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Avaya Solution & Interoperability Test Lab

Application Notes for Pronet Wallboard 1.0 with Avaya Aura® Contact Center 7.1 using the Real-time Data API of Avaya Contact Center Manager Server – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Pronet Wallboard 1.0 to successfully interoperate with Avaya Aura® Contact Center 7.1 using the Real-time Data API to access/get real-time data for agent and queue statistics.

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.

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1. Introduction

These Application Notes describe the configuration steps required for Pronet Wallboard to successfully interoperate with Avaya Aura® Contact Center (AACC) using the Real-time Data API to access real-time data for agent and queue statistics. Pronet Wallboard connects to AACC Contact Center Manager Server (CCMS) by using AACC RTD SDK to get list of agents, list of skills and relationship between agent and skills.

Pronet Wallboard display real-time data visualizations for skillset and agent statistics through the browser, including:

- Consolidated Real Time Agent Stats
- Consolidated Real Time Calls Stats.
- Graphical representation of Agent Performance.
- Graphical representation of Landed/Answer Call & Resources Daily.
- Graphical representation of Landed/Answer Call & Resources Hourly.
- Graphical representation of Service Level Performance Daily.
- Graphical representation of Skillset Performance Daily.
- Calls Difference Daily.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying Pronet Wallboard's ability to receive real-time Skillset statistics and Agent statistics from Avaya Aura® Contact Center using the Real-time Data (RTD) API and get list of agents, list of skills and relationship between agent and skills using CCMS API. Calls were made into Avaya Aura® to the AACC agents to generate real-time statistics for:
- Agents in various states, e.g., Ready, Not Ready, Logged out.
- Agents on ACD calls.

Using the Real-time Reporting on AACC was compared to the real-time statistics being displayed on the Pronet Wallboard.

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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Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and the Pronet Wallboard did not include use of any specific encryption features as requested by Pronet.

2.1. Interoperability Compliance Testing

The feature testing focused on verifying Pronet Wallboard correctly displayed Skillsets and Agent data from AACC. A number of call center scenarios including the following were created to provide data to the Contact Center.

- Consolidated Real Time Agent Stats.
- Consolidated Real Time Calls Stats.
- Graphical representation of Agent Performance.
- Graphical representation of Landed/Answer Call & Resources Daily.
- Graphical representation of Landed/Answer Call & Resources Hourly.
- Graphical representation of Service Level Performance Daily.
- Graphical representation of Skillset Performance Daily.
- Calls Difference Daily

2.2. Test Results

All test cases were executed and verified successfully.

2.3. Support

Support for Pronet Wallboard can be obtained as follows:
Pronet (Pvt.) Limited
Telephone Office: (+92-21) 35822401-4 | Fax: (+92-21) 35838724
Web Site: www.pronet-tech.net
Email: info@pronet-tech.net

3. Reference Configuration

The configuration in **Figure 1** was used to compliance test Pronet Wallboard using a connection to AACC.
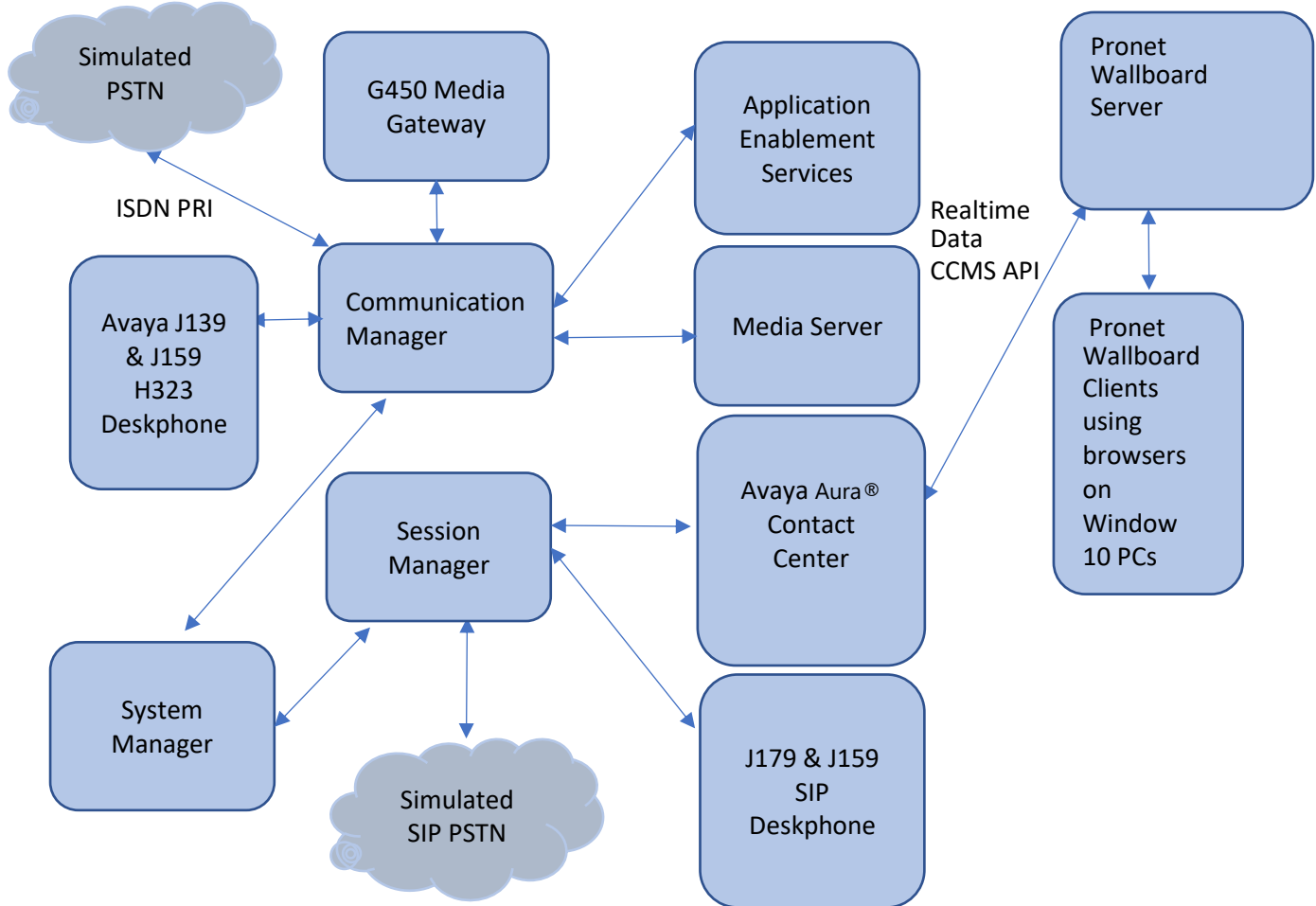
Figure 1: Compliance Testing Configuration

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4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® System Manager in Virtual Environment	10.1.0.1
Avaya Aura® Session Manager in Virtual Environment	10.1.0.1
Avaya Aura® Communication Manager in Virtual Environment	10.1.0.1
Avaya G450 Media Gateway	41.34.1
Avaya Aura® Media Server in Virtual Environment	10.1
Avaya Aura® Application Enablement Services in Virtual Environment	10.1.0.1
Avaya Aura® Contact Center	7.1.2
Avaya J179 & J159 IP Deskphone (SIP)	4.0.12.1
Avaya J139 & J159 IP Deskphone (H.323)	6.8.5
Pronet Wallboard on Window Server 2016	1.0
Pronet Wallboard Clients using browsers on Window 10	1.0

5. Configure Avaya Aura® Session Manager and Avaya Aura® Communication Manager

It is assumed that Avaya Aura® Session Manager and Avaya Aura® Communication Manager is already configured and running properly with all the necessary licenses. The configuration steps required to connect Avaya Aura® Contact Center with Avaya Aura® Session Manager are outside the scope of these Application Notes and will therefore not be covered in this section.

