



Avaya Solution & Interoperability Test Lab

Application Notes for Resource Software International Shadow Real-Time Dashboard with Avaya IP Office 9.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Resource Software International Shadow Real-Time Dashboard to interoperate with Avaya IP Office 9.0.

Resource Software International Shadow Real-Time Dashboard is a computer telephony solution that uses the TAPI and DevLink interfaces from Avaya IP Office to provide real-time monitoring of groups and agent activities.

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 Resource Software International Shadow Real-Time Dashboard (RTD) to interoperate with Avaya IP Office 9.0.

Resource Software International Shadow RTD is a computer telephony solution that uses the TAPI 2 in third party mode and the DevLink interfaces from Avaya IP Office to provide real-time monitoring of groups and agent activities.

2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the Shadow RTD application, the application automatically obtained lists of groups and users from IP Office.

For the manual part of the testing, calls were placed manually to groups and agents. Shadow RTD used TAPI and DevLink event messages to monitor group and agent activities, and provided real-time status via a web interface. Manual call controls from the agent telephones were exercised where applicable to verify features such as answer and drop.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet connection to Shadow RTD.

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 test included feature and serviceability testing.

The feature testing focused on verifying the following on Shadow RTD:

- Proper handling of real-time TAPI and DevLink event messages.
- Proper handling of call scenarios involving log in, log out, inbound, outbound, internal, external, group, personal, answer, drop, hold/reconnect, do not disturb, park/unpark, agent call forwarding, group call forwarding, queuing, abandon calls, voicemail, multiple calls, multiple agents, transfer, and conference.

The serviceability testing focused on verifying the ability of Shadow RTD to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet connection to Shadow RTD.

2.2. Test Results

All test cases were executed and passed.

2.3. Support

Technical support on Shadow RTD can be obtained through the following:

- **Phone:** (800) 891-6014
- **Email:** support@telecost.com
- **Web:** www.telecost.com

3. Reference Configuration

The configuration used for the compliance testing is shown in **Figure 1**.

The detailed administration of contact center devices is not the focus of these Application Notes and will not be described. The contact center devices used in the compliance testing are shown in the table below.

Device Type	Extension
Hunt Groups	29000, 29001
Agent Users	20031, 20033
Supervisor	20035

