AVAYA

Avaya Solution & Interoperability Test Lab

Application notes for Algo 8028 SIP Doorphone with Avaya IP Office Release 7.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Algo 8028 SIP Doorphone to interoperate with Avaya IP Office Release 7.0. The Algo 8028 SIP Doorphone is a device that integrates into the Avaya IP Office and enables conversations and remote entry using door release features.

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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Solution & Interoperability Test Lab Application Notes
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IPO_Algo_8028

1. Introduction

The purpose of this document is to explain the configuration required on the Algo 8028 SIP Doorphone (hereafter referred to as 8028) and Avaya IP Office (hereafter referred to as IPO) to interoperate successfully. The 8028 is a SIP based security intercom solution for business and residential operations. Visitors cause a telephone on the IPO to ring which enables conversations when answered and the capability to allow remote entry using door release features.

2. General Test Approach and Test Results

The focus of this interoperability compliance testing was to verify if the 8028 SIP controller can register as a SIP endpoint on IPO and enable a telephone on the IPO to ring when activated from the 8028 Door Station.

2.1. Interoperability Compliance Testing

Compliance testing verified that the 8028 was able to interoperate with the telephones residing on the IPO system. The following interoperability areas were covered:

- 8028 can register to the IPO as a SIP endpoint.
- 8028 Door Station when activated can ring a telephone on the IPO and establish a clear speech path.
- A telephone on the IPO can call the extension assigned to the 8028 controller and establish speech path between the telephone and the 8028 Door Station.
- Telephones on the IPO can send required DTMF tones and therefore ensure the remote door release features work successfully.
- 8028 controller can successfully re-register if the network connection drops and connects back again.

2.2. Test Results

The objectives outlined in **Section 2.1** were verified and met. All tests were executed and passed.

2.3. Support

For technical support on Algo 8028, please contact Algo technical support team:
- **Telephone:** 1-877-884-2546
- **Email:** support@algosolutions.com
- **Web Site:** http://www.algosolutions.com/8028

3. Reference Configuration

Figure 1 illustrates the test configuration used during the compliance testing event between Avaya IPO and Algo 8028.
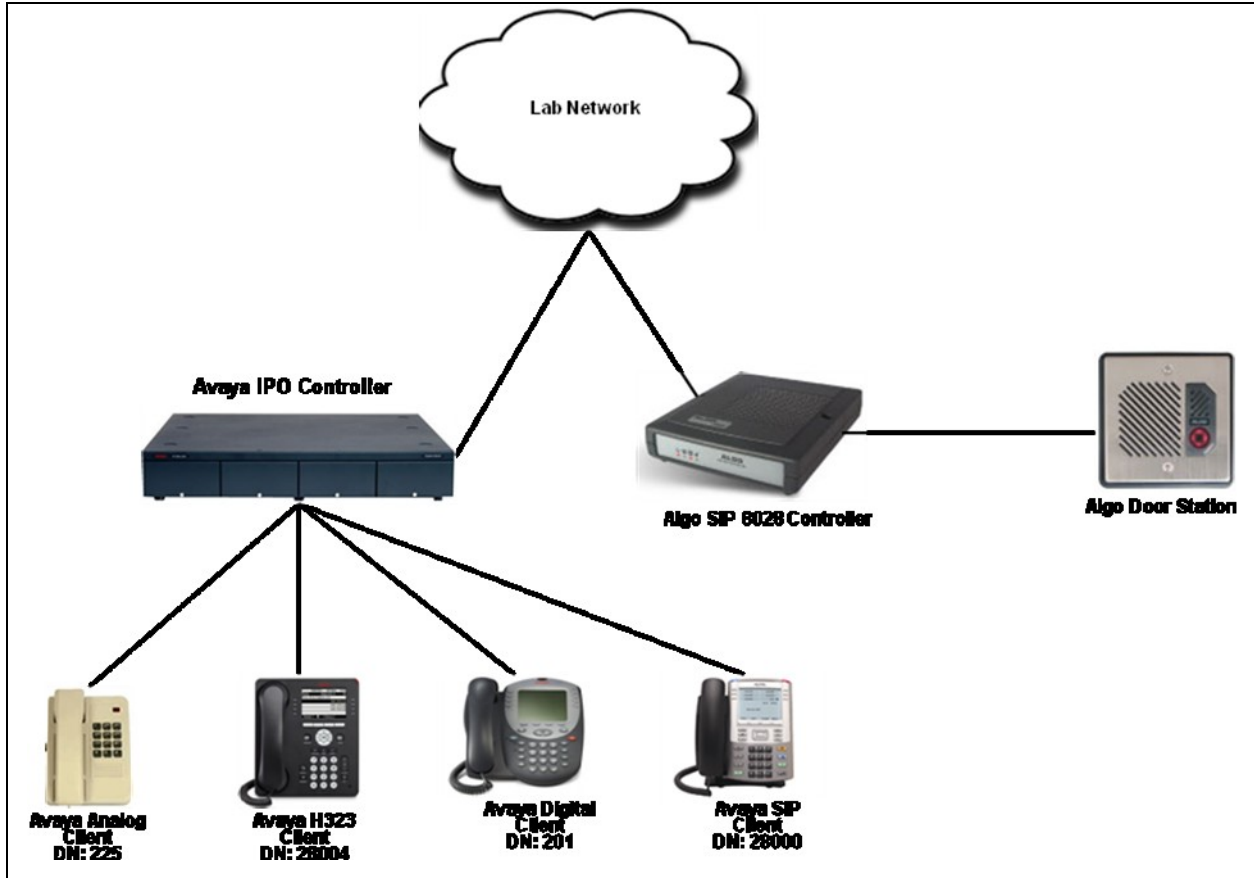

