**Avaya Solution & Interoperability Test Lab**

# Application Notes for Pridis Wallboard Cloud Solution 2.0 with Avaya IP Office Server Edition 11.1 using the DevLink3 API - Issue 1.0

## Abstract

These Application Notes describe the configuration steps required for Pridis Wallboard Cloud Solution 2.0 to successfully interoperate with Avaya IP Office Server Edition 11.1 using the DevLink3 API to access real-time data for agent and group statistics.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1**, as well as 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 Pridis Wallboard Cloud Solution to successfully interoperate with Avaya IP Office Server Edition using the Devlink3 API to access real-time data for agent and group statistics.

Pridis Wallboard display real-time data for group and agent statistics through the browser. Pridis Wallboard allow to create different layouts, select the key performance indicators, add websites, video or other media content. Then publish the wallboard for others or simply show the dashboard on a central screen.

# 2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying Pridis Wallboard's ability to receive real-time group statistics and agent status from IP Office using DevLink3. Calls were made to IP Office groups to generate real-time statistics for:

- Agent status in various states: Logged In, Logged out, Busy.
- Group statistics.

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 Pridis Wallboard did not include use of any specific encryption features as requested by Pridis.

This test was conducted in a lab environment simulating a basic customer enterprise network environment. The testing focused on the standards-based interface between the Avaya solution and the third party solution. The results of testing are therefore considered to be applicable to either a premise-based deployment or to a hosted or cloud deployment where some elements of the third party solution may reside beyond the boundaries of the enterprise network, or at a different physical location from the Avaya components.

Readers should be aware that network behaviors (e.g. jitter, packet loss, delay, speed, etc.) can vary significantly from one location to another, and may affect the reliability or performance of the overall solution. Different network elements (e.g. session border controllers, soft switches, firewalls, NAT appliances, etc.) can also affect how the solution performs.

If a customer is considering implementation of this solution in a cloud environment, the customer should evaluate and discuss the network characteristics with their cloud service provider and network organizations, and evaluate if the solution is viable to be deployed in the cloud.

The network characteristics required to support this solution are outside the scope of these Application Notes. Readers should consult the appropriate Avaya and third party documentation for the product network requirements. Avaya makes no guarantee that this solution will work in all potential deployment configurations.

## 2.1. Interoperability Compliance Testing

The feature testing focused on verifying Pridis Wallboard Cloud Solution correctly displaying group and agent data from IP Office. A number of call center scenarios including the following were created to provide data. The testing includes agents on both IP Office Server Edition and IP Office 500v2.

- Phone login/logout
- Number of answered calls for a group
- Number of dropped calls for a group
- Logged in agents for a group
- Number of available agents for a group
- Calls waiting in the queue for a group
- Number of calls for a group
- Last wait time for a group
- Longest waiting time for a group
- Maximum wait time for a group
- Serviceability

IP Office call feature functionality
- Basic features including audio call, answer, hang up, music on hold, DTMF transmission, and feature access code dialing.
- Call features including Hold, Transfers and Conference.

The serviceability testing focused on verifying the ability of Pridis Wallboard to recover from adverse conditions, such as disconnecting/reconnecting the network to Pridis Wallboard Cloud Solution.

## 2.2. Test Results

All test cases passed successfully.

## 2.3. Support

Support for Pridis Wallboard is available as follows:
Pridis B.V.
Berencamperweg 6B
3861 MC Nijkerk
The Netherlands
Phone: +31 (0)33 2475700
E-mail: info@pridis.com
Web: www.pridis.com

# 3. Reference Configuration

**Figure 1** illustrates a sample configuration that consists of IP Office Solution includes Server Edition Primary and IP 500 V2 Expansion System, Pridis Wallboard Cloud Solution on Amazon AWS.
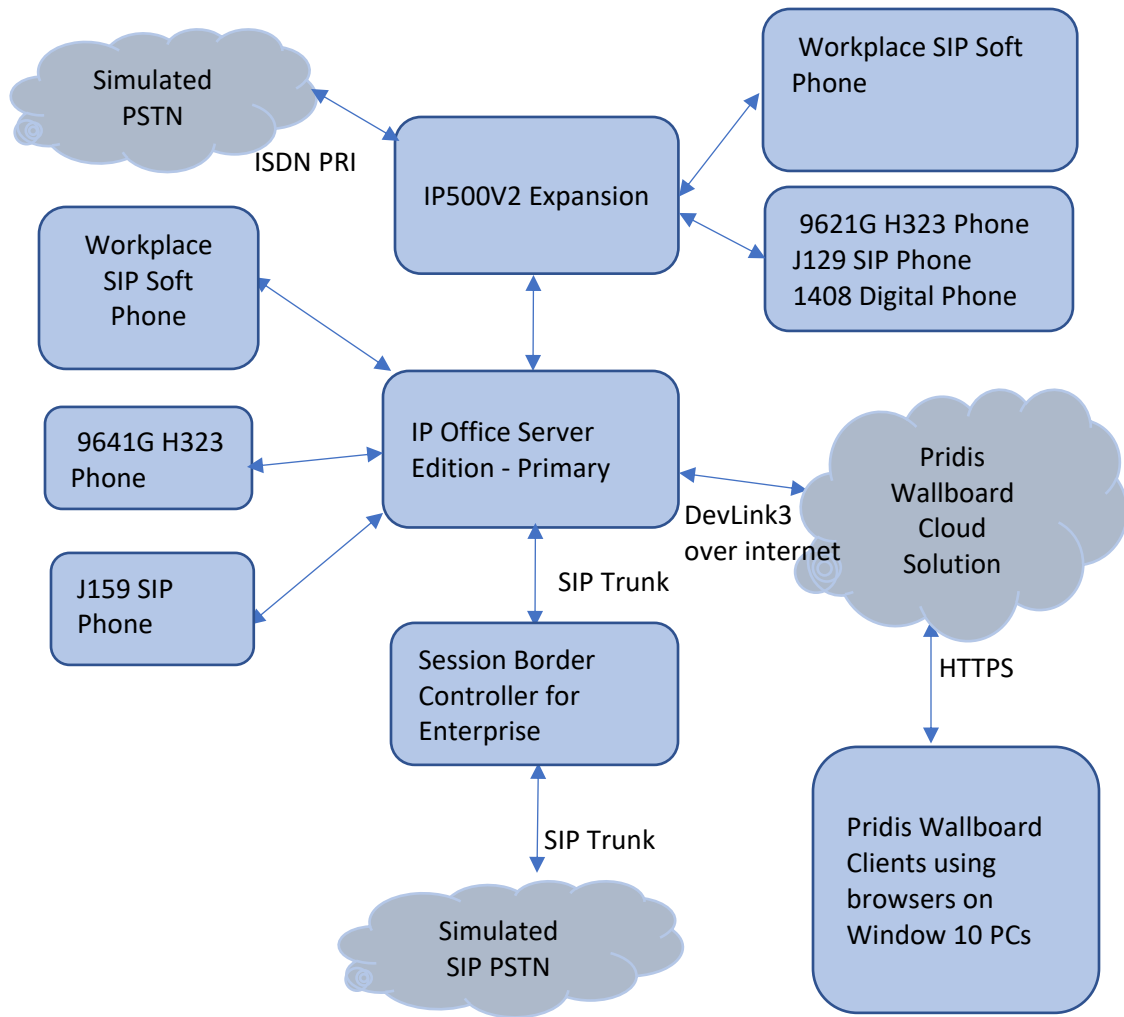


