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Avaya Solution & Interoperability Test Lab

Application Notes for Algo 8201 SIP PoE Intercom Version 1.7.6 with Avaya IP Office Server Edition Release 11.1 - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Algo 8201 SIP PoE Intercom to interoperate with Avaya IP Office Server Edition. Algo 8201 SIP PoE Intercom is a SIP-based device that can register with Avaya IP Office as a SIP endpoint.

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 Algo 8201 SIP PoE Intercom to interoperate with Avaya IP Office Server Edition Release 11.1. Algo 8201 SIP PoE Intercom is a SIP-based device that can register with Avaya IP Office as a SIP endpoint.

The 8201 SIP PoE Intercom is an IP doorphone for hands-free visitor communication at a secure entrance door or gate, access point, and room intercom applications. The 8201 SIP PoE Intercom can also auto-answer an incoming call and allow the caller to enter DTMF to open the door for visitor.

In the compliance testing, Avaya IP Office Server Edition system consists of Avaya IP Office Primary Linux running on Virtualized Environment and an IP500V2 Expansion.

The 8201 can represent the 8201, 8028, 8028V, 8203 since it shares the same SIP stack.

2. General Test Approach and Test Results

The feature test cases were performed manually. Calls were manually placed to the, with call controls such as hold/resume, unattended, attended transfer and conference performed from the caller.

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.

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 Algo 8201 SIP Intercom did not include use of any specific encryption features as requested by Algo.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing included registration, media shuffling, internal and external caller, and interactions with caller actions such as drop, hold/reconnect, blind/attended transfer, and blind/attended conference.

The serviceability testing focused on verifying the ability of Algo 8201 SIP Intercom to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to the device.

2.2. Test Results

The objectives outlined in **Section 2.1** were verified. All test cases passed.

2.3. Support

Technical support on Algo 8201 SIP PoE Intercom can be obtained through the following:
- Phone: + 1 604 454 3792
- Web: http://www.algosolutions.com/support
- Email: support@algosolutions.com

3. Reference Configuration

Figure 1 illustrates the test configuration used during the compliance testing between the Avaya IP Office Server Edition and Algo 8201 SIP PoE Intercom. The Algo 8201 communicated with Avaya IP Office through Avaya switch with Power over Ethernet (PoE) and registered with Avaya IP Office as SIP endpoint. The SIP trunk was also configured to connect from Avaya Session Border Controller for Enterprise to Service Provider for test cases off-net via SIP trunk.
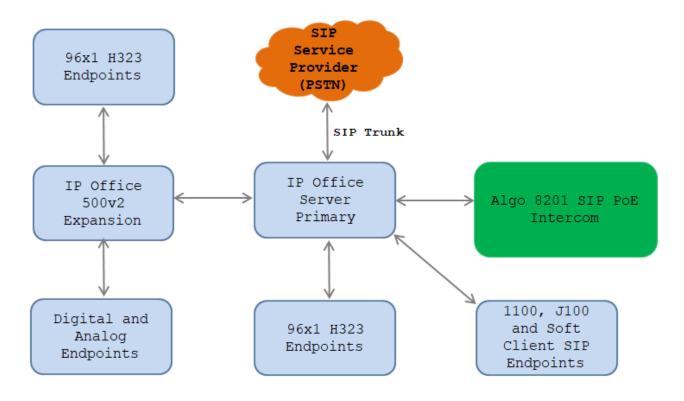
Figure 1: Test Configuration Diagram

The following table indicates the IP addresses that were assigned to the systems in the test configuration diagram:

Description	IP Address
Avaya IP Office Server Edition	10.33.1.110
Avaya IP Office 500V2 Expansion	10.33.1.120
96x1 Endpoints	10.33.5.40-10.33.5.46
Algo 8201 SIP PoE Intercom	192.168.12.137

4. Equipment and Software Validated

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

Equipment/Software	Version/Release
Avaya IP Office Primary Server Edition running on Virtual Environment	11.1.2.0.0 Build 239
Avaya IP Office 500v2 Expansion	11.1.2.0.0 Build 239
Avaya IP Office DIG DCPx16 V2	11.1.2.0.0 Build 239
Avaya IP Office Manager	11.1.2.0.0 Build 239
Avaya 96x1 Series IP Deskphones (H.323)	Version 6.8511
Avaya 1140E IP Deskphones (SIP)	SIP1140e Ver. 04.04.23.00
Avaya IX Workplace for Windows	3.7.4.22.1
Avaya J129 SIP Deskphone	4.0.10.3
Algo 8201 SIP PoE Intercom Firmware Version Base Version	 1.7.6 R1.7

