

Avaya Solution & Interoperability Test Lab

# Application Notes for Calabrio Workforce Management Release 9.2(1) SR3 with Avaya Aura® Contact Center Release 6.4 – Issue 1.0

## Abstract

These Application Notes describe the configuration steps required for Calabrio Workforce Management 9.2(1) SR3 to interoperate with Avaya Aura® Contact Center Manager Server Release 6.4. Calabrio Workforce Management is a work force management solution that provides forecasting, scheduling, and monitoring of work for contact centre representatives. Calabrio Workforce Management uses the historical call volumes from Contact Center Manager Server to produce forecasts and schedules for contact center representatives, and then uses the real-time agent status data from Contact Center Manager Server to check the representative adherence to the schedules.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

# 1. Introduction

These Application Notes describe the configuration steps required for Calabrio Workforce Management (hereafter known as WFM) to interoperate with Avaya Aura® Contact Center Manager Server (hereafter known as CCMS).

Calabrio WFM uses the historical call volumes from CCMS to produce forecasts and schedules for contact center representatives, and then uses the real-time agent status data from CCMS to check the representative adherence to the schedules. The collection of historical Directory Number (DN)/Skillset/Agent call volumes from the CCMS is done querying the statistical database via Open Database Connectivity (ODBC).

The integration of real-time Agent status changes is done using the Avaya SDK client on the Calabrio server. TCP/IP communication is established at the start up of the Real-Time service in the Calabrio system.

# 2. General Test Approach and Test Results

The General test approach was to verify that the WFM was able to integrate with CCMS. WFM uses the RTD SDK to connect to the Avaya Aura® Contact Center (Contact Center) to monitor a wide range of real time statistics that are available from Contact Center. It uses the ODBC to collect historical records.

Compliance Test bed was setup with historical data populated. Each test was run as described in the test plan developed by Calabrio. The test cases verified the correct configuration of the Calabrio WFM connection to Contact Center Manager Server. The test cases also verified the correct acquisition of data by Calabrio WFM.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

## 2.1. Interoperability Compliance Testing

The interoperability compliance testing focused on verifying Calabrio for the following on both Historical and Real-time data:

- Installation and configuration
- Historical data collection
- Historical data capture (processing)
- Real Time data acquisition and display

## 2.2. Test Results

The objectives outlined in the **Section 2.1** were verified and met. All test cases were executed and passed with the following observations,

- WFM will show the status as "After Contact Work" for a non-ACD call and "Talk" for an ACD call.
- WFM will show the status as "Logged Out" if an agent puts the phone in Make Set Busy state.
- WFM captures historical data every 30 minutes, 15 minutes after the interval ends. For example, to see data for the 10:00 10:30 interval user must wait until at least 10:45.
- WFM will not collect data or show agent activity or status if any connection is lost between WFM server and CCMS due to power or network disruption.

## 2.3. Support

Technical support for Calabrio CQM can be obtained by contacting Calabrio via Web: http://calabrio.com/about-calabrio/services/ or Phone: +1 (800) 303-1248 (North America) +1 (763) 592-4680 (International)

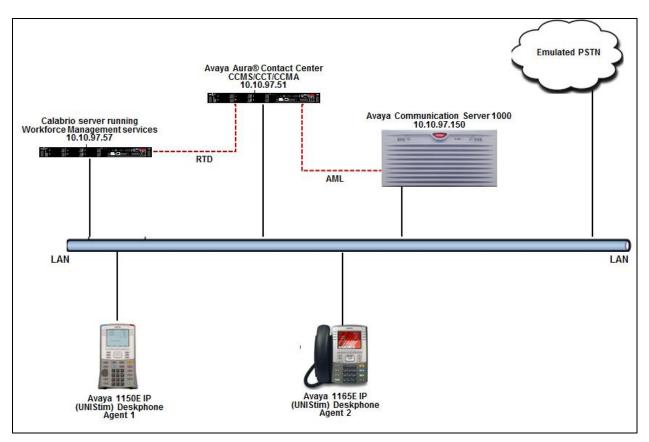
Email: calabriosupport@calabrio.com

# 3. Reference Configuration

A server with the Calabrio WFM software is installed and a CCMS platform is available during the test execution. Microsoft SQL Server is installed co-resident with the Calabrio WFM Application.

The Calabrio server has the RTDSDK client for Real-Time data integration.

Calabrio WFM integration with Avaya Aura® Contact Center is achieved through ODBC access to CCMS\_STAT database namespace and TCP/IP communication with the RTD package.