There is no extra configuration required on Avaya Aura® Session Manager and Avaya Aura® Communication Manager for the connection of Pronet Wallboard to Avaya Aura® Contact Center.

6. Configure Avaya Aura® Contact Center

It is implied that a working Avaya Aura® Contact Center is already in place and that the connections to Session Manager is already configured.

6.1. Verify ACCS Multicast Stream Control

From the AACC server, open the **Multicast Stream Control** application as shown below.

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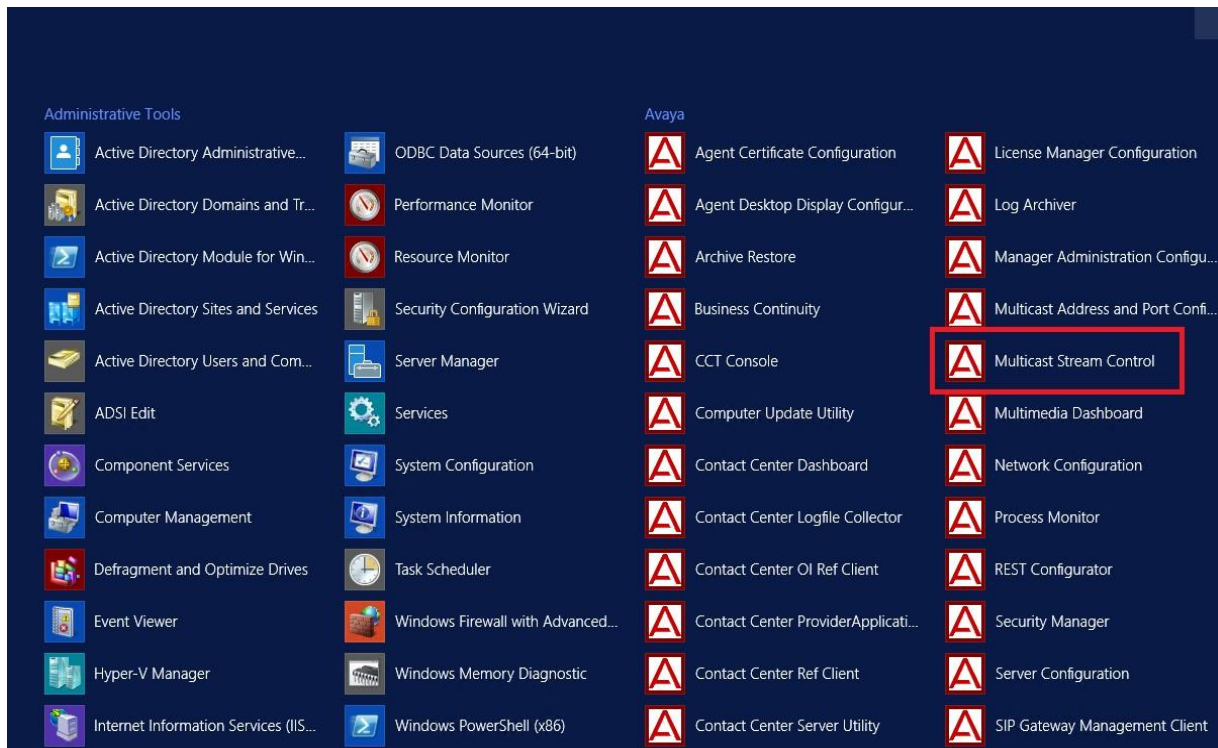
Ensure that all Agent and Skillset boxes are ticked as shown below. The others are not used by member application. Ensure that neither **RTD Compression** nor **RSM Compression** is ticked. Click on **Apply** or **OK** to finish.

6.2. Configure Access Class and Pronet User to Access ACCS Realtime Data

From the ACCS server, open the **Contact Center Server Utility** application as shown below.
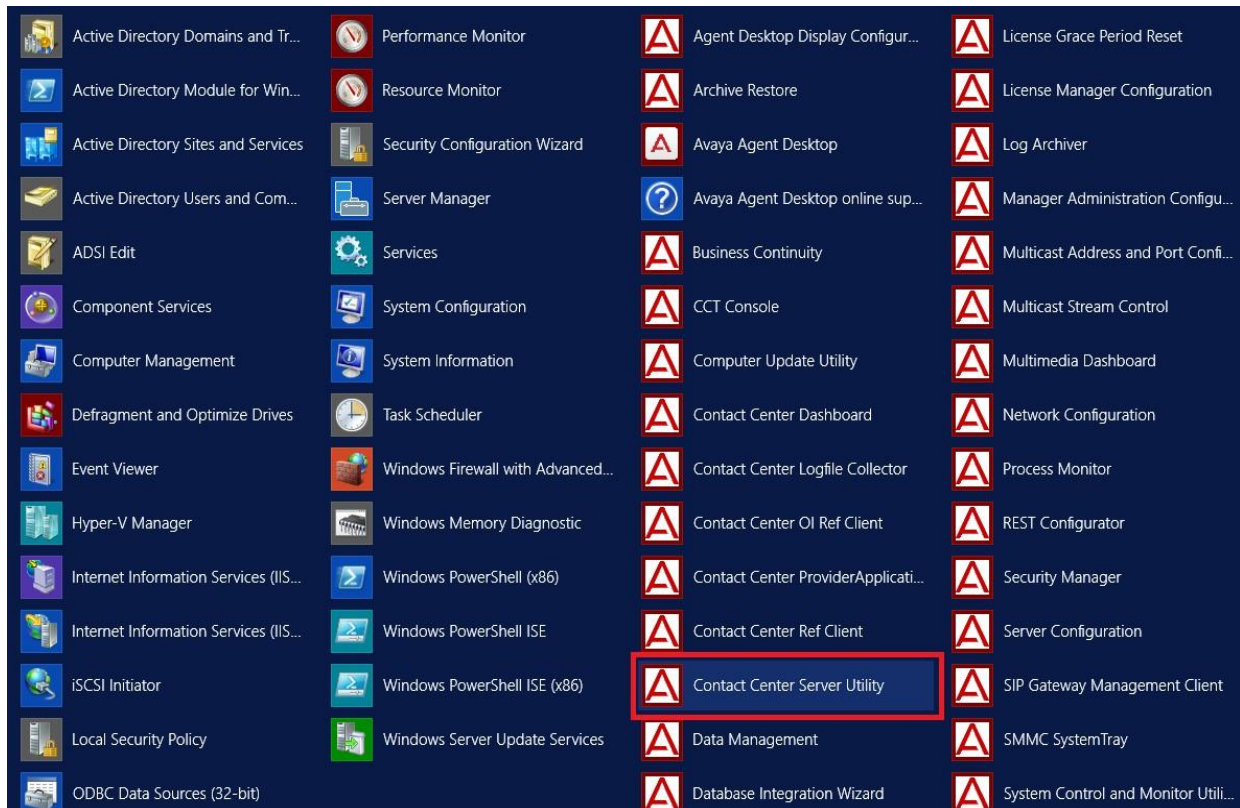
Enter administrator credential as show below:

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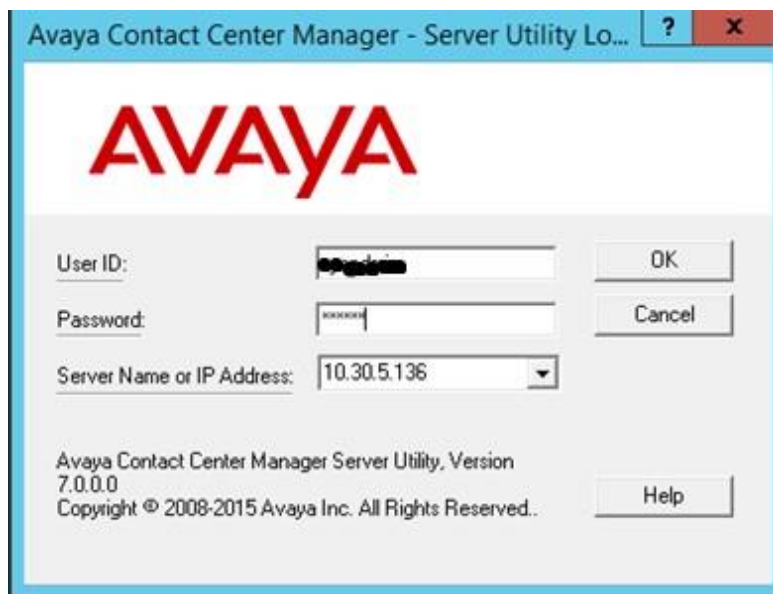
From **Avaya Aura Contact Center Management – Server Utility** window, double-click on **Access Classes** to open **Access Classes** window.
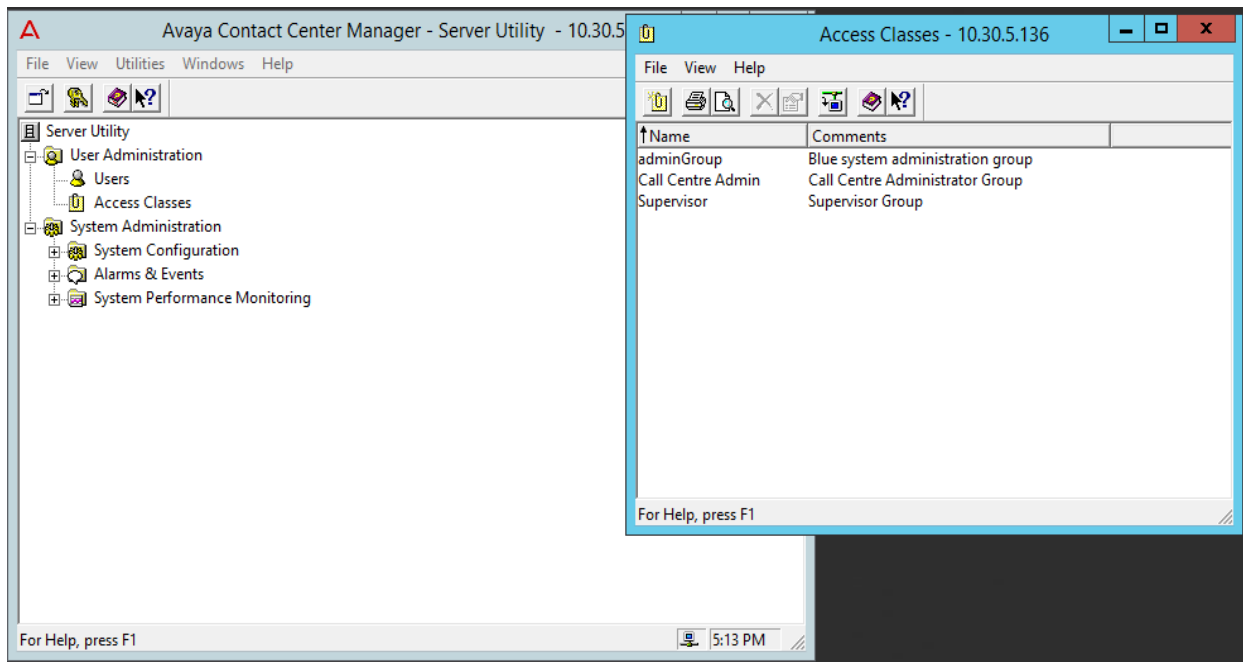
Select **File → New** from **Access Classes** window to create new Access Class.

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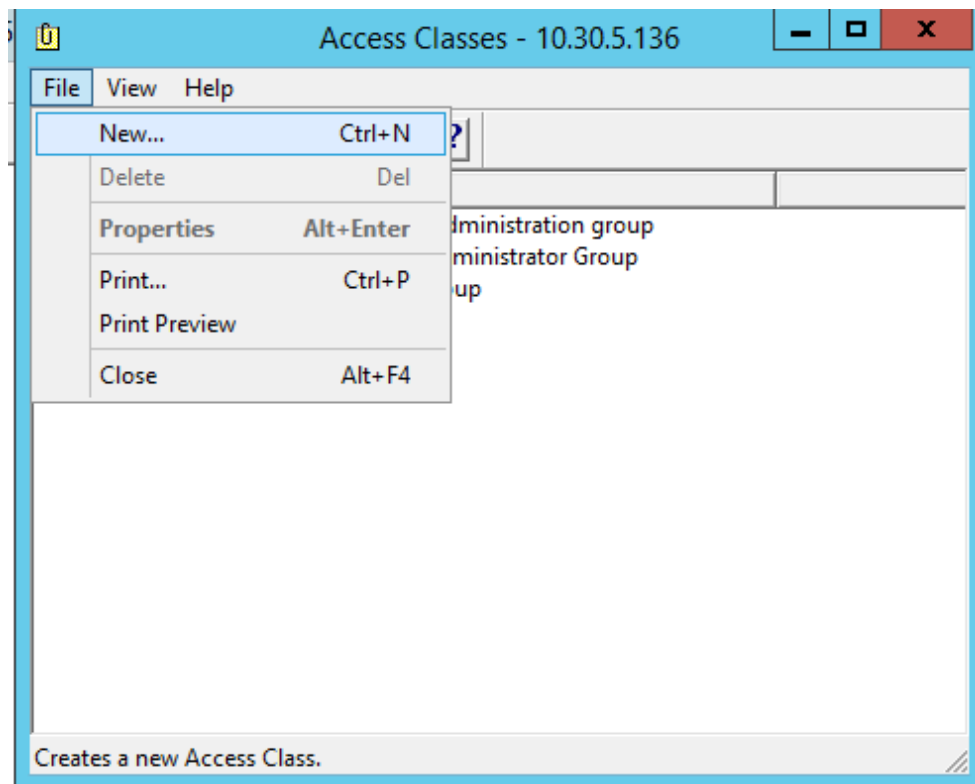
Enter the **Name** for new Access Class.

