
XML Link Down	17/02/2009 3:43:20 p.m.	Major	Active	Pending	17/02/2009 3:43:20 p.m.	Media Director@TEST26
XML Link Down	17/02/2009 3:43:20 p.m.	Major	Active	Pending	17/02/2009 3:43:20 p.m.	Media Director@TLPROD
XML Link Down	16/02/2009 2:20:16 p.m.	Major	Active	Pending	16/02/2009 2:20:16 p.m.	Media Director@TLPROD
XML Link Down	16/02/2009 2:20:16 p.m.	Major	Active	Pending	16/02/2009 2:20:16 p.m.	Media Director@TEST26
XML Link Down	12/02/2009 9:44:33 a.m.	Major	Active	Pending	12/02/2009 9:44:33 a.m.	Media Director@TLPROD
XML Link Down	12/02/2009 9:44:32 a.m.	Major	Active	Pending	12/02/2009 9:44:32 a.m.	Media Director@TEST26
XML Link Down	11/02/2009 4:25:35 p.m.	Major	Active	Pending	11/02/2009 4:25:35 p.m.	Media Director@TLPROD
XML Link Down	11/02/2009 4:25:34 p.m.	Major	Active	Pending	11/02/2009 4:25:34 p.m.	Media Director@TEST26
License Director Link Down	4/02/2009 10:12:34 a.m.	Major	Active	Pending	4/02/2009 10:14:36 a.m.	Media Director@TEST26
XML Link Down	4/02/2009 10:12:34 a.m.	Major	Active	Pending	4/02/2009 10:14:38 a.m.	Media Director@TLPROD
XML Link Down	4/02/2009 9:14:29 a.m.	Major	Active	Pending	4/02/2009 9:14:29 a.m.	Media Director@TEST26
License Director Link Down	4/02/2009 9:02:14 a.m.	Major	Active	Pending	4/02/2009 9:04:17 a.m.	Media Director@TEST26
XML Link Down	4/02/2009 9:02:14 a.m.	Major	Active	Pending	4/02/2009 9:04:18 a.m.	Media Director@TEST26
License Director Link Down	3/02/2009 9:40:51 a.m.	Major	Active	Pending	3/02/2009 9:46:02 a.m.	Media Director@TEST26
XML Link Down	3/02/2009 9:40:20 a.m.	Major	Active	Pending	3/02/2009 9:45:13 a.m.	Media Director@TLPROD
No Free Licenses	3/02/2009 9:33:03 a.m.	Minor	Active	Pending	3/02/2009 9:33:03 a.m.	Media Director@TLPROD
XML Link Down	3/02/2009 9:27:12 a.m.	Major	Active	Pending	3/02/2009 9:46:50 a.m.	Media Director@TEST26
XML Link Down	3/02/2009 9:26:24 a.m.	Major	Active	Pending	3/02/2009 9:44:47 a.m.	Media Director@TLPROD

Alarm Description:
The link to the XML server can not be established. No work items can be processed while this link remains down.

Alarm Resolution:
Check the XML Server configuration and check to ensure the XML Service is running. Resolve any alarms that exist for the XML server first.

Additional Data:

- 4 Simply click over the Resolved node to view these Alarm Events in the Summary Tab.

Summary

Resolved (27)

Contact Center Express\Alarms And Notifications\Alarms\Resolved (27)

