Installing Avaya Aura® Call Center Elite Multichannel

Release 6.3.x
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Contents

Chapter 1: Introduction

Purpose

This document describes Avaya Aura® Call Center Elite Multichannel and explains the installation, configuration, and licensing requirements of the product.

Intended audience

This document is intended for solution engineers, Avaya Professional Services personnels, business partners, and system administrators.

Reasons for reissue

- Added information about Microsoft Windows 8 and Microsoft Windows 8.1.
- Updated the Supported non-Avaya products on page 22 section.
- Updated the Queue details on page 50 section.
- Added a procedure to install and configure Internet Information Services (IIS) on Microsoft Windows Server 2008.
- Added a procedure to configure Web Chat through IIS Manager.

Document changes since last issue

In Installing *Avaya Aura® Call Center Elite Multichannel*, the content from the following guides is merged and added to the relevant sections and chapters. The guides listed in the table are obsolete:

Document	Location
Web Chat Gateway User Guide	Installing Media Gateways on page 103

Document	Location
AOL-ICQ Instant Messenger Gateway User Guide	Installing Media Gateways on page 103
Communicator Gateway User Guide	Installing Media Gateways on page 103
Short Message Service Gateway User Guide	Installing Media Gateways on page 103
MSN Messenger Gateway User Guide	Installing Media Gateways on page 103
XMPP Gateway User Guide	Installing Media Gateways on page 103
Avaya Call Recorder	Configuring Avaya Call Recorder on page 187

Related resources

Documentation

The following table lists the related documents for the Avaya Aura® Call Center Elite Multichannel product. You can download the documents from the Avaya Support website at http://support.avaya.com/.

Title	Description	Audience
Avaya Aura® Call Center Elite Multichannel Call Routing Server User Guide	Provides an overview of Call Routing Server that enables intelligent call routing for inbound calls in Call Center Elite Multichannel.	• Sales engineers • Solution architects • Implementation engineers • System administrators
Avaya Aura® Call Center Elite Multichannel Configuration Client Developer Guide	Provides information about the Configuration Client Developer application, which is a control that facilitates an application to transparently access the configuration information from any location.	• Programmers
Administering Avaya Aura® Call Center Elite Multichannel	Provides information about how to manage databases, configure Call Center Elite Multichannel services, and administer Avaya Aura® Communication Manager.	• Sales engineers • Solution architects • Implementation engineers • System administrators
Avaya Aura® Call Center Elite Multichannel Overview Guide	Provides an overview of the Call Center Elite Multichannel features.	• Sales engineers • Implementation engineers • System administrators

Title	Description	Audience
Avaya Aura® Call Center Elite Multichannel Desktop User Guide	Provides information about Call Center Elite Multichannel Desktop and describes how to use Call Center Elite Multichannel Desktop to receive, view, and respond to voice and multimedia work items.	• Sales engineers • Solution architects • Implementation engineers • System administrators • End users
Avaya Aura® Call Center Elite Multichannel Application Management Service User Guide	Provides information about how to install and administer Application Management Service in Call Center Elite Multichannel.	• Sales engineers • Solution architects • Implementation engineers
Avaya Aura® Call Center Elite Multichannel Upgrade and Migration Guide	Provides information about how to upgrade or migrate Avaya Aura® Call Center Elite Multichannel from Release 6.2.x to Release 6.3.1. The Upgrade Sequence section in the respective upgrading chapters provides a high-level overview of the process.	• Implementation engineers • Solution architects
Avaya Aura® Call Center Elite Multichannel Reporting User Guide	Provides information about the reports for Agents, Customers, Interaction, Program and Schedule, Skills, and VDNs. This guide also provides information about historical reports and real-time reports.	• Sales engineers • Solution architects • Implementation engineers
Avaya Aura® Call Center Elite Multichannel TTrace Console User Guide	Provides an overview of the TTrace Console application.	• Sales engineers • Solution architects • Implementation engineers
Installing TTrace Console for Avaya Aura® Call Center Elite Multichannel	Provides information about how to install and configure TTrace.	• Implementation engineers

Training

The following courses are available on the Avaya Learning website at http://www.avaya-learning.com. After logging in to the website, enter the course code or the course title in the **Search** field and press **Enter** or click **>** to search for the course.

Course code	Course title
5C00092W	Avaya Aura® Call Center Elite Multichannel Overview
10C00010E	Knowledge Access: Avaya Aura® Call Center Elite Multichannel Implementation
10C00094V	Avaya Aura® Call Center Elite Multichannel Implementation and Maintenance
4302	Avaya Aura® Call Center Elite Multichannel Implementation Test
0C00060E	Knowledge Collection Access: Avaya Aura® Call Center Elite Portfolio
E: Self-paced in virtual campus W: Web (online) course V: Virtual	

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About this task

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Procedure

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  - In **Search**, type `Avaya Mentor Videos` to see a list of the available videos.
  - In **Search**, type the product name. On the Search Results page, select **Video** in the **Content Type** column on the left.
- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and perform one of the following actions:
  - Enter a key word or key words in the Search Channel to search for a specific product or topic.
  - Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the website.

Note:

Videos are not available for all products.

Support

Go to the Avaya Support website at http://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Chapter 2: Overview

Avaya Aura® Call Center Elite Multichannel is a Microsoft Windows-based software suite. Companies can use this software suite to turn one-dimensional call centers into powerful multimedia contact centers.

Call Center Elite Multichannel uses the phantom call capability of Communication Manager and enables customers to make contact through phone, email, text message, or instant message.

Whether your customers prefer text messaging on mobile, sending emails, or chatting over the Internet, their method of communication is treated as a phone call. The phone call is placed in a priority queue and distributed to an agent with relevant skills and knowledge. The agent can also reply using the same method of contact.

Easy to implement and simple to use, Call Center Elite Multichannel also delivers:

- Out-of-the-box desktop applications for supervisors
- Framework applications including intelligent routing, interaction data, and centralized configuration
- Automated or agent-initiated outbound preview dialing
- Powerful application development tools for complete customization and integration
- Simple and fast wizards for desktop screen pops and routing rules

Call Center Elite Multichannel products have three major categories:

- **Desktop Components:** Call Center Elite Multichannel Desktop, Call Center Elite Multichannel Reporting, and Call Center Elite Multichannel Control Panel.
- **Server Components:** Application Management Service, Call Routing Server, Configuration Server, Email Media Store, License Director, Task Director, Media Director, Media Proxy, Preview Contact Media Store, Voice Media Store, Simple Messaging Media Store (AOL-ICQ Instant Messenger Gateway, MSN Messenger Gateway, Short Message Service Gateway, Web Chat Gateway, XMPP Gateway, and Communicator Gateway), Virtual Agent, XML Server, Experience Portal Config Service, Call Recording Config Service, Trace System, Interaction Data Service (Interaction Data Server - Voice and Presence, Interaction Data Server - Multimedia, and Interaction Data Server - View), and Plug-Ins (Rules Plug-in, Script Plug-in, SOAP Plug-in, and SQL Plug-in).
- **Developer Components:** Call Center Elite Multichannel Developer.

Installation options

Installation on a physical server

To install Call Center Elite Multichannel Release 6.4 on a physical server, download the Call Center Elite Multichannel Release 6.4 ISO image from the Avaya Licensing and Delivery System website, https://www.plds.avaya.com.

Supported languages

Some of the Call Center Elite Multichannel applications and work items from the media stores are available in the following languages:

- English
- Chinese (Simplified)
- French
- German
- Italian
- Portuguese (Brazilian)
- Russian
- Spanish (Colombian)
- Japanese
- Korean

All language versions run with the following operating systems in their own language:

- Microsoft Windows XP Professional SP3
- Microsoft Windows Vista
- Microsoft Windows 7

West European single-byte character set languages such as Italian, Spanish, Portuguese, German, and French run with these operating systems in English.

To run a double-byte character set language such as Japanese, Korean, Russian, and Traditional and Simplified Chinese with English operating systems, you must install the font character set for the language and change your regional and language settings accordingly. If you do not install the font character set and change your regional and language settings, all non-English text is replaced by question marks.

Important:

For Microsoft Windows 8 and Microsoft Windows 8.1, the Call Center Elite Multichannel applications are available only in English.

XML server failover

Media Director and Call Center Elite Multichannel Desktop support XML server failover.

If the primary XML server fails and you have a secondary XML server configured for any of these applications, then the application automatically connects to the secondary XML server and continues to deliver work items. In this case, you do not need to restart the application.

The time that the application takes to connect to the secondary XML server depends on the number of configured phantom stations. For each phantom station, the application takes about 0.1 seconds.

If the primary XML server fails and you do not have a secondary XML server configured for any of these applications, then the application tries to recover the connection with primary XML server after every 60 seconds. After the connection recovers, Media Director continues to deliver work items and Call Center Elite Multichannel Desktop starts receiving the work items.

Upgrade to Release 6.3.x

For more information about how you can upgrade to Call Center Elite Multichannel Release 6.3.x, see *Avaya Aura® Call Center Elite Multichannel Upgrade and Migration Guide*.

Installation requirements

Requirements for Desktop components

Hardware:

- 2.4 GHz processor (32-bit or 64-bit)
- 2 GB RAM
- 10 GB free hard disk space
- DVD drive

Software:

- One of the following operating systems:
  - Microsoft Windows 8 or Microsoft Windows 8.1 (32-bit or 64-bit)
  - Microsoft Windows 7 SP1 (32-bit or 64-bit) - Professional, Enterprise, or Ultimate edition
  - Microsoft Windows Vista SP2 (32-bit or 64-bit) - Business or Enterprise
  - Microsoft Windows XP Professional SP3 (32-bit)
- Microsoft Windows Terminal Services 32-bit
- Microsoft Internet Explorer 7.0 for Microsoft Windows XP only
- Microsoft Internet Explorer 8.0, 9.0, or 10.0
- Microsoft .Net Framework 3.5 SP1

Note:

The installation file for Microsoft .Net Framework 3.5 SP1 is placed in the **`Utilities\Microsoft .Net Redistributable`** folder in the installer package of Call Center Elite Multichannel.

Requirements for Server components

Hardware:

- 2.4 GHz processor with minimum 2 processor cores
- 4 GB RAM
- 40 GB free disk space
- DVD drive

Software:

- One of the following operating systems:
  - Microsoft Windows Server 2008 SP1 (Enterprise or Standard) 32-bit or 64-bit
  - Microsoft Windows Server 2008 R2 SP1
- Internet Information Services (IIS) 7 with IIS 6 Management Compatibility components
- Microsoft Internet Explorer 8.0 or 9.0
- Microsoft .Net Framework 3.5 SP1
- Application Enablement Services TSAPI client software release 5.2, 6.1, or 6.2

Core Server:

Note:

On the core server, you must install and configure the AES TSAPI client. To install the AES TSAPI client, see Installing Application Enablement Services TSAPI Client on page 120.

- One dedicated server to install the following:
  - License Director
  - XML Server
  - Configuration Server
  - Application Management Director
  - Media Director
  - Media Stores and Gateways
  - Call Routing Server
  - Virtual Agent
  - Task Director
  - Experience Portal Config Service
  - Call Recording Config Service

Server for emails:

- Microsoft Exchange Server 2007, 2010, or 2013

  Note:

  Only POP3 and SMTP protocols are supported for emails.

Interaction Data Server:

- One dedicated server for Interaction Data Service excluding Microsoft Internet Explorer.

Database Server:

- One dedicated server to deploy the following databases:
  - Configuration Server (ACS)
  - ASMSControl Database
  - ASMSData{x}
  - ASContact Databases

  The server must have Microsoft SQL Server 2008 or 2012 Standard, Enterprise, or Express with Advance Services.

  Note:

  Interaction Data Server uses ASMSControl and ASMSData{x} databases and does not support or require Active Interaction Database.

Requirements for Developer components

For application development, you must have the following:

- One of the following operating systems:
  - Microsoft Windows 8 or Microsoft Windows 8.1 (32-bit or 64-bit)
  - Microsoft Windows 7 SP1 (32-bit or 64-bit) - Professional, Enterprise, or Ultimate edition
  - Microsoft Windows XP Professional SP3 32-bit with Microsoft Visual Studio 2005 or 2008
  - Microsoft Windows 2008 Server (32-bit or 64-bit) - Standard or Enterprise
  - Microsoft Windows 2008 R2
- Microsoft Internet Explorer 7.0, 8.0, or 9.0
- Microsoft .Net Framework 3.5 SP1
- Application Enablement Services TSAPI client software release 5.2, 6.1, or 6.2

Chapter 3: Supported products

Supported Avaya products

Avaya Aura® Call Center Elite Multichannel Release 6.3.x supports the following Avaya products:

Avaya Products	Call Center Elite Multichannel
Avaya Aura®™ Application Enablement Services 5.2	✓
Avaya Aura® Application Enablement Services 6.1, 6.2, and 6.3	✓
Call Center Elite 4.0 and 5.0	✓
Avaya Aura® Call Center Elite 5.2, 6.0, 6.2, and 6.3	✓
Avaya Communication Manager 4.0	✓
Avaya Aura®™ Communication Manager 5.2 and 5.2.1	✓
Avaya Aura® Communication Manager 6.2 and 6.3	✓
Call Management System 15.0, 16.1, 16.3, and 17.0	✓
Voice Portal 5.1	✓
Avaya Aura® Experience Portal 6.0 and 6.0.2	✓
Avaya Call Recorder 10, 11, and 12	✓

Supported non-Avaya products

Avaya Aura® Call Center Elite Multichannel Release 6.3.x supports the following non-Avaya products:

Non-Avaya Products	Call Center Elite Multichannel
Microsoft Windows 8 (32-bit and 64-bit)	✓
Microsoft Windows 8.1 (32-bit and 64-bit)	✓
Microsoft Windows XP SP3 (32-bit)	✓
Microsoft Windows Vista SP2: • Business (32-bit and 64-bit) • Enterprise (32-bit and 64-bit)	✓

Non-Avaya Products	Call Center Elite Multichannel
Microsoft Windows 7 SP1: • Professional (32-bit and 64-bit) • Enterprise (32-bit and 64-bit) • Ultimate (32-bit and 64-bit)	✓
Microsoft Windows 2008 Server: • 2008 SP2 (32-bit and 64-bit) • 2008 R2 SP1 (64-bit)	✓
• Microsoft Exchange Server 2007 • Microsoft Exchange Server 2010 • Microsoft Exchange Server 2013	✓
Microsoft SQL Server: • 2008 Standard (32-bit and 64-bit) • 2008 Express (32-bit and 64-bit) • 2008 Enterprise (32-bit and 64-bit) • 2008 R2 (64-bit) • 2012 Standard (32-bit and 64-bit) • 2012 Express (32-bit and 64-bit) • 2012 Enterprise (32-bit and 64-bit)	✓
Microsoft Internet Explorer 6.0, 7.0, 8.0, 9.0, and 10.0	✓
Microsoft CRM 3.0	✓
Microsoft Dynamics CRM 4.0	✓
Citrix XenApp 6.5	✓
VMware software components: • ESXi Host • ESXi Hypervisor • vSphere Client • vCenter Server	✓

Secure Access Link

Secure Access Link (SAL) is the preferred mode for remote access of Avaya services. Call Center Elite Multichannel leverages the remote access functionality of SAL.

SAL uses the existing Internet connectivity of the customer to provide the remote support. The entire communication is outbound from the customer environment using encapsulated Hypertext Transfer Protocol Secure (HTTPS). SAL requires an upload bandwidth of at least 90 KB/s (720 KB/s) with maximum round trip latency of 150 ms.

For remote access functionality, you can use one of the following methods:

- Web conferencing
- Remote Desktop Protocol (RDP)
- Third Party application such as GoTo Meeting

Customers must deploy SAL in their network.

For more information, see the *SAL implementation guide*.

Chapter 4: Installing and configuring Desktop components

Call Center Elite Multichannel Desktop installation

Call Center Elite Multichannel Desktop runs on various Microsoft Windows operating systems, such as Windows XP, Windows Vista, Windows 7, Windows 8, and Windows 8.1. For more information, see Supported products on page 22.

Note:

You must have administrator privileges to install Call Center Elite Multichannel Desktop on Microsoft Windows Vista, Microsoft Windows 7, Microsoft Windows 8, and Microsoft Windows 8.1.

Installing Call Center Elite Multichannel Desktop silently

For information about silent installation of Call Center Elite Multichannel Desktop, see Performing silent install on page 171.

Installing Call Center Elite Multichannel Desktop manually

Before you begin

Ensure that Media Proxy is installed on the system.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Desktop** > **CC Elite Multichannel Desktop**.

5. On the Avaya Aura® Call Center Elite Multichannel Desktop welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Call Recording Service Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for the Call Recording Server.
   b. In the **Port** field, enter the port number for the Call Recording Server.
   c. Click **Next**.
8. On the Edit Data screen, perform one of the following actions:
   - To source the configuration information from the local `.ini` file, keep the **Use default CC Elite Multichannel Desktop INI file for configuration information** check box selected and click **Next**.
   - To source the configuration information from Configuration Server, clear the **Use default CC Elite Multichannel Desktop INI file for configuration information** check box, enter values in the fields, and click **Next**.

   For more information, see Edit Data field descriptions on page 27.
9. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
10. On the Configure CC Elite Multichannel Desktop screen, enter appropriate value in the fields, and then click **Next**.

    For information about these fields, see Configure CC Elite Multichannel Desktop field descriptions on page 27.
11. To install the iClarity plug-in, keep the **iClarity** feature selected and click **Next**.

    Note:

    The iClarity plug-in is not supported on the Microsoft Windows 7 operating system. Call Center Elite Multichannel Desktop can run in conjunction with one-X Communicator on Windows 7 to offer remote workers VoIP capabilities.
12. To install Call Center Elite Multichannel Desktop without a shortcut on the system desktop, clear the **Include the Avaya Aura Call Center Elite Multichannel Desktop shortcut on the desktop** check box, and then click **Next**.
13. Review the installation settings and click **Next**.

    Note:

    If you receive an `Add Provider Error` message during installation, click **OK**.
14. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

Edit Data field descriptions

Name	Description
Application Name	The name of the application for which the Configuration Client requests configuration information.
Server Name or IP Address	The name or IP address of Configuration Server where the Configuration Client connects for configuration information.
Port Number	The port number that must be used for communication between Configuration Server and Configuration Client if you do not want to use the TCP/IP port number (29091).
Configuration Filters	The configuration filter works with the application name to find a unique user and the configuration information of the user from the Configuration Server. You can use **User, Machine Name**, or both: • To use the user's network login name as a configuration filter, type `%%U` in the **User** text box. • To use the name of the system as a configuration filter, type `%%M` in the **Machine Name** text box.

Configure CC Elite Multichannel Desktop field descriptions

Name	Description
Media Director IP	The IP address for Media Director.
Media Director Port	The port number for Media Director. The default port number for Media Director is 29087.
XML Server IP	The IP address for XML Server.
XML Server Port	The port number for XML Server. The default port number for XML Server is 29096.
License Director IP	The IP address for License Director. **Note:** When you enter the IP address for License Director, the Connect License Director parameter in the configuration file of the application changes from **False** to **True**.
License Director IP	The port number for License Director. The default port number for License Director is 29095.

Call Center Elite Multichannel Desktop configuration

After you install Call Center Elite Multichannel Desktop, you can open Call Center Elite Multichannel Desktop and configure various parameters through the Options dialog box.

Certain parameters are unavailable in the Options dialog box and must be configured through the `ASGUIHost.ini` file. The default location of the `ASGUIHost.ini` file is `C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC Elite Multichannel Desktop`. For more information, see Desktop Configuration on page 134.

Configuring Media Director

Procedure

1. In the Options dialog box, click the **Media Director** tab.
2. On the **Media Director** tab, configure the fields.
3. Click **Apply** and then click **OK**.

Media Director field descriptions

Name	Description
Media Director IP	The IP address for Media Director.
Media Director port	The port number for Media Director. The default port number for Media Director is 29087.
Media Proxy IP	The IP address for Media Proxy. The default IP address for Media Proxy is `localhost`.
Media Proxy port	The port number for Media Proxy. The default port number for Media Proxy is 29079.
Enable connection to Media Director	You can select this check box to make the multimedia functionality available within Call Center Elite Multichannel Desktop. **Note:** If you do not select this check box, you can use Call Center Elite Multichannel Desktop only for receiving voice work items.
Connect to Media Director when agent logs in	You can select this check box to connect Call Center Elite Multichannel Desktop to Media Director when an agent logs into the switch. **Note:** If you do not select this check box, Call Center Elite Multichannel Desktop automatically connects to Media Director immediately after Call Center Elite Multichannel Desktop starts.

Name	Description
Login to Media Director	If you select this check box, an agent automatically logs in to Media Director.
Channel Type	The communication channel that Media Director uses. The default communication channel is gtcp.

Configuring Presence

About this task

Using the **Presence** tab, you can view the activity and work status of an agent. To view the activity of an agent, specify the Station DN and Agent ID of the agent.

If you configure the **IDS View Client** tab, Call Center Elite Multichannel Desktop automatically displays a list of stations that Interaction Data Server - View monitors. In addition, Call Center Elite Multichannel Desktop displays the agents logged into the switch that Interaction Data Server - View monitors.

You can configure the Presence component using the two tabs that are present on the **Presence** tab.

Procedure

1. In the Options dialog box, click the **Presence** tab.
2. Click the **General** tab and configure the fields.
3. Click the **Update Intervals** tab and configure the fields.
4. Click **Apply** and then click **OK**.

Presence field descriptions

Name	Description
General Tab	
Enable error logging	You can select this check box to write plug-in error information to an error log file.
Group name	The name of the group that you want to monitor. You must set up the group names in the ASContact database.
Presence Display Mode	• Normal: This mode displays normal statistical data. • Supervisor: This mode displays detailed statistical data, which is unrelated to the everyday Agent activities.
Station DN	The station number of the agent.
Agent ID	The unique identifier of the agent.
Maximum tabbed groups	The maximum number of tabs that you want to view. The default value is 20.

Name	Description
Maximum group members	The maximum number of group members that you want to view. The default value is 50.
Alternate line color in display window	The display color for the alternate lines in the presence window.
Time Display Style	• Seconds only: The time is displayed in seconds. • Minutes and seconds: The time is displayed in minutes and seconds.
Update Intervals Tab	
Update Last State Time Interval	The time after which the Presence window must refresh the information. This information includes the agent state in the Presence plug-in.
Contact Synchronize Interval	The time after which the contacts in the ASContact database must synchronize with the Presence window.

Configuring Session Notes

Procedure

1. In the Options dialog box, click the **Session Notes** tab.
2. On the **Session Notes** tab, configure the fields.
3. Click **Apply** and then click **OK**.

Session Notes field descriptions

Name	Description
File location	The path for saving and retrieving the session notes. The session notes are `.rtf` files. The default location for saving and retrieving the session notes is the `My Documents` folder of the agent who is logged in.
Enable automatic saving	The time after which the contents of the session notes are automatically saved to the specified path.
Spell check as you type	You can select this check box to enable spelling check while typing text.
Enable error logging	You can select this check box to write plug-in error information to an error log file.

Configuring Telephony

Procedure

1. In the Options dialog box, click the **Telephony** tab.
2. On the **Telephony** tab, configure the fields.
3. Click **Apply** and then click **OK**.

Telephony field descriptions

Name	Description
Station DN	The phone number of the agent. Call Center Elite Multichannel Desktop associates with the phone number that you specify in this field.
Enable error logging	You can select this check box to write plug-in error information to an error log file.
XML Server IP	The IP address for the XML server.
XML Server port	The port number for primary XML server. The default port number for the naming service is 29096.
Link	The XML interface link that Call Center Elite Multichannel Desktop can use to connect to the Avaya Telephony server and switch. You can click the **ellipses (...)** button next to this field and select the XML interface link from a list of configured XML interfaces.
Poll Agent status	You can select this check box to enable polling of the agent status.
Polling interval	The time after which Call Center Elite Multichannel Desktop polls the status of an agent. To reduce the network traffic, you must keep the polling interval as high as possible.
Poll Send All Calls status	You can select this check box to enable polling of the status of all calls that an agent sends.
Poll Call Forward status	You can select this check box to enable polling of the status of all calls that an agent forwards.
Poll Message Waiting status	You can select this check box to enable polling of the status of waiting message at an agent station.
Polling interval	The time after which Call Center Elite Multichannel Desktop polls the status of an agent station. To reduce the network traffic, you must keep the polling interval as high as possible.
Enable trace	You can select this check box to send application error information to the Debug window.

Name	Description
Reconnect interval	The time for which the telephony plug-in waits before retrying to connect to the XML server. The default value for this time is 15 seconds.

Configuring User

About this task

You can configure the User component using the two tabs that are present on the **User** tab.

Procedure

1. In the Options dialog box, click the **User** tab.
2. Click the **General** tab and configure the fields.
3. Click the **Reason Codes** tab and configure the fields.
4. Click **Apply** and then click **OK**.

User field descriptions

Name	Description
General Tab	
Toolbar Position	• Top first: The first toolbar from the top. • Top second: The second toolbar from the top. • Bottom: The toolbar at the bottom of the screen.
Enable error logging	You can select this check box to write plug-in error information to an error log file.
Use advanced login style	You can select this check box to force an agent to change login from the **User** toolbar.
Agent ID	The agent login ID as configured in the switch.
Agent password	The password associated with the agent ID.
Login mode	The work mode that automatically sets to an agent after the agent logs into Call Center Elite Multichannel Desktop. • Auxiliary: This mode makes an agent unavailable to receive calls, so that the agent can complete the work unrelated to a call. For example, tea break. • After Call Work: This mode makes an agent unavailable to receive calls, so that the agent can complete the after call work. For example, filling a form or updating customer details. • Available: This mode makes an agent available to receive calls.

Name	Description
Available mode	The mode in which the system puts an agent after the current call ends. • Auto-In: The system automatically puts an agent in the **Available** mode after the current call ends. • Manual-In: The system automatically puts an agent in the **After Call Work** mode after the current call ends. To further receive calls, the agent must manually change the work mode to Available
Voicemail DN	The phone number where the system must send all incoming calls when the **Send All Calls** button on the **User** toolbar enables. This DN connects the caller to the voice mail of an agent.
Display ACW button	If you select this check box, the After Call Work (ACW) button displays on the application interface. **Note:** If you do not select this check box, the agent cannot use the ACW functionality.
Display AUX button	If you select this check box, the Auxiliary (AUX) button displays on the application interface. **Note:** If you do not select this option, the agent cannot use the Auxiliary mode.
Disable ACW button when in After Call Work mode	If you select this check box, the ACW button on the application interface disables when an agent is in the ACW mode. This option prevents an agent to extend the time spent in the ACW mode.
Disable AUX button when in Auxiliary mode	If you select this check box, the AUX button on the application interface disables when an agent is in the AUX mode. This option prevents an agent from changing the reason code selected while changing the work mode to Auxiliary.
Allow user-selected work mode	If you select this check box, the agent can select the Auto-In or Manual-In work mode while in the Available mode. **Note:** If you do not select this check box, Call Center Elite Multichannel Desktop automatically uses the default work mode that you set on the **General** tab.
Force reason code selection when changing to Auxiliary mode	If you select this check box, an agent is forced to select a reason code while changing to AUX mode.

Name	Description
	Note: If you do not select this check box, an agent can select a reason code. The agent can also click the **AUX** button and use the default reason code specified in the configuration file of the application.
Force reason code selection when logging out	If you select this check box, an agent is forced to select a reason code while logging out from the application. **Note:** If you do not select this check box, an agent can select a reason code. The agent can also click the **Logout** button and use the default reason code specified in the configuration file of the application.
Reason Codes Tab	
Mode	• For Logout Reason Codes, this field provides options to disable reason codes or to use reason codes when logging out. • For Aux Reason Codes, this field provides options to disable reason codes or to use reason codes when changing to Aux mode.

Adding Logout reason codes

About this task

Use this procedure to add Logout reason codes through the Logout Reason Codes section on the **Reason Codes** tab.

Procedure

1. In the Logout Reason Codes section, click the **Mode** arrow and select **Use reason codes when logging out**.
2. Click **Add**.
3. On the Add Reason Code dialog box, perform the following actions:
   a. In the **Reason code ID** field, enter a unique identifier for the reason code.
   b. In the **Reason code description** field, enter the description for the reason code.
   c. Click **OK**.
4. Repeat the steps 2 to 3 to add more Logout reason codes.

