



Avaya Solution & Interoperability Test Lab

Application Notes for Biamp Tesira SVC-2 2.4 with Avaya IP Office Server Edition 9.1.4 – Issue 1.0

Abstract

These Application Notes describe the procedures for configuring Biamp Tesira SVC-2 2.4, which was compliance tested with Avaya IP Office Server Edition 9.1.4.

The overall objective of the interoperability compliance testing is to verify Biamp Tesira SVC-2 functionalities in an environment comprised of Avaya IP Office (IP500V2 and Server Edition) and various Avaya H.323 and SIP IP Deskphones.

Readers should pay attention to **Section** Error! Reference source not found., in particular the scope of testing as outlined in **Section** Error! Reference source not found. as well as any observations noted in **Section** Error! Reference source not found., 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 procedures for configuring Biamp Tesira SVC-2 which was compliance tested with Avaya IP Office 9.1.4 (IP500V2 and Server Edition).

The Tesira SVC-2 enables conferencing over VoIP directly from Tesira SERVER-IO, with two channels of VoIP interface per card. Tesira SVC-2 allows Tesira SERVER-IO to connect directly to IP-based phone systems and eliminate the need for VoIP adapters.

During the compliance test, Tesira SVC-2 was tested as a SIP endpoints solution, with one SIP endpoint configured and registered with each Avaya IP Office system.

For further details on Tesira SVC-2 configuration steps not covered in this document, consult [2].

These Application Notes assume that Avaya IP Office (IP500V2 and Server Edition) is already installed and basic configuration steps have been performed. Only steps relevant to this compliance test will be described in this document. For further details on configuration steps not covered in this document, consult [1].

2. General Test Approach and Test Results

The general test approach was to place calls to and from Biamp Tesira SVC-2 and exercise basic telephone operations. The main objectives were to verify the following:

- Registration
- Codecs (G.711MU,G.729)
- Inbound calls
- Outbound calls
- Hold/Resume
- Call termination (origination/destination)
- Serviceability

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

All test cases were performed manually. The general approach was to place various types of calls to and from Biamp Tesira SVC-2. Biamp Tesira SVC-2 operations such as inbound calls, outbound calls, hold, and Biamp Tesira SVC-2 interactions with Avaya IP Office, and Avaya SIP and H.323 Deskphones were verified. For serviceability testing, failures such as cable pulls and resets were applied.

2.2. Test Results

All test cases passed.

2.3. Support

Technical support for the Biamp Tesira SVC-2 solution can be obtained by contacting Biamp at:

- <http://www.biamp.com/support/index.aspx>
- (800)-826-1457

3. Reference Configuration

Figure 1 illustrates a sample configuration consisting of an Avaya IP Office (IP 500 V2 and Server Edition) and Biamp Tesira SVC-2. For completeness, Avaya 96x0/96x1 H.323 IP Deskphone and Avaya 1120/1220 Series SIP IP Deskphone, are included in **Figure 1** to demonstrate calls between Biamp Tesira SVC-2 and Avaya SIP and H.323 Deskphones.

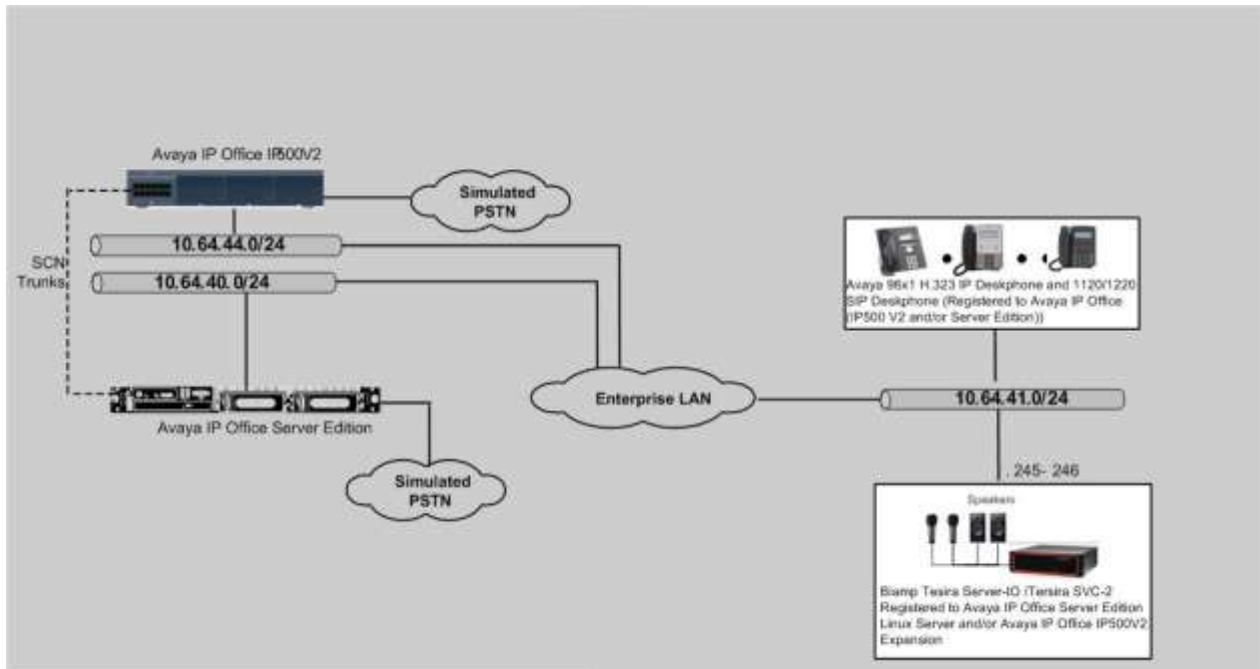


Figure 1: Test Configuration of Biamp Tesira SVC-2 with Avaya IP Office

4. Equipment and Software Validated

The following equipment and software were used for the test configuration.