**Figure 1: Reference Configuration** 

# 4. Equipment and Software Validated

The following equipment and software were used during the lab testing:

Equipment	Release/Version
Avaya Communication	7.65 SP4
Server 1000	
Avaya Aura® Contact	6.4.212.0-0603_Service Pack
Center	
Avaya IP (UNIStim)	
Deskphones:	
1150E	0x27C8V
1165E	0x25C8V
Calabrio WFM Server OS	Windows Server 2008 R2 Enterprise SP1 64-bit
Calabrio WFM	9.2.1 SR3
Desktop OS launching	Windows 7 Professional SP1 32-bit
Calabrio One	

# 5. Configure Avaya Communication Server

This section describes the steps to configure the CCMS so that the WFM server is able to connect to it. Assumption is made that the CCMS is installed successfully and all the required scripts are running. Assumption is also made that the CCMS is interfaced and working successfully with the Avaya Communication Server 1000 (Communication Server 1000). For additional information on CCMS and Communication Server 1000 installation and configuration refer to **Section 9**.

Here is a summary of CCMS Configuration:

• Creating new user to interface with WFM server.

#### 5.1. Configuring a New User

This section explains the steps to add a new user that is required to interface and connect to the WFM server. To add a new user, navigate through **Start**  $\rightarrow$  **All Programs**  $\rightarrow$  **Avaya**  $\rightarrow$  **Server Utility** on the server the CCMS is installed on (not shown).

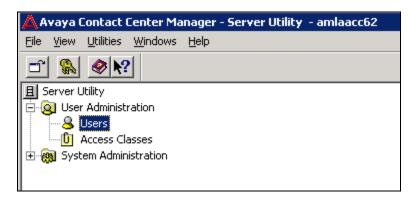
Screen below shows the **Server Utility Login** screen. Enter the administrator **User ID** and **Password**. Click on **OK** to continue.

A	waya Contact Center Mana	ager - Server Utility Login	?	X
	AVA	A		
	User ID: Password: Server Name or IP Address:	amlaacc62	OK Cancel	]
	Avaya Contact Center Manag 8.0.0.5 Copyright © 2010 Avaya Inc.	ger Server Utility, Version	<u>H</u> elp	]

Screen below shows the Server Utility main screen.



To add a new user, expand the **User Administration** tree and double-click on **Users** as shown in the screen below.



Screen below shows the Users screen. Click on File and select New.

🐣 Users - am	laacc62				- 🗆 ×
File View He	lp				
New Properties Delete		▶?	Title	Department	Language
Print	Ctrl+P				
Close	Alt+F4				
Create a new us	er				NUM

Solution & Interoperability Test Lab Application Notes ©2014 Avaya Inc. All Rights Reserved. Screen below shows the New User being configured. Populate the **First name** and **Last name** fields that is seen under the **General** tab.

1ew User				? ×
General Desktop				
First name:	Calabrio			
Last name:	WFM			
Comments:				×
Title:				
Department:				
Language:	English		▼	
		Save	Cancel	Help

From the **Desktop** tab populate the **User ID** field and select **Call Centre Admin** under **Access Class** field as shown in the screen below. Click on **Set Password** to continue.

New User		? ×
General Desktop		1
User ID:	Calabrio	Set Password
Password retry count: User desktop status:	0	Password Expires
ОК.		Lock Out
Access Class:	<none =="" access="" no="" rights=""> <none =="" access="" no="" rights=""> adminGroup Call Centre Admin Supervisor</none></none>	
	Save	Cancel Help

Configure the password and click on **OK** to continue as shown in below. Click on the **Save** button, that is seen in the screen above, to complete the configuration of New User.

Reset Password	×
Change the password for the current user	
New Password:	
I Confirm New Password:	OK
	Cancel

To confirm the configuration of the New User created, exit from the Server Utility application and navigate back to it as explained in **Section 5.1**.

	ager - Server Utility Login	<u>1</u> 2
AVA	<b>A</b>	
User ID:	Calabrio	OK
Password:	******	Cancel
Server Name or IP Address:	amlaacc62	
Avaya Contact Center Manag 8.0.0.5 Copyright © 2010 Avaya Inc.		Help

Screen below shows the **Server Utility Login** screen. Populate the **User ID** and **Password** fields with the values that were configured above. Click on **OK** to continue.

While logging in for the first time using the new user, the system forces the password to be changed. Click on **Change Password** as shown in the screen below.