**Figure 1: Test Configuration for Pridis Wallboard Cloud Solution and Avaya IP Office**

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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 IP Office Server Edition (Primary) | 11.1.0.0.0 build 237 |
| Avaya IP Office 500 V2 (Expansion) | 11.1.0.0.0 build 237 |
| Avaya IP Office Manager | 11.1.0.0.0 build 237 |
| Avaya 9641G IP Deskphone (H.323) | 6.8 |
| Avaya Workplace | 3.12.0.65.6 |
| Avaya J129 & J159 IP Deskphone (SIP) | 4.0.7 |
| Avaya 1408 Digital Deskphone | R48 |
| Pridis Wallboard Cloud Solution | 2.0.0.1 |

*Compliance Testing is applicable when the tested solution is deployed with a standalone IP Office 500 V2 and also when deployed with IP Office Server Edition in all configurations.*

# 5. Configure Avaya IP Office

The document assumes that Avaya IP Office Solution includes Server Edition Primary and IP 500V2 Expansion System has been installed and configured. This section only describes the details on how to configure the IP Office Server Edition solution to work with Pridis Wallboard Cloud Solution. The configuration operations described in this section can be summarized as follows:

- CTI Link Pro license
- Administer Devlink3 for IP Office
- Configure Group

From a PC running the IP Office Manager application, select **Start → Programs →IP Office → Manager** to launch the Manager application. Select the proper IP Office system, and log in using the appropriate credentials. The Avaya IP Office Manager for Server Edition screen is displayed as shown in the screen below.
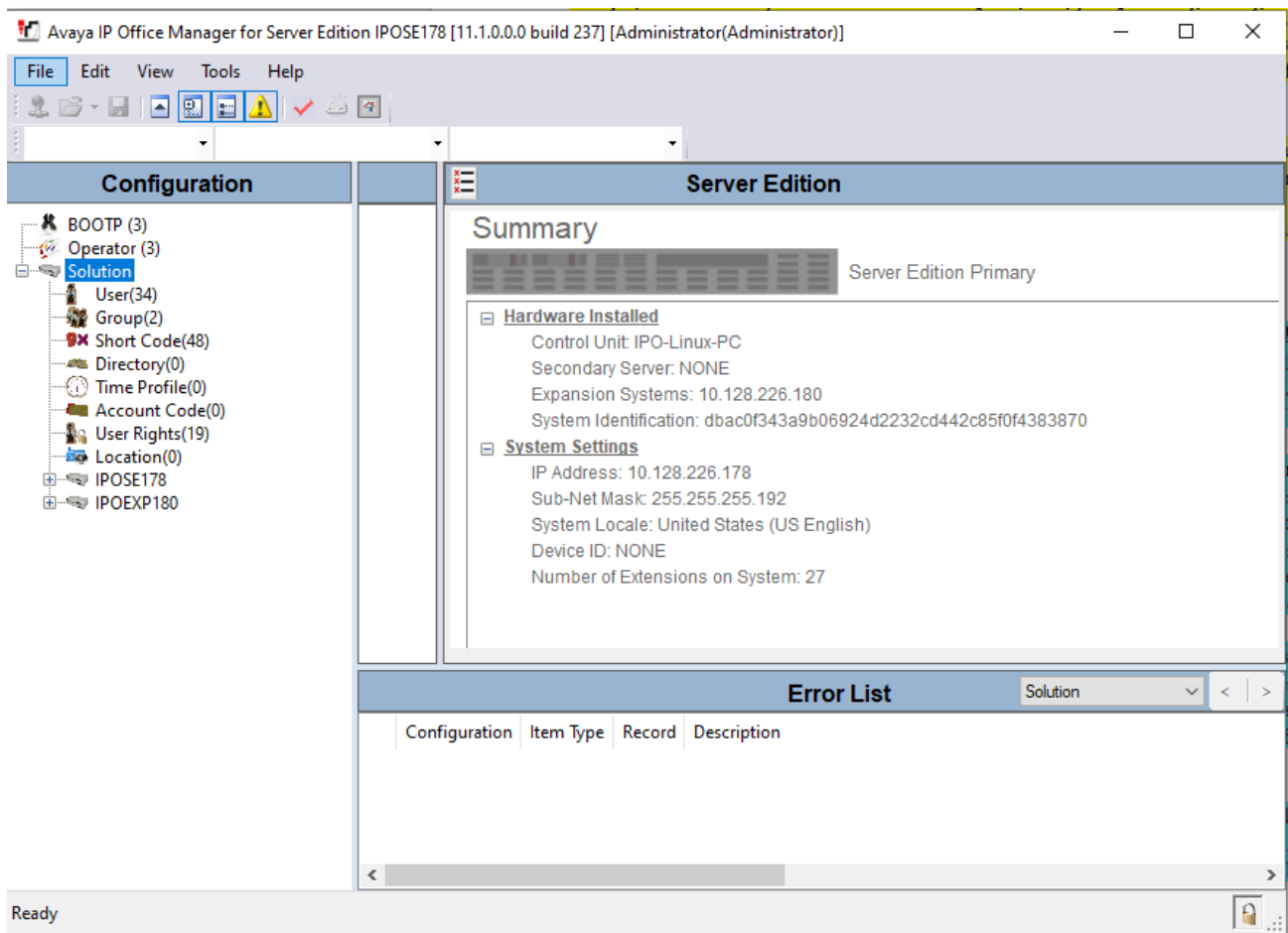
## 5.1. CTI Link Pro license