Note:

You can change a Logout reason code by clicking **Edit** and remove a Logout reason code by clicking **Remove**.

Adding Auxiliary reason codes

About this task

Use this procedure to add Auxiliary reason codes through the Auxiliary Reason Codes section on the **Reason Codes** tab.

Procedure

1. In the Auxiliary Reason Codes section, click the **Mode** arrow and select **Use reason codes when changing to Auxiliary**.
2. Click **Add**.
3. On the Add Reason Code dialog box, perform the following actions:
   a. In the **Reason code ID** field, enter a unique identifier for the reason code.
   b. In the **Reason code description** field, enter the description for the reason code.
   c. Click **OK**.
4. Repeat the steps 2 to 3 to add more Auxiliary reason codes.

Note:

You can change an Auxiliary reason code by clicking **Edit** and remove an Auxiliary reason code by clicking **Remove**.

Configuring Voice

Procedure

1. In the Options dialog box, click the **Voice** tab.
2. On the **Voice** tab, configure the fields.
3. Click **Apply** and then click **OK**.

Voice field descriptions

Name	Description
Toolbar Position	• Top first: The first toolbar from the top. • Top second: The second toolbar from the top. • Bottom: The toolbar at the bottom of the screen.
Enable error logging	You can select this check box to write plug-in error information to an error log file.

Name	Description
Make call active when work item tab clicked	You can select this check box to activate a voice call when you click the tab for a voice work item. Selecting this check box answers an alerting call and resumes a call that is on hold. **Note:** If you do not select this check box, an agent can click the **work item** tab and then click the **Answer** or **Unhold** button on the toolbar.
Automatically hold active call on dial	You can select this check box to automatically put the current call on hold when an agent dials another call.
Lock window layout	You can select this check box to lock the layout of your voice work item tabs and disable an agent to change the size and position of a tab.
Bring forward work item if call answered by other means	You can select this check box to make phone call that an agent answers from a physical phone or any other method outside this application active within Call Center Elite Multichannel Desktop.
Drop phantom call(s) when application closes	You can select this check box to drop phantom calls from the physical phone of an agent when the agent closes Call Center Elite Multichannel Desktop.
Enable Smart Dial	You can select this check box to enable the Smart Dial functionality.
Dial local area code	You can select this check box to force Smart Dial to use the local area code specified in the phone number. **Note:** Smart Dial uses the local area code specified in the phone number even when it recognizes the same code.
Dial outside line access code	You can select this check box to force Smart Dial to use the outside line access code for all external phone calls. Selecting this option overrides any contradictory behavior set in a switch.
International access code	The code required to make an international call.
Long distance access code	The code required to make an international call.
Outside line access code	The code required to dial an outside line.
Minimum length for outside call	The minimum number of digits required to make an outside call.

Name	Description
Local exchange codes that require long distance access code	Local exchange codes that you want Smart Dial to automatically precede with the long distance access code. You can specify multiple exchange codes, but ensure that you separate the exchange codes by a comma and a space. For example, 23, 27, 31.
Local country code	Your local country code.
Local area codes	Your local area code. If applicable, you can enter multiple local area codes, but ensure that you separate the area codes by a comma and a space. For example, 9, 3, 4.
Call Recording Server IP	The host name or IP address for Call Recording Server.
Call Recording Server Port	The port number for Call Recording Server.

Configuring IDS View Client

Procedure

1. In the Options dialog box, click the **IDS View Client** tab.
2. On the **IDS View Client** tab, configure the fields.
3. Click **Apply** and then click **OK**.

IDS View Client field descriptions

Name	Description
Enable trace	You can select this check box to send application error information to the Debug window.
Receive by multicast	You can select this check box to disable the IDS View Client for receiving data from the Interaction Data Server - View by multicasting.
Multicast IP	The IP address to multicast between applications. The default IP address is `239.29.9.67`. When Call Center Elite Multichannel Desktop starts, it joins the multicast address and receives packet information from Interaction Data Server - View.
Multicast port	The port number to multicast between applications. The default port number is 29084.
IDS View URL	The URL for connecting to Interaction Data Server - View. The URL must use the following format: `gtcp://localhost:29076/InteractionDataServiceView.rem`.

Name	Description
Enable error logging	You can select this check box to write plug-in error information to an error log file.

Configuring Directory

Procedure

1. In the Options dialog box, click the **Directory** tab.
2. On the **Directory** tab, configure the fields.
3. Click **Apply** and then click **OK**.

Directory field descriptions

Name	Description
Database server name	The name of the server that contains the ASContact database.
Database name	The name of the database.
Database user name	A user name for the user whom you want to give access to the database. Before encryption, the default user name for a new database is `CCEUser0`.
Database user password	The password for the database user name.
Column display ID	The ID of the column that displays in the Directory window. The IDs that you get by clicking the **Get Column Display IDs** button indicate the column headings set in the ASContact database.
Enable initial default search	You can select this check box to force the application to display the contents based on the search criteria that an agent has used earlier. If an agent has not specified the search criteria in the last search, the Directory window displays all available contacts when the application starts.
Default search criteria	The search criteria that the application must use when the application starts.

Configuring Enhanced Dial

About this task

Using the Enhanced Dial component, you can add agent information in a new outbound call or transfer call. Using this component, you can also conference a call. This component enhances the dialing so that the customer or another agent can get brief information about the caller.

Procedure

1. In the Options dialog box, click the **Enhanced Dial** tab.
2. In the Before Dial section:
   a. Select the **Insert data only if existing UUI is empty** check box to add the user-to-user information only when the UUI for a call is empty.
   b. Click the ellipses **(...)** button next to the **UUI Format** field to specify the call related information in the **UUI Format** field.

      The system displays the UUI Format Options dialog box.

      Note:

      The system displays the call related information when an agent makes an outbound call.

   c. Select an appropriate option from the list.
3. In the Before Transfer section:
   a. Select the **Insert data only if existing UUI is empty** check box to add the user-to-user information only when the UUI for a call is empty.
   b. Click the ellipses **(...)** button next to the **UUI Format** field to specify the call related information in the **UUI Format** field.

      The system displays the UUI Format Options dialog box.

      Note:

      The system displays the call related information when an agent transfers a call.

   c. Select an appropriate option from the list.
4. In the Before Conference section:
   a. Select the **Insert data only if existing UUI is empty** check box to add the user-to-user information only when the UUI for a call is empty.
   b. Click the ellipses **(...)** button next to the **UUI Format** field to specify the call related information in the **UUI Format** field.

      The system displays the UUI Format Options dialog box.

      Note:

      The system displays the call related information when an agent conferences a call.

   c. Select an appropriate option from the list.

   Note:

   The system displays the information specified in the **UUI Format** field when an agent transfers a call or conferences a call.
5. Click **Apply** and then click **OK**.

Configuring Quick Dial

About this task

Using the Quick Dial component, you can create quick dial buttons that the Desktop interface displays to an agent.

An agent can click the quick dial buttons to quickly dial a contact. A quick dial button saves the time to type a phone number or to search a contact in directory.

Note:

Clicking a quick dial button inserts the phone number of a contact in the **Dial** field. Agent can click the **Dial** button or press `Enter` key to begin the call.

Procedure

1. In the Options dialog box, click the **Quick Dial** tab.
2. On the **Quick Dial** tab, configure the fields.
3. Click **Apply** and then click **OK**.

Quick Dial field descriptions

Name	Description
Toolbar Position	• Top first: The first toolbar from the top. • Top second: The second toolbar from the top. • Bottom: The toolbar at the bottom of the screen. • Left: The toolbar at the left of the screen. • Right: The toolbar at the right of the screen.
Current Quick Dials	The list of quick dial buttons that are currently active.
Number	The phone number of the contact for which you want to create a quick dial button. If the Smart Dial functionality is enabled: • Do not use PSTN, STD, or IDD access codes in the phone numbers. • Use a single space, hyphen, or parentheses to separate area codes from the local number. For example, 3 4770576, 3-4770576, (3) 4770576, or (3)4770576. • Prefix all country codes with a plus (+) symbol. For example: +64 3 4770576, +64-3-4770576, +64 (3) 4770576 or +64(3)4770576.

Name	Description
	If the Smart Dial functionality is disabled: • Enter the phone numbers exactly the way the numbers need to be dialed. • Use PSTN, STD, or IDD access codes, the country codes, and the area codes in the phone numbers. For example: 14770576, 103 4770576 or 10064 3 4770576.
Name	The name of the contact for which you want to create a quick dial button.
UUI	The User to User Information (UUI) format option. Using the ellipses **(...)** button next to **UUI** field, you can select a format option from the **UUI Format Options** field. For more information, see Configuring Enhanced Dial on page 38.

Adding a new quick dial

About this task

Use this procedure to add a new quick dial through the Add New Quick Dial section on the **Quick Dial** tab.

Procedure

1. In the Add New Quick Dial section, enter appropriate value in the **Number**, **Name**, and **UUI** fields.

   For information about these fields, see Quick Dial field descriptions on page 40.
2. Click **Add**.

   The details of the new quick dial are added to the Current Quick Dials list.
3. Repeat the steps 1 to 2 to add more quick dial buttons.

Configuring Custom Buttons

About this task

Using the Custom Buttons component, you can create buttons that the Desktop interface displays to an agent. When an agent clicks a custom button, the system executes the rule for that button.

The Custom Buttons plug-in works with the Rules plug-in.

Procedure

1. In the Options dialog box, click the **Custom Buttons** tab.
2. On the **Custom Buttons** tab, configure the fields.
3. Click **Apply** and then click **OK**.

Custom Buttons field descriptions

Name	Description
Toolbar Position	• Top first: The first toolbar from the top. • Top second: The second toolbar from the top. • Bottom: The toolbar at the bottom of the screen.
Current Custom Buttons	The list of custom buttons that are currently active.
Event name	The name of the event that the system runs when you click the button. In the Rules window, the event name displays in the **When** field. The format for the event name is `CustomButton.event_name`.
Button text	The text that you want to display on the custom button.
Icon name	The icon name for the custom button and the location of the icon file. The icon file must be copied to the main directory of Call Center Elite Multichannel. The icon that you specify in this field replaces the default icon of the custom button.

Adding a new custom button

About this task

Use this procedure to add a new custom button through the Add New Custom Button section on the **Custom Buttons** tab.

Procedure

1. In the Add New Custom Button section, enter appropriate value in the **Event name**, **Button text**, and **Icon name** fields.

   For information about these fields, see Custom Buttons field descriptions on page 42.

2. Click **Add**.

   The details of the new custom button are added to the Current Custom Buttons list.

3. Repeat the steps 1 to 2 to add more custom buttons.

   Note:

   To create a rule and associate the rule with a custom button, see Rules Management on page 63.

Configuring Email

Procedure

1. In the Options dialog box, click the **Email** tab.
2. On the **Email** tab, configure the options.
3. Click **Apply** and then click **OK**.

Email field descriptions

Name	Description
Toolbar Position	• Top first: The first toolbar from the top. • Top second: The second toolbar from the top. • Bottom: The toolbar at the bottom of the screen.
Enable error logging	You can select this check box to write plug-in error information to an error log file.
Always open attachments	You can select this check box to enable opening an attachment in an email. **Note:** If you select this check box, the system does not display the Save dialog box to save the attachment before opening it.
Enable external application	You can select this check box to enable opening an external application when you receive an email work item.
External application file name	The executable file name of the application that you want to open.
XML file name	The name of the XML file for sharing the work item information with the external application. For more information about the External Application Execute plug-in, see the *Avaya Aura® Call Center Elite Multichannel Desktop User Guide*.

Configuring Simple Messaging

Procedure

1. In the Options dialog box, click the **Simple Messaging** tab.
2. On the **Simple Messaging** tab, configure the fields.
3. Click **Apply** and then click **OK**.

Simple Messaging field descriptions

Name	Description
Spell check as you type	You can select this check box to enable spelling check while typing a message.
Close disconnected work items	You can select this check box to close the disconnected simple messaging work items.
Delay seconds	The delay interval in seconds.
Activate window on work item accepted	
Enable error logging	You can select this check box to write plug-in error information to an error log file.
Document Activity Indication	You can select **Scroll** or **Fade** options to indicate the document activity.
Indication Interval msec	The indication interval in milliseconds.
Enable external application	You can select this check box to enable opening an external application when you receive an email work item.
External application file name	The executable file name of the application that you want to open.
XML file name	The name of the XML file for sharing the work item information with the external application. For more information about the External Application Execute plug-in, see the *Avaya Aura® Call Center Elite Multichannel Desktop User Guide*.
Agent Specific Welcome Message	The welcome message that you want to display to the customer. The system displays the welcome message to the customer when an agent accepts the work item from the customer.

Configuring HTML Editor

Procedure

1. In the Options dialog box, click the **HTML Editor** tab.
2. Select the **Enable error logging** check box to write plug-in error information to an error log file.
3. In the Toolbar Position section:
   a. Select the **Show toolbar buttons** check box.
   b. Select one of the following options:
      - The first toolbar from the top.
      - The second toolbar from the top.
      - The toolbar at the bottom of the screen.

c. Select the appropriate check boxes to display the corresponding buttons on the HTML editor toolbar.

4. Click **Apply** and then click **OK**.

Configuring Language

About this task

Using the Language component, you can change the language for Call Center Elite Multichannel Desktop interface.

Procedure

1. In the Options dialog box, click the **Language** tab.
2. In the **Language** field, select the new language for the Call Center Elite Multichannel Desktop interface.

   Note:

   You must restart Call Center Elite Multichannel Desktop to apply the selected language.

3. Click **Apply** and then click **OK**.

Configuring Wallboard

About this task

The information that the Wallboard plug-in displays depends on a connection to IDS View Client. Therefore, you must configure the IDS View Client before configuring the Wallboard plug-in. For more information, see Configuring IDS View Client on page 37.

You can configure the Wallboard component using the five tabs that are present on the **Wallboard** tab.

Procedure

1. In the Options dialog box, click the **Wallboard** tab.
2. Click the **General** tab and configure the fields.

   Using the **General** tab, you can configure the look and feel of Wallboard.

3. Click the **Agent** tab and configure the fields.

   Using the **Agent** tab, you can configure the agent information that Wallboard displays for an agent.

   Note:

   If you have configured the IDS View Client, you can view a list of agents which are logged into the switch and are monitored by Interaction Data Server - View.

4. Click the **VDN** tab and configure the fields.

   Using the **VDN** tab, you can configure the VDN information that Wallboard displays for a particular VDN.

   Note:

   If you have configured the IDS View Client, you can view a list of VDNs which are monitored by Interaction Data Server - View.

5. Click the **Queue** tab and configure the fields.

   Using the **Queue** tab, you can configure the information for a particular skill, split group, or a multimedia queue.

   Note:

   If you have configured the IDS Voice and Presence, you can view a list of split groups, skills, and queues which are monitored by Interaction Data Server - Voice and Presence.

6. Click the **Alerts** tab and configure the fields.

   Using the **Alerts** tab, you can set Wallboard notifications. These notifications display an alert message on reaching a numeric threshold level related to the numeric data variables under the **Agent**, **VDN**, or **Queue** tab.

7. Click **Apply** and then click **OK**.

Wallboard field descriptions

Name	Description
General Tab	
Marquee Style	• Right to Left: To scroll information from the right side to the left side. • Left to Right: To scroll information from the left side to the right side. • Still: To display information without moving from left to right or right to left.
Marquee Speed	The speed for scrolling the information on the Wallboard. You can reduce the scrolling speed by moving the slider to the left side and increase the scrolling speed by moving the slider to the right side.
Display text size	The size of the text for the information on the Wallboard.
Text color	The text color for the information on the Wallboard.
Background color	The background color for the Wallboard window.
Time Display Style	• Seconds only: The time is displayed in seconds.

Name	Description
	• Minutes and seconds: The time is displayed in minutes and seconds.
Enable error logging	You can select this check box to write plug-in error information to an error log file.
Connect to IDS View	You can select this check box to connect Wallboard to IDS View Client for getting the information.
Suppress IDS connection messages	You can select this check box to disable displaying the messages when Wallboard connects to the IDS View Client.
Agent Tab	
Agent list	The list of agents for which you want to display information on Wallboard. After you select an agent, you must configure the agent display information in the table for list of agent details. For more information, see Agent details on page 48.
Agent ID	The ID of the agent that you want to add to the agent list.
Display always	You can select this check box to display the agent information on startup. **Note:** If you do not select this check box, the system displays the agent information on Wallboard after startup.
VDN Tab	
VDN list	The list of VDNs for which you want to display information on Wallboard. After you select a VDN, you must configure the VDN display information in the table for list of VDN details. For more information, see VDN details on page 49.
Display always	You can select this check box to display the VDN information on startup. **Note:** If you do not select this check box, the system displays the VDN information on Wallboard after startup.
Queue Tab	
Queue list	The list of queues (skill, split group, or multimedia queue) for which you want to display information on Wallboard.

Name	Description
	After you select a queue, you must configure the queue display information in the table for list of queue details. For more information, see Queue details on page 50.
Queue ID	The ID of the queue that you want to add to the queue list.
Display always	You can select this check box to display the queue information on startup. **Note:** If you do not select this check box, the system displays the queue information on Wallboard after startup.
Alerts Tab	
Current alerts	The list of active alerts.
Alert name	The name for the alert.
Level	A value that sets the numeric threshold to activate an alert. For example, you can enter a value 10 to display an alert for 10 incoming calls.
Weight	A value that sets a relative importance of the alerts that you set. The higher value indicates more importance to an alert.
Text color	The color for the text on an alert.
Background color	The background color for the alert window.
Marquee Style	The scrolling effect for the text on the alert.

Agent details

Name	Description
Agent ID	The ID of the agent.
Agent name	The name of the agent.
Station DN	The station number of the agent.
Split / skill	The skill or split groups where the agent is logged in.
Agent state	The current state of the agent, such as Auto in, Manual in, Logged out, Auxiliary (AUX), and After Call Work (ACW). **Note:** If the agent is on phone, Wallboard displays the agent state as `On call`.

Name	Description
Agent work mode	The current work mode of the agent, such as Auto in, Manual in, Logged out, AUX, and ACW.
Agent talk state	The current talk state of the agent, such as `Idle` and `On call`.
Reason code	The last reason code that the agent has used.
Pending work mode	The pending work mode of the agent.
Calls per hour	The total number of calls that the agent received during the current statistical interval.
Average talk time	The average length of time that the agent has spent in a call during the current statistical interval.
Average AUX time	The average length of time that the agent has spent in the Auxiliary mode during the current statistical interval.
Average Available time	The average length of time in seconds that the agent has spent in Available mode during the current statistical interval.
Average ACW time	The average length of time that the agent has spent in the After Call Work (ACW) mode during the current statistical interval.
Shift average AUX time	The average length of time that the agent has spent in the Auxiliary mode during a shift.
Shift average Available time	The average length of time that the agent has spent in the Available mode during a shift.
Shift average ACW time	The average length of time that the agent has spent in the After Call Work (ACW) mode during a shift.
Shift average talk time	The average length of time that the agent has spent in a call during a shift.
Shift total calls	The total number of calls that the agent has handled during a shift.

VDN details

Name	Description
VDN number	The extension number of the VDN.
VDN name	The name of the VDN.
Calls waiting	The number of calls waiting for a specific VDN.
Longest call	The length of time for which the first call waits in a queue.
Average talk time	The average length of time, during the current statistical interval, for which an agent talks to a caller on a specific VDN.

Name	Description
Average wait time	The average length of time, during the current statistical interval, for which a caller calling to a VDN waits before getting answer to the call.
Abandoned calls	The number of calls coming to a VDN abandoned during the current statistical interval.
Average abandon time	The average length of time, during the current statistical interval, for which a caller calling to a VDN waits before the call abandoned.
Shift abandoned calls	The number of calls coming to a VDN abandoned during a shift.
Shift average abandon time	The average length of time, during a shift, for which a caller calling to a VDN waits before the call abandoned.
Shift average talk time	The average length of time, during a shift, for which an agent logged into a VDN talks to a caller.
Shift average wait time	The average length of time, during a shift, for which a caller calling to a VDN waits before getting answer to the call.
Shift service level	The percentage of calls coming to a VDN answered within the service level time specified in the Interaction Data Server - Voice and Presence.
Shift total calls	The number of calls made to a VDN during a shift.

Queue details

Name	Description
Queue ID	• Queue: The unique identifier of a multimedia queue. • Split/skill: The extension number of a skill or a split group.
Queue name	• Queue: The name of a multimedia queue. • Split/skill: The name of a skill or a split group.
Agents staffed	• Split/skill: The total number of agents logged into a skill or a split group. This parameter is not applicable for multimedia.
Agents available	• Split/skill: The number of agents logged into a skill or a split group that are available to take calls. This parameter is not applicable for multimedia.
Interactions waiting	• Queue: The total number of work items that are to be processed by a queue and the work items that are suspended by an agent.

Name	Description
	• Split/skill: The total number of interactions waiting at a skill or a split group.
Oldest interaction	• Queue: The length of time for which the oldest work item waited for a service. This length of time does not include work items that the agent suspends for processing in future. This parameter is not applicable for splits and skills.
Total interactions in progress	• Queue: The total number of work items delivered to agents for processing. This number includes work items that an agent has not yet accepted. This parameter is not applicable for splits and skills.
Total interactions arrived this shift	• Queue: The total number of new work items arrived at a queue during a shift. This parameter is not applicable for splits and skills.
Total interactions arrived this interval	• Queue: The total number of new work items arrived at a queue during the current statistical interval. • Split/skill: The total number of calls made to a split group or a skill during the current statistical interval.
Total interactions arrived this hour	• Queue: The total number of new work items arrived at a queue in a current hour. This parameter is not applicable for splits and skills.
Total interactions arrived last hour	• Queue: The total number of new work items arrived at a queue in a last hour. **Note:** The last hour is an hour earlier than the current hour. For example, if the current hour is 9 am to 9.37 am, the previous hour is 8 am to 9am. This parameter is not applicable for splits and skills.
Total interactions suspended	• Queue: The total number of work items suspended for a queue during the shift defined in IDS Multimedia.

Name	Description
	This parameter is not applicable for splits and skills.
Total interactions suspended this interval	• Queue: The total number of work items suspended for a queue during the current statistical interval. This parameter is not applicable for splits and skills.
Average wait time	• Queue: The average length of time during the shift defined in IDS Multimedia for which work items arrived to this queue wait before being answered. This time does not include the length of time in which a work item suspends. • Split/skill: The average length of time during the current statistical interval for which callers calling to a skill or a split group wait before getting answer to the calls.
Average handle time	• Queue: The average length of time during the shift defined in IDS Multimedia for which work items arrived to a queue are active at an agent desktop before being closed. This time does not include work items that are open. • Split/skill: The average length of a call to a split group or a skill during the current statistical interval.
Total abandoned interactions	• Queue: The number of work items that arrived to a queue during the shift defined in IDS Multimedia and got abandoned before processing. This value is valid only for session-based media stores. For example, Web chat and MSN. • Split/skill: The total number of calls that arrived to a skill or a split group during the current statistical interval and got abandoned.
Average abandon time	• Queue: The average length of time during the shift defined in IDS Multimedia for which work items arrived to a queue wait before getting abandoned. This value is valid only for session-based media stores. For example, web chat and MSN. • Split/skill: The average length of time during the current statistical interval for which callers calling to a skill or a split group wait before the calls get abandoned.

Name	Description
Shift abandoned calls	• Split/skill: The total number of calls that arrived to a skill or a split group during the shift defined in IDS Voice and Presence and got abandoned. This parameter is not applicable for multimedia.
Shift average abandoned time	• Split/skill: The average length of time during the shift defined in IDS Voice and Presence for which callers calling to a skill or a split group wait before the call get abandoned. This parameter is not applicable for multimedia.
Shift average talk time	• Split/skill: The average length of time during the shift defined in IDS Voice and Presence for which an agent logged into a skill or a split group talks to callers. This parameter is not applicable for multimedia.
Shift average wait time	• Split/skill: The average length of time during the shift defined in IDS Voice and Presence for which callers calling to a split group or a skill wait before the call is answered. This parameter is not applicable for multimedia.
Shift service level	• Split/skill: The percentage of calls to a split group or a skill that are answered within the service level time specified in the IDS Voice and Presence. This parameter is not applicable for multimedia.
Shift total calls	• Split/skill: The total number of calls made to a skill or a split group during the shift defined in IDS Voice and Presence. This parameter is not applicable for multimedia.

Activating an alert

Procedure

1. On the **Wallboard** tab, click the appropriate tab to set an alert.
2. From the Agent, VDN, or Queue list, select an ID.
   a. From the corresponding details list, select a field to which you want to apply an alert.
   b. Click **Add Alert**.
   c. Click the **Alert name** arrow and select an alert name.
   d. Click **OK** to apply the selected alert.

Note:

You cannot add an alert to non-numeric fields.

Any alert value that you apply to a time-related field, defines the threshold only in seconds. For example, you must set the level to 180 seconds to set 3 minutes.

Configuring iClarity

About this task

Important:

By default, the iClarity component is disabled in Call Center Elite Multichannel Desktop.

When you first open the `ASGUIHost.ini` file, iClarity plug-in is disabled by preceding it with a semicolon in the Plug In Assembly List section. You must remove the semicolon to enable iClarity plug-in and display the **iClarity** tab in the Options dialog box.

Note:

The iClarity plug-in is not supported on the Microsoft Windows 7 operating system. Call Center Elite Multichannel Desktop can run in conjunction with one-X Communicator on Windows 7 to offer remote workers VoIP capabilities.

Procedure

1. In the Options dialog box, click the **iClarity** tab.
2. In the Toolbar Position section, select one of the following options:
   - The first toolbar from the top.
   - The second toolbar from the top.
   - The toolbar at the bottom of the screen.
3. In the iClarity Wizards section, click a button to perform an action.

   For information about the buttons, see iClarity Wizards buttons on page 55.
4. In the Record section:
   a. Click the button next to the text field and enter a file name with a `.wav` extension.
   b. Click **Start Record** to start the recording of the welcome greeting.
   c. Start talking in front of your recording device to save the welcome greeting in a file mentioned in the text field.
   d. Click **Stop Record** to stop the recording.
   e. Select the **Overwrite** check box to overwrite the existing file with a new recording.

      Note:

      If you specify an existing file name to overwrite with a new welcome greeting, you must select the **Overwrite** check box before you click **Start Record**.

5. In the Play section:

   Click the button next to the text field to select a `.wav` file in which you have recorded a welcome greeting.

   The welcome greeting from this file is played on a system at the customer side.

   Select the **Play greeting automatically** check box to play the greeting at customer side after you answer an incoming call.

6. Select the **Log in automatically when agent starts up** check box to log an agent to the call server as soon an agent starts Call Center Elite Multichannel Desktop.
7. Select the **Enable error logging** check box to write plug-in error information to an error log file.
8. Click **Apply** and then click **OK**.

iClarity Wizards buttons

Name	Description
Log in	Logs into the Communication Manager server.
Contents	Displays iClarity online help.
About	Displays the copyright and the version information of iClarity features.
Audio Options	Displays the options to set the volume of the speakers of your system or headset connected to your system.
Tuning Wizard	Displays options for tuning the audio of the playback and recording devices connected to your system.
Login Settings	Displays options to change the log in, call server, audio, call control, emergency call handling, and VPN information.
Login Wizard	Displays a wizard to configure iClarity to log in to a call server.
Language	Displays a dialog box to select a language. The selected language applies to the dialog boxes that open when you click a button in the iClarity Wizards section.
Enable Logging	Enables logging of error message for iClarity to an error log file.

Configuring Microsoft Dynamics CRM

About this task

Important:

By default, the Microsoft Dynamics CRM component is disabled in Call Center Elite Multichannel Desktop.

When you first open the `ASGUIHost.ini` file, Microsoft Dynamics CRM GUI plug-in is disabled by preceding it with a semicolon in the Plug In Assembly List section. You must remove the semicolon to enable Microsoft Dynamics CRM GUI plug-in and display the **Microsoft CRM** tab in the Options dialog box.

You can configure the Microsoft Dynamics CRM component using the five tabs that are present on the **Microsoft CRM** tab.

Procedure

1. In the Options dialog box, click the **Microsoft CRM** tab.
2. Click the **Main** tab and configure the fields.

   Using the **Main** tab, you can configure the options to connect to your Microsoft Dynamics CRM environment.
3. Click the **Identification** tab and configure the fields.

   Using the **Identification** tab, you can specify the ASContact database that Call Center Elite Multichannel Desktop can search after you receive a work item.