Password Expi	iry - amlaacc62 - AMLAACC62	×
8	Your password has expired. Password must be changed before the 'amlaacc62' server can be accessed.	
	Change Password Cancel	

Configure the required fields and click on **OK** to complete the changing of the password as shown in the screen below.

Change Password	? ×
Change the password for the current user	
Old Password:	
I	0K.
New Password:	Cancel
<u>C</u> onfirm New Password:	<u>H</u> elp

The above user login was used by Calabrio WFM to obtain Realtime and Historical data from CCMS.

Historical data was generated by running voice traffic on the system over the course of a week.

# 6. Configure Calabrio WFM

This section only provides the detailed configuration on the WFM server required for collecting historical data and real time agent status. During compliance testing all WFM services discussed in this document were hosted on a single server. For more information about how to install and configure Calabrio WFM server, refer to **Section 9**.

## 6.1. Creating a CCMA User for WFM

The New User created in **Section 5.1** is used by WFM as follows:

- It is used by the WFM Capture service to access views in the Avaya Caché database
- It is used by the WFM RTE service to establish an RTD connection to the Avaya Aura® Contact Center Manager Server (CCMS)

Note: Creating a CCMA user for WFM is required for Avaya Aura® Contact Center Release 6 or higher

## 6.2. Installing the Avaya Aura® Contact Center Real Time Data SDK

Install the Avaya Aura® Contact Center Real Time Data Software Development Kit (Contact Center RTD SDK) on the server that hosts the WFM Transaction services. The version of the RTD SDK must match the version of Contact Center that is installed.

If there is an older version of the RTD SDK already installed, it needs to be uninstalled before the newer version is installed.

## 6.3. Installing the InterSystems Caché ODBC Driver

The InterSystems Caché ODBC driver needs to be installed on the server that intends to host the WFM Capture services.

An abbreviated installation procedure is provided below. For detailed information about how to install the driver, see the InterSystems Caché installation documentation.

The ODBC driver is distributed with Contact Center Release 6 and higher. It is required to collect historical information from the Avaya database.

#### 6.3.1. To install the ODBC driver

Run the Caché ODBC setup utility (ODBCDriver\_x64.exe) and follow the prompts (not shown).

#### 6.3.2. To create the ODBC connection acdDbMainCC7

Click **Start**  $\rightarrow$  **Run**, type **odbcad32**, and press Enter to open the Data Sources (ODBC) Manager. Screen below shows the **ODBC Data Source Administrator** window.

🐺 ODBC Data Source Administrator	×
User DSN System DSN File DSN Drivers Tracing Connection	Pooling About
User Data Sources:	
Name Driver	A <u>d</u> d
	Remove
	Temove
	Configure
An ODBC User data source stores information about how the indicated data provider. A User data source is only v	
and can only be used on the current machine.	
OK Cancel Apply	Help

Click on the System DSN tab. Click on the Add button as shown in the screen below.

<b>7</b> 0	DBC Da	ta Sourc	e Adı	ministrate	or				×
Us	er DSN	System D	DSN	File DSN	Drivers	Tracing	Connecti	on Pool	ing About
9	iystem Da	ata Source	es:						]
	Name	[	Driver						Add
									Remove
									Configure
		the indic	cated	stem data s data provic ne, includin	ler. A Sy:	stem data			connect to all users
				OK		ancel	Арр	ly.	Help

Solution & Interoperability Test Lab Application Notes ©2014 Avaya Inc. All Rights Reserved. From the list, select **InterSystems ODBC** and then click on the **Finish** button.

InterSystems ODBC         2009.01.06.921         InterSystems ODBC           SQL Server         6.01.7601.17514         Mic	Create New Data Source	Select a driver for which you wa	nt to set up a data so	
		Name InterSystems ODBC SQL Server	Version 2009.01.06.921 6.01.7601.17514	Com Inter Micri Micri
· · · · · · · · · · · · · · · · · · ·				

The **InterSystems Caché ODBC Data Source Setup** window is opened as shown below. Configure the values as follows,

- Name: acdDbMainCC7
- **Description**: A descriptive name. During compliance testing *Avaya AACC 6 ACD* was used. This field is optional.
- **Host (IP Address)**: The IP address of the Avaya CCMS server. During compliance testing *10.10.97.51* was used.
- **Port**: *1972*. Note that this is the default port number. Consult with Avaya if this has been changed on the default port for the connection to the Caché database.
- Caché Namespace: CCMS\_STAT
- Authentication Method: Select the *Password* option
- User name: User name as created in Section 5.1. Note that this field is case sensitive.
- **Password**: The password assigned to the user created in **Section 5.1**. Note that this field is case sensitive.
- **Misc**: If the Caché database was installed with Unicode support, select the *Unicode SQL Types* check box. Otherwise, leave all check boxes clear.