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Click on **Access** tab and change **Level of Access** for these items: **Historical Statistics**, **Real-time Statistics** and **Real-Time Displays** as shown below and click **Save.**

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Back from **Avaya Contact Center Management** ➔ **Server Utility** window, double-click on **Users** to create new user for RTD Access Class created above (not shown). From **Users** window, select **File ➔ New**.
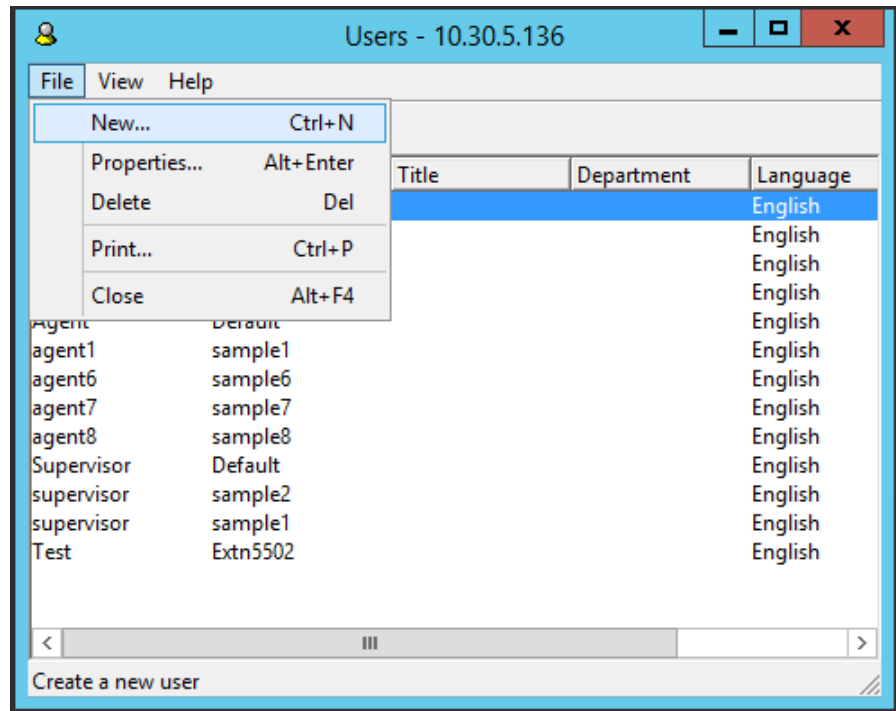
Enter the **Fist name** and **Last name** for **New User**

Click on **Desktop** tab and enter **User ID** and **Set Password** for this user. Change **Access Class** to**RTD** class created above, and then click **Save.**

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6.3. Create a New CCMA User

Open a web session to the Contact Center server and log in with the proper credentials as shown below.

Click on **Access and Partition Management.**

Right click on **User Administration** in the left window and click **New user**.
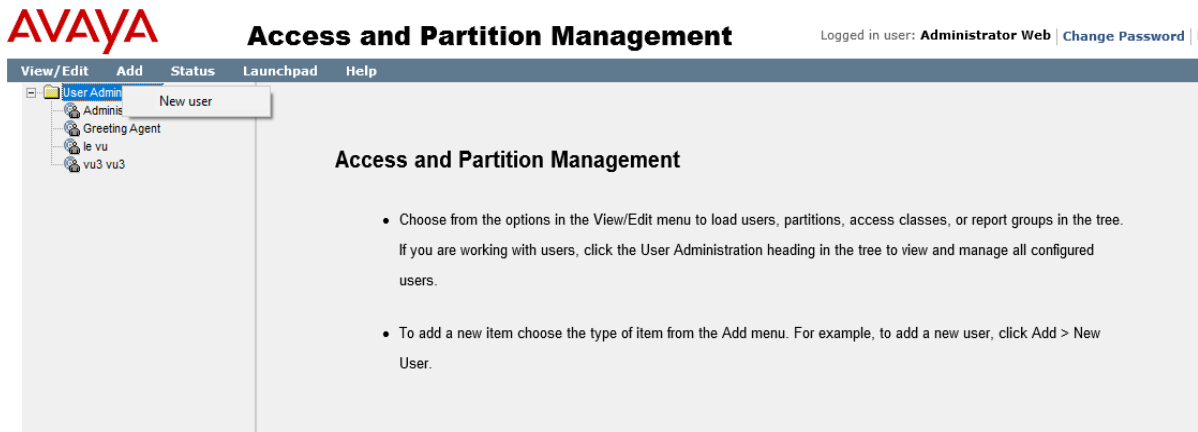
Enter the details of the user including the **User ID**, **First Name**, **Last Name** and **Password**. On **Launchpad Options**, select **Real-Time Reporting** and **Contact Center Management**.

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7. Configure Pronet Wallboard

All installation and configuration for Pronet Wallboard is performed by Pronet engineer, not mentioned in these app notes. The following prerequisites for Pronet Wallboard are listed below.

- **Windows Server 2019**
- **IIS Enablement**
- **.Net Framework 4.7**
- **Microsoft SQL Server 2019 Installation**

7.1. Windows Server 2019:

Pronet Wallboard is compatible for Windows Server 2019 Operating System.

7.2. IIS Enablement on Windows Server 2019

Wallboard is developed on .Net Framework 4.7. The following steps cover the IIS configuration. Since it is a 64-bit version, set the **Enable 32-Bit Applications** option to **True** (in **Application Pool Defaults**).

