Avaya Aura® Call Center Elite Multichannel Reporting User Guide

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Contents

Chapter 1: Introduction

Purpose

This guide provides information about the Agents, Customers, Interaction, Program and Schedule, Skills, and VDN reports. In addition, this guide provides information about real-time reports.

This guide is intended for contact center managers and administrators who examine all facets of the multimedia environment.

Chapter 2: Overview

Call Center Elite Multichannel Reporting is a reporting application for managers and administrators, who examine all facets of the multimedia environment, including:

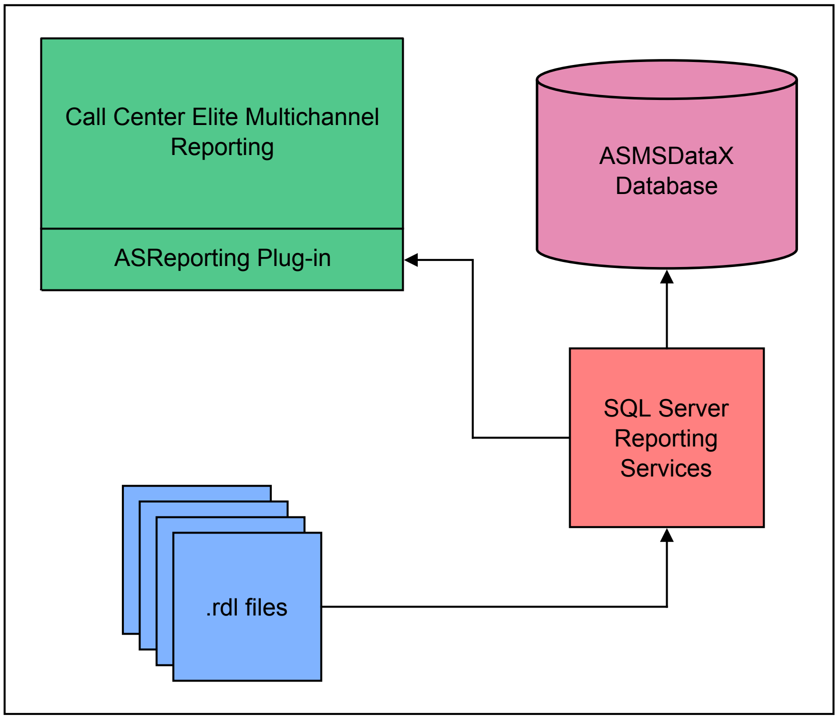
- Which customers make contact
- How customers make contact
- How frequently do customers make contact
- How are customers treated. For example, how long must customers wait for the inquiry to be answered
- How to restructure the staff based on the busiest periods of the day
- How successful are the methods of contact, such as email, simple messaging, and voice
- How well do agents meet the expected levels of service
- How long do agents take to complete a task
- How long do agents speak with a customer
- How long do customers wait for the call to be answered before disconnecting the call
- How many work items are suspended and why
- How are work codes applied
- How well is the multimedia system operating, for example:
  - How long has a work item been in a certain phase of the workflow process
  - How many work items are in queue
  - How many calls do VDNs process
  - How busy are the stations

You can evaluate the details of the multimedia activity. For example, programs and schedules that govern when and how a work item flows through the call center.

The Call Center Elite Multichannel Reporting application provides the same functionality as the Call Center Elite Multichannel Desktop application, with the additional reporting functionality. Therefore, you can install any of these applications on one desktop. Agents who need the desktop functionality must install Call Center Elite Multichannel Desktop while agents or supervisors who need the reporting functionality must install Call Center Elite Multichannel Reporting.

Reporting plug-in

The Reporting plug-in is responsible for gathering the parameter information and rendering the historical reports that are selected by the user.



This reporting system includes the following components:

Reporting

The Call Center Elite Multichannel Desktop installation that is customized for reporting.

Reporting Plug-in

The historical reporting plug-in that:

- Displays the reports that are available to the user
- Allows the user to select a report
- Provides a mechanism by which the user can enter input for the report parameters
- Renders the report

Note:

As the historical reports are created on the Reporting server, the system uses the Reporting server time for all historical reports.

Microsoft SQL Server Reporting Services

Microsoft SQL Server Reporting Services (SSRS) is a component of Microsoft SQL Server that maintains the repository of the historical report definitions. In addition, SSRS provides permissions and renders the reports.

Note:

Internet Information Services (IIS) is not required for Microsoft SQL Server Reporting Services.

rdl files

The file that defines a report.

Experience Portal Express Reporting

You can view the Avaya Aura® Experience Portal reports in Call Center Elite Multichannel Reporting. To gain access to these reports, you must click the **Experience Portal Express** menu on the main menu bar. To view the **Experience Portal Express** menu in Call Center Elite Multichannel Reporting, you must add the IP address of the voice portal service in the **Voice Portal Plugin** section of the `ASGUIHost.ini` file.

You can view these reports only when you configure Experience Portal Express in Call Center Elite Multichannel Control Panel. For more information, see *Administering Avaya Aura® Call Center Elite Multichannel*.

Note:

If you log out of the Experience Portal system while accessing the Experience Portal Express reports in Call Center Elite Multichannel Reporting, you must close and reopen the Experience Portal Express Reporting tab.

Call Center Elite Multichannel Reporting

Call Center Elite Multichannel Reporting provides a tool window to select and render reports.

The top panel provides a tree view of the reports that are available on the Microsoft SQL Server Reporting Services server. The reports that users can view or access are controlled by the permissions set on the Microsoft SQL Server Reporting Services server. Note that these permissions are not pertinent to SQL Server Express. The view of the reports available in the tree view is similar to the view configured on Microsoft SQL Server Reporting Services.

Third party reports are also displayed in the view as the system does not filter the files based on the author. To exclude third party reports from the view, flag the reports by Microsoft SQL Server Reporting Services as hidden.

The lower panel displays the parameters for the report that is selected in the top panel. Depending on the report being generated, the report might have the required parameters or optional parameters. For more information, see Parameter control.

Related links

Parameter control on page 30

Chapter 3: Reporting Desktop interface

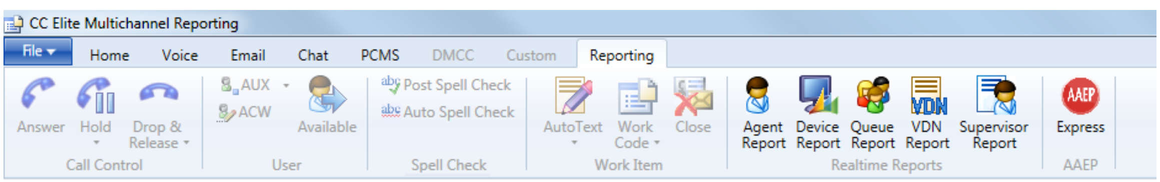
The following are the two options for viewing the Call Center Elite Multichannel Reporting Desktop interface:

- Reporting Desktop interface with Ribbons
- Reporting Desktop interface with Menus

Reporting Desktop interface with Ribbons

This interface contains UI controls, such as ribbon tabs, panels, and status bars. You can use the UI controls to manage various types of work items.

The following is the Call Center Elite Multichannel Reporting Desktop interface with Ribbons.

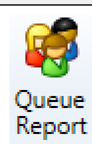


This interface consists of a **File** menu and the following Ribbon tabs:

- Home
- Voice
- Email
- Chat
- PCMS
- DMCC
- Custom
- Reporting

Button groups

This section provides information about the Reporting tab of the Reporting Desktop interface. For information about the Home, Voice, Email, Chat, PCMS, DMCC, and Custom tabs, see *Avaya Aura® Call Center Elite Multichannel Desktop User Guide*.

Button group	Button name	Icon	Description	Present in Ribbon tab
Realtime Reports	**Agent Report**		Displays the real-time report for the agent ID that you select from the list of agent IDs.	Reporting
	Device Report		Displays the real-time report for the device that you select from the list of devices.	
	Queue Report		Displays the real-time report for the queue that you select from the list of queues.	
	VDN Report		Displays the real-time report for the VDN that you select from the list of VDNs.	
	Supervisor Report		Displays the real-time report that supervisors use to view the state and activity of agents that are assigned to their respective groups.	
AAEP	**Express**		Displays the Avaya Aura® Experience Portal reports in Call Center Elite Multichannel Reporting.	

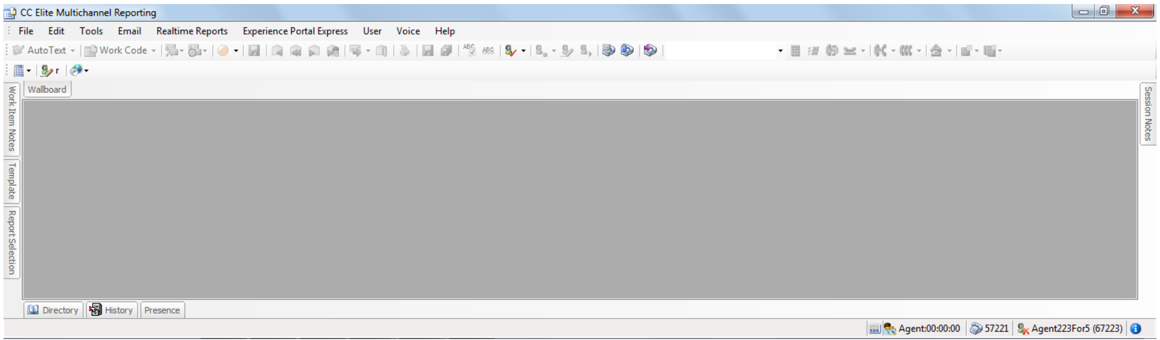
Related links

Using real-time reporting on page 86

Reporting Desktop interface with Menus

This interface contains UI controls, such as menus, toolbars, panels, and status bars. You can use the UI controls to manage various types of work items.

The following is the Call Center Elite Multichannel Reporting Desktop interface with Menus.



Menus

This section provides information about the **Realtime Reports** and **Experience Portal Express** menus of the Reporting Desktop interface. For information about the other menus, see *Avaya Aura® Call Center Elite Multichannel Desktop User Guide*.

Menu	Menu option	Description
Realtime Reports	**Realtime Agent Report**	Displays the real-time report for the agent ID that you select from the list of agent IDs.
	Realtime Device Report	Displays the real-time report for the device that you select from the list of devices.
	Realtime Queue Report	Displays the real-time report for the queue that you select from the list of queues.
	Realtime VDN Report	Displays the real-time report for the VDN that you select from the list of VDNs.
	Realtime Supervisor Report	Displays the real-time report that supervisors use to view the state and activity of agents that are assigned to their respective groups.
Experience Portal Express		Displays the Avaya Aura® Experience Portal reports in Call Center Elite Multichannel Reporting.

Related links

Using real-time reporting on page 86

Chapter 4: System configuration

Call Center Elite Multichannel plug-ins are installed as part of the installation for applications that support the plug-in integration and not as separate components. You can configure the components in the Call Center Elite Multichannel Reporting.

For more information about installing the supporting applications, see *Installing Avaya Aura® Call Center Elite Multichannel*.

Deploying the reporting files

About this task

To deploy the reports to Microsoft SQL Server Reporting Services, the account that you use to log in to Call Center Elite Multichannel Control Panel must have Active Directory permissions.

Procedure

1. Start Call Center Elite Multichannel Control Panel.
2. In the left pane, expand the **Database Management** node and then expand the **Media Store Database** node.
3. Right-click the SQL server and select **Deploy Reporting Files**.
4. In the right pane, click the **Database Utility - Reporting Files Deployment Agent** tab.
5. On the **Database Utility - Reporting Files Deployment Agent** tab, perform the following steps:
    a. In the **Report definition folder location** field, enter the location of Call Center Elite Multichannel Reports folder.

       By default, this location is same as the location of Call Center Elite Multichannel Control Panel.

    b. In the **Reporting Service URL** field, enter the web address of Microsoft SQL Server Reporting Services.

       Note:

       Ensure that you only enter the hostname in this field.

    c. In the **Shared data source name** field, enter the name of the file that contains the login credentials for ASMSControl Database.

The default value for this field is ASCCEReportingDS.

d. In the **Shared data source connection string** field, enter the connection string for the reporting database

The format of the connection string is Data Source=<Database Server Name>; Initial Catalog=ASMSControl.

Note:

Ensure that you only enter the hostname in <Database Server Name>.

e. In the **User name** field, enter the user name for the ASMSControl database.

The default value for this field is ASMSControl.

f. In the **Password** field, enter the password for the ASMSControl database.

The default value for this field is CCEUser0.

g. In the **Report Server User name** field, enter the user name for the report server.

h. In the **Report Server Password** field, enter the password for the report server.

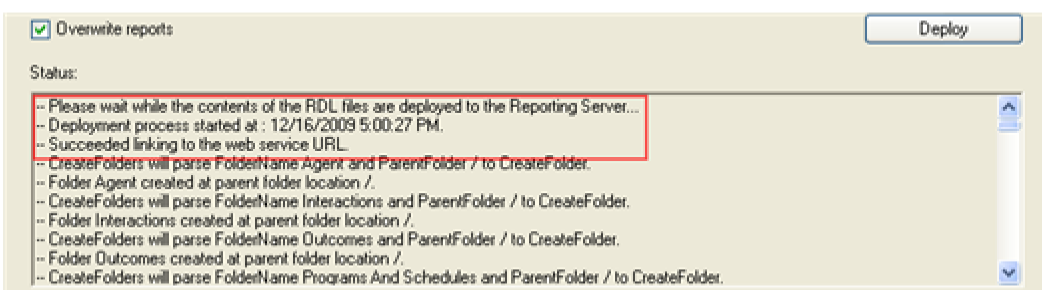
i. In the **Report Server Domain** field, enter the domain name of the report server.

j. Select the **Overwrite reports** check box to overwrite all similarly named folders or report definition files on Microsoft SQL Server Reporting Services.

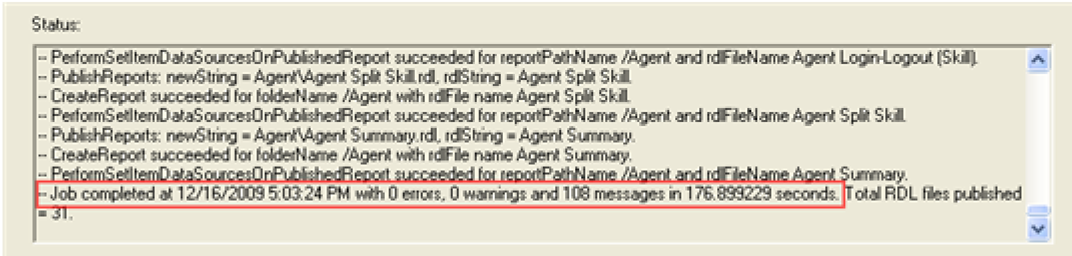
Note:

The system creates a shared data source, which resides in the root node of the reporting server. All published reports use this shared data source. To change this location, change the properties of the defined shared data source using the Microsoft SQL Server Reporting Services web administration page. The changed location reflects in all reports.

6. Click **Deploy**.



A connection is established to the Report server and the deployment of reports begins.



The appropriate folders and reports are created. When the job is completed, the system creates a log.

Setting up SQL Reporting Server for a non-Administrator user

Before you begin

The host where the SQL Reporting Server is running must be integrated into the company domain, where the client hosts are also integrated.

Procedure

1. Open Internet Explorer on the server where the SQL Reporting Server is running and enter the address `http://<IP-address_or_hostname>/Reports` in the **Address Bar** field.
2. Press **Enter**.
3. In the Windows Security dialog box, enter the user name and password for SQL Server Reporting Services.

   The system displays the Home page of SQL Server Reporting Services.

   Note:

   - The system takes 2 to 5 minutes for the Home screen to display.
   - For SQL Server 2008, the Home screen contains the **Contents** and **Properties** tabs. The **Contents** tab is populated only after the reports are deployed. The **Contents** tab is blank before the reports are deployed.
4. Perform one of the following steps:
   - For SQL Server 2008, click the **Properties** tab.
   - For SQL Server 2012 and SQL Server 2014, click the **Folder Settings** tab.
5. Click **New Role Assignment**.

   The system displays the SQL Server Reporting Services New Role Assignment page.

6. On the SQL Server Reporting Services New Role Assignment page, perform the following steps:
   a. In the **Group or user name** field, enter `BUILTIN\Users`.
   b. In the **Role** list, select the check box for **Browser**.
   c. Click **OK**.

      The system adds and displays the new group or user name in the **Properties** tab.