Click on the **Test Connection** button to confirm that all parameters are valid.

Click **OK** to save the changes and create the ODBC entry.

Data Source Name	Description	E CA
acdDbMainCC7	Avaya AACC 6 ACD	
Connection		
Host (IP Address) Port	Caché Namespace	
10.10.97.51 1972	CCMS_STAT	ОК
Password with SSL/TLS	Connection Security Level C Kerberos	
User Name	C Kerberos with Packet Integrity	Test Connectio
Calabrio	C Kerberos with Encryption	
Password	Service Principal Name	
•••••		Ping
		# Times 1000
Misc 🔽 🗌 Sta	itic Cursors 🔲 Disable Query Timeoul	
	Unicode SQLTypes	Help

Solution & Interoperability Test Lab Application Notes ©2014 Avaya Inc. All Rights Reserved. Screen below shows the **ODBC Data Source Administrator** window with the System Data Source discussed above added.

👼 ODBC Da	ta Source Ac	ministrator			×
User DSN	System DSN	File DSN   D	)rivers Tracing	Connection Po	oling About
System D	ata Sources:			_	
Name	Drive	r			Add
acdDbN	tainCC7 Inter9	iystems ODBC			Remove
					Configure
	the indicated		rce stores informa . A System data NT services.		
		OK	Cancel	Apply	Help

## 6.4. Configure WFM for the InterSystems Caché ODBC Driver

To configure WFM for the Contact Center InterSystems Caché ODBC driver, do the following after installing WFM.

#### 6.4.1. On the server that hosts the WFM Transaction services:

To start the system configuration, launch the *PostInstall.exe* file which is typically found in the Program Files\Calabrio\WFO\_WFM\bin folder. The **Workforce Management – Configuration Setup** window is opened (not shown). Minimize this utility as it starts without completing the steps.

# Access the Windows Firewall by navigating to Start $\rightarrow$ Control Panel $\rightarrow$ Administrative Tools $\rightarrow$ Windows Firewall with Advanced Security.

In the navigation tree on the left, select **Inbound Rules**. In the right pane, double-click **WFM Services (RTE port)** as shown in the screen below.

Ele Action View Help						
🗢 🔿 🔰 📅 🗟 🕞 🗖						
Indows Firewall with Advanced S	Inbound Rules				Ac	tions
Inbound Rules	Name	Group 🔺	Profile	Enabled 🔺	In	bound Rules 🔺
Connection Security Rules	🕑 Camelot Ports		All	Yes	1 2-	New Rule
	🕑 camserv.exe		All	Yes		
	🕑 camserv.exe		All	Yes	ΠA	Filter by Profile
	SFile Transfer Program		Public	Yes	🔻	Filter by State
	SFile Transfer Program		Public	Yes	Ш.,,,	Charles Course
	🕑 File Transfer Program		Private	Yes	<u>*</u>	Filter by Group
	🔮 File Transfer Program		Private	Yes	н. –	View 🕨
	🔮 Microsoft Management Console		Private	Yes	0	Refresh
	SMicrosoft Management Console		Public	Yes		
	SMicrosoft Management Console		Public	Yes		Export List
	🥑 Microsoft Management Console		Private	Yes —	?	Help
	Contraction Contraction		All	Yes		
	Contraction Contraction		All	Yes		
	Teamviewer Remote Control Application		Public	Yes		
	Teamviewer Remote Control Application		Public	Yes		
	🔮 Teamviewer Remote Control Service		Public	Yes		
	🕑 Teamviewer Remote Control Service		Public	Yes		
	WFM Services (Jetty iCalendar HTTP port)		All	Yes		
	WFM Services (Jetty iCalendar HTTPS port)		All	Yes		
	WFM Services (Jetty port)		All	Yes		
	WFM Services (Jetty SSL port)		All	Yes		
-	WFM Services (Jetty Surrogate port)		All	Yes		
	WFM Services (RTE port)		All	Yes		
	🕼 BranchCache Peer Discovery (WSD-In)	BranchCache - Peer Discovery	All	No		
	COM+ Network Access (DCOM-In)	COM+ Network Access	All	No		

The **WFM Services (RTE port) Properties** window opens as shown below. From the **Protocols** and **Ports** tab, in the **Protocol type** drop down menu, select *Any*.