From the configuration tree in the left pane, navigate to IP Office Server Edition Primary **IPOSE178** → **License** and verify there is a CTI Link Pro licenses with status being Valid

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## 5.2. Administer Devlink3 for IP Office Server Edition Primary

DevLink3 connections require changes to the IP Office security settings. The Devlink3 connection uses the name and password of a DevlinkDLL service user who is a member of a rights group configured for DevLink3. The configuration operations described in this section can be summarized as follows:

- Devlink3 Transport Options
- Add DevLink3 Group and Service User
- Save Configuration
- Configure Group

### 5.2.1. Devlink3 Transport Options

Devlink3 transport options are configurable on IP Office. Browse to **File → Advanced → Security Settings…**

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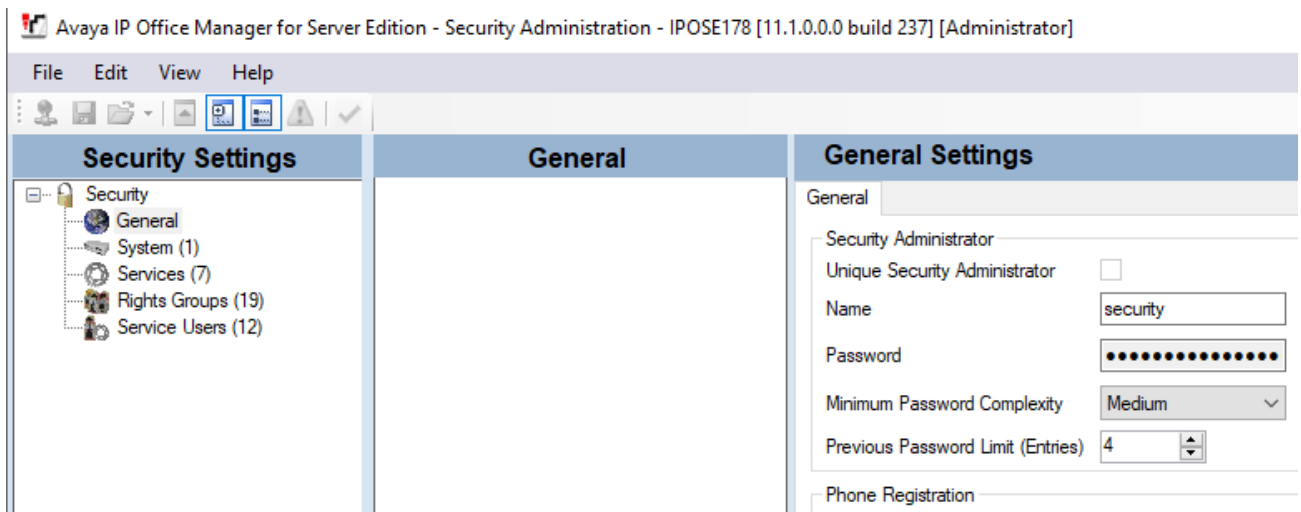
From Security Settings, select **System → IPOSE178 → Unsecured Interfaces** tab. Check **TAPI/DevLink3** on the **Unsecured Interfaces** tab as displayed below.
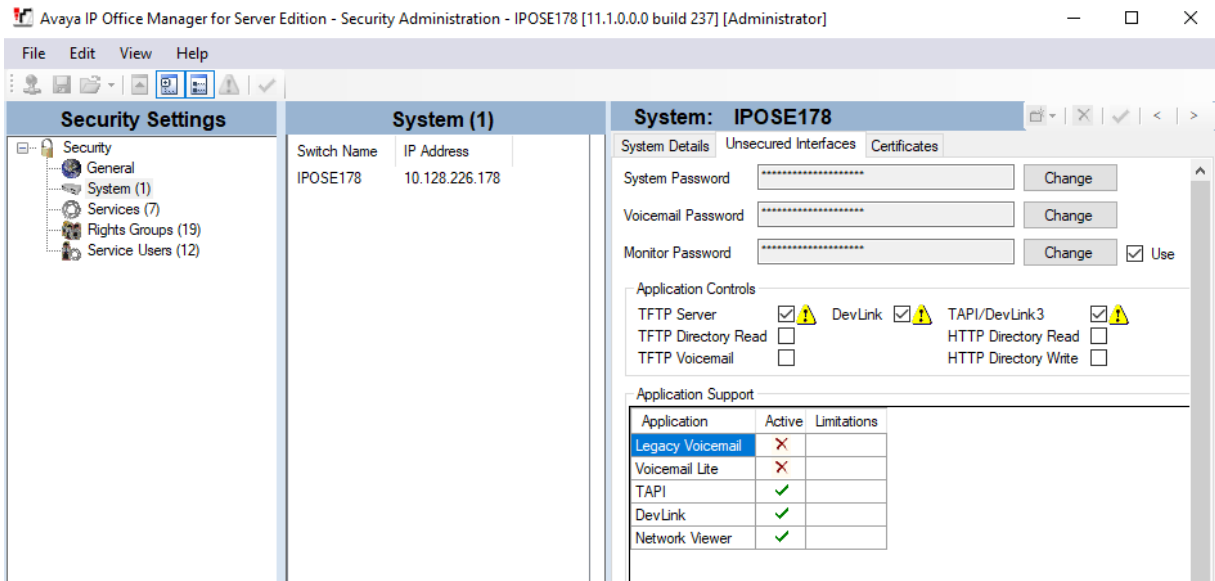


## 5.2.2. Add DevLink3 Group and Service User

Devlink3 service user and password are required to authenticate the application. First, configure a new **Rights Group** and enable the **DevLink3** checkbox in the **Telephony APIs** (not shown) tab as displayed below for the new DevLink3 Rights Group.