Equipment/Software		Release/Version
Avaya IP Office IP 500 V2 as Expansion		9.1.4 (137)
Avaya IP Office Server Edition as Primary Server on Virtual Environment		9.1.4 (137)
Avaya IP Office Manager		9.1.400.137
Avaya H.323 IP Deskphones on IP Office		
	96x1	6.6.0.29
Avaya SIP Deskphones on IP Office		
	1120/1220	04.04.18
Biamp Tesira Firmware (Tesira Server-IO)		2.4.0.60
Biamp VoIP Software (Tesira SVC-2)		1.3.0.20

5. Configure Avaya IP Office

This section provides the procedures for configuring Avaya IP Office. The procedures include the following areas:

- Verify IP Office license
- Obtain LAN IP address
- Administer SIP registrar
- Administer SIP extensions
- Administer SIP users

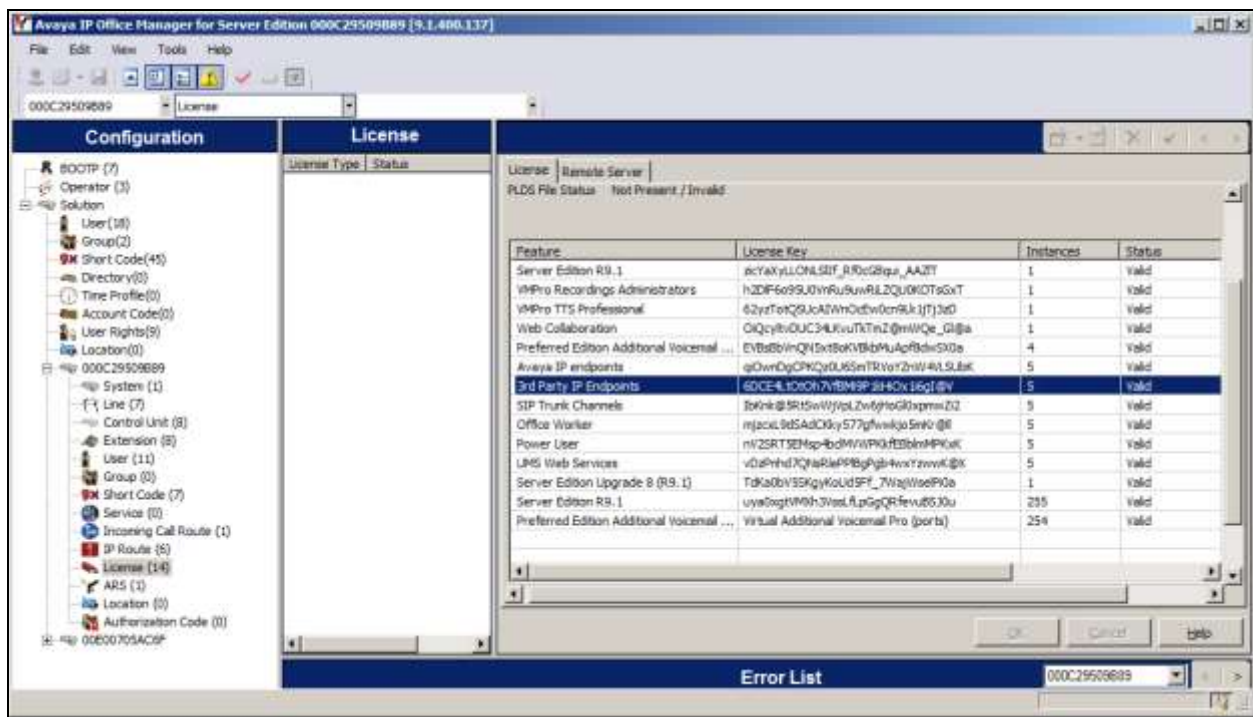
These steps are performed from the Avaya IP Office Manager.

5.1. Verify IP Office License

From a PC running the Avaya IP Office Manager application, select **Start** → **All Programs** → **IP Office** → **Manager** to launch the Manager application. Select the proper IP Office system if there are more than one IP Office system, and log in with the appropriate credentials.

The Avaya IP Office Manager screen is displayed. From the configuration tree in the left pane, select **License** → **3rd Party IP Endpoints** to display the Avaya IP endpoints screen in the right pane. Verify that the License Status field is set to **Valid**.

Note: Both Avaya IP Office Server Edition and Avaya IP Office IP 500 V2 were utilized during the compliance test. This section demonstrates settings on Avaya IP Office IP500V2.



The screenshot shows the Avaya IP Office Manager application window. The title bar reads "Avaya IP Office Manager for Server Edition 000C29509889 [9.1.400.137]". The interface is divided into three main panes:

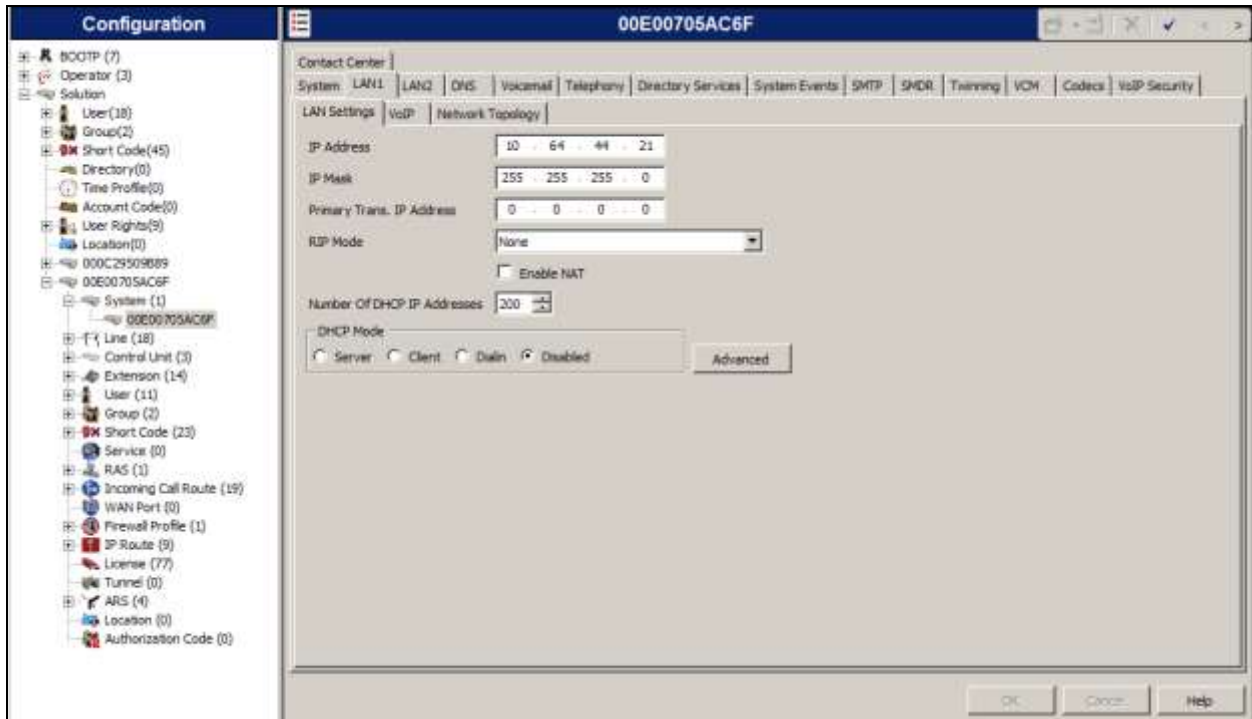
- Configuration Tree (Left):** A tree view showing the system hierarchy. The "License" folder is selected, and its sub-item "3rd Party IP Endpoints" is highlighted.
- License Table (Middle):** A table with columns for "License Type", "Status", "Feature", "License Key", "Instances", and "Status". The "3rd Party IP Endpoints" row is highlighted in blue.
- License Details (Right):** A detailed view of the selected license, showing the "License Key" and "Instances" for the "3rd Party IP Endpoints" feature.