Click Apply, and then OK.

4 Service	es (RTE port) Pr	operties		×
Gene	ral	Programs and Se	rvices	Computers
Protoco	ols and Ports	Scope	Advanced	Users
Protoco	ls and ports			
	Protocol type:	Any		•
	Protocol number	:	0 +	
	Local port:	All Port	\$	<b>_</b>
	_		e: 80, 443, 5000-50	010
	<u>R</u> emote port:	All Port	\$	
		j Example	e: 80, 443, 5000-50	010
	Internet Control I (ICMP) settings:	Message Protoco	l <u>C</u> usto	omize
.earn moi	re about protocol a	and ports		
		ОК	Cancel	Apply

Maximize the utility window and complete the steps with the following values as shown in the screen below.

**Select ACD**: From the drop down select the configured name.

Select Language: From the drop down select the language.

**IP** Address or Host Name: The IP address of the CCMS. During compliance testing *10.10.97.51* was used.

**Port**: Enter the port used to connect to the Caché database on the CCMS. Default value = 1972. User Name: Enter the user name as configured in Section 5.1.

**Password**: Enter the password as configured in Section 5.1.

Click on **OK** to close the utility after configuring the required values.

🕌 Workforce Management	t - Configuration Setup	_ 🗆 🗡
WFM Database	ACD Connection	
Create WFM DB Data Retention Periods		
Update KeyStore	Select ACD Avaya AACC 6	
ACD Connection		
QM Connection	Select Language English	
WFM Authentication	E the CC is section ACD bidevial data merually	
Email Distribution	Use GIS to capture ACD historical data manually	
Monitoring and Notification	IP Address or Host Name 10.10.97.51	
Enterprise Settings Start Services		
Deare Der vices	Port 1972	
	User Name Calabrio	
	Password *****	
		_
	Capture Settings	
	PREVIOUS NEXT	

#### 6.4.2. On the server that hosts the WFM Capture services:

Minimize the WFM Configuration Setup utility as it starts without completing the steps (not shown).

 $Copy < Avaya \ CCMS \ install \ folder > \ Common \ Components \ Cache \ lib \ Cache DB. jar \ to \ C: \ Program \ Files \ (x86) \ Calabrio \ WFO_WFM \ ext$ 

Edit C:\Program Files (x86)\Calabrio\WFO\_WFM\config\wfmcapture.properties to add CacheDB.jar to the classpath used by the Capture service. The classpath should be as follows:  $service4j.classpath=..\config:..\ext\calabriotime.jar:..\ext\SplkStd4J.jar:..\ext\wfm-common.jar:..\ext\commons-dbcp-1.2.1.jar:..\ext\commons-collections-3.0.jar:..\ext\commons-pool-1.2.0.jar:..\ext\jtds-$ 

*1.2.1.jar;..\ext\sqljdbc4.jar;..\ext\log4j.jar;..\ext\CacheDB.jar;..\lib\wfmcapture.jar* Save and close the updated *wfmcapture.properties* file.

Maximize the WFM Configuration Setup utility and complete the steps. Click **OK** to close the utility (not shown).

## 6.5. Configure WFM Elements to Match Contact Center Elements

When configuring your WFM system, in order for Contact Center historical data to be applied correctly, ensure that the records for the following elements match those elements in the Contact Center,

- Service queues
- Directory numbers
- Agents
- Users
- Skill mappings

Most of the element information can be found in the Contact Center Manager Administration (CCMA) application. Some information must be obtained by running the Avaya RTD Cache tool and viewing the output. See your Avaya documentation for information on how to run the RTD Cache tool. All WFM administration pages are available under the Calabrio1 (C1) application when logging in as an administrator and going to Application Management. This can be accomplished by entering the IP address of the Calabrio server in an Internet browser and login using the correct credentials. Screen below shows the C1 Application Management main page.

