Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Teleopti CCC with Avaya Aura® Contact Center for Real-time and Historical Reporting – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Teleopti CCC to interoperate with Avaya Aura® Contact Center (AACC) for Realtime and Historical reporting.

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.

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1. Introduction

These Application Notes describe the configuration steps required for Teleopti CCC to interoperate with Avaya Aura® Contact Center (AACC) for Realtime and Historical Reporting.

Teleopti CCC uses the Avaya Realtime Data Software Developers Kit (RTD SDK) to obtain a realtime agent status feed from Avaya Aura® Contact Center. The Teleopti application responsible for this connection is TeleoptiLog Server.

The Avaya Aura® Contact Center Realtime Data (RTD) Application Programming Interface (API) is a Win32 C programming interface that supports the development of third-party status reporting applications, such as readerboard displays and agent desktop applications. The API allows client applications to obtain real-time statistics from Contact Center Management Server (CCMS). The RTD SDK includes the header and library files required to develop RTD applications, plus the LIB and DLL files required to execute those applications. The SDK also includes programmer documentation and a sample application.

Teleopti CCC uses the Contact Center Intersystems Cache ODBC Driver to make a connection to the Avaya Aura® Contact Center Caché database in which all historical Contact Center activity and statistics is stored. This data is taken from the Avaya Aura® Contact Center Caché database on a scheduled database and imported to a customized Teleopti CCC SQL database. From here the database is manipulated, aggregated and analysed and a further process places the database into the Teleopti Analytics database. From this database reports are executed to obtain Contact Center statistics and trends used to identify and improve Contact Center operations and measure against KPI and business targets.

2. General Test Approach and Test Results

The interoperability compliance testing included feature and serviceability test cases.

The feature test cases focused on verifying the ability of Teleopti CCC to process and display realtime data for Agents from AACC and historical statistics of both Applications and Skillsets.

The serviceability testing focused on verifying the ability of Teleopti CCC to recover from adverse conditions, such as network interruption and service restarts.

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.

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2.1. Interoperability Compliance Testing

The feature test cases were performed manually. Incoming calls were made to a CDN, application/skills, and agents to generate data on the Contact Center. Manual call controls and work mode changes from the agent telephones were exercised as necessary to populate specific fields in the reports.

The serviceability test cases were performed manually by disconnecting and reconnecting the LAN cable to Teleopti CCC and restarting services on both the Contact Center and Teleopti CCC.

The verification of all the tests included checking for proper display of the data within the Teleopti CCC database and realtime application by comparing it with the real-time reports and historical reports from AACC.

2.2. Test Results

All test cases were executed and passed.

2.3. Support

For technical support on Teleopti CCC, contact Teleopti at:

- Web: www.teleopti.com
- Phone: +46 8 568 950 00

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3. Reference Configuration

Figure 1 below shows the configuration used during compliance testing.

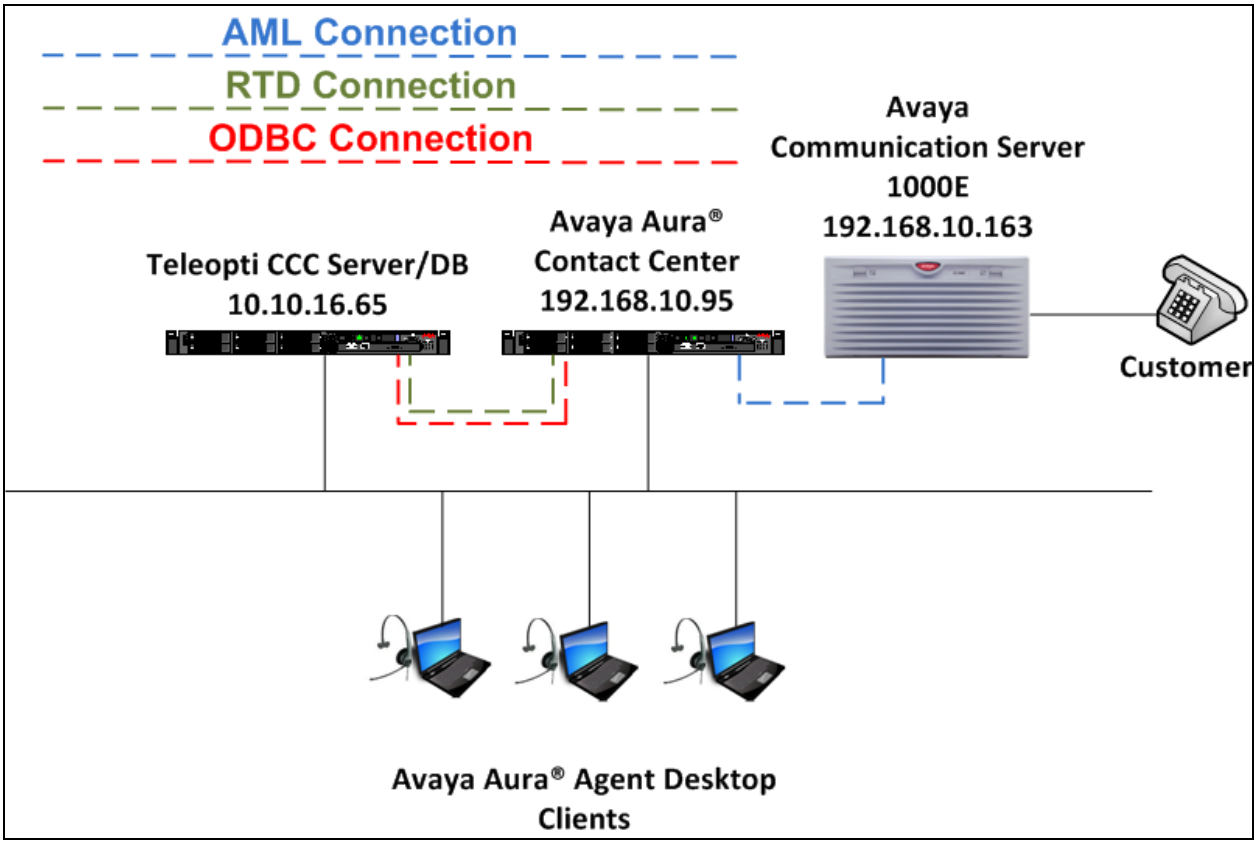

Figure 1: Teleopti CCC with Avaya Aura® Contact Center Solution

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4. Equipment and Software Validated

The following equipment and software were used for the reference configuration provided:

Equipment/Software	Release/Version
Avaya Communication Server 1000 E	Release 7.6
Microsoft Windows XP running on VMware infrastructure • Avaya IP Softphone 2050 • Avaya Aura® Agent Desktop	 • 2.01.0260 • 8.3.0.431
Microsoft Windows running on VMware Infrastructure • Avaya Aura® Contact Center	 2008 R2 Standard 64bit • 6.3 SP9
Microsoft Windows running on VMware infrastructure • Avaya Realtime Data SDK • InterSystems ODBC Driver • Microsoft SQL Server • TeleoptiCCC • TeleoptiLog Server	 2008 R2 Enterprise SP1 64bit • 6.3 v1.1 • 2008.2.0.526.0 • 2008 R2 • Version 7 7.3.382.14769 • 7.2.0

5. Configure Avaya Communication Server 1000 Release 7.

The detailed administration of contact center objects and connectivity between Contact Center and Communication Server 1000 are not the focus of these Application Notes and will not be described. For administration of contact center objects and connectivity to AACC, refer to the appropriate documentation listed in **Section 10**.

6. Configure Avaya Aura® Contact Center

The configuration of the AACC Terminal Emulator is assumed to be in place and will not be described. In addition, these Application Notes assume Agents, ACD Queue, CDN, Skillsets and Applications have been created.

This section provides the additional configuration as required for TeleoptiCCC, which includes the following area:

- Verify RTD Multicast Stream Control Configuration.

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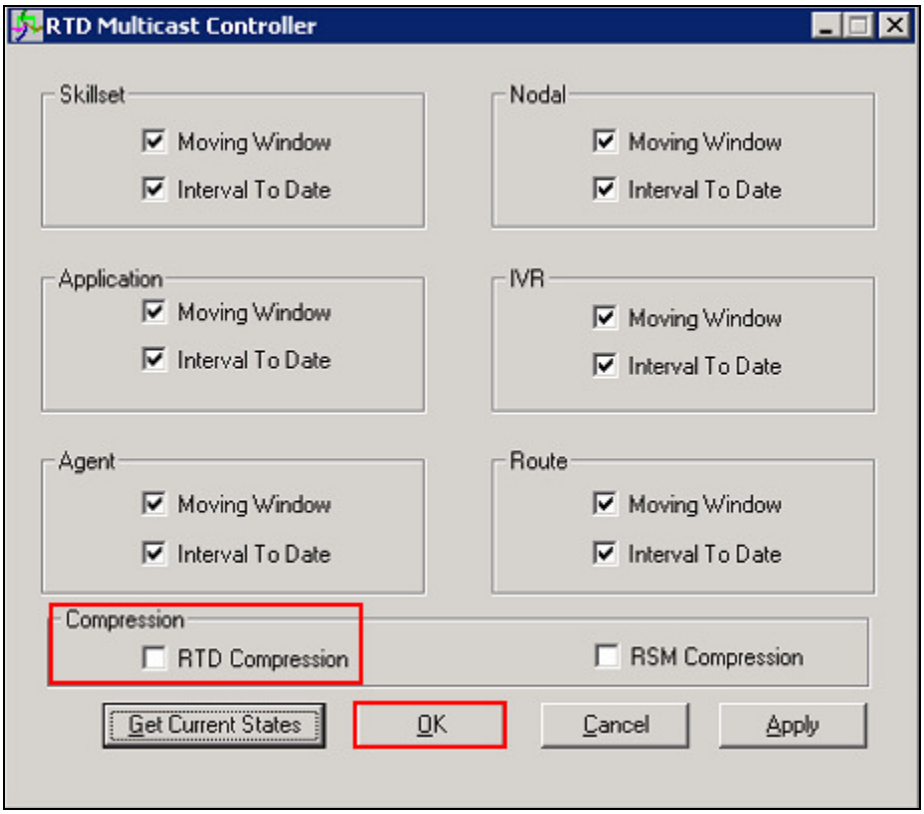
6.1. Verify RTD Multicast Configuration.

