



Avaya Solution & Interoperability Test Lab

Application Notes for Enghouse Quality Management Suite with Avaya IP Office 9.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the Enghouse Quality Management Suite to interoperate with Avaya IP Office 9.0

In the compliance test, Enghouse Quality Management Suite used the IP office Telephony API interface from Avaya IP Office to monitor contact center agents on Avaya IP Office, and used the port mirroring method to capture the media associated with the monitored calls for recording.

Testing was performed using Avaya IP Office 500 V2 R9, but it also applies to Avaya IP Office Server Edition R9 (single site configuration only).

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 the Enghouse Quality Management Suite to interoperate with Avaya IP Office 9.0 using port mirroring. Enghouse Quality Management Suite (QMS) is a call recording solution.

In the compliance test, Enghouse Quality Management Suite used the Telephony API (TAPI) interface from Avaya IP Office to monitor contact center agents on Avaya IP Office, and used the port mirroring method to capture the media associated with the monitored calls for recording.

2. General Test Approach and Test Results

The feature test cases were performed manually. Upon start of QMS, it established DevLink connectivity to IP Office for monitoring of agent stations.

Each call was handled manually on the agent station with generation of unique audio content for the recordings. Necessary user actions such as hold and reconnect were performed from the agent telephones to test the different call scenarios.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet cable to Recording Server.

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 Recording Server:

- Handling of TAPI real-time events.
- Proper recording, logging, and playback of calls for scenarios involving inbound, outbound, internal, hold, reconnect, simultaneous, conference, and transfer.

The serviceability testing focused on verifying the ability of QMS to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to Recording Server.

2.2. Test Results

All test cases were executed and verified. The following were observations on Recording Server from the compliance testing:

- In a scenario where a blind conference between three parties is created, QMS recording for all the parties was intermittent. This issue was reported to Enghouse and the fix for it is anticipated in a future release.

2.3. Support

Technical support on Enghouse Quality Management Suite can be obtained through the following:

- **Phone:** 602-789-2800
- **Email:** usa.support.zeacom.com

3. Reference Configuration

The configuration used for the compliance testing is shown below.

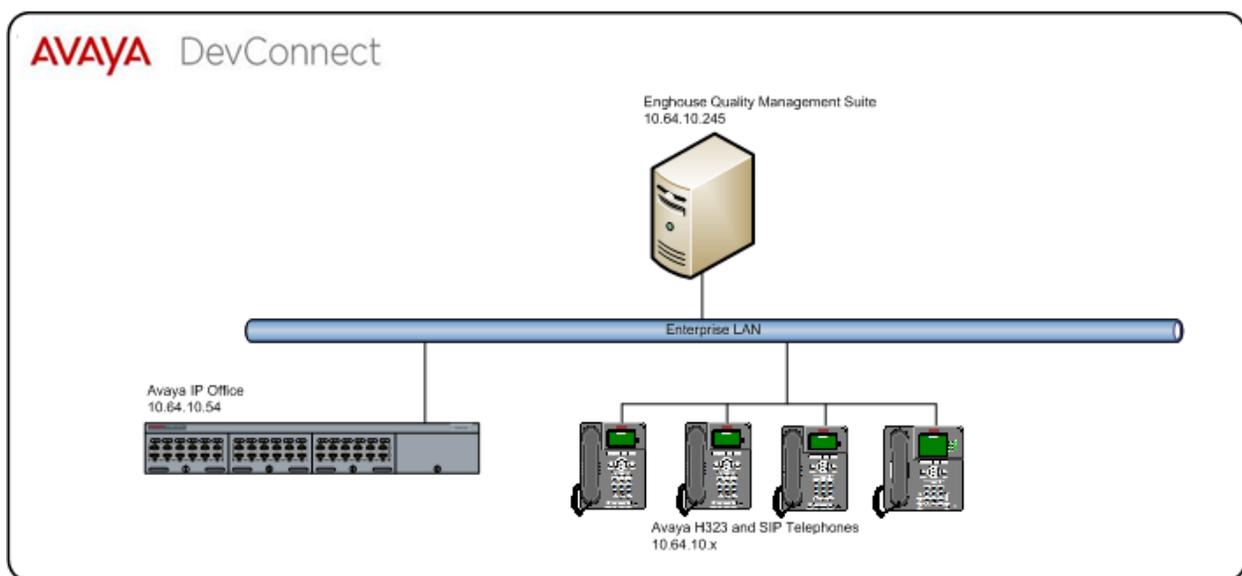


Figure 1: Compliance Testing Configuration

4. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office on IP500 V2	9.0 SP3
Avaya 1608 IP Deskphone (H.323)	1.302S
Avaya 9630 IP Deskphone (H.323)	3.104S
Avaya 9621G IP Deskphone (H.323)	6.2209
Avaya 1408 Digital Deskphone	NA
Enghouse Quality Management Suite	5.2.0.12316