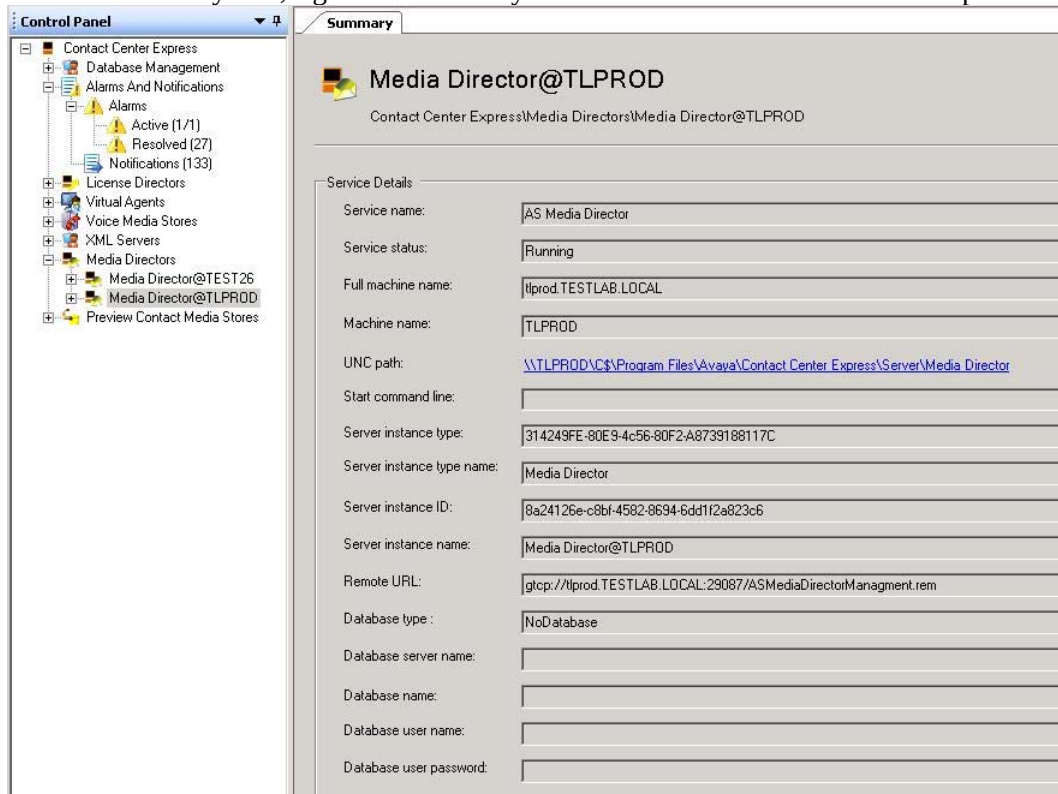
Alarm Event Name	Alarm Created Date Time	Alarm Level	Alarm State	Alert State	Activity Date Time	Server Instance Name
XML Link Down	23/02/2009 11:26:19 a.m.	Major	Active	Pending	23/02/2009 11:28:21 a.m.	Media Director@TLPROD
License Director Link Down	23/02/2009 11:26:18 a.m.	Major	Active	Pending	23/02/2009 11:27:20 a.m.	Media Director@TEST26
XML Link Down	23/02/2009 11:26:18 a.m.	Major	Active	Pending	23/02/2009 11:28:20 a.m.	Media Director@TEST26
License Director Link Down	23/02/2009 11:26:17 a.m.	Major	Active	Pending	23/02/2009 11:27:22 a.m.	Media Director@TLPROD
XML Link Down	22/02/2009 6:11:19 p.m.	Major	Active	Pending	22/02/2009 6:17:25 p.m.	Media Director@TLPROD
XML Link Down	22/02/2009 6:11:18 p.m.	Major	Active	Pending	22/02/2009 6:17:25 p.m.	Media Director@TEST26
XML Link Down	18/02/2009 2:48:33 p.m.	Major	Active	Pending	18/02/2009 2:49:36 p.m.	Media Director@TEST26
XML Link Down	18/02/2009 2:48:33 p.m.	Major	Active	Pending	18/02/2009 2:49:38 p.m.	Media Director@TLPROD
XML Link Down	17/02/2009 3:43:20 p.m.	Major	Active	Pending	17/02/2009 3:43:20 p.m.	Media Director@TEST26
XML Link Down	17/02/2009 3:43:20 p.m.	Major	Active	Pending	17/02/2009 3:43:20 p.m.	Media Director@TLPROD
XML Link Down	16/02/2009 2:20:16 p.m.	Major	Active	Pending	16/02/2009 2:20:16 p.m.	Media Director@TLPROD
XML Link Down	16/02/2009 2:20:16 p.m.	Major	Active	Pending	16/02/2009 2:20:16 p.m.	Media Director@TEST26
XML Link Down	12/02/2009 9:44:33 a.m.	Major	Active	Pending	12/02/2009 9:44:33 a.m.	Media Director@TLPROD
XML Link Down	12/02/2009 9:44:32 a.m.	Major	Active	Pending	12/02/2009 9:44:32 a.m.	Media Director@TEST26
XML Link Down	11/02/2009 4:25:35 p.m.	Major	Active	Pending	11/02/2009 4:25:35 p.m.	Media Director@TLPROD
XML Link Down	11/02/2009 4:25:34 p.m.	Major	Active	Pending	11/02/2009 4:25:34 p.m.	Media Director@TEST26
License Director Link Down	4/02/2009 10:12:34 a.m.	Major	Active	Pending	4/02/2009 10:14:36 a.m.	Media Director@TEST26
XML Link Down	4/02/2009 10:12:34 a.m.	Major	Active	Pending	4/02/2009 10:14:38 a.m.	Media Director@TLPROD
XML Link Down	4/02/2009 9:14:29 a.m.	Major	Active	Pending	4/02/2009 9:14:29 a.m.	Media Director@TEST26
XML Link Down	4/02/2009 9:14:29 a.m.	Major	Active	Pending	4/02/2009 9:14:29 a.m.	Media Director@TLPROD
License Director Link Down	4/02/2009 9:02:14 a.m.	Major	Active	Pending	4/02/2009 9:04:17 a.m.	Media Director@TEST26
XML Link Down	4/02/2009 9:02:14 a.m.	Major	Active	Pending	4/02/2009 9:04:18 a.m.	Media Director@TEST26
License Director Link Down	3/02/2009 9:40:51 a.m.	Major	Active	Pending	3/02/2009 9:46:02 a.m.	Media Director@TEST26
XML Link Down	3/02/2009 9:40:20 a.m.	Major	Active	Pending	3/02/2009 9:45:13 a.m.	Media Director@TLPROD
No Free Licenses	3/02/2009 9:33:03 a.m.	Minor	Active	Pending	3/02/2009 9:33:03 a.m.	Media Director@TLPROD
XML Link Down	3/02/2009 9:27:12 a.m.	Major	Active	Pending	3/02/2009 9:46:50 a.m.	Media Director@TEST26
XML Link Down	3/02/2009 9:26:24 a.m.	Major	Active	Pending	3/02/2009 9:44:47 a.m.	Media Director@TLPROD