Viewing the Reporting tab

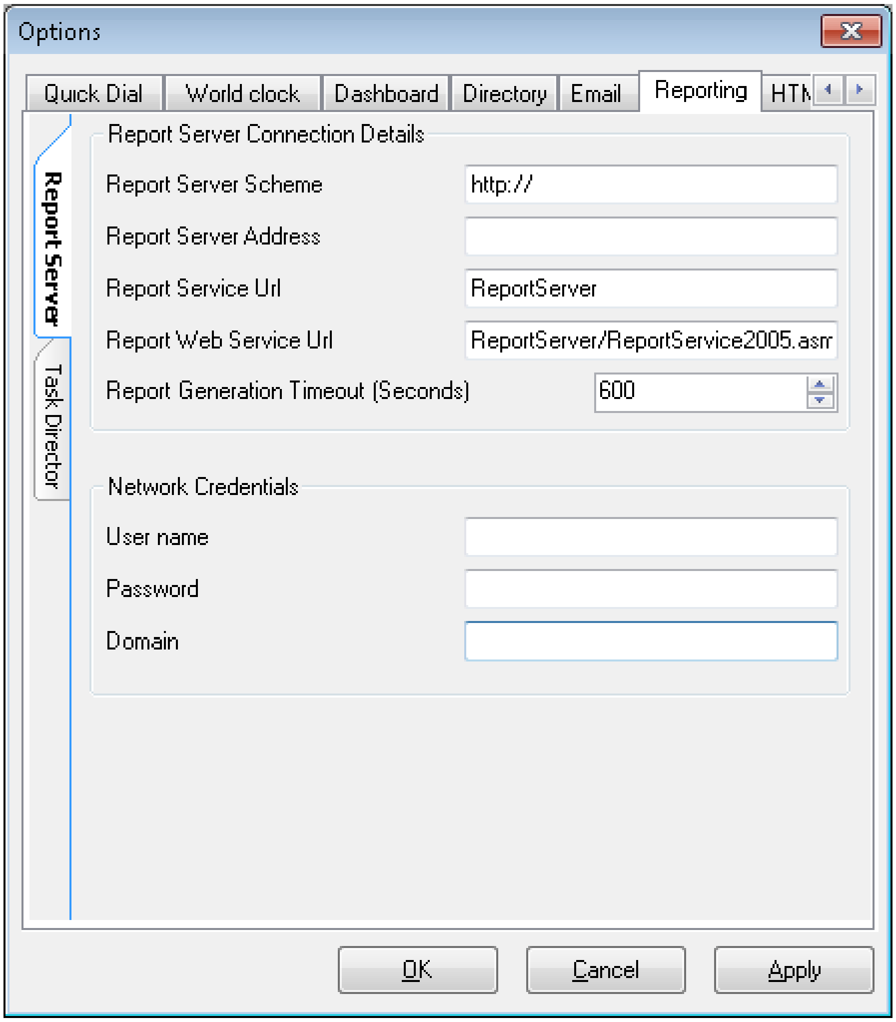
Procedure

1. From the Windows Start menu, click **All Programs** > **Avaya Aura CC Elite Multichannel** > **Desktop** > **Call Center Elite Multichannel Reporting**.
2. Click **Tools** > **Options**.
3. Click the **Reporting** tab.

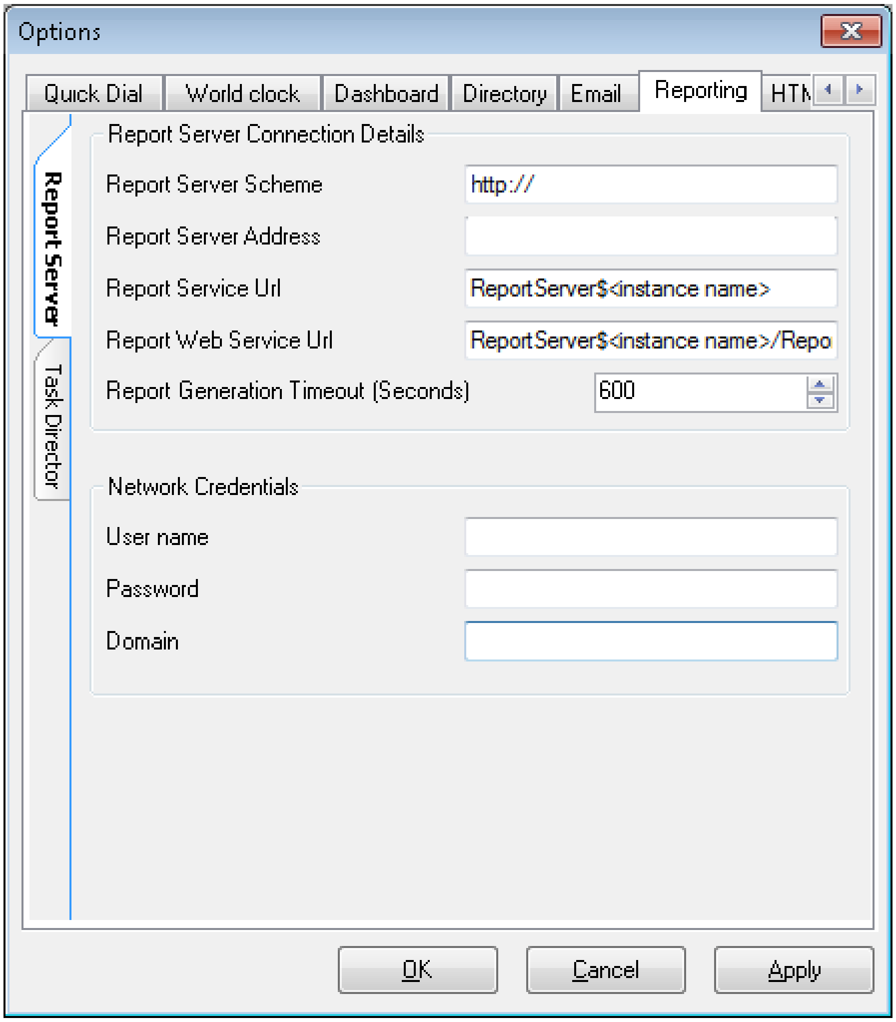
   Note:

   If the Enable Multilayer Options Page parameter is enabled in the `ASGuiHost.ini` file, you can access the Reporting tab after clicking the Reporting section on the left pane.

   For SQL Server default instance installation, the system displays the following screen:



For SQL Server with named instance installation, the system displays the following screen:



Note:

The system displays the reports in the **Reporting Selection** tab in the left pane of the Reporting Desktop.

Configuring Task Director

Procedure

1. From the Windows **Start** menu, click **All Programs** > **Avaya Aura® Call Center Elite Multichannel** > **Desktop** > **Call Center Elite Multichannel Control Panel**.
2. In the left pane, expend the **AS Task Director** node.
3. In the **Task Director** node, expand the **ASTask Director Service** node.
4. In the **ASTask Director Service** node, right-click **Administration** and click **Edit**.

5. In the right pane, enter the configuration details in the following fields:
    a. In the **Poll Interval (minutes)** field, enter the number of minutes between the Task Director polling the database for new tasks to execute.
    b. In the **Database Server Name** field, enter the name of the server where the database is located.
    c. In the **Database Name** field, enter the name of the database. This is automatically named `ASMSControl` when the database script is run.
    d. In the **User Name** field, enter the user name to access the database. This is automatically named `ASMSControl` when the database script is run.
    e. In the **Password** field, enter the password associated with the user name. The default password is `CCEUser0` before encryption.
6. After you enter the configuration details, right-click in the Task Director window and click **Save And Close**.
7. Expand the **Administration** node.
8. Right-click the **Reporting** node and click **Edit**.
9. In the right pane, enter the configuration details in the following fields:
    a. In the **Report Service Scheme** field, enter the protocol used to gain access to the Reporting Web service. For example, http:// or https://.
    b. In the **Report Service Address** field, enter the network name of the server hosting the Microsoft SSRS instance.
    c. In the **Report Service URL** field, enter the URL of the SSRS Server instance.

        Note:

        Ensure that you only enter the hostname in this field.
    d. In the **Report Web Service URL** field, enter the URL of the SSRS Web service.
    e. In the **Maximum Concurrent Reports** field, keep the default value as `10`.
    f. In the **Report Generation Timeout (seconds)** field, keep the default value as `600`.
    g. In the **Report Server Username** field, enter the user name of the server that hosts the Microsoft SQL Server Reporting Services.
    h. In the **Report Server Password** field, enter the password of the server that hosts the Microsoft SQL Server Reporting Services.
    i. In the **Report Server Domain (optional)** field, enter the domain name for the reporting server.
10. After you enter the configuration details, right-click in the Task Director window and click **Save And Close**.
11. Expand the **Tasks** node.
12. Right-click the **Definitions** node to view all current report schedules.

13. Right-click the **Instances** node to view all scheduled reports that had run and are currently running.

Setting time zones which are not a multiple of full hours

Procedure

Reconfigure the **Statistics Interval Minutes** parameter in the configuration file (AIDServer.ini) of **Interaction Data Server - Voice and Presence** to setup a system running in a time zone that is not a multiple of a full hour.

The default value is 60 minutes. You must change the value to a maximum of 30 minutes for time zones which differ by x:30 minutes to GMT and a maximum of 15 minutes for time zones which differ by x:15 minutes GMT. The change in the value ensures that the system collects data with the appropriate details.

Configuring Call Center Elite Multichannel Reporting

Procedure

1. From the Windows Start menu, click **All Programs** > **Avaya Aura CC Elite Multichannel** > **Desktop** > **Call Center Elite Multichannel Reporting**.
2. Click **Tools** > **Options**.
3. Click the **Directory** tab.
4. In the **Database server name** field, enter the name of your ASContact database server.
5. Select the **Enable initial default search** check box.
6. Click **Apply**.
7. Click the **IDS View Client** tab.
8. Ensure that the **IDS View URL** correctly specifies the IDS-View server name.

   Do not change the default values.
9. Click the **Media Director** tab.
10. Ensure that the **Media Director IP** correctly specifies the IP address of Media Director.

    Do not change the default values.
11. Click the **Telephony** tab, and then perform the following actions:
    a. In the **Station DN** field, enter the station ID.
    b. In the **Primary Telephony Link** section:
       - Confirm that the **XML Server IP** correctly specifies the name of XML Server.

- Click the **Ellipses** (...) button to populate the **Link** drop-down list and select the telephony link.

Do not change the default values.

12. Click **Apply**.
13. Click the **User** tab and perform the following steps:
    a. In the **Agent ID** field, enter the agent ID.
    b. In the **Agent password** field, enter the agent password.

    Do not change the default values.
14. Click **Apply**.
15. Click the **Reporting** tab. This tab defaults to values for SQL Express with a Named Instance.
    a. In the **Report Server Scheme** field, enter the protocol used to gain access to the Reporting Web service.
    b. In the **Report Server Address** field, enter the host name or IP address of the SQL Reporting Server.
    c. In the **Report Server Url** field, enter one of the following URLs:
       - For default Instance: `ReportServer`.
       - For named Instance: ReportServer$*<instance_name>*.
    d. In the **Report Web Service Url** field, enter one of the following URLs:
       - For default Instance: `ReportServer/ReportService2005.asmx`.
       - For named Instance: ReportServer$*<instance_name>*/ReportService2005.asmx.
    e. In the **Report Generation Timeout (seconds)** field, keep the default value.

       The default value for this field is 600.
    f. In the **User name** field, enter the user name of the server that hosts the Microsoft SQL Server Reporting Services.
    g. In the **Password** field, enter the password of the server that hosts the Microsoft SQL Server Reporting Services.
    h. In the **Domain** field, enter the domain name for the reporting server.
16. Click **Apply**.
17. On the **Reporting** tab, click the **Task Director** tab in the left pane and add a Task Director.
18. Click the **Task Scheduling** tab, and then perform the following steps:
    a. In the **Database server name** field, enter the name or IP address of the Call Center Elite Multichannel database server.

b. In the **Database name** field, keep the default value as `ASMSControl`.

c. In the **User name** field, keep the default value as `ASMSControl`.

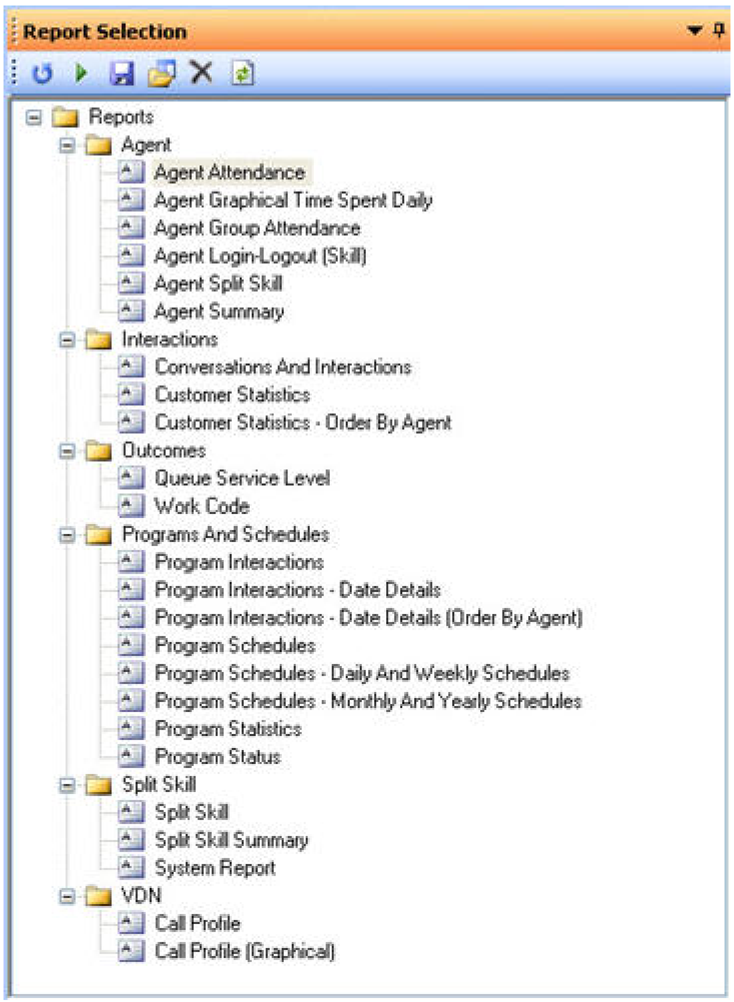
d. In the **Password** field, keep the default value as `CCEUser0`.

Note:

You can also configure Call Center Elite Multichannel Reporting centrally on Configuration Server.

19. Click **OK**.

Call Center Elite Multichannel Reporting displays the Report Selection options.



Hidden report functionality

To prevent a user from viewing a report in the reporting plug-in, the report can be marked as hidden using the Microsoft SQL Server Reporting Services Web administration page.

All reports deployed using the report deployment utility of Call Center Elite Multichannel Control Panel, which have a name starting with an underscore "_" in front of the rdl file name, are automatically marked as hidden.

The ability to hide reports allows report designers to prevent users from gaining direct access to these reports. For example, where the generation of the 'linked' report relies on parameters passed by the primary report.

Report naming conventions

To ensure the successful deployment of reporting files in Call Center Elite Multichannel Reporting:

- Ensure that all report definition files that you must deploy are correctly named with the .rdl (report definition file) extension.
- Ensure that each folder that contains the rdl has a name that is different from that of the rdl file. Otherwise SQL Server Reporting Services (SSRS) does not publish the reports.

If you follow the naming conventions, you can add subfolders under any existing reports or folders and put the rdl files within the folders with all files recognized and published.

Chapter 5: Configuring reporting plug-in

Reporting plug-in

This plug-in offers an expanded set of (historical) reports and uses Microsoft SQL Server Reporting Services (SSRS).

This reporting engine offers the following advantages:

- Addition of new reports because report definitions are no longer part of the reporting plug-in.
- Rendering of reports on a server, so the desktop is unaffected while the report generates.
- Creation of customized reports and modification of existing reports.
- Export capabilities for all report data to Microsoft Excel for advanced analysis and output options.

Historical reports are created using data from the **ASMSControl** and the **ASMSData** databases.

Note:

To remove the old reporting data, you must remove the corresponding **ASMSDataX** databases. For more information, see *Administering Avaya Aura® Call Center Elite Multichannel*.

Reporting tab

In Call Center Elite Multichannel Reporting, you can configure the reporting plug-in using the **Tools** > **Options** menu. In the **Options** dialog box, you can open the **Reporting** tab and configure the addressing information for the Microsoft SQL Server Reporting Services components that you want to use.

Note:

If the Enable Multilayer Options Page parameter is enabled in the `ASGuiHost.ini` file, you can access the Reporting tab after clicking the Reporting section on the left pane.

If you click **OK** or **Apply** after changing the data on the **Reporting** tab, the connection to the Microsoft SQL Server Reporting Services web service is reestablished and the contents of the in the left pane of Call Center Elite Multichannel Reporting are refreshed.

Update the fields using the information specified in the following table.

Field	Description
Report Server Connection Details	
Report Server Scheme	The protocol used to gain access to the Reporting Web service. For example, http:// or https://.
Report Server Address	The name of the server that the Microsoft SQL Server Reporting Services is housed on. This address might be an IP address or a name.
Report Service Url	The report server virtual directory as specified in the Report Server Virtual Directory settings of the Reporting Services Configuration Manager application supplied with Microsoft SQL Server Reporting Services. **Note:** Ensure that you only enter the hostname in this field.
Report Web Service Url	The address of the web service provided by Microsoft SQL Server Reporting Services. This URL is specified in Reporting Services Configuration Manager application supplied with Microsoft SQL Server Reporting Services.
Report Generation Timeout (Seconds)	The time, in seconds, allowed to elapse before terminating a report generation operation with a timeout error condition. This value is independent of the timeout configuration item in the Microsoft SQL Server Reporting Services configuration (on the Microsoft SQL Server Reporting Services server).
Network Credentials	
User name	The user name of the server that hosts the Microsoft SQL Server Reporting Services.
Password	The password of the server that hosts the Microsoft SQL Server Reporting Services.
Domain	The domain name for the reporting server.

Note:

- Further configuration is stored on the configuration server or in the `ASGuiHost.ini` file depending on the system setup.
- After upgrading to Avaya Aura® Call Center Elite Multichannel 6.6, if you start Call Center Elite Multichannel Reporting and receive the `Unable to access reporting services. Configuration items are missing.` message, then you must configure the network credentials on the **Tools** > **Options** > **Reporting Tab**.

Configuration data

Plug-In Assembly List

Item	Default	Description
ASReporting	ASReporting	The Plug-In Assembly List section requires a reference to a section holding this plug-in information.

ASReporting

Item	Default	Description
Assembly File Name	`ASReporting.dll`	This entry specifies the name of the assembly that Call Center Elite Multichannel Desktop must load for the reporting plug-in.
Report Server Address		The name of the server that the SSRS instance is housed on. The name of the server can be an IP address or a name.
Report Service URL	`ReportServer $SQLExpress`	The report server virtual directory. The URL is specified in the Report Server Virtual Directory settings of the Reporting Services Configuration Manager application that is supplied with Microsoft SQL Server Reporting Services.
Report Server URL	`ReportServer $SQLExpress/ ReportService2005 .asmx`	The address of the web service provided by Microsoft SQL Server Reporting Services.
Report Generation Timeout Seconds	600	The time, in seconds, that is allowed to elapse before terminating a report rendering operation with a timeout error condition. This value is a local timeout and is independent of timeouts that you can configure in Microsoft SQL Server Reporting Services.
Reporting Saved Parameters: *<user name>*	Reporting Saved Parameters: *<user name>*	This entry specifies the section title of the section holding information about the saved parameter sets for the specified user. Each user will have their own entry with their user name inserted into the entry.