Select **Start → All Programs → Avaya → Manager Server → Multicast Stream Control**. Ensure **RTD Compression** is unchecked and click **OK**.



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7. Configure TeleoptiCCC

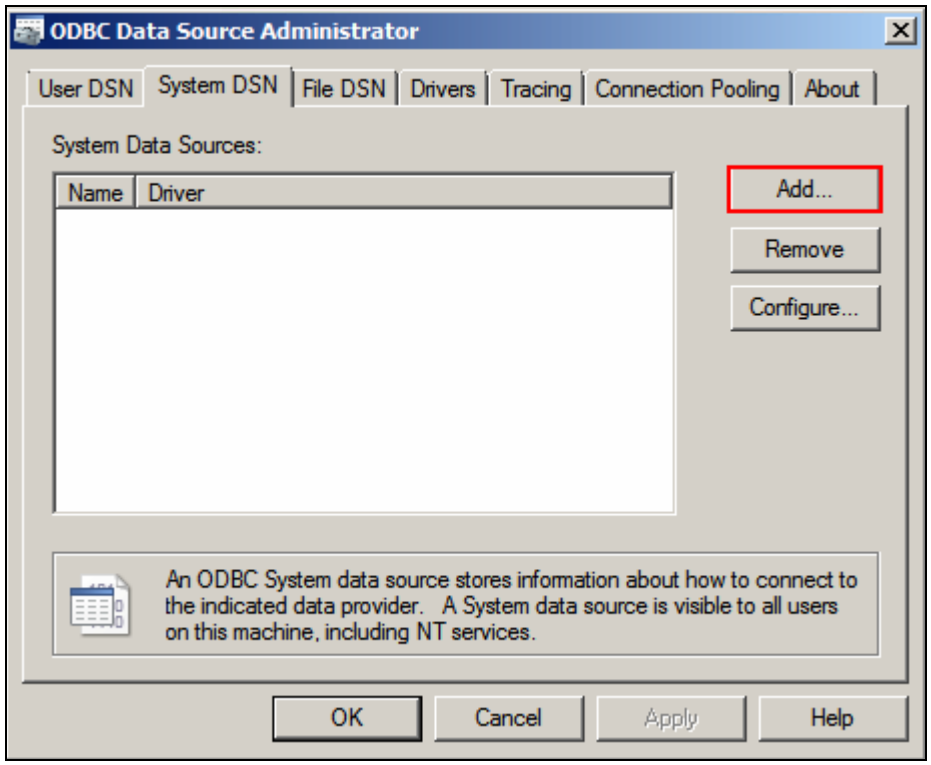
The TeleoptiCCC product is installed, configured and commissioned via direct engagement with Teleopti, the following items summarize the configuration required for interoperating with the Avaya Solution:

- Configure ODBC Data Source
- Configure TeleoptiLog Server

7.1. Configure ODBC Data Source

The Application Notes assume that the InterSystems ODBC driver has been installed prior to configuration of the ODBC Data Source. The installation of the InterSystems ODBC driver is performed using the intuitive and widely recognized installer application and all default options can be accepted.

A connection to the Caché database on AACC must be established in order to collect historical AACC data. From the TeleoptiCCC Server click **Start → Administrative Tools → Data Sources (ODBC)**, click the **System DSN** tab and click **Add**.



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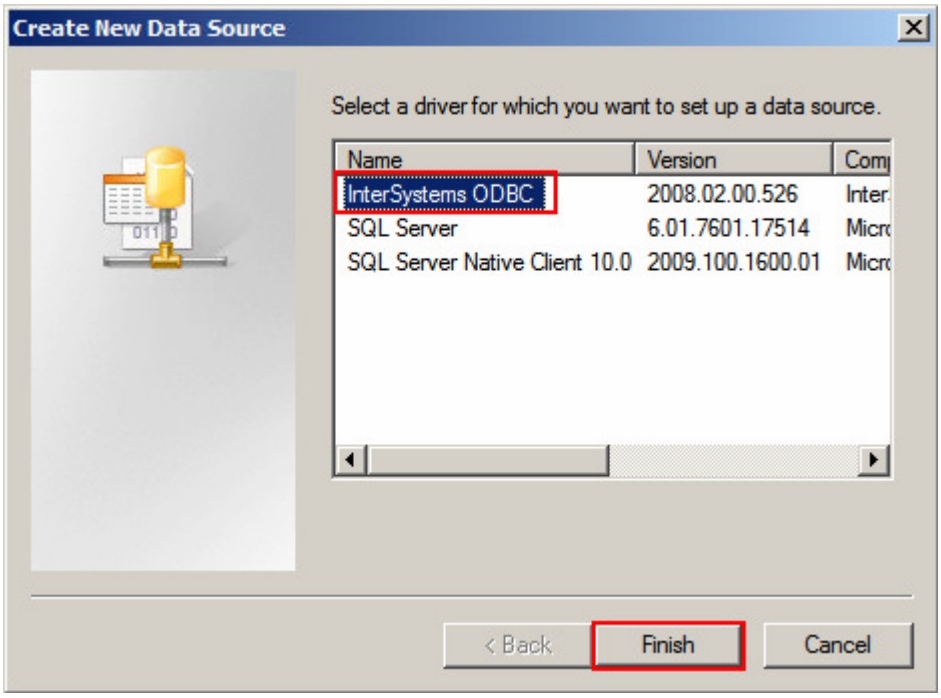
Select **InterSystems ODBC** from the list and click **Finish**.



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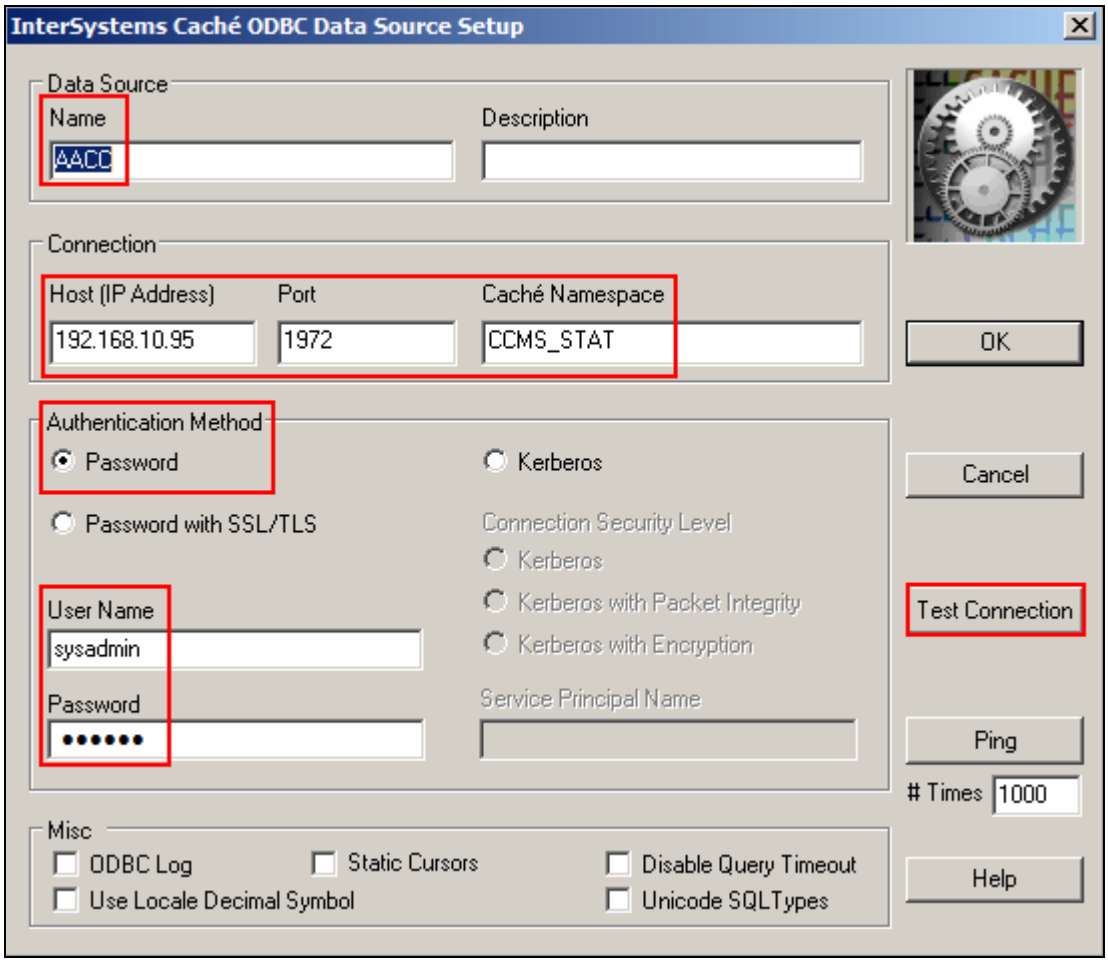
The following **InterSystems Caché ODBC Data Source Setup** screen will appear, configure as follows and click **Test Connection**:

- **Name** – enter a descriptive name for the data source.
- **Host (IP Address)** – enter the IP address of AACC
- **Port** – configure as the default of **1972**
- **Caché Namespace** – enter **CCMS_STAT**
- **Authentication Method** – click the **Password** radio button
- **User Name** and **Password** – enter the default **sysadmin** credentials



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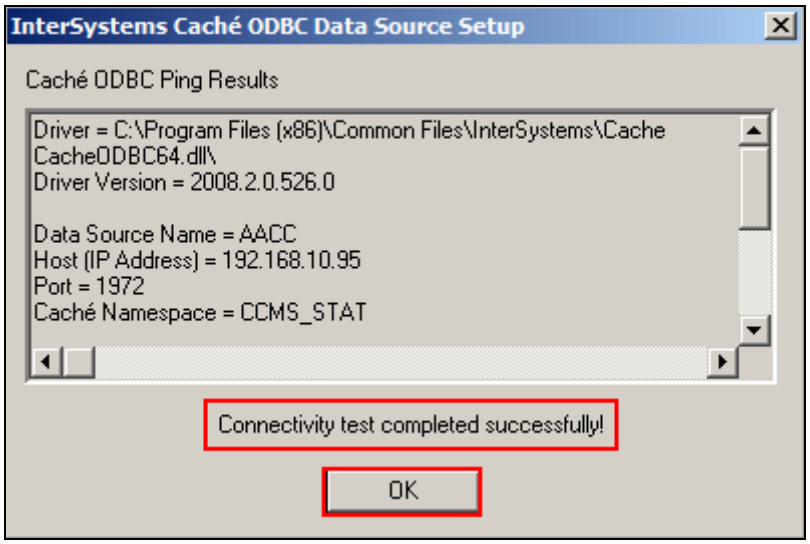
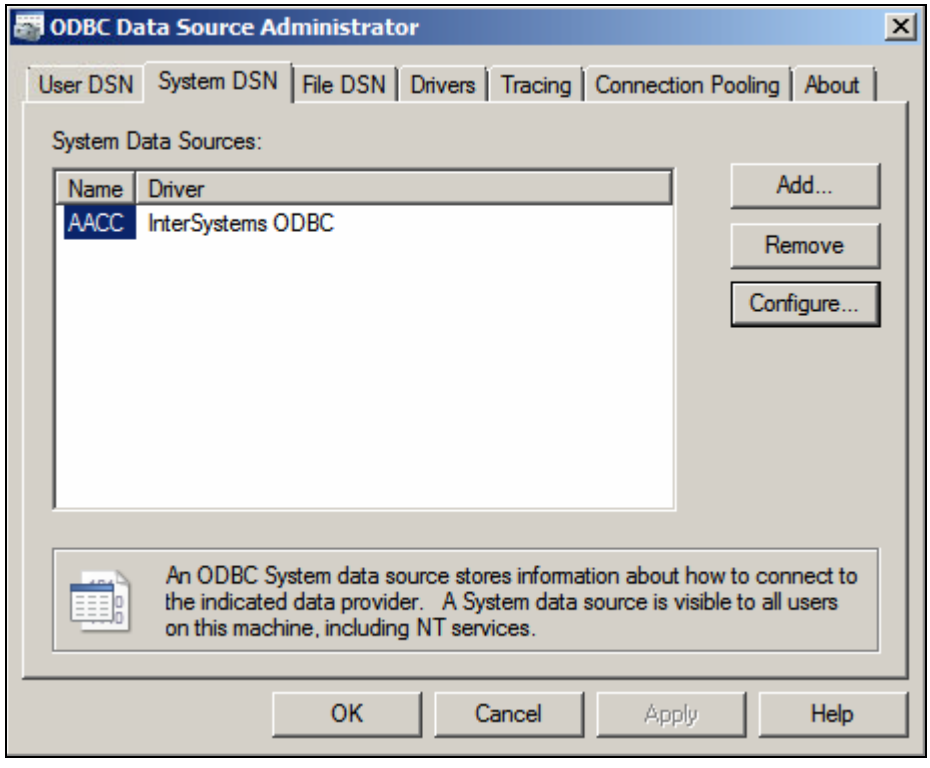
The following screen will appear confirming succesful database connection. Click **OK** and click **OK** again at the setup screen.



The following screen will appear displaying the newly configured ODBC Data Source.



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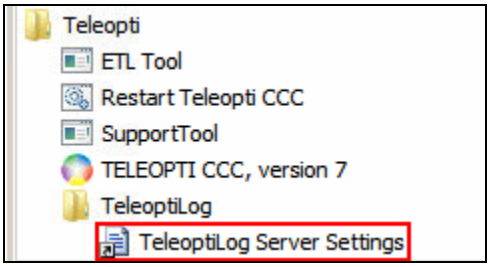
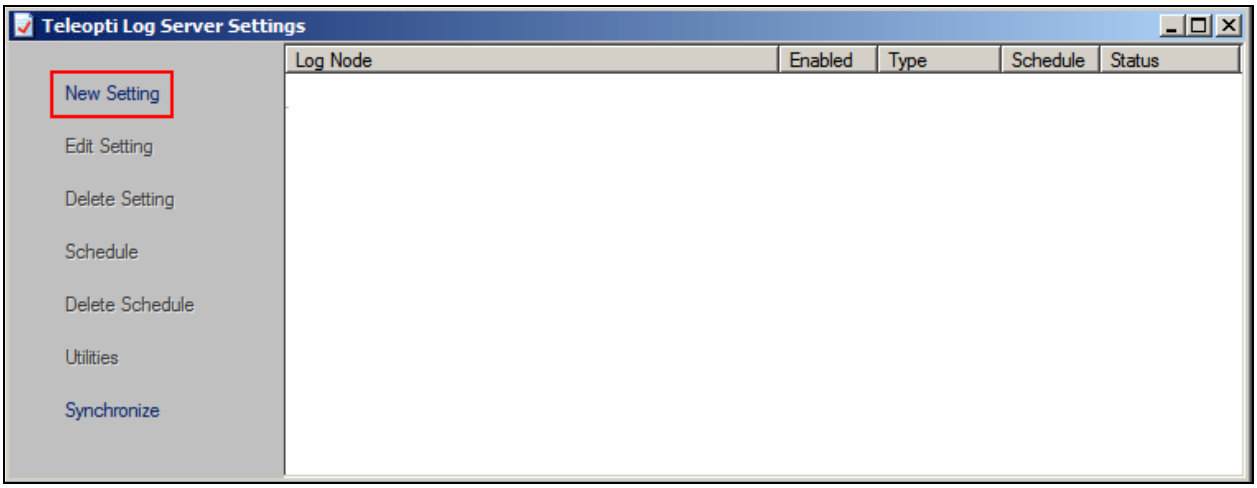
7.2. Configure TeleoptLog Server

The Application Notes assume that the RTD SDK is installed as a pre-requisite to the installation of TeleoptiCCC. The installation of the RTD SDK is performed using the intuitive and widely recognized installer application and all default options can be accepted.

A connection to the AACC RTD API is established using the TeleoptiLog Server component. From the TeleoptiCCC Server click **Start → All Programs → Teleopti → TeleoptiLog → TeleoptiLog Server Settings**



The following screen will appear, click **New Setting**.



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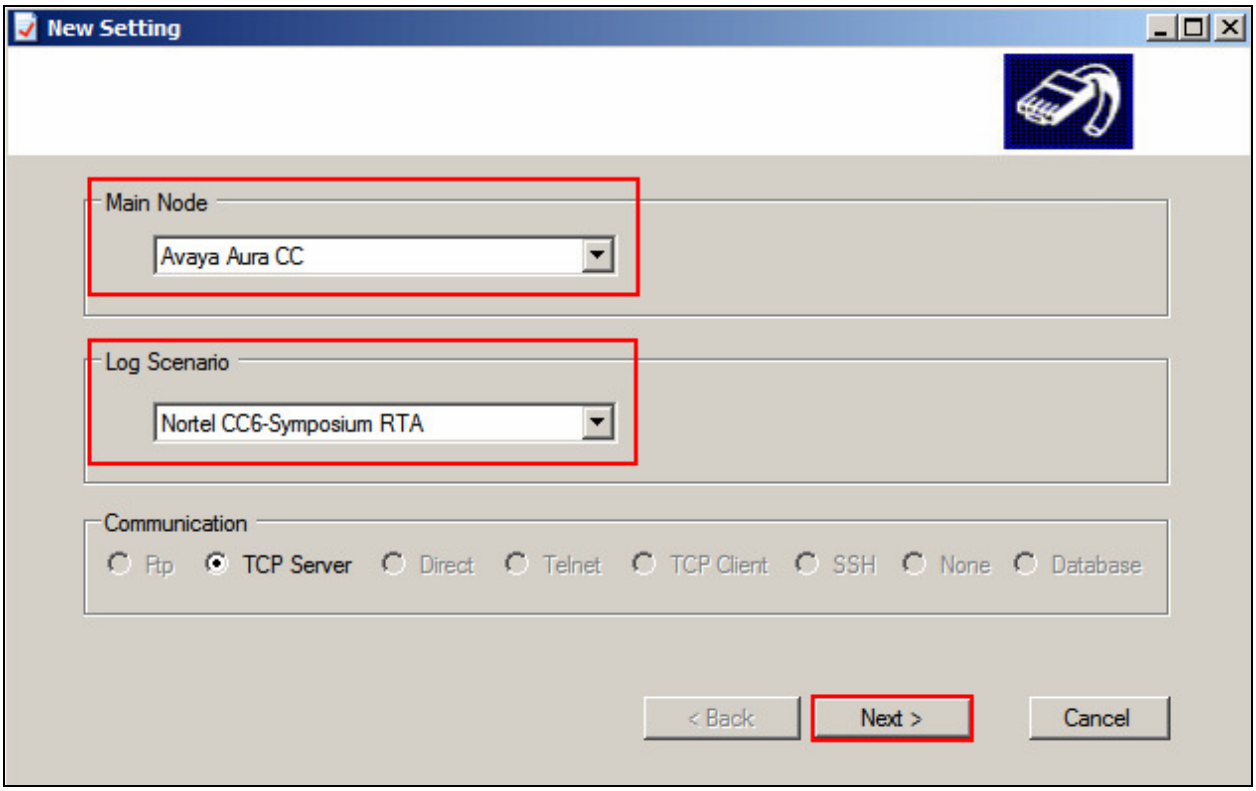
The following screen will appear, select **Avaya Aura CC** from the **Main Node** drop down list, and **Nortel CC6-Symposium RTA** from the **Log Scenario** drop down list and click **Next**.