Alarm Description:
The link to the XML server can not be established. No work items can be processed while this link remains down.

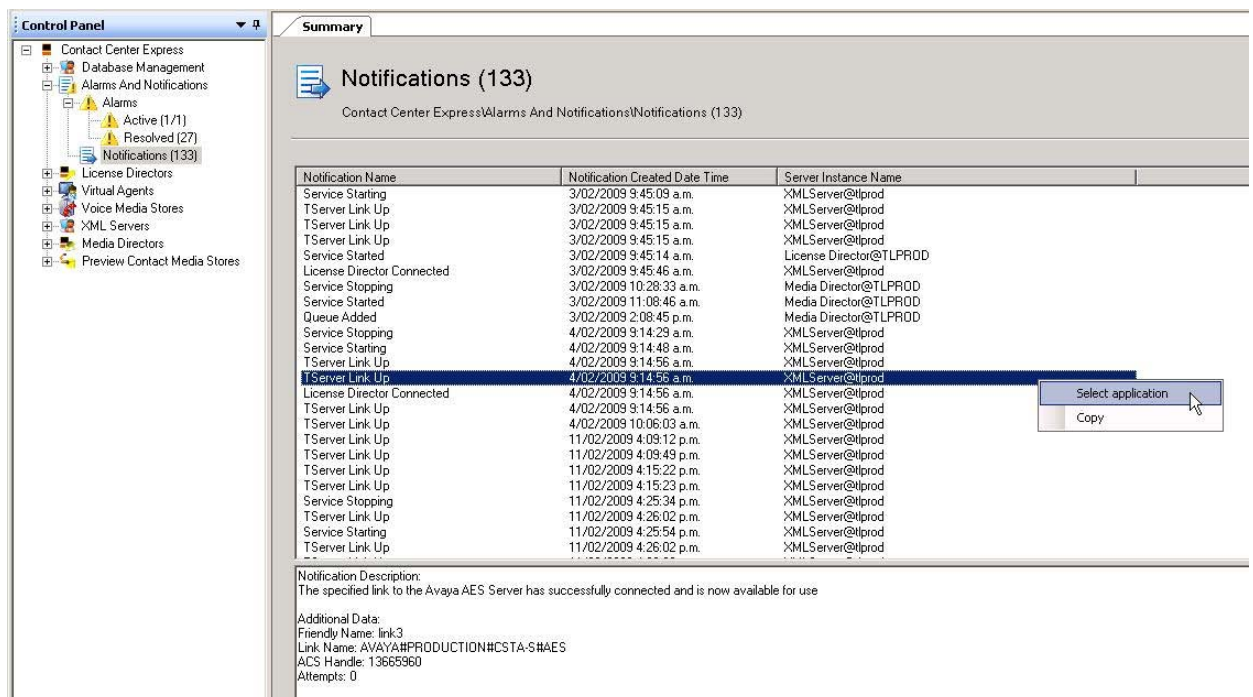
Alarm Resolution:
Check the XML Server configuration and check to ensure the XML Service is running. Resolve any alarms that exist for the XML server first.