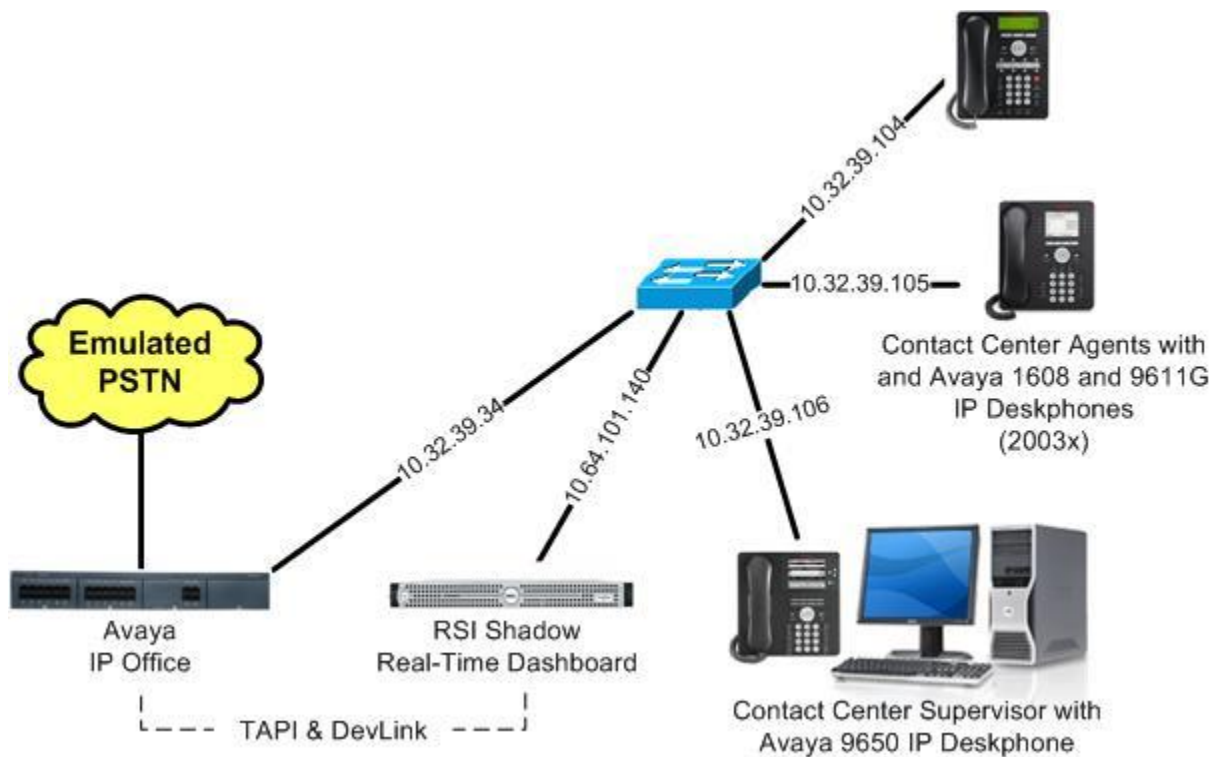


Figure 1: Compliance Testing Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office on IP500V2	9.0 SP1 (9.0.100.845)
Avaya 1616 IP Deskphone (H.323)	1.343A
Avaya 9611G IP Deskphone (H.323)	6.3037
Avaya 9650 IP Deskphone (H.323)	3.212A
RSI Shadow RTD on Windows Server 2008 R2 Enterprise <ul style="list-style-type: none">Microsoft SQL ServerIPODriver.dllAvaya IP Office TAPI2 Driver (tspi2w_64)Avaya DevLink (devlink.dll)	2.2.0.0 SP1 11.0.2100 1.0.0.12 1.0.0.38 1.0.0.5

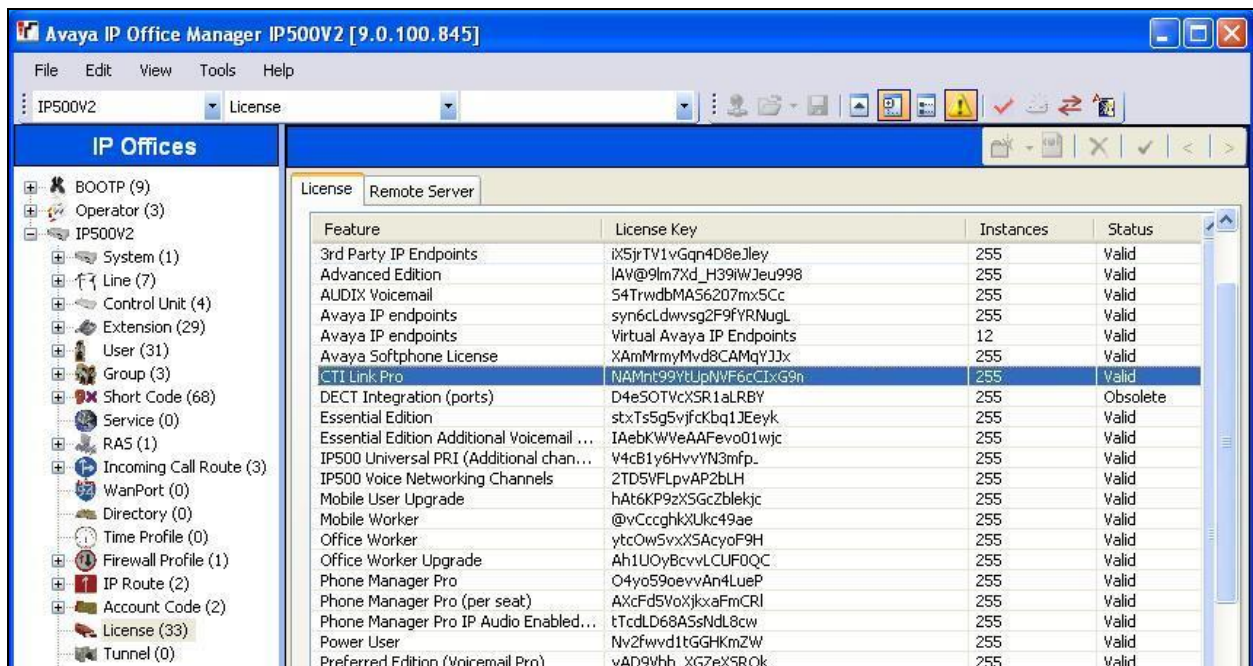
Testing was performed with IP Office 500 V2 R9.0, but it also applies to IP Office Server Edition R9.0. Note that IP Office Server Edition requires an Expansion IP Office 500 V2 R9.0 to support analog or digital endpoints or trunks. IP Office Server Edition does not support TAPI Wave or Group Voicemail.

