



Avaya Solution & Interoperability Test Lab

Application Notes for Algo 8036 SIP Multimedia Intercom with Avaya IP Office - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Algo 8036 SIP Multimedia Intercom to interoperate with Avaya IP Office. Algo 8036 SIP Multimedia Intercom is a SIP-based device that can register with Avaya IP Office as SIP endpoints and enables video conversations and remote entry using door release features

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 8036 SIP Multimedia Intercom to interoperate with Avaya IP Office. Algo 8036 SIP Multimedia Intercom is a SIP-based device that can register with Avaya IP Office as SIP endpoints.

The 8036 is designed for indoor or outdoor public access locations to provide enhanced communication and support for guests and visitors. The graphic capacitive touch display can be configured for keypad or icon input and provides content to the visitor. This can be as simple as a corporate logo or multiple pages of content navigated by the visitor.

Applications include unattended lobbies, security monitoring, employee access, visitor greeting, one or two way video calling, enhanced courtesy phone, multi-tenant gate or entrance, guest service, and visitor assistance kiosk. Graphic icons with multilingual menus and SIP based speech, text, or video communication make the 8036 ideal for serving international, multilingual, or hearing impaired clients.

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 the 8036 can register as a SIP endpoint on IPO and able to make a video call to and from a telephone on IP Office and able to open the door when the key is pressed on the phone.

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 Algo 8036 was able to interoperate with the telephones residing on IP Office system. The following interoperability areas were covered:

- Algo 8036 can register to IP Office as a SIP endpoint.
- Algo 8036 can make a call to a telephone on IP Office and establish a clear speech and video path.
- A telephone on IP Office can call the extension assigned to Algo 8036 and establish speech/video path between the telephone and Algo 8036 SIP Multimedia Intercom.
- Telephones on IP Office can send required DTMF tones and therefore ensure the remote door release features work successfully.

The serviceability testing focused on verifying the ability of Algo 8036 SIP Multimedia 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, the following observations were made during the compliance testing:

- Call between Algo 8036 and Avaya phones (H.323, SIP, and digital) cannot be transferred in attended mode by Avaya phone to any SIP phone. This feature is currently not supported on Algo 8036.
- In order for Algo 8036 to send and receive a video call to a telephone on IPO, a SIP user of Algo 8036 on IP Office needs to have “**Allow Direct Media**” option unchecked.

2.3. Support

Technical support on Algo 8036 SIP Multimedia Intercom can be obtained through the following:

- Phone: +1 604 454 3792
- Web: <http://www.algosolutions.com/support/support.html>
- 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 8036 SIP Multimedia Intercom. The 8036 SIP Multimedia Intercom communicated with IP Office through Avaya switch with Power over Ethernet (PoE) and registered with Avaya IP Office as SIP endpoint. The PRI T1 trunk was also configured to connect from IP Office to PSTN for test cases off-net via PRI T1 trunk.