Reporting Saved Parameters:<user name>

The Reporting Saved Parameters section contains the user name for a section name. If you know the user name, you can determine which sets of saved parameter are intended for which user. In addition, this section contains a report name list and the section name that contains the data for the saved parameters.

Item	Default Value	Description
<report name>	ASReports:<user name>:<report name>	This entry contains a report name supplied by the user when the parameter set was saved and the section name of the section holding the report parameters.

ASReports:<user name>:<report name>

Item	Default Value	Description
<parameter name>	<serialized version of the parameter value>	Each parameter saved for the report will have an entry identified by the parameter name and containing a string representation of the parameter value.

Table continues…

Item	Default Value	Description
ASReportName		The name of the report that the parameters were saved from. This name is the full path name of the report to cater for the situation where similarly named reports are placed in different directories.
ASSectionName		The section name where the report parameters are stored.
ASSaveName		The name of the parameter set supplied by the user when the parameter set was saved.

Report design and definitions

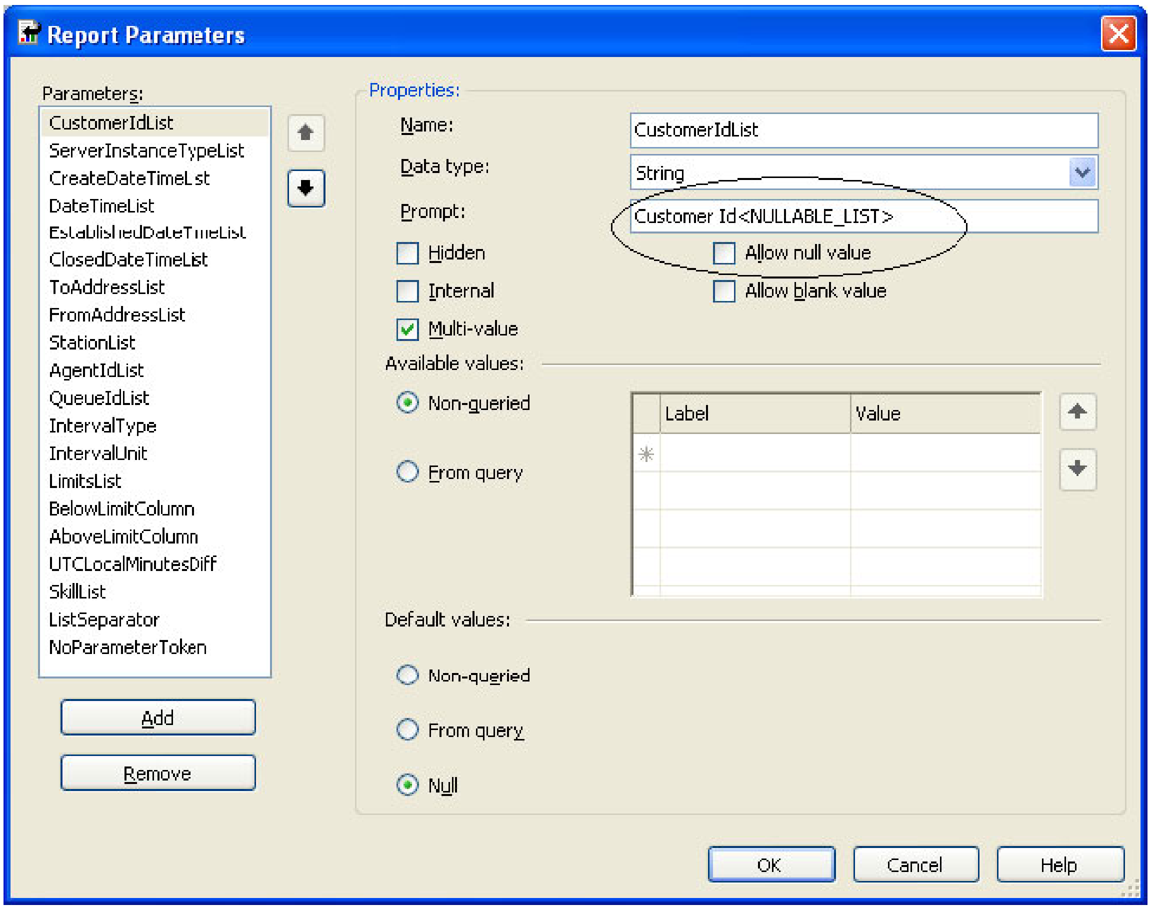
The report design is performed through Microsoft SQL Server Business Intelligence Development Studio. This document does not cover how to use Microsoft SQL Server Business Intelligence Development Studio, but the document points out to some of the constraints that impact on the ASReporting system.

Parameter Type Extensions

As defined in the section Extended Parameter Types, the following type extensions are available:

- *<UTCDIFF>*
- *<INTERVALDATETIME>*
- *<INTERVALDATETIMELIST>*
- *<NULLABLE_LIST>*
- *<WORKCODE>*
- *<NO_PARAMETER_TOKEN>*
- *<INTEGER_LIMITS_ARRAY[NN]>*
- *<SINGLE_DATE>*

To specify a parameter to be a particular extended type, add the extended type text to the end of the prompt name. For example, the following screen displays the **Prompt** field with a value `Customer ID <NULLABLE_LIST>`:



Parameter definition limitations

The following limitations are imposed by the Microsoft report designer:

- A parameter might not have both the "Multi-value" and "Allow null value flags" set.
- A multivalued parameter might not return an empty list. To enable an empty list to be returned, use the <NULLABLE_LIST> extended type. When no option is selected, the value assigned to the stored procedure parameter @NoParameterToken is used as the only entry for the list. The value of the @NoParameterToken parameter must be present in the Available Values list if that list is populated.
- Hidden parameters do not have a Prompt value. The promptField value in the parameter data list sent to the plug-in is blank. Therefore, hidden parameters cannot have extended data types. For an extended data type to not be displayed, you must make this part of the behavior definition of that extended data type. This is done with the <UTCDIFF> and <NO_PARAMETER_TOKEN> extended types.
- If a parameter has Available Values specified and the "Allow null value flags" set, one of the Available Values must have a value of null.
- Only one extended data type can be specified on a parameter. If more than 1 is present, only the last is identified and the other(s) are assumed to be part of the parameter promptField value. This is a limitation imposed by the plug-in as it currently does not need more than 1

extended type. If more information must be passed in future, it might be necessary to specify an XML like syntax for the extra data appended to the prompt.

Parameter control

The lower panel of the Call Center Elite Multichannel Desktop tool window contains the controls allowing the user to input parameter values for the report. The controls are created dynamically based on the parameter definitions retrieved from the Microsoft SQL Server Reporting Services web service.

Parameter definitions

When you select a report in the top panel, a list of parameter definitions for the report is retrieved and displayed in the lower panel.

Extended parameter types

The set of data types allowed by Microsoft SQL Server Reporting Services are not extensive. To specify additional data types, a set of prompt suffixes are defined. If a field ends with one of the suffixes, the parameter is assumed to be of the appropriate extended type.

Mnemonic	Description
<UTCDIFF>	Calculate the difference between the UTC and the local time in seconds = UTC - Local. This parameter is hidden from the user.
<NULLABLE_LIST>	Extends a MultiValue parameter to be able to return an empty list. Multivalue parameters do not return null as the parameter value or as part of the list of values that are returned. If the list must empty, assign a value of "*&NONE&*". A parameter with the extension <NO_PARAMETER_TOKEN> must also be present in the parameter list so the underlying stored procedure can be informed of the string you are using to indicate an empty list. If a hard coded list of valid values requires a null value use "*&NONE&*" instead.
<SORTED_NULLABLE_LIST>	The same as a <NULLABLE_LIST> type parameter, but if there are Available Values supplied with the parameter definition, these values are displayed in the ascending alphabetical order.
<SORTED_LIST>	If the parameter definition has Available Values supplied, these values are displayed in the ascending alphabetical order.
<WORKCODE>	The user control for workcode selection is presented.
<SINGLE_DATE>	The string value used to indicate to the stored procedure backing up this report that the list for a specified parameter is empty. This allows parameters that have the MultiValue flag set to return no data. If the parameter has valid values set, then one of the values for the valid values must be"*&NONE&*". This parameter is hidden from the user.

Table continues…

Mnemonic	Description
<INTERVALDATETIME>	A string that either contains a valid SQL Server local date time such as 22 January 2006 or 2007/04/21 14:22:03, or contains a time interval of the time: • In last n [interval1](s) • Today +-n • Yesterday +-n • This [interval2] +-n • Last [interval2] +-n Where interval1 may be any of: • Year • Month • Week • Day • Hour • Minute • Second and interval2 covers the same list as interval1, excluding day n is an integer and 'in last' use, describes the number of interval1's in the past for which the datetime is calculated. In this format, n must be unsigned. When n is used with 'this', 'last', 'today' and 'yesterday' format, it is the number of interval2's in the past (when negative) or in the future (when positive) relative to the interval. For example: • This year -2 - is the beginning of 2 years ago • Last year -1 - is the beginning of 2 years ago • Last year +1 - is this year In this format n must always be signed, + or -.

Required and optional parameters

The parameters are split into two sets each with their own GroupBox. The first group to be displayed in the lower pane is the one for required parameters. The second GroupBox is for optional parameters. If any of the following conditions are met, the parameter is treated as optional:

- The value of the nullableField field is true.
- The parameter has a <NULLABLE_LIST> extended type specified.
- The parameter has a <WORKCODE> extended type specified and the allowBlankField is set to true.

Within a GroupBox, the order of parameters is the same as they were retrieved from the parameter definitions array retrieved from the Microsoft SQL Server Reporting Services web service.

Selecting a control to use for input

The input control used to get the parameter value depends on the parameter and the values set in the parameter definition.

If the parameter has an extended data type of either NO_PARAMETER_TOKEN or UTCDIFF, no user control is displayed for the parameter. The plug-in calculates the value when it is required. Otherwise, the following table shows under which conditions to use each control.

Multi Value	Nullable	Valid Present Value	Nullable List	Control Type
T	T	T	X	Invalid - MultiValue and Nullable both set to true.
T	F	T	T	Optional CheckBoxList based user control. If no options are selected, return NO_PARAMETER_TOKEN _VALUE.
T	F	T	F	CheckBoxList based user control - at least must choose 1 entry.
T	F	F	T	Optional DataGridView. If no data is entered return NO_PARAMETER_TOKEN _VALUE.
T	F	F	F	DataGridView
F	T	X	T	Invalid - cannot have Nullable and <NULLABLE_LIST> together.
F	T	T	F	ComboBox displaying the valid values labels. The associated value for a label can set to null.
F	T	F	F	Data type specific input control.
F	F	X	T	Invalid - <NULLABLE_LIST> only works with MultiValue.
F	F	T	F	ComboBox displaying the valid values labels.
F	F	F	F	Data type specific input control.
X	X	T	F	Use a WorkCodeUserControl.

Table continues…

Multi Value	Nullable	Valid Present Value	Nullable List	Control Type
X	X	F	F	Use a WorkCodeUserControl - no work codes available.
X	X	X	T	Invalid as there are 2 type specifiers in the parameter prompt.

In the table:

- T - The option is present or set to true.
- F - The option is not present or is set to false.
- X - The state of the option is irrelevant.

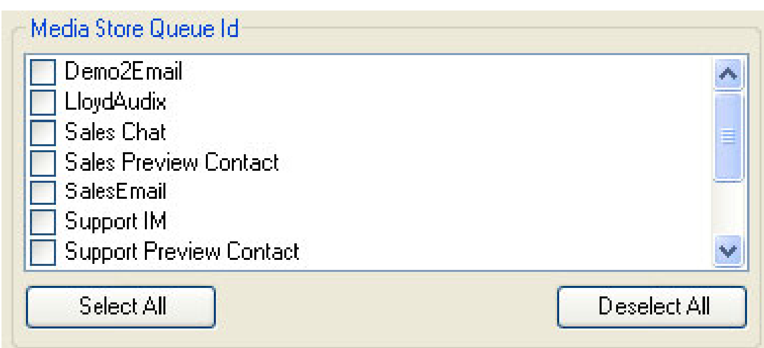
Data type specific input controls are as follows:

- Boolean - A check box. If the parameter may be set to null a three state check box is used.
- DateTime - A DateTimePicker control.
- Integer - A field; the input is validated when the user requests the report to be rendered.
- Float - A field; the input is validated when the user requests the report to be rendered.
- String - A field. An empty string results in a null value being generated for this parameter. The text does not have white space trimmed when passed as a parameter.

If a combination is invalid, the control is not displayed on the screen, an error message is placed in the error log and the next parameter is generated.

Check Box list user control

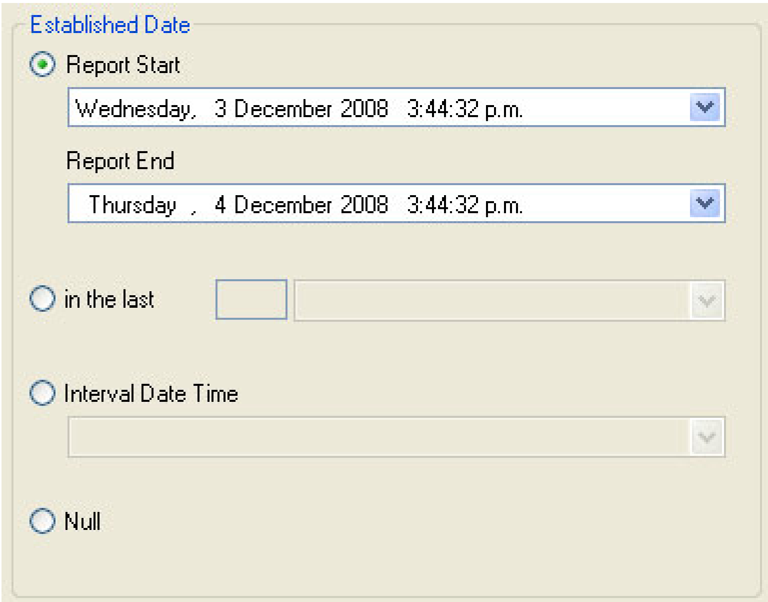
The Check Box list based user control is a CheckBoxList control with 2 buttons allowing for all check boxes to be either selected or cleared, wrapped inside a GroupBox.



User controls are defined for the WORKCODE and INTERVALDATETIME extended parameter types. You must not use the controls with MultiValued return type specifier.

IntervalDateTime control

The user control for the INTERVALDATETIME extended parameter type is as follows.



This user control contains the following options:

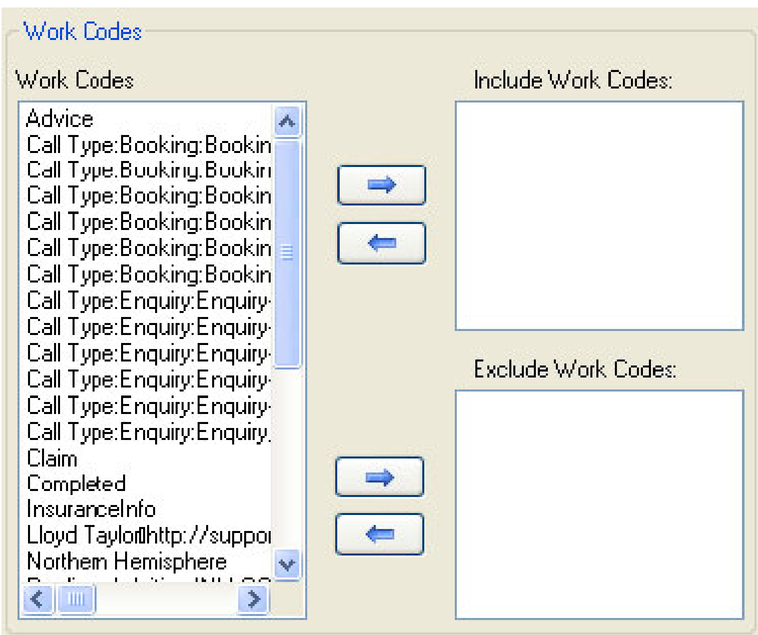
- **Report Start**: Use this option to select the start date of the report.
- **Report End**: Use this option to select the start date of the report. Ensure that the Report End date is a date after the Report Start date. Validation is performed when the user requests the report to be rendered.
- **in the last**: Use this option to specify a numeric value in the field and select one of the time interval values from the drop-down list. The time interval values are hard coded to a localized version of:
  - Second(s)
  - Minute(s)
  - Hour(s)
  - Day(s)
  - Week(s)
  - Month(s)
  - Year(s)
- **Interval Date Time**: The values in this drop-down list are localized versions of:
  - This hour
  - Last hour

- Today
- Yesterday
- This week
- Last week
- This month
- Last month
- This year
- Last year

• **Null**: Select this option to set the parameter value to null.

Work Code control

The user control for the WORKCODE extended parameter type is as follows:



The left and right facing buttons move entries to and from the various lists.

The data in the Work Codes list box is retrieved from the defaultValuesField from the parameter definition for this parameter.

Note:

To filter on email address, ensure that you only use emailID and do not include name.

Chapter 6: Configuring real-time reporting plug-in

Real-time reporting plug-in

This plug-in helps you to monitor real-time information on an Agent, Device, Queue, and VDN basis. Separate reports are available for all types of monitoring. All reports can run concurrently.

All real-time data is streamed to your desktop through the Interaction Data Server - View service. The Real-time reports plug-in then renders the data to the screen as a grid or a formatted report. You can print or export the formatted reports to different file types. For example, Excel, Text, and PDF.

Real-time data for each report automatically refreshes on a user-defined basis for the latest information.

The plug-in provides reports which you can use out-of-the-box and are ready to go immediately on installation.

Configuring real-time reporting plug-in

About this task

Real-time reporting requires an active connection to the Interaction Data Server - View.