5. Configure Avaya IP Office

This section provides the procedures for configuring IP Office.

From a PC running the IP Office Manager application, select **Start → All Programs → IP Office → Manager** to launch the application. Select the proper IP Office system, and log in using the appropriate credentials.

The **Avaya IP Office Manager** screen is displayed. From the configuration tree in the left pane, select **License** to display a list of licenses in the right pane. Verify that there is a license for **CTI Link Pro** and that the **Status** is “Valid”, as shown below.



Feature	License Key	Instances	Status
3rd Party IP Endpoints	iX5jrTV1vGqn4D8eJley	255	Valid
Advanced Edition	IAV@9lm7Xd_H39IWJeu998	255	Valid
AUDIX Voicemail	S4TrwdbMA56207mx5CCc	255	Valid
Avaya IP endpoints	syn6cLdwvsq2F9fYRNugL	255	Valid
Avaya IP endpoints	Virtual Avaya IP Endpoints	12	Valid
Avaya Softphone License	XAmMrmvMvd8CAMqYJJx	255	Valid
CTI Link Pro	NAMnt99YtUpNVF6cCIxG9n	255	Valid
DECT Integration (ports)	D4eSOTVcXSR1aLRBY	255	Obsolete
Essential Edition	stxTs5g5vjfcKbq1JEeyk	255	Valid
Essential Edition Additional Voicemail ...	IAebKWVeAAFevo01wjc	255	Valid
IP500 Universal PRI (Additional chan...	V4cB1y6HvvYN3mfp.	255	Valid
IP500 Voice Networking Channels	2TD5VFLpvAP2bLH	255	Valid
Mobile User Upgrade	hAt6KP9zX5GcZblekjc	255	Valid
Mobile Worker	@vCccghkXUkc49ae	255	Valid
Office Worker	ytCOW5vxXSAcyoF9H	255	Valid
Office Worker Upgrade	Ah1UOyBcvvLCUF0QC	255	Valid
Phone Manager Pro	O4yo59oevvAn4LueP	255	Valid
Phone Manager Pro (per seat)	AXcFd5VoXjKxaFmCRI	255	Valid
Phone Manager Pro IP Audio Enabled...	tTcdLD68A5sNdl8cw	255	Valid
Power User	Nv2fwvd1tGGHKmZW	255	Valid
Preferred Edition (Voicemail Pro)	yAD9Vbh_XGZeXSRQk	255	Valid

6. Configure RSI Shadow Real-Time Dashboard

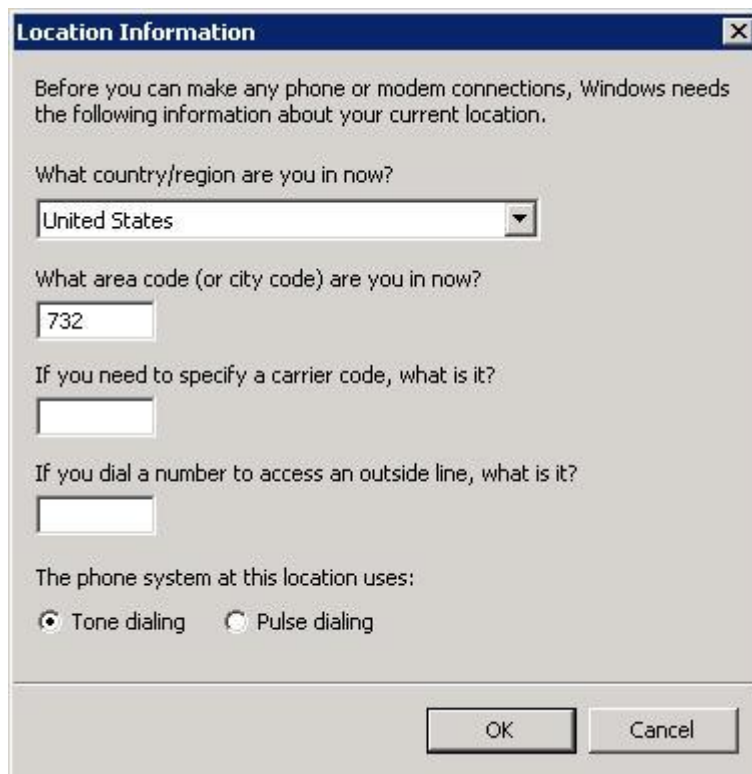
This section provides the procedures for configuring Shadow RTD. The procedures include the following areas:

- Administer TAPI driver
- Administer console

The configuration of Shadow RTD is typically performed by RSI Support Services. The procedural steps are presented in these Application Notes for informational purposes.

6.1. Administer TAPI Driver

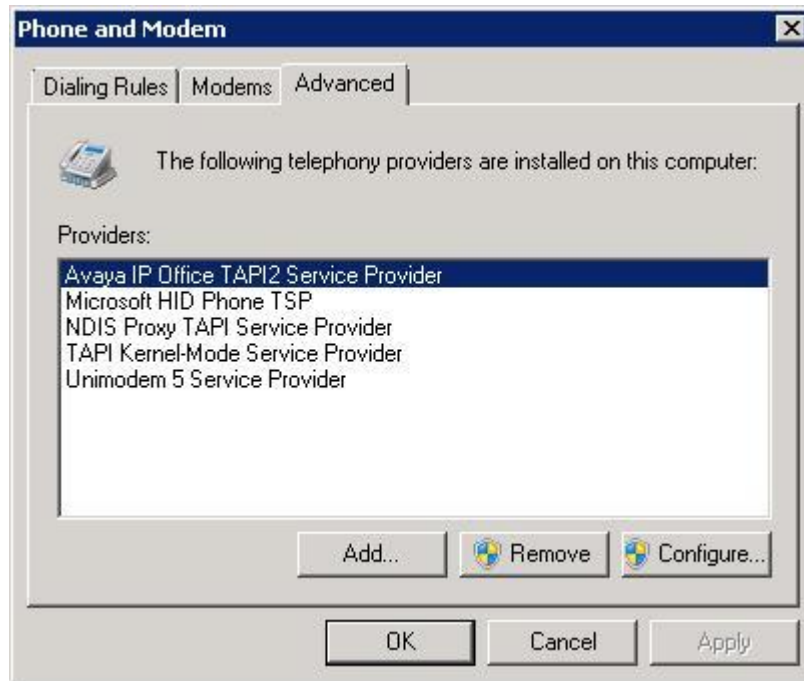
From the Shadow RTD server, select **Start → Control Panel → Phone and Modem**, to display the **Location Information** screen below. Enter the proper area code and any other pertinent data.



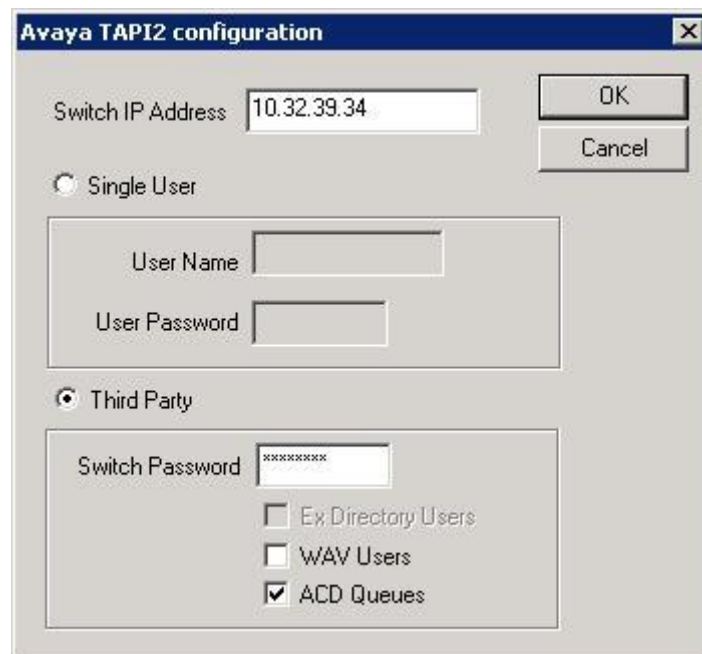
The image shows a Windows-style dialog box titled "Location Information". It contains the following text and controls:

- Text: "Before you can make any phone or modem connections, Windows needs the following information about your current location."
- Text: "What country/region are you in now?"
- Control: A dropdown menu showing "United States".
- Text: "What area code (or city code) are you in now?"
- Control: A text input field containing "732".
- Text: "If you need to specify a carrier code, what is it?"
- Control: An empty text input field.
- Text: "If you dial a number to access an outside line, what is it?"
- Control: An empty text input field.
- Text: "The phone system at this location uses:"
- Controls: Two radio buttons. The first is labeled "Tone dialing" and is selected. The second is labeled "Pulse dialing".
- Buttons: "OK" and "Cancel" at the bottom right.

The **Phone and Modem** screen is displayed. Select the **Advanced** tab, followed by **Avaya IP Office TAPI2 Service Provider**, and click **Configure**.



The **Avaya TAPI2 configuration** screen is displayed next. For **Switch IP Address**, enter the IP address of IP Office. Select the radio button for **Third Party**, enter the IP Office password into the **Switch Password** field, and check **ACD Queues**. Reboot the Shadow RTD server.



6.2. Administer Console

Select **Start → All Programs → RSI → SHADOW RTD → SHADOW RTD Console**, to display the screen below. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Web Server Port:** “8080”
- **Admin Password:** The Shadow RTD administrator credential.
- **Data Source:** “Avaya IP Office”
- **IP Address:** The IP address of IP Office.
- **Password:** The IP Office administrator credential.
- **Log File (Optional):** The desired location of the optional log file.

Shadow RTD Configuration Console [Trial: 30 Days Remaining]

Shadow RTD Configuration Control Panel

Server Status

Server is currently not running

Server Setup

Web Server Port: 8080 **Port is currently available**

Admin Password: [masked]

☐ Run server as a service ☐ Show debug window

Data Connection | Advanced | Register

Data Source: Avaya IP Office

IP Address: 10.32.39.34

Password: [masked]

Log File (Optional): C:\bill\rttd-log.txt

Save Settings

7. Verification Steps

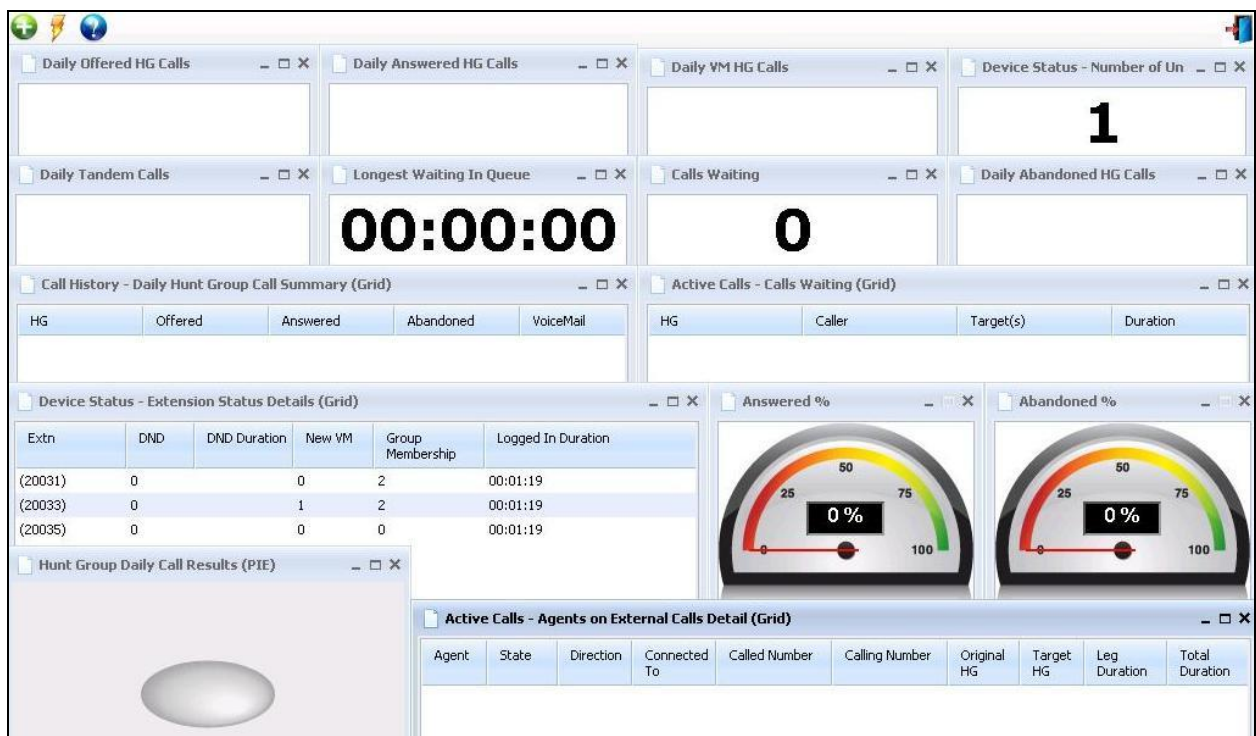
This section provides the tests that can be performed to verify proper configuration of IP Office and Shadow RTD.