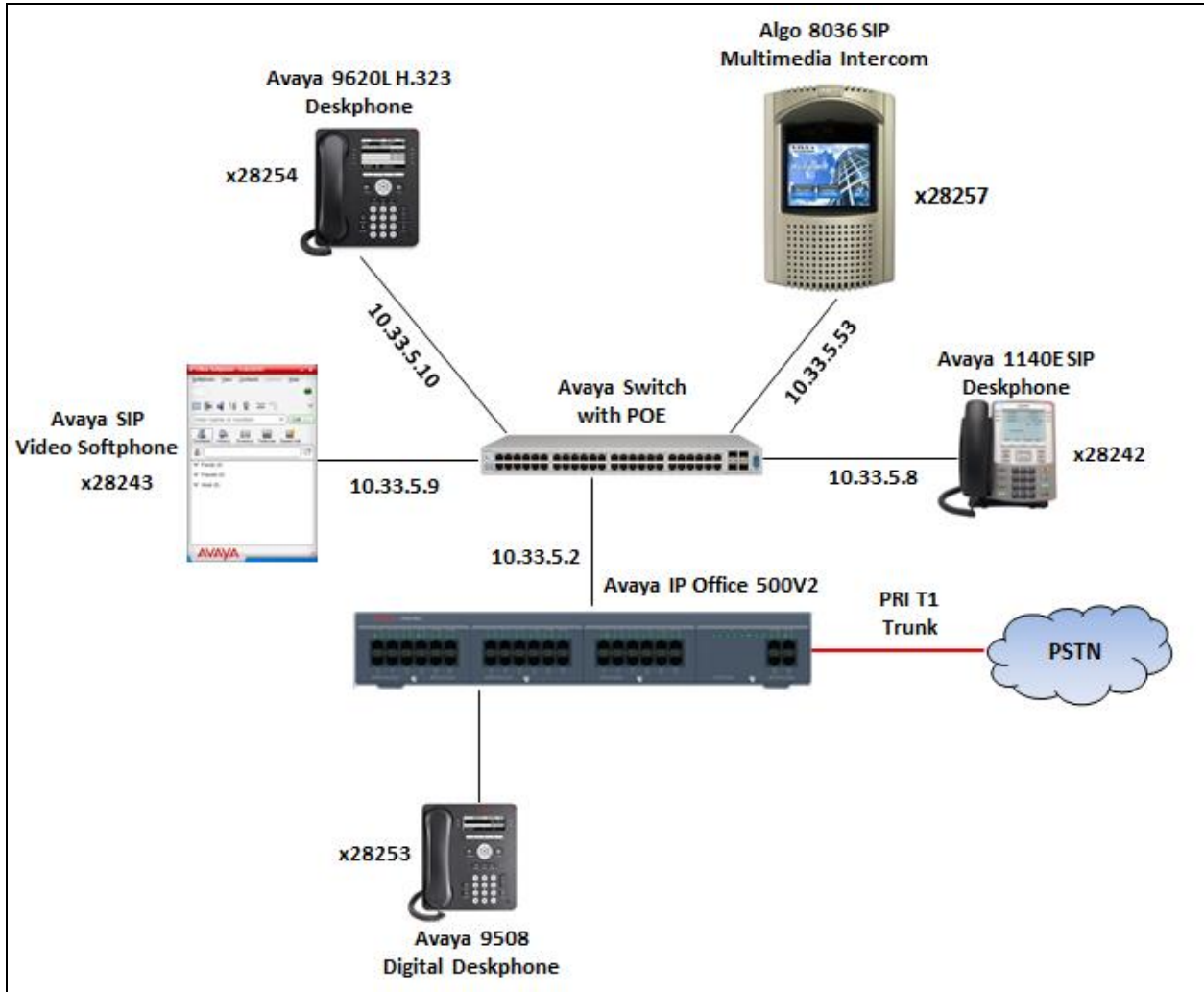


Figure 1: Test Configuration Diagram

4. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office 500V2	9.0.3.941
Avaya H.323 9620L IP Deskphone	3.220A
Avaya H.323 9650C IP Deskphone	3.220A
Avaya 1140E SIP Phone	4.3
Avaya 9508 Digital Phone	0.55
Avaya IP Softphone	3.2.3.48
Algo 8036 SIP Multimedia Intercom	1.3.4

5. Configure Avaya IP Office

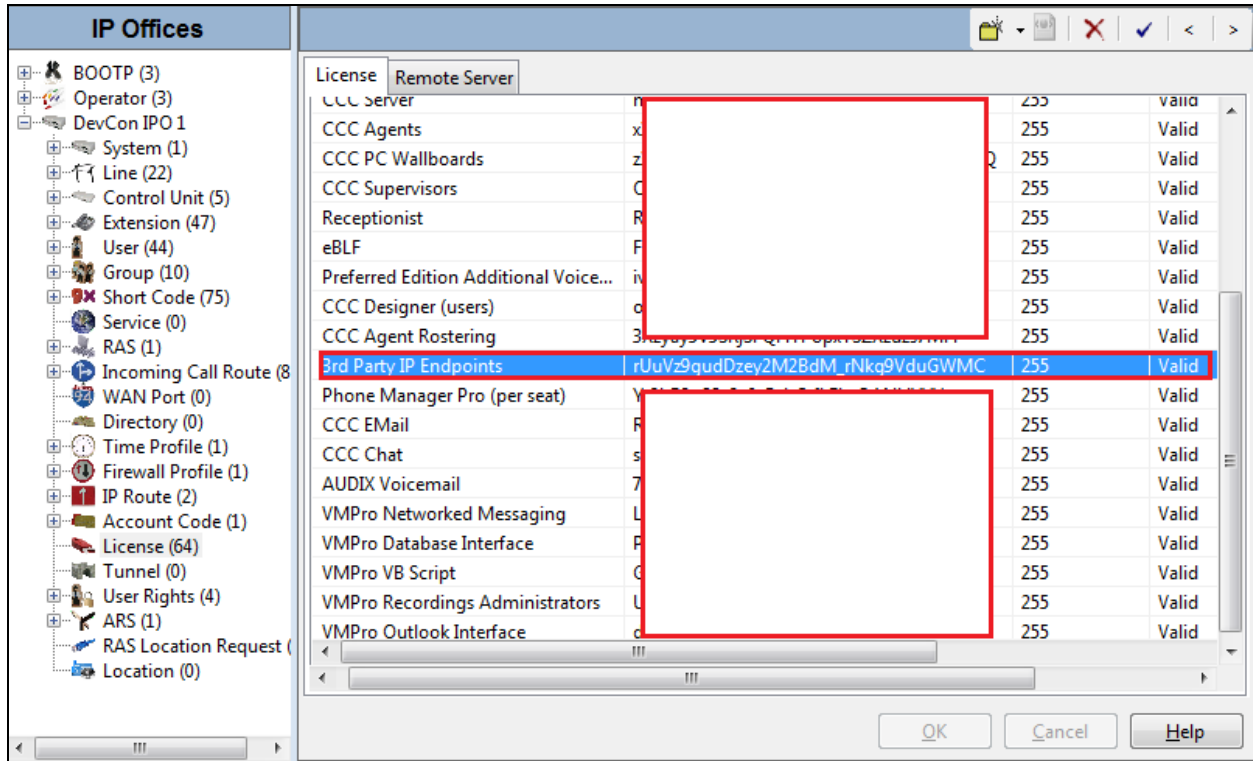
This section provides the procedures for configuring Avaya IP Office. The procedures include the following areas:

- 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.