Procedure

1. On the **Options** dialog box, click the **IDS View Client** tab.
2. Type the IP address that is used for multicasting between applications.

   When an application starts, the system joins the multicast address and receives packet information from Interaction Data Server - View. The default is 239.29.9.67.
3. Type the port number that is used for multicasting between applications.

   The default is 29084.
4. Type the URL for connecting to Interaction Data Server - View.

   The URL must use the following format: `gtcp://localhost:29076/InteractionDataServiceView.rem`.

5. To enable IDS View Client to receive data from the Interaction Data Server - View by multicasting, select **Receive by multicast**.
6. To send the error information to the debug log file, select **Enable trace**.
7. To write plug-in error information to error log files, select **Enable error logging**.

   Note:

   If **Receive by multicast** is not selected, the connection reverts to the default remote connection using the URL provided in the **IDS View URL** text field.

Chapter 7: Generating reports

You can generate historical and real-time reports. The execution speed depends on the size of the ASMSdata{x} database.

Note:

- If you experience frequent time-outs and delays while running reports, check the size of ASMSData{x} database. If the database size is big, you must create a new ASMSData{x} database and make the old database offline.
- Because of the limitations of Microsoft SQL Server Reporting Service 2005, some auxiliary windows in the Call Center Elite Multichannel Reporting application might display the information only in English.

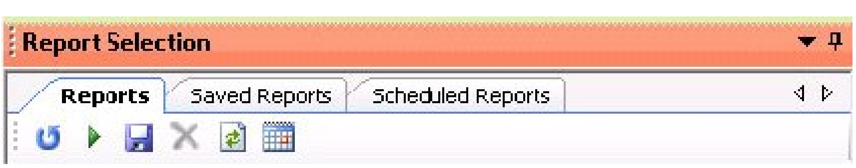
Historical reports

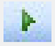
This section contains the following topics:

- Generating historical reports
- Saving report parameters
- Scheduling reports
- Agent reports
- Interaction reports
- Outcome reports
- Program and Schedule reports
- Split Skill reports
- VDN reports

Generate historical reports

Multiple tabs are present at the top of the Report Selection window:



Icon	Description
	Reloads the report tree view. Microsoft SQL Server Reporting Services is queried to retrieve the latest set of reports.
	Generates the selected report using the parameters in the lower panel.
	Saves the current set of parameters.
	Deletes a saved parameter set.
	Resets the parameters in the lower panel to the default values.
	Launches the Report Scheduler.

The system displays each report in a new tab in the Report View window. Users can toggle between different reports.

Each Report View window contains the following options:

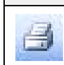
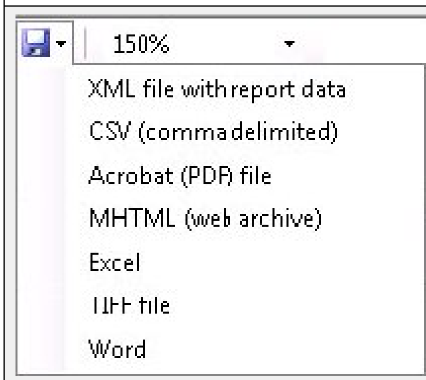
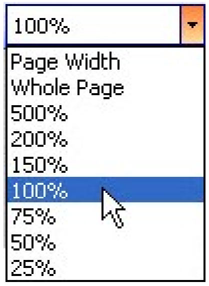
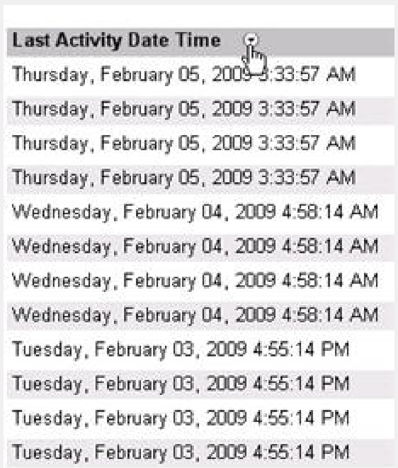
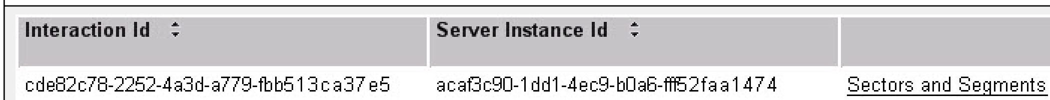
Icon	Description
	Helps you to navigate through the report pages. The buttons are enabled only when the generated report contains multiple pages.
	Refreshes the report being viewed and regenerates the report with the current data.
	Prints the report.
	Displays the preview of the report.
	Helps you to setup the page.
	Displays options to access the report data export. **Note:** • You must have Arial Unicode font installed on the Reporting Desktop, EMC Core, and Microsoft SQL database systems to export the report to PDF format in Japanese or Korean languages. • If the database you are using is MS SQL Express edition, then the data export types available are Word, Excel, and PDF.

Table continues…

<table>
<tr><th>Icon</th><th>Description</th></tr>
<tr><td>
</td><td>The zoom tool to view more or less of the generated report as required.</td></tr>
<tr><td>
</td><td>Additional controls:

There is an arrow icon on the right-side of every report data column that allows you to sort the data set represented by ascending or descending order (be it numeric, alphanumeric, or date).</td></tr>
<tr><td colspan="2">

The extreme right-side of the Conversations and Interactions report contains links for detailed reports.

For example, the Interactions report that can be accessed by clicking the Interactions link of the corresponding row.</td></tr>
<tr><td colspan="2">

In the Interactions report, you can gain access to the detailed sector and segments report by clicking the Sector and Segments link.</td></tr>
</table>

Saving report parameters

About this task

Use this procedure to rerun the report outputs.

Procedure

1. Click **Save** on the **Report** tab.
2. Enter the name of the parameter profile.

3. Click **Save**.

   Note:

   After the report parameters are saved, you can view the reports on the **Saved Reports** tab by selecting the required saved profile.

Scheduling reports

Before you begin

To schedule reports, you must configure Call Center Elite Multichannel Reporting.

About this task

Use this procedure to schedule reports that run at specific times or intervals.

Procedure

1. From the Windows Start menu, click **All Programs** > **Avaya Aura CC Elite Multichannel** > **Desktop** > **Avaya Aura Call Center Elite Multichannel Reporting**.
2. In the Report Selection pane, click the **Reports** tab.
3. On the **Reports** tab, click the report that you want to schedule, and then click the **Schedule Report** button.
4. On the **Schedule Report** dialog box, perform the following steps:
   a. In the **Task Name** field, enter a name for the task.
   b. In the **Task Director** drop-down list, click a task director.
   c. Select the **Task Active** check box.
   d. In the **Schedule** field, select a schedule from the list of schedules that are available on the Call Center Elite Multichannel server.
   e. In the **Report Destination** field, perform one of the following steps:
      - To print the desired report as per schedule, select the **Printer** option.
      - To save a copy of the report on the server, select the **File** option and enter values in the **File Location**, **File Name**, and **File Type** fields.

   f. Click **OK**.
5. In the Report Selection pane, click the **Scheduled Reports** tab to view the list of scheduled reports.

   Important:

   If the Task Director server is in a time zone different from the system where the Call Center Elite Multichannel Reporting application is installed, then the Task Director runs the reports based on the Task Director server time and not based on the local user system time.

To recall and edit the saved schedule reports, click the **Scheduled Reports** tab and select the required saved profile.

Related links

Configuring Task Director on page 19

Agent reports

Contact center supervisors can measure the performance of an agent or a group of agents using Agent reports. These reports contain information about the agent activity and the performance across splits or skills.

Call Center Elite Multichannel Reporting provides the following Historical Agent reports for analysis:

- Agent Attendance
- Agent Graphical Time Spent Daily
- Agent Group Attendance
- Agent Login-Logout (Skill)
- Agent Split Skill
- Agent Summary

Agent Attendance

The Agent Attendance report provides information about Staffed Time, ACD Time, ACW Time, Wait Time, Available Time, and AUX Time. In addition, this report provides information about ACD calls that are handled by an agent for the specified period, for all splits or skills that the agent was logged in to. Contact centers supervisors can use this report to summarize the performance of each agent. This report is available in daily, hourly, weekly, monthly, quarterly, and yearly versions.

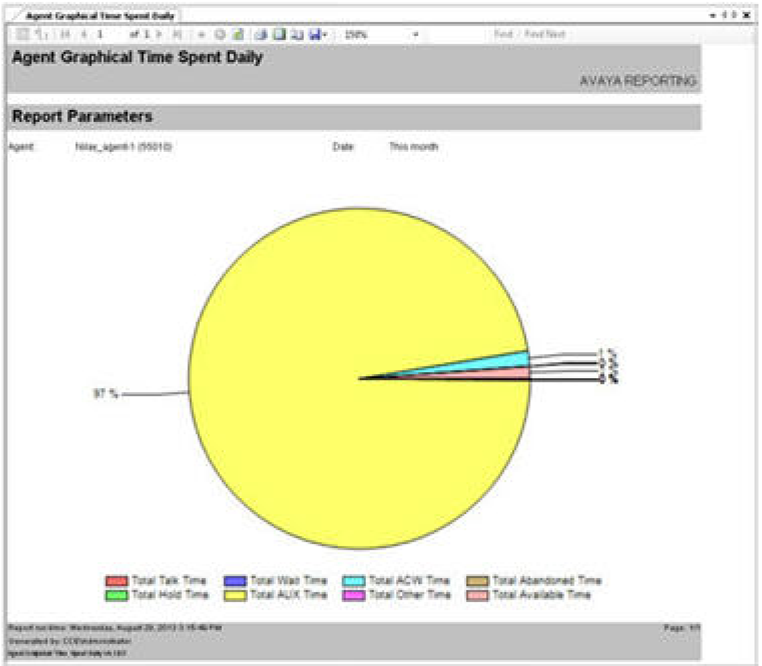
Agent Attendance field descriptions

The following table lists and describes the fields in the Agent Attendance report:

Field	Description	Database item or calculation [AgentSplitSkillStats]
Staffed Time	The total time for which the agent was logged in, that is, staffed for the specified time period in a split or skill. **Note:** The Staffed Time does not include the time for which the link remains down. This time is measured in `hh:mm:ss` or `mm:ss`. Values for the Staffed Time are available after an agent logs out.	Sum(StaffedSeconds)
ACD Time	The total time that the agent spent on all split or skill calls for the specified time period in a split or skill (Talk Time).	SUM(TotalTalkSeconds)
ACW Time	The total time that the agent spent in ACW for the specified time period in a split or skill for ACD calls and direct agent calls, as well as time in ACW not associated with a call.	SUM(TotalACWSeconds)
Wait Time	The total time during the collection interval for which the agent had split or skill calls ringing at the desk. If the agent answers or makes another call instead of answering the ringing call, Wait Time stops accumulating. Wait Time is the amount of time for which a caller has to wait before the call is answered. The counter does not count if the call is unanswered.	SUM(TotalWaitSeconds)
Available Time	The total time for the specified time period for which the agent was available to receive ACD calls in a split or skill.	SUM(TotalAvailableSeconds)
AUX Time	The total time that the agent spent in the AUX work in all splits or skills calls and on the AUXIN or AUXOUT calls for the specified time period.	SUM(TotalAUXSeconds)
ACD Calls	The total number of inbound split or skill calls, direct agent ACD calls, and direct calls answered by the agent.	SUM(CallsAnswered)

Agent Graphical Time Spent Daily

The Agent Graphical Time Spent Daily report provides historical information and statistics for the specified agent for a particular day. Contact center supervisors can use this report to determine the time that an agent spent on the ACD calls and in the AUX or ACW modes. This report is available only in the *daily* version.



Agent Graphical Time Spent Daily field descriptions

The following table lists and describes the fields in the Agent Graphical Time Spent Daily report:

Field	Description	Database item or calculation [AgentStats]
Total Talk Seconds	The total time that the agent spent on all splits or skills calls and direct agent calls for the specified time period in a split or skill.	SUM(TotalTalkSeconds)
Total Wait Seconds	The total time during the collection interval for which the agent had split or skill calls and direct agent calls ringing. If the agent answers or makes another call instead of answering the ringing call, Wait Time stops accumulating. Wait Time is the time for which the caller must wait before the call is answered. The counter does not count the Total Wait Seconds if the call is not answered.	SUM(TotalWaitSeconds)
Total Hold Seconds	The total time for which an agent had put the call on hold for the specified time period. The counter does not count the Total Hold Seconds if the agent puts a call on hold and performs no further action. In this case, the counter counts the Total Other Seconds.	SUM(TotalHoldSeconds)

Table continues…

Field	Description	Database item or calculation [AgentStats]
Total AUX Seconds	The total time that an agent spent in the AUX work in all splits or skills calls and on the AUXIN or AUXOUT calls for the specified time period.	SUM(TotalAUXSeconds)
Total ACW Seconds	The total time that the agent spent in ACW for the specified time period in a split or skill for ACD calls, as well as time in ACW that is not associated with a call.	SUM(TotalACWSeconds)
Total Other Seconds	The time during the collection interval for which the agent was doing other work in all splits or skills. TotalOtherSeconds accumulates while in Auto-in or Manual-in, the agent puts any call on hold and performs no further action, the agent dials to place a call or to activate a feature, or an extension call rings with no other activity. Time on the extension calls is also included.	SUM(TotalOtherSeconds)
Total Abandoned Seconds	The total time during the collection interval for which the agent had split or skill calls and direct agent calls ringing at the desk. The counter counts the Total Abandoned Seconds only if the call is not answered by the agent.	SUM(TotalAbandonedSeconds)
Total Available Seconds	The total time for the specified time period for which the agent was available to take ACD calls in a split or skill.	SUM(TotalAvailableSeconds)

Agent Group Attendance

The Agent Group Attendance report summarizes Staffed Time, ACD Time, ACW Time, Wait Time, Available Time, AUX Time, and Calls Answered for each agent in an agent group for the specified period. Agent groups are predefined in the dictionary and allow supervisor to view statistics about a particular group of agents instead of viewing agents in the all splits or skills.

Agent Group Attendance field descriptions

The following table lists and describes the fields in the Agent Group Attendance report:

Field	Description	Database item or calculation [AgentSplitSkillStats]
Agent Name	The name associated with the agent directory number in Communication Manager.	AgentName
Agent ID	The directory number of the agent that is configured in Communication Manager.	AgentId

Table continues…

Field	Description	Database item or calculation [AgentSplitSkillStats]
Staffed Time	The total time for which the agent was logged in or staffed for the specified time period in a split or skill. Values for staffed time are available after the agent logs out. **Note:** The Staffed Time does not include the time for which the link remains down. This time is measured in `hh:mm:ss` or `mm:ss`.	Sum(StaffedSeconds)
ACD Time	The total time that the agent spent on all ACD calls and direct agent calls for the specified time period in a split or skill (Talk Time).	SUM(TotalTalkSeconds)
ACW Time	The total time that the agent spent in ACW for the specified time period in any split or skill for ACD calls and direct agent calls, as well as time in ACW that is not associated with a call.	SUM(TotalACWSeconds)
Wait Time	The total time during the collection interval for which the agent had ACD and direct agent calls ringing. If the agent answers or makes another call instead of answering the ringing call, Wait Time stops accumulating. Wait Time is the time for which the caller must wait before the call is answered. This time is independent of agent activity.	SUM(TotalWaitSeconds)
Available Time	The total time for the specified time period for which the agent was available to take ACD calls in a split or skill.	SUM(TotalAvailableSeconds)
AUX Time	The total time that the agent spent in the AUX work in all splits or skills calls and on the AUXIN or AUXOUT calls for the specified time period.	SUM(TotalAUXSeconds)
Calls Answered	The total number of ACD and direct agent calls answered by the agent.	SUM(CallsAnswered)

Agent Login-Logout (Skill)

The Agent Login-Logout (Skill) report provides information about the time that agents in a given skill logged in and logged out, the reason codes that are associated with the logout, if any, and the skills with which the agents logged in and logged out at a particular date. This report helps contact center supervisors determine if agents are adhering to the allocated schedules.

Agent Login-Logout (Skill) field descriptions

The following table lists and describes the fields in the Agent Login-Logout (Skill) report:

Field	Description	Database item or calculation [AgentSectors], AgentSegments
Agent	The name of the agent.	AgentName
Station	The device (name) where the agent is logged in.	StationName
Login Time	The time that the agent logged in with the predefined set of skills.	LoginDateTime
Logout Time	The time that the agent logged out or was logged out from the predefined set of skills.	LogoutDateTime
Logout Date	The date when the agent logged out from the predefined set of skills.	LogoutDateTime
Logout Reason (if any)	The reason for logging out.	ReasonCode
Split/Skill 1-15	The first 15 skills with which the agent logged in.	SplitSkillName

Agent Split Skill

The Agent Split Skill report provides information about agent performance by split or skill. Each row in the report shows the total for the specified time for a particular split or skill that the agent was logged in to. However, the Totals row shows the totals over the day for all splits or skills for this agent. For contact center agents who are multiskilled, the report provides supervisors with a breakdown of all activities for each skill that an agent has logged in to at time. This report is available in daily, hourly, weekly, monthly, quarterly, and yearly versions.

Agent Split Skill field descriptions

The following table lists and describes the fields in the Agent Split Skill report:

Field	Description	Database item or calculation [AgentSplitSkillStats]
Split Skill Name	The name or number of the splits or skills that the agent logged in to during the specified time period and for which data are shown.	SplitSkillName

Table continues…

Field	Description	Database item or calculation [AgentSplitSkillStats]
Calls answered	The number of inbound split/skill and ACD calls that are answered by the agent. **Note:** An inbound direct call is considered as an ACD call if: • The call is made directly to the agent Id instead of the agent station provided the class of restriction parameter **Direct Agent Calling** is set to **Yes** in Communication Manager. If the call is considered as an ACD call, then the Direct Agent Inbound call is counted as a call parameter in Agent Split/Skill Report.	SUM(CallsAnswered)
Total Talk Seconds	The total time that an agent spoke on ACD and direct calls for a split or skill.	SUM(TotalTalkSeconds)
Total ACW Seconds	The total time that an agent spent in ACW that is associated with split or skill calls and ACW that is not associated with a call during the report interval.	SUM(TotalACWSeconds)
Calls Holding	The number of calls that an agent placed on hold and while holding established another call.	SUM(CallsHolding)
Total Hold Seconds	The total time that calls were on hold for this agent. This includes all callers.	SUM(TotalHoldSeconds)

Agent Summary

The Agent Summary report provides information about the activities and the performance of an agent for all splits or skills of which the agent is a member. The report represents the totals over the specified period for all splits or skills that the agent was logged in to. This report is available in daily, hourly, weekly, monthly, quarterly, and yearly versions.