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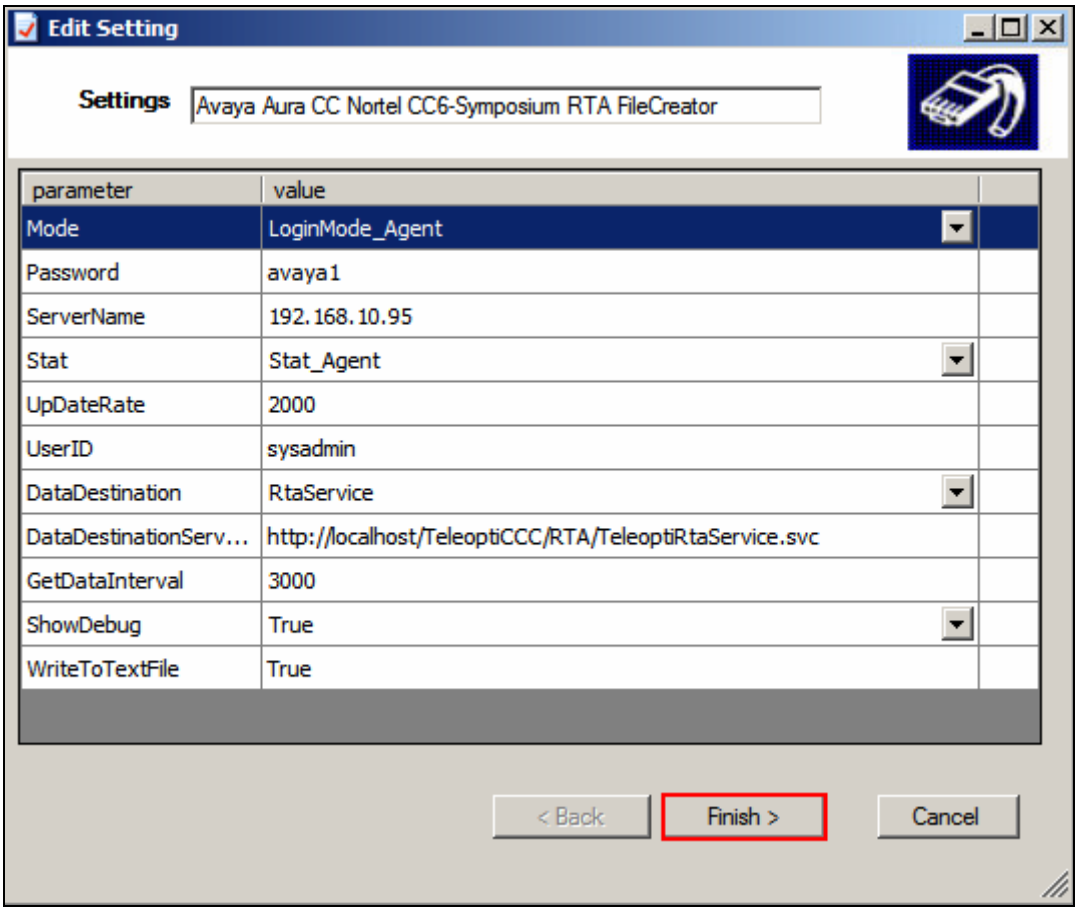
Configure the settings as follows and click **Finish**:

- **Mode** – leave as default **LoginMode_Agent**
- **Password** – enter the default sysadmin password **avaya1**
- **ServerName** – enter the IP address of AACC
- **Stat** – leave as default **Stat_Agent**
- **UpDateRate** – enter the refresh rate for the realtime stream in ms
- **UserID** – enter the default **sysadmin** user
- **DataDestination** – select **RtaService** from the drop down list
- **DataDestinationServ…** - enter the URL to the TeleoptiRtaService.svc
- **GetDataInterval** – configure as required, in this case **3000**.
- **ShowDebug** – select **True** from the drop down list
- **WriteToTextFile** – select **True** from the drop down list



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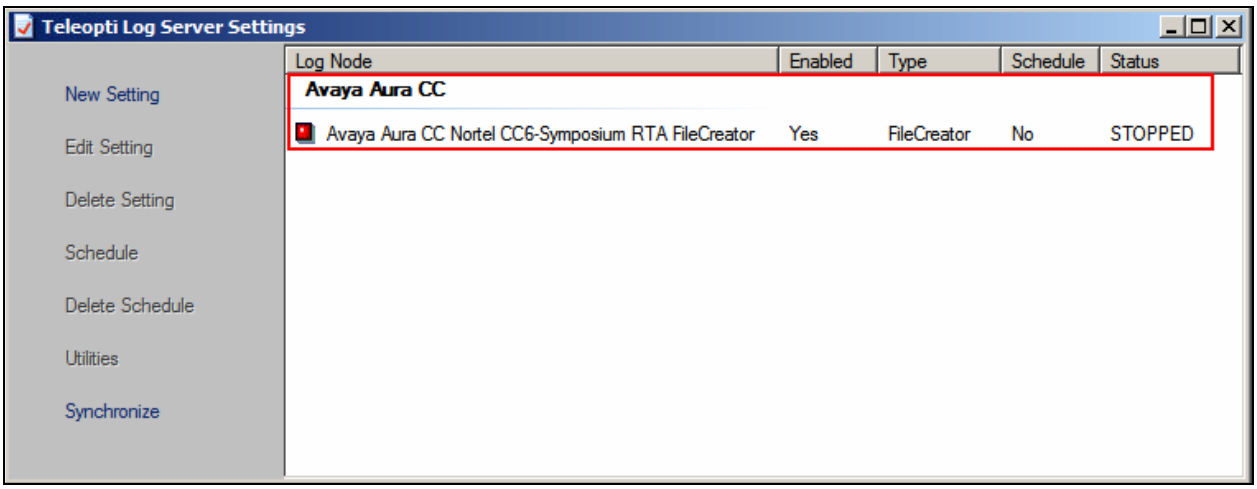
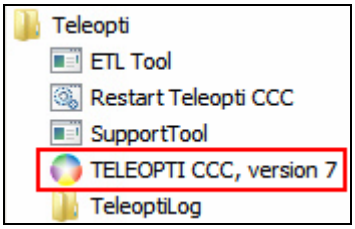
The following screen will appear displaying the newly configured connection.



7.3. Configure Test Agents in Teleopti CCC

Teleopti CCC Agents must be added and mapped to corresponding AACC Agents. From the Teleopti CCC Server click **Start → All Programs → Teleopti → TELEOPTI CCC, version 7**.



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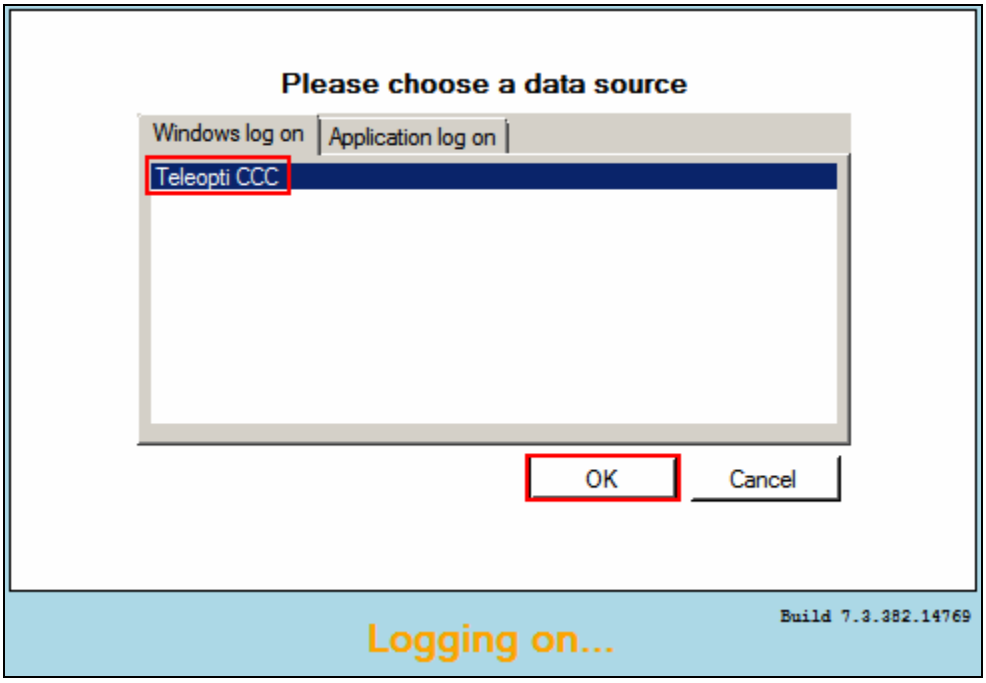
Select the appropriate data source commissioned by Teleopti and click **OK**.