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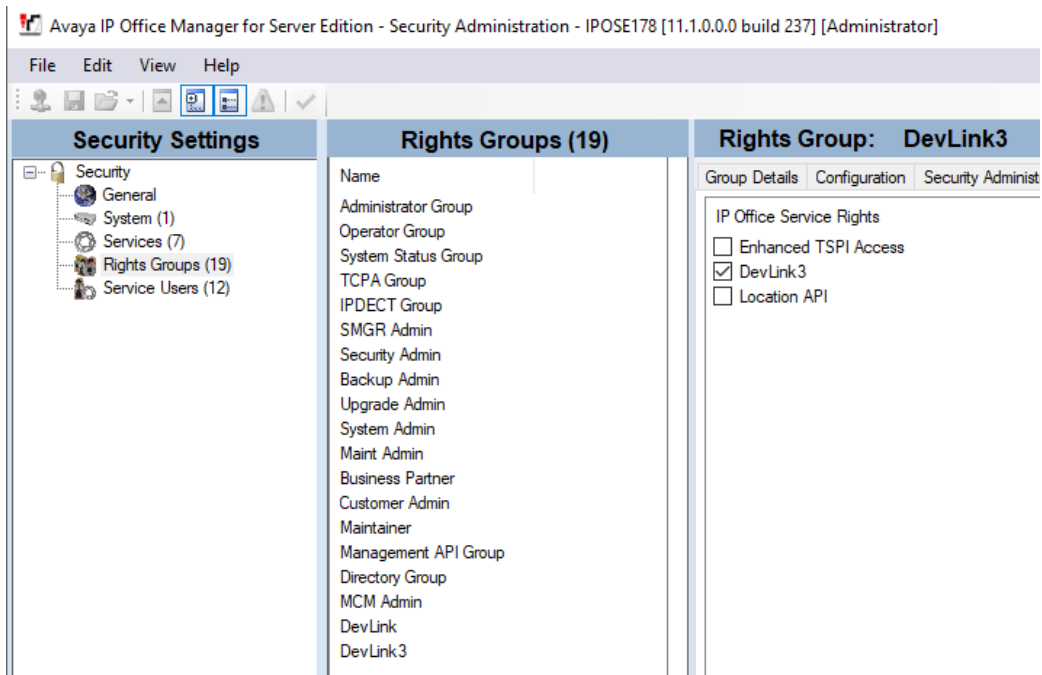
Configure a new **Service User** with username **Pridis** and password and assign it to the **DevLink3** rights group.
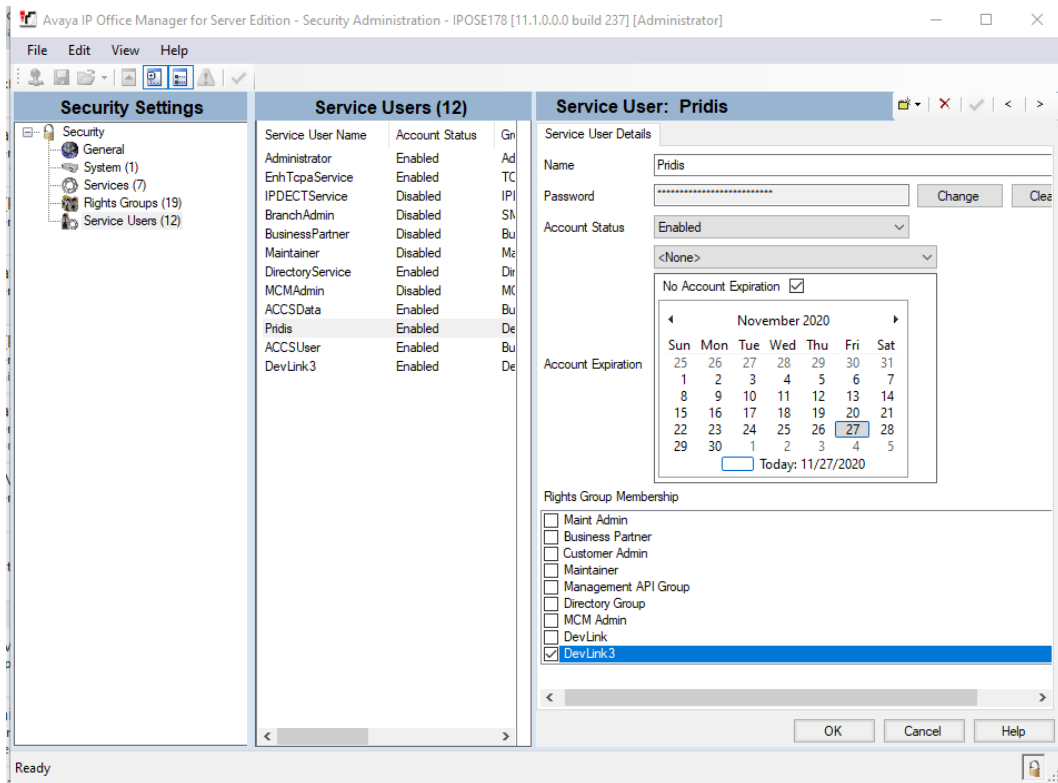


Click **OK** to save configuration.

### 5.2.3. Save Configuration

Once all the configurations have been made it must be sent to IP Office. Click on the Save icon as shown below:
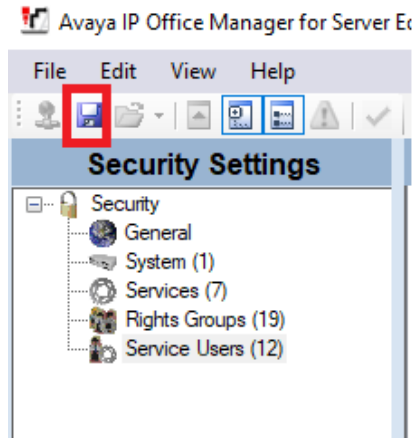


Enter credential and press **OK** to send configuration to IP Office.