Agent Summary field descriptions

The following table lists and describes the fields in the Agent Summary report:

Field	Description	Database item or calculation [AgentStats]
Answered Calls	The total number of inbound split skill, ACD, direct agent and direct station calls answered by the agent.	SUM(CallsAnswered)

Table continues…

Field	Description	Database item or calculation [AgentStats]
Avg Talk Time	The average length of ACD and direct agent calls during the period covered.	SUM(TotalTalkSeconds)/ SUM(CallsAnswered)
Avg ACW Time	The average length of ACW sessions for an agent. This includes direct agent call activities.	SUM(TotalACWSeconds)/ SUM(CallsAnswered) IF SUM(CallsAnswered) > 0, else =0
Total Talk Time	The total time that an agent spent on ACD and direct agent calls for the specified time period in a split or skill.	SUM(TotalTalkSeconds)
Total Wait Time	The total time during the collection interval that the agent had ACD and direct agent calls ringing at the desk. If the agent answers or makes another call instead of answering the ringing call, Wait Time stops accumulating. Wait Time is the time that the caller must wait before the call is answered.	SUM(TotalWaitSeconds)
Total Hold Time	The total time that the agent has put the call on hold for the specified time period.	SUM(TotalHoldSeconds)
Total AUX Time	The total time that the agent spent in the AUX work in all splits or skills and on the AUXIN or AUXOUT calls for the specified time period.	SUM(TotalAUXSeconds)
Total ACW Time	The total time that the agent spent in ACW for the specified time period in a split or skill for ACD calls and direct agent calls as well as time in ACW not associated with a call. Time on extension calls is also included.	SUM(TotalACWSeconds)
Total Other Time	The time during the collection interval that the agent was doing other work in all splits or skills. TotalOtherSeconds accumulates while in Auto-in or Manual-In, the agent puts a call on hold and performs no further action, the agent dials to place a call or to activates a feature, or an extension call rings with no other activity. TotalOtherSeconds is collected for the time period after the line to the communication server comes up or after the agent logs in and before Call Center Elite Multichannel Reporting receives notification from Communication Manager about the agent state.	SUM(TotalOtherSeconds)

Interaction reports

Each piece of work handled by Call Center Elite Multichannel is called an Interaction. Several Interactions grouped together by a common topic or theme are called Conversations. The

Interactions group of reports helps supervisors to view the work done by the contact center based on the channel it was received through, that is, voice or email, the agent that processed the work, and the customer contacts that the work was received from.

Call Center Elite Multichannel Reporting provides the following Historical Interaction reports for analysis:

- Conversations and Interactions
- Customer Statistics
- Customer Statistics - Order By Agent

Conversations and Interactions

The Conversations and Interactions report provides a view of the work that is received by Call Center Elite Multichannel to a program or a group of programs. The user can view the source of the interaction, the customer contact that is associated with the interaction, and the time when the activity last occurred on the Interaction.

The user can also view the details of a specific interaction by clicking on the underlined Interaction link. The underlined Interaction link is on the right column of the report and the Sectors and Segments link provided in the subsequent Interaction report.

Conversations and Interactions field descriptions

The following table lists and describes the fields in the Conversations and Interactions report:

Field	Description	Database item or calculation [Contacts, Interactions, Sectors, Segments, Programs, Conversations]
From Address	The origin of the interaction.	I.FromAddress
Contact	Name of the caller or sender. Links this conversation with a specific customer. If a GUID, this is likely a ContactId referencing a contact in the **ASContact** database.	
Last Activity Date Time	The UTC time when the last event in any underlying segment took place.	S.LastEventDateTime
Interactions	Link to the details of a specific interaction	
Program Id	Name of program.	S.ProgramId, P.Name
Server Instance Type	The type of server that processed this interaction.	I.ServerInstanceType

Table continues…

Field	Description	Database item or calculation [Contacts, Interactions, Sectors, Segments, Programs, Conversations]
State	State of interaction during this segment: • 0 Created • 1 Processing • 2 Queued • 3 Delivered • 4 Established • 5 Pending closed • 6 Suspended • 7 Closed	Sg.State
Completion Status	• 0 Not yet completed • 1 Successfully completed • 2 Complete, available for retry • 3 Complete, not available for retry • 4 Failed • 5 Completed, failed because contact denied • 6 Completed, failed as the contact is not allowed in a restricted queue.	I.CompletionStatus
Agent Id	Identifier of the agent that handled this sector of interaction.	S.AgentId
Contact	Name of caller or the sender. Links this conversation with a specific customer. If a GUID, this is a ContactId referencing a contact in the **ASContact** database.	
ToAddress	The destination of the interaction.	I.ToAddress
From Address	The origin of the interaction.	I.FromAddress
Subject	Any subject that describes the content of the interaction.	I.Subject
Last Activity Date Time	The UTC time when last event in any underlying segment took place.	S.LastEventDateTime
Interaction Id	The guide that uniquely defines the interaction - a complete communication. It is the database history of a Call Center Elite Multichannel workitem.	I.InteractionId
Server Instance Id	The type of server that processed this interaction.	I.ServerInstanceType

Table continues…

Field	Description	Database item or calculation [Contacts, Interactions, Sectors, Segments, Programs, Conversations]
Sectors and Segments	Link to details of specific Sectors and Segments.	
Interaction State	State of interaction during this segment: • 0 Created • 1 Processing • 2 Queued • 3 Delivered • 4 Established • 5 Pending closed • 6 Suspended • 7 Closed	Sg.State
Start Date Time	The UTC start time for this segment.	Sg.StartDateTime
End Date Time	The UTC end time for this segment.	Sg.EndDateTime
MDQueue Id	ID of the Media Store queue pertaining to this segment.	Sg.MDQueueId
MDQueue Priority	Priority of the Media Director queue pertaining to this segment.	Sg.MDQueuePriority
MSQueue Priority	Priority of the Media Store queue pertaining to this segment.	Sg.MSQueuePriority
Agent Id	ID of the agent pertaining to this segment.	Sg.AgentId
Agent Station	Station of the agent pertaining to this segment.	Sg.AgentStation
Dequeue Reason	The reason why the work item is removed from the specified queue. This enumeration follows the event received from Media Director.	Sg.DequeueReason
Suspend Function	More detail on the nature of the suspended function: 1. **This Agent**. Normal suspension for re-presentation to this agent. 2. **Other Agent**. Suspended awaiting confirmation of delivery to another agent 3. **SME**. Suspended until the SME deliberation time has passed.	Sg.SuspendFunction
Suspend Reason	Reason for the suspension.	Sg.SuspendReason
Suspend To Date Time	The UTC time until which this interaction remains suspended.	Sg.SuspendToDateTime

Table continues…

Field	Description	Database item or calculation [Contacts, Interactions, Sectors, Segments, Programs, Conversations]
Preferred Agent	Identifier of the preferred agent to handle suspended calls.	Sg.PreferredAgent
Preferred Agent only	Flag: 0 implies that the interaction when resumed can be queued to any agent. 1 implies that the interaction is queued to the preferred agent.	Sg PreferredAgentOnly
Last Preferred Agent	Identifier of the preferred agent to handle suspended calls in last segment.	
Last Preferred Agent only	Flag for the last agent: 0 implies that the interaction can be queued to any agent. 1 implies that the interaction is queued to the last preferred agent.	
Last Suspend To Date	The UTC time until which the interaction remains suspended in the last segment.	
Last Suspend Reason	The reason for the suspension in the last segment.	
Last Agent Id	Identifier of agent who handle interaction at last.	
Sector Count	The count of the sectors in sequence for the interaction.	S.SectorCount
Last State		
Last Event Date Time	The UTC time when last event in any underlying segment took place.	S.LastEventDateTime
Create Date Time	The UTC time when this sector of interaction was first created.	S.CreateDateTime
Established Date Time	The UTC time when this sector of interaction was last established.	S.EstablishedDateTime
Closed Date Time	The UTC time when this sector of interaction was last closed.	S.ClosedDateTime
Unique Id	A unique identifier of the queue place holder. This is the UCID of the phantom call.	Sg.UniqueId
Interaction Id	ID of the interaction that owns this sector.	S.InteractionId

Customer Statistics

The Customer Statistics report provides information about the interactions between the contact center and a specific customer. You can use the reports to view the interactions across all media types or a particular media type. The current status of each interaction with the customer can be identified.

You can view how long the work waited before being delivered to an agent, the time spent by the agent to complete the interaction, and how the interaction was closed.

Customer Statistics field descriptions

The following table lists and describes the fields in the Customer Statistics report:

Field	Descriptions	Database item or calculation [Sectors, Interactions, Conversations, Segments, Contacts]
Server Instance Type	The type of server that processed this interaction.	I.ServerInstanceType
Contact	Name of the caller or the sender. Links this conversation with a specific customer. If a GUID, this is a ContactId referencing a contact in the **ASContact** database.	
Program	Name of program.	S.ProgramId, P.Name
Delivered Date Time	Timestamp when a call or an email was delivered.	Sg.StartDateTime
Established Date Time	The UTC time when this sector of interaction was last established.	S.EstablishedDateTime
Closed Date Time	The UTC time when this sector of interaction was last closed.	S.ClosedDateTime
To Address	The destination of the interaction.	I.ToAddress
From Address	The origin of the interaction.	I.FromAddress
State	State of the interaction during this segment: • 0 Created • 1 Retrieved • 2 Queued • 3 Delivered • 4 Established • 5 Pending closed • 6 Suspended • 7 Closed	Sg. State
Station	Station of the agent pertaining to this segment.	Sg.AgentStation
Agent Id	Identifier of the agent that handled this sector of interaction.	Sg.AgentId
Wait Seconds	The interval between the interaction creation and the delivery time.	DATEDIFF(Second, S.CreateDateTime, SgDlvd.StartDateTime)

Table continues…

Field	Descriptions	Database item or calculation [Sectors, Interactions, Conversations, Segments, Contacts]
Work Seconds	The duration of the handle time when the interaction has focus.	DATEDIFF(Second, SgEst.StartDateTime, S.ClosedDateTime)
Presentation Seconds	Time between delivery and established.	DATEDIFF(Second, Sg.StartDateTime, S.EstablishedDateTime)
Answer Seconds	The total number of seconds to answer - time between interaction created and established during the interval for all program interactions.	DATEDIFF(Second, S.CreateDateTime, SgEst.StartDateTime)
Suspend Seconds	The total number of seconds spent suspended - time between interaction suspended and retrieved during the interval for all program interactions.	ISNULL(DATEDIFF(Second, (SELECT ClosedDateTime FROM [#ServerName#].ActiveInteractionData.dbo.Sectors WHERE InteractionId=S.InteractionId AND SectorCount=(S.SectorCount-1) AND State=6 AND CompletionStatus=0), S.CreateDateTime),0)
Handle Seconds	Time between established and closed, excluding any suspend time.	DATEDIFF(Second, S.EstablishedDateTime, S.ClosedDateTime)
Abandon Seconds	The total number of seconds before abandoned - time between interaction delivered and closed during the interval (without being established) for all program interactions.	CASE WHEN NOT S.ClosedDateTime IS NULL AND SgEst.StartDateTime IS NULL THEN DATEDIFF(Second, SgDlvd.StartDateTime,S.ClosedDateTime) ELSE NULL END
Sector Count	Count of sectors in sequence for this interaction.	S.SectorCount

Table continues…

Field	Descriptions	Database item or calculation [Sectors, Interactions, Conversations, Segments, Contacts]
Completion Status	• 0 - Not yet complete • 1 - Successfully completed • 2 - Complete, available for retry • 3 - Complete, not available for retry • 4 - failed • 5 - Completed, failed because contact denied • 6 - Completed, failed as contact not allowed in restricted queue	S.CompletionStatus
Interaction Id	ID of the interaction that owns this sector.	S.InteractionId

Customer Statistics - Order By Agent

The report provides information about all interactions between the contact center and a specific customer that is ordered by the agent who last handled the interaction. You can view the interactions across all media types or a specific media type. The current status of each interaction with the customer can be identified.

Customer Statistics - Order By Agent field descriptions

The following table lists and describes the fields in the Customer Statistics - Order By Agent report:

Field	Description	Database item or calculation [Sectors, Interactions, Conversations, Segments, Contacts]
Type	The type of server that processed this interaction.	I.ServerInstanceType
Contact	Name of the caller or the sender. Links this conversation with a specific customer. If a GUID, this is likely a ContactId referencing a contact in the **ASContact** database.	
Agent Id	Identifier of the agent that handled this sector of interaction.	Sg.AgentId
Program	Name of program.	S.ProgramId, P.Name

Table continues…

Field	Description	Database item or calculation [Sectors, Interactions, Conversations, Segments, Contacts]
State	State of interaction during this segment: • 0 Created • 1 Retrieved • 2 Queued • 3 Delivered • 4 Established • 5 Pending closed • 6 Suspended • 7 Closed	Sg.State
Delivered Date Time	Timestamp when a call or an e-mail was delivered.	Sg.StartDateTime
Established Date Time	Timestamp when a call or an e-mail was established.	S.EstablishedDateTime
Closed Date Time	Timestamp when a call or an e-mail was closed.	S.ClosedDateTime
Wait Seconds	The total number of seconds spent waiting - time between interaction created and delivered during the interval for all program interactions.	DATEDIFF(Second, S.CreateDateTime, SgDlvd.StartDateTime)
Work Seconds	The total number of seconds spent handling - time between interaction established and closed during the interval for all program interactions.	DATEDIFF(Second, SgEst.StartDateTime, S.ClosedDateTime)
Suspend Seconds	The total number of seconds spent suspended - time between interaction suspended and retrieved during the interval for all program interactions.	ISNULL(DATEDIFF(Second, (SELECT ClosedDateTime FROM [#ServerName#].ActiveInteractionData.dbo.Sectors WHERE InteractionId=S.InteractionId AND SectorCount=(S.SectorCount-1) AND State=6 AND CompletionStatus=0), S.CreateDateTime),0)
Interaction Id	ID of the interaction that owns this sector.	S.InteractionId

Outcome reports

This group of reports helps the supervisors to see how the contact center is performing across all communication channels and how long must interactions wait before being processed.

The state of the interactions at the agent desktop can also be gauged by generating reports about the work codes that are assigned to those interactions.

Call Center Elite Multichannel Reporting provides the following Historical Outcomes reports for analysis:

- Queue Service Level
- Work Code
- Work Code - Order By Work Code
- Work Code - Order By Work Code Agent

Queue Service Level

This report helps analyze the alignment of a contact center to certain aspects of its customer service.

Queue Service Level field descriptions

The following table lists and describes the fields in the Queue Service Level report:

Field	Description	Database item or calculation [Sectors, Interactions, Conversations, Segments]
Interval	Interval type: Describes what interval is displayed by the histogram. The defined intervals are follows: • **Wait**: Interval between the interaction creation and the delivery time. • **Presentation**: Interval between the delivery and the established time. • **Answer**: Interval between the creation and the established time. • **Suspend**: Interval between an interaction being suspended until it is retrieved. • **Handle**: Interval between the established and closed time, excluding any suspend time. • **Work**: Portion of handle time when the interaction has focus. • **Abandon**: Interval between the delivered and closed times when there is no established event for the interaction. The default InvervalType is Wait.	
Units	Day, Hour, Millisecond, Minute or second.	
Server Instance Type	Task Type (Email, Preview contact, Voice, Simple Messaging).	I.ServerInstanceType
Program	Name of program that is configured in Call Center Elite Multichannel Control Panel.	S.ProgramId, P.Name
Below limit	Optional: Number of calls according to the interval type and below limits.	
n-m	Profile of the number of calls according to the interval type and limits.	
Above Limit	Optional: Number of calls according to the interval type and above limits.	
Total	Optional: Sum of the number of calls according to the interval type and all the limits.	

Work Code

This report generates a report of interactions that are assigned to a particular work code.

Work Code field descriptions

The following table lists and describes the fields in the Work Code report:

Field	Description	Database item or calculation [Sectors, Interactions, Conversations, WorkCodes, Segments, Programs, Contacts_GW]
Server Instance Type	Task Type (Email, Preview contact, Voice, Simple Messaging).	I.ServerInstanceType
contact	Name of the caller or the sender address as configured.	GW.DisplayName
Work code	Name of the entered work code, like configured for the program in Media Store database.	W.Value
Delivered Date Time	Timestamp when a call or an e-mail was delivered.	Sg.StartDateTime
Established Date Time	Timestamp when call or an e-mail was established.	S.EstablishedDateTime
Closed Date Time	Timestamp when call or an e-mail was closed.	S.ClosedDateTime
To Address	Called VDN or e-mail address of destination.	I.ToAddress
From Address	Caller number or sender e-mail address.	I.FromAddress
Station	Device ID where agent is logged in.	Sg.AgentStation
Agent Id	The ID of the agent who stored this work code.	Sg.AgentId
Presentation seconds	Time between delivery and established.	DATEDIFF(Second, Sg.StartDateTime, S.EstablishedDateTime)
Handle Seconds	Time between established and closed, excluding any suspend time	DATEDIFF(Second, S.EstablishedDateTime, S.ClosedDateTime)
Work Code Agent	The ID of the agent who stored this work code.	W.AgentId
Customer Id	Station or ID of caller. Links this conversation with to a specific customer. If a GUID, this is likely a ContactId referencing a contact in the ASContact database.	C.CustomerId
Interaction Id	Call or e-mail identification: The GUID that uniquely defines the interaction - a complete communication.	S.InteractionId

Table continues…

Field	Description	Database item or calculation [Sectors, Interactions, Conversations, WorkCodes, Segments, Programs, Contacts_GW]
Split/Skill	Number of split or skill. **Note:** This field is only applicable for Voice contacts.	Sg.DistributingSplitSkill

Note:

Parameters related to Media Director Queue ID are only applicable to the Email and Simple Messaging channels.