Figure 1: Test Solution Configuration.

4. Equipment and Software Validated

Equipment	Software/Firmware
Avaya IPO 500v2	SW Version : 7.0(5)
Avaya Telephones: o Analog o 9608 (H323) o 2408 (Digital) o 1140 (SIP)	o NA o 6.1(S9608_11HALBR6_1r28_V4r52) o NA o 4.01.13.00
Algo 8028 Controller and Door Station	FW Version : 1.1.4

5. Configuring the Avaya IPO

This section describes the steps to configure IPO to interoperate with the 8028. Assumption is made that the IPO Controller is installed successfully. For additional information on IPO installation and configuration refer to **Section 9[1]**.

Here is a summary of IPO Configuration:

- Verify 3rd Party IP Endpoints Licenses.
- Configuring System Values.
- Configuring a SIP Extension and assigning a User to the same.

5.1. Verify 3rd Party IP Endpoints Licences

This section explains the steps to verify if the license status for 3rd party IP endpoints is valid. Open the IPO Manager by navigating to **Start > Programs > IP Office > Manager** on the server the IPO Manager is installed on (not shown).

Figure 2 below shows the IPO Manager **Licence** tree view. Select **3rd party IP Endpoints** seen on the left hand window pane. Under the **Licenses** tab verify that the **Licence Status** is *Valid*.
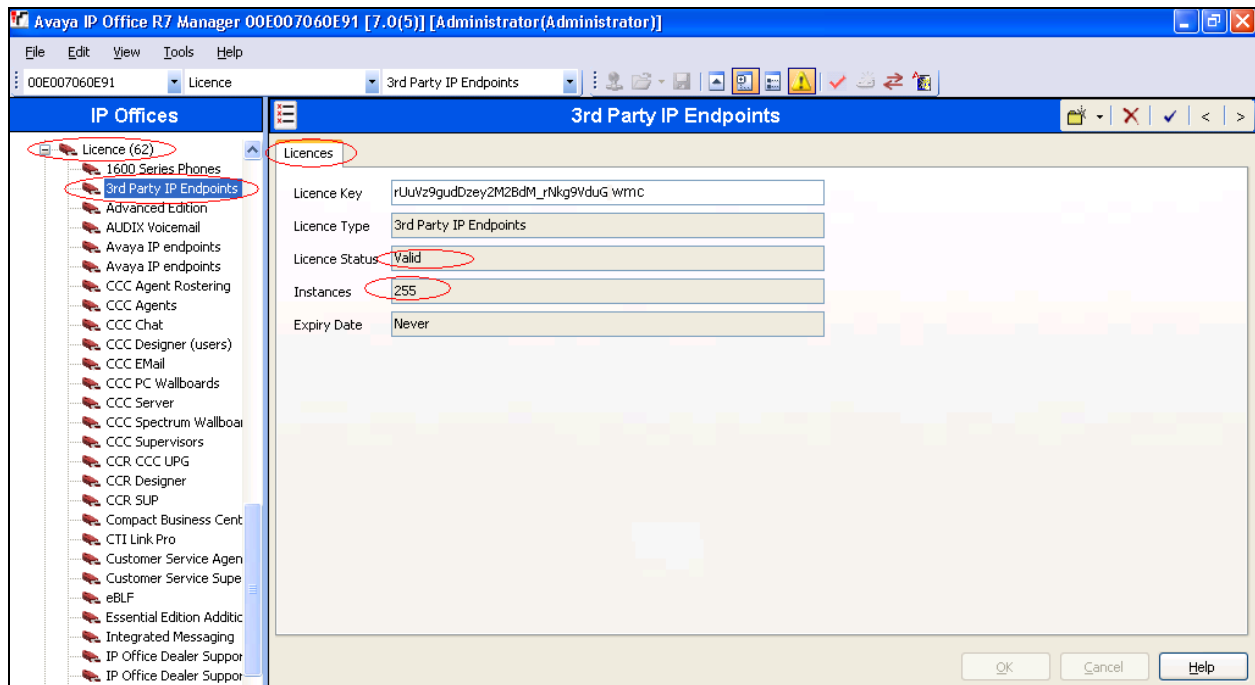

Figure 2: Licence Status for 3rd Party IP Endpoints

5.2. Configuring System Values

This section explains the steps where the system values for **LAN1** are configured. IPO has two LAN interfaces; however during compliance testing only **LAN1** was used.

Open the **System** tree view from the IPO Manager left hand window pane as shown in **Figure 3** below. Click on the **LAN1** tab and then on the **LAN Settings** sub tab. Note down the **IP Address** of the IPO **LAN1** interface. In this example it is *10.10.10.1*. Also configure the **IP Mask** field.
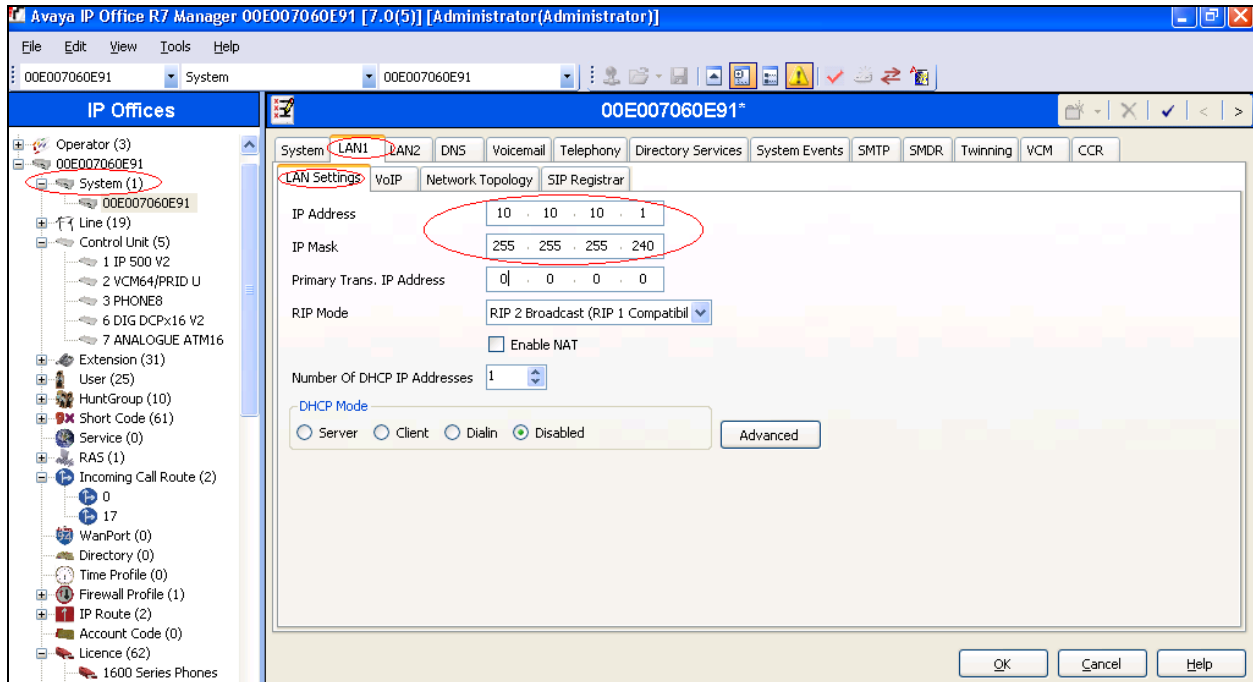