calabrio	0	Application Management	Signed in: administrato 👻 🥞
Application Manager   WFM		Арринсосон манадетенс	
Service Service Queues in your contact center Service Queue Types Service Queues Directory Numbers Skill Mappings Service Queue Closed Days Firm Date Associations Service Queue Groups	Configure your agents and their access to WFM Users Agents Teams Views	Schedules Set up all the elements that go into running a schedule Work Shifts Work Conditions Special Events Shift Budget Analysis Request Shift Rudget Analysis Request Shift Rudget Analysis Request	<ul> <li>Activities</li> <li>Set up agents' exceptions and projects</li> <li>Exceptions</li> <li>Exception Types</li> <li>Projects</li> </ul>
Historical Data     Capture and manage your historical data     View and Edit Historical Data     Capture Historical Data     Historical Data Merge Request     Forecast Accuracy Compilation Request	System Configuration Configure the WFM environment Global Settings User Requests Adherence State Mappings	Vacation Planning         Configure agent time off         Vacation Plans         Full Time Equivalents Profiles         Vacation Type Mapping         Time Off Report         Time Off Allotments	Strategic Planning Estimate future contact requirements and cost Strategic Resources Strategic Forecast Request Strategic Forecast Hirring Steps Hirring Plans

#### 6.5.1. Service Queues

To configure a Service queue, navigate to Services  $\rightarrow$  Service Queues from the Application Manager screen (not shown). The Service Queues page is shown as below. The screen shows the values that were configured during compliance testing.

calabrio.		Sign
✓ What Do You Want To Do?	Service Queues	Save
✓ Service Queue Information	Create a new service queue	
✓ Service Queue Type	Service Queue Information	
<ul> <li>✓ Parameters</li> <li>✓ Opening and Closing Hours</li> </ul>	Vaice_SK1	
✓ Skill Mappings	SERVICE QUEUE ID Identifies the service queue in the ACD	
<ul> <li>✓ Virtual Service</li> <li>Queue</li> </ul>	10001	
<ul> <li>✓ Scheduling Order</li> <li>✓ Directory</li> </ul>	SERVICE QUEUE NAME The name that identifies the service queue in WFM	
Numbers ✓ Color	Voice_SK1	
	Do not generate forecasts or schedules for this service queue	
	This service queue allows multi-skill agent queuing (MSAQ)	
	Service Queue Type	
	Select the type of customer contact handled by this service queue. IMPORTANT: Once a service queue type is assigned to a service queue and saved, it cannot be cha	nged.
	Voice [Interactive]	

Avaya Data Source	Avaya Field Name	WFM Field Name
RTD Cache tool	Skillset ID	Service Queue ID
ССМА	Skillset Name	Service Queue Name
ССМА	Contact Type	Service Queue Type

#### 6.5.2. Directory Numbers

To configure a Directory number, navigate to **Services**  $\rightarrow$  **Directory Numbers** from the **Application Manager** screen (not shown). The **Directory Numbers** page is shown as below. Directory numbers are associated with skillsets in Contact Center. These need to be associated with the directory numbers that is equivalent service queues in WFM. The screen shows the values that were configured during compliance testing.

calabrio <sup>.</sup>						۲					
<ul> <li>✓ What Do You Want To Do?</li> <li>✓ DN Information</li> </ul>	Directory Numb		vice queues on	specinc days a	na umes	s. me Di	N Gala 15	s compue	a with t	ne servi	ce queue s da
✓ Service Queues	What Do You Want To [	102	_								
	Edit or delete an existing	iig un									
	Create a new DN										
	DN Information										
	Scrip1 [10011]										
	DIRECTORY NUMBER	DESCRIPTION									
	10011	Strip1									
	Service Queues Select the service queues this D <i>Filter</i>	N is routed to and specify th	e days and hour	rs it is routed.							
	Available	Assigned	Start Time	End Time	Sun	Mon	Tue	Wed	Thur	Fri	Sat
	Voice_SK1	Voice_SK1	00:00	23:59	~	~	<ul> <li>Image: A set of the set of the</li></ul>	~	<ul> <li>Image: A start of the start of</li></ul>	~	~

Avaya Data Source	Avaya Field Name	WFM Field Name
RTD Cache tool	App ID	Directory Number
ССМА	Application Name	Description
ССМА	Skillset	Service Queue

#### 6.5.3. Agents

To configure an Agent, navigate to **People**  $\rightarrow$  **Agents** from the **Application Manager** screen (not shown). The **Agents** page is shown as below. The WFM agent first name, last name, and employee ID should match the Contact Center values. The WFM ACD ID must match the Contact Center Login ID. The screen shows the values that were configured during compliance testing.

calcorio <sup>.</sup>				2 🤁 🗋
<ul> <li>✓ What Do You</li> <li>Want To Do?</li> <li>✓ Agent Information</li> </ul>	Agents			
✓ Seniority ✓ Activate ✓ Teams ✓ Skill Mappings	Agent Information SELECT AGENT Agent1, Joe [1]			
✓ Wark Shifts ✓ Capy Wark Shift Ratations		ST NAME		
✓ Assigned Exceptions ✓ Vacation Hours	EMPLOYEE ID Enter an alphanumeric ID to identif	fy the agent in WFM.	-	
	USER NAME The agent's WFM login name. This agent1 ACD ID The agent's ID as set up in the ACD		n the user record linked to this agen	.t.