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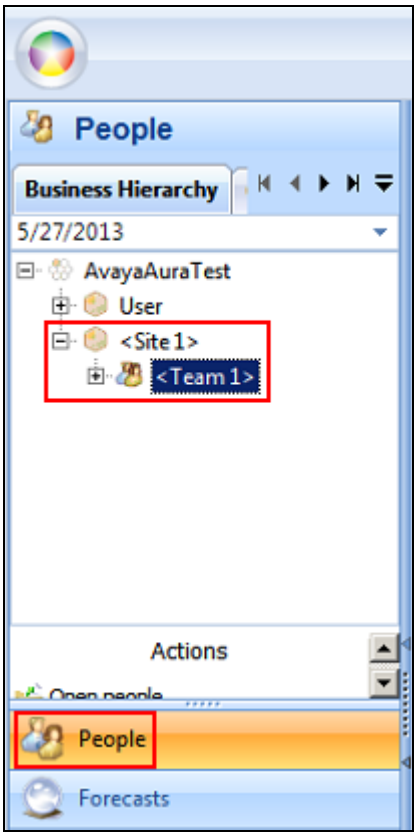
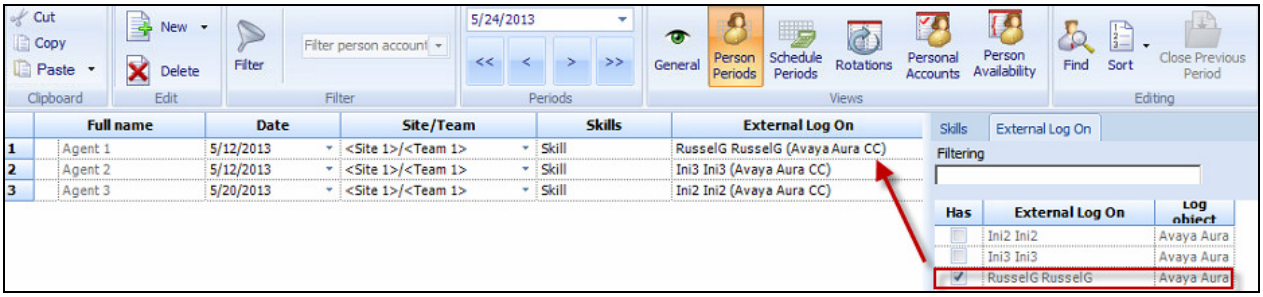
Click **People** and expand the appropriate **Site** and double click the appropriate **Team** from the left panel.



Click the **Person Periods** icon and map the Teleopti CCC agent to the corresponding AACC Agent. The screenshot below shows an AACC Agent named **RusselG** in the **External Log On** column being mapped to the Teleopti CCC login **Agent 1**.



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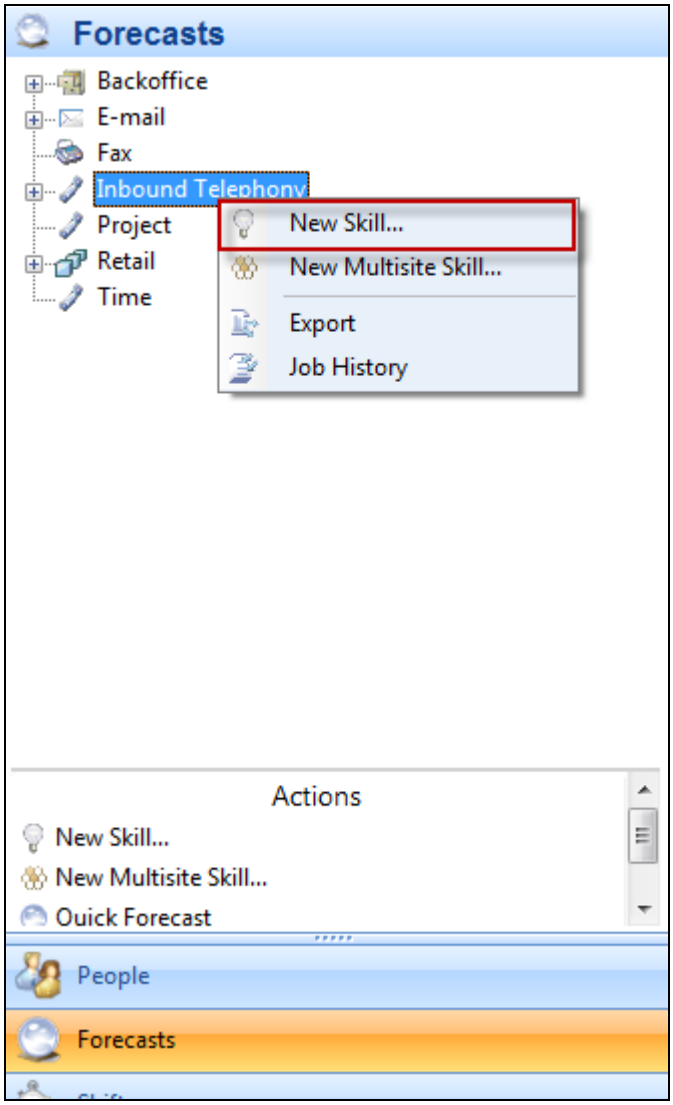
7.4. Configure test skill in Teleopti CCC

In order to create a forecast for the contact center, a Teleopti CCC Skill must be configured and a Workload must be mapped to an AACC application. Click on **Forecasts** and right-click on **Inbound Telephony** and then click on **New Skill**.



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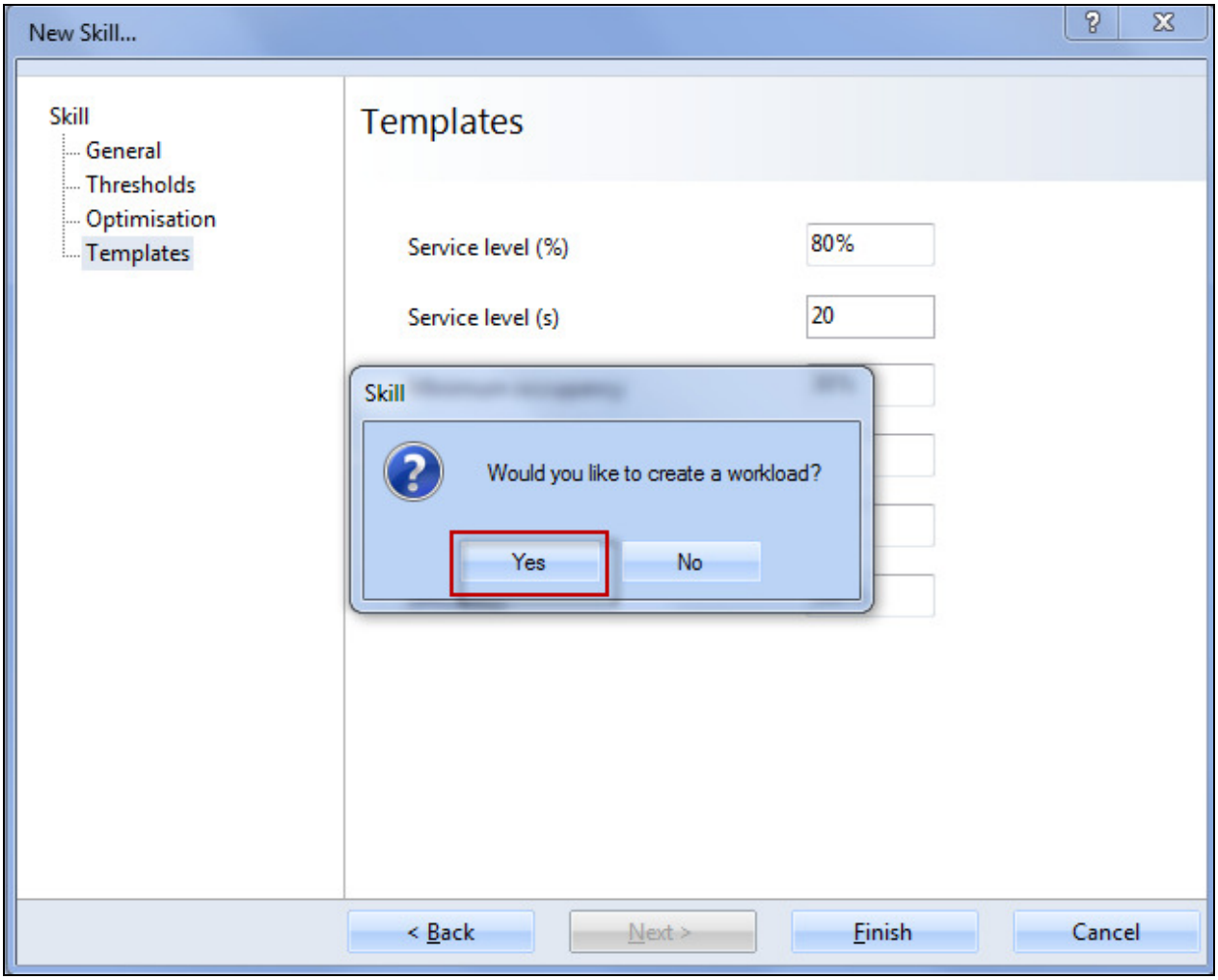
Select one of the activities in the drop-down list (preferably Phone) and the corresponding time zone for the skill (not shown). Click **Next** until the button **Finish** appears, click **Finish** and the screen below will appear, click **Yes** to create a **workload**.