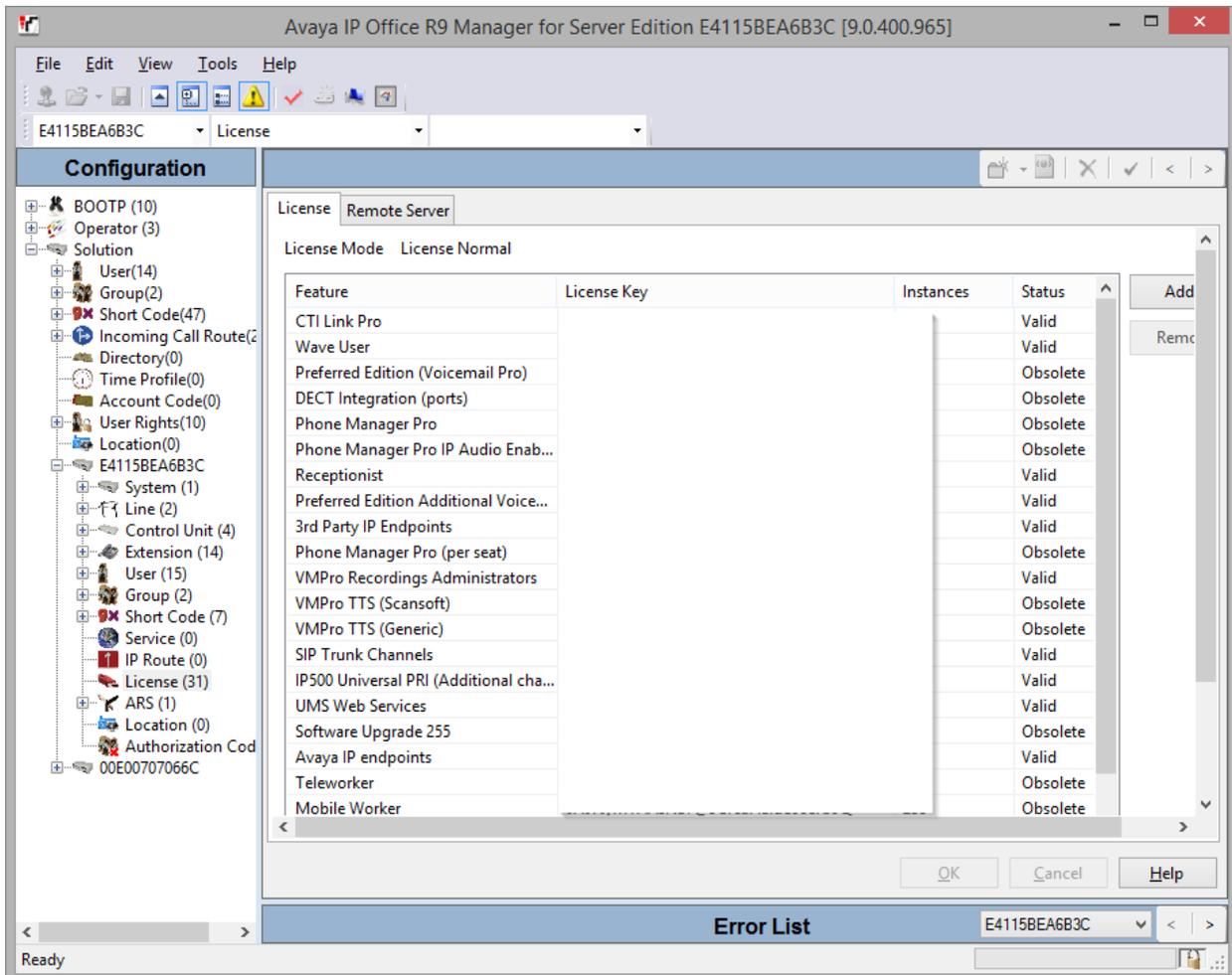
5. Configure Avaya IP Office

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

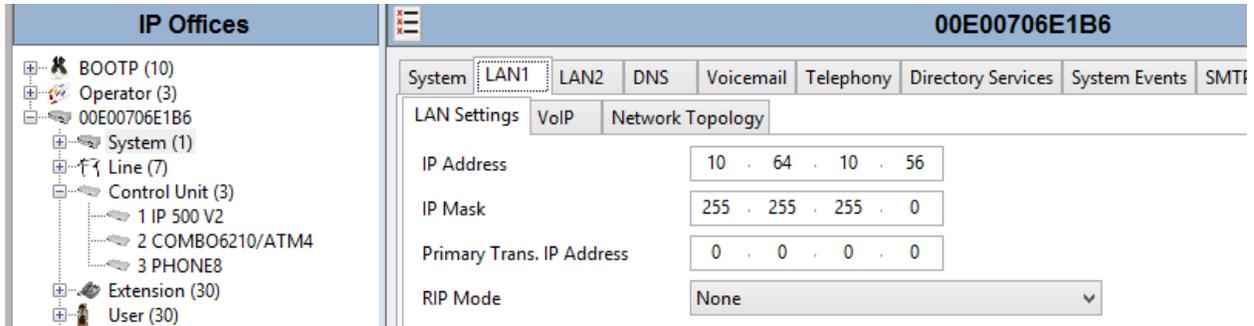
- Verify License and obtain IP Office IP Address
- Obtain phone IP Addresses