Avaya Data Source	Avaya Field Name	WFM Field Name
ССМА	First Name	First Name
ССМА	Last Name	Last Name
ССМА	Login ID	Employee ID
ССМА	Login ID	ACD ID

#### 6.5.4. Users

To configure a User, navigate to **People**  $\rightarrow$  **Users** from the **Application Manager** screen (not shown). The **Users** page is shown as below. The screen shows the values that were configured during compliance testing.

calabria	0
✓ What Do You Want To Do?	Users
✓ User Information ✓ Password ✓ Activate	<ul> <li>Create a new user</li> <li>Manage multiple users</li> </ul>
✓ Display Time Zon ✓ Roles ✓ Link to an Agent	User Information
✓ Views	Agenti, Joe
	FIRST NAME LAST NAME
	Joe Agent1
	USERNAME The user's Calabrio ONE user name. In an Active Directory environment, this is the user's AD username.
	agen11
	Password Create or reset a user's password here. PASSWORD CONFIRM PASSWORD USers
	Activate
	Users cannot log into WFM until they are activated.   Activate this user
	CREATION DATE The date the user record was created 2014-08-14
	Display Time Zone The default time zone is the one configured on the Global Settings page. You can select a different time zone to use for this user's schedules. DISPLAY TIME ZONE
	[-0500/-0500] Calabrio/Server (CST/CDT)
	Roles The user must be assigned at least one role.
	Available     Assigned       Scheduler     Agent

Avaya Data Source	Avaya Field Name	WFM Field Name		
ССМА	First Name	First Name		
ССМА	Last Name	Last Name		
ССМА	User ID (supervisors only)	Username (supervisors		
		only)		
ССМА	User Type	Roles		

Configure the values to the above screen based on the description shown in the table below.

#### 6.5.5. Skill Mappings

To configure Skill mappings, navigate to Services  $\rightarrow$  Skill Mappings from the Application Manager screen (not shown). The Skill Mappings page is shown as below.

Associate agent with the skill mapping the same way that agent is associated with the skillset in Contact Center. Associate the service queue whose name was configured in **Section 6.5.1** as the Skill Mapping Name. The screen shows the values that were configured during compliance testing.

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✓ What Do You Want To Do?	Skill Mappings							
<ul> <li>✓ Skill Mapping Name</li> <li>✓ Service Queues</li> </ul>	A skill mapping links agents to service queues. In order for an agent to be scheduled to support a service queue, both the service queue and the agen							
✓ Agents	What Do You Want To Do?							
	Edit or delete an existing skill mapping							
	Create a new skill mapping							
	Skill Mapping Name							
	Vaice_SK1							
	Voice_SK1							
	Service Queues Select the service queues you want to assign to this skill mapping, and set a priority for each assigned service queue (0-999, with 0 being the highest Filter							
	Available Assigned Priority Vaice_SK1 1							

Avaya Data Source	Avaya Field Name	WFM Field Name
ССМА	Skillset Name	Skill Mapping Name (use the same name as the service queue)

# 7. Verification Steps

The historical data collected by WFM was verified against the data contained in the CCMS database. The real-time data collected by WFM was verified against the CCMS Real-time displays.

WFM captures two different types of data from Contact Center:

- Real Time (via RTD SDK)
- Historical (via ODBC)

#### 7.1.1. Real Time Data

Schedules must exist for today for each agent that you wish to validate. To validate real time agent state information:

- 1. Log in to C1 as a supervisor or higher.
- 2. Go to the Agent Schedules application.
- 3. Select today from the calendar bar.
- 4. Select a service queue that the agent belongs to.
- 5. Display real-time information by clicking on the agents' name.