Note: Compliance Testing is applicable when the tested solution is deployed with a standalone IP Office 500v2 and also when deployed with all configurations of IP Office Server Edition.
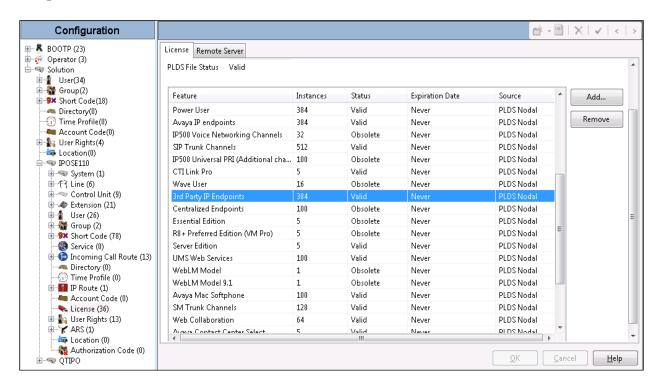
5. Configure Avaya IP Office

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
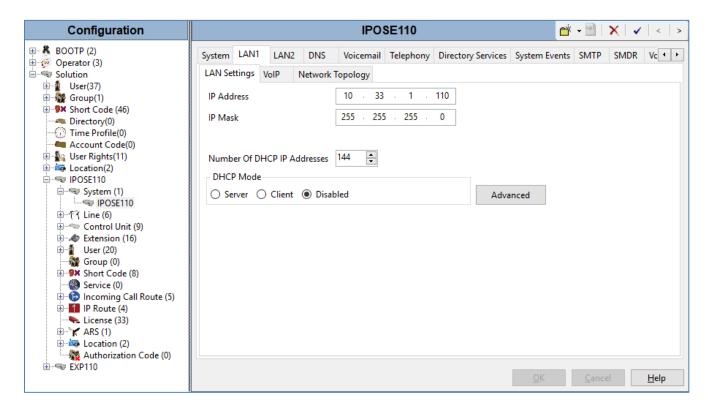- Administer SIP users

5.1. Verify IP Office License

From a PC running the Avaya 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** screen is displayed. From the configuration tree in the left pane, select **License**, the list of licenses is displayed in the right panel. Verify that the **3rd Party IP Endpoints** status is "Valid".
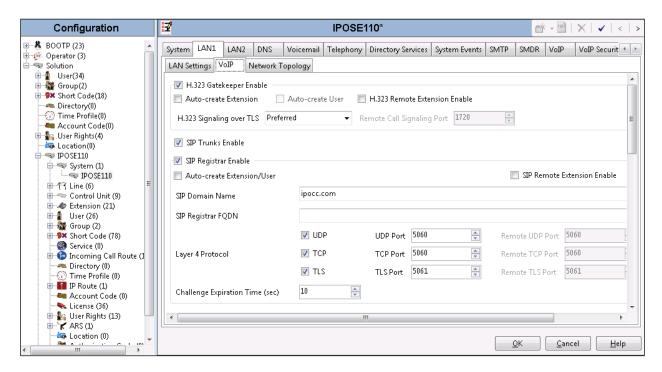
5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select **System** to display the **IPOSE110** 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 Algo. Note that IP Office can support SIP extensions on the LAN1 and/or LAN2 interfaces, and the compliance testing used the LAN1 interface.

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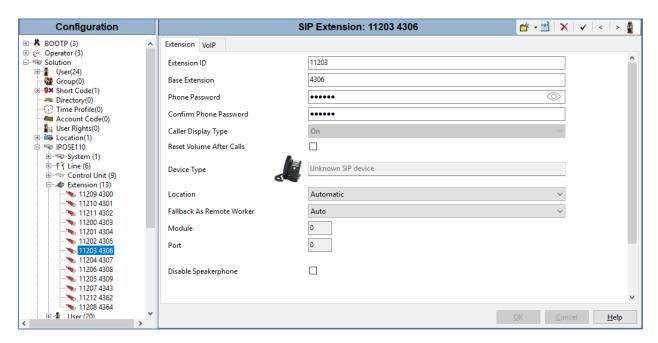
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5.3. Administer SIP Registrar

