Application Notes for Configuring Algo 8128 SIP LED Strobe Version 2.3 with Avaya IP Office Server Edition Solution Release 9.1.4 - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Algo 8128 SIP LED Strobe to interoperate with Avaya IP Office Server Edition Solution. The Algo 8128 SIP LED Strobe is a SIP compliant Power over Ethernet high intensity strobe light for alerting and notification of telephone, emergency, safety, and security events.

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 Algo 8128 SIP LED Strobe to interoperate with Avaya IP Office Server Edition Solution. Algo 8128 SIP LED Strobe is a SIP-based device that can register with Avaya IP Office as SIP endpoint.

The 8128 SIP LED Strobe is a SIP compliant Power over Ethernet (PoE) high intensity strobe light for alerting and notification of telephone, emergency, safety, and security events.

The IP Office Solution that consists of a primary Server Edition in Virtual Environment and an expansion 500V2. Algo 8128 was registered as SIP users to both the primary Server Edition and the expansion 500V2.

2. General Test Approach and Test Results

The feature test cases were performed manually. The focus of this interoperability compliance testing was to verify if Algo 8128 can register as a SIP endpoint on IP Office and to verify proper operation of the Algo 8128 when integrated with Avaya IP Office.

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

Compliance testing verified that the 8128 was able to interoperate with the telephones residing on IP Office system. The following interoperability areas were covered:

- The 8128 can register to IP Office as a SIP endpoint.
- SIP Ring – The 8128 will flash/alert when the twinning extension is called.
- SIP Monitor – The 8128 can monitor a telephone on IP Office when this telephone is called (Ring and In-Use) the 8128 will flash/alert.

The serviceability testing focused on verifying the ability of Algo 8128 SIP LED Strobe 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 8128 SIP LED Strobe 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 and Algo 8128 SIP LED Strobe. The 8128 SIP LED Strobe communicated with IP Office through Avaya switch with Power over Ethernet (PoE) and registered with Avaya IP Office as SIP endpoint. The IP Office Server Edition Solution that consists of a primary Server Edition in Virtual Environment and an expansion 500V2. The PRI T1 trunk was also configured to connect from IP Office 500V2 expansion to PSTN for test cases off-net via PRI T1 trunk.

Figure 1: Test Configuration Diagram
4. **Equipment and Software Validated**

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

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avaya IP Office Server Edition in Virtual Environment</td>
<td>9.1.4 Build 137</td>
</tr>
<tr>
<td>Avaya IP Office 500V2 Expansion</td>
<td>9.1.4 Build 137</td>
</tr>
<tr>
<td>Avaya H.323 9641G IP Deskphone</td>
<td>6.6029</td>
</tr>
<tr>
<td>Avaya H.323 1608 IP Deskphone</td>
<td>1.380B</td>
</tr>
<tr>
<td>Avaya 1140E SIP Phone</td>
<td>4.4.23</td>
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<tr>
<td>Avaya 9508 Digital Phone</td>
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<tr>
<td>Avaya Analog Phone</td>
<td>-</td>
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<tr>
<td>Algo 8128 SIP LED Strobe</td>
<td>2.3</td>
</tr>
<tr>
<td>Firmware</td>
<td>r5</td>
</tr>
<tr>
<td>Kernel Version</td>
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</tr>
<tr>
<td>LED Controller Version</td>
<td></td>
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</tbody>
</table>
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.
- Administer Internal Twinning.

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 license displayed in the right panel. Verify that the 3rd Party IP Endpoints status is “Valid”.

![Configuration Screen](image)
5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select System to display the IPOSE VM1 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 8128. Note that IP Office can support SIP extensions on the LAN1 and/or LAN2 interfaces, and the compliance testing used the LAN1 interface.
5.3. Administer SIP Registrar

Continuing from Section 5.2, select the VoIP sub-tab. Make certain that SIP Registrar Enable is checked, as shown below. Enter a valid Domain Name for SIP endpoints to use for registration with IP Office. In the compliance testing, the Domain Name was left blank, so the SIP endpoints used the LAN IP address for registration.
5.4. Administer SIP Extensions

From the configuration tree in the left pane, right-click on Extension, and select New → SIP Extension (not shown) from the pop-up list to add a new SIP extension. For Base Extension, enter the SIP strobe light extension “4315”. Retain the default values in the remaining fields.