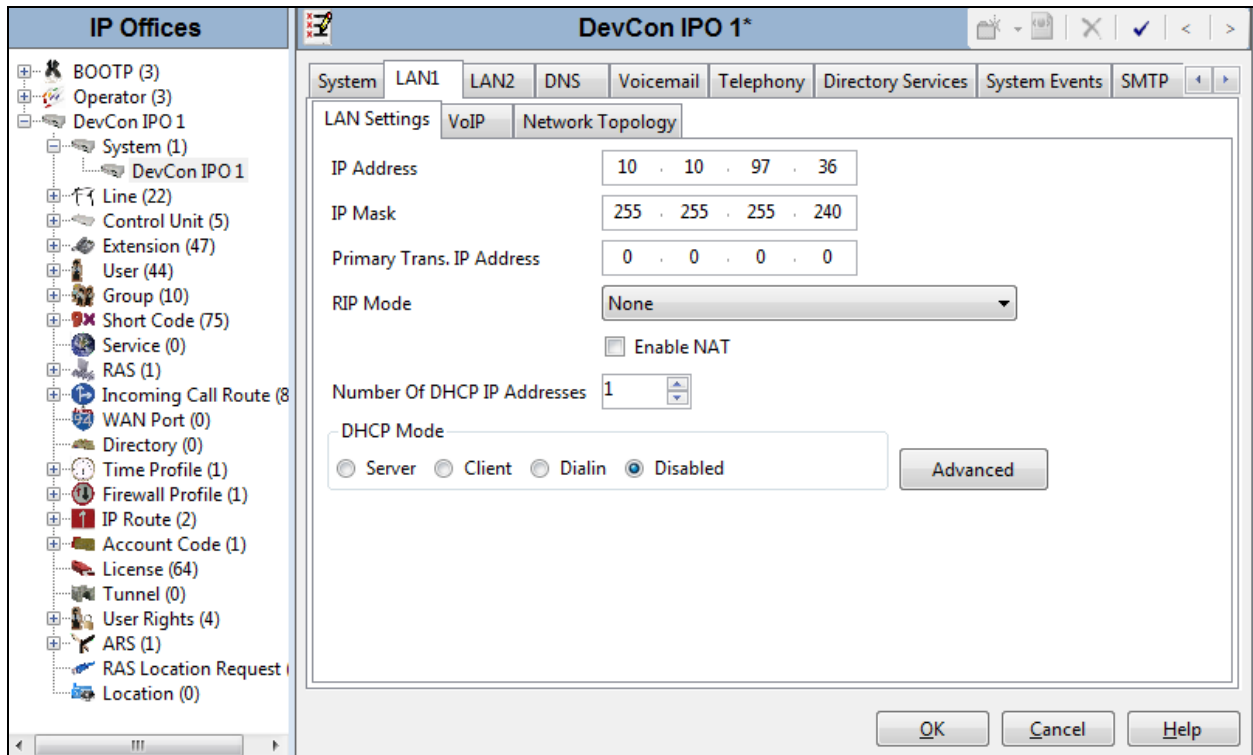
The **Avaya IP Office Manager** screen is displayed. From the configuration tree in the left pane, select **License**, the list of license displayed in the right panel. Verify that the **3rd Party IP Endpoints** status is “**Valid**”.



License	Remote Server	255	Valid
CCC Server		255	Valid
CCC Agents		255	Valid
CCC PC Wallboards		255	Valid
CCC Supervisors		255	Valid
Receptionist		255	Valid
eBLF		255	Valid
Preferred Edition Additional Voice...		255	Valid
CCC Designer (users)		255	Valid
CCC Agent Rostering		255	Valid
3rd Party IP Endpoints	rUuVz9qudDzey2M2BdM_rNkg9VduGWMC	255	Valid
Phone Manager Pro (per seat)		255	Valid
CCC EMail		255	Valid
CCC Chat		255	Valid
AUDIX Voicemail		255	Valid
VMPPro Networked Messaging		255	Valid
VMPPro Database Interface		255	Valid
VMPPro VB Script		255	Valid
VMPPro Recordings Administrators		255	Valid
VMPPro Outlook Interface		255	Valid