License Type	Status	Feature	License Key	Instances	Status
Server Edition R9.1	Valid	Server Edition R9.1	acYAKyLLOhLSIF_RR0c28qa_AA2T	1	Valid
VMP Pro Recordings Administrators	Valid	VMP Pro Recordings Administrators	hZDF6o9SU0vRufu8uWR.LZQU0KDT9SxT	1	Valid
VMP Pro TTS Professional	Valid	VMP Pro TTS Professional	62yzFotQJucA2WnOdfw0cr9Lk1J73d0	1	Valid
Web Collaboration	Valid	Web Collaboration	ClQcyItvDUC34KuuTktmZ@mWQe_G@a	1	Valid
Preferred Edition Additional Voicemail ...	Valid	Preferred Edition Additional Voicemail ...	EV8aBbVnQNI5vt8oKV8bMuAp8dvsX0e	4	Valid
Avaya IP endpoints	Valid	Avaya IP endpoints	qOwrDgCPK2q0U65mTRVotZnW4i.SUtak	5	Valid
3 rd Party IP Endpoints	Valid	3 rd Party IP Endpoints	6DCE4_1c0Ch7yBMRP_8i4Cv16gl8V	5	Valid
SIP Trunk Channels	Valid	SIP Trunk Channels	80nk@SR15wWVjpsLz6y9oG0xpmDZ	3	Valid
Office Worker	Valid	Office Worker	mjacL9d5AdC0ky577ghwiko5wK@B	5	Valid
Power User	Valid	Power User	nV2SRT2EMsp4bMwVWPKHtBblmMP0uK	5	Valid
LMS Web Services	Valid	LMS Web Services	vDzRhd7Q9aRleP8Gygh4wxYzwwK@K	5	Valid
Server Edition Upgrade 8 (R9.1)	Valid	Server Edition Upgrade 8 (R9.1)	TdKaDhVSEKgyKouLDFP_7WzQWseP0a	1	Valid
Server Edition R9.1	Valid	Server Edition R9.1	uyw0gtW0h3VasLApGyQRFeu8030u	235	Valid
Preferred Edition Additional Voicemail ...	Valid	Preferred Edition Additional Voicemail ...	virtual Additional Voicemail Pro (ports)	254	Valid

5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select **System** to display the System screen in the right pane. Select the **LAN1** tab, followed by the **LAN Settings** sub-tab in the right pane. Make a note of the **IP Address**, which will be used later to configure Biamp Tesira SVC-2.

Note: During the initial configuration of Avaya IP Office, the LAN1 was configured on the private network side.



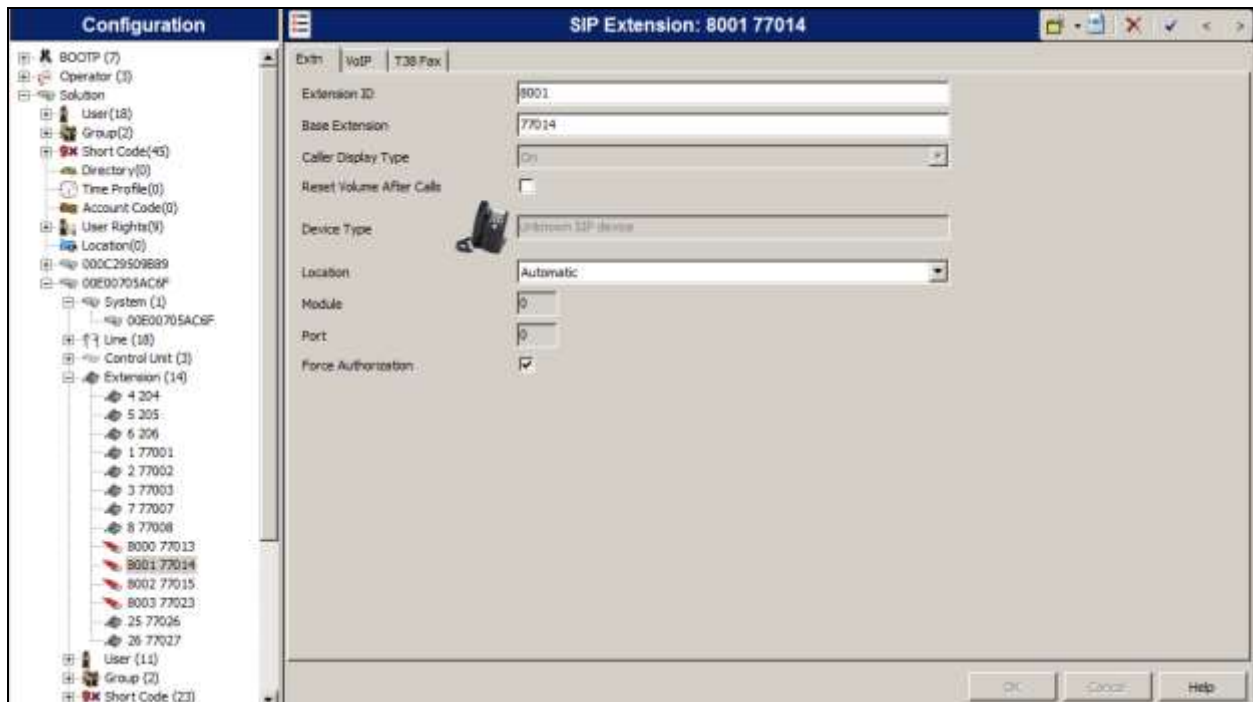
5.3. Administer SIP Registrar

Select the **VoIP** sub-tab. Ensure that **SIP Registrar Enable** is checked, as shown below.