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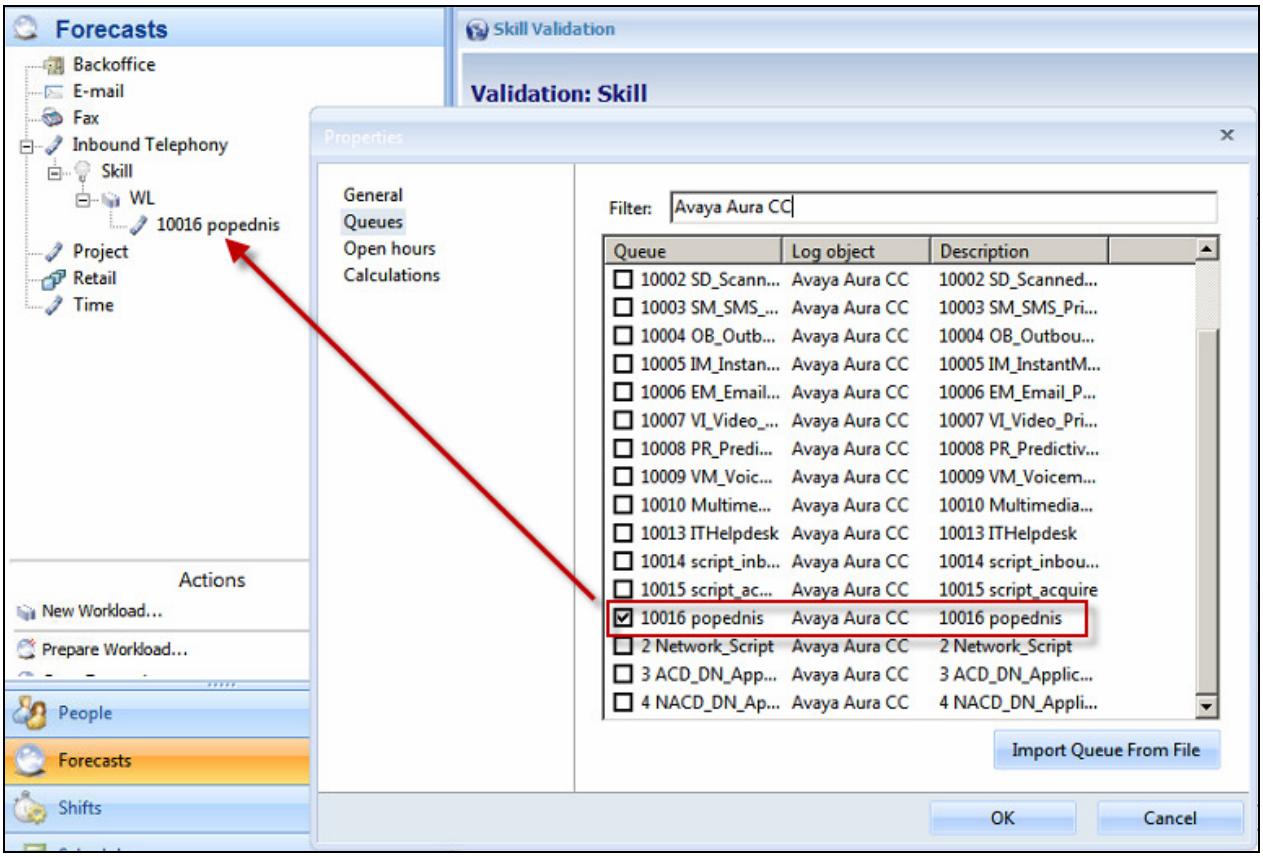
Assign a descriptive workload name (not shown) and define the corresponding test queue (AACC Application) for the Teleopti CCC skill. Click **Next** (not shown) until the **Finish** button appears. Click **Finish** (not shown) and click **No** if prompted to create another workload. The screenshot below shows AACC application **popednis** assigned to a workload named **WL**.



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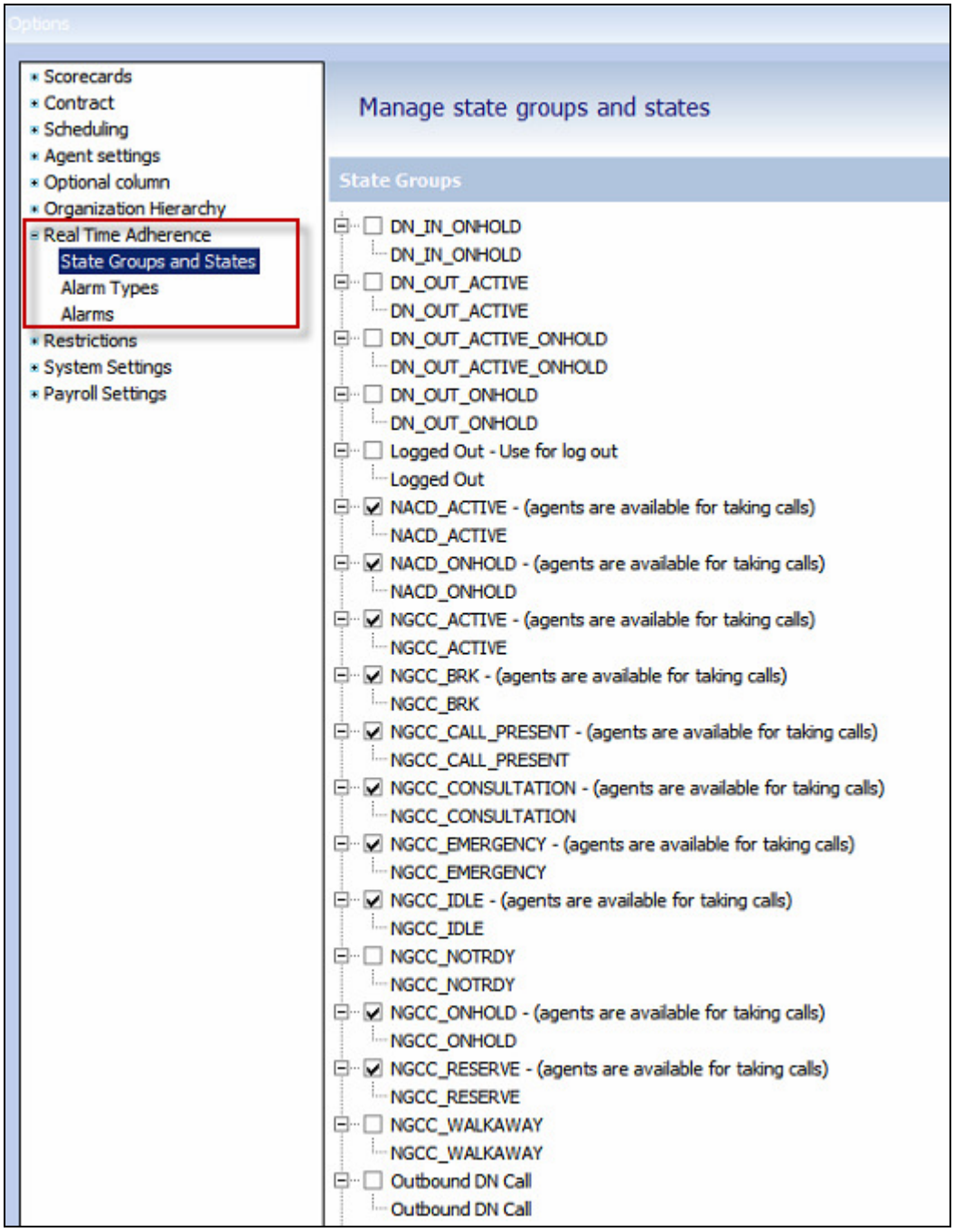
7.5. Configure real time definitions in Teleopti CCC

The agent states are presented to Teleopti CCC in the form of an agent status code. These codes should be mapped to a meaningful agent state. The screenshot below shows the agent states Teleopti CCCLog Server will display.



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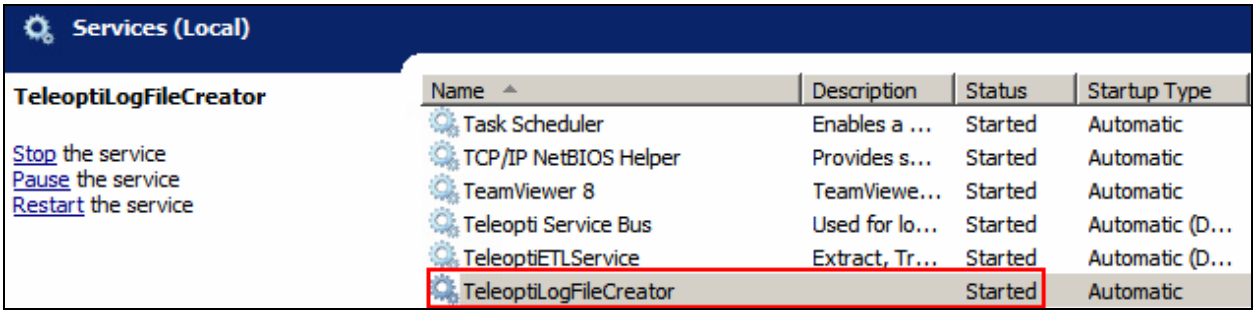
8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Contact Center and Teleopti.

8.1. Verify RTA (Real Time Adherence)

From the TeleoptiCCC Server enter **Start → Administrative Tools → Services** and ensure **TeleoptiLogFileCreator** is **Started**.