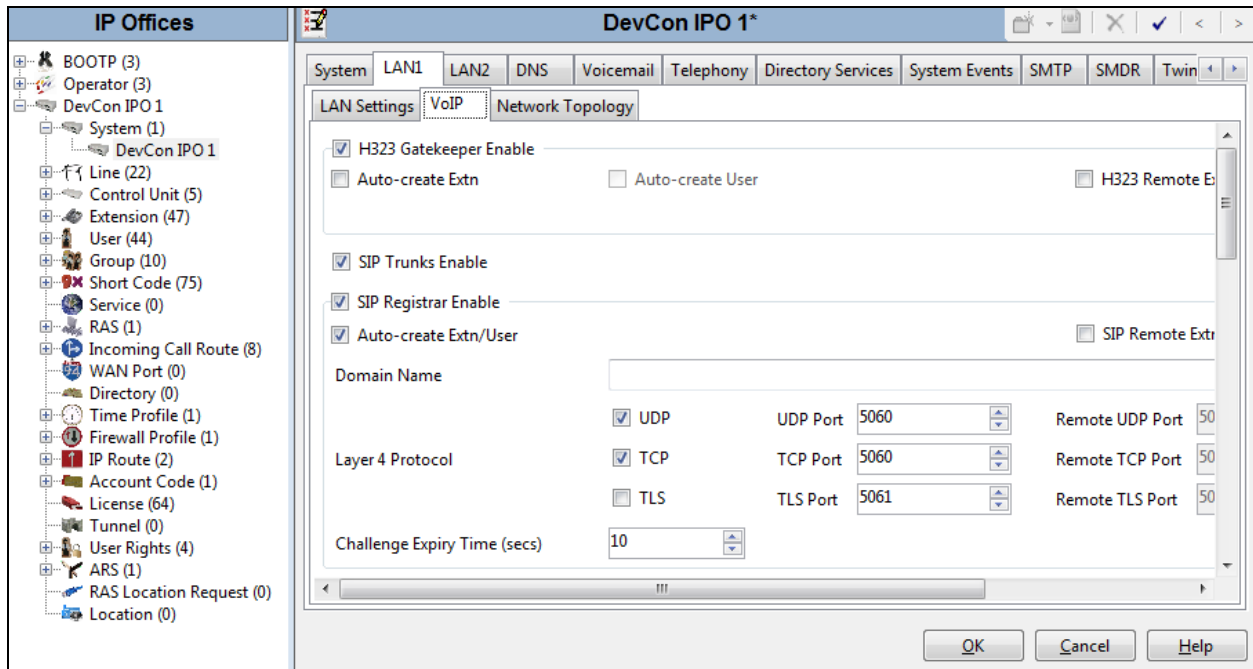
5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select System to display the DevCon IPO 1 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.



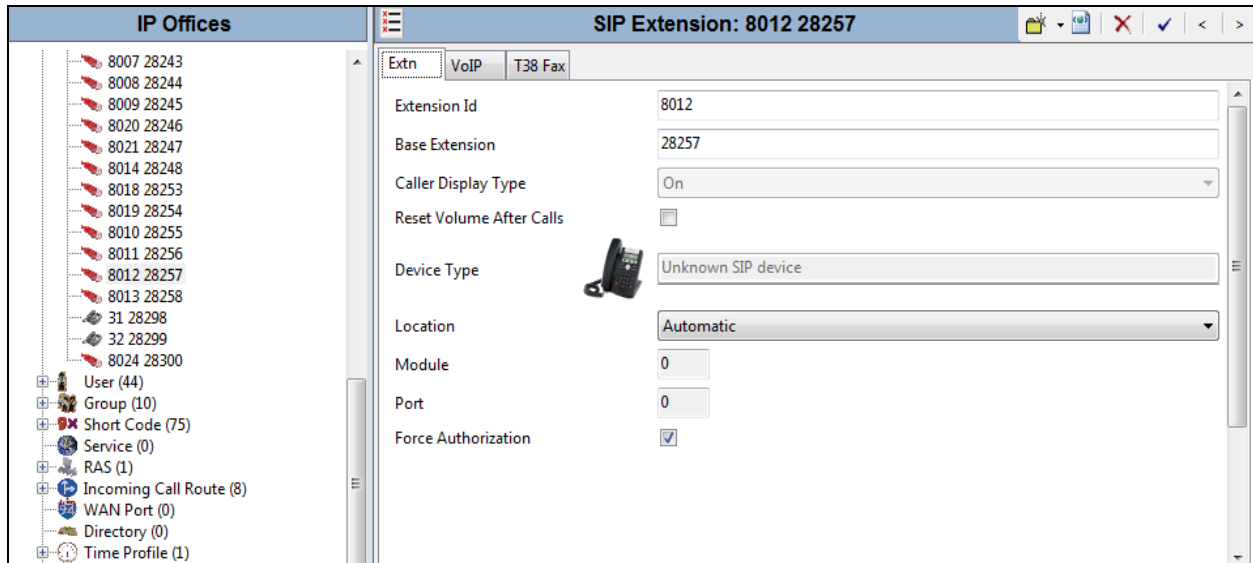
5.3. Administer SIP Registrar

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.