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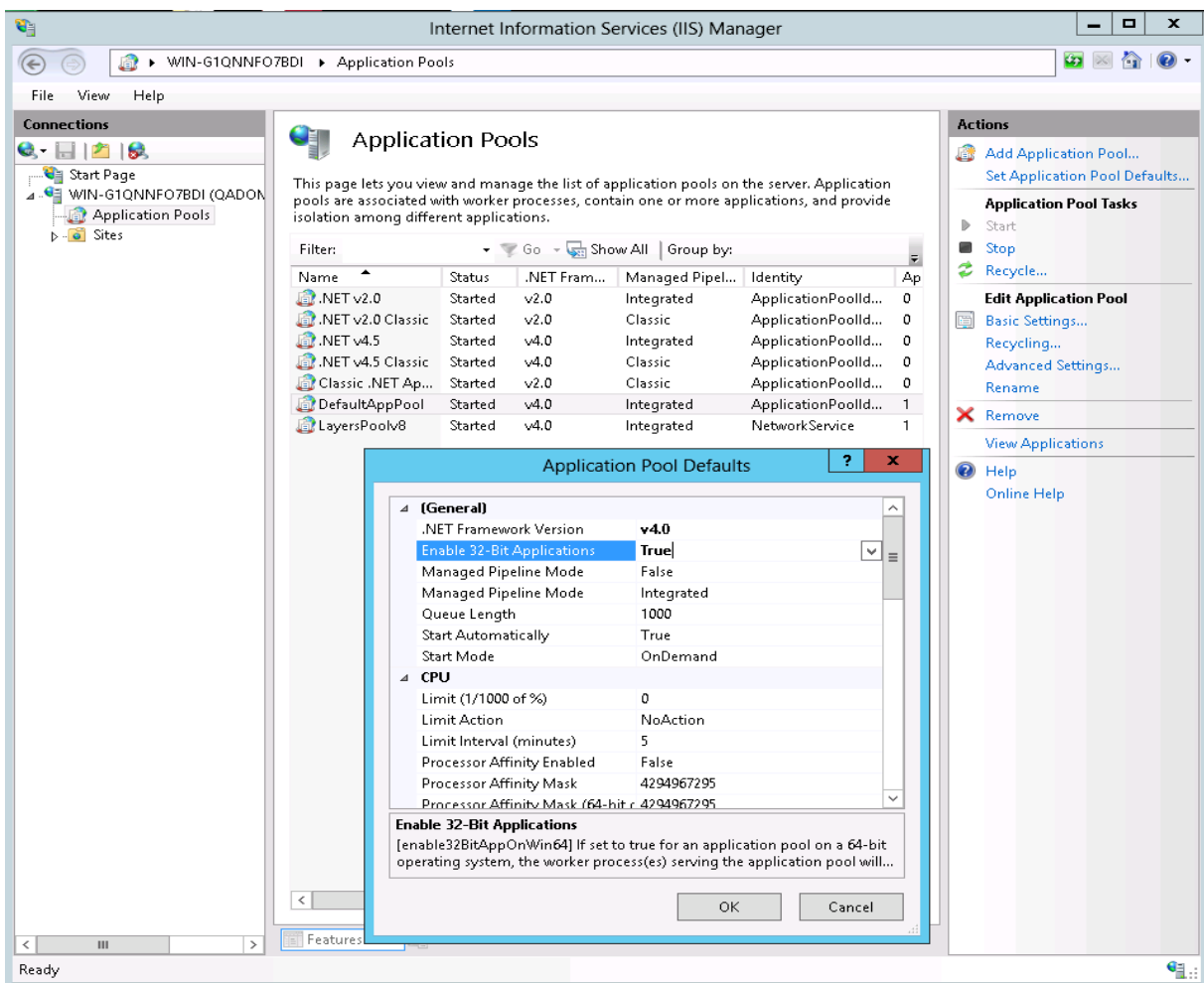
- Open **Server Manager > Dashboard** from the **Server Manager** button.
- Select **IIS** from left hand side of the **Dashboard.** The **Server Manager ▶ IIS > Servers** will be displayed.
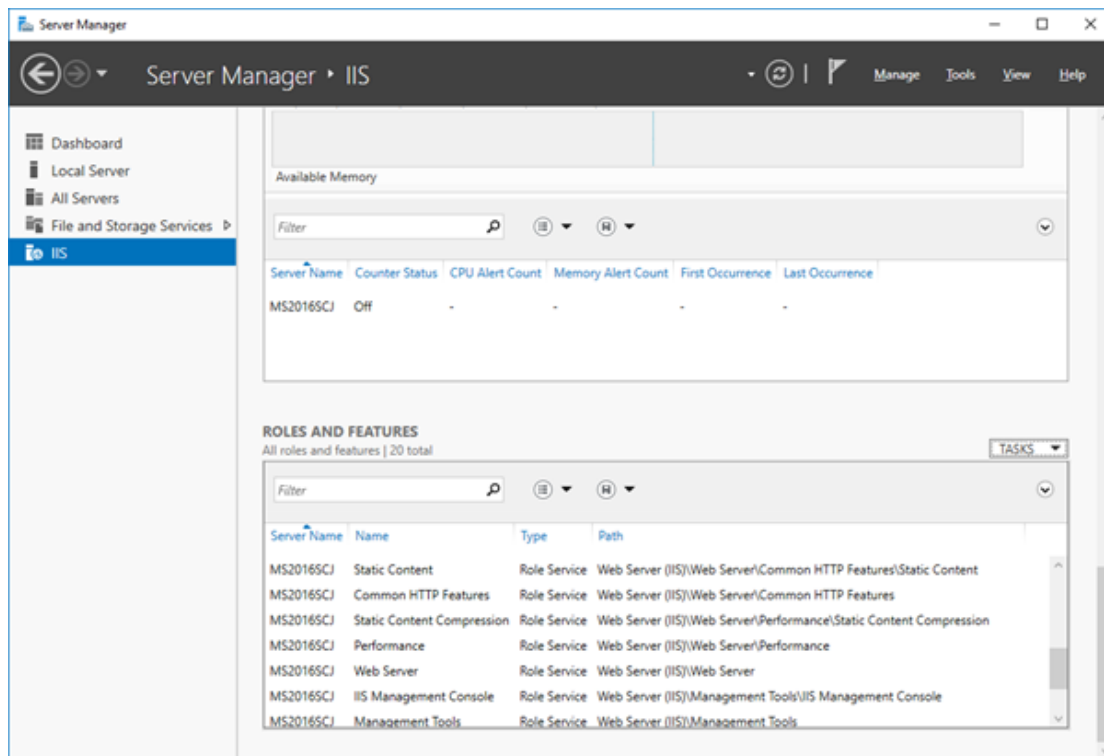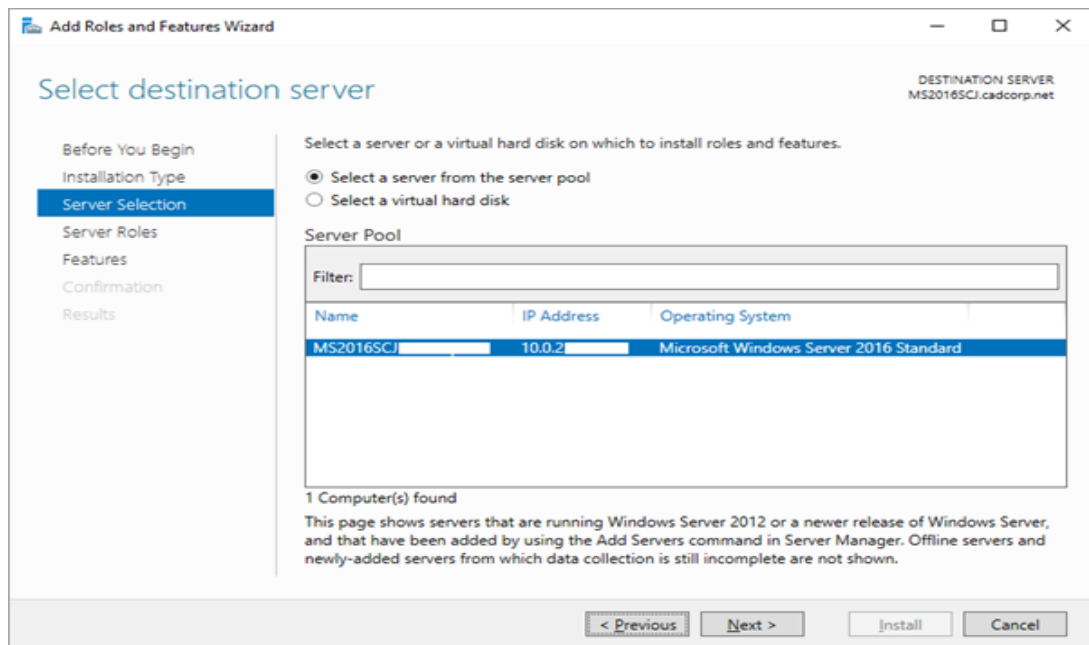