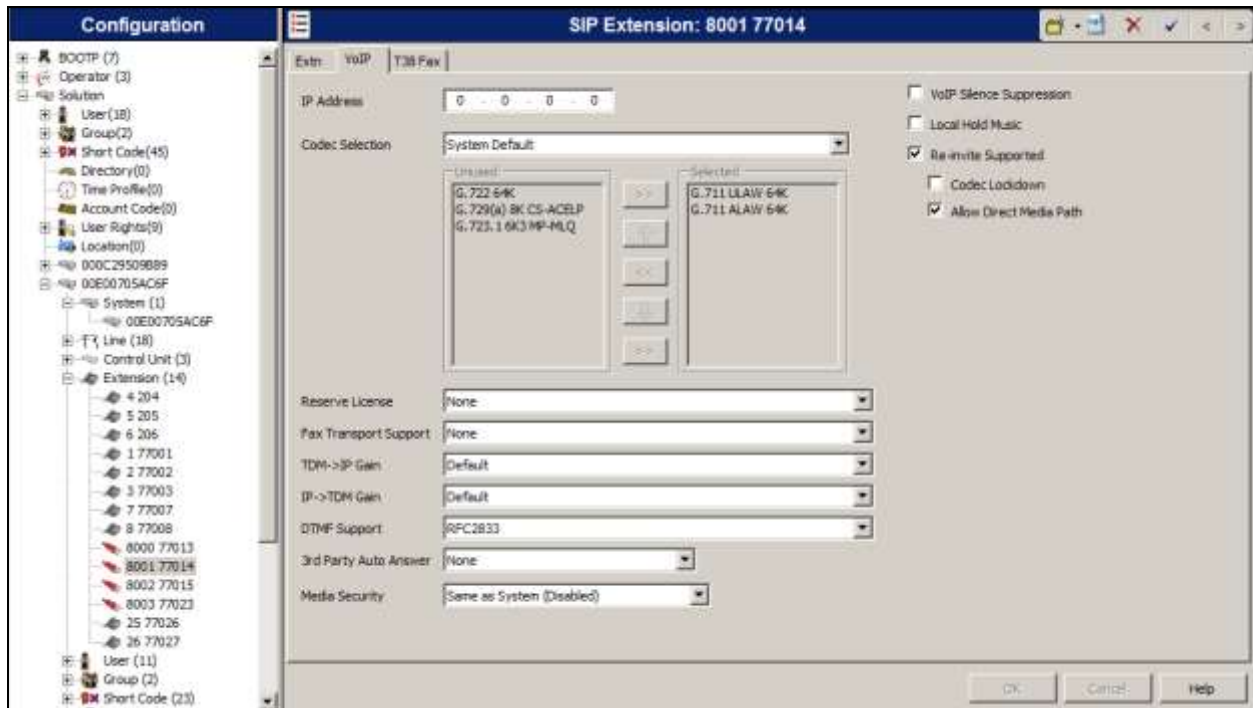


5.4. Administer SIP Extensions

From the configuration tree in the left pane, right-click on **Extension** and select **New → SIP Extension** from the pop-up list to add a new SIP extension. Enter the desired digits for the **Base Extension** field.

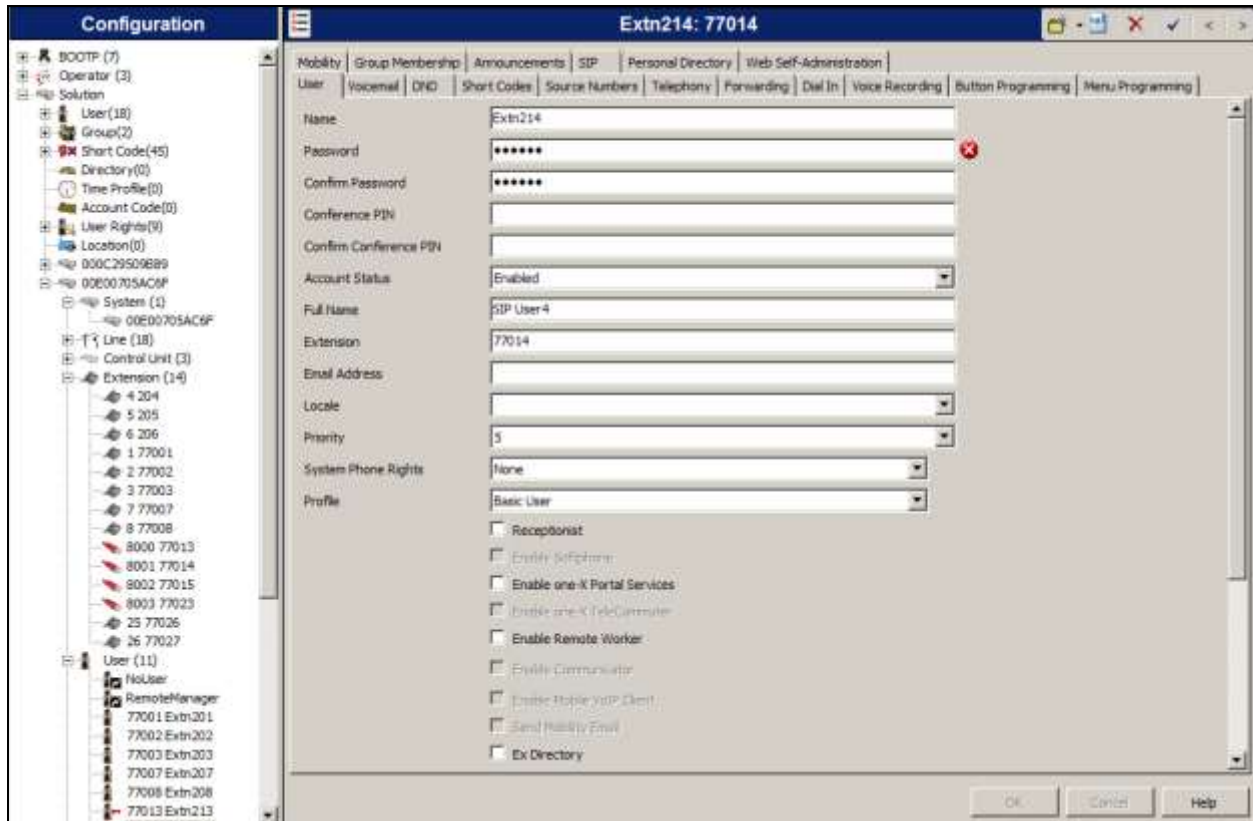


Select the **VoIP** tab, and set codecs as shown below.