Select the **VoIP** sub-tab. Make certain that **SIP Registrar Enable** is checked, as shown below. Enter a valid sip domain name for SIP endpoints to use for registration with IP Office. In the compliance testing, the sip domain name **ipocc.com** was used so the SIP endpoints used the sip domain name for registration.
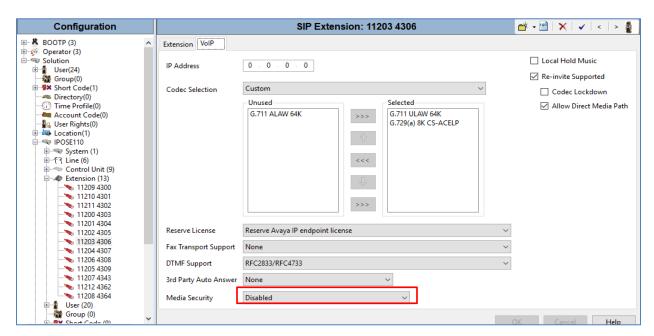
5.4. Administer SIP Extensions

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. For **Base Extension**, enter the SIP door extension "**4306**", enter password in the **Phone Password** and **Confirm Phone Password** fields and retain the default values in the remaining fields.
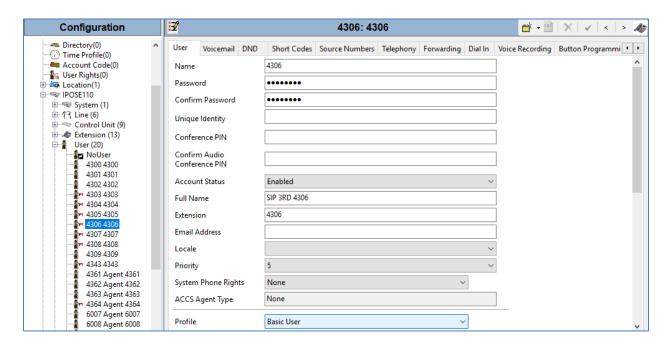

Select the **VoIP** tab, select **Disabled** in the **Media Security** field and retain other fields at default values. Repeat this section to add additional SIP extensions as desired.

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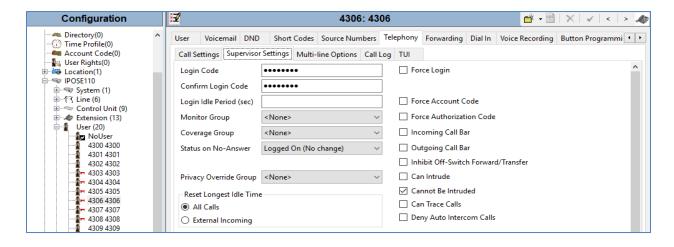
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5.5. Administer SIP User

From the configuration tree in the left pane; right-click on **User tab** and select **New** from the pop-up list. Enter desired values for **Name**. For **Extension**, enter the **4306** extension from **Section 5.4**. Remember these values as they will be needed to register Algo to IP Office. Enter desired values for **Password** and **Confirm Password**.

Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab, and enter a desired **Login Code**. This **Login Code** is needed to register the 8201 to IP Office. Note: if the **Phone Password** in the **Extension** tab in **Section 5.4** is configured, the password in the **Phone Password** must be used for the registration, in case the **Phone Password** is left blank then the code in the **Login Code** is used for the registration. The difference between **Phone Password** and **Login Code** is that the **Phone Password** can combine letter and number while **Login Code** only allows number.
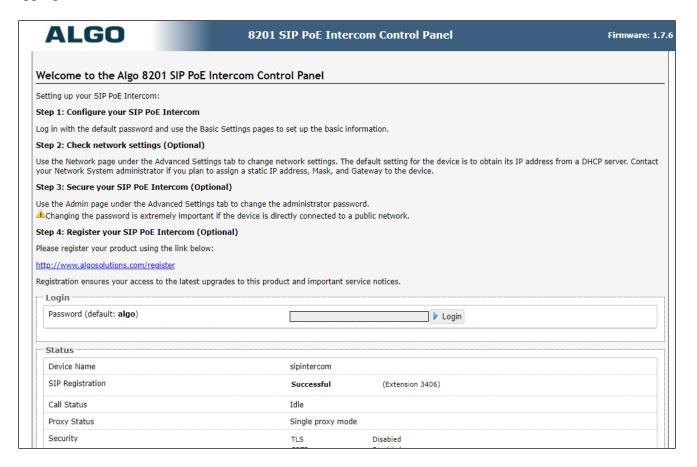
6. Configure 8201 SIP PoE Intercom

This section provides the procedures for configuring Algo 8201 SIP PoE Intercom. The procedures include the following areas:

- Launch web interface.
- Administer configuration.