5.1. Verify License

From a PC running IP Office manager application, select **Start → Programs → IP Office → Manager**. From the configuration tree in the left pane, select **System** to display the screen in the right pane, where **E4115BEA6B3C** is the name of the IP Office system. From the configuration tree in the left pane, select **License**. Verify that the **License Status** is **Valid**.

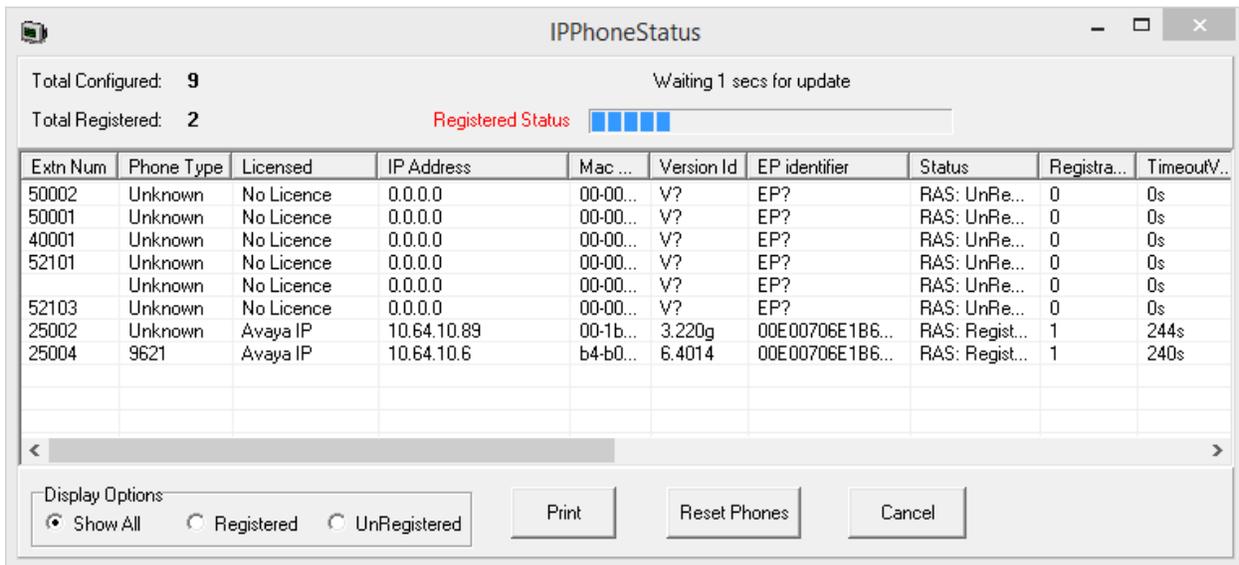


From the configuration tree in the left pane, select **System**. The IP Office used during Compliance Test, was configured with LAN1. Select **LAN1** tab. Note the **IP Address** under **LAN Settings**. This is the IP Address of IP Office, which will be used later when configuring QMS.



5.2. Obtain phone IP Addresses

From a PC running IP Office Monitor application, select **Start → IP Office → Monitor**. From the **Status** menu, select **H323 Phone Status**. Note the **IP Address** for the extensions that will be used for recording.



6. Configure Enghouse Quality Management Suite

This section provides the procedures for configuring Enghouse Quality Management Suite.

From the server running QMS, open an internet browser and type in <http://localhost/qms> to administer QMS. Log in using appropriate credentials.

To configure IP Office service, select **Administration** → **Service** and select **CallRecording** and click **Edit**.

The screenshot shows the Quality Management Suite interface. The top navigation bar includes the logo, version (5.2.0.12316), user (System Administrator), and links for Change Password, Logout, Help, About, and Training. The left sidebar has a menu with categories: Call Recording, Computer Recording, and Administration. Under Administration, 'Services' is highlighted. The main content area shows a table of services. The 'CallRecording' service is selected, and its 'Edit' button is highlighted. The table has the following data:

Service Type	Host	PBX Type	Local Storage Location	Remote Storage Location	Last Contact Time
CallRecording	win-7ph623tdaal	Avaya IP Office	C:\ProgramData\CallRex\LocalStorage		11/19/2014 9:18:50

From the drop down menu for **PBX Type**, select **Avaya IP Office** and type in IP Office IP Address from **Section 5.1** in **PBX IP Address**.