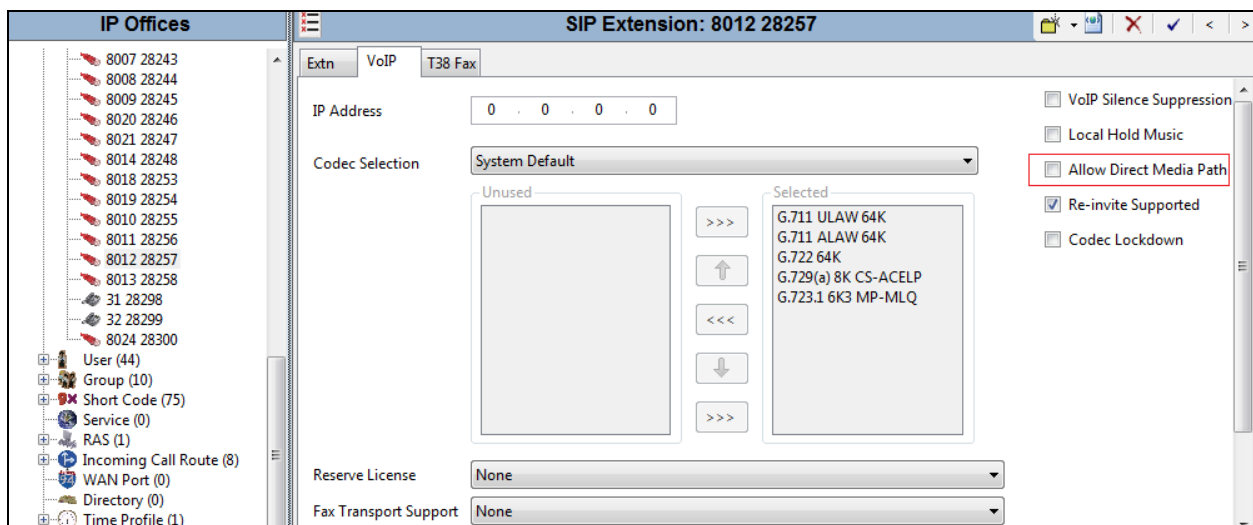
5.4. Administer SIP Extensions

From the configuration tree in the left pane, right-click on **Extension**, and select **New** → **SIP Extension** from the pop-up list to add a new SIP extension. For **Base Extension**, enter Algo 8036 SIP extension “**28257**”. Retain the default values in the remaining fields.



Select the **VoIP** tab, make sure to uncheck **Allow Direct Media Path** option this step to make sure that video is send during video call. And retain the default values in all fields.

Repeat this section to add additional SIP extensions as desired. In the compliance testing, one SIP extension “**28243**” was created for IP Office Softphone user.



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 Algo extension from **Section 5.4**. Remember these values as they will be needed to register Algo to IPO.

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

The screenshot shows the CUCM user configuration interface. The left pane displays a tree view of 'IP Offices' with 'User (44)' selected. The main pane is titled 'Algo 8128 Multi: 28257' and contains the following fields:

- Name: 28257
- Password: [masked]
- Confirm Password: [masked]
- Account Status: Enabled
- Full Name: Algo 8128 Multi
- Extension: 28257
- Email Address: [empty]
- Locale: [dropdown]
- Priority: 5
- System Phone Rights: None
- ACCS Agent Type: None
- Profile: Basic User
- Receptionist

Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab, and enters a desired **Login Code**, this **Login Code** is needed to register Algo 8036 to IPO.

The screenshot shows the CUCM user configuration interface with the 'Supervisor Settings' sub-tab selected. The 'Login Code' field is set to [masked]. Other settings include:

- Login Idle Period (secs): [empty]
- Monitor Group: <None>
- Coverage Group: <None>
- Status on No-Answer: Logged On (No change)
- Reset Longest Idle Time: All Calls, External Incoming
- After Call Work Time (secs): System Default (10)
- Force Login
- Force Account Code
- Incoming Call Bar
- Outgoing Call Bar
- Inhibit Off-Switch Forward/Transfer
- Can Intrude
- Cannot be Intruded
- Can Trace Calls
- CCR Agent
- Automatic After Call Work
- Deny Auto Intercom Calls

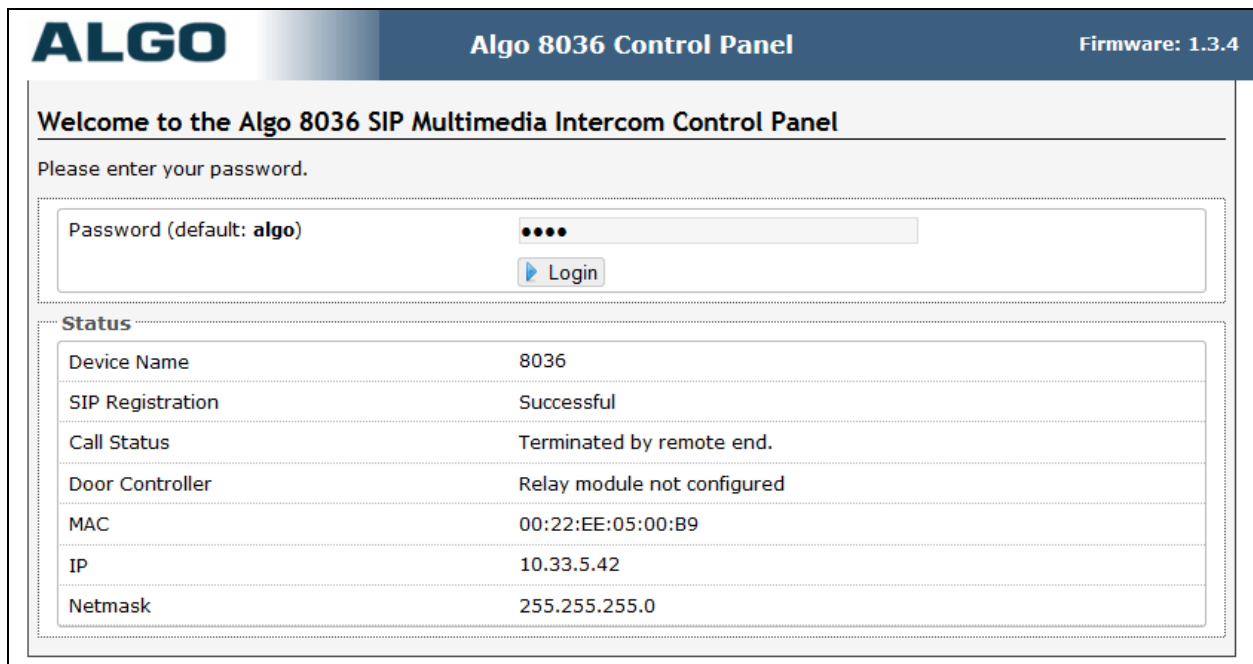
6. Configure Algo 8036 SIP Multimedia Intercom