6.1. Launch Web Interface

Access the 8201 IP PoE Intercom web-based interface by using the URL "http://ip-address" in an Internet browser window, where "ip-address" is the IP address of the 8201. The IP address of the 8201 can be spoken by using the call buttons in the front of the 8201. The **Welcome to the Algo 8201 IP PoE Intercom Control Panel** screen is displayed, as shown below. Log in using the appropriate credentials.
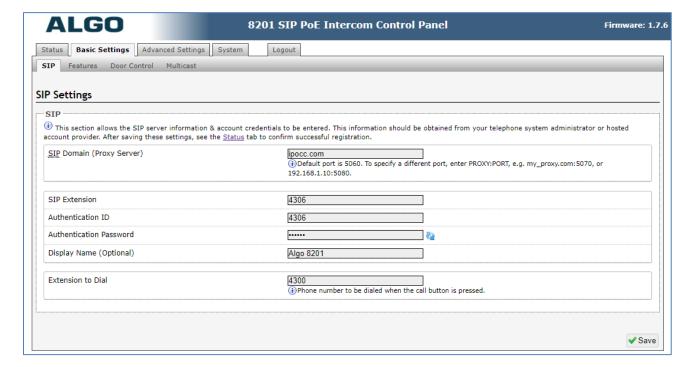
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6.2. Administer Algo 8201 SIP PoE Intercom

Select **Basic Settings → SIP** from the top menu, to display the screen below. Configure the **SIP Settings** section toward the bottom of the screen as desired to match the configuration. Enter the following values for the specified fields and retain the default values in the remaining fields.
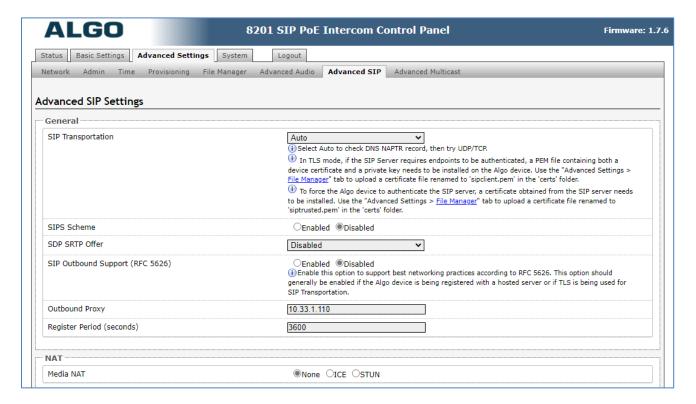
- **Sip Domain (Proxy Server):** Enter the SIP domain name as configured in **Section 5.3**.
- **SIP Extension:** Enter the SIP user extension from **Section 5.4**.
- **Authentication ID:** Enter the SIP user extension from **Section 5.4**.
- **Authentication Password:** Enter the SIP user login code from **Section 5.4**.
- **Display Name (Option):** Enter a name for the 8201.
- **Extension to Dial:** Enter an extension that the 8201 dials.

Click on **Save** button to save the configuration.

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Navigate to **Advanced Settings** ➔ **Advanced SIP**. The **Advanced SIP** page is displayed, enter the signaling IP address of Session Manager in the **Outbound Proxy** and keep other values at default.

Click on **Save** button to save the configuration.