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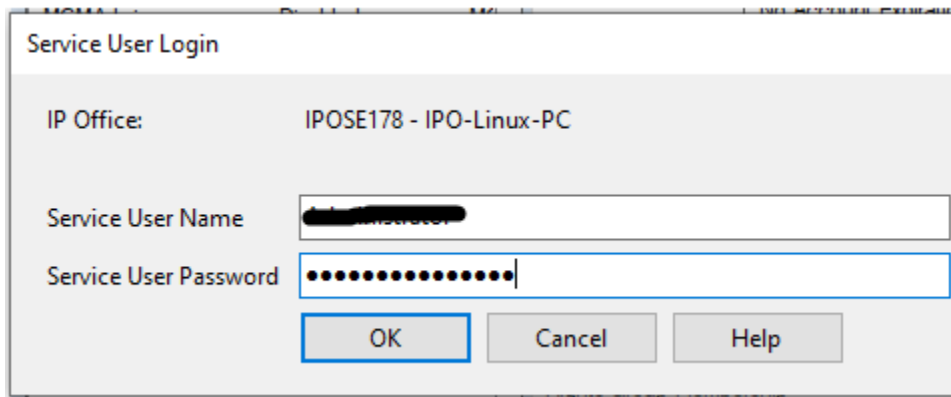
## 5.3. Configure Group

In the **Manager** window, select **IPOSE178 (IP Office Server Edition Primary)**, right click **Group** and select **New** (not shown). Select the **Group** tab and in the window that appears enter the following:

- **Name**          Enter an informative name (i.e., SE Group).
- **Extension**     Enter the extension which will be dialled to reach the Group member. (i.e., 2001)
- **Ring Mode**     Select **Sequential** from the dropdown box.
- **Profile**        Select **Standard Hunt Group** from the dropdown box

Scroll down the page. Click on the **Edit** button

The following window appears allowing the addition of any IP Office extensions into the group, for compliance testing extensions **5501, 5502, 5503, 5511, 5512, 5513** from IP Office Server Edition as Primary and **6001, 6002, 6004** from IP Office 500v2 as Expansion were added. Click on **OK** to continue.



Click on **OK** again to save the new group.

In this compliance testing, 4 group are created to verify: One primary group with only primary agents, One primary group with only expansion agents, One primary group with primary and expansion agents, One expansion group with only expansion agents.

# 6. Configure Pridis Wallboard Cloud Solution

All installation related to Pridis Wallboard Cloud Solution is performed by Pridis engineers and thus, is not documented.
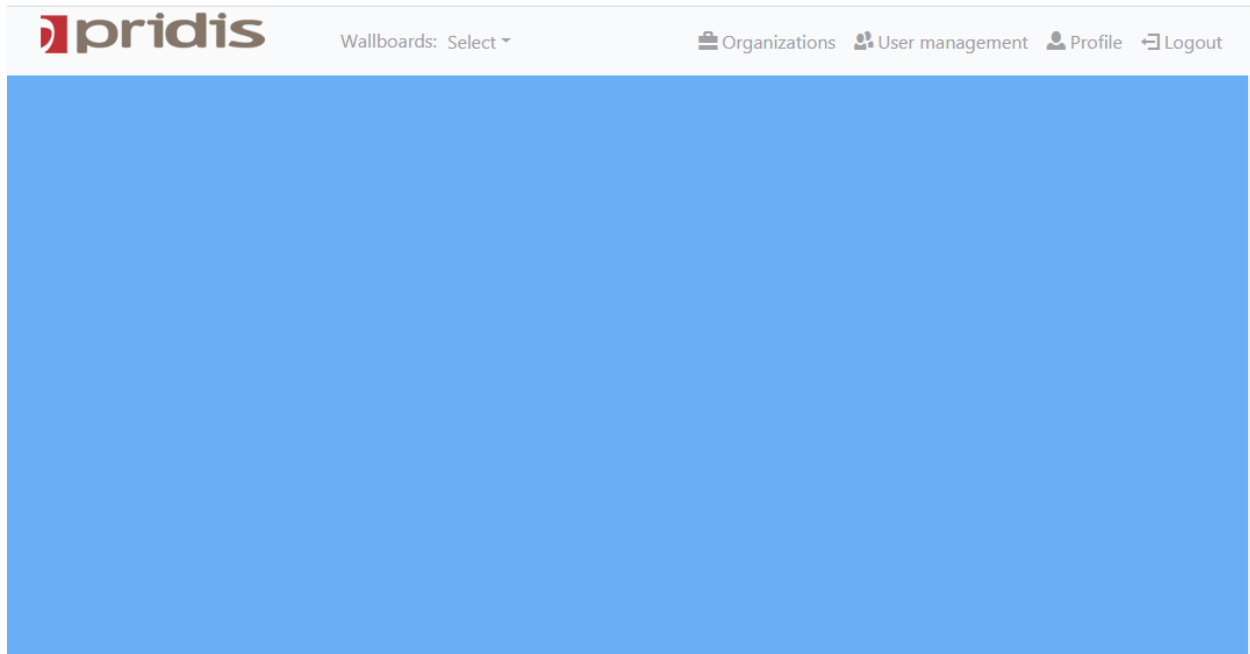
To enable DevLink SCN, go to Pridis installation folder and edit file IpOfficeDatasource. Change **IsDevlink3SCNUsed="true"**. Save file and restart Pridis Wallboard server.
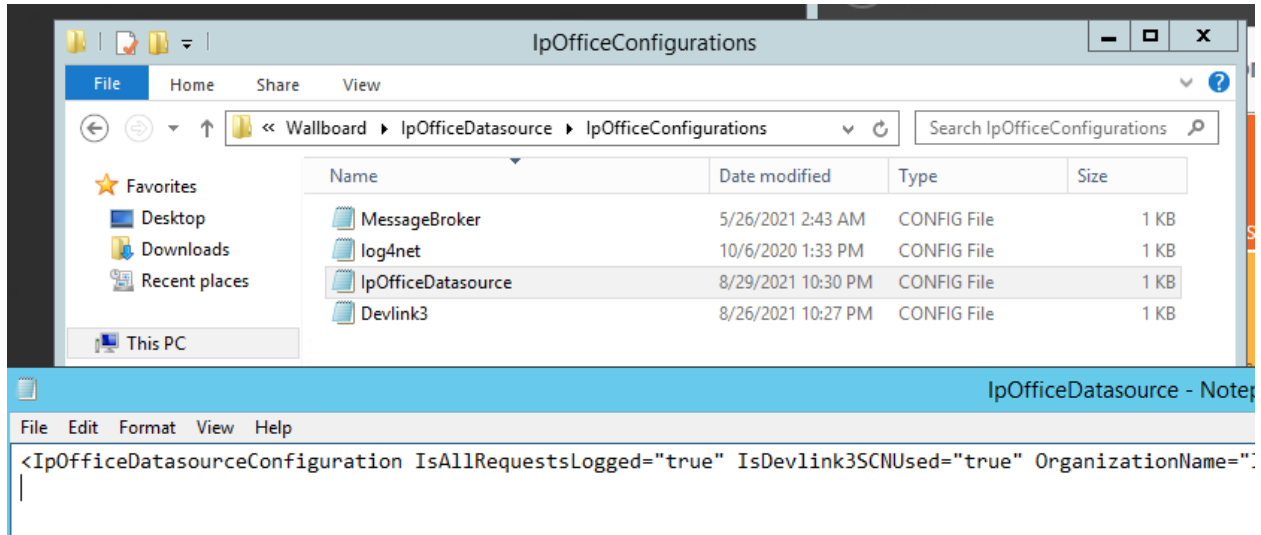