Program and Schedule reports

The Programs that are configured within Call Center Elite Multichannel can represent a single media type, such as voice or email, or can represent a particular line of business, such as Sales or Service. The Programs group of reports provides a view into the work received to each program, the current status of the program, which agents are processing the work from each program and how the program meets business requirements, such as Service Level.

Schedules are assigned to programs so that the programs remain opened and closed to new work at predefined intervals. For outbound Preview Contact, the schedule determines when outbound work is available to agents. The Schedules reports provide a view into the current status of each schedule.

Call Center Elite Multichannel Reporting provides the following Historical Program and Schedules reports for analysis:

- Program Interactions
- Program Interactions - Date Details
- Program Interactions - Date Details (Order By Agent)
- Program Schedules
- Program Schedules - Daily and Weekly Schedules
- Program Schedules - Monthly and Yearly Schedules
- Program Statistics
- Program Status

Program Interactions

The Program Interactions report generates a report on all interactions that are currently associated with a particular program or a group of programs. This report shows each interaction, the interaction type, the time the interaction arrived to Call Center Elite Multichannel, and what actions were taken.

Program Interactions field descriptions

The following table lists and describes the fields in the Program Interactions report:

Field	Description	Notes
Name	The name of the program.	The name of the program must be used as mentioned in the programs tables.
Contact	The customer contact. This field is present only if the contact is associated with the interaction.	The customer contact must be used as mentioned in the ASContact database.
Server Instance type	The server instance type of the interaction.	The following are the possible server instance types: • Email • Voice • Simple Messaging • Preview Contact
Completion Status	The completion status of the interaction.	The following are the possible statuses: • 0 - Not yet complete. • 1 - Successfully completed. • 2 - Complete, available for retry. • 3 - Complete, not available for retry. • 4 - Failed. • 5 - Completed, failed because contact denied. • 6 - Completed, failed as contact not allowed in restricted queue.

Table continues…

Field	Description	Notes
Interaction State	The state of the interaction. The possible values are 0,1,2,3,4,6,7, or 10.	The following are the possible states of the interaction: • 0 - Created • 1 - Processing • 2 - Queued • 3 - Delivered • 4 - Established • 5 - Pending Closed • 6 - Suspended • 7 - Closed • 10 - Retrieved
Agent ID	The Agent ID of the contact.	For Email Auto Response or Abandoned Calls, you must keep this field blank.
Last Access Date Time	The field is applicable only for Preview Contact media type.	For Email, Voice, and Simple Messaging media types, you must keep this field blank.
Last Modified Date Time	The UTC date and time when the program details are last modified.	The Last Modified Date Time must be used as mentioned in the programs tables.
Create Agent Date Time	The UTC date and time when the interaction is created.	
Delivered Agent Date Time	The UTC date and time when the interaction is delivered.	
Modify Date Time	The UTC date and time when the program is last modified.	
Program Cycle	Defaults to 0.	0 - Currently not used. Prior to 4.0, it was the present cycle number for the program, used if this program recurs.
State Reason	The reason for the state of the program.	
Queue Number Used	The queue number that the interaction uses.	
Queue Priority Used	The priority that the interaction uses.	This field is not applicable for voice calls.
Unique Id	The UCID of the call. The UCID can be found in the database.	
Suspend Until	The UTC time till the Email is suspended.	
Suspend Reason	The reason for the suspension.	

Table continues…

Field	Description	Notes
Preferred Agent ID	Identifier of the preferred agent to handle suspended calls.	
Preferred Agent Only	This field can be set to True or False.	
Interactions Id	The interaction ID of the contact.	
Server Instance Id	The Server Instance ID of the contact.	
Parent Interaction Id	The Server Instance ID of the contact.	
From Address	In this field, you can enter one of the following values: • For Simple Messaging Media Store, the name mentioned in the chat. • For Voice, the contact number of the called party. • For Email, the email address of the sender.	
Subject	The subject of the email.	
To Address	The email address of the recipient.	
Agent Notes	The notes that an agent has entered.	

Program Interactions - Date Details

The Program Interactions - Date Details report generates a report on all interactions that are currently associated with a particular program and orders them based on the last time when each interaction was modified. This report shows each interaction, the interaction type, the time when the interaction arrived to Call Center Elite Multichannel, and what actions were taken.

Program Interactions - Date Details field descriptions

The following table lists and describes the fields in the Program Interactions - Date Details report:

Field	Description	Notes
Name	The name of the program.	The name of the program must be used as mentioned in the programs tables.

Table continues…

Field	Description	Notes
Interaction State	The state of the interaction. The possible values are 0,1,2,3,4,6,7, or 10.	The following are the possible states of the interaction: • 0 - Created • 1 - Processing • 2 - Queued • 3 - Delivered • 4 - Established • 5 - Pending Closed • 6 - Suspended • 7 - Closed • 10 - Retrieved
Agent ID	The Agent ID of the contact.	For Email Auto Response or Abandoned Calls, you must keep this field blank.
Last Access Date Time	The field is applicable only for Preview Contact media type.	For Email, Voice, and Simple Messaging media types, you must keep this field blank.
Last Modified Date Time	The UTC date and time when the program details are last modified.	The Last Modified Date Time must be used as mentioned in the programs tables.
Create Date Time	The UTC date and time when the interaction is created.	
Queued Date Time	The UTC date and time when the interaction is queued.	
Delivered Agent Date Time	The UTC date and time when the interaction is delivered.	
Modify Date Time	The UTC date and time when the program is last modified.	
Suspend Until	The UTC time till the Email is suspended.	
Suspend Reason	The reason for the suspension.	
Agent Notes	The notes that an agent has entered.	

Program Interactions - Date Details (Order By Agent)

The Program Interactions - Date Details (Order By Agent) report generates a report on all interactions that are currently associated with a particular program and orders them based on the agent ID when each interaction was modified. This report shows each interaction, the interaction type, the time when the interaction arrived to Call Center Elite Multichannel, and what actions were taken.

Program Interactions - Date Details (Order By Agent) field descriptions

The following table lists and describes the fields in the Program Interactions - Date Details (Order By Agent) report:

Field	Description	Notes
Agent ID	The Agent ID of the contact.	For Email Auto Response or Abandoned Calls, you must keep this field blank.
Name	The name of the program.	The name of the program must be used as mentioned in the programs tables.
Interaction State	The state of the interaction. The possible values are 0,1,2,3,4,6,7, or 10.	The following are the possible states of the interaction: • 0 - Created • 1 - Processing • 2 - Queued • 3 - Delivered • 4 - Established • 5 - Pending Closed • 6 - Suspended • 7 - Closed • 10 - Retrieved
Last Access Date Time	The field is applicable only for Preview Contact media type.	For Email, Voice, and Simple Messaging media types, you must keep this field blank.
Last Modified Date Time	The UTC date and time when the program details are last modified.	The Last Modified Date Time must be used as mentioned in the programs tables.
Create Date Time	The UTC date and time when the interaction is created.	
Queued Date Time	The UTC date and time when the interaction is queued.	
Delivered Agent Date Time	The UTC date and time when the interaction is delivered.	
Modify Date Time	The UTC date and time when the program is last modified.	
Agent Notes	The notes that an agent has entered.	

Program Schedules

The Program Schedules report generates a report on more than one schedule that appears in the **ASMediastore** database.

Program Schedules field descriptions

The following table lists and describes the fields in the Customer Program Schedules report:

Field	Description	Database item or calculation [Programs, ScheduledPrograms, Schedules]
Program Name	Name of program.	P.Name
Last Access Date Time	The UTC date and time when the Program details were last loaded. Used by Media Store to detect the changes in the Program details after the Program is loaded.	P.LastAccessDateTime
Last Modified Date Time	The UTC date and time when the Program details were last modified. Used by the Media Store to detect the changes in the Program details or in the Program schedules.	P.LastModifiedDateTime
State	Ready, Active, Stopped by schedule, Completed, disabled or Pending deletion.	P.State
Create Date Time	The UTC date and time when the row was first created.	SchP.CreateDateTime
Resume Type	The work type this schedule represents: 0 schedule defines normal working time; 1 schedule defines non working (holiday) time Resume, Restart or ResumeRestart.	SchP.ResumeType
MDQueue Priority	Media Director queue priority.	SchP MDQueuePriority
MDQueue Id	Media Director queue ID.	SchP MDQueueId
Program Cycle	0.	P.ProgramCycle

Schedule Type	The type of this schedule:
	• 0 OneOff
	• 1 Daily
	• 2 Weekly
	• 3 Monthly
	• 4 Yearly
	  - One Off
	  - Daily
	  - Weekly
	  - Monthly
	  - Yearly
		Sch.ScheduleType

Table continues…

Field	Description	Database item or calculation [Programs, ScheduledPrograms, Schedules]
Work Type	The work type this schedule represents: 0 schedule defines normal working time; 1 schedule defines non working (holiday) time: Normal working time or Non working (holiday) time.	WorkType
Start Date	Local date only (no time, and non UTC date) when schedule starts.	StartDate
Start Time	Local time in day (no date and non UTC time) to a minute when schedule starts (Format 12:00:00 AM).	StartTime
Duration	In minutes - 0 to 20160 (2 weeks) - used to determine length of schedule leg in all schedules except OneOff schedules.	Duration
End by Date	Local date only (no time, non UTC date) when schedule stops.	EndByDate
End Time	Local time in day (no date and non UTC time) to a minute when schedule stops - used only for OneOff schedule type (Format 12:00:00 AM).	EndTime
End after Occurrences	The number of legs in a schedule from Start to EndBy.	EndAfterOccurences
Daily Recur Every XDays	999 days.	DailyRecurEveryXDays
Daily Every Week Day	True if occurs every week day.	DailyEveryWeekDay
Weekly Recur Every XWeeks	99 weeks.	Weekly Recur Every XWeeks
Weekly On <day of week>	False/True for Mon, Tue, Wed, Thu, Fri, Sat or Sun.	WeeklyOnMon, WeeklyOnTue, WeeklyOnWed, WeeklyOnThu, WeeklyOnFri, WeeklyOnSat, WeeklyOnSun
Monthly Recur By Day of Month	True/False.	MonthlyRecurByDayOfMonth
Monthly Recur Day of Month	1-31.	MonthlyRecurDayOfMonth
Monthly Recur Every XMonths	99 months.	MonthlyRecurEveryXMonths
Monthly Week of Month	1 First, 2 Second, 3 Third, 4 Fourth, 5 Last.	MonthlyWeekOfMonth

Table continues…

Field	Description	Database item or calculation [Programs, ScheduledPrograms, Schedules]
Monthly Day of Week Etc	1 Mon, 2 Tue, 3 Wed, 4 Thu. 5 Fri, 6 Sat, 7 Sun, 8 day, 9 weekday, 10 weekend day.	MonthlyDayOfWeekEtc
Yearly Recur by Day of Month	Which of two yearly options chosen.	YearlyRecurByDayOfMonth
Yearly Month	1 Jan;2 Feb ... 12 Dec.	YearlyMonth
Yearly Day of Month	1 to 31.	YearlyDayOfMonth
Yearly Week of Month	1 First, 2 Second, 3 Third, 4 Fourth, 5 Last.	YearlyWeekOfMonth
Yearly Day of Week Etc	1 Mon, 2 Tue, 3 Wed, 4 Thu, 5 Fri, 6 Sat, 7 Sun, 8 day, 9 weekday, 10 weekend day.	YearlyDayOfWeekEtc
Schedule Name	Name of the schedule.	Sch.Name
Start Time Only	Local time in day (no date and non UTC time) to a minute when schedule starts (Format 00:00:00).	StartTime
End Time Only	Local time in day (no date and non UTC time) to a minute when schedule stops - used only for OneOff schedule type (Format 00:00:00).	EndTime

Program Schedules - Daily and Weekly Schedules

This report shows the user the current schedules that are configured in the Call Center Elite Multichannel database to run on a daily or weekly basis.

The user can filter the output view only the schedules that are assigned to a particular media type.

Program Schedules - Daily and Weekly Schedules field descriptions

The following table lists and describes the fields in the Program Schedules - Daily and Weekly Schedules report:

Field	Description	Database item or calculation [Programs, ScheduledPrograms, Schedules]
Program Name	Name of program.	P.Name
Schedule Name	Name of the schedule.	Sch.Name
Daily Recur Every XDays	0-999 days.	DailyRecurEveryXDays
Daily Every Week Day	If occurs every week day, false else.	DailyEveryWeekDay
Weekly Recur Every XWeeks	0-99 weeks.	WeeklyRecurEveryXWeeks

Table continues…

Field	Description	Database item or calculation [Programs, ScheduledPrograms, Schedules]
Weekly On <day of week>	False/True for Mon, Tue, Wed, Thu, Fri, Sat, or Sun.	WeeklyOnMon, WeeklyOnTue, WeeklyOnWed, WeeklyOnThu, WeeklyOnFri, WeeklyOnSat, WeeklyOnSun

Program Schedules - Monthly and Yearly Schedules

This report shows the user the current schedules that are configured in the Call Center Elite Multichannel database to run on a monthly or yearly basis.

Program Schedules - Monthly and Yearly Schedules field descriptions

The following table lists and describes the fields in the Program Schedules - Monthly and Yearly Schedules report:

Field	Description	Database item or calculation [Programs, ScheduledPrograms, Schedules]
Program Name	Name of program.	P.Name
Schedule Name	Name of the schedule.	Sch.Name
Monthly Recur By Day of Month	Which of two monthly options chosen.	MonthlyRecurByDayOfMonth
Monthly Recur Day of month	1-31.	MonthlyRecurDayOfMonth
Monthly Recur Every XMonths	0-99 months.	MonthlyRecurEveryXMonths
Monthly Week of Month	1 First, 2 Second, 3 Third, 4 Fourth, 5 Last.	MonthlyWeekOfMonth
Monthly Day of Week Etc	1 Mon, 2 Tue, 3 Wed, 4 Thu, 5 Fri, 6 Sat, 7 Sun, 8 day, 9 weekday, 10 weekend day.	MonthlyDayOfWeekEtc
Yearly Recur by Day of Month	Which of two yearly options chosen.	YearlyRecurByDayOfMonth
Yearly Month	1 Jan, 2 Feb ... 12 Dec..	YearlyMonth
Yearly Day of Month	1-31	YearlyDayOfMonth
Yearly Week of Month	1 First, 2 Second, 3 Third, 4 Fourth, 5 Last.	YearlyWeekOfMonth
Yearly Day of Week Etc	1 Mon, 2 Tue, 3 Wed, 4 Thu, 5 Fri, 6 Sat, 7 Sun, 8 day, 9 weekday, 10 weekend day.	YearlyDayOfWeekEtc

Program Statistics

This report provides information about all interactions that are received for a period by media type. User can see the number of interactions that are created by Call Center Elite Multichannel, the number of interactions that were delivered to agents, and the number or interactions that are closed. This report gives the user a snapshot of the work done by the contact center for a particular media channel.

Program Statistics field descriptions

The following table lists and describes the fields in the Program Statistics report:

Field	Description	Database item or calculation[ProgramStats, Programs]
Server Instance Type	Media Store type used to process interactions for this program during the interval.	PS.ServerInstanceType
Program Name	Name of the program.	P.Name
Stats Record From	The UTC date and time when this interval started (to nearest minute).	PS.IntervalStartDateTime
Stats Record to	The UTC date and time when this interval ended (to nearest minute).	DR.EndDateTime
Created	Count of all the interactions the state of which changed to Created during the interval.	SUM(Created)
Retrieved	Count of all the interactions that have been deliberately retrieved by an agent during the interval.	SUM(RetrievedByAgent)
Queued	Count of all the interactions the state of which changed to Queued during the interval.	SUM(Queued)
Delivered	Count of all the interactions the state of which changed to Delivered during the interval.	SUM(Delivered)
Established	Count of all the interactions the state of which changed to Established during the interval.	SUM(Established)
Suspended	Count of all the interactions the state of which changed to Suspended during the interval.	SUM(Suspended)
Closed	Count of all the interactions the state of which changed to Closed (completed) during the interval.	SUM(Closed)
Unknown	Count of all the interactions set to unknown status during the interval.	SUM(Unknown)

Table continues…

Field	Description	Database item or calculation[ProgramStats, Programs]
Complete Success	Count of the interactions that were completed successfully during the interval.	SUM(CompleteSuccess)
Complete Available Retry	Count of the interactions that were completed and set to available for retry during the interval.	SUM(CompleteAvailableRetry)
Complete not Available Retry	Count of the interactions that were completed and are unavailable for retry during the interval.	SUM(CompleteNotAvailableRetry)
Complete Failed	Count of the interactions that were completed but marked as failed during the interval.	SUM(CompleteFailed)
Complete Denied	Count of the interactions that were completed but failed because the contact was denied access during the interval.	SUM(CompleteDenied)
Complete Denied Queue	Count of the interactions that were completed but failed because the contact was denied access to queue during the interval.	SUM(CompleteDeniedQueue)
Outbound Queued	Reserved for future use - Count of outbound interactions queued, that is, state changes to Queued and the current message is outbound, during the interval.	SUM(OutboundQueued)
Outbound Sent	Reserved for future use - Count of outbound interactions sent, that is, state changes to Delivered and the current message is outbound, during the interval.	SUM(OutboundSent)
Responses	Reserved for future use - Count of interactions that were created during the interval that have a Parent Interaction that is an inbound interaction (its first message was inbound).	SUM(Responses)

Table continues…

Field	Description	Database item or calculation[ProgramStats, Programs]
Abandoned	Reserved for future use - Count of inbound interactions (those with first message inbound) in Delivered State that are closed during the interval, that is, not Established.	SUM(Abandoned)
Agent to Resident Expert	Reserved for future use - Count of all interactions that were sent from an agent to a Resident Expert during the interval.	SUM(AgentToResidentExpert)
Resident Expert To Agent	Reserved for future use - Count of all interactions sent from a Resident Expert to an agent during the interval.	SUM(ResidentExpertToAgent)

Program Status

This report provides a snapshot of the status of a particular program or a group of programs. This report also shows the user how many interactions are associated with the program, how many interactions are completed, and how many interactions are incomplete. Using this data, the user can gauge the performance of the program or the line of business and determine actions such as the addition of agents.