This section provides the procedures for configuring Algo 8036 SIP Multimedia Intercom. The procedures include the following areas:

- Launch web interface
- Administer configuration

6.1. Launch Web Interface

Access the SIP Multimedia 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 SIP Multimedia Intercom. This IP address can obtain from the touch screen during reboot process. The **Welcome to the Algo 8036 SIP Multimedia Intercom Control Panel** screen is displayed, as shown below. Log in using the appropriate credentials.



Status	
Device Name	8036
SIP Registration	Successful
Call Status	Terminated by remote end.
Door Controller	Relay module not configured
MAC	00:22:EE:05:00:B9
IP	10.33.5.42
Netmask	255.255.255.0

6.2. Administer Algo 8036

Select **Basic Settings** → **SIP** from the top menu, to display the screen below. Configure the **SIP Accounts** 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**.
- **User (Extension):** The SIP base extension from **Section 5.4**.
- **Authentication ID (Digest Username):** The SIP user name from **Section 5.5**.
- **Authentication password (Digest Password):** The SIP user login code from **Section 5.5**.
- **Enable Inbound Call:** Check the check box to enable inbound call on the 8036.

The screenshot displays the 'SIP Account' configuration page in the Algo 8036 Control Panel. The page is titled 'SIP Account' and includes a sub-header 'Here you can configure the SIP settings.' The configuration is divided into two sections: 'Basic Settings' and 'Advanced Settings'.

Basic Settings:

SIP Domain (Proxy Server)	10.10.97.36
User (Extension)	28257
Authentication ID (Digest Username)	28257
Authentication Password (Digest Password)	••••
Enable Inbound Call	<input checked="" type="checkbox"/>

Advanced Settings:

Outbound Proxy	
STUN Server	
Register Period	3600
Keep-alive Method	None

6.3. Administer Dialing Extension

Select **User Interface** from the top menu, to display the screen below. Configure the **Dialing Extension** by creating a page, enter number pages e.g. 1 in the **Number of pages to Create** box and click **Add Page(S)** button.

ALGO Algo 8036 Control Panel Firmware: 1.3.4

Status Settings **User Interface** System Logout

Create Pages

Number of Pages to Create: 1
Page limit is 20. Created so far: 1

Page Type: Button Directory

[▶ Add Page\(s\)](#)

Scroll down toward the end, expand the **Page 1** that has been created, enter designated extension that will ring when user touch the screen in the **Dialing Extension** box and select **Call** in the **Action Type** dropdown menu.

Click on **Save This Page** button to save configurations on this page.

List of Pages

Page 1

Page Description: []
Background Image: default1-sky-clouds
Button Configuration: Single Button
Back Button: Enable Disable
Home Button: Enable Disable
When touched outside button(s): Do Nothing

Button 1

Enable Disable
Button Text: Call
Action Type: Call
Dialing Extension: 230

[▶ Save This Page](#)
[▶ Delete This Page](#)
[▶ Save All Pages](#)

[▶ Save All Pages](#)