Access the Pridis Wallboard URL provided by Pridis "http://<PridisWB_FQDN> /en" as shown below. The login screen is displayed. Log in using the appropriate credentials.
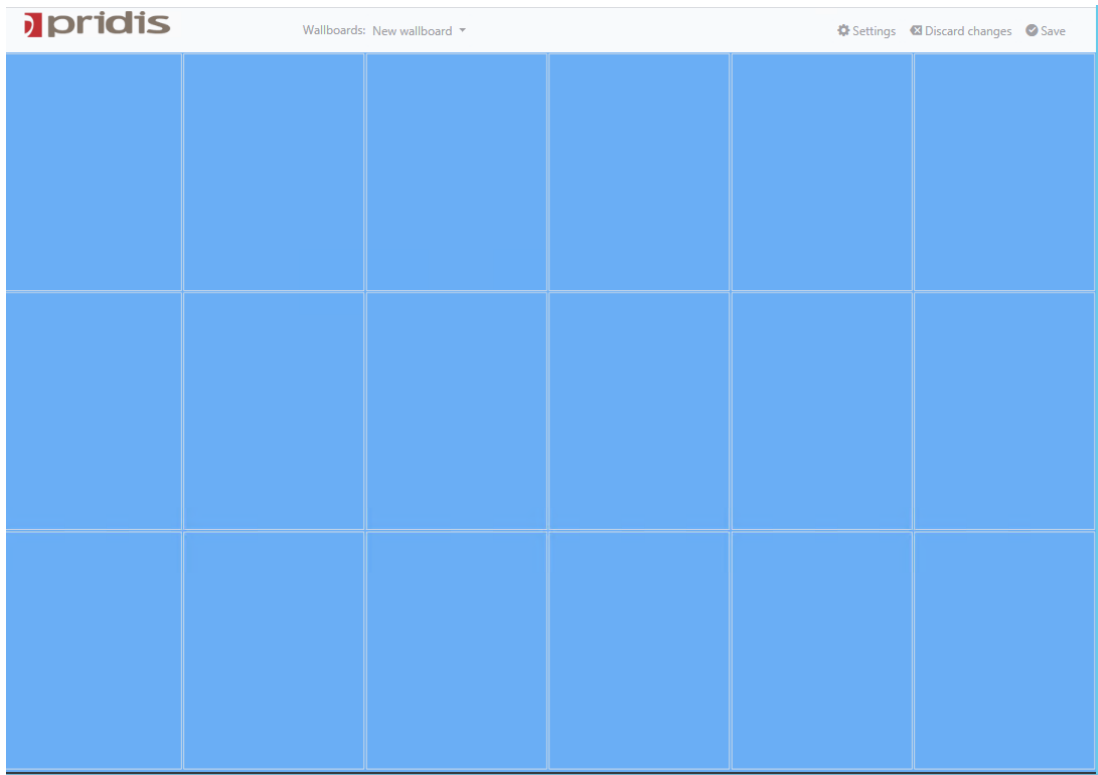
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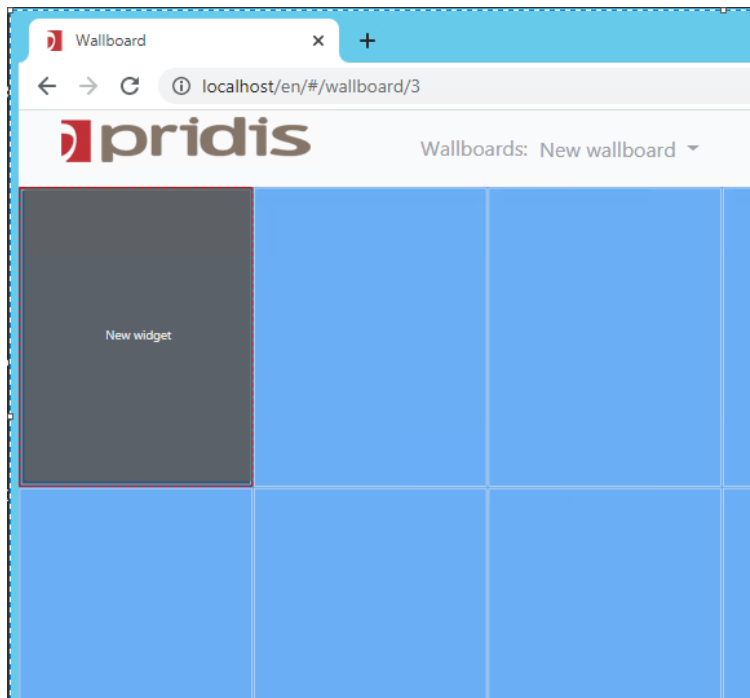15 of 23
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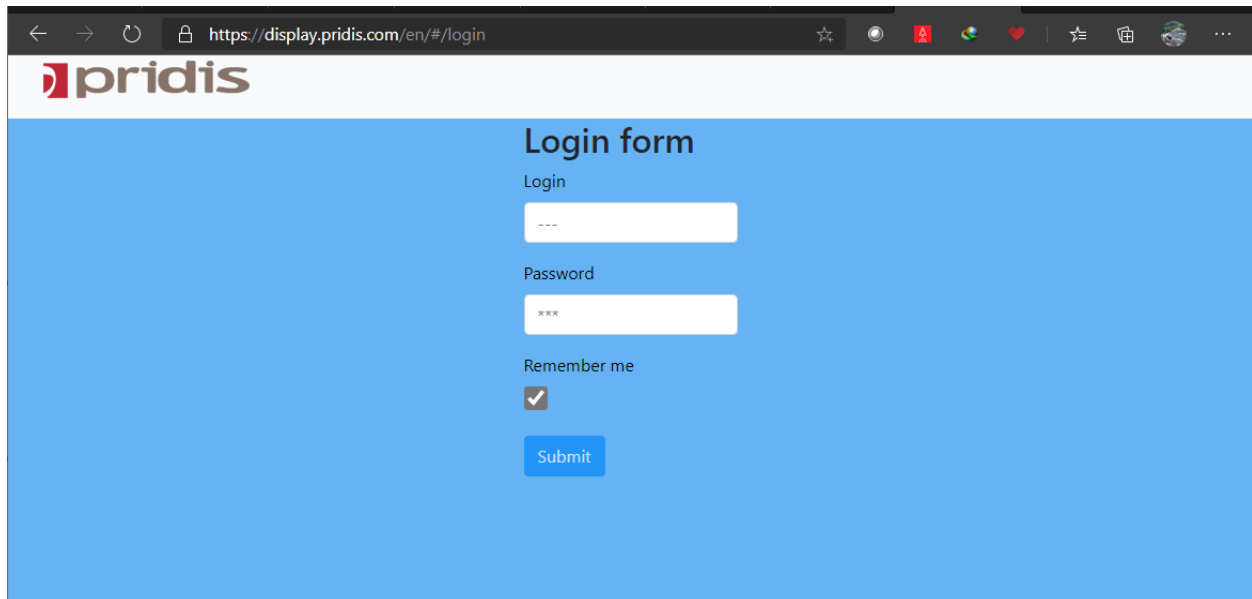
The home screen is shown below.