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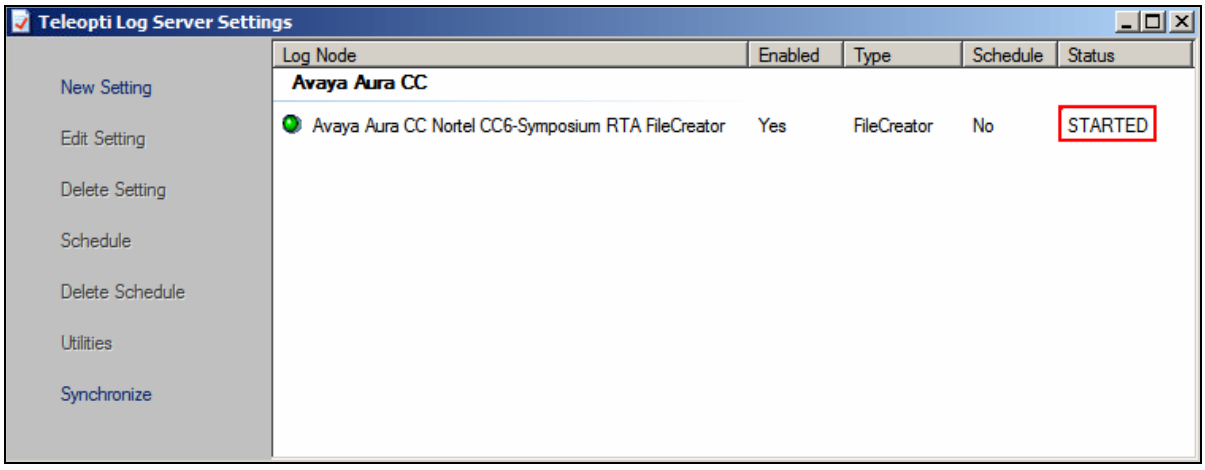
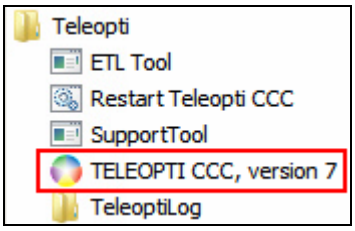
From the TeleoptiCCC Server click **Start → All Programs → Teleopti → TeleoptiLog → TeleoptiLog Server Settings** and verify the status is **STARTED**.



From the TeleoptiCCC Server navigate to **C:\Program Files (x86)\Teleopti\TeleoptiLog Server\Logs\FileCreator** and check the appropriate log file, in this case **Avaya Aura CC Nortel CC6-Symposium RTA FileCreator_Log.txt** and verify that there are no errors related to the startup of the service.

From the TeleoptiCCC Server click **Start → All Programs → Teleopti → TELEOPTI CCC, version 7**.



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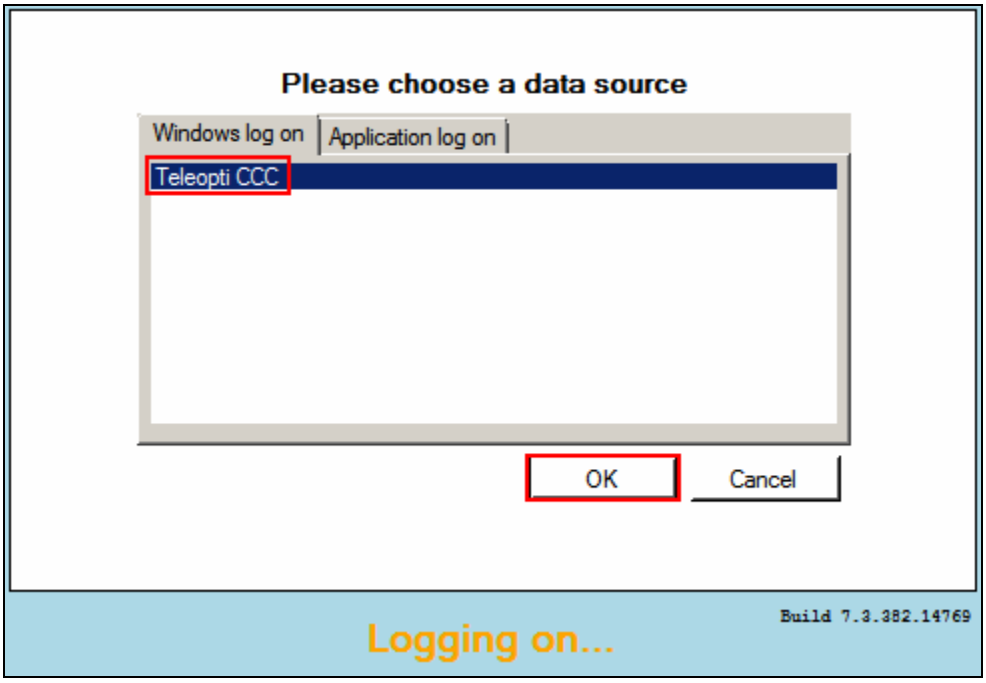
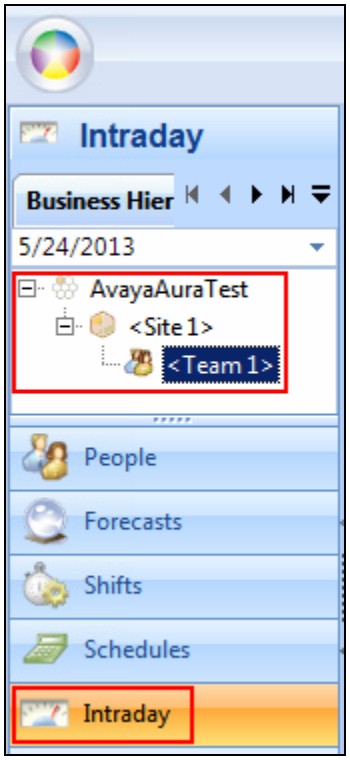
Select the appropriate data source commissioned by Teleopti and click **OK**.



Click **Intraday** from the menu on the left and expand the hierarchy to locate and double click the appropriate team.



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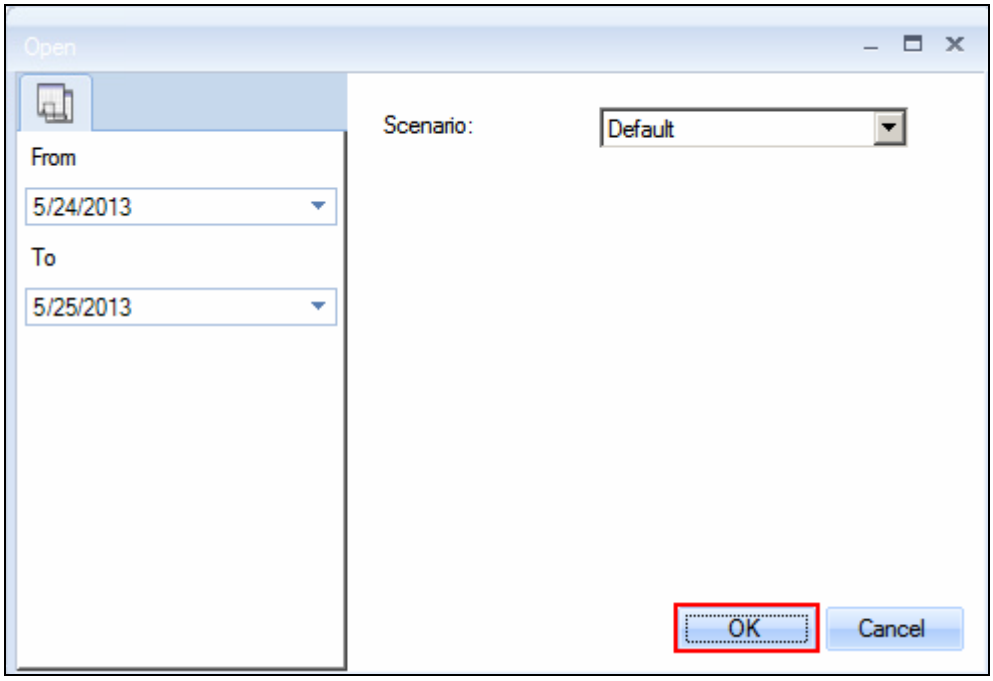
Accept the default options and click **OK**.