- Scroll down to **ROLES AND FEATURES** and click on **TASKS.**
- Select **Add Roles and Features** to open the **Wizard.**
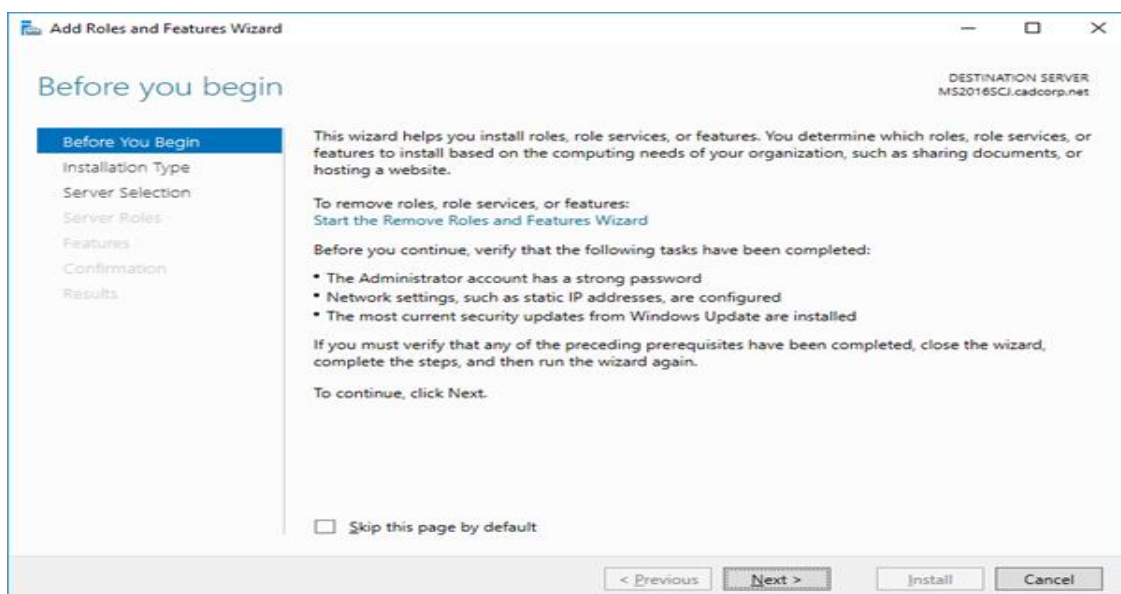
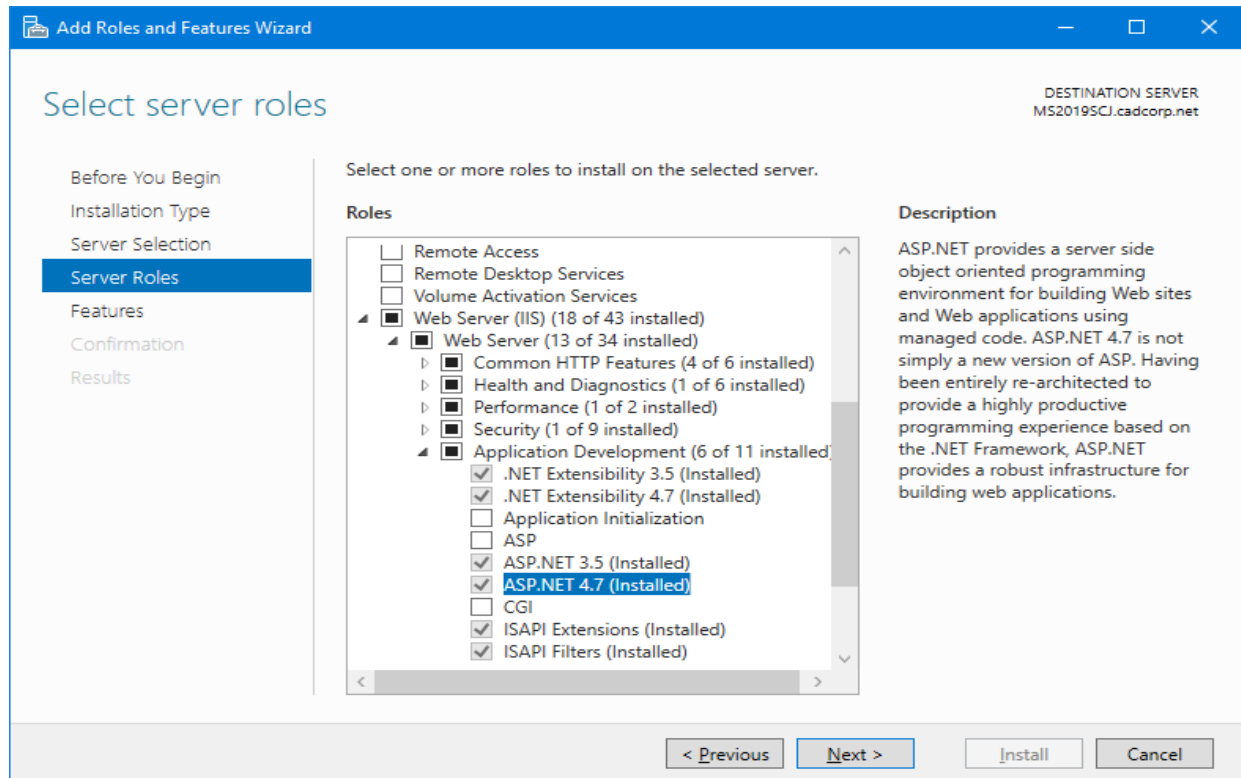- Click **Next** to **Select installation.**
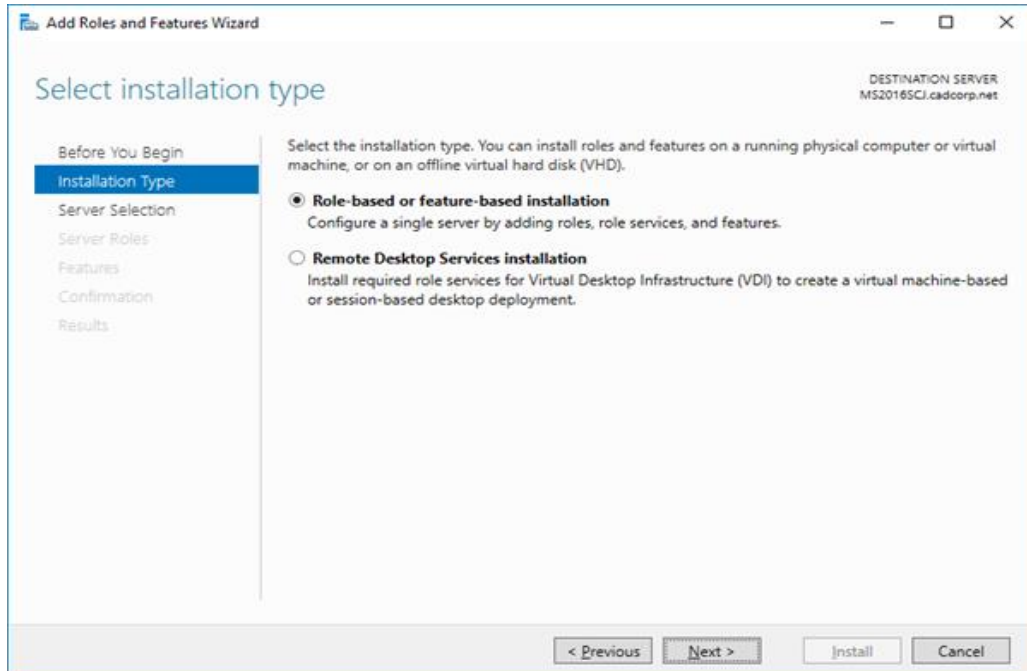
- Select **Role-based or feature-based installation** or **Remote Desktop Services installation** as required. (These instructions are for **Role-based installation**).
- Click **Next** to move to the **Select destination server** dialog.