From the home screen, press **Select → New wallboard** to create new wallboard.
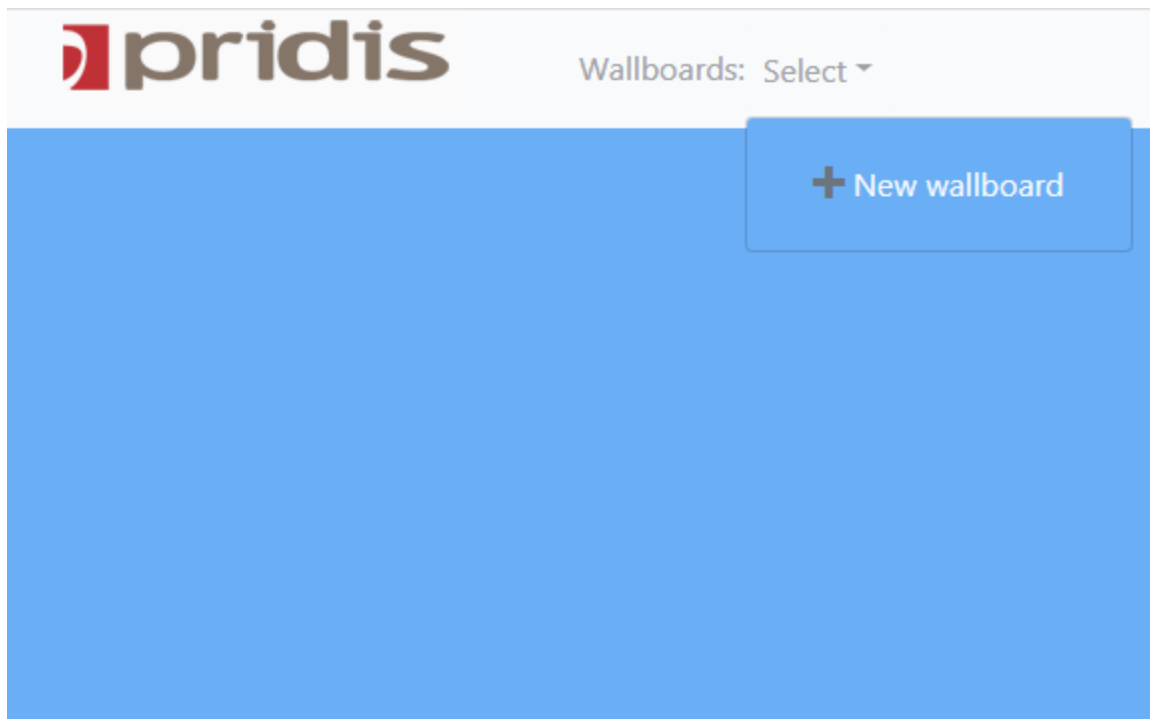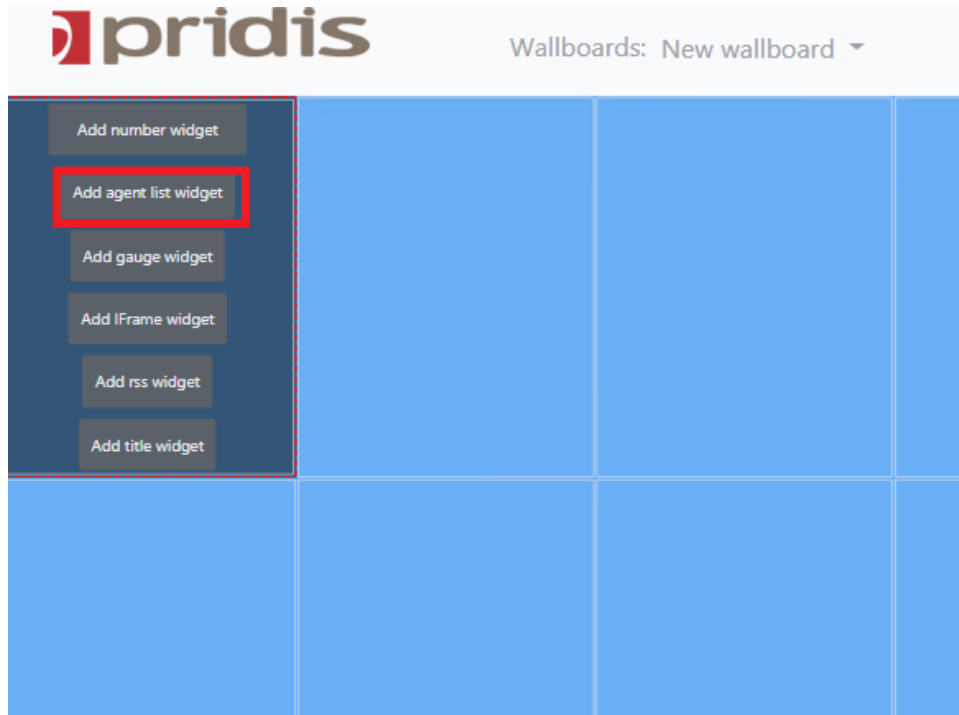
The new wallboard was created and shown below with a default small grid for multiple panels.
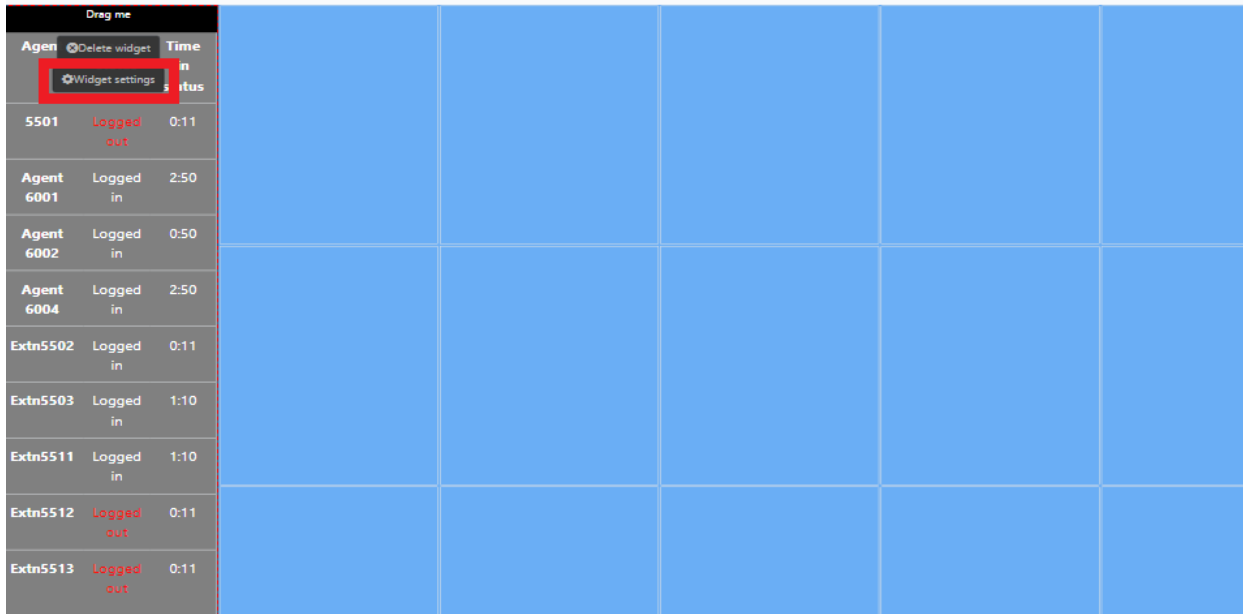