   If you select the ASContact database, you must transfer or synchronize the contact and the account data from your Microsoft Dynamics CRM database into the ASContact database. On the **Identification** tab, you can also control the types of work items that Call Center Elite Multichannel Desktop can search to match the details with an existing database record.

   You can use Directory in Call Center Elite Multichannel Desktop to search a Microsoft Dynamics CRM customer record. The Directory offers more benefits over the Microsoft Dynamics CRM database. In Directory, you can search by many data types, such as name, phone number, and email address. In Microsoft Dynamics CRM, you can only search by name.

   Searching records in the ASContact database is faster than searching records in the Microsoft Dynamics CRM database, which is a Web-based database.
4. Click the **Contact DB** tab and configure the fields.

   Using the **Contact DB** tab, you can define an action that Call Center Elite Multichannel Desktop performs when the details from an inbound work item match with the details of a single or multiple contacts in the ASContact database.

   In addition, you can define an action that Call Center Elite Multichannel Desktop performs when the details from an inbound work item do not match with any of the records in the

ASContact database. In such case, you can also define not to perform any action or opens a blank account record or contact record.

Note:

You can view this tab only if you select the ASContact database on the **Identification** tab.

5. Click the **MS CRM** tab and configure the fields.

   Using the **MS CRM** tab, you can select options to search Microsoft Dynamics CRM accounts, Microsoft Dynamics CRM contacts, or both when an inbound work item arrives. You can also select particular fields for accounts and for contacts.

   Note:

   You can view the MS CRM tab only if you select the MS CRM directly option on the **Identification** tab.

6. Click the **Synchronization** tab and configure the fields.

   Using the **Synchronization** tab, you can initially synchronize entire data from your Microsoft Dynamics CRM database with the ASContact database that Call Center Elite Multichannel Desktop uses to store contact information.

   After the initial synchronization, MS CRM Phonebook Synchronizer application installed on the Microsoft Dynamics CRM server automatically synchronizes the changes in the Microsoft Dynamics CRM accounts with the records in the ASContact database.

7. Click **Apply** and then click **OK**.

Microsoft Dynamics CRM field descriptions

Name	Description
Main Tab	
Name	The name of the MS CRM server.
Domain	The domain in which the MS CRM server is present.
CRMService URL	The URL of the file where the CRM service file is available.
MetadataService URL	The URL of the file where the metadata service file is available.
Login using default credentials	You can select this check box to use the default user name and the default password to access MS CRM server.
User name	The user name to access the MS CRM server.
Password	The password to access the MS CRM server.
Identification Tab	
Inbound Contact Identification	The following are the contact identification options: • Contact Database

Name	Description
	• MS CRM Directly • Disable, only use Rules
Enable Identification Channels	The channels for which you want to search the database when you receive a work item. The following are the options: • Inbound email • Inbound preview contact • Inbound simple messaging • Inbound voice
Contact DB Tab	
Server	The name of the database server.
Name	The name of the database. The default name is `ASContact`.
User name	The user name to access the database.
Password	The password to access the database.
Test Connection	You can click **Test Connection** to test whether Call Center Elite Multichannel Desktop successfully connects to the specified database server.
No Match Action	An action that must be performed when the details from a work item do not match with any of the contact records in the database.
Single Match Action	An action that must be performed when the details from a work item matches with a contact in the database.
Multiple Match Action	An action that must be performed when the details from a work item matches with multiple contacts in the database.
MS CRM Tab	
Look MS CRM Account	Using this field, you can add the fields for CRM accounts. When you receive a work item, the details from the work item are matched with the details in the Microsoft Dynamics CRM account fields that you added. You must select an account field and configure values for the following fields: • No Match Action • Single Match Action • Multiple Match Action

Name	Description
Look MS CRM Contact	Using this field, you can add the fields for CRM contacts. When you receive a work item, the details from the work item are matched with the details in the Microsoft Dynamics CRM contact fields that you added. You must select a contact field and configure values for the following fields: • No Match Action • Single Match Action • Multiple Match Action
Synchronization Tab	
Synchronize now	When you click this button, the system starts the synchronization. The time required for synchronizing depends on the number of records available in the MS CRM database. For example, synchronizing 70,000 records can take up to 20 minutes

Configuring DMCC

Procedure

1. In the Options dialog box, click the **DMCC Settings** tab.
2. On the **DMCC Settings** tab, configure the fields.
3. Click **Apply** and then click **OK**.

DMCC field descriptions

Name	Description
Toolbar Position	• Top first: The first toolbar from the top. • Top second: The second toolbar from the top. • Bottom: The toolbar at the bottom of the screen. • Left: The toolbar at the left of the screen. • Right: The toolbar at the right of the screen.
IP Address	The IP Address for the AES Server.
Port	The port number for the AES Server.
User name	The user name for logging in to the AES server.
Password	The password for logging in to the AES server.

Name	Description
Use secure communications	You can select this check box for a secured link to connect to the AES server.
Ignore certificate errors	You can select this check box to ignore the AES Certificate errors for secure link connection.
Name	The name of the Communication Manager from TLink.
IP Address	The IP address for Communication Manager.
Media mode	The following are the available media modes: • None • Telecommuter • Client Mode • Server Mode
RTP IP Address	The IP address for the local system.
RTP Port	The port number for the local system. **Note:** The **RTP IP Address** and **RTP Port** fields are enabled only if you select Client Mode in the **Media mode** field.
Telecommute number	The station number for Telecommuter.
Dependency mode	One of the DMCC modes.
Number	This field remains disabled.
Password	The password configured in Communication Manager for the station.
Add Vu Stats data to wallboard	You can click this check box to provide statistics from DMCC interface of the AES server.
Add Queue data to wallboard	You can click this check box to provide statistics of DMCC interface for Queue data of the AES server.

.Net Remote Connection

The Call Center Elite Multichannel applications and services that use .Net remote connection, automatically uses the `ASGUIHost.exe.config` configuration file to control the remote connection. This file specifies the gtcp channel and the default port number.

Note:

You must not change any information in this file.

Language customization

The custom language control uses the `StringDataDoc.txt` text file. This file is a sample text file that contains strings in English. Call Center Elite Multichannel uses the strings from this file.

By default, the `StringDataDoc.txt` text file is placed at the following location:

`C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC Elite Multichannel Desktop`.

The following files are placed at this location:

- StringDataDoc.txt (English)
- StringDataDocCh.txt (Chinese: Simplified)
- StringDataDocFr.txt (French)
- StringDataDocGm.txt (German)
- StringDataDocIta.txt (Italian)
- StringDataDocJp.txt (Japanese)
- StringDataDocKr.txt (Korean)
- StringDataDocPort.txt (Portuguese: Brazilian)
- StringDataDocRu.txt (Russian)
- StringDataDocSp.txt (Spanish: Castilian)
- StringDataDocSpCol.txt (Spanish: Colombian)
- StringDataDocTradCh.txt (Chinese: Traditional)

You can use any of these files to create your custom language.

Creating a custom language

Procedure

1. Browse the folder that contains the text file that you want to use for creating your customized language.
2. Perform one of the following actions:
   - To use strings from English language, open the `StringDataDoc.txt` file.
   - To use strings from a language other than English:
     a. Rename the `StringDataDoc.txt` file to some other name, such as `StringDataDocEng.txt`.
     b. Rename the text file of your selected language to `StringDataDoc.txt`.

     For example, if you have selected `StringDataDocRu.txt` file, then rename this file to `StringDataDoc.txt`.

c. Open the renamed `StringDataDoc.txt` file.

Note:

When you open the `StringDataDoc.txt` file, you can view the order of parameters as LANGUAGE, LOCALE, FONT1 to FONT4, and strings.

3. In the LANGUAGE parameter, replace the existing language name with the new language name.

Note:

If you are modifying an existing language to suit your dialect, do not change the language name.

4. In the LOCALE parameter, change the locale appropriately to suit your new language.

Note:

You can specify the locale in Hex format. For example, you can use 0 x 0409 for 1033. When you change the locale, ensure that your system has appropriate operating system and character sets for that language to work.

5. Change the fonts appropriately.

Note:

You must specify at least one font. The application ignores more than four fonts.

6. Change the strings appropriate to your language and locale.

Note:

In the file, you must change the strings only for the existing numbers. The language control does not recognize the new numbers and strings that you add in the file.

7. Save the file.

Selecting a custom language for an agent

Procedure

1. In Call Center Elite Multichannel Desktop, click **Tools** > **Options**.
2. In the Options dialog box, click the **Language** tab.
3. Click the **Language** arrow and perform one of the following actions:
   - If the option for your custom language is available in the list, select the option and click **OK**.
   - if you see the `Custom Unknown` option in the list, check for errors in the text file.

   The following are the possible errors in the text file:
   - The text file does not have a language name or you have deleted the language keyword.

- The text file does not have the name `StringDataDoc.txt`.
- The text file is not at the correct location where the application executable is available.
- The text file is not in the correct format.

Customizing a language for Call Center Elite Multichannel Desktop

Procedure

1. Open the `ASGUIHost.ini` configuration file for Call Center Elite Multichannel Desktop.
2. Specify your custom language to the Language Parser parameter.

   You must precede the language name with the word Custom.

   For example: `Custom Japanese` for `Japanese` language.
3. Restart Call Center Elite Multichannel Desktop to display the text on the interface in the new language.

   If Call Center Elite Multichannel Desktop does not display the fonts appropriately, ensure that your system has appropriate operating system and character sets for your language to work.

Rules management

In Call Center Elite Multichannel Desktop, you can use the Rules window to create rules that automatically perform actions on the call events that meet specified criteria. For example, you can create a rule to transfer calls coming from a specific phone number to the voice mail. You can also create a rule to display automatic dialog boxes containing information.

When you create a rule by specifying different parameters, Call Center Elite Multichannel Desktop understands that rule as a complete statement. For example, when a certain event occurs and a call property matches with the mentioned value, perform the mentioned action and either continue rules processing, or go to another rule, or stop. The configuration file of Call Center Elite Multichannel Desktop stores the rules as simple text strings.

In the Rules window, you can create multiple rules for a call event. The Rules Plug-in processes the rules in an order in which the rules are listed in the Rules window. After a correct match, the specified action is performed and no further rules are processed. You can change the processing order anytime.

This rule functionality is similar to the email rules functionality in Microsoft Outlook.

For example:

- **Rule1:** When an agent receives an external phone call, the following rule forces the application to create an inbound Microsoft Dynamics CRM phone call activity and to display the activity.

```
When Voice.WIDelivered And CallerDN > Nothing And CallerDN > 99999 Do
ReturnEvent MSCRM.CreateThenScreenpop,phonecall,description|directioncode|
from|phonenumber|subject|to,%UserEnteredCode%|0|%CallerDN%|%CallerDN%|%UUI
%|%CalledDN% Then Continue
```

- **Rule2:** When an agent receives an external phone call, the following rule forces the application to look up a contact in the contact directory, try to match the phone number, and to display a message on the screen.

```
When Voice.WIDelivered And CallerDN > Nothing and CallerDN > 99999 Do
ReturnEvent MSCRM.LookupThenScreenpop,contact,mobilephone|telephone1|
telephone2|telephone3,%CallerDN%,1,1,2,1 Then CONTINUE.
```

For more information about how to create rules using keywords and events available in the Rules window, see the *Avaya Aura® Call Center Elite Multichannel Desktop User Guide*.

Creating a rule

Procedure

1. In Call Center Elite Multichannel Desktop, click **Tools** > **Rules**.

   The system displays the Rules window.

2. Click the **New** button.
3. Create a trigger.

   Click the **When** arrow and select an event for which you want to execute a rule.

4. Create a filter.
   a. Select the **Always** check box if you do not want to set a condition for executing a rule for a selected event.

      The system disables the **And** field. Selecting the **Always** check box also indicates that the rule you select is always executed when the selected event occurs.

   b. Clear the **Always** check box to set a condition for executing a rule when a selected event occurs.

   c. In the **And** field, enter a condition for rule or click the ellipses (...) button to select a condition from the Possible rule conditions field.

      When you select a condition, the system displays a key and value pair for the selected condition in the **And** field. The system compares the keys with the literal strings or the keyword Nothing.

      In the **And** field, you can add multiple conditions and combine them with the And clause.

      For example: `CallerDN = 4567 And UUI > Nothing`.

Note:

If you enter an invalid condition, the system displays an error icon on the button next to the **And** field.

d. To compare a key with literal string, enter the required literal string after the keyword operator.

For information about keys, values, and keyword operators, see the *Avaya Aura® Call Center Elite Multichannel Desktop User Guide*.

5. Set an action for selected event and conditions.

a. Click the **Do** arrow and select an action.

The system performs the selected action when the selected event and conditions are satisfied.

Based on an action you select, the application displays the related text fields to provide supporting attributes to an action. Some actions have a single attribute and some actions have multiple attributes.

For example:

Action	Attribute 1	Attribute 2
Open	**Target.** Enter a file or application that you want to open.	**Command Line Arguments.** Enter the command line arguments.
Alert	**Caption.** Enter the text that displays on the title bar of the Alert dialog box.	**Message.** Enter the text that displays on the Alert dialog box.

b. Enter the appropriate values in the respective text fields.

6. Set the work that a rule must do after performing an action.

a. Click the **Then** arrow and select an appropriate action for a rule to perform when the selected conditions are matched.

The available options are: Continue, GotoRule, Stop.

The **Warning** tab at the bottom of the Rules window displays warning messages when you select an option, which is invalid for the rule you select.

b. Click the **Else** arrow and select an appropriate action for a rule to perform when the selected conditions does not match.

7. Click **OK**.

Ensure that an application creates a valid rule. The **Warning** tab at the bottom of the Rules window displays warning messages if you create an invalid rule.

A valid rule displays in the left panel of the Rules window.

8. Repeat the procedure to create more rules.

9. Select a rule and click **Up** and **Down** buttons to change the sequence in which the application searches the rules.

Note:

The Rules Plug-in processes rules in an order in which the rules are listed in the Rules window. After finding a match, a rule is executed and no further rules are processed.

10. Select a rule and click **Delete** to delete a rule.

Rule storage

The configuration file of Call Center Elite Multichannel Desktop stores a rule that you create in Rules window.

The configuration file stores each rule on a separate line. The Rules Plug-in accesses the configuration file to execute a rule that matches the specified criteria.

Note:

You must enter the event parameters with appropriate uppercase and lowercase letters and without spaces between the words. For more information about the event parameters, see *Avaya Aura® Call Center Elite Multichannel Desktop User Guide*.

Device Media Call Control (DMCC)

DMCC overview

Using Device Media Call Control (DMCC), Call Center Elite Multichannel Desktop communicates with the Communication Manager deskphone. Call Center Elite Multichannel Desktop is connected to the deskphone so that the feature buttons of both products are synchronized. For example, EC500 pushed on Avaya H323 or DCP deskphone configured on Communication Manager also appears on Call Center Elite Multichannel Desktop.

You can put the DMCC buttons either on the left or right toolbar in addition to the standard top and bottom toolbars. DMCC plug-in can also provide Vu-Stats and Queue information to the Wallboard plug-in. Using Communication Manager, you can configure the Feature button assignments for each station.

When you use DMCC, a media stream goes to multiple clients. DMCC registers a client application to control the deskphone and to get the media at the same time without unregistering the physical phone.

DMCC modes

Main mode

The Main mode implies that other endpoints can register with Communication Manager using the same extension. The Main endpoint is not dependent on registration of any other IP endpoints using the same extension. After the endpoint joins the call, the endpoint can perform all related functions such as talk and listen. You can associate only one Main registrant with an extension.

If the IP endpoint goes through a link bounce, Communication Manager can view the call-present flag only from the Main mode during registration. If you implement the share-talk button, the Main mode can block other registrants from taking over the talk-time slot. The Main registrant can also take over the talk-time slot from the endpoints registered in the DEPENDENT/INDEPENDENT dependency mode.

Independent mode

In the Independent mode, the endpoints can perform the following functions even when the Main IP endpoint is not registered:

- Receive call
- Make call
- Talk
- Listen

In this mode, the endpoint has the capabilities of the main registrant until the main endpoint registers. When the Main mode registers or re-registers, the independent registrant is put in the listen-only mode and the Main mode gets the talk privilege. The Main mode has precedence over an independent registrant. This mode is enforced even if the user is in a call.

Note:

If you enable the share-talk button, the talk-time slot remains with the independent registrar if the registrar activates the share-talk button. If the Main mode wants to take over the talk-time slot, then the Main mode must activate this button.

Using the Independent mode, the IP endpoints can specify when the endpoints want to make or receive calls even if the main endpoint is unavailable in the event of a network failure. The Independent mode is useful when a call recording application uses the service observing feature with two registrations for high availability. One registration registers in the Main mode, and the other registration registers in the Independent mode. In this example, the registrant uses Communication Manager to either answer calls or make calls after registering.

Dependent mode

In the Dependent mode, an IP endpoint can register only when another endpoint is registered to Communication Manager using the same extension in the Main mode. IP endpoints can register if the extension is with a DCP phone and the DCP phone is in service. During a call, the IP endpoint is always in the listen-only mode.

DMCC features

Call Center Elite Multichannel supports the following DMCC features:

- EC500
- Malicious call trace activation
- Malicious call trace controller
- Send all calls
- Call forward
- Auto dial
- Stroke count
- Work codes
- Account
- Vu-Stats
- Headset
- Supervisor Assist
- Busy indicator
- User-to-user information
- VDN of origin repeat
- Mute far-end
- Hunt group night service
- Queued calls
- Oldest queued time
- Bridged appearance

Microsoft Dynamics CRM integration

As a Microsoft Business Solutions CRM user, you must configure the following plug-ins to use the multimedia functionality of Call Center Elite Multichannel, so that you can distribute Microsoft Dynamics CRM activities to your call center agents:

- MS CRM GUI Plug-in of Call Center Elite Multichannel Desktop
- MS CRM Svc Plug-in of Preview Contact Media Store

For more information, see Configuring Microsoft Dynamics CRM on page 56.

For information about how to configure MS CRM Svc Plug-in and set up a program for Microsoft Dynamics CRM activities, see *MS CRM GUI Plug-in User Guide*.

For information about how to customize Microsoft Dynamics CRM Server and install MS CRM Phonebook Synchronizer, see *MS CRM GUI Plug-in Guide*. The customization of Microsoft Dynamics CRM Server is required for displaying dial buttons on the Microsoft Dynamics CRM web pages.

Integrating IronPython script

About this task

Using Python Breakout Plug-in, developers can invoke IronPython scripts when Call Center Elite Multichannel Desktop events trigger. The following procedure helps you to understand how to map an IronPython script to a Call Center Elite Multichannel Desktop event.

Procedure

1. Close all open applications.
2. Open `ASGUIHost.ini` file.
3. In the Plug In Assembly List section, remove the semicolon from the text `;Python Breakout Section=Python Breakout` to enable Python Breakout Plug-in.

   Note:

   By default, Python Breakout Plug-in is disabled.
4. Start Call Center Elite Multichannel Desktop.
5. Click **Tools** > **Python Breakout** > **View by Event**.

   The system displays a list of events belonging to all plug-ins registered to Call Center Elite Multichannel Desktop.
6. Select a Call Center Elite Multichannel Desktop event from the list and click **Add**.
7. On the Event Mapping screen, type a unique name for your event mapping.
8. Click **Browse** and locate your IronPython script.
9. If required, type the name of a function in your script that acts as a starting point when you run the script.

   The name of the function must match the name specified in the event/script mapping definition. You must supply the parameters in the order - sender, eventArgs, PIMBroker.

   sender This parameter is passed through the event handler arguments. The specific type of this object is determined by the generator of the event. IronPython casts this parameter to the correct type for you. To figure the members and methods of this parameter, you must know the definition of the object.

   eventArgs This parameter is passed through the second argument of the event handler. The specific type of this object is determined by the generator of the event,

however, this parameter is derived from the .Net EventArgs class. IronPython casts this parameter to the correct type for you. To figure the members and methods of this parameter, you must know the definition of the object.

PIMBroker This parameter is a class of type IASPIMBroker, which is the PIMBroker object used by the ASPythonBreakoutPlugin executing the Python script. You can access any public method or member within this class.

An example function definition is: def EntryFunction (sender, eventArgs, PIMBroker):

If you do not enter the script through a function, three global variables are supplied, which are named sender, eventArgs, and PIMBroker.

10. Select to run scripts in dynamic or precompiled manner.
    - If you run scripts in a dynamic manner, the scripts are recompiled every time you execute the scripts. This method is slower. However, you can use this method to modify scripts and execute new scripts without having to restart Call Center Elite Multichannel Desktop.
    - If you run the scripts in a precompiled manner, the scripts are compiled on startup. This method improves script performance. However, if you modify the script, you must restart Call Center Elite Multichannel Desktop before you find the script changes.
11. Select to run scripts synchronously or asynchronously.
    - If you run a script synchronously, then if the event that triggered the event occurs again while the script is being executed, the script for the second event is executed until the first one has completed.
    - To run a script asynchronously, specify the maximum number of concurrent scripts that may be executed for a specific event/script mapping in the Thread pool size text box. Any number of requests beyond this number are queued. If the queue exceeds the number specified by the Maximum queued requests, all subsequent requests to execute scripts for that event/script mapping are ignored. After the number of queued requests falls below the Maximum queued requests limit, a new event is queued again.
12. Click **Save**.

    Note:

    You can also use the **CC Elite Multichannel Desktop Events** tab to change or delete event-to-script mappings.
13. Click **Tools** > **Python Breakout** > **View by Mapping Name** from the menu bar to view IronPython scripts that are already mapped to Call Center Elite Multichannel Desktop events.

    You can add, change, or delete event-to-script mappings in the **Script Mapping Names** pane.

Sample script

The Call Center Elite Multichannel installer includes a sample script called `CESample1.py`.

For more information about Python, see www.python.org and for more information about IronPython, see www.codeplex.com/Wiki/View.aspx?ProjectName=IronPython.

Call Center Elite Multichannel Reporting installation

Call Center Elite Multichannel Reporting runs on various Microsoft Windows operating systems, such as Microsoft Windows XP, Microsoft Windows Vista, Microsoft Windows 7, Microsoft Windows 8, and Microsoft Windows 8.1. For more information, see Supported products on page 22.

Note:

You must have administrator privileges to install Call Center Elite Multichannel Reporting on Microsoft Windows XP, Microsoft Windows Vista, and Microsoft Windows 7.

Requirements for Call Center Elite Multichannel Reporting

In addition to the requirements listed for the Desktop components, the following are the requirements for Call Center Elite Multichannel Reporting:

- Microsoft IIS 6.0 or higher must be installed on the system.
- Microsoft SQL Server with Advance Services must be installed on the system and configured with the client accounts.
- Microsoft SQL Server Reporting Services must be installed on the system and configured with the client accounts.

Important:

Installation of SQL Server with Advanced Services is required for leveraging the Reporting Services that comes within the Advanced Services package for SQL Server. This is essential for the reporting capabilities within Call Center Elite Multichannel suite.

For information about Microsoft SQL Server Reporting Services, see Microsoft SQL documentation.

Installing Call Center Elite Multichannel Reporting

Before you begin

Ensure that Media Proxy is installed on the system.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.

3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Desktop** > **CC Elite Multichannel Reporting**.
5. On the Avaya Aura® Call Center Elite Multichannel Reporting welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Experience Portal Service Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for the Experience Portal Server.
   b. In the **Port** field, enter the port number for the Experience Portal Server.
   c. Click **Next**

   Important:

   To enable the Experience Portal Express menu on the menu bar of the Reporting application, specify the correct IP address or hostname of the Experience Portal server in the Experience Portal Service IP configuration key of the Experience Portal Plugin section on the Configuration Server.
8. On the Edit Data screen, perform one the following actions:
   - To source the configuration information from the local `.ini` file, keep the **Use default CC Elite Multichannel Reporting INI file for configuration information** check box selected and click **Next**.
   - To source the configuration information from Configuration Server, clear the **Use default CC Elite Multichannel Reporting INI file for configuration information** check box, enter values in the fields, and click **Next**.

   For more information, see Edit Data field descriptions on page 27.
9. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
10. On the Configure CC Elite Multichannel Reporting screen, enter appropriate value in the fields, and then click **Next**.

    For information about these fields, see Configure CC Elite Multichannel Reporting field descriptions on page 73.
11. To install the iClarity plug-in, keep the **iClarity** feature selected and click **Next**.

    Note:

    The iClarity plug-in is not supported on the Microsoft Windows 7 operating system.
12. To install Call Center Elite Multichannel Reporting without a shortcut on the system desktop, clear the **Include the Avaya Aura Call Center Elite Multichannel Reporting shortcut on the desktop** check box, and then click **Next**.

13. Review the installation settings and click **Next**.

    Note:

    If you receive an `Add Provider Error` message during installation, click **OK**.

14. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

Configure CC Elite Multichannel Reporting field descriptions

Name	Description
Media Director IP	The IP address for Media Director.
Media Director Port	The port number for Media Director. The default port number for Media Director is 29087.
XML Server IP	The IP address for XML Server.
XML Server Port	The port number for XML Server. The default port number for XML Server is 29096.
License Director IP	The IP address for License Director. **Note:** When you enter the IP address for License Director, the Connect License Director parameter in the configuration file of the application changes from **False** to **True**.
License Director Port	The port number for License Director. The default port number for License Director is 29095.

Verifying SQL Server Reporting Services

About this task

Note:

This example is based on the SQL Server installation and assumes that SQL Server is installed and configured with a Default instance, and that Microsoft SQL Server Reporting Services is installed. For more information, refer to the Microsoft SQL Server Reporting Services documentation.

Procedure

1. From the Windows **Start** menu, select **All Programs** > **Microsoft SQL Server** > **Configuration Tools** > **Reporting Services Configuration Manager**.

2. Select the correct system name and instance name.
3. Click **Connect**.

   If the report services stop, start the services by clicking **Start**.
4. In the left pane, click **Report Manager URL** and verify the Report Manager Site Identification.
5. In the left pane, click **Web Service URL** and verify the following:
   - Report Server Web Service Virtual Directory
   - Report Server Web Service Site Identification
   - Report Server Web Service URLs
6. In the left pane, click **Database** and verify the following:
   - Current Report Server Database
   - Current Report Server Database Credential
7. Click **Exit**.

Media Proxy installation

This installation helps you if you have developed your own contact center software using Developer's multimedia components and that software relies on Media Proxy to run.

To run Call Center Elite Multichannel Desktop or Call Center Elite Multichannel Reporting, ensure that Media Proxy is installed on the system.

Media Proxy can be installed manually through a separate installer or can be installed automatically during installation of Call Center Elite Multichannel Desktop or Call Center Elite Multichannel Reporting.

The default location where Media Proxy is installed is `C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\Media Proxy Service`.

If you install Media Proxy manually and then uninstall it at a later time, Call Center Elite Multichannel Desktop does not work. If Media Proxy is installed automatically, then you cannot uninstall Media Proxy through Add or Remove Programs option in Control Panel.

Media Proxy runs on Microsoft Windows operating systems, such as Windows XP, Windows Vista, and Windows 7. For more information, see Supported products on page 22.

For the application to install, the system must have Microsoft .Net Framework 3.5 SP1 and Microsoft Internet Explorer.

Installing Media Proxy

About this task

This task describes how to install Media Proxy using separate Media Proxy installer.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Desktop** > **Media Proxy**.
5. On the Media Proxy Service welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. Review the installation settings and click **Next**.
9. Click **Finish**.

   If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

   Note:

   If you install Media Proxy using this procedure and uninstall it at a later time, then Call Center Elite Multichannel Desktop and Call Center Elite Multichannel Reporting stop working.

Chapter 5: Installing Server applications

Requirements for installing server applications

To install Avaya Aura® Call Center Elite Multichannel on a system, ensure that you have installed and configured the following:

- Avaya WebLM
- Avaya Aura® Communication Manager
- Avaya Aura® Application Enablement Services
- A supported Microsoft SQL Server

In addition, you must install and configure the services that are required for various configurations, such as Voice only configuration, Email only configuration, and Messaging configuration.