Select the VoIP tab, select Disable in the Media Security dropdown menu and retain the default values in all fields. Note that Media Security for all Algo SIP extensions needs to be set as “Disabled” to avoid the audio issue.
5.5. Administer SIP User

From the configuration tree in the left pane; right-click on User tab and select New (not shown) from the pop-up list. Enter desired values for Name. For Extension, enter the Algo extension from Section 5.4. Remember these values as they will be needed to register Algo to IP Office.

Enter desired values for Password, this password is used when user want to login IP Office Softphone.

Select the Telephony tab, followed by the Supervisor Settings sub-tab, and enter a desired Login Code. This Login Code is needed to register Algo 8128 to IP Office.
5.6. Administer Internal Twinning

From the configuration tree in the left pane, select the desk phone user that will be associated with the SIP strobe user. In this case, desk phone user “Extn4300”.

![Configuration Tree]

Select the Mobility tab, and check Internal Twinning. In the Twinned Handset field, select the Algo 8128 LED user from Section 5.5. Retain the default values in the remaining fields.

Note that with the Internal Twinning configuration, the Algo extension 4310 will be acting like secondary extension of the extension 4300 which is configured as primary and direct call to the secondary will always get busy. This is design intend of Internal Twining feature in IPO. In order to place direct call to Algo loud extension, do not configure it twinned with a deskphone.

![Configuration Tab]
6. Configure Algo 8128 SIP Strobe Light

This section provides the procedures for configuring Algo 8128 SIP Strobe Light. The procedures include the following areas:

- Launch web interface
- Administer configuration

6.1. Launch Web Interface

Access the 8128 SIP Strobe Light web-based interface by using the URL “http://ip-address” in an Internet browser window, where “ip-address” is the IP address of the Algo 8128 SIP Strobe Light. This IP address can obtain from the Algo locator tool. The Welcome to the Algo 8128 SIP LED Strobe Control Panel screen is displayed, as shown below. Log in using the appropriate credentials.
6.2. Administer Algo 8128

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):** The LAN IP address from **Section 5.2.**
- **Extension:** The SIP base extension from **Section 5.4.**
- **Authentication ID:** The SIP user name from **Section 5.5.**
- **Authentication password:** The SIP user login code from **Section 5.5.**
- **Monitor Mode:** There are three options for this field and during the certificate test the **Monitor** and **Use “Subscribe/Notify”** modes were verified.
  - Select **Monitor “Ring” event of the SIP registered extension** option. When this mode is used the 8128 will flash when called directly, or if the 8128 is twinned with another extension, it will also flash when the twinned extension is called.
Select **Use “Subscribe/Notify” dialog event** option this will extend two sub fields below. This mode on the 8128 was used to monitor an extension on IPO.

- **Monitor Extension**: Enter an extension on IPO that the 8128 will monitor.
- **Monitor Call Events**: Select an event that triggers the monitor from the 8128.
7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and Algo 8128 SIP Strobe Light.

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.

The SIPPhoneStatus screen is displayed. Verify that there is an entry for each SIP extension from Section 5.4, that the User Agent is “Algo-8128/2.3”, and that the Status is “SIP: Registered”, as shown below.
7.2. Verify Algo 8128 SIP LED Strobe

From the Algo 8128 SIP Strobe Light web-based interface, select **Status** from the top menu. Verify that **SIP Registration** displays “Successful” in the **SIP Registration** as shown below.

![8128 SIP LED Strobe Control Panel](image-url)
The following tests were conducted to verify the solution between the Algo 8128 and Avaya IPO.

- Verify that the 8128 flashes when placing a call to the 8128 Strobe and it stops flashing when the caller hangs up the call.
- Verify that the 8128 flashes in the event of Ring or In-Use of monitored extension on IPO and it stop flashing when the event ends.

8. Conclusion

These Application Notes describe the configuration steps required to integrate the Algo 8128 SIP LED Strobe with Avaya IP Office Server Edition Solution. 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 IP Office may be found at:
https://support.avaya.com/css/Products/

Avaya IP Office Documents:

Product documentation for the Algo 8128 SIP Strobe Light products may be found at:
http://www.algosolutions.com/8128