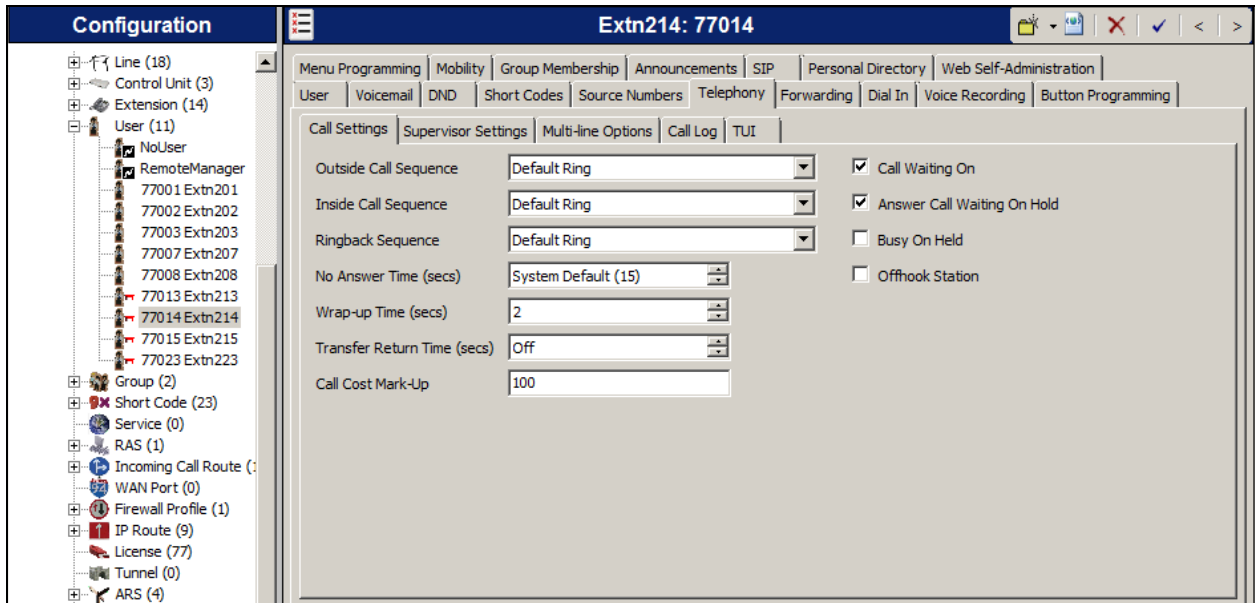


5.5. Administer SIP Users

From the left pane, right-click on **User**, and select **New** from the pop-up list. Enter desired values for the **Name** and **Full Name** fields. For the **Extension** field, enter the SIP extension created in **Section 5.4**.



Select the **Telephony** tab, followed by the **Call Settings** sub-tab. Check the **Call Waiting On** field, as shown below.




Select the **Supervisor Settings** sub-tab, and enter a desired **Login Code** and **Confirm Login Code**.

Repeat this section for each SIP extension from **Section 5.4**.