Additional Data:

5: In the Summary Tab, right-click over any selected Alarm Event to reveal a drop-down menu.



5 Choose **Select Application** to immediately jump to the specific server instance node where the Alarm Event occurred.



6 The **Notifications Tab** functions exactly as above.

Supported Alarms and Notifications

This section outlines the alarms that are currently generated from existing Contact Center Express applications.

License Director

Supported Notifications

- **Service started** - This notification is sent when the application service starts.
- **Service Stopping** - This notification is sent when the application service is stopping.
- **License Key Added** - This notification is sent when a new license key is added to the License Director through the management interface. This notification is not sent on startup.
- **License Key removed** - This notification is sent when a license key is removed from the License Director through the management interface. This notification is not sent on shutdown.

Supported Alarms

- **License Invalid** - When the License Director starts it loads the license keys from the configuration set. If there is an invalid key in this configuration set then this alarm will be raised. This alarm will exist until the license entry is removed. *Check that the license key has been entered correctly and that it is associated with the correct application type.*
- **License Expired** - This alarm is raised when a valid trial license key expires. This alarm will be raised at this point and will exist until the license entry is removed. *A new license of the same type must be obtained and installed to the License Director.*
- **License Exhausted** - This alarm is raised when the number of free licenses for a license key reaches 0. This alarm will exist until the number of free licenses is raised above 0. Applications that continue to request licenses while the count remains at 0 will result in the Client failure count being incremented. *A larger license of the same type should be purchased and installed to the License Director.*

Media Director

Supported Notifications

- **Service started** - This notification is sent when the application service starts.
- **Service Stopping** - This notification is sent when the application service is stopping.
- **Queue Added** - This notification is sent when a new queue is added to the Media Director via the management interface.
- **Queue Removed** - This notification is sent when a queue is removed from the Media Director via the management interface.

Supported Alarms

- **XML Link Down** - This alarm is raised when the configured connection from the Media Director to the XML Server fails or can not be established. This alarm will be raised when the link fails and will be resolved when the link is successfully established. Successive unsuccessful attempts to contact the XML server for this link will result in the Last Attempt Date/Time and Retry Count variables being updated. *Check the XML Server configuration and check to ensure the XML Service is running. Resolve any alarms that exist for the XML server first.*

- **License Director Link Down** - This alarm is raised when the configured connection from the Media Director to the License Director fails or can not be established. This alarm will be raised when the link fails and will be resolved when the link is successfully established. *Check the configuration for the License director and that the License Director service is running. Resolve any outstanding alarms for the License Director first.*
- **No Free Licenses** - The last client that attempted to connect to this Media Director was denied because the License Director did not have any free licenses. This alarm will be raised at this point and will exist until the next client manages to connect successfully. This alarm will not be raised if the connection to License Director is down. Successive unsuccessful attempts by clients to connect to the Media Director while this alarm exists will result in the Client failure count being incremented and the Last occurred date/time being updated. *A larger license of the same type should be purchased and installed to the License Director.*
- **Device Monitor Failure** - This alarm is raised when the Media Directors attempt to monitor the specified device (VDN etc) fails. A separate alarm will be raised for each device that fails to be monitored. This alarm will exist until the monitor succeeds, the device is removed from the configuration or the XML Server link fails. This alarm will not be raised if the link to the XML Server is not established. Successive unsuccessful attempts by the Media Director to monitor the specified device will result in the Last attempt and Retry Count data being updated. *Check that the device is correct and that it exists in the communication Manager and has been added to the AES security database.*
- **Make Call Failure** - This alarm is raised when the attempt to originate a call from the specified device fails. This alarm will be created when the first call fails to be originated from a device and will be cleared when the first call is successfully originated. Calls that fail in succession after the first failure will update the alarm details in the AMD. Each device where call origination fails should be represented by its own alarm object. *Please check the configuration of the Media Director and the Avaya Communication Manager.*

XML Server

Supported Notifications

- **Service started** - This notification is sent when the application service starts.
- **Service Stopping** - This notification is sent when the application service is stopping.
- **TServer Link Up** - The specified link to the Avaya AES Server has successfully connected and is now available for use.