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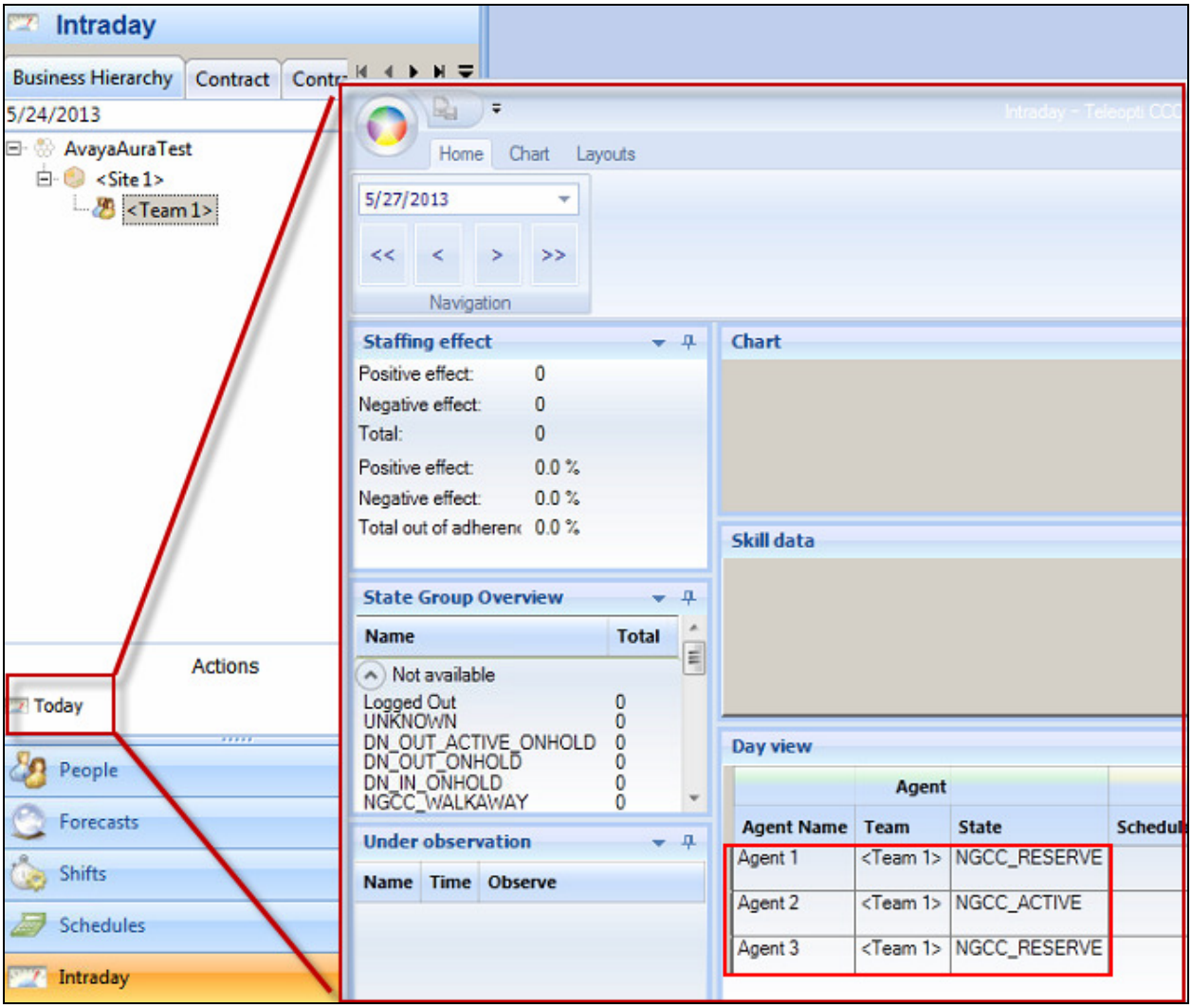
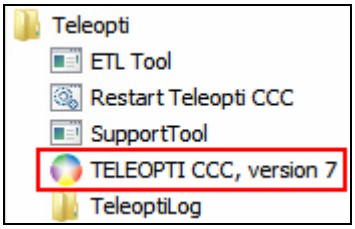
Confirm that the agent states correctly reflect the actual Contact Center agent activity.



8.2. Verifying historical data feed

From the TeleoptiCCC Server click **Start → All Programs → Teleopti → TELEOPTI CCC, version 7.**



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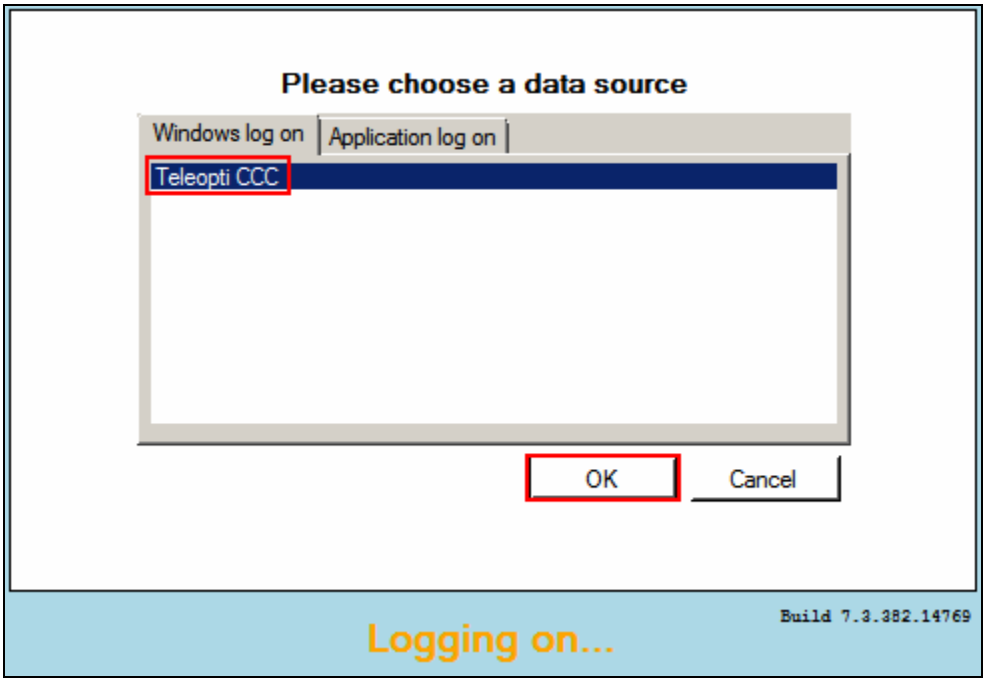
Select the appropriate data source commissioned by Teleopti and click **OK**.



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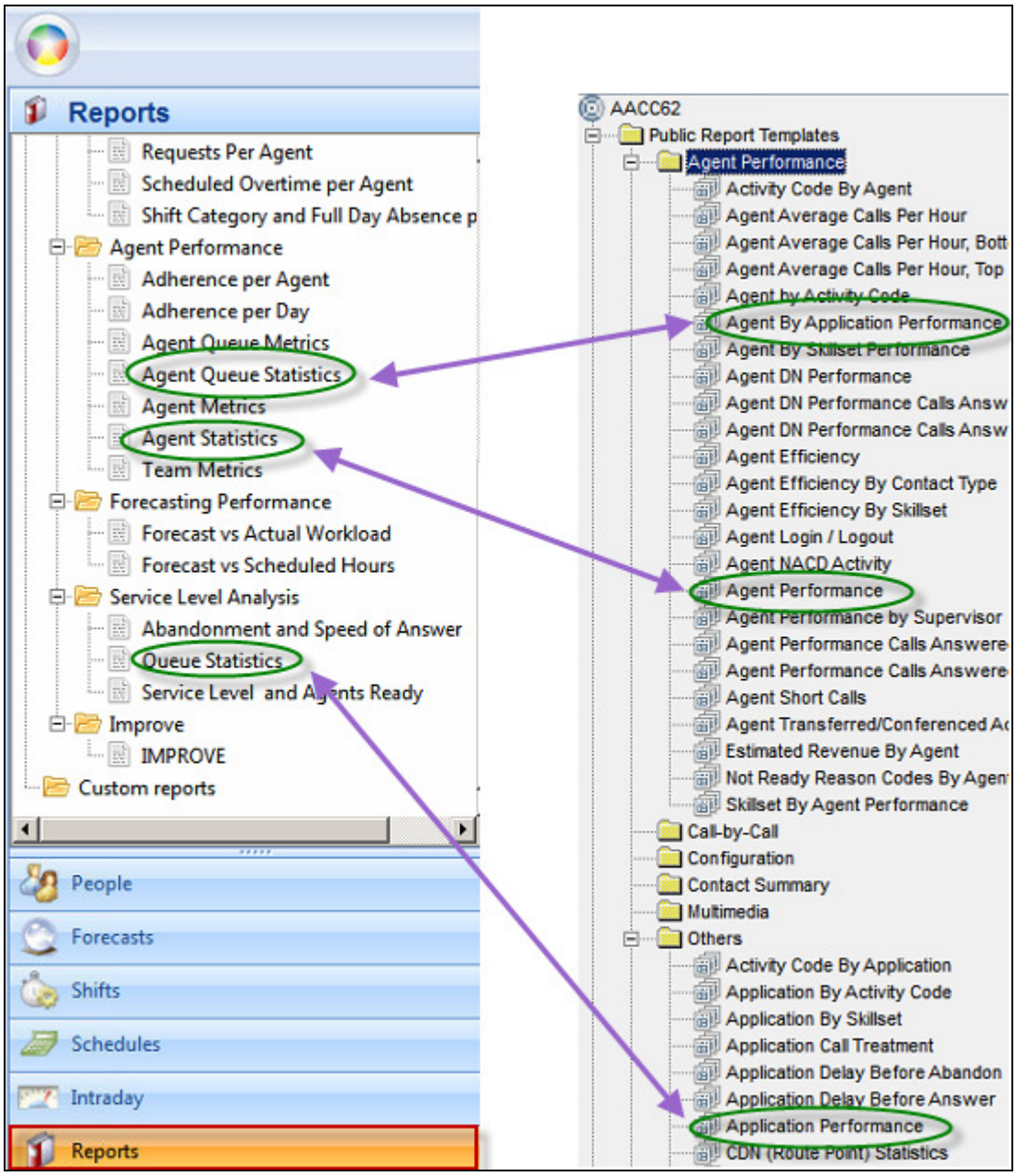
Select the base reports and verify the statistics against the AACC corresponding reports as displayed below.



9. Conclusion

These Application Notes describe the configuration steps required for TeleoptiCCC to interoperate with Avaya Aura® Contact Center. All feature and serviceability test cases were completed successfully with any observations noted in **Section 2.2**.

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10. Additional References

This section provides references to the product documentation relevant to these Application Notes. Avaya product documentation may be found at http://support.avaya.com.

[1] NN44400-117_04.01_Performance_Management_Data_Dictionary_15_November_2012.pdf
[2] Avaya Aura® Contact Center Configuration – Avaya Communication Server 1000 Integration (NN44400-512).
[3] Avaya Aura® Contact Center Administration (NN44400-610).
[4] Avaya Aura® Contact Center Commissioning (NN44400-312).
[5] Avaya Aura® Agent Desktop (NN44400-114).
[6] Avaya Aura® Contact Center Administration – Client Administration (NN44000-611).
[7] Software Input Output Reference – Administration Avaya Communication Server 1000 (NN43001-611).
[8] Software Input Output Reference – Maintenance Avaya Communication Server 1000 (NN43001-711).

TeleoptiCCC documentation can be obtained from Teleopti by using the contact information provided in **Section 2.3**.

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