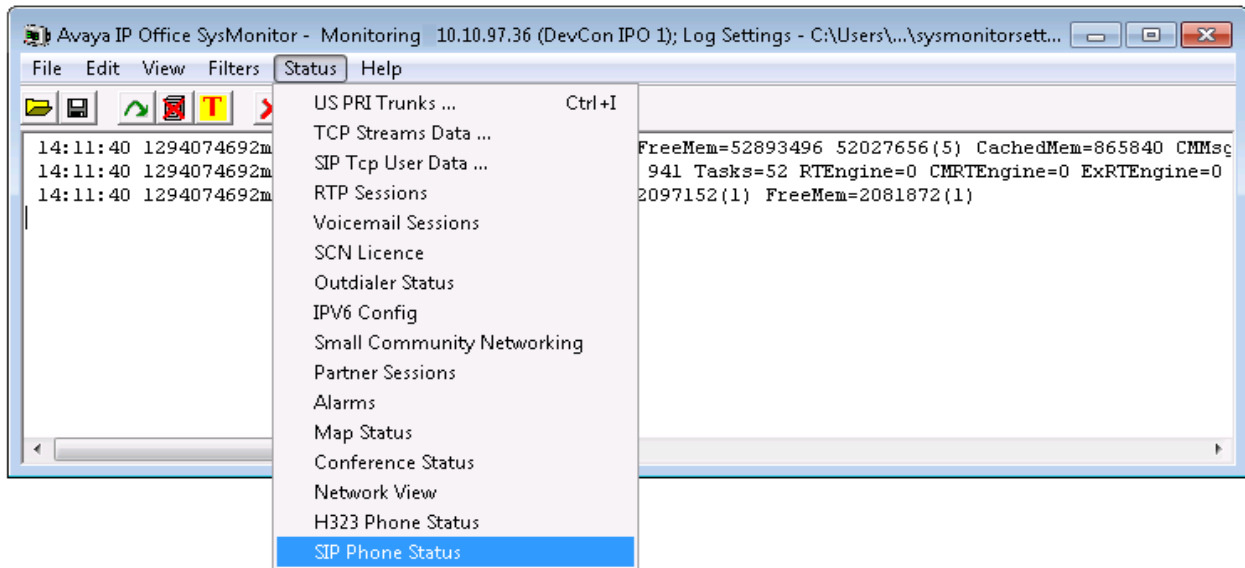
© Copyright 2013 Algo Communication Products Ltd.

7. Verification Steps

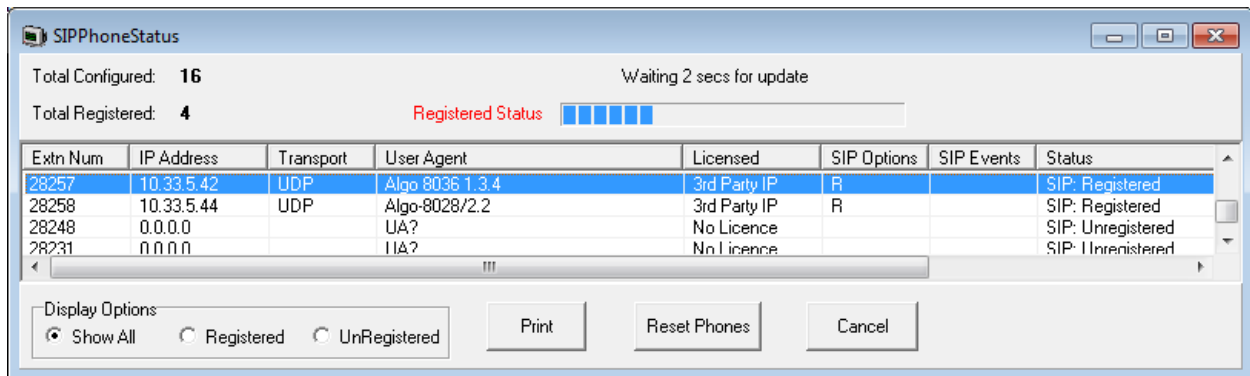
This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and Algo 8036 SIP Multimedia Intercom.

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.