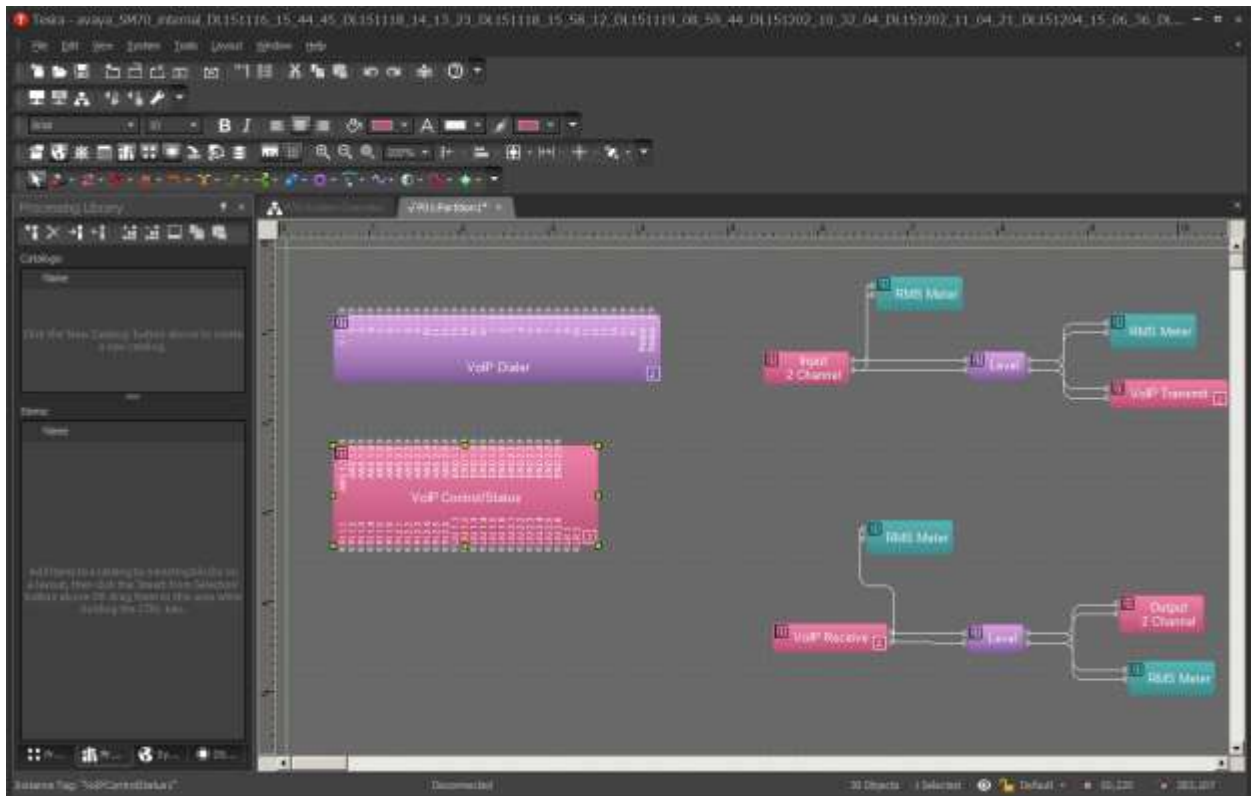


6. Configure Biamp Tesira SVC-2

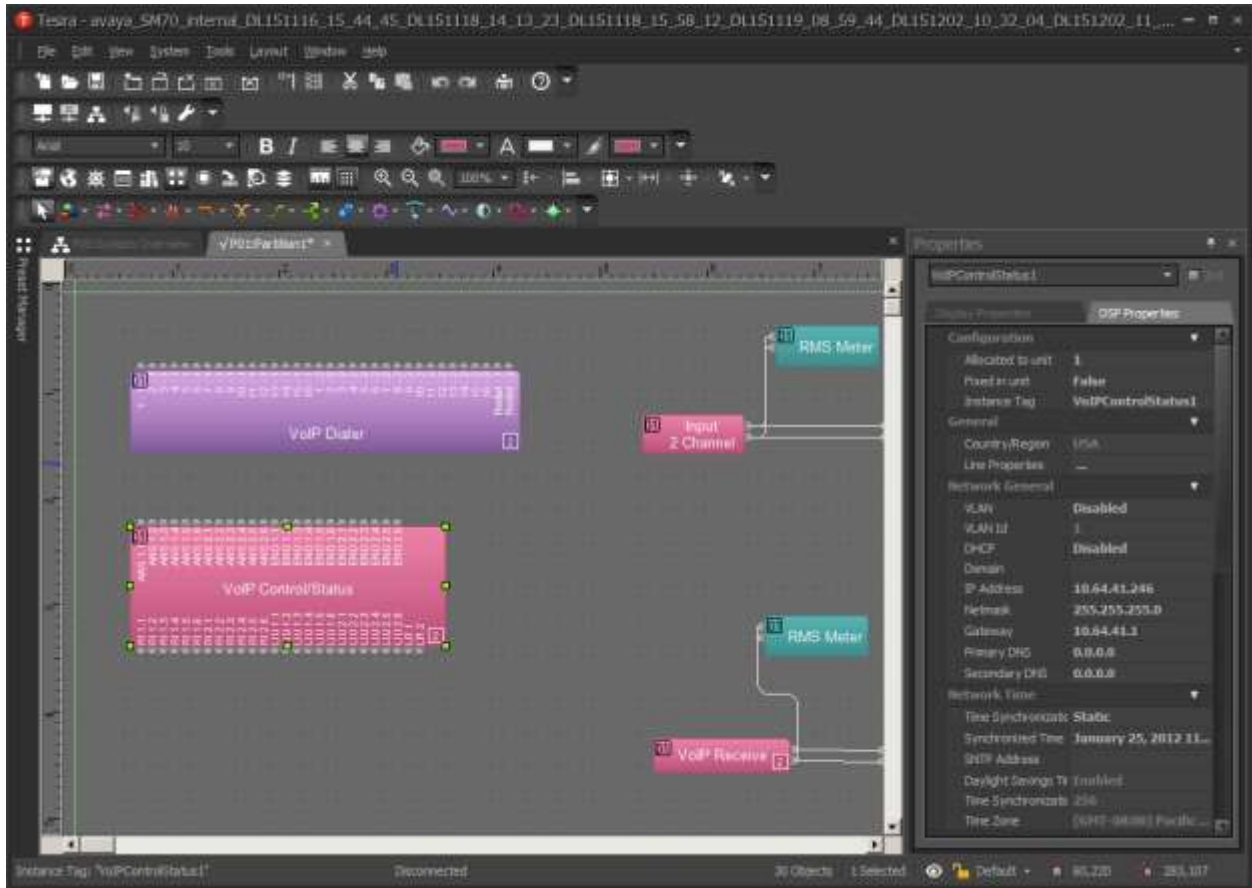
Biamp installs, configures, and customizes the Tesira SVC-2 card for their end customers. This section only provides steps to configure Biamp Tesira SVC-2 to interface with Session Manager.

Select the Tesira icon, , from the PC that installed Tesira software to start the VoIP system. How to install/configure a Tesira system is out of the scope of these Application Notes.

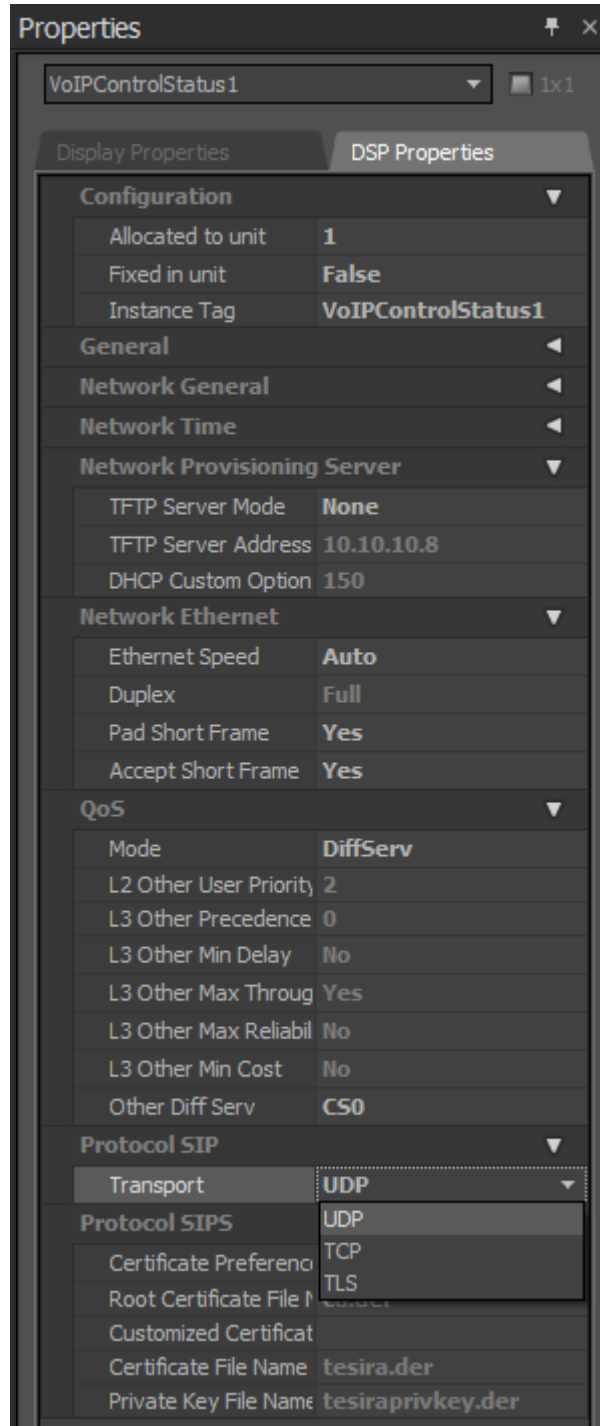
- Highlight the **VoIPControl/Status** block, as shown below.



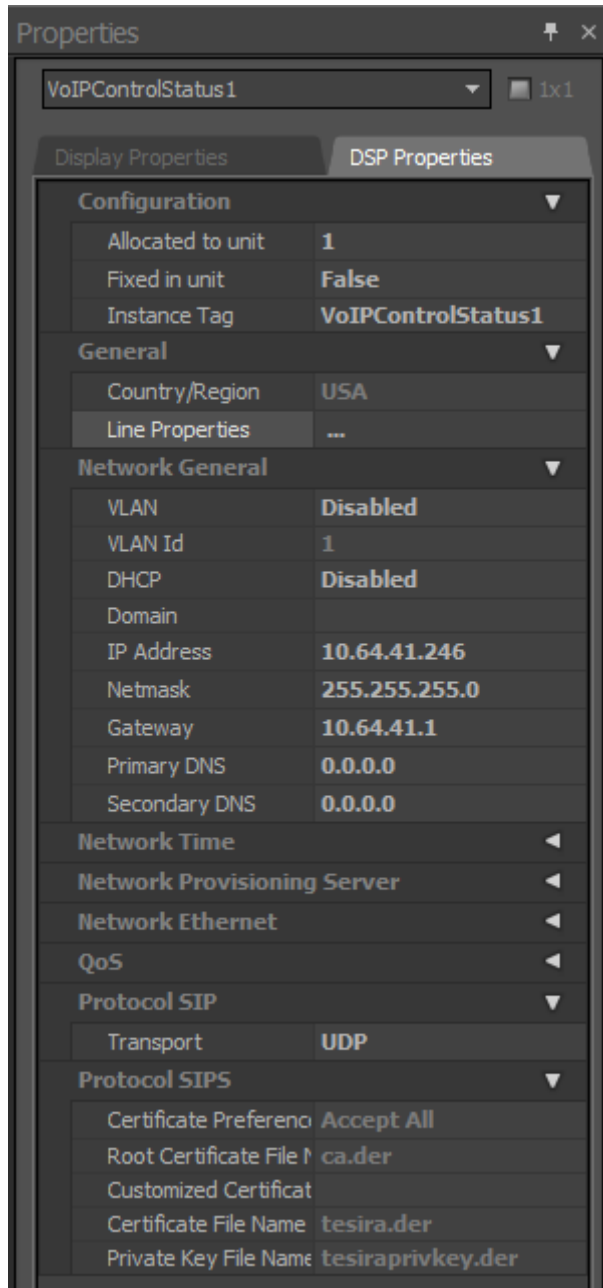
- Click right mouse button and select **Properties**, and the **Properties** menu will display on the right.