Call Center Elite Multichannel core services

You must install and configure the following core services before configuring the email, webchat, or voice services:

- License Director
- XML Server
- Application Management Service
- Configuration Server, if centralized configuration is used
- IDS Services for reporting, if reporting feature is used
- Task Director, if reporting feature is used
- Trace System
- Media Director, for any multimedia interaction

Services for Voice only configuration

You must install and configure the following services to set up voice only configuration:

- Call Center Elite Multichannel core services
- Media stores - Voice Media Store

- Call Recording Config Service, if voice configuration is integrated with Avaya Aura® Work Force Optimization
- Experience Portal Config Service, if Experience Portal is integrated with Call Center Elite Multichannel

Services for Email only configuration

You must install and configure the following services to set up Email only system for Call Center Elite Multichannel:

- Call Center Elite Multichannel core services
- Media Stores - Email Media Store

Services for Messaging configuration

You must install and configure the following services to set up messaging system for Call Center Elite Multichannel. Using this system, you can support webchat, sms, and various other gateways listed in the *Avaya Aura® Call Center Elite Multichannel Overview guide* :

- Call Center Elite Multichannel core services
- Media Stores - Simple Messaging Media Store
- Media Gateway - such as webchat and SMS

Services for Call Routing configuration

You must install and configure the following services to set up Call Routing:

- Call Center Elite Multichannel core services
- Call Routing Server

Services for Outbound (Preview or Progressive)

You must install and configure the following to set up Outbound service (Preview or Progressive):

- Call Center Elite Multichannel core services
- Media Stores - Preview Contact Media Store

Installing and configuring IIS on Microsoft Windows Server 2008

Procedure

1. On the server desktop, right-click **My Computer** and click **Manage**.
2. On the Server Manager window, right-click **Roles** and click **Add roles**.
3. On the Before You Begin screen, click **Next**.
4. On the Select Server Roles screen, select **Web Server (IIS)** and click **Next**.
5. On the Introduction to Web Server (IIS) screen, click **Next**.
6. On the Select the Role Services to install for Web Server (IIS) screen, perform the following steps:
    a. In **Common HTTP Features** section, select the following components:
        - Static Content
        - Default Document
        - Directory Browsing
        - HTTP Errors
        - HTTP Redirection
    b. In **Application Development** section, select the following components:
        - ASP.NET
        - .NET Extensibility
        - ASP
        - CGI
        - ISAPI Extensions
        - ISAPI Filters
        - Server Side Includes
    c. In **Health and Diagnostics** section, select the following components:
        - HTTP Logging
        - Logging Tools
        - Request Monitor
        - Tracing
    d. In **Security** section, select the following components:
        - Basic Authentication
        - Windows Authentication
        - Request Filtering

e. In **Performance** section, select the Static Content Compression component.
f. In **Management Tools** section, select the following components:
   - IIS Management Console
   - IIS 6 Management Compatibility
g. In **IIS 6 Management Compatibility** section, select the following components:
   - IIS 6 Metabase Compatibility
   - IIS 6 WMI Compatibility
   - IIS 6 Scripting Tools
   - IIS Management Console

7. Click **Next**.
8. On the Confirm Installation Selections screen, click **Install**.
9. Click **Close**.
10. Exit the Server Manager.
11. Restart the server.

Installation of Server applications

Installing License Director

About this task

You can install License Director on the Telephony Server or the system running Call Center Elite Multichannel server applications.

Before you start installing License Director, ensure that WebLM is installed on the system. For more information, see WebLM installation on page 112.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **License Director**.

5. On the License Director welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. On the Configure License Director screen, enter the WebLM URL to use a remote WebLM server, and then click **Next**.
9. Review the installation settings and click **Next**.
10. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
11. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc` .
    c. Click **OK**.
12. In the Services window, verify that the **AS License Director** service is running.

Installing Call Routing Server

About this task

Note:

Call Routing Server is always installed on C Drive.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Call Routing Server**.
5. On the Call Routing Server welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. On the Configure Call Routing Server screen, enter the configuration information.

For more information, see Configure Call Routing Server field descriptions on page 82.

Note:

You can skip this step if you want to add the configuration information in the configuration file (`.ini`) at a later time.

9. Click **More** and configure routing and monitored VDNs.

   For more information, see Configuring routing and monitored VDNs on page 82.

10. Click **Next**.
11. On the Select Features screen, perform one of the following actions:
    - To install all plug-ins, keep the **Plug-ins** check box selected.
    - To install selected plug-ins:
      a. Click **Change**.
      b. On the Select Subfeatures dialog box, clear the check boxes for the plug-ins that you do not want to install.

         Note:

         Script Host Plug-in does not install scripting engines as a part of installation.

      c. Click **Continue**.
12. Click **Next**.
13. Clear the **Include sample applications with installation** check box if you do not want to install sample applications.

    The sample applications show how to integrate Call Routing Server with Call Center Elite Multichannel plug-ins.

14. Click **Next**.
15. Review the installation settings and click **Next**.
16. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

17. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
18. In the Services window, verify that the **AS Call Routing Server** service is running.

Configure Call Routing Server field descriptions

Name	Description
Primary Link Name	The name of the primary link that the application uses to connect to the Avaya Telephony Server and switch. For example: `AVAYA#ONEXCM82#CSTA-S#APCAES` **Note:** Call Routing Server exits if you leave this field blank. For Named Licensing, you must use the secure TLink of type CSTA-S.
Primary User Name	The user name required for accessing the primary link.
Primary User Password	The password for the primary user name. By default, the Call Center Elite Multichannel application encrypts the password. For more information, see Commands on page 173.
Secondary Link Name	The name of the secondary link that the application uses to connect to the Avaya Telephony Server and switch.
Secondary User Name	The user name required for accessing the secondary link.
Secondary User Password	The password for the secondary user name By default, the Call Center Elite Multichannel application encrypts the password. For more information, see Commands on page 173.

Configuring routing and monitored VDNs

About this task

While installing Call Routing Server, you can configure routing and monitored VDNs.

Procedure

1. In the **Routing VDN List** field, enter the VDN number for which Call Routing Server must issue Route Request events and click **Add**.
2. In the **Monitored VDN List** field, enter the VDN number for which Call Routing Server must issue monitor request commands and click **Add**.
3. Select a VDN from the list and click **Delete** to delete a VDN number from the list.
4. Click the **Exit** button to return to the Configure Call Routing Server screen.

Installing Configuration Server

Install script for Configuration Server

The install script for Configuration Server provides options to install Configuration Server and Configuration Manager.

The option to install Configuration Server includes:

- Related database scripts for Configuration Server
- Startup application for Configuration Server
- Configuration Server Manager

Your system must be running Windows Installer 4.5 before you can install Configuration Server. Otherwise, this install automatically runs an install script for that application.

Requirements for Configuration Server

The following are the requirements for Configuration Server:

- The client computer must have Microsoft Windows XP SP3, Microsoft Windows Vista, Microsoft Windows 7, Microsoft Windows Server 2008 (Enterprise and Standard), or Microsoft Windows 2008 R2 Server.
- The client computer must have Microsoft Management Console (MMC) 3.0 or higher.

  You can download MMC from the Microsoft website.
- Configuration Server must run on a system with server operating system.

  For more information, see Installation requirements on page 18.
- Microsoft SQL Server with Advance Service must be installed and configured on the system.

  Note:

  - The SQL Server must have mixed mode authentication and not Windows only authentication. The mixed mode authentication specifies that you have configured the SQL Server for SQL Server and Windows.
  - Configuration Server is always installed on C Drive.

Installing Configuration Server and Configuration Manager

About this task

You can install Configuration Manager on the system where the Configuration Server is installed. You can also install Configuration Manager separately on a client computer.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.

3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Configuration Server**.
5. On the Configuration Server welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. Keep the **Configuration Manager** and **Configuration Server** check boxes selected and click **Next**.

   Note:

   Configuration Server Manager is the startup application of Configuration Server.
9. Review the installation settings and click **Next**.
10. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
11. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
12. In the Services window, verify that the **Active Configuration Server** service is running.

Installing Task Director

About this task

Task Director enables the Reporting Plug-in to schedule reports.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.

c. Click **Next**.

4. Click **Server** > **Task Director**.
5. On the Task Director welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. On the Task Director Configuration screen, enter values in the fields and click **Next**.

   For more information, see Task Director Configuration field descriptions on page 85.

   Note:

   The task is configured against Windows user account.
9. Review the installation settings and click **Next**.
10. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
11. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc` .
    c. Click **OK**.
12. In the Services window, verify that the **AS Task Director** service is running.

Task Director Configuration field descriptions

Name	Description
Domain Name	The domain name of Windows account.
Domain User	The user name of Windows account.
Password and Confirm Password	The password of Windows account.

Configuring Task Director

Procedure

1. Open the Windows Services application.
   a. Click **Start** > **Run**.
   b. In the Run dialog box type `services.msc`.
   c. Click **OK**.
2. Right-click the **AS Task Director** service and select **Properties**.

3. Add a Domain user account for the service and click **OK**.

Next steps

After you complete the installation, you must change the user.

Installing Interaction Data Server

About this task

The install script for the Interaction Data Server installs the following services:

- Interaction Data Server - Voice and Presence
- Interaction Data Server - Multimedia
- Interaction Data Server - View

Microsoft SQL Server with Advance Service is installed and configured on the system.

Note:

The SQL Server must have mixed mode authentication and not Windows only authentication. The mixed mode authentication specifies that you have configured the SQL Server for SQL Server and Windows.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Interaction Data Server**.
5. On the Interaction Data Server welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. On the Configure Interaction Data Server - Voice and Presence screen, enter the configuration information.

   For more information, see Configure Interaction Data Server - Voice and Presence field descriptions on page 87.

Note:

You can skip this step if you want to add the configuration information in the configuration file (`.ini`) at a later time.

9. Click **More** and configure switch information.

   For more information, see Configuring switch information on page 88.

10. Click **Next**.
11. On the Configure Database Connectivity screen, enter the configuration information for Interaction Data Server Database and CMS Database.

    For more information, see Configure Database Connectivity field descriptions on page 88.

12. Click **Next**.
13. Clear the **Include sample applications with installation** check box if you do not want to install sample applications.

    The sample applications show how to use Interaction Data Server.

14. Review the installation settings and click **Next**.
15. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

16. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
17. In the Services window, verify that the following services are running:
    - AS Interaction Data Server - Multimedia
    - AS Interaction Data Server - Voice
    - AS Interaction Data Server - Voice and Presence

Note:

Only the Voice skills are monitored in Interaction Data Server-Voice and Presence. However, Interaction Data Server - Multimedia Server provides the Multimedia Queue details.

Configure Interaction Data Server - Voice and Presence field descriptions

Field	Description
Interaction Data Server ID	A unique number that identifies the Interaction Data Server Voice and Presence.

Field	Description
Interaction Data Server Port	The port number that the Interaction Data Server - Voice and Presence uses to accept connections from clients and other servers. The default port number is 29090.
Switch ID	The ID number of the switch to which the Interaction Data Server - Voice and Presence is connected. This ID number must be a unique number. The switch ID is important in complex configurations such as a network of Interaction Data Server - Voice and Presence servers that receives information from multiple Avaya switches.
Primary Link Name	The name of the primary link that the application uses to connect to the Avaya Telephony Server and switch. For example: `AVAYA#ONEXCM82#CSTA-S#APCAES` **Note:** For Named Licensing, you must use the secure TLink of type CSTA-S.
Primary User Name	The user name required for accessing the primary link.
Primary User Password	The the password for the primary user name. By default, the Call Center Elite Multichannel application encrypts the password. For more information, see Commands on page 173.

Configure Database Connectivity field descriptions

Database	Field	Description
Interaction Data Server Database	Database Server Name	The name of the SQL Server.
AvayaCall Management System (CMS) Database	Database Server Name	The name or TCP/IP address of the server where the CMS Informix database is located. The CMS Plug-in for Interaction Data Server - Multimedia uses this information.
	Database User Name	The user name for the CMS Informix database.
	Database User Password	The password for the database user name.

Configuring switch information

About this task

While installing Call Routing Server, you can configure switch information.

Procedure

1. In the **VDN** field, enter the VDN number that you want the Interaction Data Server - Voice and Presence to monitor and click **Add**.
2. In the **ACD Split/Skill** field, enter the hunt group extension that you want the Interaction Data Server - Voice and Presence to monitor and click **Add**.
3. In the **Station** field, enter the extension that you want the Interaction Data Server - Voice and Presence to monitor and click **Add**.
4. In the **Trunk Group** field, enter the trunk group number that you want the Interaction Data Server - Voice and Presence to monitor and click **Add**.
5. Click **Delete** to remove an item from a list.
6. Click **Exit** to return to the Configure Interaction Data Server - Voice and Presence screen.

Installing Trace System

About this task

In Call Center Elite Multichannel, you can install the Trace system to collect and store logs on a central server. The Trace system consists of the TTrace Server, TTrace Configuration, TTrace Console, and TTrace LogtoZip components. You can use these components to view, configure, and archive the logs stored on the TTrace Server.

Important:

You must enable the Windows Firewall service before installing Trace System.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Trace System**.
5. Click **Next**.
6. On the End-User License Agreement screen, select **I accept the terms in the license agreement** to agree with the licensing agreement, and then click **Next**.
7. On the Choose Setup Type screen, perform one of the following actions:
   - Click **Complete** to install all components of Trace System.
   - Click **Custom** and select the components that you want to install.
8. Click **Install**.

9. Click **Finish**.

   If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

10. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
11. In the Services window, verify that the **Avaya Trace Server** service is running.

Installing TTrace Server without setup

Procedure

1. Copy the `tt_srv.exe` file from the data carrier to a folder in Avaya Aura® Call Center Elite Multichannel.
2. Enter the command `tt_srv.exe -install` in the command prompt.

   The system installs TTrace Server.

Result

After the installation completes, TTrace Server automatically starts as a service with the service name as `tt_srv.exe`.

Installing Call Recording Config Service

About this task

In Call Center Elite Multichannel, you can install the Call Recording Config service for agents to use call recording features. This service provides recording and replaying options for agents to record the conversation of the agents with the customer and replay the recorded conversations. For more information about Call Recording, see *Avaya Aura® Call Center Elite Multichannel Desktop User Guide* and *Administering Avaya Aura® Call Center Elite Multichannel*.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Call Recording Config Service**.
5. Click **Next**.

6. On the End-User License Agreement screen, select **I accept the terms in the license agreement** to agree with the licensing agreement, and then click **Next**.
7. On the Choose Setup Type screen, perform one of the following actions:
   - Click **Complete** to install all components of Call Recording Config Service.
   - Click **Custom** and select the components that you want to install.
8. On the General Settings screen, perform the following actions:
   a. In the **Hostname of Trace System Service** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
9. Click **Install**.
10. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
11. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
12. Verify that the **Avaya Call Recording Config Service** service is running.

Installing Experience Portal Config Server

About this task

In Call Center Elite Multichannel, you can install the Experience Portal Config service for agents to use Experience Portal application features inside Call Center Elite Multichannel. For more information about Experience Portal, see the *Administering Avaya Aura® Call Center Elite Multichannel* and *Avaya Aura® Call Center Elite Multichannel Reporting User Guide*.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.

4. Click **Server** > **Experience Portal Config Service**.
5. Click **Next**.
6. On the End-User License Agreement screen, select **I accept the terms in the license agreement** to agree with the licensing agreement, and then click **Next**.
7. On the Choose Setup Type screen, perform one of the following actions:
   - Click **Complete** to install all components of Experience Portal Config Service.
   - Click **Custom** and select the components that you want to install.
8. On the General Settings screen, perform the following actions:
   a. In the **Hostname of Trace System Service** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
9. Click **Install**.
10. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
11. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
12. In the Services window, verify that the **Avaya Experience Portal Config Service** service is running.

Installing Media Director

Before you begin

Ensure that Microsoft .Net Framework 3.5 SP1 is installed and XML Server is running on the system.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.

c. Click **Next**.

4. Click **Server** > **Media Director**.
5. On the Media Director welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. Review the installation settings and click **Next**.
9. Click **Finish**.

   If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
10. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
11. In the Services window, verify that the **AS Media Director** service is running.

Installing Virtual Agent

Before you begin

Ensure that Microsoft IIS 7 is installed and configured on the system.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Virtual Agent**.
5. On the Virtual Agent welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. Keep the **Virtual Agent** and **Virtual Agent Web Service** check boxes selected and click **Next**.

9. On the Configure Virtual Agent Web Service screen, enter the port number, and remote IP address that the Virtual Agent Web service uses for connecting to the Virtual Agent Service, and then click **Next**.
10. Review the installation settings and click **Next**.

    Note:

    If the installer does not find `ASP Net 2.0 Web Service Extension` installed on the system, then the installer displays a dialog box to confirm whether to install Web Service Extension. This component is required for the Virtual Agent Web Service Worker Plug-in.
11. Click **OK**.

    ASP .Net 2.0 installation starts.
12. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
13. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
14. In the Services window, verify that the **AS Virtual Agent** service is running.

Installing XML Server

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
    a. In the **Server** field, enter the host name or IP address for Trace System Server.
    b. In the **Port** field, enter the port number for Trace System Server.
    c. Click **Next**.
4. Click **Server** > **XML Server**.
5. On the XML Server welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.

Note:

Ensure that the Avaya Application Enablement Services TSAPI client software is already installed.

7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. Review the installation settings and click **Next**.
9. Click **Finish**.

   If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
10. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
11. In the Services window, verify that the **AS XML Server** service is running.

Installing Media Stores

Before you begin

Ensure that Microsoft SQL Server with Advance Service is installed and configured on the system.

About this task

The install script for each Media Store installs the Media Store and the related database scripts.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Media Stores**.
5. Click one of the following options, as required:
   - Preview Contact Media Store
   - Simple Messaging Media Store
   - Email Media Store

- Voice Media Store

6. On the welcome screen, click **Next**.
7. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
8. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
9. Review the installation settings and click **Next**.
10. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
11. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
12. In the Services window, verify that the service for the installed media store is running.

Installing Application Management Service

About this task

The install script for Application Management Service installs the Application Management Director and the Avaya Aura® Call Center Elite Multichannel Control Panel.

Note:

You must install the Avaya Aura® Call Center Elite Multichannel Control Panel on a system where desktop components and Application management Director are installed.

Avaya Aura® Call Center Elite Multichannel Control Panel runs on the server side.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Application Management Service**.
5. On the Application Management Service welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.

7. Keep the **Application Management Director** and **CC Elite Multichannel Control Panel** check boxes selected and click **Next**.
8. To install Call Center Elite Multichannel Control Panel without a shortcut on the system desktop, clear the **Include the Avaya Aura Call Center Elite Multichannel Control Panel shortcut on the desktop** check box, and then click **Next**.
9. On the Edit Data screen, perform one of the following actions:
   - To source the configuration information from the local `.ini` file, keep the **Use default CC Elite Multichannel Control Panel INI file for configuration information** check box selected and click **Next**.
   - To source the configuration information from Configuration Server, clear the **Use default CC Elite Multichannel Control Panel INI file for configuration information** check box, enter values in the fields, and click **Next**.

   For more information, see Edit Data field descriptions on page 27.
10. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
11. Review the installation settings and click **Next**.
12. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
13. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box type `services.msc`.
    c. Click **OK**.
14. In the Services window, verify that the **AS Application Management Director** service is running.

Post installation procedure

Configuring Application Enablement Services

About this task

The procedure describes the actions that you can perform on the AES server to attain the specified capacity.

Procedure

1. Open an Internet browser.
2. Login to the Application Enablement Services Management Console.
3. Go to **AE Services** > **TSAPI** > **TSAPI Links** .
4. Select the TSAPI Link configured with Call Center Elite Multichannel and click **Edit Link**.
5. In the Edit TSAPI Links page, click **Advanced Settings**.
6. On the TSAPI Link - Advanced Settings page, set the value of **Max Flow Allowed** to `4096`.
7. Click **Apply Changes**.
8. In the Apply Changes to TSAPI Link- Advanced Settings page, click **Apply**.

   Important:

   Ensure that the AES is connected to Communication Manager through Procr.

Chapter 6: Installing Media Gateways

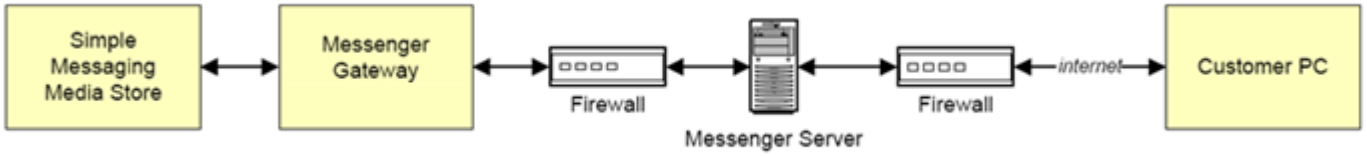
Gateways

Instant Messaging, texting, and web chatting are becoming principle mechanisms for communication in both the business-to-business and customer-to-business environments.

Avaya Aura® Call Center Elite Multichannel broadens the customer service capability of your contact center by allowing you to blend with the following Gateways with inbound telephone calls.

- AOL or ICQ Instant Messenger Gateway - Customers or business associates who use the Internet can make contact with you through AOL or ICQ Instant Messenger and receive the same treatment as telephone callers.
- Communicator Gateway - Enables communication with any number of Office Communicator clients.
- MSN Messenger Gateway - Customers or business associates who use the Internet can make contact with you through MSN Messenger and receive the same treatment as telephone callers
- Short Message Service Gateway - Customers or business associates who use mobile texting can make contact with you and receive the same treatment as telephone callers
- XMPP Gateway - The XMPP Gateway is a server application that provides conversion from XMPP (Extended Messaging and Presence Protocol) to Avaya Aura® Call Center Elite Multichannel Simple Messaging Media Store.
- Web Chat Gateway - Customers or business associates who use the Internet can browse your company website, click a link to initiate a Web-based conversation with a call center agent and receive the same treatment as telephone callers.

This location of Messenger Gateway is between the remote server and Simple Messaging Media Store.



Checklist for installing Web Chat Gateway

Step	Task	Reference	✓
1	Install Web Chat Web service on IIS Web Server	Installing Web Chat for IIS on page 100 **Note:** In this process, you create a password-protected user account for Web Chat Web service.	
2	Install Web Chat Gateway on a system that has a server operating system	Installing Media Gateways on page 103	
3	Configure Web Chat through IIS Manager	Configuring Web Chat through IIS Manager on page 102	
4	Configure Web Chat Gateway using Call Center Elite Multichannel Control Panel	Configuring Media Gateways on page 104 **Note:** When you create remote service accounts, you must specify the password that you create during the installation of the Web Chat Web service.	
5	Install Web Chat ASP application on the IIS Web Server	Web Chat ASP application is installed while installing WebChat IIS and WebChat Gateway. **Note:** You must specify the names and IDs of the remote service accounts that you create during the configuration of Web Chat Gateway.	

Note:

Ensure that you install the Web Chat Web service and Web Chat ASP application on the same IIS Web Server.

Installing Web Chat for IIS

About this task

The install script for Web Chat for IIS installs the Web Chat Web service on the IIS web server.

The web server must be running Microsoft Windows 2008 Server and Microsoft IIS 7. In addition, the server must also have Microsoft .Net Framework 3.5 SP1 and Microsoft Internet Explorer.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Media Gateways** > **Web Chat for IIS**.
5. On the Web Chat for IIS welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. Keep the **Web Chat ASP** and **Web Chat Web Service** check boxes selected and click **Next**.
9. On the Configure Web Chat for IIS screen, perform the following actions:
   a. In the **Service Name** field, enter a name for the remote service.
   b. In the **Service ID** field, enter a unique service identifier for the remote service.

      Note:

      The name and service identifier pair must match with a Remote Service Name and Remote Service ID combination configured in Web Chat Gateway. You can Remote Service Name and Remote Service ID combination in Web Chat Gateway through Call Center Elite Multichannel Control Panel.

   c. Click **Add to list** to add the name and service identifier pair in a list.

      Note:

      You can add the name and service identifier pair later in the `web.config` file. The default location of this file is `C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Server\Media Gateways\Web Chat For IIS \WebChatASP`.

   d. Click **Next**.
10. On the Edit Data screen, perform the following actions to create a password-protected user account for the Web Chat Web service:
    a. In the **User Name** field, enter a user name for your account.

       The default user name is `WCUser`.

    b. In the **User Password** and **Confirm User Password** fields, enter a password for your account.

       The default password is `CCEUser0` .

Note:

The user name is saved into the `web.config` file for the Web Chat Web service. The user name and password are saved as a legitimate Windows user account.

11. Review the installation settings and click **Next**.
12. Click **OK** to enable ASP .Net Web Service Extension.
13. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

Note:

If you enter the remote service names and IDs during the installation of the Web Chat ASP, you do not need to change the default configuration data in the `web.config` file of the application. To change the configuration file, see the *Administering Avaya Aura® Call Center Elite Multichannel*.

Configuring Web Chat through IIS Manager

About this task

After you install IIS and Web Chat for IIS, you must configure Web Chat through IIS Manager.

Procedure

1. Click **Start** > **Administrative Tools** > **Internet Information Services (IIS) Manager**.
2. In IIS Manager, click **Application Pool**.
3. In the list of application pools, select the application pool where the Web Chat application is hosted.
4. In the right pane, click **Advanced Settings**.
5. In the Advanced Settings dialog box, perform the following steps:
   a. In the **.NET Framework Version** field, click **v2.0**.
   b. In **Managed Pipeline Mode** field, click **Integrated**.
6. In the left pane, click **WebChatASP** and perform the following steps:
   a. On the WebChatASP Home screen, double-click **Directory Browsing**.
   b. On the Directory Browsing screen, in the right-pane, click **Enable**.
7. In the left pane, click **WebChatWebService** and perform the following steps:
   a. On the WebChatWebService Home screen, double-click **Directory Browsing**.
   b. On the Directory Browsing screen, in the right-pane, click **Enable**.

8. Open a web browser.
9. In the address bar, type `http://localhost/webchatasp`.

   The system displays the Avaya Web Chat page.

Installing Media Gateways

About this task

The following are the different Media Gateways:

- AOL or ICQ Instant Messenger gateway
- MSN Messenger gateway
- Communicator gateway
- Short Message Service gateway
- XMPP gateway
- Web Chat gateway

For the application to install, the system must have Microsoft .Net Framework 3.5 SP1 and Microsoft Internet Explorer.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.

   The system displays the Trace System Server Dialog screen.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Server** > **Media Gateways**.
5. Click one of the following options, as required:
   - AOL or ICQ Instant Messenger gateway
   - MSN Messenger gateway
   - Communicator gateway
   - Short Message Service gateway
   - XMPP gateway
   - Web Chat gateway
6. On the welcome screen, click **Next**.

7. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
8. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
9. Review the installation settings and click **Next**.
10. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.
11. Open the Windows Services application.
    a. Click **Start** > **Run**.
    b. In the Run dialog box, type `services.msc`.
    c. Click **OK**.

Result

In the Services window, verify that the service for the installed gateway is running.

Configuring Media Gateways

About this task

For more information about how to configure Media Gateways, see *Administering Avaya Aura® Call Center Elite Multichannel*.

Chapter 7: Installing Developer components

Requirements for installing Developer components

To develop a contact center application using Call Center Elite Multichannel Developer, you only need to install the toolkit on a client computer having Microsoft development environment, such as Visual Basic and Visual C#. For information about the Windows operating system, see Installation requirements on page 18.

To build a contact center application using Microsoft Visual Studio .Net, your system must be running Microsoft Internet Explorer.

To run the application:

- The client system must have Avaya Aura® Application Enablement Services TSAPI client software.
- For application built using .Net, the client system must run Microsoft .Net Framework 3.5 SP1 and Microsoft Internet Explorer.
- License Director must be installed on a dedicated Call Center Elite Multichannel Server.

Note:

Call Center Elite Multichannel Developer does not require separate licensing before use. Any investment that you make in applications developed with Call Center Elite Multichannel Developer is protected by the automatic use the applications make of Call Center Elite Multichannel run-time licenses.

Call Center Elite Multichannel Developer installation

When you install Call Center Elite Multichannel Developer, the following components are installed:

- XML Client on page 106
- Multimedia Common Libraries on page 106
- Plug-in Common Libraries on page 106

XML Client

XML Client encompasses following developer components:

- XML Client

  The **ASXMLClient** object for the **XML Client** component contains the following classes in the **AgileSoftware.Developer** namespace.

  - ASXMLClient
  - ASXMLRouting
  - ASXMLStation
  - ASXMLVDN
- CSTA Schemas

Note:

The XML Client feature is installed only if you install AES TSAPI Client.