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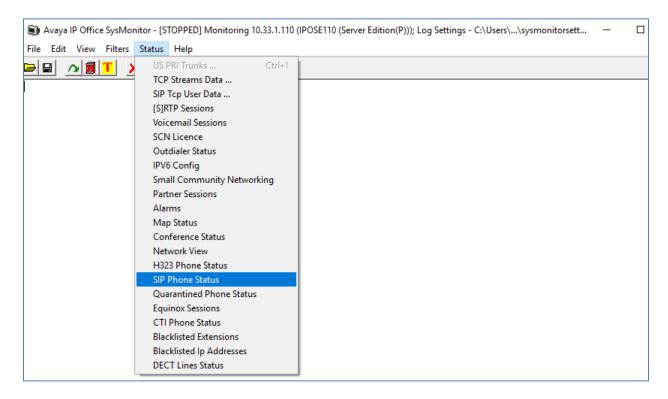©2022 Avaya Inc. All Rights Reserved.

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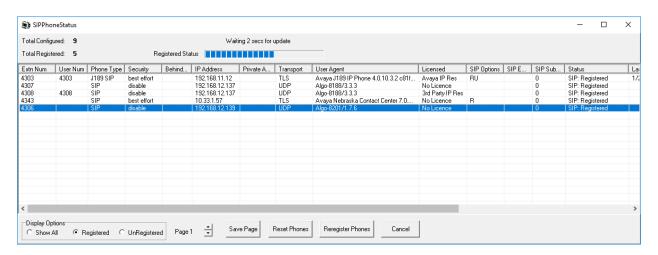Algo8201-IPO11

7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and Algo 8201 SIP Intercom.

7.1. Verify Avaya IP Office

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

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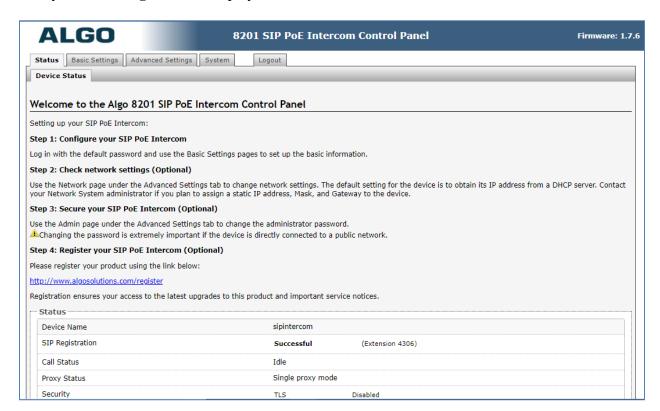©2022 Avaya Inc. All Rights Reserved.

The **SIPPhoneStatus** screen is displayed and select the **Registered** radio button in the **Display Options** area it displays all SIP users currently register to IP Office. Verify that there is an extension for the 8201 in the list.

7.2. Verify Algo 8188 SIP Ceiling Speaker

From the Algo 8201 SIP PoE Intercom web-based interface, select **Status** from the top menu. Verify that **SIP Registration** displays "Successful" as shown below.

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The following tests were conducted to verify the solution between the Algo 8201 and Avaya IP Office.
- Verify that the incoming call to the 8201 and it is auto answered.
- Verify that the call is clear audio.
- Verify that the caller presses the key 6 to open the door.
- Verify that the solution works with different Avaya clients (e.g., digital, analog, IP etc.).
- Verify that 8201goes into an idle state when the call is completed.
- Verify that the 8201 re-registers without issues if the Ethernet cable is unplugged and plugged back in.

8. Conclusion

These Application Notes describe the configuration steps required to integrate the Algo 8201 SIP PoE Intercom with Avaya IP Office Server Edition. All of the executed test cases have passed and met the objectives outlined in **Section 2.1**.

9. Additional References

Product documentation for the Avaya Aura may be found at:
https://support.avaya.com/css/Products/

Avaya Documents:
[1] *Avaya IP Office Platform Solution Description*, Release 11.0, August 2021.
[2] *Avaya IP Office Platform Feature Description*, Release 11.0, August 2021.
[3] *IP Office Platform 11.0 Deploying Avaya IP Office Essential Edition,* Document Number 15-601042, Issue 3, 20 August 2019.
[4] *Administering Avaya IP Office Platform with Manager,* Release 11.0, August 2019.
[5] *IP Office Platform 10.1 Using Avaya IP Office Platform System Status,* Document 15-601758, Issue 1, August 2019.
[6] *IP Office Platform 11.0 Using IP Office System Monitor,* Document 15-601019, Issue 09b, August 2019.

Product documentation for the Algo 8201 IP PoE Intercom products may be found at:
http://www.algosolutions.com/8180

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