The screenshot shows the Quality Management Suite interface with the 'Service Details' form open for the 'CallRecording' service. The 'Save' button is highlighted. The form fields are as follows:

Service Type:	CallRecording	Address:	win-7ph623tdaal
PBX Type:	Avaya IP Office	Address override:	10.64.10.245
PBX IP Address:	10.64.10.46		

To add a recording extension, navigate to **Administrations** → **Users**; click **Add**.

Quality Management Suite Version 5.2.0.12316 Logged in user: System Administrator

Users

Actions: **Add** Edit Delete Filters: Department Location Active Users Only

Import Export

First Name	Last Name	Department	Location	Extension	Licenses
System	Administrator			1	
TestSIP	Client1			25211	
TestSIP	Client2			25004	
TestIP	Client3			25002	
TestIP	Client4			25001	

Configure as follows:

- Type in **First Name** and **Last Name**
- Type in **tc3** as **Username** and type in associated **Password**
- Select **Agent** form **Security Profile** drop down menu
- Set **Account State** to **Active**
- Check box for **Call Recording**
- Type in **Primary Extension** and **Agent ID** as configured in IP Office
- Type in the IP Address obtained from **Section 5.2**

Quality Management Suite Version 5.2.0.12316 Logged in user: System Administrator

Users Client4, TestIP x Client3, TestIP x **New User** x

Actions: Save Edit Managed Users

Personal Information

First Name TestIP Last Name Client3

Department Location

Account Information

Username tc3 Password Password Change

Security Profile Agent Account State Active

Windows Login

Licenses

Call Recording

Call Recording Settings

Recording Server win-7ph623tdaal Primary Extension 25002

Endpoint IP Address 10.64.10.56 AgentId 5002

Additional Extensions

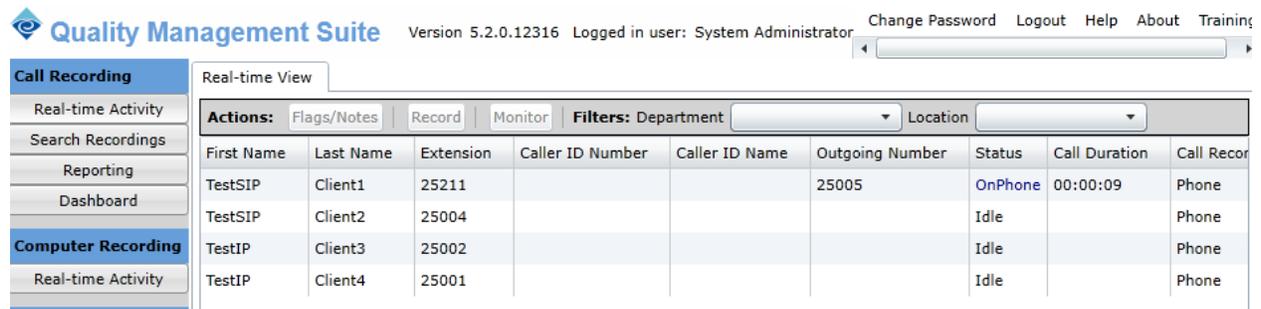
Privacy Enabled Lookback Recording Enabled

7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and Enghouse Quality Management Suite.

From the server running QMS, open an internet browser and type in <http://localhost/qms> to administer QMS. Log in using appropriate credentials.

Select **Call Recording** → **Real-time Activity**. Place a call from a configured phone. Once the call is connected, the **Status** should change to **OnPhone**. The **Status** will change to **Recording** while audio is being captured and saved.



Quality Management Suite Version 5.2.0.12316 Logged in user: System Administrator

Change Password Logout Help About Training

Call Recording

Real-time Activity

Search Recordings

Reporting

Dashboard

Computer Recording

Real-time Activity

Real-time View

Actions: Flags/Notes Record Monitor Filters: Department Location

First Name	Last Name	Extension	Caller ID Number	Caller ID Name	Outgoing Number	Status	Call Duration	Call Record
TestSIP	Client1	25211			25005	OnPhone	00:00:09	Phone
TestSIP	Client2	25004				Idle		Phone
TestIP	Client3	25002				Idle		Phone
TestIP	Client4	25001				Idle		Phone

8. Conclusion

These Application Notes describe the configuration steps required for Enghouse Quality Management Suite to successfully interoperate with Avaya IP Office 9. All feature and serviceability test cases were completed with an observation noted in **Section 2.2**.

9. Additional References

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

1. *IP Office Manager 9*, Document 15-601011, Issue 27o, April 2014, available at <http://support.avaya.com>.

Documentation related to QMS can be obtained directly from Enghouse.

©2015 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.