Access the Shadow RTD web interface by using the URL “http://ip-address:port” in an Internet browser window, where “ip-address” is the IP address of the Shadow RTD server, and “port” is the web server port from **Section 6.2**. The **Login** screen is displayed. Log in using the appropriate credentials.

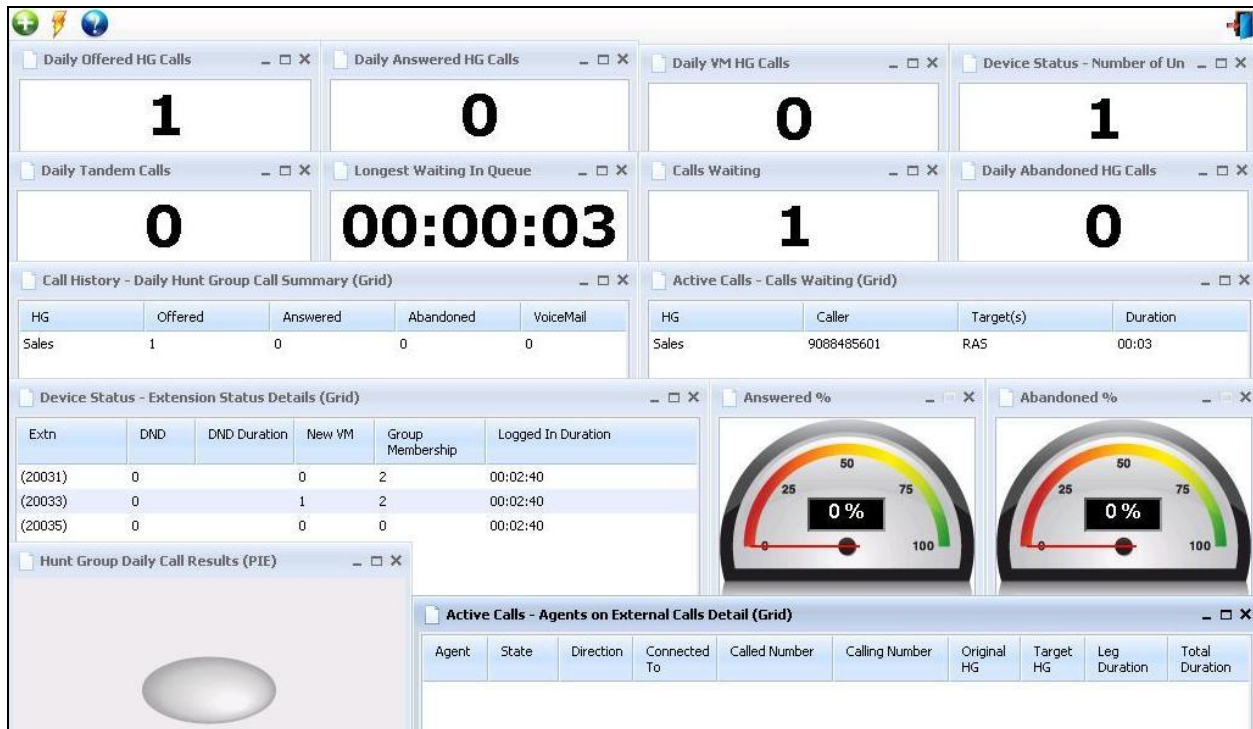


The login screen features a white box on a dark blue background. Inside the box, the word "Login" is at the top. Below it are two input fields: "Username" and "Password". At the bottom of the box is a "Login" button.