Multimedia common libraries

Multimedia common libraries encompass the components that interact with Media Director and Media Stores.

Plug-in common libraries

Plug-in common libraries encompass the components that you use for developing custom plug-ins. You can use the custom plug-ins with the AS GUI Host plug-in architecture, such as Call Center Elite Multichannel Desktop, Call Center Elite Multichannel Reporting, or Call Center Elite Multichannel Control Panel.

Installing Call Center Elite Multichannel Developer

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.

4. Click **Developer**.
5. On the Developer welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. Select a location for the installation files and click **Next**.
8. Keep the **Error Logging**, **XML Client**, **Multimedia Common Libraries**, and **Plugin Common Libraries** check boxes selected.
9. Select a location for the installation files and click **Next**.
10. Review the installation settings and click **Next**.
11. Click **Finish**.

    If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

Chapter 8: Installing utilities

SQL Server installation

Supported editions

Avaya Aura® Call Center Elite Multichannel supports standard, express, and enterprise editions for Microsoft SQL Server 2008 and Microsoft SQL Server 2012.

Requirements for SQL Server

The following are the requirements for SQL Server:

- The following components must be installed on the system before installing Microsoft SQL Server:
  - Microsoft .Net Framework 3.5 SP1
  - Windows Installer 4.5
  - Windows PowerShell 1.0
  - Internet Information Services 7
- Microsoft IIS 7 must be installed and configured on the system before installing Microsoft SQL Server with Reporting Services:

  To configure Microsoft IIS 7, you must enable the following features of IIS:
  - Web management tools
    - IIS 6 Management Compatibility
    - IIS 6 WMI Compatibility
    - IIS Metabase and IIS 6 configuration compatibility
  - World Wide Web services
  - Application Development Features
    - ASP.NET
    - ISAPI Extensions
    - ISAPI Filters

- Common Http Features
  - Default Document
  - Directory Browsing
  - HTTP Redirection
  - Static Content
- Security
  - Windows Authentication

Installing 32-bit Reporting Services on 64-bit IIS 7

Procedure

1. In the IIS Manager, click **Application Pools**.
2. In the Actions pane, click **Set Application Pool Defaults**.
3. In the General section, set **Enable32bitAppOnWin64** to **True**.

Installing SQL Server

Based on your operating system, you can install SQL Server as a 32-bit or 64-bit application.

For more information about installing Microsoft SQL, see Microsoft documentation:

http://msdn.microsoft.com/en-us/library/bb545450.aspx .

SQL Server configuration

Configuring SQL Server

Procedure

1. From the Windows **Start** menu, select **All Programs** > **Microsoft SQL Server** > **Configuration Tools** > **SQL Server Configuration Manager**.
2. In the right pane, right-click **Named Pipes** and select **Enable** to enable the Named Pipes protocol.
3. In the right pane, right-click **TCP/IP** and select **Enable** to enable the TCP/IP protocol.
4. Right-click **TCP/IP** and select **Properties**.
5. Click the **IP Addresses** tab.
6. Enable all IP addresses and click **OK**.
7. Start the Microsoft SQL Server Management Studio.
8. Click **Connect** to continue.

9. In the left pane, right-click the SQL Server name and select **Facets**.
10. In the View Facets window, click the **Facet** arrow and select **Surface Area Configuration**.
11. In the **Facet properties** list, set the **XPCmdShellEnabled** property to **True** .
12. Click **OK** to complete the configuration.

Configuring database settings for SQL Server

About this task

The procedure describes the actions that you can perform to apply database settings for Microsoft SQL Server to attain the specified capacity.

Procedure

1. Open Microsoft SQL Server Management Studio software.
2. In the left pane, under **Databases**, select **ASMSControl** database.
3. Right-click **ASMSControl** and select **Properties**.
4. In the Database Properties window, in the Select a page pane, select **Options**.
5. In the right pane, under **Automatic**, change the value of **Auto Shrink** parameter to **False**.
6. Click **OK**.
7. In the left pane, under Databases, select **ASMSData1** database.
8. Right-click **ASMSData1** and select **Properties**.
9. In the Database Properties window, in the Select a page pane, select **Files**.
10. In the right pane, for the **ASMSData1** , set the following:
    a. In the **Initial Size (MB)** field, set the value to `10000`.
    b. In the **Autogrowth** field, click the ellipses **(...)** button.
    c. In the Change Autogrowth for ASMData1 window, set the value of **File Growth in Megabytes** field to `2000`.
11. Click **OK**.
12. In the right pane, for the **ASMSData1_log** , set the following:
    a. In the **Initial Size (MB)** field, set the value to `2000`.
    b. In the **Autogrowth** field, click the ellipses **(...)** button.
    c. In the Change Autogrowth for ASMSData1_log window, set the value of **File Growth in Megabytes** field to `500`.
13. Click **OK**.
14. In the Select a page pane, select **Options**.
15. In the right pane, under **Automatic**, set the value of **Auto Shrink** parameter to **False**.

16. In the Database Properties - ASMSData1 window, click **OK**.

Database creation

After installing and configuring Microsoft SQL Server, you must create databases using the SQL scripts provided with the Call Center Elite Multichannel installer. The SQL scripts are provided for Configuration Server.

You must install the Media Stores - ASMControl and ASContact databases from the Call Center Elite Multichannel Control Panel. For more information, see *Administering Avaya Aura® Call Center Elite Multichannel*.

You can install the SQL scripts for these components from the Call Center Elite Multichannel installer. You can also install the SQL scripts for a component from the installation folder of that component.

In the Call Center Elite Multichannel installer, you can find these SQL scripts in the `SQL Script` folder available in the respective component folder. For example, SQL scripts for Configuration Server are available at:

```
<Call Center Elite Multichannel installer>\Avaya Aura CC Elite Multichannel\
Server\Configuration Server\SQL Script
```

At the installed location, you can find these SQL scripts in the `SQL Script` folder available inside the respective component folder. For example, SQL scripts for Interaction Data Server are available at:

```
CCEM_INSTALL_DIR\\\\Avaya\\\\Avaya Aura CC Elite Multichannel\\\\
Server\Configuration Server\SQL Script
```

.

You can run these SQL scripts with default instance or named instance.

Creating database with default instance

About this task

This section explains how to run scripts after installing the component. The following example is for running SQL script from the Configuration Server folder.

Note:

Database with default instance works only if the EMC core servers are installed on the same server as the SQL database. To install the default instance on a separate database see *Administering Avaya Aura® Call Center Elite Multichannel*.

Procedure

1. Navigate to the `CCEM_INSTALL_DIR\\\\Avaya\\\\Avaya Aura CC Elite Multichannel\\\\Server\Configuration Server\SQL Script` folder.
2. Right-click the `Run AS Maintain Database.bat` file, and then click **Edit**.
3. Verify that ASServerName is empty.

4. Close the file.
5. Double-click the file to run it.

   After the batch file finishes running, a log file is created in the same folder to confirm the successful creation of the database.

Creating database with named instance

About this task

This section explains how to run scripts after you install the component. The following example is for running SQL script from the Configuration Server folder.

Procedure

1. Navigate to the `CCEM_INSTALL_DIR\\\\Avaya\\\\Avaya Aura CC Elite Multichannel\\\\Server\Configuration Server\SQL Script` folder.
2. Right-click the `Run AS Maintain Database.bat` file, and then click **Edit**.

   Note:

   If your database server is located on a separate server, ensure to copy the content of the installer to your local disk before you start creating or upgrading the database.
3. Enter the server instance name for ASServerName and save the file.
4. Close the file.
5. Double-click the file to run it.

   After the batch file finishes running, a log file is created in the same folder to confirm the successful creation of the database.

WebLM installation

Call Center Elite Multichannel is supported with WebLM server 6.3. You can poll the Call Center Elite Multichannel licenses from the WebLM server.

After installing the WebLM, you can install the required Call Center Elite Multichannel licenses in the WebLM. For information, see *Administering Avaya Aura® Call Center Elite Multichannel*.

Prerequisites for WebLM

Before you begin

Ensure that you first download and install Oracle Java Runtime Environment (JRE) and Tomcat, and then stop Tomcat.

Note:

When you stop Tomcat, the applications that deploy in the same Tomcat container stops responding.

The system that deploys WebLM must have an entry for the local host IP address in the hosts file.

For example, on a system running Microsoft Windows, the location of the `hosts` file is `C:\Windows\System32\drivers\etc`. The entry in this file must have `<Localhost_IP_address> localhost` format.

The user name that installs Tomcat must have read/write permissions for the `C:\temp` folder.

Oracle Java Runtime Environment (JRE) installation

You must install JRE 1.6.0_22 on the system where you want to deploy WebLM. In addition, you must ensure that the version of JRE is compatible with the operating system on which you want to install WebLM.

You can download JRE 1.6.0_22 from the following website:

http://www.oracle.com/technetwork/java/javasebusiness/downloads/java-archive-downloads-javase6-419409.html#jdk-6u22-oth-JPR

If you do not have Tomcat installed as a service, then you must ensure that JAVA_HOME variable points to the JRE 1.6.0_22 or JDK 1.6.0_22 install location.

Tomcat installation

You must install Tomcat 6.0.29 on the system where you want to deploy WebLM. In addition, you must ensure that the version of Tomcat is compatible with the operating system on which you want to install WebLM.

You can download Tomcat 6.0.29 from the following website:

http://archive.apache.org/dist/tomcat/tomcat-6/v6.0.29/bin/

To run Tomcat in a JRE only environment, you must install Tomcat as a Windows service. If Tomcat is not required to run as a service, then you must ensure that Oracle JDK is installed on the system.

Tomcat 6.0.29 server requires Oracle JDK to run if you do not have Tomcat registered as a service in Windows. In this case, ensure that the *PATH* environment variable points to `%JAVA_HOME%\bin` and the *CATALINA_HOME* environment variable points to Tomcat 6.0.29 install location.

If you do not have these environment variables set on the system, then you must create these variables.

Creating an Environment Variable

Procedure

1. Right-click **My Computer** and select **Properties**.
2. Click **Advanced system settings**.
3. On the System Properties dialog box, click the **Advanced** tab.
4. Click **Environment Variables**.

   The system displays the Environment Variables dialog box.
5. In the System variables list, click the **New** button.

The system displays the New System Variable dialog box.

6. In the **Variable name:** field, enter the required variable name.
7. In the **Variable value:** field, enter the required directory path.
8. Click **OK**.

   The system displays the new system variable in the System variables list.
9. Click **OK**.

Installing WebLM

Procedure

1. Copy `WebLM.war` file from DVD/CD drive path `\Utilities\WebLM` folder to the `%CATALINA_HOME%\webapps` folder of tomcat installation.
2. Create an empty folder named `WebLM` inside the `webapps` folder.
3. Open the `WebLM.war` file using WinZip and extract the contents of `WebLM.war` to newly created `WebLM` folder.
4. Enable HTTPS.

   This step is mandatory to access WebLM. This step requires editing the **`<tomcat_installation_dir>\conf\server.xml`** file. For more information, see Enabling HTTPS on page 115.
5. Update WebLM server properties.

   WebLM server has default values set in the configuration file. If required, update the properties before starting the Tomcat. For more information, see WebLM configuration on page 116.
6. Install Tomcat as a service.
   a. Open a cmd prompt window.
   b. Enter `cd <LocalDrive>:\Program Files\apache-tomcat-6.0.29\bin`.
   c. Enter `'service install'`
7. Fix security vulnerabilities that might exist within Tomcat.

   For more information, see Fixing security vulnerabilities on page 118.

After you install WebLM

If you have installed WebLM 6.3, ensure that you use:

- Non ova or System Manager deployment of WebLM. WebLM is also available as a standalone installer.
- Http, if WebLM is co-located in the same data center with EMC.
- A dedicated WebLM ova for EMC 6.3 if:
  - https is a requirement or,

- WebLM is not co-located or,
- WebLM is required to be an ova.

Disabling persistent connections facility

About this task

To continue using HTTPS, you must disable persistent connections facility.

Procedure

1. Stop Tomcat.
2. In `$CATALINA_HOME/conf/server.xml` , add attribute`maxKeepAliveRequests="1"` to the <Connector> tag for the HTTPS port used for WebLM.
3. Save the changes.
4. Start Tomcat.

Enabling HTTPS

Procedure

1. Verify if the Tomcat installation has APR (Apache Portable Runtime) enabled.

   For more information about APR, see http://tomcat.apache.org/tomcat-6.0-doc/apr.html.

   a. Browse to `%CATALINA_HOME%\bin` .

   b. Verify whether the `tcnative-1.dll` file is present.

      If the file is present, APR is supported for the Tomcat installation.

2. Locate the `server.xml` file. By default, the location of the `server.xml` file is `<tomcat_installation_dir>/conf` .
3. Open the `server.xml` file using any editor, such as Notepad, Textpad, or vi.
4. Go to end of the file and add Connector tag for port `52233` , which is used as the HTTPS port for WebLM. You must add the following before you add the element **`</Service>:`**

   Note:

   As per the Licensing Conformance Requirements [125163-M-850], licensed products must use port 52233 for HTTPS communication with WebLM server.

   Configuration for Tomcat Installation without APR:

```
<Connector acceptCount="100" clientAuth="false"
disableUploadTimeout="true" enableLookups="false" keystoreFile="$
{catalina.base}/webapps/WebLM/WEB-INF/weblmserver.p12"
keystorePass="password" SSLEnabled="true" keystoreType="PKCS12"
maxHttpHeaderSize="8192" maxSpareThreads="75" maxThreads="150"
minSpareThreads="25" port="52233" scheme="https" secure="true"
sslProtocol="TLS"
ciphers="SSL_DH_DSS_WITH_3DES_EDE_CBC_SHA,SSL_DH_RSA_WITH_3DES_EDE_C
BC_SHA,SSL_DHE_DSS_WITH_3DES_EDE_CBC_SHA,SSL_DHE_RSA_WITH_3DES_EDE_C
```

```
BC_SHA,SSL_RSA_WITH_3DES_EDE_CBC_SHA,SSL_RSA_FIPS_WITH_3DES_EDE_CBC_
SHA,TLS_KRB5_WITH_3DES_EDE_CBC_MD5,TLS_KRB5_WITH_3DES_EDE_CBC_SHA,TL
S_ECDH_ECDSA_WITH_3DES_EDE_CBC_SHA,TLS_ECDH_RSA_WITH_3DES_EDE_CBC_SH
A,TLS_ECDHE_ECDSA_WITH_3DES_EDE_CBC_SHA,TLS_ECDHE_RSA_WITH_3DES_EDE_
CBC_SHA,TLS_DHE_DSS_WITH_AES_128_CBC_SHA,TLS_DHE_DSS_WITH_AES_256_CB
C_SHA,TLS_DHE_RSA_WITH_AES_128_CBC_SHA,TLS_DHE_RSA_WITH_AES_256_CBC_
SHA,TLS_RSA_WITH_AES_128_CBC_SHA,TLS_RSA_WITH_AES_256_CBC_SHA,TLS_EC
DH_ECDSA_WITH_AES_128_CBC_SHA,TLS_ECDH_ECDSA_WITH_AES_256_CBC_SHA,TL
S_ECDH_RSA_WITH_AES_128_CBC_SHA,TLS_ECDH_RSA_WITH_AES_256_CBC_SHA,TL
S_ECDHE_ECDSA_WITH_AES_128_CBC_SHA,TLS_ECDHE_ECDSA_WITH_AES_256_CBC_
SHA,TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA,TLS_ECDHE_RSA_WITH_AES_256_CB
C_SHA”/>
```

Configuration for Tomcat Installation with APR:

```
<Connector acceptCount=“100” clientAuth=“false”
disableUploadTimeout=“true” enableLookups=“false”
SSLPassword=“password” SSLEnabled=“true” maxHttpHeaderSize=“8192”
maxSpareThreads=“75” maxThreads=“150” minSpareThreads=“25”
port=“52233” scheme=“https” secure=“true” sslProtocol=“TLS”
SSLCipherSuite=“ALL:!ADH!RC4 -IDEA:!LOW:!SSLv2:!EXPORT40!EXPORT56”
SSLCertificateFile=“${catalina.base}/webapps/WebLM/WEB-INF/
weblm.crt” SSLCertificateKeyFile=“${catalina.base}/webapps/WebLM/
WEB-INF/weblm.key”/>
```

Note:

Assume that WebLM is deployed in `<tomcat_installation_dir>/webapps` folder. Be careful while doing a copy paste from this document into the `server.xml` file. Ensure that you copy and paste valid quotes in the `server.xml` file.

5. For the Connectors on port `8080` and `8009`, update the value of attribute `redirectPort` from (default) `8443` to `52233`.

WebLM configuration

WebLM server configuration is defined in the `weblmserver.properties` file. The location of this file is `<tomcat_installation_dir>/webapps/WebLM/data` . Any changes to this file require Tomcat to restart, so that the changes can take effect.

The following table lists and describes some important properties:

Property Name	Description	Default Value
WebLM.LicenseAllocation.Backup.FileSize	This property specifies the size of the license allocation backup file size in MB. Ensure to allocate an integer to this property. A decimal value such as 1.5 is invalid.	10 MB

Property Name	Description	Default Value
WebLM.Usages.MaxUsageCount	This property specifies the maximum count of usage query results that WebLM can maintain. The property must be set to an integer value. A decimal value such as 1.5 is invalid.	5
WebLM.Usages.UsageCount	This property specifies the count of usage query results that WebLM maintains. The property must be set to an integer value within a range of 1 to whatever is the value of property “WebLM.Usages.MaxUsageCount”. A decimal value such as 1.5 is invalid. This property is also configurable from the WebLM UI.	1

WebLM server logging configuration is defined in the `log4j.properties` file. The location of this file is`<tomcat_installation_dir>/webapps/WebLM/WEB-INF/classes` .

Any changes to this file require Tomcat to restart, so that the changes can take effect.

The following table lists and describes some important properties:

Property Name	Logger Type	Default Value	Description
log4j.appender.weblmDebugAppender.File	Debug	${catalina.home}/webapps/WebLM/data/log/weblmserverdebug.log	This property lets WebLM user specify where to save the log files. Ensure to enter the path that exists followed by file name. E.g. On Linux, /var/log/weblm/weblmserver.log (assuming /var/log/weblm exists) On Windows, C:\\folder\\weblmserver.log (assuming C:\\folder exists).
log4j.appender.weblmOperationalAppender.File	Operational	${catalina.home}/webapps/WebLM/data/log/weblmserveroperational.log	
log4j.appender.weblmAuditAppender.File	Audit	${catalina.home}/webapps/WebLM/data/log/weblmserveraudit.log	
log4j.appender.weblmSecurityAppender.File	Security	${catalina.home}/webapps/WebLM/data/log/weblmserversecurity.log	
log4j.appender.weblmDebugAppender.threshold	Debug	ERROR	Using this property, the user can specify the log level. The log files contain log messages of levels specified for this property and for the above properties. You can set the log levels in the increasing order of granularity are: FATAL, ERROR, WARN, INFO, DEBUG. To change log levels, you must change the value of this property and the log level mentioned at the respective logger level.
log4j.appender.weblmOperationalAppender.threshold	Operational	ERROR	
og4j.appender.weblmAuditAppender.threshold	Audit	INFO	
log4j.appender.weblmSecurityAppender.threshold	Security	WARN	

Property Name	Logger Type	Default Value	Description
log4j.appender.weblmDebugAppender.MaxFileSize	Debug	10 MB	Using this property, the user can specify the maximum log file size before rolling over.
log4j.appender.weblmOperationalAppender.MaxFileSize	Operational		
log4j.appender.weblmAuditAppender.MaxFileSize	Audit		
log4j.appender.weblmSecurityAppender.MaxFileSize	Security		
log4j.appender.weblmDebugAppender.MaxBackupIndex	Debug	5	Using this property, the user can specify the number of log files that can be backed up after it reaches the max size as specified in property: log4j.appender.<APPENDER>.MaxFileSize
log4j.appender.weblmOperationalAppender.MaxBackupIndex	Operational	3	
log4j.appender.weblmAuditAppender.MaxBackupIndex	Audit	3	
log4j.appender.weblmSecurityAppender.MaxBackupIndex	Security	3	

Fixing security vulnerabilities

Procedure

1. Delete Sample Applications from Tomcat.

   To resolve security vulnerabilities present in Tomcat sample applications, delete following folders from `<tomcat_installation_dir>\webapps`:

   - docs
   - examples
   - host-manager
   - manager

2. Delete Tomcat users if you find any user after installing Tomcat.

   a. Open the `<tomcat_installation_dir>/conf/tomcat-users.xml` file and search for the element `<user>`: `<user username= “tomcat” password= “tomcat” roles= “tomcat” />`

   b. Delete all user elements from the `tomcat-users.xml` file.

Note:

After performing these actions, one cannot manage applications deployed in Tomcat using Tomcat Management console. However, these actions are important because:

- Tomcat user file stores the Tomcat user password in clear text. Using the credentials, one can get access to the Manager web application for the remote Tomcat server. A remote attacker can leverage this issue to install a malicious application on the affected server and run a code with Tomcat's privileges.
- The sample applications of Tomcat might help attackers to uncover information about the remote Tomcat install or host. In addition, these applications might themselves contain vulnerabilities, such as cross-site scripting issues.

Accessing WebLM

About this task

For adopting products that write installers or use RPMs, if you deploy WebLM in the same Tomcat container where you have already deployed some other application, the `log4j jar` can be present at two locations.

For example, the `log4j jar` can be present at `<tomcat_installation_dir>/shared/lib` and `<tomcat_installation_dir>/webapps/WebLM/WEB-INF/lib` folders. The presence of the `log4j jar` at two locations might cause some errors. To avoid errors, you can remove the `log4j jar` present in the `<tomcat_installation_dir>/webapps/WebLM/WEB-INF/lib` folder.

Procedure

1. Start Tomcat.
2. In the Web browser, enter the URL of the WebLM server in the `https://<IP_Address>:<HTTPS_port>/WebLM/index.jsp` format.

   The default value for the HTTPS_port is `52233`.
3. On the Certificate dialog box, click **Yes** to accept the certificate.

   The dialog box indicates that the application is running over HTTPS.

   Note:

   After you perform this step, all communication between the browser and the server is over HTTPS.
4. Log in to WebLM server.

   Note:

   After configuring WebLM 6.2, you must restart License Director.

Installing Application Enablement Services TSAPI Client

About this task

You must install AES TSAPI Client on the system where Avaya Aura® Call Center Elite Multichannel Server components are installed.

For more information about installing the AES TSAPI client with custom certificates, see *Avaya Aura® AES TSAPI and CVLAN Client and SDK Installation Guide* available on http://support.avaya.com

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Utilities** > **Avaya AES Client**.
5. On the Avaya AES TSAPI Client welcome screen, click **Next**.
6. On the AES Server Configuration screen, perform the following actions:
   a. In the **Host Name or IP Address** field, enter the host name or IP address for the AES server that you want to add.
   b. In the **TCP Port** field, enter the port number for the AES server that you want to add.
   c. Click **Add to List**.
   d. Repeat step a to c to add all TSAPI services.
7. Click **Next**.
8. Click **Install**.
9. Click **Finish**.

   If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

Quick Installer - Server Edition

Quick Installer - Server Edition is a quick and easy way by which users who are already familiar with Call Center Elite Multichannel can install Call Center Elite Multichannel server products. Instead of installing each server product individually through the Main Installer, you can run the Quick Installer - Server Edition to collectively install all server products.

Note:

Ensure that you do not use Quick Installer for Upgrade procedures.

When you install server products through the Main Installer, you see several screens that are common amongst all server products, for example, license agreement screen. To save time, Quick Installer - Server Edition displays the common screens only once. Quick Installer - Server Edition installs server components in a sequence based on the installation complexity.

Note:

Even if you specify a drive other than C: on the Choose Destination Folder screen, the Installation of “Trace System”, “Call Recording Config Service”, and “Experience Portal Config Service” that are part of Unattended Installation are installed on C: drive.

Before Quick Installer - Server Edition installs the first server, it checks for all prerequisites required by servers in the entire list, for example, Microsoft .Net Framework 3.5 SP1, AES TSAPI client and Microsoft IIS.

If Microsoft .Net Framework 3.5 SP1 or AES TSAPI client is not already installed, Quick Installer - Server Edition automatically launches these installs before proceeding with the installation of the first server. If you do not have Microsoft IIS installed on the server, then servers that require IIS are removed from the install list.

After the install process starts, the only way to cancel Quick Installer - Server Edition is through Windows Task Manager.

Installing Servers using Quick Installer - Server Edition

About this task

Note:

Your system must be running Windows Installer 4.5 before you can run Quick Installer - Server Edition. If Windows Installer 4.5 is not running, this install automatically runs an install script for that application. After you install Windows Installer 4.5, you must restart your system before restarting Quick Installer - Server Edition.

You can run Quick Installer - Server Edition (setup.exe) directly from the `Utilities` folder. The `Utilities` folder is available at the installed location of Call Center Elite Multichannel. You can also run Quick Installer - Server Edition (setup.exe) through the Utilities option in the Main Installer.

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Utilities** > **Quick Installer - Server Edition**.

5. On the QuickInstaller welcome screen, click **Next**.
6. On the License Agreement screen, click **Yes** to agree with the licensing agreement.
7. On the Choose Destination Location screen, select a location for the installation files and click **Next**.
8. Select the servers that you want to install and click **Next**.

Important:

During installation, you must configure the servers listed in **Attended Installations** and do not need to configure the servers listed in **Unattended Installations**.

Warning:

Select the required servers carefully. After the quick install process starts, you can stop the process only through Windows Task Manager.

Experience Portal Application Updater

In Call Center Elite Multichannel, you can use the Experience Portal Application Updater (EPAU) utility to install or update the Experience Portal applications.

Important:

Before you use the EPAU utility, ensure that the Tomcat server is installed on a target system where you want to install or update Experience Portal applications.

This utility installs or updates the Experience Portal applications on a target system by downloading the applications from a source server, which contains the applications.

When you install this utility on a system, the system installs the following important files on a system:

Sample.Update.xml	This file contains the sample information about Experience Portal applications. You can use this file to create the `update.xml` on a source server. You must update the `update.xml` file with the correct information about the Experience Portal applications available on the source server.
Update.xsd	This file contains the schema for the `update.xml` file. You must add this file on the source server with the `update.xml` file.
VPAUpdate.ini	This file contains the URL of the server that contains the `update.xml` and `update.xsd` files. The Experience Portal Application Updater utility downloads the applications from the server that you mention in the **BaseUrl** parameter in the `update.xml` file.
UpdaterUI.exe	This program is the utility program that you must run. This utility displays a list of new applications and applications that you must update.

When you run the Experience Portal Application Updater utility on a system for the first time, this utility creates the `update.xml` file on a system. Initially, the update.xml file does not contain information about Experience Portal applications.

The Experience Portal Application Updater utility compares the `update.xml` on a system, where you installed this utility with the `update.xml` file on a source server. If the `update.xml` file on the source server contains updated information about the Experience Portal applications, the utility displays those application information in a list. In this applications list, you can select an application and update it on a target system.

Installing Experience Portal Application Updater

Procedure

1. Close all open applications.
2. Run the `setup.exe` file.
3. On the Trace System Server Dialog screen, perform the following actions:
   a. In the **Server** field, enter the host name or IP address for Trace System Server.
   b. In the **Port** field, enter the port number for Trace System Server.
   c. Click **Next**.
4. Click **Utilities** > **Experience Portal Application Updater**.
5. Click **Next**.
6. On the End-User License Agreement screen, select **I accept the terms in the license agreement** to agree with the licensing agreement, and then click **Next**.
7. On the Choose Setup Type screen, perform one of the following actions:
   - Click **Complete** to install all components of Trace System.
   - Click **Custom** and select the components that you want to install.
8. Click **Install**.
9. Click **Finish**.

   If the installation prompts you to restart the system, select **Yes, I want to restart my computer now**. The installation prompts you to restart the system when application components need updating or registering.

Installing Experience Portal applications

Procedure

1. From the Windows **Start** menu, click **All Programs** > **Avaya Aura CC Elite Multichannel** > **Utilities** > **Experience Portal Application Updater** > **Experience Portal Application Updater**.
2. In the **Destination Server** field, enter the URL of the system where you want to install or update the Experience Portal applications.

3. In the **Username** and **Password** field, enter the user name and the password to access the Tomcat server.
4. Click **Login**.

   After successful login, the system displays the list of Experience Portal applications. In a list, each application indicates the status as New, Skip, and Update.