- Click **Next** to move to the **Select server roles** dialog
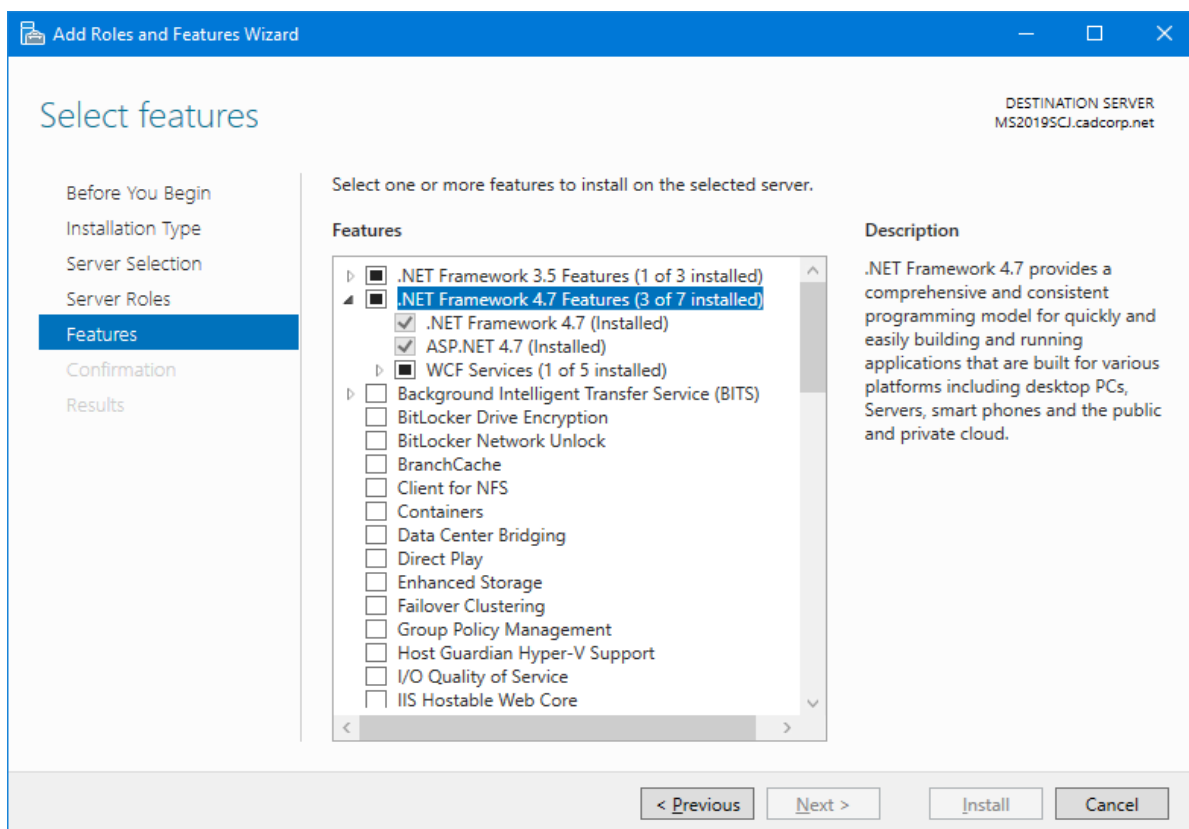
7.3. .Net 4.7 Framework Enablement

- Select **Web Server (IIS)** from the list to expand the option. Now, select **ASP.NET 4.7 installed** under **Web Server (IIS) > Web Server > Application Development.**
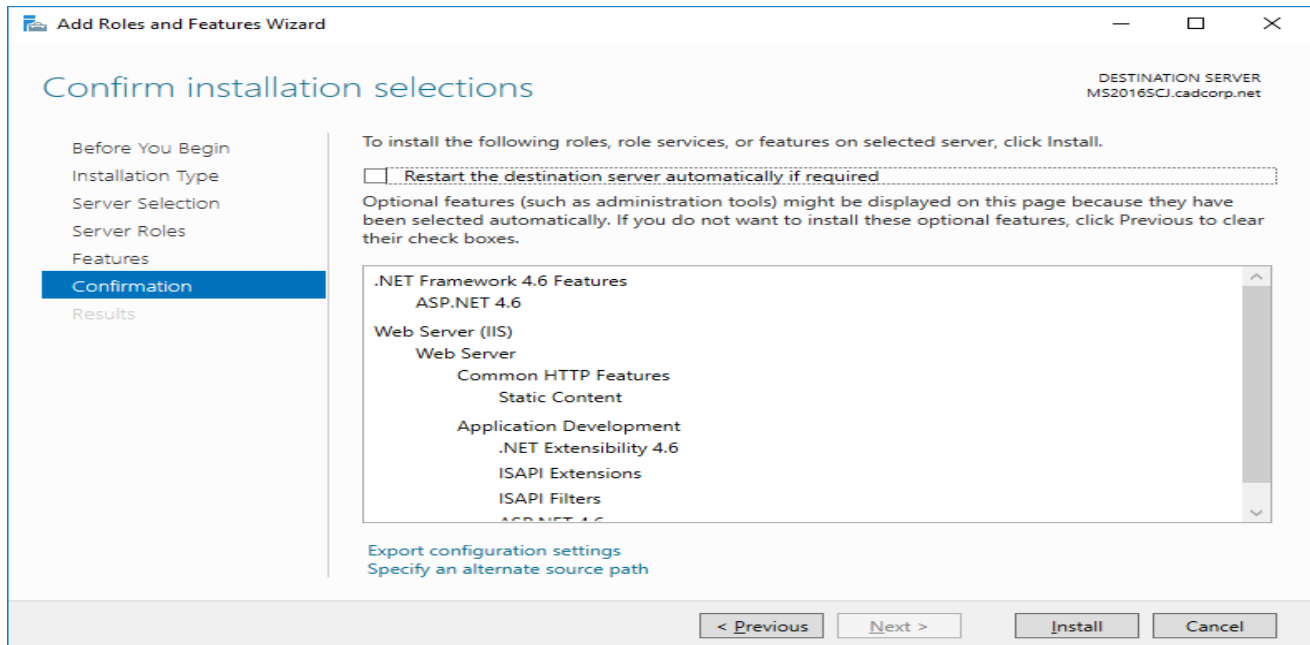

- Also, select **Static Content (Installed)** under **Web Server (IIS) > Web Server > Common HTTP Features.**
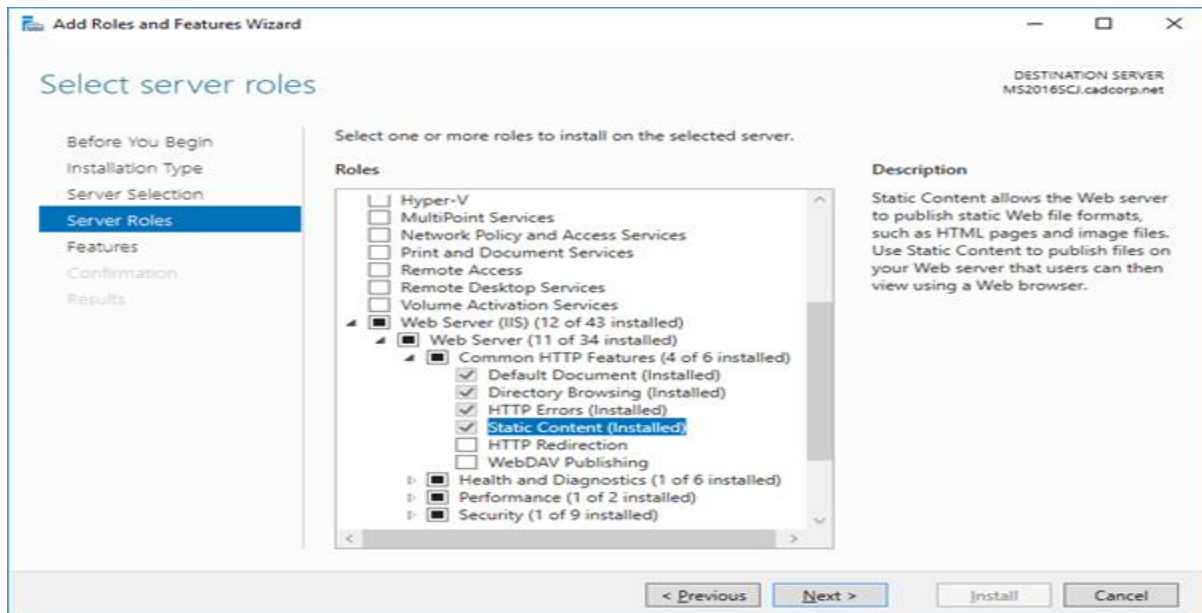
- Click **Next** to move to the **Features** dialog.

- Select **.NET Framework 4.7 Features > ASP.NET 4.7.**
- Click **Next**. to move to the **Confirm installation selections** dialog.