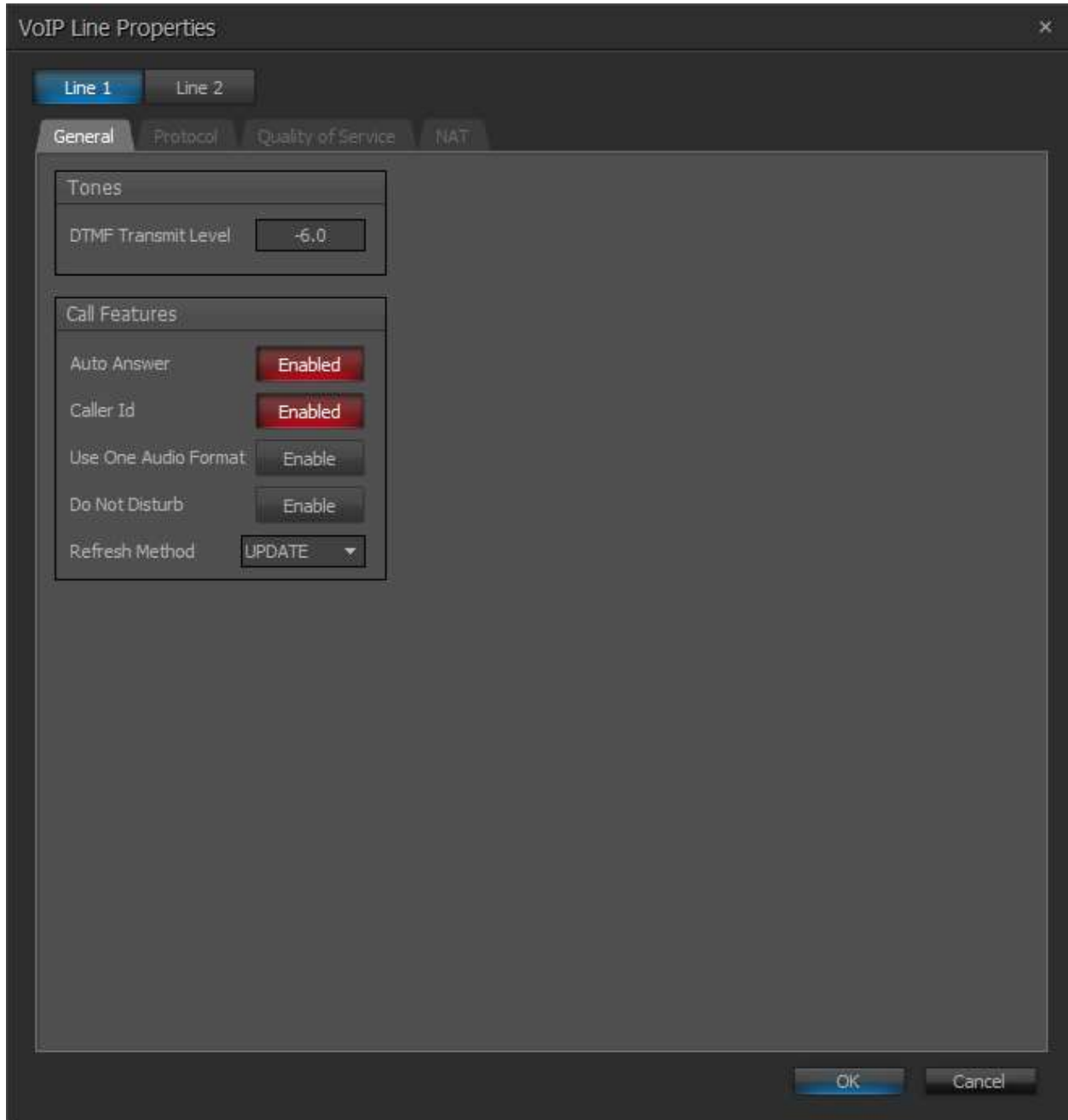
- Navigate the **Protocol SIP**→**Transport** to configure transport to be used. The default is UDP.



- Select **Line Properties** under the **General** section to display the **VoIP Line Properties** page.



- From the **VoIP Line Properties** page, click the **Protocol** tab.



- From the **Protocol** page, provide the following information:
 - **SIP User Name** – Enter a user created in **Section 5.5**.
 - **Authentication User Name** – Enter a user created in **Section 5.5**.
 - **Authentication Password** – Enter the password for the user in **Section 5.5**.
 - **Proxy Vendor** – Select **Avaya IP Office**.
 - **Proxy Address** – Enter the IP address of the pertinent IP Office system.
 - **Proxy Port** – Enter 5060.
 - Click on the **OK** button. Default values may be used for all other fields.

Note: The Biamp Tesira SVC-2 card can provide two extensions (L1 and L2). In the testing, one card was used and both lines (extensions) were configured. One line was registered with Avaya IP Office IP500V2, and the other was registered with Avaya IP Office Server Edition.

The screenshot shows the 'VoIP Line Properties' dialog box for 'Line 2', with the 'Protocol' tab selected. The configuration is as follows:

Field	Value	Field	Value
SIP User Name	77014	Registration Expiration	3600 seconds
SIP Display Name	77014	Signaling Port	5062
SIP Domain Name		T1 Timer	500 ms
Authentication User Name	77014	Retransmit Timeout	32000 ms
Authentication Password	*****	Session Timer	Enabled
NetBIOS Domain Name		Session Refresher	Auto
Proxy Vendor	Avaya IP Office	Session Expiration	2400 seconds
Proxy Address	10.64.44.21	Minimum Session Expiration	90 seconds
Proxy Port	5060	Prack	None
Outbound Proxy Address		Outbound Proxy Port	5060
Local Dial Plan	[2-9]11 0T 011xxx,T [0-1][2-9]xxxxxxxx [2-9]xxxxxxxx [2-9]xxxT		