   Note:

   Experience Portal Application Updater utility indicates the status of the installed or updated application as **Skip**. You can either skip updating this application or forcefully update that application.
5. In the applications list select the application that you want to install or update.
6. Click **Update**.

   After you install or update the Experience Portal Application Updater utility, the system indicates the application name in a list with green color.

   If an error occurs while installing or updating the application, the system displays an error message. The system also indicates the application name in a list with red color.

Microsoft Dynamics CRM Server implementation

To set up your Call Center Elite Multichannel solution to use Microsoft Dynamics CRM , see Microsoft Dynamics CRM Integration Implementation Guide located in the `Utilities\Microsoft Dynamics CRM Server Customizations` folder available with the Call Center Elite Multichannel installer.

Microsoft Dynamics CRM Server customization

If your Microsoft Dynamics CRM database is synchronized with the ASContact database, you must install MS CRM Phonebook Synchronizer on Microsoft Dynamics CRM Server. The MS CRM Phonebook Synchronizer ensures that the ongoing changes are applicable to Microsoft Dynamics CRM account. This component also ensures that the contact records are automatically updated in the ASContact database.

If you are integrating Call Center Elite Multichannel Desktop with Microsoft Dynamics CRM, you can add dial buttons to Microsoft Dynamics CRM web pages that contain one or more phone numbers.

To add dial buttons to Microsoft Dynamics CRM web pages, you must run the `ASMSCRMServerCustomizationsInstall.exe` file. In the folder containing the installation files of Call Center Elite Multichannel, the location of the `ASMSCRMServerCustomizationsInstall.exe` file is `Utilities\Microsoft Dynamics CRM Server Customizations`.

Note:

The MS CRM Phonebook Synchronizer does not install any component on the system.

Installing Microsoft Dynamics CRM Phonebook Synchronizer on Microsoft Dynamics CRM Server

Procedure

1. If you are already using a customization, copy `callout.config.xml` file to another location.
2. Copy all files from `Utilities\MS CRM Server Customizations\Realtime Phonebook Synchronizer` folder in the Call Center Elite Multichannel installer to the `C:\Program Files\Microsoft Dynamics CRM\Server\bin\assembly` folder on your Microsoft Dynamics CRM Server.
3. In the folder containing the installation files of Call Center Elite Multichannel, copy all files from `Utilities\MS CRM Server Customizations\Realtime Phonebook Synchronizer` to `C:\Program Files\Microsoft Dynamics CRM\Server\bin\assembly` on your Microsoft Dynamics CRM Server.
4. If you completed step 1, copy any new entries from the latest `callout.config.xml` file into your original `callout.config.xml`. Copy the updated file back into the folder on your Microsoft Dynamics CRM Server.
5. Update the `ASMSCRMPhonebookSynchronizer.ini` . You must set the AS Contact Database Connection String to ASContact database.

Chapter 9: Inventory of Call Center Elite Multichannel

Inventory of Call Center Elite Multichannel

Call Center Elite Multichannel Release 6.3.x has a special utility to collect the inventory of various Call Center Elite Multichannel components installed on a system and the hardware of that system.

The inventory contains the following types of information:

- Hardware
  - OEM ID
  - Number of processors
  - Processor type
  - Active processor mask
  - OS Major Version
  - OS Minor Version
  - OS Build Number
  - OS Platform ID
  - OS Version Info
- Network
  - Machine Time
  - Machine Host name
  - Current user name
  - Found machine IP address
- Registry key for Avaya
  - HK_LOCAL_MACHINE\Software
- Call Center Elite Multichannel components
  - File location
  - File version
  - File date and time

The command line utility named `ASFileDetailCheck.exe`, is provided with the Call Center Elite Multichannel installation kit. In the installation kit, you can find all related files for this utility in the `Utilities\FileDetailCheck` folder.

Collecting Call Center Elite Multichannel inventory

Procedure

1. Copy the `FileDetailCheck` folder on a system from which you want to collect the inventory.
2. From the `FileDetailCheck` folder, run the `CCE50_FileCheck.bat` batch file.

   When you run this batch file, the `ASFileDetailCheck` utility collects the details of the Call Center Elite Multichannel components and stores the information in a separate.txt file, named `CCE50_Details.txt` .

   Important:

   This utility collects Call Center Elite Multichannel inventory from a system on which you are running it. To collect Call Center Elite Multichannel inventory from multiple systems, you must run this utility separately on every system.
3. Open the `CCE50_Details.txt` from the `FileDetailCheck` folder to view the collected inventory.

Result

Following are some of the commands in the `CCE50_FileCheck.bat` batch file.

```
%echo off
del CCE50_Details.txt > Null 2>&1
asfiledetailcheck /SYSTEM >> CCE50_Details.txt
asfiledetailcheck /NETWORK >> CCE50_Details.txt
asfiledetailcheck /LMREGISTRY Avaya >> CCE50_Details.txt
asfiledetailcheck /CCEMODULES CCEComponentList.txt >> CCE50_Details.txt
ASFileDetailCheck  ASWINDOWSSYSTEM32 ActEntConfigClient.dll >> CCE50_Details.txt
ASFileDetailCheck /PID ACC23.ConfigItem.1 >> CCE50_Details.txt
ASFileDetailCheck /PID ACC23.ConfigItem >> CCE50_Details.txt
ASFileDetailCheck /PID ACC23.ConfigList.1 >> CCE50_Details.txt
ASFileDetailCheck /PID ACC23.ConfigList >> CCE50_Details.txt
ASFileDetailCheck /PID ACC23.SectionItem.1 >> CCE50_Details.txt
ASFileDetailCheck /PID ACC23.SectionItem >> CCE50_Details.txt
```

The following is a sample inventory:

```
Start: Printing system information
Hardware information:
OEM ID: 0
Number of processors: 2
Page size: 4096
Processor type: 586
Minimum application address: 10000
Maximum application address: 7ffeffff
Active processor mask: 3
```

```
OS Major Version : 5
OS Minor Version : 1
OS Build Number  : 2600
OS Platform ID   : 2
OS Version Info  : Service Pack 2
Memory load                          : 58
Available extended virtual memory  : 0
Available page file memory          : 2649792512
Available physical memory          : 891330560
Available virtual memory            : 2128175104
Total page file memory              : 4118532096
Total physical memory               : 2136887296
Total virtual memory                : 2147352576
```

Chapter 10: User authentication in Call Center Elite Multichannel

User authentication in Call Center Elite Multichannel

In Call Center Elite Multichannel, you can provide users the access permissions for using various Desktop applications, such as Desktop, Control Panel, and Reporting.

With this feature, only users with access permissions can access the Desktop application. The system displays an error message when users try to access Desktop applications without the appropriate access permissions.

User authentication is disabled in the standard installation of Call Center Elite Multichannel. To enable user authentication, you must configure the Active Directory (AD).

Important:

To administer AD, you must have the required skills.

As an administrator, you must create user groups called Organizational Units (OUs). In addition, you must grant permissions to OUs to access specific applications using group policies or administrative templates.

Note:

The settings you do for an OU overrides the settings of the parent OUs.

You can also use a central switch on a domain level to enable the user authentication in a domain.

For more information, see the Avaya Products Security Handbook. You can also access the Avaya support website: http://support.avaya.com/security to find the information about known vulnerability policies in Avaya products.

Enabling user authentication in a domain

About this task

Important:

When you enable user authentication in a domain, users cannot access the Call Center Elite Multichannel applications without the explicit access permissions.

Procedure

1. From the default installation folder, open the `Utilities\Administrative Templates` folder.

   This folder contains the following files:

   - `CCE_User_Authentication.adm` . This file is used to enable the user authentication.
   - `CCE_Applications.adm` . This file contains the settings for the Call Center Elite Multichannel Desktop applications.

2. Install the `CCE_User_Authentication.adm` administrative template on a domain level.

   This template creates new folder **Computer Configuration** > **Administrative Templates** > **Avaya Contact Center Express** in `Group Policy Object Editor`. This new folder contains new user authentication settings.

3. Change the **User Authentication** setting to **Enabled**.

   The system enables the user authentication for Call Center Elite Multichannel Desktop applications for all computers and users in this domain.

Enabling user authentication for users

About this task

Important:

User authentication for users is only effective when you enable user authentication in a domain. For example, if you disable the access to Call Center Elite Multichannel Control Panel for particular users, the users are restricted to access Call Center Elite Multichannel Control Panel only when you enable user authentication in a domain.

Procedure

1. From the default installation folder, open the `Utilities\Administrative Templates` folder.

   This folder contains the following files:

   - `CCE_User_Authentication.adm` . This file is used to enable the user authentication.
   - `CCE_Applications.adm` . This file contains the settings for the Call Center Elite Multichannel Desktop applications.

2. Create appropriate OUs to enable user authentication for Call Center Elite Multichannel Desktop applications.

3. Install the `CCE_Applications.adm` administrative template in the group policy of each OU.

   This template creates new folder **User Authentication** > **Administrative Templates** > **Avaya Contact Center Express** in `Group Policy Object Editor`. This new folder contains new user authentication settings for each Desktop application, such as Call Center

Elite Multichannel Desktop, Call Center Elite Multichannel Reporting, and Call Center Elite Multichannel Control Panel.

4. Change the setting for an application to **Enabled** , **Disabled** , or **Not Configured**.

   The system enables or disables the selected user authentication for Call Center Elite Multichannel Desktop applications for the specified OUs.

   Note:

   If you select the **Not Configured** setting, the system uses the settings of the parent OU. If the parent OU does not have any settings, the system uses the default setting as **Disabled**.

Chapter 11: Agent event notification

Enable Agent Event Notification

Call Center Elite Multichannel takes advantage of Agent States generated by the Avaya Aura®™ Communication Manager.

Requirements for enabling agent events

To receive agent state events generated by the Avaya Aura®™ Communication Manager, you need:

- Avaya Aura® CM Server
- Application Enablement Services (AE Services)
- License Director
- Call Center Elite Multichannel application that uses Agent Events. For example:
  - Call Center Elite Multichannel Desktop application or application built using Developer
  - Interaction Data Server - Voice and Presence

Configuration for enabling agent events

The only configuration required is in the Avaya Aura®™ Communication Manager. When you configure the CTI link, you must use type = ADJ-IP.

In addition, you must make the following configurations:

- System parameters features
  - Create Universal Call ID (UCID)

  UCID Network Node ID: <a number must be entered>
  - Send UCID to ASAI
- Enable system parameters customer options
  - Computer Telephony Adjunct Links
  - Agent States

  This option is enabled by an Avaya Aura® CM license.

Note:

To support SIP endpoints, the TSAPI link version must be `5`. For more information, see *Avaya Aura® Application Enablement Services Administration and Maintenance Guide.*

Operations for enabling agent events

You do not need to change the operation or configuration of Call Center Elite Multichannel applications because the applications are auto-negotiating.

For use in Developer, the changes in the Agent State are indicated by invoking the QueryAgentStateReturn event. This method to indicate changes ensures backward compatibility and capability to operate in both the polling and event modes.

Troubleshooting for enabling agent events

Procedure

1. Verify that Application Enablement Services is running.
2. In the Avaya Communication Manager, type list crm-features. The **CRM Central** column must indicate a *y* next to the CTI Link that has Agent Events enabled. This specifies that Avaya AES has negotiated Agent States with the Avaya Communication Manager.

   If the expected CTI Link does not indicate that the Agent States is enabled, then contact your Avaya sales representative.
3. Start TS Spy on the computer running the Call Center Elite Multichannel application.
4. In the station that the application is monitoring, change Agent State to AUX Work or ACW.

   If you find 'ReadyEvent', 'WorkNotReadyEvent' or 'NotReadyEvent' in the trace within TS Spy, you are receiving Agent State events from the Avaya Communication Manager to that application.

Appendix A: Desktop configuration

Desktop Configuration

In Call Center Elite Multichannel Desktop, some parameters cannot be configured through Options dialog box. You must configure such parameters through Configuration Server or by editing the configuration file.

Parameter configuration through Configuration Server

For information, see *Administering Avaya Aura® Call Center Elite Multichannel*.

Parameter configuration through the configuration file

To configure parameters in the configuration file, you must browse to the location `CCEM_INSTALL_DIR\\\\Avaya\\\\Avaya Aura CC Elite Multichannel\\\\ Desktop \CC Elite Multichannel Desktop` and configure the parameters in the `ASGUIHost.ini` file.

Important:

In the `ASGUIHost.ini` , do not change section names or parameter names. You must only change the values for the parameters.

Parameters in the configuration file

General parameters

Field	Description
Language	The language for the Call Center Elite Multichannel Desktop application. The language options are: English, French, German, Italian, Spanish, Spanish Colombian, Portuguese,

Field	Description
	Russian, Korean, Japanese, Traditional Chinese, and Simplified Chinese. The amount of space on the interface might limit the number of characters that you can display. **Note:** Avaya Aura® Call Center Elite Multichannel provides a custom language option. You can use this option to change an existing language to suit company-specific practices or a local dialect. In addition, you can use this option to translate all strings to create an entirely new language. By altering the strings, you can customize the names of buttons, labels, tabs, panels, text boxes, menus, instructions, and error messages. To use the custom language, you must create a text file containing the custom language name and your choice of wording. You must specify this text file in the configuration.
Server Instance ID	A unique identifier for the server application, which is created automatically when the application runs for the first time.
Minimize to System Tray	A value that displays Avaya Aura® Call Center Elite Multichannel Desktop in the notification area or on the task bar when you minimize the application. Default: False.
Window Title	A title of the Desktop application that displays on the title bar.
Window Icon	The filename and path of the icon, which displays on the title bar of the Desktop application. If you left this field blank, Avaya Aura® Call Center Elite Multichannel Desktop uses the default icon file, which is available in the current working folder of the application.
Product ID	A number that identifies the Avaya Aura® Call Center Elite Multichannel Desktop application. **Note:** You must not change the default value.
Enable Options Menu	A value that decides whether an agent can access the Options dialog box or not. An administrator can enable or disable the access of the Options dialog box for an agent. Default: True.

Field	Description
	Disabling the access restricts an agent to change any application settings.
Enable Slide Tool Window	A value that enables or disables sliding the tool windows.

Error Logging parameters

Field	Description
Error Log Level	The value determines the log level of the error information that you want to log. The Avaya Aura® Call Center Elite Multichannel Desktop supports the following log levels: • 0=No error logging occurs • 1=Logs fatal, major, minor errors and trace error information • 2=Logs fatal, major, and minor errors • 4=Logs fatal and major errors • 8=Logs fatal errors only In addition to the existing log levels, you can create a custom log level for diagnosing the Desktop application. When the log file size reaches the specified size, the custom log level creates multiple log files. The custom log level does not overwrite the earlier log file. You can create the custom log level by adding 128 to one of the default log levels mentioned earlier. For example, if you specify 129 to **Error Log Level**, the system creates the new error log files for the Desktop application. The new error log files for Error Log Level 129 contains fatal, major, minor errors, and trace error information. You must use the custom log level only for the diagnostic purpose.
Error Log File Path	A path to save the log files. By default, this field is blank. Leaving this field blank automatically saves the log files to the current working folder of the Desktop application. Keeping this field blank automatically saves the log files to the current working folder of the Desktop application. The working folder of the Desktop application to store the executable of the application.

Field	Description
Error Log File Extension	An extension added to the filename of an error log file. This extension consists of a part of the file name, which is the name of the application and the file type extension, which is `.log` . The system automatically precedes the default extension with a day of the week (`DDD` format) when the system creates the error log file. For example, the log filename is `MonASGUIHost.Log` if the file is created on Monday and `ThuASGUIHost.Log` if the file is created on Thursday.
Maximum Error Log File Size KB	The maximum size of the error log file. Default: 10000 KB. The minimum size that you can set is 100 KB. After the log file reaches to the maximum size limit, the file is archived and a new error log file is created. **Note:** Each archive stores only one error log file. So, when the next error log file reaches to the maximum size limit, the system overwrites archived file with this new file. However, if you have set the custom error log level by adding 128 to the default log level, the system creates a new error log file with a new name every time the maximum size limit is reached.
Error Log Mode	A value that indicate the logging mode for Desktop. Following are the logging modes: 1 - Enables Classic logging 2 - Enables TTrace logging 3 - Enables both the Classic and TTrace logging Default value is: 1.
Error Log TTrace Host	The host name of the TTrace Server.
Error Log TTrace Port	The port number to access the TTrace Server. Default port is: 10400.
Error Log use old Log Format	A value that instructs the system to store the log either in the new Avaya Common Logging format or the old logging format. Default value is: False.

License Director parameters

Field	Description
Primary License Director IP	The IP address of the primary License Director through which the Desktop application requests and releases the licenses.
Primary License Director Port	The port number of the primary License Director. Default: 29095.
Secondary License Director IP	The IP address of the secondary License Director IP through which the Desktop application requests and releases the licenses.
Secondary License Director Port	The port number of the secondary License Director. Default: 29095.
Connect License Director	If you are using the iClarity Plug-in, set this field to True.
Enable Debug Trace	A setting that you can use to troubleshoot Call Center Elite Multichannel Desktop using tools, such as DebugView. True=enabled, False=disabled.

Windows layout parameters

Field	Description
Left Position	A value that indicates the position of the application window from the left side of the screen. If you change the position of the window, the position is automatically updated in the configuration.
Top Position	A value in pixels that indicates the position of the application window from the top side of the screen. If you change the position of the window, the position is automatically updated in the configuration.
Window Width	A value, in pixels that indicates the width of the application window. If you change the width of the window, the width is automatically updated in the configuration.
Window Height	A value in pixels that indicates the height of the application window. If you change the height of the window, the height is automatically updated in the configuration.
Maximized	A value that opens the Desktop application window maximized if you set the value to True.

Field	Description
	Setting this value to False, starts the application window with the specified width and height.
Layout File Folder	The XML file path that stores information about the layout of the windows in Desktop. The `ASGUIHostLayout_username.xml` file stores the size and positioning of each window. If you leave this field blank, the Desktop application, by default, finds the file in a folder where the Desktop application executable is present.

Plug In Assembly List

This list of generic plug-ins. These plug-ins load when Call Center Elite Multichannel Desktop starts.

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:

Auto Text Section = Auto Text

CallInfo.A Section = CallInfo.A

;CallInfo.B Section = CallInfo.B

;CallInfo.C Section = CallInfo.C

;CallInfo.D Section = CallInfo.D

Close Suspend Work Item Section = Close Suspend Work Item

Customized Forms Section = Customized Forms

Desktop Utility Section = Desktop Utility

Directory Section = Directory

Email Section = Email

External Application Container Section = External Application Container

External Application Execute Section = External Application Execute

;IClarity Section = IClarity

IDS View Client Section = IDS View Client

Media Controller Section = Media Controller

Presence Section = Presence

Preview Contact Section = Preview Contact

Printing Section = Printing

Rules = Rules

Session Notes Section = Session Notes

Simple Messaging Plugin Section = Simple Messaging

Spell Checker Section = Spell Checker

Telephony Section = Telephony

User Section = User

Voice Section = Voice

Wallboard = Wallboard

Work Item Alert Section = Work Item Alert

Work Item History Section = Work Item History

Work Item Notes Section = Work Item Notes

;Microsoft Dynamics CRM Gui Plugin = Microsoft Dynamics CRM Gui Plugin

Work Item Creation Section = Work Item Creation

ASTimeInAUXDisplay = ASTimeInAUXDisplay

ASDialEnhancement = ASDialEnhancement

ASQuickDial = ASQuickDial

Contact Management Section = Contact Management

Save Close Document Window Section = Save Close Document Window

ASCustomRulesButtons = ASCustomRulesButtons

Html Editor Provider Section = Html Editor Provider

Template Section = Template

ASCalculator Section = ASCalculatorPlugin

ASWorldClock Section = ASWorldClock

ASDMCCPlugin = ASDMCCPlugin

ASImageLibraryPlugin = ASImageLibraryPlugin

Dashboard Section = Dashboard

Supervisor Section = Supervisor

Communicator = ASCommunicator

;RTC Plugin=RTC Plugin

;Python Breakout Section=Python Breakout

iClarity parameters

You can configure all iClarity parameters, except the following, through the Options dialog box in Call Center Elite Multichannel Desktop.

Note:

When you first open the `ASGUIHost.ini` file, the iClarity Plug-in is disabled by commenting it in the Plug In Assembly List (;iClarity Section = iClarity). Remove the semicolon to enable the iClarity Plug-in.

Field	Description
Assembly File Name	The name of the plug-in file, which is loaded. Specify the file path if the plug-in is not located at the default file path. The default file path is the same folder as the Desktop application. For this plug-in, use `ASGUIHIClarityPlugin.dll`.
Login Automatically	A setting that automatically logs an agent into the call server when Desktop starts.

Spell Checker parameters

Field	Description
Assembly File Name	The name of the plug-in file, which is loaded. Specify the file path if the plug-in is not located at the default file path. The default file path is the same folder as the Desktop application. For this plug-in, use `ASSpellCheckerPlugin.dll` .
Enable Error Log	A setting that enables the Desktop application to write plug-in specific error information to the error log files. True=enabled, False=disabled.
User Dictionary File	A path of the dictionary file that Desktop uses. By default, the application uses the dictionary from the `Dict` folder within the application directory. The following dictionaries are available in Desktop: • de-DE.dic (German) • en-AU.dic (Australian English) • en-CA.dic (Canadian English) • en-GB.dic (UK English)

Field	Description
	• en-US.dic (US English) • es-ES.dic (Spanish Castilian) • es-MX.dic (Spanish Colombian) • fr-FR.dic (French) • it-IT.dic (Italian) • pt-BR.dic (Portuguese Brazilian).
Toolbar Position	The position of the toolbar on the Desktop interface. The following are the toolbar positions: • The first toolbar from top of the screen • The second toolbar from top of the screen • The toolbar at the bottom of the screen

Directory parameters

Except the following parameters, you can configure all Directory parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file, which is loaded. Specify the file path if the plug-in is not located at the default file path. The default file path is the same folder as the Desktop application. The default file path is the same folder as the Desktop application. For this plug-in, use `ASDirectoryPlugin.dll` .
Enable Error Log	A setting that enables the Desktop application to write plug-in specific error information to the error log files. True=enabled, False=disabled.
Column Caption	The name of each column in the directory. The system displays the column names in the order you specify. In addition, the system saves the order in the configuration after the column names are adjusted in the application.
Column Width	The width of each column in the directory. The system saves the column widths in the configuration after the column names are adjusted within the application.

Field	Description
Enable Smart Search	An option that you can set to enable the Smart Search feature in the Directory window. True=enabled, False=disabled.
Match Rating	A parameter that controls the matching of the search criteria with the information in the directory. The default is 1.

Work Item History parameters

Work Item History plug-in relies on a connection to IDS View Client to get historical information. Therefore, you must also configure the [IDS View Client] section in this file for this plug-in to work.

Field	Description
Assembly File Name	The name of the plug-in file, which is loaded. Specify the path if the plug-in is not located in the default file path. The default file path is the same folder as the Desktop application. For this plug-in, use `ASWorkItemHistoryPlugin.dll`.
Retrieve Conversation History	A setting that enables the Desktop application to retrieve the conversation history of an agent. True=enabled, False=disabled.
Retrieve Interaction History	A setting that enables the Desktop application to retrieve the interaction history of an agent. True=enabled, False=disabled.
Retrieve History Days Old	A number that defines how old work items you want to search on the Customer History tab. The default is 30 days.
Allow Search Other Agents	A setting that enables the Desktop application to retrieve and display the history of work items that another agent has handled. Default: False. True=enabled, False=disabled.
Search Agent History Days Old	A number that defines how old work items you want to search on the Agent History tab. Default: 1 day.

Preview Contact parameters

Field	Description
Assembly File Name	The name of the plug-in file, which is loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the Desktop application. For this plug-in, use `ASPreviewContactPlugin.dll`.
Enable Error Logging	A setting that enables the Desktop application to write plug-in specific error information to the error log files. True=enabled, False=disabled.
Enable External Application	A setting that enables the Desktop application to start an external application when preview contact work items are received. True=enabled, False=disabled.
External Application File Name	The filename and path of the external application that you want to start. If you leave this field blank, Desktop starts the application defined for the External Application File Name in the External Application Execute section of this .ini file.
XML File Name	The name of the XML file that External Application Execute Plug-in creates to source work item-related information to the external application. If you leave this parameter blank, Desktop uses the name defined for the XML File Name in the External Application Execute section of this .ini file. By default, the XML file is stored at the path defined for the XML File Path in the same External Application Execute section.
Top Panel Height	The height of the top panel, in pixels, in a preview contact work item. The top panel contains customer information, whereas the bottom panel contains campaign information.
Allow Value Editing	If you set this value to True, you can change the data that you previously saved in the Additional Information panel of the preview contact work item.

Email parameters

Field	Description
Assembly File Name	The name of the plug-in file, which is loaded. Specify the file path if the plug-in is not located at the default file path. The default file path is the same folder as the Desktop application. For this plug-in, use `ASEmailPlugin.dll` .
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Always Open Attachments	If you set this field to True, the setting prevents the appearance of the dialog box that prompts the agent whether to save an attachment before opening it.
Enable External Application	A setting that either enables or disables opening an external application when email work items are received. True=enabled, False=disabled.
External Application File Name	The filename and path of the external application that you want to open. If you leave this field blank, Call Center Elite Multichannel Desktop uses the application defined by External Application File Name in the External Application Execute section of this .ini file.
XML File Name	The name of the XML data file External Application Execute Plug-in creates to supply work item-related information to the external application. If you leave this field blank, Desktop uses the name defined by XML File Name in the External Application Execute section of this .ini file. By default, the XML file is stored at the location defined by XML File Path in the External Application Execute section.
Toolbar Position	The position of the toolbar on the Desktop interface. The following are the toolbar positions: • The first toolbar from top of the screen • The second toolbar from top of the screen • The toolbar at the bottom of the screen
Preferred Character Encoding	The character set email work items try to use when a reply is sent to the customer. If the user-entered characters cannot be encoded in the specified encoding, the Email Media Store can override this setting. The default is: us-ascii.

Field	Description
Reply Font Name	The name of the font used in the reply field. If this font is unavailable, then the default system font, usually Arial, is used. The default value is: Times New Roman.
Reply Font Size	The size of the font used in the reply field. The default value is: 12.
Active Window on Work Item Accepted	A setting that automatically makes an email work item active when the agent answers the call. True=enabled, False=disabled.

Work Item Notes parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASWorkItemNotesPlugin.dll`.
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Enable Check As Type	If set to True, this setting activates the automatic checking of any text typed into the Work Item Notes window.

Voice parameters

Except the following parameters, all Voice parameters are configured through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASGUIHVoicePlugin.dll`.
Top Left Width	The width, in pixels, of the upper left voice work item.
Top Left Height	The height, in pixels, of the upper left voice work item.

Field	Description
Top Right Width	The width, in pixels, of the upper right voice work item.
Top Right Height	The height, in pixels, of the upper right voice work item.
Bottom Left Width	The width, in pixels, of the lower left voice work item.
Bottom Left Height	The height, in pixels, of the lower left voice work item.
Bottom Right Width	The width, in pixels, of the lower right voice work item.
Bottom Right Height	The height, in pixels, of the lower right voice work item.
Maximum Items In Dialed Numbers List	The maximum number of numbers that displays in the drop-down list of previously dialed phone numbers.
Dialed Numbers List	The list of previously dialed phone numbers. For example: 8686 | 1800avaya | 477 0583 | 8532. Note: Call Center Elite Multichannel Desktop retains the list for reuse after the application is closed.
Use Inbound UUI On Conference	If you set this field to True, then the user-to-user information received from a call is forwarded with the call when that call is conferenced. The default is False.
Use Inbound UUI On Transfer	If set to True, this setting ensures that any user-to-user information received with a call is forwarded with the call if that call is transferred. The default is False.
Enable External Application	A setting that enables or disables opening an external application when voice work items are received. True=enabled, False=disabled.
External Application File Name	The filename and path of the external application that you want to open.
XML File Name	The name of the XML data file External Application Execute Plug-in creates to supply work item-related information to the external application.
Clear Number On Dial	If set to True, this setting removes the phone number from the Dial text box after you make a call. If set to False, the number remains in the text box for reuse.
Close Voice Work Item Window On Call Dropped	If set to True, this setting closes the voice work item when a call has ended. If set to False, the agent has to manually close the work item.