Supported Alarms

- **TServer Link Down** - This alarm is raised when the XML Servers connection to the specified AES TServer link fails or can not be established. This alarm is raised when the failure initially occurs and is cleared when a successful connection is made. *Check that the TServer details are correct and that the AES Server or Avaya CT server is running.*
- **TServer Login Failure** - This alarm is raised when the XML Server connections to the specified AES TServer but fails to login link fails or can not be established. This alarm is raised when the failure initially occurs and is cleared when a successful connection is made. *Check that the TServer details are correct and that the AES Server or Avaya CT server is running.*
- **License Director Link Down** - This alarm is raised when the configured connection from XML Server to the License Director fails or can not be established. This alarm will be raised when the link fails and will be resolved when the link is successfully established. *Check the configuration for the License director and that the License Director service is running. Resolve any outstanding alarms for the License Director first.*
- **Name Service Failed** - The Name Service is not available. *Check the configuration for the License director and that the License Director service is running. Resolve any outstanding alarms for the License Director first.*

CHAPTER 2

System Requirements

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Installation Requirements

The specifications listed here are the minimum recommended. As far as is known and unless otherwise stated, Contact Center Express and its components should be compatible with all higher specification hardware configurations and software versions than those listed in the following section:

Desktop

For Contact Center Express Desktop, Contact Center Express Reporting, Contact Center Express Control Panel:

- **Hardware:**
 - 1.6 GHz Pentium
 - 512MB of RAM-50MB of free hard disk space
 - DVD drive
 - Graphics card capable of supporting 1024 x 768 resolution monitor
 - Mouse or other Windows-compatible pointing device
 - TCP/IP LAN connection
- **Software:**
 - Windows 7 - Home, Premium, Professional, Ultimate, and Enterprise
 - Windows Vista - Business and Enterprise
 - Windows XP Professional 32-bit - SP2, SP3
 - Citrix Presentation Server 4.5 or Windows Terminal Services 32-bit
 - Microsoft Internet Explorer 7.0
 - Microsoft .Net Framework 3.5 SP1

Servers

- **Hardware:**
 - A 2.4 GHz Pentium with 2GB RAM.
- **Software:**
 - Windows 2003 Server (Enterprise and Standard) 32-bit
 - Windows 2008 Server (Enterprise and Standard) 32-bit and 64-bit
 - Microsoft Internet Explorer 6.0 SP1
 - Microsoft .Net Framework 3.5 SP1
 - Application Enablement Services (AE Services) client software release 4.2.1, 5.2 and 6.1

Core Server

- **Dedicated server for:**
 - License Director
 - XML Server
 - Configuration Server
 - Application Management Director
 - Media Director-Media Stores and Gateways
 - Call Routing Server
 - Virtual Agent
 - Task Director
- **For Email only POP3/SMTP supported:**
 - Microsoft Exchange Server 6.5, 2003, 2007

Interaction Data Service Server

Dedicated Server for Interaction Data Service - excluding Microsoft Internet Explorer which is not required.

Database Server

- **Dedicated server for:**
 - Interaction Data Server (ActiveInteractionData)
 - Configuration Server (ACS)
 - ASMSControl Database
 - ASMSData and ASContact Databases may be installed either on Microsoft SQL Server 2005 or 2008 Standard, Enterprise, and Express with Advance Services

Developers

- **Developing applications on or with:**
 - Windows 7 - Home, Premium, Professional, Ultimate, and Enterprise
 - Windows XP Professional 32-bit SP2, SP3 with Microsoft Visual Studio 2005 and 2008
 - Windows 2003 Server 32-bit - Standard and Enterprise
 - Windows 2008 Server 32-bit and 64-bit - Standard and Enterprise
 - Microsoft Internet Explorer 6.0 SP1
 - Microsoft .Net Framework 3.5 SP1
 - Application Enablement Services (AE Services) client software release 4.2.1, 5.2, and 6.1

Installation

The configuration and monitoring of this Contact Center Express service is accomplished by the Application Management Service installation of which is a necessary pre-requisite for the configuration and setup of Virtual Agent. For detailed information on how to install Application Management Service refer to the about the *Contact Center Express Installation Guide.pdf*.