Program Status field descriptions

The following table lists and describes the fields in the Program Status report:

Field	Description	Database item or calculation [Programs, Sectors, Interactions, Conversations, InteractionStates]
Name	Name of program.	P.Name
Total count	Number of calls or emails in a specified interval.	COUNT(*)
Completed count	Count of the interactions that is completed during the interval.	SUM(CASE WHEN I.CompletionStatus>0 THEN 1
Completed percent	Percentage of the interactions of the total count that is completed during the interval.	ROUND(((SUM(CASE WHEN I.CompletionStatus>0 THEN 1 ELSE 0 END)/CAST(COUNT(*) AS FLOAT))*100),0)
Remaining count	Count of the interactions are incomplete during the interval.	SUM(CASE WHEN I.CompletionStatus=0 THEN 1

Table continues…

Field	Description	Database item or calculation [Programs, Sectors, Interactions, Conversations, InteractionStates]
Remaining percent	Percentage of the interactions of the total count that is incomplete during the interval.	ROUND(((SUM(CASE WHEN I.CompletionStatus=0 THEN 1 ELSE 0 END)/CAST(COUNT(*) AS FLOAT))*100),0)
Behind count	Count of the interactions that are suspended during the interval.	SUM(CASE WHEN I.CompletionStatus=0 AND ISNULL(ISt.SuspendUntil,"2999/01/01'') < @AsOfDateTime THEN 1 ELSE 0 END)
Behind percent	Percentage of the interactions of the total count that is suspended during the interval.	ROUND(((SUM(CASE WHEN I.CompletionStatus=0 AND ISNULL(ISt.SuspendUntil,"2999/01/01'') < @AsOfDateTime THEN 1 ELSE 0 END)/CAST(COUNT(*) AS FLOAT))*100),0)

Split Skill reports

This report provides information about the percentage of calls that are answered within the set service levels by a split or skill, how many calls are handled by each agent in a split or skill, and a summary of the activities for an entire split or skill. Contact center supervisors can use Split Skill reports to determine caller patience, if service levels have been achieved, and make comparisons of agent performance for a particular split or skill.

Service Level Time Seconds is the time that logged-in agents take to answer calls. For more details, see *Interaction Data Service chapter in the Administering Avaya Aura® Call Center Elite Multichannel* guide.

Call Center Elite Multichannel Reporting provides the following Historical Split Skill reports for analysis:

- Split Skill
- Split Skill (Graphical)
- Split Skill Call Profile (Graphical)
- Split Skill Service Level (Graphical)
- Split Skill Summary
- System

Split Skill

The report shows the calls handled, agent time and assists, and transfers and holds for each agent in a particular split or skill. This report shows only the time each agent worked in this split or skill. An agent might have worked in other splits or skills during the day. This report is available in daily, weekly, and monthly versions.

Split Skill field descriptions

The following table lists and describes the fields in the Split Skill report:

Field	Description	Database item or calculation [AgentSplitSkillStats]
Split Skill	The name or number of the split or skill that is selected for this report. You can make these selections in the report input window.	SplitSkillName
Agent Name	The names or login IDs of the agents that logged in to the split or skill.	AgentName
Answered Calls	The number of ACD calls answered by the agent.	SUM(CallsAnswered)
Avg Talk Time	The average time the agent spent on ACD calls for this split or skill that completed during the period covered, talk time for preview outbound calls is included.	SUM(TotalTalkSeconds)/ SUM(CallsCompleted)
Avg ACW Time	The average time that the agent spent in ACW.	SUM(TotalACWSeconds)/ SUM(CallsCompleted) IF SUM(CallsAnswered) > 0
Total Talk Time	The total time the agent spent on ACD calls for this split or skill during the period.	SUM(TotalTalkSeconds)
Total ACW Time	The total time the agent spent working in ACW.	SUM(TotalACWSeconds)
Total Wait Time	The total time the ACD calls rand before the agent answered. Ringing time for calls which are unanswered are not counted in wait time.	SUM(TotalWaitSeconds)

Table continues…

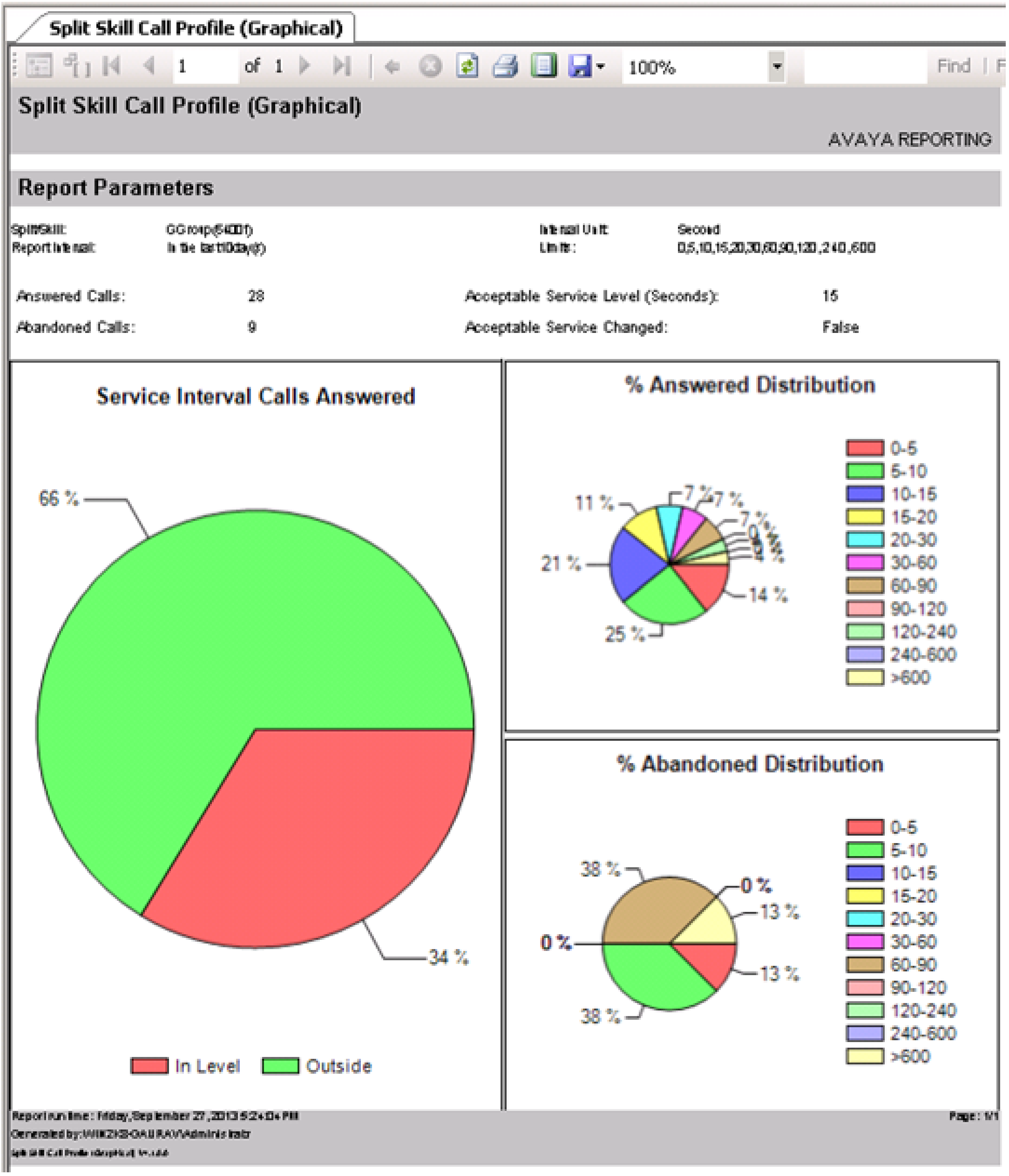
Field	Description	Database item or calculation [AgentSplitSkillStats]
Total Other Time	The time that agents spent doing other work. For Communication Manager, Other Time is accumulated when: • An agent first logs in. Call Center Elite Multichannel tracks the agent time as Other Time until Communication Manager notifies Call Center Elite Multichannel about the agent state. • The link between Call Center Elite Multichannel and Communication Manager becomes operational. Communication Manager then notifies Call Center Elite Multichannel about all agents who are logged in. Call Center Elite Multichannel assumes that the agents are in the other state until Communication Manager sends notification about the current state of each agent. • Other Time is accumulated when: - Agents are in Auto-In or Manual-In. - Agents put a call on hold while not performing another activity. - Agents dial to place a call or to activate a feature. - Agents receive personal calls. - Agents are available for other multiple call handling skills but not for this skill. - lAgents are logged in to multiple splits or skills and are performing work for a split or skill other than this split or skill (on an ACD call or in call- related ACW).	SUM(TotalOtherSeconds)
Total AUX Time	The total time that the agent spent in the AUX work for a split or skill.	SUM(TotalAUXSeconds)
Available Time	The total time that the agent spent waiting for an ACD call in the split or skill.	SUM(TotalAvailableSeconds)
Staffed Time	The total time that the agent was logged in to the split or skill for the period covered.	SUM(StaffedSeconds)
Held Calls	The number of calls that the agent put on hold. This is any type of call.	SUM(CallsHolding)

Table continues…

Field	Description	Database item or calculation [AgentSplitSkillStats]
Avg Hold Time	The average time that the callers spent on hold for an agent to become available. This is any type of call.	SUM(TotalHoldSeconds)/ SUM(CallsCompleted)

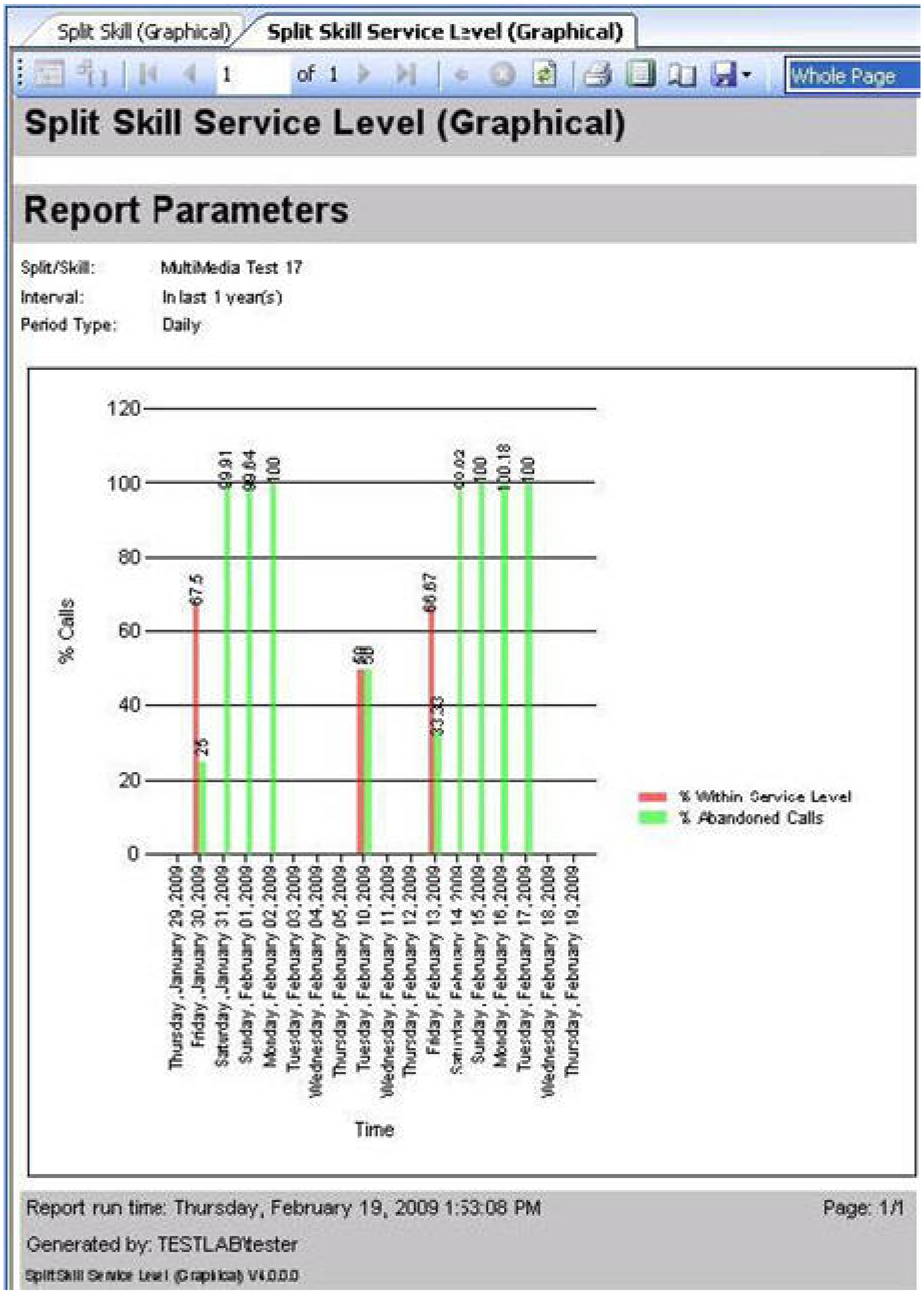
Split Skill Call Profile (Graphical)

The report shows the Average Speed of Answer (ASA) for calls received to the specified split or skill. The graph shows a range of dates across the period, which allows a profile of the split or skill performance over time to be determined and analyzed.



Split Skill Service Level (Graphical)

This report provides a graphical representation of the percentage of calls that are answered within the predefined acceptable service level and the percentage of abandoned calls for the date and split or skill specified.



Split Skill Summary

The report provides a snapshot of the activity for an entire split or skill by time. Contact center supervisors can use the report to analyze the overall performance of a split or skill or to compare split or skills. This report is available in interval, daily, weekly, and monthly versions.

Split Skill Summary field descriptions

The following table lists and describes the fields in the Split Skill Summary report:

Field	Description	Database item or calculation [SplitSkillStats]
Date	The dates for which the report ran. You can make these selections in the report input window.	
Avg Speed Ans	The average time that the completed ACD calls waited in queue and rang before being answered by an agent.	SUM(TotalWaitSeconds)/ SUM(CallsAnswered)
Avg Aban Time	The average time that the ACD calls waited in queue or rang before being abandoned.	SUM(TotalAbandonedSeconds)/ SUM(CallsAbandoned)
Answered Calls	The number of ACD calls that were queued to this split or skill and answered by an agent. This total also includes also preview calls.	SUM(CallsAnswered)
Avg Talk Time	The average time that the agents spent talking on ACD calls for this split or skill that completed during the interval.	SUM(TotalTalkSeconds)/ SUM(CallsAnswered)
Avg ACW Time	The average time that the agents spent in ACW associated with ACD calls for this split or skill.	SUM (TotalACWSeconds)/ SUM(CallsAnswered) IF SUM(CallsAnswered) > 0
Aban Calls	The number of ACD calls to the split or skill that were abandoned while either waiting in queue (if this was the first split or skill the call was queued to), or while ringing. This total includes calls with talk time less than the phantom abandoned call timer value, if it is set.	SUM(CallsAbandoned)
Max Delay	The maximum time that a caller waited in queue before: • Being serviced • Abandoning • Being redirected • Receiving a busy signal • Being disconnected	MAX(LongestIntervalWaitingSeconds)
% Answered Calls	The percentage of calls queued to this split or skill that were answered by agents.	100*SUM(CallsAnswered)/ SUM(CallsTotal)

System Report

This report summarizes the activity of a set of splits or skills for the same ACD. Contact center supervisors can use this report to compare the performance of splits or skills performing similar functions for the same ACD. This report is available in daily, weekly, and monthly versions.

System Report field descriptions

The following table lists and describes the fields in the System Report:

Field	Description	Database item or calculation [SplitSkillStats]
Split Skill	The name or number of the split or skill that is selected for this report. You can make these selections in the report input window.	SplitSkillName
Avg Speed Ans	The average time ACD calls were waiting in queue and ringing before being answered by an agent.	SUM(TotalWaitSeconds)/ SUM(CallsAnswered)
Avg Aban Time	The average time ACD calls were waiting in queue or ringing before being abandoned.	SUM(TotalAbandonedSeconds)/ SUM(CallsAbandoned)
Answered Calls	The number of ACD calls that were queued to this split or skill and answered by an agent. This total also includes also preview outbound calls.	SUM(CallsAnswered)
Avg Talk Time	The average time the agents spent on ACD calls for the split or skill. This average time also includes the talk time for preview outbound calls.	SUM(TotalTalkSeconds)/ SUM(CallsAnswered)
Avg ACW Time	The average time that the agent spent in ACW that is associated with ACD calls.	SUM (TotalACWSeconds)/ SUM(CallsAnswered).
Aban Calls	The number of ACD calls to the split or skill that abandoned while either waiting in queue (if this was the first split or skill the call was queued to), or while ringing. This total includes calls with talk time less than the phantom abandoned call timer value.	SUM(CallsAbandoned)
Max Delay	The maximum time that a caller waited in queue and ringing before: • Being answered • Abandoning • Being redirected • Receiving a busy signal • Being disconnected • No value in report	MAX(LongestIntervalWaitingSeconds)
% Answered Calls	The percentage of calls queued to this split or skill that were answered by agents for this split or skill.	100*SUM(CallsAnswered)/ SUM(CallsTotal)

VDN reports

This report provides a summary of incoming ACD call-handling performance for a specific VDN. This report provides statistics on all calls that were delivered to the contact center, not just those answered or queued to a split or skill.