Field	Description
	Note: This parameter only works when Call Center Elite Multichannel Desktop is integrated with Voice Media Store.

CallInfo.A parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the Call Center Elite Multichannel Desktop application.
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Panel Position	A value that determines the position of this plug-in within the four-item grid. The default is 1, which positions the item in the upper left of the grid.

CallInfo.B parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the Call Center Elite Multichannel Desktop application.
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Panel Position	A value that determines the position of this plug-in within the four-item grid. The default is 2, which positions the item in the upper right of the grid.

CallInfo.C parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the Call Center Elite Multichannel Desktop application.
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Panel Position	A value that determines the position of this plug-in within the four-item grid. The default is 3, which positions the item in the lower left of the grid.

CallInfo.D parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the Call Center Elite Multichannel Desktop application.
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Panel Position	A value that determines the position of this plug-in within the four-item grid. The default is 4, which positions the item in the lower right of the grid.

Work Item Alert parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASWorkItemAlertPlugin.dll`.

Field	Description
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Display Seconds	The length of time, in seconds, the alert displays, informing the agent of an incoming work item.
Display When Host Visible	Using this parameter, you can set the alert behavior if Call Center Elite Multichannel Desktop is visible on the agent's screen. True = If Call Center Elite Multichannel Desktop is visible, the alert displays. False = If Call Center Elite Multichannel Desktop is visible, the alert does not display.
Display When Host Invisible	Using this parameter, you can set the alert behavior if Call Center Elite Multichannel Desktop is not visible on the agent's screen. True = If Call Center Elite Multichannel Desktop is not visible, the alert displays. False = If Call Center Elite Multichannel Desktop is not visible, the alert does not display.
Left Position	The distance, in pixels, of the application from the left side of the screen at startup. The distance is automatically saved in the configuration after it is adjusted within the application.
Top Position	The distance, in pixels, of the application from the top of the screen at startup. The distance is automatically saved in the configuration after it is adjusted within the application.
Enable Alert	If you have this setting, you can add a sound to the visual alert. If set to True, the .wav file specified in the Alert File parameter is used. True=enabled, False=disabled.
Alert File	The name of the plug-in file to be loaded: Notify.wav. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the Call Center Elite Multichannel Desktop application.

Telephony parameters

Except the following parameters, you can configure all Telephony parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASGUIH Telephony Plugin.dll`.
Fire Call Cleared Event For Transfer	If set to True, this setting fires the Call Cleared event to the Rules Plug-in when a call is transferred. You can use the Call Cleared event to create customized rules. The default is False.
Fire Call Cleared Event For Conference	If set to True, this setting fires the Call Cleared event to the Rules Plug-in when a call is conferenced. You can use the Call Cleared event to create customized rules. The default is False.

User parameters

Except the following parameters, you can configure all User parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASGUIHUserPlugin.dll` .
Default Logout Reason Code	The reason code which is selected by default when the agent logs out.
Default AUX Reason Code	The reason code which is selected by default when the agent changes to Auxiliary mode.
Agent ID History	A list of the login IDs used by agents using Call Center Elite Multichannel Desktop on this computer. The list follows the following format: *3233* | *3234* | *3235*.

Media Controller parameters

Except the following parameters, you can configure all Media Controller parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASMediaController.dll` .
Enable Error Log	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Media Store List	Using this parameter Call Center Elite Multichannel Desktop can connect directly to one or more media stores without connecting to Media Director and therefore without consuming a Call Center Elite Multichannel
Multimedia license	Using this parameter, the user can retrieve work items from the Work Item History database without a license. Media stores are separated in the list by semi-colons. The list must follow the format: Media Store *List=MediaType1|ServerIntanceID1|RemotingURL1;MediaType2|ServerIntanceID2|RemotingURL2* . For example: *Media Store List=1|aaaa4001-61db-4a2a-a21b-aa7647cbf3f4|gtcp://Test11:29097/EmailMediaStore.rem* .

Simple Messaging parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASSimple Messaging Plugin.dll` .
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Active Window On Work Item Accepted	A setting that automatically makes a simple messaging work item active when the agent answers the call. True=enabled, False=disabled.

Field	Description
Enable External Application	A setting that either enables or disables opening an external application when simple messaging work items are received. True=enabled, False=disabled.
External Application File Name	The filename and path of the external application that you want to open. If left blank, Call Center Elite Multichannel Desktop uses the application defined by External Application File Name in the External Application Execute section of this .ini file.
XML File Name	The name of the XML data file External Application Execute Plug-in creates to supply work item-related information to the external application. If left blank, Call Center Elite Multichannel Desktop uses the name defined by XML File Name in the External Application Execute section of this .ini file. By default, the XML file is stored using the path defined by XML File Path in the same External Application Execute section.
Close Simple Message Window Interval Seconds	The length of time in seconds for which a simple messaging work item stays open after a customer ends the conversation from simple message interface. For example, MSN Messenger. If set to '0', the work item does not close until the agent manually closes it.
Spell Check As You Type	A setting that forces Call Center Elite Multichannel Desktop to automatically check the spelling of words as you type them inside simple messaging work items. True=enabled, False=disabled.

External Application Container parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASExternalApplicationContainer.dll`.
External Application Sections	A list of section names within this file that contain configuration settings to open external applications. You must separate section names by commas. For

Field	Description
	example, External Application Sections=External Application 1,External Application 2
Incoming Call Default Application Section	You can use this parameter to specify the external application that you want to open when you have an incoming call whose DistributingVDN parameter does not match with any of the values specified in the Incoming Call VDN List parameters. To specify the external application, state the name of the section containing the configuration settings. For example, Incoming Call Default Application Section=External Application 1.

External Application 1 and External Application 2 parameters

Field	Description
External Application Name	The name of the external application that you want to display within Call Center Elite Multichannel Desktop. If you do not want to display an external application, leave this field blank.
External Application Command Line	Call Center Elite Multichannel Desktop uses this command line to open the external application.
Title Text	The text that displays in the Windows tab if you are using a document window or title bar.
Display Delay Interval Seconds	The length of time in seconds that the external application takes to display within Call Center Elite Multichannel Desktop. The delay gives your external application enough time to fully display before it changes its parent window to Call Center Elite Multichannel Desktop.
Allow To Close	A value that enables the user to close the external application. True=enabled, False=disabled.
Display In Tool Window	A value that determines whether Call Center Elite Multichannel Desktop displays the external application within a tool window or a document window. A tool window is a flexible window that can move around the screen and a document window is a fixed window that cannot be moved. True=application displays in a tool window, False=application displays in a document window.
Allow Tool Window To Dock Left	If the **Display In Tool Window** parameter is enabled and this parameter is set to True, then you can dock the external application at the left of the screen.

Field	Description
Allow Tool Window To Dock Bottom	If the **Display In Tool Window** parameter is enabled and this parameter is set to True, then you can dock the external application at the bottom of the screen.
Allow Tool Window To Dock Right	If the **Display In Tool Window** parameter is enabled and this parameter is set to True, then you can dock the external application at the right of the screen.
Allow Tool Window To Dock Top	If the **Display In Tool Window** parameter is enabled and this parameter is set to True, then you can dock the external application at the top of the screen.
Launch Application When Host Started	If this parameter is set to True, then the external application starts in a window within Call Center Elite Multichannel Desktop when it is started.
Incoming Call VDN List	A comma-separated list of VDN extensions that triggers this external application to start. If an agent receives an incoming call and the DistributingVDN parameter of the call delivered event matches one of the VDNs in the list, the window associated with this application opens. For example: Incoming Call VDN List=8542,8653.
Icon File Full Path	The name and file path to the icon that displays on the application title bar. If left blank, Call Center Elite Multichannel Desktop automatically uses a default icon located in the application's current working folder: ExternalApp.ICO
Tool Window Key	If the external application is set to display in a tool window (Display In Tool Window is True), this setting records the window's position when Call Center Elite Multichannel Desktop closes and displays it in the same position when the application restarts.
Focus Application When Window Selected	If the external application is set to display in a document window and this parameter is set to True, the external application gets focus when you click the window tab of the application. If set to False, the user must manually click inside the application window to enable this functionality. The default is False.

Auto Text parameters

The plug-in specified in this section (`ASAutoTextPlugin.dll`) controls the activation of both the AutoText and Work Codes functionality within Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded.

Field	Description
	Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASAutoTextPlugin.dll` .
AutoText Toolbar Position	The position of the AutoText toolbar on the Desktop interface. The following are the toolbar positions: • The first toolbar from top of the screen • The second toolbar from top of the screen • The toolbar at the bottom of the screen
Work Codes Toolbar Position	The position of the Work Codes toolbar on the Desktop interface. The following are the toolbar positions: • The first toolbar from top of the screen • The second toolbar from top of the screen • The toolbar at the bottom of the screen
Voice Work Code File Name	The full path (including file name) to the .txt or .csv file AutoText Plug-in uses to generate work codes for voice work items.
Enable Auto Text Preview	Setting this parameter to True, enables the agent to preview the values assigned to all auto text and work code keys.
Auto Text Preview Delay Seconds	If you enable auto text preview, this parameter controls the time for which the agent must rest the mouse on the key, so that the value assigned to the key can be viewed. The minimum length of time you can specify is 2 seconds.

Printing parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is same folder as the host application. For this plug-in, use `ASPrintingPlugin.dll` .
Toolbar Position	The position of the toolbar on the Desktop interface.

Field	Description
	The following are the toolbar positions: • The first toolbar from top of the screen • The second toolbar from top of the screen • The toolbar at the bottom of the screen

External Application Execute parameters

Using this plug-in, you can transfer information from an incoming work item to another application. This plug-in copies information from the incoming work item and stores the information in an XML file. The XML file is then sourced by the external application. The application launches independently of the Call Center Elite Multichannel Desktop interface.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASExternalApplicationExecutePlugin.dll`.
Enable Error Logging	If you have this setting, you can write plug-in specific error information to the error log files of the application. True=enabled, False=disabled.
Enable External Application	A setting that either enables or disables opening of an external application when work items are received. True=enabled, False=disabled.
External Application File Name	The filename and path of the external application that you want to open. The default is: Notepad.exe. **Note:** If a different external application is configured to open for a specific work item type, the application you specify is ignored for that work item type.
XML File Name	The name of the XML file External Application Execute Plug-in creates to supply work item-related information to the external application. **Note:** If a different XML file name is configured for a specific work item type, the name you specify is ignored for that work item type.
XML File Path	The full path where the XML file is stored by the External Application Execute Plug-in and sourced by the external application. The default is: `C:\Program Files\Avaya\Avaya Aura CC Elite`

Field	Description
	`Multichannel\Desktop\CC Elite Multichannel Desktop\WorkItemXML`.
Delete XML Files On Exit	A setting that forces the External Application Execute Plug-in to delete the XML file when Call Center Elite Multichannel Desktop closes. True=enabled, False=disabled.

Session Notes parameters

You can configure all Session Notes parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASSessionNotesPlugin.dll`.

Presence parameters

You can configure all Presence parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Note:

Presence plug-in relies on a connection to IDS View Client to source information on station activity. Therefore, for this plug-in to work, you must also configure the [IDS View Client] section of this file.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASPresencePlugin.dll`.

Close Suspend Work Item parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded.

Field	Description
	Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASWorkItemCloseSuspendPlugin.dll`.
Toolbar Position	The position of the toolbar on the Desktop interface. The following are the toolbar positions: • The first toolbar from top of the screen • The second toolbar from top of the screen • The toolbar at the bottom of the screen

IDS View Client parameters

Except the following parameters, you can configure all IDS View Client parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASGUIHIDSViewClientPlugin.dll`.
Server Instance ID	A unique identifier for the server application, which is created automatically when it runs for the first time.

Rules parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASRulesPlugin.dll`.
Rules Engine File Name	The file path to the Rules Engine. By default, it searches for the control in the working folder of the Call Center Elite Multichannel Desktop application `\ASGRules.dll`.

Field	Description
Show Rules Option On Tools Menu	When set to False, the Rules interface option is unavailable through the Tools menu.

Desktop Utility parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASDesktopUtilityPlugin.dll`.

Wallboard parameters

You can configure all Wallboard parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Note:

Wallboard plug-in relies on a connection to IDS View Client to source statistical information. Therefore, for this plug-in to work, you must also configure the [IDS View Client] section of this file.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASWallboardPlugin.dll`.

GN8120 Headset parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application.

Field	Description
	For this plug-in, use `ASGN8120HeadSetPlugin.dll`.

Customized Forms parameters

Using this plug-in, you can add one or more additional work forms to multimedia work items. These work forms are accessible through additional tabs on the side of a work item created through Call Center Elite Multichannel Control Panel. For more information, see *Administering Avaya Aura® Call Center Elite Multichannel* .

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASCustomizedFormsPlugin.dll`.

Work Item Creation parameters

These plug-in parameters are reserved for future use.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASWorkItemCreation.dll`.
New Work Item Toolbar Position	Reserved for future use.

ASTimeInAUXDisplay parameters

This plug-in adds a time counter to Call Center Elite Multichannel Desktop's status bar. The time counter displays how long the agent spends in any of the three work modes: Auxiliary, Available, and After Call Work. When the agent changes mode, the counter resets.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded.

Field	Description
	Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASTimeInAUXDisplay.dll`.

ASDialEnhancement parameters

You can configure all Enhanced Dial parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASDialEnhancement.dll`.

ASQuickDial parameters

You can configure all Quick Dial parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASQuickDial.dll`.

Contact Management parameters

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASContactManagementPlugin.dll`.

Field	Description
User Defined Fields Group Text	The text that you want to display as the heading for your customized section of contact fields.
User Defined Field Selector Visible 1	If this parameter is set to True, the agent can use a drop-down list to assign another field name to this field. If this parameter is set to False, the drop-down option does not display.
User Defined Field Selector Visible 2	If this parameter is set to True, the agent can use a drop-down list to assign another field name to this field. If this parameter is set to False, the drop-down option does not display.
User Defined Field Selector Visible 3	If this parameter is set to True, the agent can use a drop-down list to assign another field name to this field. If this parameter is set to False, the drop-down option does not display.
User Defined Field Selector Visible 4	If this parameter is set to True, the agent can use a drop-down list to assign another field name to this field. If this parameter is set to False, the drop-down option does not display.
User Defined Field Selector Visible 5	If this parameter is set to True, the agent can use a drop-down list to assign another field name to this field. If this parameter is set to False, the drop-down option does not display.
User Defined Field Selector Visible 6	If this parameter is set to True, the agent can use a drop-down list to assign another field name to this field. If this parameter is set to False, the drop-down option does not display.
User Defined Field Selector Visible 7	If this parameter is set to True, the agent can use a drop-down list to assign another field name to this field. If this parameter is set to False, the drop-down option does not display.
User Defined Field Text 1	The name that you want to give your first customized contact field.
User Defined Field Text 2	The name that you want to give your second customized contact field.
User Defined Field Text 3	The name that you want to give your third customized contact field.
User Defined Field Text 4	The name that you want to give your fourth customized contact field.
User Defined Field Text 5	The name that you want to give your fifth customized contact field.
User Defined Field Text 6	The name that you want to give your sixth customized contact field.
User Defined Field Text 7	The name that you want to give your seventh customized contact field.

Save Close Document Window parameters

You can configure all Quick Dial parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASSaveClosePlugin.dll` .

Python Breakout parameters

Except the following parameters, you can configure all Python Breakout parameters through Call Center Elite Multichannel Desktop's interface.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASPythonBreakoutPlugin.dll` .
Python Library Path	The path to Python 2.4.3 library routines. If you have selected a non default path to install Python, then replace the default path of this parameter (c:\Python24\lib) with the path to the library files of your Python installation.
Show IronPython Option On Tools Menu	A setting that determines whether Python Breakout integration is part of the Call Center Elite Multichannel Desktop Tools menu.

ASCustomRulesButtons parameters

You can configure all Custom Buttons parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded.

Field	Description
	Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASCustomRulesButtons.dll`.

Microsoft Dynamics CRM GUI Plugin parameters

You can configure all Microsoft Dynamics CRM GUI Plug-in parameters through the Options dialog box in Call Center Elite Multichannel Desktop.

Field	Description
Assembly File Name	The name of the plug-in file to be loaded. Specify the file path if the plug-in is not located in the default file path. The default file path is the same folder as the host application. For this plug-in, use `ASMSCRMGuiPlugin.dll`.

Appendix B: Command line parameters

Parameters

You can install applications that use Configuration Client such as Desktop, Control Panel, and Reporting using command line parameters that dictate where Configuration Client must retrieve the configuration data of the application.

The following are the possible configuration data sources:

- Configuration Server
- Local configuration file
- System registry

The application passes the information taken from the command line directly into the control. If a parameter exists in the command line, the value of that parameter overrides information set within the container application. If a command line contains multiple entries for the same parameter, only the first instance is used.

Application Name /z

Application Name is the name of the application (as configured in Configuration Server), which Configuration Client requests configuration information for.

Primary Server Name /s

Primary Server Name is the name of the primary Configuration Server that Configuration Client connects to for configuration information. This value can be the name of the server or the IP address of the server.

To retrieve configuration information from the system registry, you can set **Server Name** to:

- **HKEY_LOCAL_MACHINE.** Configuration Client retrieves information from the local machine system registry.
- **HKEY_CURRENT_USER.** Configuration Client retrieves information from the local user system registry.

Primary Server Port /p

Primary Server Port is the primary TCP/IP port used for communication between the Configuration Server and the Configuration Client. When this port is absent from the command line, the default port, 29091, is used. The Server Port parameter enables you to override the default port.

Secondary Server Name /s2

Secondary Server Name is the name of the backup Configuration Server that Configuration Client connects to for configuration information. This value can be the name of the server or the IP address of the server.

Secondary Server Port /p2

Secondary Server Port is the backup TCP/IP port used for communication between the Configuration Server and the Configuration Client.

Configuration Filter /a

Configuration Filter is a compulsory parameter to source configuration information from the Configuration Server.

A configuration filter is a name/value pair using which, you can identify and retrieve a user and the configuration profile of the application from the Configuration Server database.

In the command line, a configuration filter is defined using a name=value format. The pairs are separated by semicolons:

```
Name1=Value1;Name2=Value2
```

Your command line can contain M=%%M or U=%%U. The M=%%M and U=%%U are optional filters built into Configuration Server. When Configuration Client recognizes this text, it replaces %%M with the name of the system running the application and %%U with the user's network login name. When the user is in the database, these base filters are enough to locate their data.

M (Machine Name) and U (User Network Login Name) are not compulsory filters. However, you can also design and add any other filter to a database to locate the user. For example, you can design and add a filter named Pswd with the user's password as the value.

You do not require a Configuration Filter when you work with the system registry or local configuration file.

File Name /f

File Name is the name of the local file that contains configuration information. If you specify a full file path, Configuration Client points directly to the file. If you only specify the file name, Configuration Client looks for the file in the default directory where the application is running.

The File Name and Server Name command line parameters are not mutually exclusive. If both parameters are present in the command line, the Server Name parameter takes precedence. Configuration Client attempts to extract information from the specified configuration file if the server cannot be contacted.

Logging State /t

You can enable the Error logging for Configuration Client by setting the Logging State parameter to true (/t True). Logged errors are sent to a file in the application's directory under the name 'ConfigErrorLog.txt'. When the Logging State parameter is absent from the command line, error logging is disabled.

Password Encryption /pwd

The automatic encryption on data associated with configuration parameter names that contain the (case insensitive) strings Password or Passwd can be turned off by setting the Password Encryption parameter to false (/pwd false). In this case, configuration data must be explicitly encrypted by the user inserting %%ENCRYPT commands. The /pwd parameter must be lowercase.

Command Line Format

Command lines must follow a set format using spaces and quotation marks only where shown. Parameters are set in their own quotation marks and are preceded by the /z argument, which modifies the shortcut.

Here are some examples:

```
"C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC Elite
Multichannel Desktop\ASGUIHost.exe" /z CC Elite Multichannel Desktop /s
148.147.170.191 /p 29091/a M=%%M
```

Note:

The /z argument (as opposed to the Application Name /z parameter) is only present in command lines used during installation.

Specifying Configuration Server as Data Source during installation

About this task

Using this procedure, you can install a desktop application and specify that the configuration information must be sourced from the Configuration Server.

In addition, you can specify configuration filters other than %%M and %%U.

The command line functionality used in this procedure is only available for applications that use Configuration Client, such as Desktop, Control Panel, and Reporting.

Procedure

1. Close all open applications.
2. Run `Setup.exe` in the command line with the /z argument and specify the location of your configuration data.
   - This example retrieves configuration data from the Configuration Server based on the local system name. The server has the IP address `148.147.170.191`.

```
"C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC
Elite Multichannel Desktop\ASGUIHost.exe" /z CC Elite Multichannel
Desktop /s 148.147.170.191 /p 29091/a M=%%M
```

   Note:

   You must follow the same command line format using spaces and quotation marks only where shown.

   - This example retrieves configuration data from the Configuration Server based on the user network login name:

```
"C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC
Elite Multichannel Desktop\ASGUIHost.exe" /z CC Elite Multichannel
Desktop /s 148.147.170.191 /p 29091/a U=%%U
```

   - This example retrieves configuration data from the Configuration Server (named Mickey) on the TCP/IP port number 29095 using the configuration filter Machine01:

```
"C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC
Elite Multichannel Desktop\ASGUIHost.exe" /z CC Elite Multichannel
Desktop /s 148.147.170.191 /p 29091/a M=%%M
```

3. Follow the installation procedure instructed by the InstallShield of the application.

Specifying .ini on Shared Network as Data Source during installation

About this task

Using this procedure, you can install a desktop application and specify that the configuration information must be sourced from an .ini file on a shared server.

Note:

The following command line functionality is only available for applications that use Configuration Client, such as Desktop, Control Panel, and Reporting.

Procedure

1. Close all open applications.
2. Run `Setup.exe` in the command line with the /z argument and specify the location of your configuration data.
   - This example retrieves configuration data from a shared network (S).

   ```
   "C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC Elite Multichannel Desktop\ASGUIHost.exe" /z CC Elite Multichannel Desktop /s 148.147.170.191 /p 29091/a M=%%M
   ```

   Note:

   You must follow the same command line format using spaces and quotation marks only where shown.

   To store ini files for several users in the same network folder, name the file for identification, for example, `ASGUIHost_TS.ini` .
3. Follow the installation procedure instructed by the InstallShield of the application.

Changing Data Source from .ini to Configuration Server

About this task

Using this procedure, you can instruct an installed application to retrieve the configuration data from the Configuration Server.

This procedure is useful if Agent is sourcing the configuration data from Configuration Server and you want Agent Administrator to point to the same data location. This procedure ensures that the configuration changes made through Agent Administrator are saved to Configuration Server and not the local .ini file. This procedure is important in contact centers where agents maintain personal phonebook.

Procedure

1. Right-click the `CC Elite Multichannel` Desktop shortcut and click **Properties**.

2. In the **Target** field, add the command line details of your Configuration Server.
   - This example retrieves configuration data from the Configuration Server based on the local system name. The server has the IP address `148.147.170.191`.

```
"C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC
Elite Multichannel Desktop\ASGUIHost.exe" /z CC Elite Multichannel
Desktop /s 148.147.170.191 /p 29091/a M=%%M.
```

   Note:

   You must follow the same command line format, using spaces and quotation marks only where shown.

   - This example retrieves configuration data from the Configuration Server based on the user network login name.

```
"C:\Program Files\Avaya\Avaya Aura CC Elite Multichannel\Desktop\CC
Elite Multichannel Desktop\ASGUIHost.exe" /z CC Elite Multichannel
Desktop /s 148.147.170.191 /p 29091/a U=%%U
```

Performing silent install

About this task

Using this procedure, you can silently install a Call Center Elite Multichannel application following some pre-defined selection options.

Procedure

1. Create a folder on your system or shared network server.
2. Copy all folders and contents from the Call Center Elite Multichannel installer to the newly created folder.

   Note:

   - Some applications require the complete folder structure to retrieve components in the `Utilities` folder.
   - For Agent, you must also copy the `ASGRules.dll` file from the `Utilities\Plug-ins` folder to the `Plug-ins` folder.

3. To record the silent install:
   a. Run `Setup.exe` in the command line with the -r command parameter. For example: `C:\Temp\Avaya Aura CC Elite Multichannel\Desktop\CC Elite Multichannel Desktop\setup.exe" -r`.
   b. Locate the `Setup.iss` file generated by the -r command parameter and copy the file into the folder you created in step 1 on page 171, replacing the default `Setup.iss` file if any.

4. For the silent install, run `Setup.exe` in the command line with the -s command parameter: For example: `C:\Temp\Avaya Aura CC Elite Multichannel\Desktop\CC Elite Multichannel Desktop\setup.exe" -s`.

   Note:

   If you have installed Call Center Elite Multichannel Desktop through this procedure, then you cannot uninstall Media Proxy through Add or Remove Programs option in Control Panel.

Appendix C: Configuration data commands

Configuration Data Commands overview

Configuration data commands send information to Configuration Client that further processes the configuration data. When Configuration Client loads configuration data from the specified source, Configuration Client performs a further processing step before making the data available to the controlling application.

The processing of Configuration data commands occurs at client level. Therefore, these commands are available regardless of whether the location of data is a configuration file, system registry, or Configuration Server.

Token delimiter

The default token “%%” identifies the Configuration data that must be processed further. You can change the token value from “%%” to something else through the command line.

This token can appear at any point within the configuration data. Text that follows the token identifies the action (command) required by Configuration Client and the parameters for that action. Multiple commands can appear in a single configuration data item (see Nested Commands on page 179). Commands are resolved from right to left.

A limited number of keywords, which give access to system-specific variables, support Configuration data commands.

The text that displays before the token and after the item identifier is considered as a string literal.

In the following example, DeviceName takes the configuration value “Minnie And Mickey”

[MainData]

DeviceName = Minnie %%STRCAT(“And”, “Mickey”)

Commands

Configuration Client supports the following configuration data commands. Command names are case sensitive.

When an unknown command is discovered, the result is an empty string, (“”). If you use this command to determine data used as the input for another calculation, an empty string is used.

All commands have parameters enclosed by an open/close pair of brackets.

LOOKUP

The LOOKUP command retrieves a matching value from another section within the current configuration set. This allows including a section within the configuration set that lists dynamic data to replace a static configuration value. For example, allowing a single configuration set to serve an entire call center for an application such as Agent. Each user who logs on to the system has the MyDN data item modified based on the name of the computer the agent is using.

Syntax

```
%%LOOKUP(SECTION, ITEM)
```

In this case, SECTION specifies the section within the current configuration data that holds the match for the data specified by the ITEM variable. The SECTION and ITEM parameters can be either a string literal or a keyword.

Example 1

The following example results in the station parameter having the value 8572:

```
[MainData]
Station = %%LOOKUP(“Lookupdata”, “SomeStationData”)
[Lookupdata]
SomeStationData = 8572
```

Example 2

The following example results in the station parameter having the value 8572 when the configuration data is loaded on the BAGLEYACER system:

```
[MainData]
Station = %%LOOKUP(“Lookupdata”, COMPUTERNAME)
[Lookupdata]
BAGLEYACER = 8572
```

Example 3

The following example results in the station parameter having the value 8572 when the configuration data is loaded on a system that has an environment variable named MyEnvironmentVariable equal to the value BAGLEYACER.

[

```
MainData]
Station = %%LOOKUP(“Lookupdata”,WINENV(“MyEnvironmentVariable”))
[Lookupdata]
BAGLEYACER = 8572
```

WINENV

The WINENV command retrieves a matching value from the Windows system environment.

Syntax

```
%%WINENV( VARIABLENAME)
```

Where VARIABLENAME is the name of the system environment variable. The section parameter can be either a string literal or a keyword.

Example

The following example results in the station parameter having the value contained in the environment variable MyEnvironmentVariable.

```
[MainData]
Station = %%WINENV("MyEnviornment Variable")
```

ENCRYPT

The ENCRYPT command allows Configuration Client to encrypt or decrypt a part of configuration data. If the data cannot be decrypted when the configuration file is loaded, the data is presented to the user in encrypted state.

The ENCRYPT command can also be included as part of any configuration data value. This command considers that the data following this command is non-encrypted. Hence, this command automatically encrypts the data while writing the configuration data.

Important:

By default, Configuration Client automatically inserts and uses the ENCRYPT command on the data associated with all configuration names that contain the (case insensitive) strings Password or Passwd. The command line parameter /PWD can turn off this default behavior. After the default behavior is turned off, all sensitive configuration data must be explicitly encrypted by the user by inserting the ENCRYPT commands.