- Click **Install.**
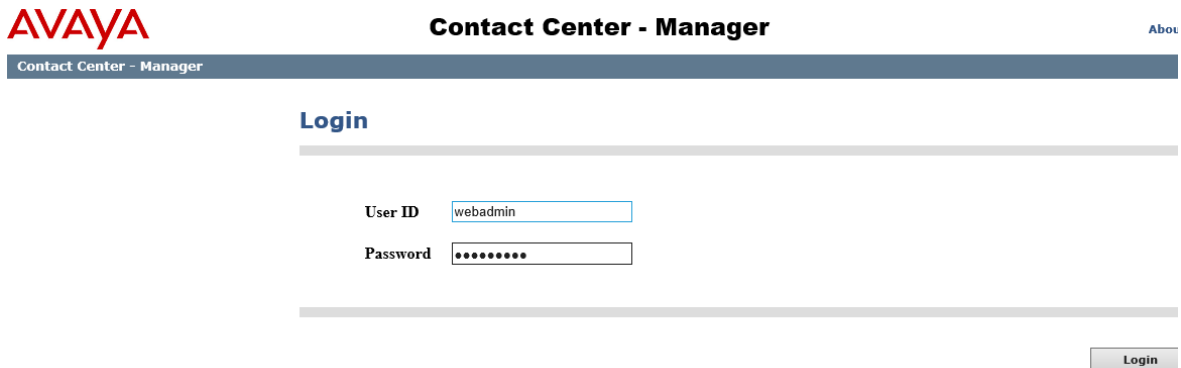
7.4. Microsoft SQL Server Installation

Microsoft SQL Server Installation may be found at https://www.microsoft.com.

8. Verification Steps

This section provides verification steps that may be performed in the field to verify that the solution is configured properly.

8.1. Verify Avaya Aura® Contact Center Real-Time Reporting

Log into AACC by navigating to the IP address of the AACC server from a web browser, such as Internet Explorer, as shown below and click on **Login**.

Once logged in, click on **Real-Time Reporting**.

Select the appropriate display, for example **Standard_Agent_Display** is chosen below, click on **Launch Display** from the main window. A number of displays can be opened at the same time to show agents statistics for the Contact Center.

Click on **Standard_Skillset_Display** and **Launch Display** to show Skillset statistics.

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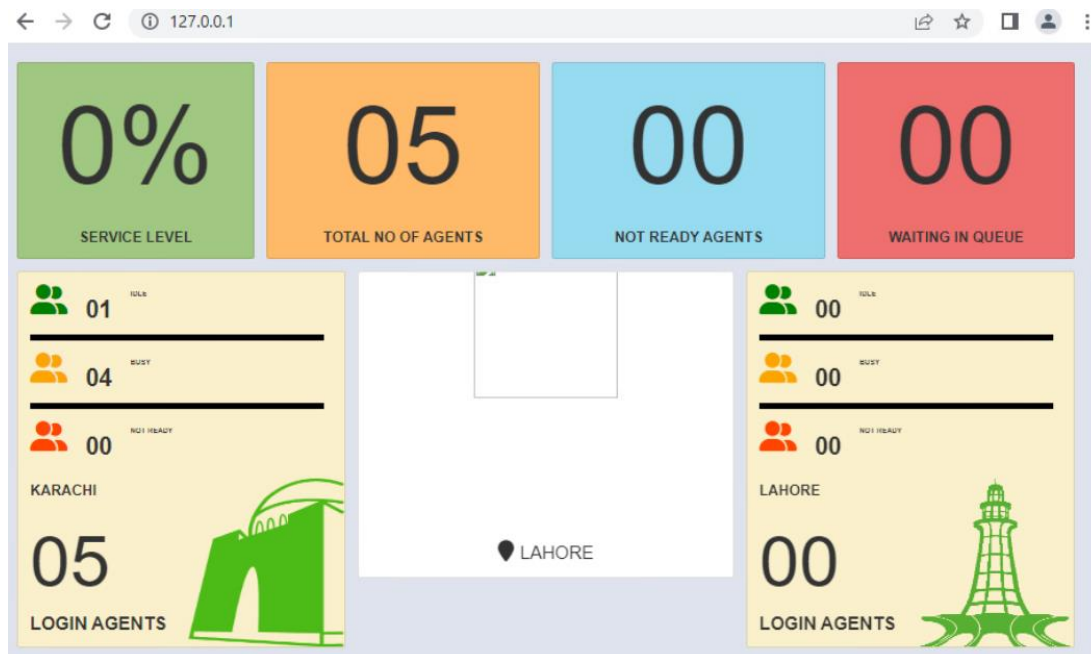24 of 27
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8.2. Verify Pronet Wallboard Real-Time Report

From web browser, start Dashboard with URL https://<Dashboard_IP_Address>
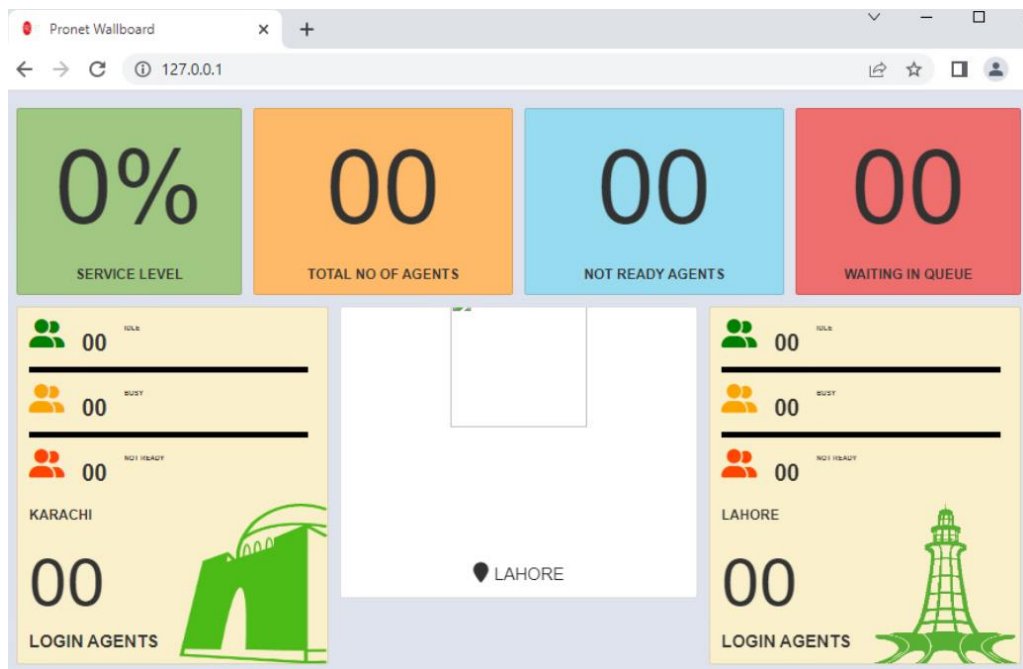
Log in AACC agents and make calls from PSTN to the voice skillset on AACC. The following Wallboard window is displaying real-time information and agents for skillset.

Below are Production Wallboard on customer site:

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9. Conclusion

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

10. Additional References

This section references the Avaya and Pronet Wallboard product documentation that are relevant to these Application Notes.

Product documentation for Avaya products may be found at *http://support.avaya.com*.
1. *Administering Avaya Aura® Communication Manager,* Release 10.1.x, Issue 1, Dec 2021
2. *Administering Avaya Aura® Session Manager,* Release 10.1.x, Issue 3, April 2022
3. *Administering Avaya Aura® System Manager,* Release 10.1.x, Issue 6, June 2022
4. *Administering Avaya Aura® Application Enablement Services,* Release 10.1.x, Issue 4, April 2022

Product Documentation for Pronet products may be found at https://www.pronet-tech.net

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