One component of this service is the Contact Center Express Control Panel, a user interface that allows you to add and change configuration and operation information about currently monitored servers. For detailed information on how to configure this service, refer to the about the *Contact Center Express Control Panel User Guide.pdf*.

Install Application

For full instructions on how to install this application, refer to the *Contact Center Express Installation Guide.pdf*.

In addition to the standard installation steps, this document explains:

- how you can use command line parameters during installation to dictate where configuration information is retrieved.
- how you can change the configuration source from the local .inc file to the Configuration Server if an application has already been installed.
- how to automatically (silently) install an application following a set of pre-defined selection options.

Contact Center Express Installation Guide.pdf is on the Contact Center Express DVD (Overview and Miscellaneous folder) or can be downloaded from the **Avaya Support Web site**: <http://support.avaya.com>.

CHAPTER 3

Administration

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Configure Application Management Director

- 1 Click the **Start** button on the Windows Taskbar and select **Programs > Avaya Contact Center Express > Desktop > Agent > Edit ASCustomActionMediaStore.ini** from the pop-up menu.
- 2 Use the following definitions to define your configuration data. **Note:** Do not change section names or parameter names.

[Service Plug In Host]

Service Display Name. The text that displays for this service under the **Name** column of the Microsoft Windows **Services** screen. The default value is: AS Application Management Director

Service Command Line. Leave this parameter blank. By default, Service Host Plug-in will source its configuration data from the same working folder that contains the application executable.

Service Description. The text that displays for this service under the **Description** column of the Microsoft Windows **Services** screen. The default is: AS Application Management Director

Service Startup State. A value that determines the state of the service when it is installed. 0=Disabled, 1=Manual, 2=Automatic.

[Application Management Service]

Multicast IP. The IP address that will be used for multicasting between applications. When an application starts, it will join this multicast address and receive packet information from the Application Management Director. The default is 239.29.9.67.

Multicast Port. The port number that will be used for multicasting between applications. The default is 29075.

Enable Multicast. A value that determines if multicasting will be used to locate the Application Management Director or not. True=enabled, False=disabled. The default is True.

Application Management Director URL List. If multicasting is disabled, these URLs are used to find the Application Management Directors set up in your contact center. Items are separated by commas and follow the format: IP address:port number, IP address:port number etc.

Management Object URL. The URL used by Contact Center Express Control Panel to connect to the remoting management object. The URL must use the following format: channeltype://fullyqualifiedcomputername:port/uri. If the entry is empty, a default URL is automatically created:

[Client Connections]

IP Address. The local IP address for accepting incoming client connections.

IP Port. The local IP port for accepting incoming client connections.

Allow Multicast. A value that determines whether multicasting of the connection information is enabled or not. True=enabled, False=disabled.

Enable Trace. A value that determines whether information is logged to the log file. True=enabled, False=disabled.

Broadcast Interval In Seconds. How often, in seconds, connection information is multicasted.

Multicast IP. The IP address that will be used for multicasting the connection information. The default is 239.29.9.67.

Multicast Port. The port number that will be used for multicasting the connection information.

Receive Buffer Length. The buffer size for incoming messages. The default is 20000.

[Plug In Assembly List]

This section lists all loadable generic plug-ins. Each entry has the format "Friendly name=Plug-in section name". The plug-in section name points to (and is the same as) the section in the file that contains configuration data for that plug-in.

For example:

Application Management Director Plug in = Application Management Director

[Application Management Director]

Assembly File Name. The name of the plug-in file to be loaded. If the plug-in is not located in the default file path (the same folder as the host application), also specify the file path. For this plug-in, use: ASApplicationManagementDirectorPlugin.dll

Application Management Director URL. The URL for this Application Management Director. The URL follows the format: gtcp://192.168.10.201:29074/ApplicationManagementDirector.rem

Multicast IP. The IP address that will be used for multicasting between applications. When an application starts, it will join this multicast address and receive packet information from the Application Management Director. The default is 239.29.9.67.

Multicast Port. The port number that will be used for multicasting between applications. The default is 29075.

Update Interval Seconds. The interval, in seconds, between multicast broadcasts. The default is 10.

[Server Identifier]

Server Instance Friendly Name. Any name you want to display for this application within Contact Center Express Control Panel.