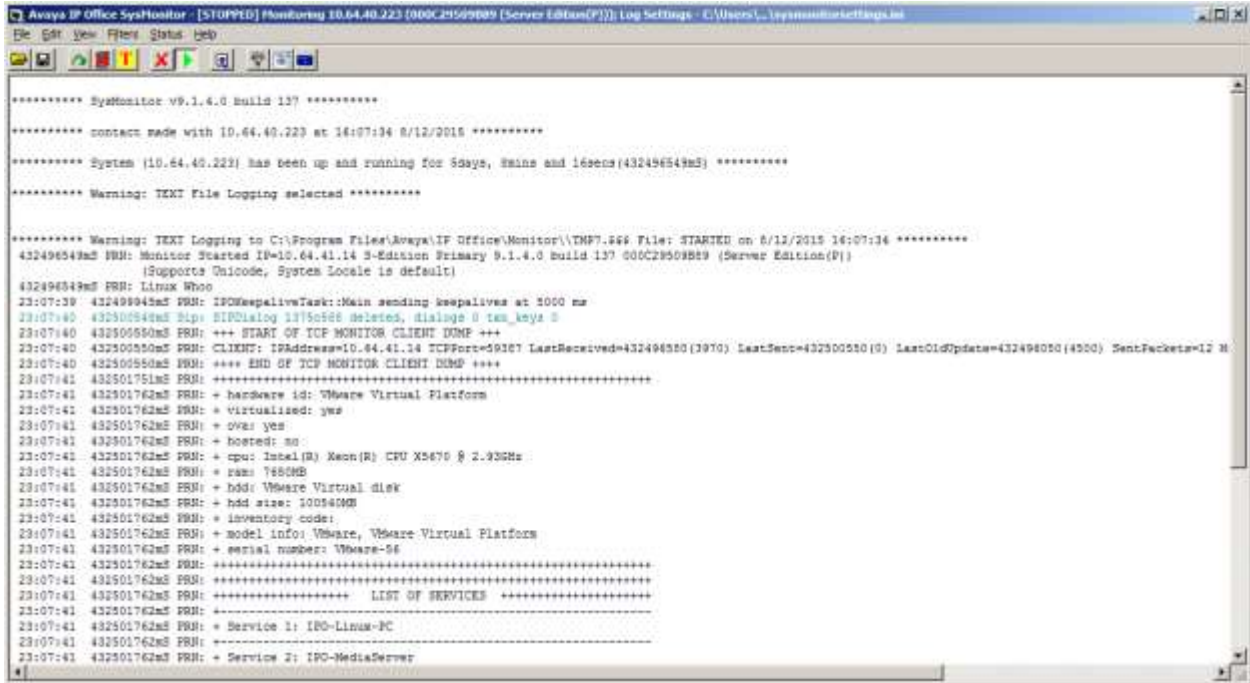
Field	Value
Port Start	15000
Port End	19999
Static RTP Port	Enable
SRTP	
G.723.1 Encoding Rate	5.3 kbps
Suppress RTCP On Hold	Enabled

Field	Value
Keyword	
SIPS URI	Enable

7. Verification Steps

The following steps may be used to verify the configuration:

- From a PC running the Avaya IP Office Monitor application, select **Start → All Programs → IP Office → Monitor** to launch the application. The **Avaya IP Office SysMonitor** screen for Avaya IP Office Server Edition is displayed, as shown below. Select **Status → SIP Phone Status** from the top menu.



```
Avaya IP Office SysMonitor - [STOPPED] Monitoring 10.64.40.223 (000C29509B09 (Server Edition(P))) Log Settings: C:\Users\... \ipoffice\sysmonlog.txt
File Edit View Filters Status Help

***** SysMonitor v9.1.4.0 Build 137 *****
***** contact made with 10.64.40.223 at 16:07:34 8/12/2016 *****
***** System (10.64.40.223) has been up and running for 5days, 8mins and 16secs (432496549ms) *****
***** Warning: TEXT File Logging selected *****

***** Warning: TEXT Logging to C:\Program Files\Avaya\IP Office\Monitor\DNPT.866 File: STARIKU on 8/12/2016 16:07:34 *****
432496549ms FRM: Monitor Started IP=10.64.41.14 3-Edition Primary 9.1.4.0 build 137 000C29509B09 (Server Edition(P))
(Supports Unicode, System Locale is default)
432496549ms FRM: Linux Who
23:07:39 432496549ms FRM: IPDWakeupTask:Main sending keepalives at 5000 ms
23:07:40 432500550ms FRM: SIPDialog 13750588 Selected, dialogs 0 task keys 0
23:07:40 432500550ms FRM: +++ START OF TCP MONITOR CLIENT DUMP +++
23:07:40 432500550ms FRM: CLIENT: IPAddress=10.64.41.14 TCPPort=59387 LastReceived=432496550 (3970) LastSent=432500550 (0) LastOldUpdate=432496050 (4500) SentPackets=12 N
23:07:40 432500550ms FRM: +++ END OF TCP MONITOR CLIENT DUMP +++
23:07:41 432501762ms FRM: *****
23:07:41 432501762ms FRM: + hardware id: VMware Virtual Platform
23:07:41 432501762ms FRM: + virtualized: yw
23:07:41 432501762ms FRM: + ovs: yw
23:07:41 432501762ms FRM: + hosted: no
23:07:41 432501762ms FRM: + cpu: Intel(R) Xeon(R) CPU X5670 @ 2.93GHz
23:07:41 432501762ms FRM: + ram: 7480MB
23:07:41 432501762ms FRM: + hdd: VMware Virtual disk
23:07:41 432501762ms FRM: + hdd size: 100540MB
23:07:41 432501762ms FRM: + inventory code:
23:07:41 432501762ms FRM: + model info: VMware, VMware Virtual Platform
23:07:41 432501762ms FRM: + serial number: VMware-56
23:07:41 432501762ms FRM: *****
23:07:41 432501762ms FRM: ***** LIST OF SERVICES *****
23:07:41 432501762ms FRM: +-----+
23:07:41 432501762ms FRM: + Service 1: IPO-Linux-PC
23:07:41 432501762ms FRM: +-----+
23:07:41 432501762ms FRM: + Service 2: IPO-MediaServer
```

- Verify that there is an entry for each Biamp Tesira SVC-2 user from **Section 5.5** and the Status is **SIP: Registered**.
- Place calls to and from Biamp Tesira SVC-2 and verify that the calls are successfully established with two-way talk path.

8. Conclusion

Biamp Tesira SVC-2 was compliance tested with Avaya IP Office Server Edition. Biamp Tesira SVC-2 functioned properly for feature and serviceability. During compliance testing, Biamp Tesira SVC-2 successfully registered with each Avaya IP Office system, placed and received calls to and from SIP and non-SIP telephones.

9. Additional References

The following Avaya product documentation can be found at <http://support.avaya.com>

[1] *Administering Avaya IP Office Platform with Manager*, November 2015, Release 9.1, Issue 10.32.

The following document was provided by Biamp. To obtain a copy, contact Biamp Support in **Section 2.3**

[2] Tesira Operation Manual Document

©2016 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.