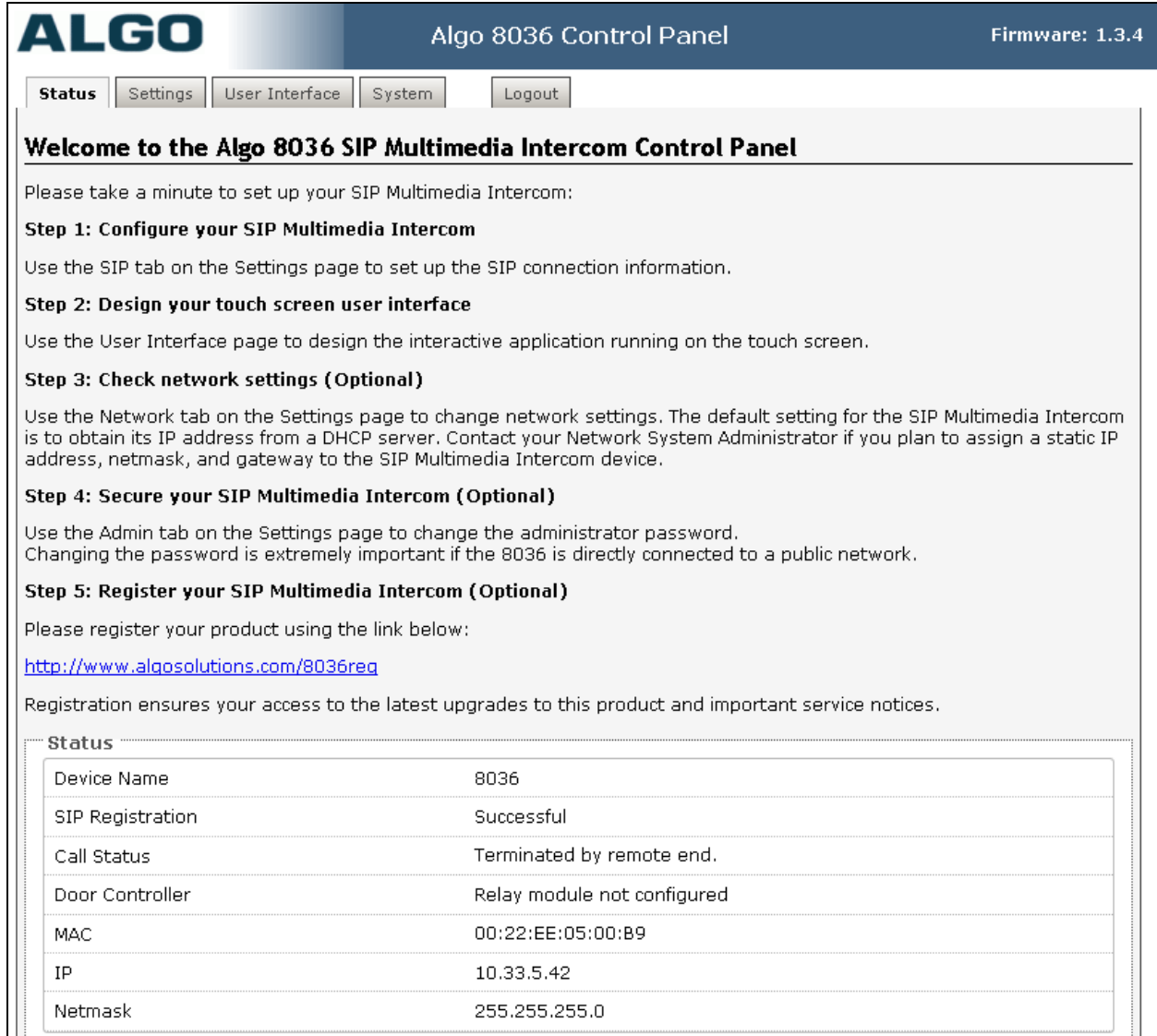


The **SIPPhoneStatus** screen is displayed. Verify that there is an entry for each SIP extension from **Section 5.4**, that the **User Agent** is “**Algo-8036 1.3.4**”, and that the **Status** is “**SIP: Registered**”, as shown below.



7.2. Verify Algo 8036 SIP Multimedia Intercom

From the Algo 8036 SIP Multimedia Intercom web-based interface, select **Status** from the top menu. Verify that **SIP Registration** displays “Successful” in the **SIP Registration** as shown below.



ALGO Algo 8036 Control Panel Firmware: 1.3.4

Status Settings User Interface System Logout

Welcome to the Algo 8036 SIP Multimedia Intercom Control Panel

Please take a minute to set up your SIP Multimedia Intercom:

Step 1: Configure your SIP Multimedia Intercom
Use the SIP tab on the Settings page to set up the SIP connection information.

Step 2: Design your touch screen user interface
Use the User Interface page to design the interactive application running on the touch screen.

Step 3: Check network settings (Optional)
Use the Network tab on the Settings page to change network settings. The default setting for the SIP Multimedia Intercom is to obtain its IP address from a DHCP server. Contact your Network System Administrator if you plan to assign a static IP address, netmask, and gateway to the SIP Multimedia Intercom device.

Step 4: Secure your SIP Multimedia Intercom (Optional)
Use the Admin tab on the Settings page to change the administrator password. Changing the password is extremely important if the 8036 is directly connected to a public network.

Step 5: Register your SIP Multimedia Intercom (Optional)
Please register your product using the link below:
<http://www.algosolutions.com/8036reg>

Registration ensures your access to the latest upgrades to this product and important service notices.

Status

Device Name	8036
SIP Registration	Successful
Call Status	Terminated by remote end.
Door Controller	Relay module not configured
MAC	00:22:EE:05:00:B9
IP	10.33.5.42
Netmask	255.255.255.0

The following tests were conducted to verify the solution between the Algo 8036 and Avaya IPO.

- Verify that when the touch button on the 8036 phone is touched the telephone on IPO rings and a clear video and speech path is established
- Verify that the telephone that receives the incoming call from the 8036 can do conference, transfer, mute, un-mute and provide busy tone if it is on another call

- Verify that the solution works with different Avaya clients (e.g. digital, analog, IP Softphone, IP etc.) and that DTMF tones generated from these different clients are able to unlock the door release
- Verify that 8036 goes into an idle state when the call is completed
- Verify that the 8036 re-registers without issues if the Ethernet cable is unplugged and plugged back in

8. Conclusion

All of the executed test cases have passed and met the objectives outlined in **Section 2.1**, with some exceptions outlined in **Section 2.2**. Algo 8036 SIP Multimedia Intercom version 1.3.4 is considered to be in compliance with Avaya IP Office System Release 9.0.

9. Additional References

Product documentation for the Avaya IP Office products may be found at:

<https://support.avaya.com/css/Products/>

Product documentation for the Algo 8036 SIP Multimedia Intercom products may be found at:

<http://www.algosolutions.com/products/doorphones-security/8036-ip-sip-multimedia/docs.html>

Avaya IP Office Documents:

[1] IP Office 9.0 Installation, Document number 15-601042 Issue 28, 11 October 2013

[2] IP Office 9.0 Manager 9.0, Document number 15-601011 Issue 9.01, 09 September 2013

[3] IP Office 9.0 Administering Voicemail Pro, Document number 15-601063 Issue 9.0 Release 1.0, September 2013

©2014 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.