Server Instance ID. A unique identifier for the server application, which is created automatically when it runs for the first time.

Server Instance Type. An ID used by other applications to determine what type of component they are communicating with.

Error Logging

Application Management Director logs error information relating to its own operation to a series of log files.

A new log file is created for each day of the week. The name of the error log file clearly identifies the application and the day of the week, for example, MonASApplicationManagementDirector.log.

Once a log file reaches the size limit specified in its configuration, it is archived and a new file is created. (Note: The archive only stores one log file. If the second error log reaches the specified maximum size, it overrides the previously archived log file.)

The types of errors logged by the error log are determined by the logging level retrieved from the application's configuration data. Levels of error logging are:

- **0.** No error logging takes place.
- **1.** Logs fatal, major, minor and trace information.
- **2** Logs fatal, major and minor errors.
- **4.** Logs fatal and major errors.
- **8.** Logs fatal errors only.

Each file records the selected logging level as well as the date, time, location and description of every error that occurs.

Error log files are automatically saved into the application's current working folder (the same folder as the application executable).

Diagnostic Testing Error Logging

There is one other error log level, which enables you to create log files that don't override each other every time the maximum log file size limit is reached. This logging level is designed for diagnostic purposes only and can be achieved by adding 128 to one of the logging level values mentioned above. For example, if you specify **Error Log Level**=129, new error log files will be continuously created for this application that contain fatal, major, minor and trace information.

Each new file has a unique name based on the date (year, month and day) and time (in hours, minutes and seconds) it was created. For example: 20061116155404ASMediaDirector.log.

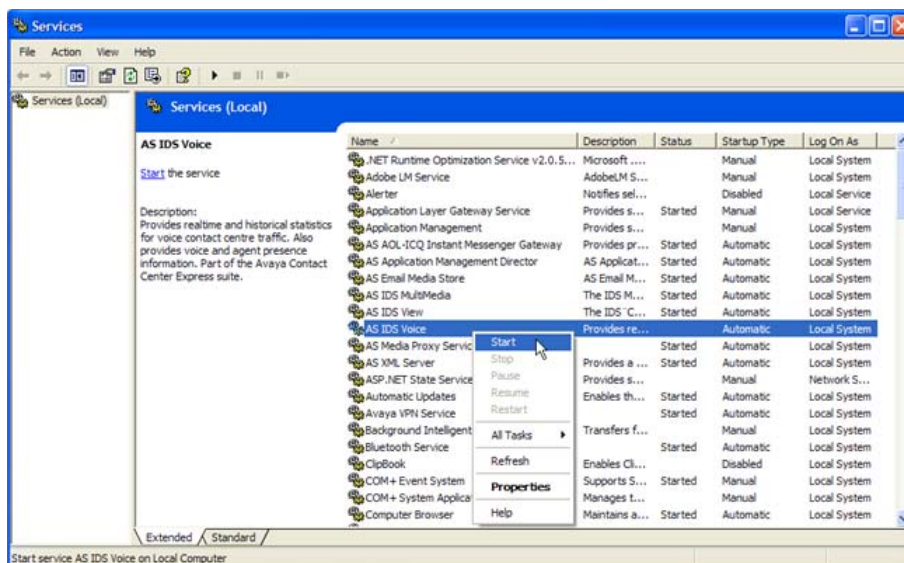
Warning: To prevent a multitude of log files affecting your available disk space, this error logging level should only be used for short periods of time while carrying out diagnostic testing.

Start Service

➤ To start your Contact Center Express service:

- 1 Click the **Start** button on the Windows Taskbar and select **Control Panel** from the pop-up menu.
- 2 Click **Administrative Tools**.
- 3 Click **Services**.
- 4 Right-click an Contact Center Express service and select **Start** from the pop-up menu.
 - AS AOL-ICQ Instant Messenger Gateway
 - AS Application Management Director
 - AS Call Routing Server
 - AS Email Media Store
 - AS IDS MultiMedia
 - AS IDS View
 - AS IDS Voice
 - AS IVR Server
 - AS Media Proxy Service
 - AS MSN Messenger Gateway
 - AS Preview Contact Media Store
 - AS Short Message Service Gateway
 - AS Simple Messaging Media Store
 - AS Web Chat Gateway
 - AS XML Server

In this example, AS IDS Voice is started:



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