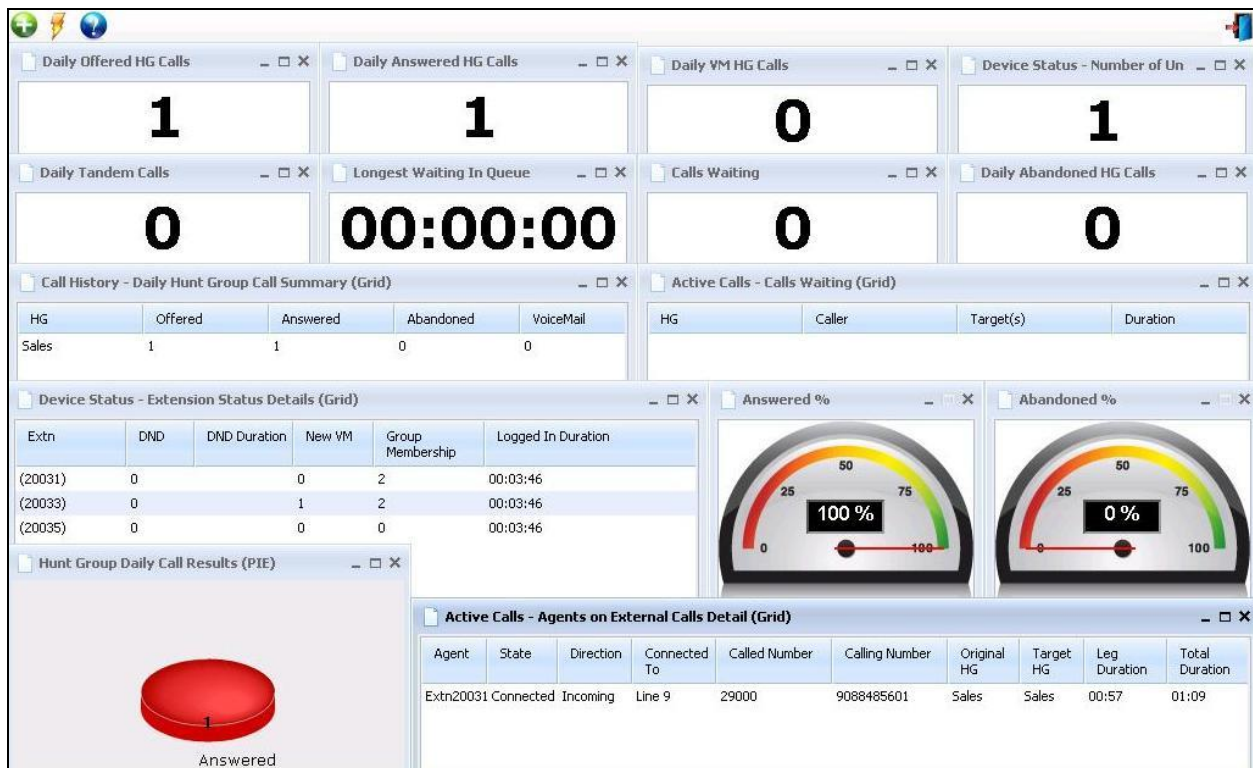
In the next screen, all configured widgets will be stacked up against the upper left corner. Rearrange the widgets as desired. In the compliance testing, the default setting with all widgets enabled were used, and below is an example showing the widgets arrangement.



Place an incoming hunt group call, and verify that all relevant widgets are updated appropriately.



Answer the call at the agent, and verify that all relevant widgets are updated appropriately.



8. Conclusion

These Application Notes describe the configuration steps required for RSI Shadow RTD to successfully interoperate with Avaya IP Office 9.0. All feature and serviceability test cases were completed.

9. Additional References

This section references the product documentation relevant to these Application Notes.

1. *Avaya IP Office Manager*, Release 9.0, Issue 9.01, September 2013, Document Number 15-601011, available at <http://support.avaya.com>.
2. *Resource Software International Ltd. Shadow Real-Time Dashboard (RTD) Installation & Users Guide*, available from RSI Support.

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