Syntax

```
%%ENCRYPT(ENCRYPTEDDATA)
```

Example

The following example results in the user password being filled with the unencrypted data specified.

```
[MainData]
UserPassword = %%ENCRYPT("9385d3fa18f4e2a1")
```

ENCRYPTED

The ENCRYPTED command indicates that the data is encrypted and decrypted as needed by the Call Center Elite Multichannel application. However, the data always remains encrypted in the configuration file.

Syntax

```
%
%ENCRYPTED("2D93DB9A3F5030832492A9280E691D4009E5E152AED457324CE05C825C8DB
490F28472EE55CF4334D4B63F03DE4ECAE26CE5")
```

Note:

Data can be entered in any configuration source, such as ini file, registry, or Configuration Server.

STRCAT

The STRCAT command joins two pieces of data together to form a single piece of data.

Syntax

%%STRCAT(DATA1,DATA2)

The result is the string sum of DATA1 and DATA2.

Example

The following example results in the PersonalPhonebook configuration data being dynamically produced from some static text and the name of the logged in user.

```
[MainData]
PersonalPhoneBook = %%STRCAT("c:\phonebooks\",USERNAME)
```

SUBSTR

The SUBSTR command extracts a piece of text from another, longer, piece of text.

Syntax

%%SUBSTR(DATA,START,COUNT)

The resultant data is a part of the string DATA starting from the character START and including COUNT characters. If START is a number greater than the length of DATA or is a negative value, the result is an empty string. If the value of START + COUNT is greater than the length of DATA, the result is a part of the string DATA from the position START to the end of DATA.

Example

The following example results in the configuration data “The” being dynamically produced from the static text “The Rain In Spain”. The first parameter is the string from which the text is extracted. The second parameter is the start position and the third parameter is the number of characters selected.

```
temp1 = %%SUBSTR(“The Rain In Spain”,“0”,“3”)
```

Keywords

Keywords are place holders to string literal values. Configuration Client replaces these keywords when the data is passed. Keywords are case sensitive.

Keywords can be used by themselves in the configuration data set or as parameters to valid commands. When the keywords are used alone, they must be preceded by the token delimiter. Invalid keywords are treated as empty strings.

```
[MainData]
MyMachine = %%COMPUTERNAME
```

COMPUTERNAME

Configuration Client replaces the COMPUTERNAME keyword with the value of the network system name. If the system is unnamed, this field is empty.

IPADDRESS

Configuration Client replaces the IPADDRESS keyword with the value of the IP Address retrieved from the network configuration. If the system is multi-homed, the first network setting is used.

USERNAME

Configuration Client replaces the USERNAME keyword with the value of the logged-in user name. In absence of any logged-in user, this field is empty.

TIME

Configuration Client replaces the TIME keyword with the current system time. This time is resolved to seconds and is formatted in accordance with the configured locale.

DATE

Configuration Client replaces the DATE keyword with the current system date. This date is formatted in accordance with the configured locale.

CWD

The CWD keyword is replaced with the current working directory for the loading module.

WINDIR

The WINDIR keyword is replaced with the Windows directory.

WINSYSDIR

The WINSYSDIR keyword is replaced with the Windows System directory.

WINTEMPDIR

The WINTEMPDIR keyword is replaced with the Windows temporary directory. This value is defined as:

Windows 95/98/Me: The function gets the temporary file path as follows:

- The path that the TMP environment variable specifies.
- The path that the TEMP environment variable specifies if TMP is not defined or TMP specifies a directory that nonexistent.
- The current directory if both TMP and TEMP are not defined or specify nonexistent directories.

Windows NT/2000/XP: The function gets the temporary file path as follows:

- The path that the TMP environment variable specifies.
- The path that the TEMP environment variable specifies if TMP is not defined.
- The Windows directory if both TMP and TEMP are not defined.

Literal Data Support

The data within the quotation marks (“”) is treated as literal data. This data is not processed further. The literal values can be accepted as parameters to all commands.

Nested Commands

Configuration Client allows putting multiple commands on a single configuration item. Configuration commands are separated at runtime and processed in a right to left manner.

A configuration item that includes invalid command data has resultant data set to an empty string.

Example

The following example builds a DeviceName configuration variable made from the environment variables: user name and computer name joined by the “@” symbol.

```
[MainData]
DeviceName = %%STRCAT(WINENV(“USERNAME”), STRCAT(“@”,COMPUTERNAME))
```

Recursive Loop Protection

When a configuration token passes, the token might refer to itself causing an unending loop. The loop can exist in a simple direct relationship or it can exist many layers deep. To prevent these loops occurring, no resolution sequence must make more than a fixed number of jumps to other configuration items. This constraint is placed on the LOOKUP command.

Single level loops are easy to detect and avoid.

Example

```
[MainData]
UserPassword = %%LOOKUP(“MainData”, “UserPassword”)
```

Resolution Precedence/Reentrancy

A configuration item undergoing resolution can refer to another configuration item that requires resolution. Also, the configuration item that requires resolution can refer to another configuration item that also requires resolution.

This pattern can result in many levels of indirection until a static node is reached. Configuration Client supports up to 20 levels.

Configuration set command resolution starts from the root node and works progressively through all sub nodes.

Include Directive

You might need to import other files with configuration data into the main configuration set. For example, in a hot-seating environment, a local configuration set might include a list of system names/phone number combinations that are used in a lookup command. This list can be stored in a common location such as a network drive.

This functionality is enabled using a directive “include”.

Syntax

#include c:\temp\computerlist.dat

Rules for Use

The directive can exist anywhere in the base configuration set.

Multiple include directives are supported in the base configuration set.

Nested “includes” are not supported. For example, an included file cannot include another file.

The include files are processed after the base configuration is loaded. Also, these files are processed in the order they are listed.

Configuration data commands are processed after the included files are added to the data set.

Configuration data loaded from included files is not saved to the original file or with the base configuration set when the Save method is called. Changes to configuration data key/value pairs made by the application are lost when the application exits.

Included files must follow the same key/value pair format expected for configuration data.

INCLUDE_CONFIGURATION

To call a file from within Configuration Server, a key is required and the value must be the location of the file.

Appendix D: Default port numbers

Default port numbers

Many Call Center Elite Multichannel applications rely on TCP/IP for communication between servers and clients or between different servers. The port numbers in this appendix are included in the default configuration set installed with those applications.

For multimedia applications, these port numbers are used by the .Net remoting gtcp channel.

The Call Center Elite Multichannel port range is 29070 to 29099. Developers are free to choose free ports within this range or that fall outside this range.

Advanced Microsoft Dynamics CRM Connector

The Realtime Phonebook Synchronizer component installed on the Microsoft Dynamics CRM Server uses multicasting to send Contact and Account updates to all Call Center Elite Multichannel Desktops. This multicasting allows the cached phonebook to be up-to-date in real-time. If your network does not support multicasting, disable multicasting in Call Center Elite Multichannel Desktop so that the cached phonebook can be refreshed every hour by default.

Multicast group address	239.29.9.67
Multicast group port	29027

AOL-ICQ Instant Messenger Gateway

AOL-ICQ Instant Messenger Gateway interfaces remote media services to Simple Messaging Media Store. This interfacing creates a .Net remoting channel using the following predefined port:

.Net Remoting connections	29065

Application Management Service

Application Management Service uses multicasting to locate and identify Call Center Elite Multichannel applications that are running on the network. All applications join the multicast group at the specified IP address/port. Application Management Service broadcasts the IP address and port

number. This port can be specified by the administrator can specify this port, however, this port defaults to the value specified.

Multicast group address	239.29.9.67
Multicast group port	29075
Remoting object	29074

Configuration Server

Configuration Server receives inbound client connections for configuration data.

Client connections (inbound)	29091

Email Media Store

Email Media Store accepts remoting connections on the following predefined port.

.Net Remoting connections	29097

Interaction Data Service

Interaction Data Server - Voice and Presence

Interaction Data Server - Voice and Presence receives connections from various Call Center Elite Multichannel applications and Media Director. Through these connections, Interaction Data Server - Voice and Presence receives data that allows voice calls to be reported on.

Client/server connections (inbound)	29090
Remoting object for management	29068

Interaction Data Server - Multimedia

Interaction Data Server - Multimedia accepts inbound connections from Media Director and various media stores and gateways. Through these connections, Interaction Data Server - Multimedia receives data that allows the flow of media tasks to be reported on.

Client connections (inbound)	29081
Multicast group port	29078

Remoting object for management	29077

Interaction Data Server - View

Interaction Data Server - View is a single point of connection for applications that need to extract data from the Interaction Data Server - Voice and Presence and Interaction Data Server - Multimedia. Initial connection is made through the client connection port, however, data that is being consumed through multiple clients might be distributed through the multicast functionality.

Multicast group address	239.29.9.67
Multicast group port	29084
Client connections (inbound)	29083
Remoting object for management	29076

License Director

License Director receives client connections on a single port for licensing.

Client connections (inbound)	29095
Remoting object for management	29073

Media Director

Media Director accepts .Net remoting connections from both clients and media stores. Both the connections require the following port number:

.Net Remoting connections	29087

Media Proxy

Media Proxy runs at the agent desktop to distribute remoting information from the Media Director to the various client applications. Client applications connect to the Media Proxy on the local system through the following port number.

.Net Remoting connections	29086

Media Proxy (Windows Service)

Media Proxy runs at the agent desktop to distribute remoting information from the Media Director to the various client applications. Client applications connect to the Media Proxy on the local system through the following port number. This performs the same function as the Media Proxy, but runs as a Windows Service.

.Net Remoting connections	29079

MSN Messenger Gateway

MSN Messenger Gateway interfaces remote media services to Simple Messaging Media Store. This interface creates a .Net remoting channel using the following predefined port:

.Net Remoting connections	29066

Preview Contact Media Store

Preview Contact Media Store accepts remoting connections on the following predefined port.

.Net Remoting connections	29098

Short Message Service Gateway

Short Message Service Gateway interfaces remote media services to Simple Messaging Media Store. This interface creates a .Net remoting channel using the following predefined port:

.Net Remoting connections	29064

Simple Messaging Media Store

Simple Messaging Media Store accepts connections from Call Center Elite Multichannel gateways.

.Net Remoting connections	29085

Virtual Agent

Virtual Agent accepts remoting connections on the following predefined port.

.Net Remoting connections	29056

Voice Media Store

Voice Media Store accepts remoting connections on the following predefined port.

.Net Remoting connections	29072

Web Chat Gateway

Web Chat Gateway interfaces remote media services to Simple Messaging Media Store. This interface creates a .Net remoting channel using the following predefined port:

.Net Remoting connections	29063

XML Server

XML Server uses one port and is assigned to an XML naming service to operate in a similar manner to the current Avaya AES naming service on port 450. Clients connect to this port to receive a list of real IP Address/Port combinations that can be connected to for service.

The telephony connections represent connections to an Avaya AES stream. These connections have a single IP Port (XML Client Port) for each Avaya AES Stream. These connections are ideally taken from the OS free pool on server startup. These port numbers are dynamic in the 1024-5000 range. Information on the correct (current) port is provided to the client through the static naming service port. In this manner, the connection in the client can be name-based and not rely on a static IP Address/IP Port. This naming facility also allows there to be a discovery process to locate services on a specific system.

Optionally, you can define XML Client Port to a fix value.

Name Service connections	29096
Remoting object for management	29069
XML Client Port	1024-5000

WebLM Server

WebLM server accepts remote connections on the following SSL port.

SSL	52233

Experience Portal Server

The Experience Portal service exposes a remoting port for management purposes.

Remoting Object for Management	29110

Call Recording

The Call recording Config Service exposes a remoting port for management purposes.

Remoting Object for Management	29120

TTrace Server

TTrace Server uses a Socket port for the connection of an application to the TTrace Server.

The second Socket Port is used for the connection of the TTrace Console to TTrace Server and the third port is used for data connection.

Application connection	10400
TTrace Console connection	10401
TTrace Data connection	10403

SQL Server

Microsoft SQL Server uses the SQL Server port.

Default Port Number	1433

Appendix E: Configuring Avaya Call Recorder

Checklist for configuring Avaya Aura® Communication Manager

Step	Task	Reference	✓
1	Verify Avaya Aura® Communication Manager License	Verifying Avaya Aura® Communication Manager License on page 187	
2	Obtain CLAN IP address	Obtaining CLAN IP address on page 188	
3	Administer CTI Link for TSAPI	Administering CTI Link for TSAPI on page 188	
4	Administer System Parameters Features	Administering System Parameters Features on page 188	
5	Administer Class of Restriction	Administering Class of Restriction on page 189	
6	Administer Agent Stations	Administering Agent Stations on page 189	
7	Administer Codec Set	Administering Codec Set on page 189	
8	Administer Network Region	Administering Network Region on page 190	
9	Administer Virtual IP Softphones	Administering Virtual IP Softphones on page 190	
10	Assign Virtual IP Softphones to Network Region	Assigning Virtual IP Softphones to Network Region on page 191	

Verifying Avaya Aura® Communication Manager License

Procedure

1. Log in to the System Access Terminal (SAT) to verify that Communication Manager license has proper permissions for features illustrated in these Application Notes.
2. Execute the "**`display system-parameters customer-options`**" command and verify that the **Computer Telephony Adjunct Links** customer option is set to "**y**" on **Page 3**.

3. Navigate to **Page 4** and verify that the **Enhanced Conferencing** customer option is set to "**y**".

   Note:

   If any option specified in this section does not have a proper value, contact the Avaya sales team or BusinessPartner for a proper license file.

Obtaining CLAN IP address

Procedure

1. Get administered CLANs IP addresses using the "**`list ip-interface clan`**" command.
2. Make a note of CLANs IP addresses, as you use these values later while configuring **Avaya AES H.323 Gatekeeper**.

Administering CTI Link for TSAPI

Procedure

1. Add a CTI link using the "**`add cti-link n`**" command.
2. Perform the following actions:
   a. In the **Extension** field, enter an available extension number.
   b. In the **Type** field, enter "**`ADJ-IP`**".
   c. In the **Name** field, enter a descriptive name.
   d. In all other fields, keep the default values.

Administering System Parameters Features

Procedure

1. Execute the "**`change system-parameters features`**" command and enable **Create Universal Call ID (UCID).**
2. Enter an available node ID in the **UCID Network ID** field on **Page 5**.

   This node ID is prepended to all UCID's generated by Communication Manager.
3. Navigate to Page 13 and set the UCID to ASAI parameter to **y**.

   This parameter allows sending the universal call ID to Avaya Aura® Contact Recorder.

Administering Class of Restriction

Procedure

1. Execute the "**change cor n**" command.

   In this case, "**n**" is the class of restriction (COR) number to be assigned to the target stations and virtual IP softphones.

2. Set the **Calling Party Restriction** field to "**none**".

Administering Agent Stations

Procedure

1. Change each physical station used by the Elite Multichannel agents.

   Changing the physical station helps you to involve the station in an outbound call by using the COR defined in Administering Class of Restriction on page 189.

2. Execute the "**change station n**" command and set the **COR** field to "**5**".

   In this case, "**n**" is the station extension.

3. Ensure that the **Name** field is populated with the name of the station. Otherwise, Avaya Aura®® Contact Recorder reports an error and no recording occurs.

4. Repeat this section for all agent stations.

   In the interoperability test, two physical agent stations "0085" and "0099" were modified.

Administering Codec Set

Procedure

1. Execute the "**change ip-codec-set n**" command.

   In this case, "**n**" is the codec set for the virtual IP softphones.

2. In the **Audio Codec** field, enter the values "**G.711MU**" and "**G.729A**".

   The entry of G.729A is essential because Avaya Aura®® Contact Recorder uses G.729A recording format in the test configuration. For more information, see Administering Codec Set on page 189.

3. In the **Frames Per Pkt** field, enter the value "**6**".

4. In all other fields, keep the default values.

Administering Network Region

Procedure

1. Execute the "**change ip-network-region n**" command.

   In this case, "**n**" is the network region to which the virtual IP softphones belong.

2. Set the "**Codec Set**" field to the codec set value administered in Administering Codec Set on page 189.

3. Set "**Intra-region IP-IP Direct Audio**" and "**Inter-region IP-IP Direct Audio**" fields as "**no**".

4. Set "**IP Audio Hairpinning?**" field to "**n**".

5. Go to **Page 4** and associate network region **1** which is used for Agent stations configured in Administering Agent Stations on page 189 with this network region.

6. Enter Codec set value as configured in Administering Codec Set on page 189 and set "**Direct WAN**" field value to "**y**".

Administering Virtual IP Softphones

About this task

Avaya Aura® Contact Recorder uses Virtual IP Softphones to conference into calls involving target stations and to capture media.

Procedure

1. Execute the "**add station n**" command and add a virtual IP softphone.

   In this case, "n" is an available extension number.

2. Perform the following actions:

   a. In the **Type** field, enter "**4624**"

   b. In the **Name** field, enter a descriptive name.

   c. In the **Security Code** field, enter a value of your choice.

   d. Set the **COR** field to "**5**".

   e. Set the **Ip SoftPhone** field to "**y**".

   f. In all other fields, keep the default values.

3. Navigate to **Page 4** and enter button type "**conf-dsp**" to the **Button 4** field.

4. Remove the value in the **Button 3** field.

5. Repeat this section to administer multiple virtual IP softphones which have sequential extension numbers and same security code.

Assigning Virtual IP Softphones to Network Region

Procedure

1. Execute the "**`change ip-network-map`**" command.
2. Add the IP address of the Avaya AES server "10.0.1.225" to network region "51" administered in Administering Network Region on page 190.

   As all virtual IP softphones register through the Avaya AES server, all virtual IP softphones are automatically assigned to that network region.

Checklist for configuring Avaya Aura® Application Enablement Services

Step	Task	Reference	✓
1	Launch Avaya Aura® Application Enablement Services Console	Launching Avaya Aura® Application Enablement Services Console on page 191	
2	Verify DMCC and TSAPI Licenses	Verifying DMCC and TSAPI Licenses on page 192	
3	Administer TSAPI Link	Administering TSAPI Link on page 192	
4	Obtain H.323 Gatekeeper IP Address	Obtaining H.323 Gatekeeper IP Address on page 193	
5	Disable Security Database	Disabling Security Database on page 193	
6	Restart TSAPI Service	Restarting TSAPI Service on page 193	
7	Administer Avaya Aura® Contact Recorder User for DMCC	Administering Avaya Aura® Contact Recorder User for DMCC on page 194	
8	Administer Avaya Aura® Contact Recorder User for TSAPI	Administering Avaya Aura® Contact Recorder User for TSAPI on page 194	

Launching Avaya Aura® Application Enablement Services Console

Procedure

1. Access Avaya AES Web-based interface using the URL "https://ip-address" in an Internet browser window.

   In this case, "ip-address" is the IP address of the Avaya AES server.
2. On the Welcome to Avaya Application Enablement Services screen, click **Continue to Login**.

The system displays the Login screen.

3. In the **Username** field, enter the user name for the Avaya AES server.
4. In the **Password** field, enter the password for the Avaya AES server.
5. Click **Login**.

   The system displays Welcome to OAM screen.

Verifying DMCC and TSAPI Licenses

About this task

Avaya Aura® Contact Recorder always has unrestricted access to the DMCC and TSAPI interfaces. Therefore, you do not need additional **Device Media and Call Control** and **TSAPI Simultaneous Users** licenses for DMCC and TSAPI access.

Administering TSAPI Link

Procedure

1. Login to the AES web application as an Administrator.
2. Select **AE Services** > **TSAPI** > **TSAPI Links** from the left pane.
3. On the TSAPI Links screen, click **Add Link**.

   The system displays the Add TSAPI Links screen.
4. Set the **Link** field to any available number.

   The **Link** field is only local to the Avaya AES server.
5. In the **Switch Connection** field, select the relevant switch connection from the list.

   The default switch connection is **CCCM**.
6. In the **CTI Link Number** field, select the CTI link number configured in Obtaining CLAN IP address on page 188.
7. Keep the default values in the remaining fields and click **Apply Changes**.

   Note:

   Refer to "*Application Notes to Integrate Avaya Aura®®Communication Manager 6.0.1, Avaya Aura®® ApplicationEnablement Services 6.1 and Avaya Aura®® Contact Recorder 10.1 using Single Step Conferencing – Issue 1.0*" to administer switch connection and corresponding configurations on Communication Manager.

Obtaining H.323 Gatekeeper IP Address

Procedure

1. Login to the AES web application as an Administrator.
2. Select **Communication Manager Interface** > **Switch Connections** from the left pane.

   The Switch Connections screen shows a listing of the existing switch connections.
3. Locate the Connection Name associated with the relevant Communication Manager and select the corresponding option.
4. Click on **Edit H.323 Gatekeeper** button.

   The system displays the Edit H.323 Gatekeeper screen.
5. Add CLANs IP address obtained from Obtaining CLAN IP address on page 188 as H.323 gatekeeper.

Disabling Security Database

Procedure

1. Login to the AES web application as an Administrator.
2. Select **Security** > **Security Database** > **Control** from the left pane.

   The system displays the SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services screen in the right pane.
3. Uncheck **Enable SDB for DMCC Service** and **Enable SDB TSAPI Service, JTAPI and Telephony Service** fields.
4. Click **Apply Changes**.

Restarting TSAPI Service

Procedure

1. Login to the AES web application as an Administrator.
2. Select **Maintenance** > **Service Controller** from the left pane.

   The system displays the Service Controller screen in the right pane.
3. Check the **TSAPI Service** check box.
4. Click **Restart Service** button.

Administering Avaya Aura® Contact Recorder User for DMCC

Procedure

1. Login to the AES web application as an Administrator.
2. Select **User Management** > **User Admin** > **Add User** from the left pane.

   The system displays the Add User screen in the right pane.
3. Enter the required values in the **User Id**, **Common Name**, **Surname**, **User Password**, and **Confirm Password** fields.
4. Click the **CT User** arrow and select **Yes**.
5. Keep the default values in the remaining fields.
6. Click **Apply** at the bottom of the screen.

Administering Avaya Aura® Contact Recorder User for TSAPI

About this task

Use the same procedure specified in Administering Avaya Aura® Contact Recorder User for DMCC on page 194 to configure a user for TSAPI service access.

Although Avaya Aura® Contact Recorder can use different users to log in to the DMCC and TSAPI services, the same user also can be used to achieve the same result as done on this test effort.

Checklist for configuring Avaya Aura® Contact Recorder

Step	Task	Reference	✓
1	Launch Avaya Aura® Contact Recorder	Launching Avaya Aura® Contact Recorder on page 195	
2	Administer Recorder Information	Administering Recorder Information on page 195	
3	Administer Contact Center Information	Administering Contact Center Information on page 195	
4	Administer Bulk Recording	Administering Bulk Recording on page 196	
5	Add EMC server IP address	Adding EMC server IP address on page 197	
6	Verify Avaya Aura® Contact Recorder Recording Playback	Verifying Avaya Aura® Contact Recorder Recording Playback on page 198	

Step	Task	Reference	✓
7	Configure the EMC Call Recording Server	Configuring the EMC Call Recording Server on page 198	

Launching Avaya Aura® Contact Recorder

Procedure

1. Access Avaya Aura® Contact Recorder Web-based interface using the URL "http://ip-address:8080" in an Internet browser window.

   In this case, "ip-address" is the IP address of Avaya Aura® Contact Recorder.
2. In the **Username** field, enter the user name for Avaya Aura® Contact Recorder.
3. In the **Password** field, enter the password for Avaya Aura® Contact Recorder.
4. Click **Login**.

Administering Recorder Information

Procedure

1. Login to the Avaya Aura®® Contact Recorder web application.
2. Click **General Setup**.
3. On the **General Setup** tab, click **Recorder Interface** tab.
4. Click the **Edit** button next to **IP Address on this server to use for recordings (RTP, screen content etc.)** field.
5. Enter the IP address of Avaya Aura®® Contact Recorder.

Administering Contact Center Information

Procedure

1. Login to the Avaya Aura® Contact Recorder web application.
2. In the Avaya Aura® Contact Recorder web application, click **General Setup**.
3. On the **General Setup** tab, click **Contact Center Interface** tab.
4. Enter appropriate value in the fields on the **Contact Center Interface** tab.

Contact Center Interface field description

Name	Description
Avaya Communication Manager Name	The name of the Switch Connection which is configured on Avaya AES server. For more

Name	Description
	information, see Obtaining H.323 Gatekeeper IP Address on page 193.
AE Server Address(es)	The IP address of the Avaya AES server.
DMCC Username	The user Id configured in Administering Avaya Aura® Contact Recorder User for DMCC on page 194.
DMCC Password	The user password configured in Administering Avaya Aura® Contact Recorder User for DMCC on page 194.
IP Station Security Code	The security code configured in Administering Virtual IP Softphones on page 190.
AES TSAPI Server(s)	The IP address of the Avaya AES server.
AES TSAPI Service Login ID	The user Id configured in Administering Avaya Aura® Contact Recorder User for TSAPI on page 194.
AES TSAPI Service password	The user password configured in Administering Avaya Aura® Contact Recorder User for DMCC on page 194.
Agent Skill group(s) to Observer via TSAPI	The skills (hunt group extension) administered on Communication Manager to observe for call recording.
VDN(s) to Observe	The VDN(s) extension(s) configured in Communication Manager to observe for call call recording.
Address of the Communication Manager	The IP address of Communication Manager.
Tag Calls with which VDN	The first or Last VDN, as this VDN is used to tag a call recording if a call goes through multiple VDNs.
Record with Passive IP taps	Keep the default value No as you are using Single Step Conferencing recording mode.
Extensions assigned to recorder	Use Add Port(s) (not shown here) to add the virtual IP softphone extensions configured in Administering Virtual IP Softphones on page 190.

Administering Bulk Recording

Procedure

1. Login to the Avaya Aura®® Contact Recorder web application.
2. In the Avaya Aura®® Contact Recorder web application, click **Operations**.
3. On the **Operations** tab, click **Bulk Recording**.
4. On Bulk Recording page, click **Add address(es)**.

   The system displays a new window.

5. In the new window, click **Advanced**.
6. Enter appropriate value in the fields on the **Advanced** tab.
7. Click **Enter and Close**.

Advanced field description

Name	Description
Lowest (or only) Address to record (station, agent, skill or VDN)	The lowest station, VDN, Agent, or Skill that you want to record.
Highest Station Number (if more than 1)	The highest station, VDN, Agent, or Skill that you want to record.
Recording Internal Calls	Select “As specified for this recording mode as a whole”.
Recording Control	• In Trigger on alerting, select “As specified for this recording mode as a whole”. • In “Start recording automatically at start of call” select “No”. • In “Follow the call”, select “Yes”. • In “Allow user/external start/restart” select “Yes”. • In “Allow user/external stop”, select “Yes”. • In “Allow user/external delete”, select “Yes”. • In “Retain ONLY if requested by user/external”, select “No”

Adding EMC server IP address

Procedure

1. Login to the Avaya Aura®® Contact Recorder web application.
2. In the Avaya Aura®® Contact Recorder web application, click **General Setup**.
3. On the General tab, under **Recorder**, click the **Edit** button next to **URL(s) of external port(s) to connect to**.

   A webpage displays.
4. In the **URL(s) of external port(s) to connect to field, type the “IP address of the EMC Core server:PortNumber”.**

   The default EMC Core server port number is 1415.
5. Click **Enter**.

Verifying Avaya Aura® Contact Recorder Recording Playback

Procedure

1. Login to the Avaya Aura® Contact Recorder web application.
2. In the Avaya Aura® Contact Recorder web application, click **Replay**.
3. In the left pane, under **Search Filters**, select the required **Call Start Range**.
4. Click **Search**.
5. In the right pane, under Results, you can find the list of recording. Verify that the recording entries reflect the calls that are to be recorded and displayed.
6. Click an option to select an entry and click the Play button (green triangle) to listen to the playback. Verify that the content of the recording matches the content of the call.

Configuring Call Center Elite MultichannelCall Recording Server

Procedure

1. Start the Call Center Elite Multichannel Control Panel application.
2. In the left Control Panel pane, in **Call Recorders**, right-click **Controllers** and click **Edit**.
3. In the right pane, in **Avaya Call Recorder URL Configuration**, specify the server IP address and port number for Avaya Aura® Contact Recorder as `8080`.
4. Right-click and select **Save and Close**.

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