Call Center Elite Multichannel Reporting provides the following Historical VDN reports for analysis:

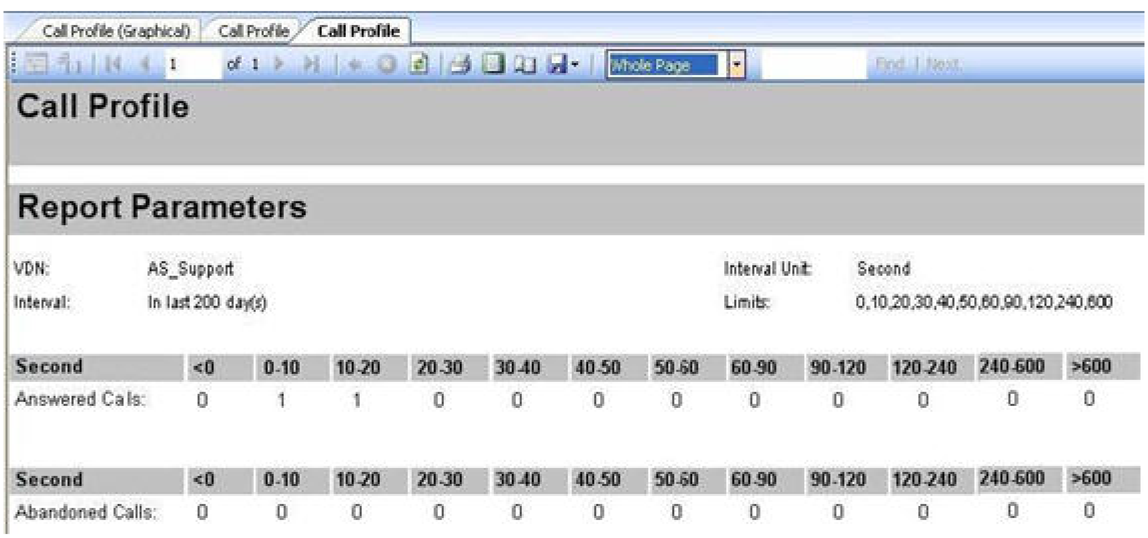
- VDN Call Profile
- VDN Call Profile (Graphical)

VDN Call Profile

This report consists of two types of data. One type is displayed in the upper section and another type is displayed in the lower section of the report.

The upper section displays the abandoned calls and answered calls for the VDN, where the data is split into time slices. To create this overview each call has to be evaluated by its detailed call sequence and timeline. Voice Media Store generates and stores this information. This is the same information as it is used for the call history display at the agent desktop and it is based on Call Center Elite Multichannel work items.

Calls that are abandoned in queue or only delivered to a station without related agent desktop are not displayed in the upper section. Answered Calls are counted after a work item is accepted. Abandoned Calls are counted after a work item is closed. The data for these events is stored to the exact DB time interval, where the actual event happens. This is different than the report information in the lower section, where all the call related data is stored to the DB time interval at the end of the call.



The lower section displays total counters of answered and abandoned calls:

Answered Calls:	244	Abandoned Calls:	488
Average Speed of Answered:	0:00	Average Abandoned Time:	49:29
% Answered:	32.88%	% Abandoned Calls:	65.77%
% Within Service Level:	66.67%		

Report run time: Monday, March 09, 2009 1:36:43 PM
Call Profile V4.0.0.0

IDS Voice and Presence creates this information. This information is same source as all other voice related historical reports and it is independent to the Voice Media Store. IDS Voice and Presence uses call related information provided directly by Communication Manager or Application Enablement Services. Therefore the counters in this report area are calculated in relation to answer/disconnect of calls, not in relation to Work Item acceptance/closure. Additionally, this area of the report includes information about calls in queue as opposed to the upper area. The data for these calls is stored to the DB time interval which belongs to the end/disconnect of the call.

In the report, the information that upper and lower section displays can differ in many cases, even if the processes are working correctly.

As IDS Voice and Presence generates the values for other parameters related to time and percentage, these parameters are displayed only in the lower section of the report.

VDN Call Profile field descriptions

The following table lists and describes the fields in the VDN Call Profile report:

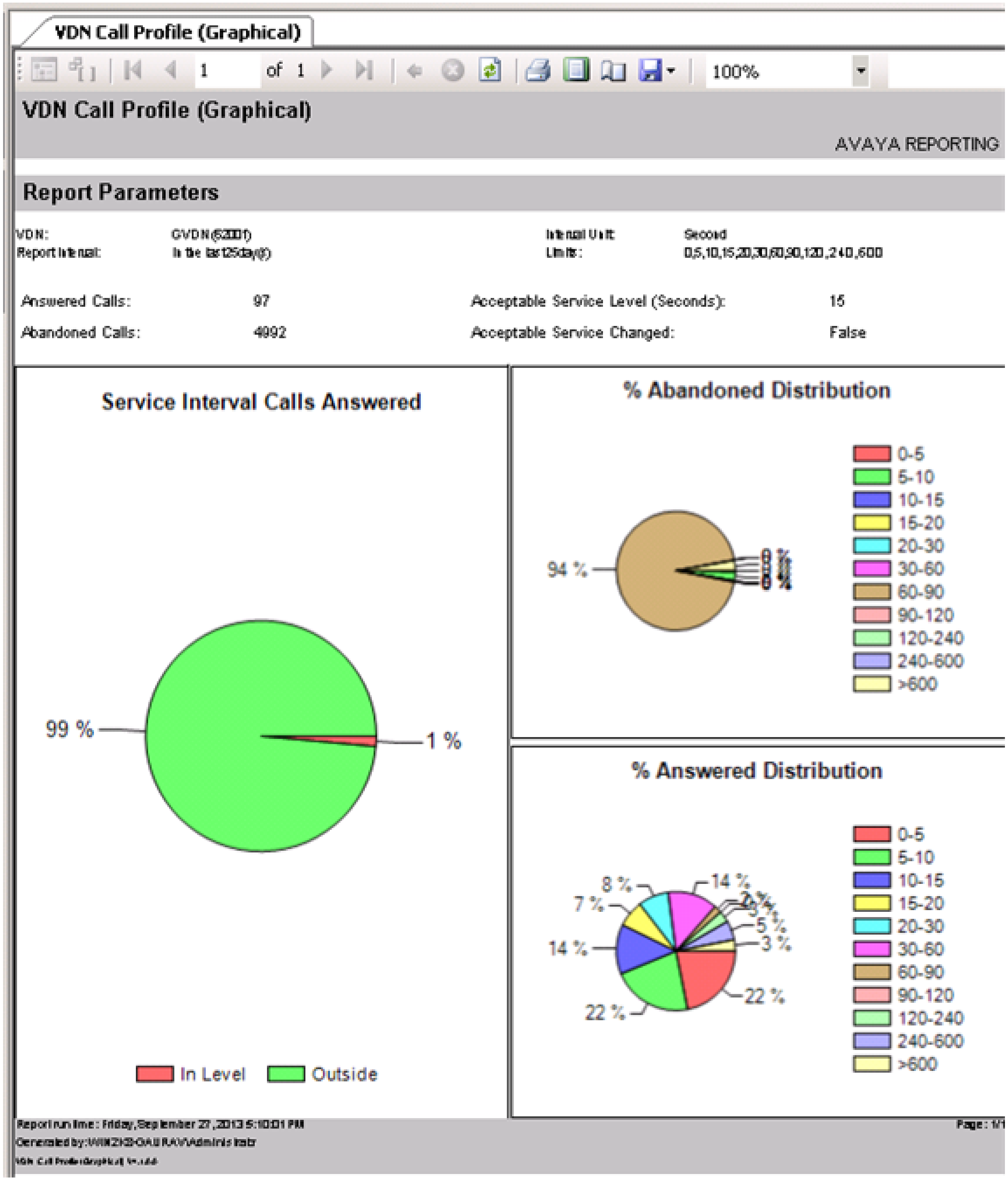
Field	Description	Database item or calculation [Sectors, Interactions, Conversations, Segments, VDNStats]
Interval Unit	Day, Hour, Millisecond, Minute or second.	
Below Limit	Number of calls according to below limit.	
n-m	Profile of number of calls according to the limits, Lower and upper limits in seconds of each service level increment (as defined in the VDN Call Profile Setup window).	
Above Limit	Number of calls according to above limits.	
Answered Calls	Number of calls that, while carried by this VDN, were within each of the service level increments.	SUM(CallsAnswered)

Table continues…

Field	Description	Database item or calculation [Sectors, Interactions, Conversations, Segments, VDNStats]
Average Speed of Answered	Average time, in minutes and seconds, that calls completed in this interval waited before they were answered.	SUM(TotalWaitSeconds)/ SUM(CallsAnswered)
% Answered	Percentage of calls to the VDN answered.	100 * SUM(CallsAnswered)/ SUM(CallsTotal)
% Within Service Level	Percentage of incoming calls to the VDN that were answered within the service level (as specified in the VDN Call Profile Setup window). Service Level Time Seconds is the time that logged-in agents take to answer calls. For more details, see *Interaction Data Service chapter in the Administering Avaya Aura® Call Center Elite Multichannel* guide.	CASE WHEN ISNULL(SUM(CallsAnswered), 0)=0 THEN 100 -- 100% service level if no calls ELSE ROUND(SUM(CAST(CallsAnswered*ServiceLevel AS FLOAT)/ 100)*100/SUM(CallsAnswered),0) END
Abandoned Calls	Number of incoming calls to the VDN that hung up before they could be answered within each of the service level increments.	SUM(CallsAbandoned)
Average Abandoned Calls	Average time that the calls waited before the callers abandoned them.	SUM(TotalAbandonedSeconds)/ SUM(CallsAbandoned)
% Abandoned Calls	Percentage of calls that abandoned while carried by this VDN.	100 * SUM(CallsAbandoned)/ SUM(CallsTotal)

VDN Call Profile (Graphical)

This report shows how calls to the specified VDN are being handled compared to the Contact centers pre-defined Acceptable Service Level.



Real-time reports

Real-time reports give snapshots of the call center performance and status. These reports are created using the current statistics that are extracted from Interaction Data Server - View (the application-interface to Interaction Data Server - Voice and Presence).

This section contains the following topics:

- Using real-time reporting
- Generating real-time reports
- Realtime Device reports

Using real-time reporting

Procedure

1. From the **Realtime Reports** menu, select a report type.
2. From the list box, select options such as agent IDs, devices, queues, or VDNs according to the report that you select.
3. Click **Get Status**.

   The report displays in a tabular format. Use the tabular format to view all statistics related to the selected items. The system displays the line items in the order that you type the items. You can change the order by clicking any column heading.

4. To view the selection of the statistics that are available for your agents, click  on the toolbar.

   Note:

   You might have to wait a few seconds before the system displays the report.

5. From the report view, you can change the statistics that display for your report type by selecting a different report file from the report toolbar.

   Call Center Elite Multichannel Reporting comes with four file options for agent reporting, three for devices, one for VDNs, and one for queues. For more information about a particular report file, see Reports.

   Note:

   You can view more report files if your company has customized some of its own. A customized file must contain the schema required by your report type. The file must have a unique name and must be stored in the reports file path defined in the application configuration.

6. To refresh the data in your report, that is, to view the latest information from Interaction Data Server - View, click  on the toolbar.

   If the refresh function is set to Manual, Call Center Elite Multichannel Reporting updates the information just once. To set the refresh function to update information at a regular time interval, click the drop-down arrow and select a time interval.

7. From report view, you can print reports by clicking  the toolbar.

8. From report view, you can save reports to many formats, including HTML file, PDF, Excel spreadsheet, Text document, or one of many types of graphic, for example, BMP, JPEG, TIFF, PNG, or GIF, using the icon.

   Note:

   Watermarks are supported in the PDF, RTF (single file page-by-page mode), and image (single file page-by-page mode) formats.

9. To review the information in the grid format, click the toolbar.

Related links

Generating reports on page 38

Generating real-time reports

Realtime Agent reports

Realtime Agent Status - State

Use this report to determine the current work status of a particular agent or a group of agents. This report displays the work mode they are in (Auxiliary, Available or After Call Work), if they are talking or are idle, and what split or skill they are logged in to. Line items appear in the same order you used when you type your search selection list.

Realtime Agent Status - State (Order by agent)

Use this report to create the Realtime Agent Status - State Report but you want the line items displayed according to agent ID.

Realtime Agent Status - Statistics

Use this report to display the average length of time an agent is currently spending in each of the work modes (Available, Auxiliary, After Call Work), how long on average they are spending on a call, and how many calls on an average they are handling per hour. Line items appear in the same order you used when you typed your search selection list.

Note:

The interval used to calculate current statistics is defined in Interaction Data Server - Voice and Presence.

Realtime Agent Status - Statistics (Order by agent)

Use this report if you want to create the Realtime Agent Status - Statistics Report but you want line items to display according to agent ID.

Realtime Device reports

Realtime Device Status

Use this report to determine the status of a particular device (deskphone) or a group of devices in your contact center. This report displays the ID of the agent logged into the device, the state of the agent (whether they are in Auxiliary, Available or After Call Work mode), and the number of calls handled by the device within the current interval.

Note:

The interval used to calculate current statistics is defined in Interaction Data Server - Voice and Presence.

Realtime Queue reports

Realtime Queue Status - Count Statistics

Use this report of find out the current status of a particular queue or group of queues. This report displays how many interactions are in progress, how many have arrived at a queue during the shift, and how many have arrived in the last (previous) hour, current hour and during the current interval. You can also tell how many interactions have been suspended or abandoned.

Note:

The shift and interval used to calculate current statistics are defined in Interaction Data Server - Voice and Presence.

Realtime Queue Status - State

Use this report of find out how many agents are logged in to the split or skill used by the queue and how many of those are in Available mode. You can also see how many interactions are waiting in the queue and how long the oldest interaction has been waiting.

Realtime Queue Status - Time Statistics

Use this report to find out how long, on an average, do interactions created from this queue take to be delivered to an agent. This report displays how long, on an average, do interactions take to be handled (the time between being established (answered) and closed), and abandoned (the time it takes to be answered before the caller gives up and ends the call).

Note:

The interval used to calculate current statistics is defined in Interaction Data Server - Voice and Presence.

Non-Applicable columns

If a user monitors a realtime queue, either voice or multimedia, there are a number of columns that are not applicable and are empty when the report is run.

Split/skill queues do not return values for the following columns:

- Oldest interactions
- Total interactions in progress
- Total interactions arrived this shift
- Total interactions arrived this hour
- Total interactions arrived last hour
- Total interactions suspended
- Total interactions suspended this interval

Multimedia queues and voice programs do not return values for the following columns:

- Agents staffed
- Agents available
- Shift abandoned calls
- Shift average abandon time
- Shift average talk time
- Shift average wait time
- Shift service level
- Shift total calls

Realtime VDN reports

Realtime VDN status

Use this report to determine the average length of time an interaction generated using a VDN waits to be answered before the caller abandons the call, the average length of time an agent spends talking to the caller, and the average length of time it takes for created interactions to be delivered to an agent. This report displays the length of the longest call generated through the VDN, the number of calls waiting to be answered, and the number of calls that have been abandoned within the current interval.

Note:

The interval used to calculate current statistics is defined in Interaction Data Server - Voice and Presence.

Realtime Supervisor reports

Realtime Supervisor Status - State

Using this report, supervisors can view the state and activity of agents that are assigned to their respective groups. The state specifies the current state of the agent and the activity specifies the action that the agent is performing.

- The Agent status can be **Logged in** or **Logged out**.
- The type of interaction that an agent handles can be **Voice**, **Email**, **Preview Contact**, or **Simple Messaging**.
- For Voice, the Interaction State can be **Delivered**, **Established**, or **Hold**.
- For Email, Preview Contact, and Simple Messaging, the Interaction State can be **Delivered** or **Established**.
- The **Last Updated Since** field specifies the time for which the interaction is present in the current state.
- The **Established Since** field specifies the time passed after the interaction was established for the first time.

Note:

If you generate a report by selecting a group of groups, the report does not display the status (Agent status) of that group.

Chapter 8: 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
Installing Avaya Aura® Call Center Elite Multichannel	Provides product overview, supported products, installation, configuration, and licensing requirements for Avaya Aura® Call Center Elite Multichannel.	• Implementation engineers
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 and Specification	Provides an overview of the Call Center Elite Multichannel features.	• Sales engineers • Implementation engineers • System administrators

Table continues…

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. 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 TTrace User Guide	Provides information about TTrace and its components, helps you to understand the TTraceConsole and TTraceConfig user interfaces, and explains the operations that you can perform using TTraceConsole and TTraceConfig.	• Sales engineers • Solution architects • Implementation engineers

Finding documents on the Avaya Support website

Procedure

1. Go to https://support.avaya.com.
2. At the top of the screen, type your username and password and click **Login**.
3. Click **Support by Product** > **Documents**.
4. In **Enter your Product Here**, type the product name and then select the product from the list.
5. In **Choose Release**, select an appropriate release number.

6. In the **Content Type** filter, click a document type, or click **Select All** to see a list of all available documents.

   For example, for user guides, click **User Guides** in the **Content Type** filter. The list displays the documents only from the selected category.

7. Click **Enter**.

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	

Viewing Avaya Mentor videos

Avaya Mentor videos provide technical content on how to install, configure, and troubleshoot Avaya products.

About this task

Videos are available on the Avaya Support website, listed under the video document type, and on the Avaya-run channel on YouTube.

- To find videos on the Avaya Support website, go to https://support.avaya.com/ and do one of the following:
  - In **Search**, type `Avaya Mentor Videos`, click **Clear All** and select **Video** in the **Content Type**.
  - In **Search**, type the product name. On the Search Results page, click **Clear All** and select **Video** in the **Content Type**.

    The **Video** content type is displayed only when videos are available for that product.

In the right pane, the page displays a list of available videos.

- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and do one of the following:
  - Enter a key word or key words in the **Search Channel** to search for a specific product or topic.
  - Scroll down Playlists, and click a topic name to see the list of videos available for the topic. For example, Contact Centers.

Note:

Videos are not available for all products.

Support

Go to the Avaya Support website at https://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.

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