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111 Agent Schedules				[-0600/-	·0500] Calabrio/Serve	r( 🔽 Voice_SK	1 (10001)	Filter Agents	Accions V Save Week	Oay Hour
September 2014 🃢 )	<b>30 31 1 2 3 4 5</b>	6 7 8	9 10 11			17 18 19 3	20 21 22 23	24 25 26	27 28 29 30 1	23
Agents 🔻	Adherence Details For: Joe Agent1				•				Adherence %: 100 Conform	nance %: 575.6
loe Agent1										
loe Agent2			Scheduled Tocal:	02:11:42						
		Sch	eduled In Service:	01:56:62						
			Actual In Service:					11:11:42		
			Juc of Adherence: 000	0:00						
		Sch	duled		Actual		In Adherence	Out of Adherence		
		Activity	Start	Agent State	Reason Code	In	hhamm:ss	hhan mass		
		Not Available	12.00.00 AM	Ready Available	-	12.00.00 AN	-	-		
		In Service	9:00:00 AM	Ready Available	-	9:00:00 AN	00.53.04	-		
				Talk After Contact Work	-	9.53.03 AN	00.00.06	00.00.00		
				After Lontact Work Ready Available	-	9.53.09 AN 9.53.09 AN	00:00:00	00.00.00		
		Break	10.00.00 AM	Ready Available	-	10:00:00 AN	-	-		
		In Service	10:15:00 AM	Ready Available	-	10-15-00 AM	00.56.42	-		
		Lunch	12.00.00 PM							
		In Service	12:30:00 PM							
		Break	3.00.00 PM							
		In Service	3:15:00 PM							
		Not Available	5:30:00 PM	1						

#### 7.1.2. Historical Data

WFM captures historical data every 30 minutes, 15 minutes after the interval ends. For example, to see data for the 10:00 - 10:30 interval user must wait until at least 10:45.

To validate historical data:

- 1. Log into C1 as a scheduler or higher.
- 2. Go to the Application Management application.
- 3. Launch the "View and Edit Historical Data" sub-application.
- 4. Select the service queue to validate.
- 5. Select the interval (I) zoom level.
- 6. Select the date to validate.

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✓ Type of Data ✓ Historical Data Parameters	View and Edit Historical Data									
	03:00	0	0	٥	0	٥	٥	0		
<ul> <li>Historical Data</li> </ul>	03:30	0	0	0	0	0	D	0		
for 2014-09-11	04:00	0	0	0	D	٥	٥	D		
	04:30	0	0	0	D	٥	٥	D		
	05:00	0	0	0	D	٥	٥	D		
	05:30	0	0	0	٥	٥	٥	٥		
	06:00	٥	٥	٥	٥	٥	٥	٥		
	06:30	0	٥	٥	٥	٥	٥	٥		
	07:00	0	٥	D	٥	٥	٥	0		
	07:30	B	٥	0	٥	٥	٥	٥		
	08:00	0	0	٥	0	٥	٥	0		
	08:30	0	D	٥	0	٥	٥	0		
	09:00	0	D	٥	0	٥	٥	0		
	09:30	0	٥	٥	٥	٥	٥	٥		
	10:00	0	٥	٥	٥	٥	٥	٥		
	10:30	3	٥	3	37	4	٥	50		
	11:00	-	-	-	-	-	-	-		

# 8. Conclusion

All of the executed test cases have passed and met the objectives outlined in **Section 2**. Calabrio Workforce Management 9.2(1) SR3 is considered compliant with Avaya Aura® Contact Center's Contact Center Manager Server Release 6.4 for Real Time Display.

# 9. Additional References

Product documentation for Avaya Communication Server 1000 products may be found at: <u>https://support.avaya.com/css/Products/</u>

[1] Avaya Communication Server 1000 Documents: Avaya Communication Server 1000E Installation and Commissioning, Release 7.6, NN46041-310
Co-resident Call Server and Signaling Server Fundamentals - Avaya Communication Server 1000, Release 7.6, NN43001-509
Software Input Output Reference — Administration Avaya Communication Server 1000, NN43001-611
Element Manager System Reference – Administration - Avaya Communication Server 1000, Release 7.6, NN43001-632

[2] Avaya Aura® Contact Center R6.4 Documents: Avaya Aura® Contact Center Planning and Engineering (NN44400-210) Avaya Aura® Contact Center Installation (NN44400-311) Avaya Aura® Contact Center Server Administration (NN44400-610) Avaya Aura® Contact Center Overview (NN44400-111) Avaya Aura® Contact Center Fundamentals (NN44400-110) Avaya Aura® Contact Center Manager Administration – Client Administration (NN44400-611)

Product documentation for Calabrio WFM may be found by emailing at: <u>CIShelpdesk@calabrio.com</u> or Registering on: <u>https://portal.calabrio.com</u>

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