Select top left panel and click to create **New widget**.

List of these widgets are shown as below, select one widget for example "**Add agent list widget**".

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The following screen will be displayed, and new agent list widget have been created, select **Widget settings** to configure the widget.

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Change the settings as below for this widget and leave the rest as default.

| | |
|---|---|
| **Title** | Name of this widget, example **"SE Group"**. |
| **Row span, Colum span** | Number of rows and columns use for this widget, example "**Column span 1**" and "**Row span 5**". |
| **For Skillset** | Select the group on IP Office for this widget, in this case **"SE Group"**. |
| **Value to show** | Select value for this widget, example "**Agent status**". |

Scroll down and press **OK** (not shown) to save the widget.

In the compliance testing, the following widgets were created. Pridis Wallboard provide two widgets interfaces for statistics (except Agents list): Number Widget and Gauge Widget. In the testing, all widgets used "Number Widget".

- Number of answered calls
- Number of dropped calls
- Logged in agents
- Number of available agents
- Calls waiting in the queue
- Number of calls
- Last wait time
- Expected wait time
- Longest waiting time
- Maximum wait time

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# 7. Verification Steps

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

## 7.1. Verify Pridis Wallboard Real-Time Report

Make some calls to the SE Group on IP Office. The following Wallboard window is displaying real-time information and agents for SE Group.



# 8. Conclusion

These Application Notes describe the procedures for configuring necessary to connect Pridis Wallboard Cloud Solution 2.0 to Avaya IP Office 11.1. Pridis Wallboard Cloud Solution was able to successfully interoperate with Avaya IP Office 11.1.

# 9. Additional References

Documentation related to Avaya can be obtained from https://support.avaya.com.
  i.    *Administering Avaya IP Office™ Platform with Web Manager, Release 11.1 Issue 2 May 2020.*
  ii.   *Administering Avaya IP Office™ Platform with Manager, Release 11.1 Issue 2 May 2020.*

Product Documentation for Pridis Wallboard can be obtained from Pridis BV or can be obtained at: www.pridis.com.

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