Figure 3: LAN Settings Sub Tab Configuration

Navigate to the **VoIP** sub tab as shown in **Figure 4** below. **SIP Trunks Enable** and **SIP Registrar Enable** boxes need to be checked here. The rest of the values are left at default.
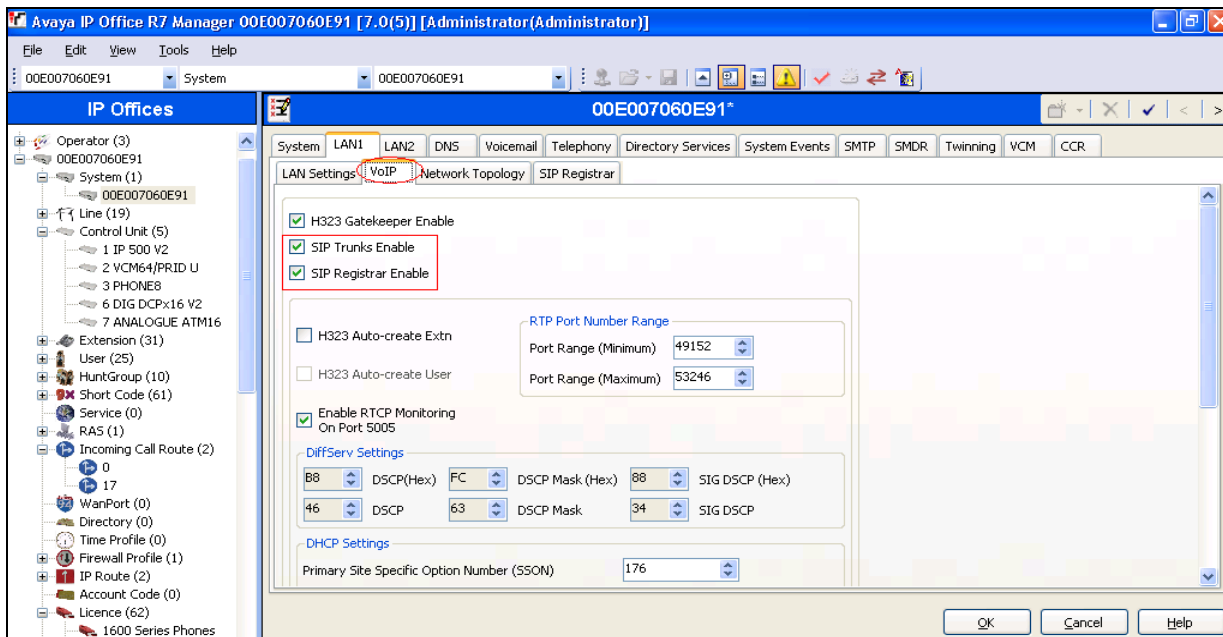

Figure 4: VoIP Sub Tab Configuration

Navigate to the **SIP Registrar** sub tab as shown in **Figure 5** below. Enter a valid **Domain Name** for the SIP endpoints to use for registration with IPO. During compliance testing this field was left blank so that the SIP endpoints used the **LAN Settings** *IP Address* for registration. The rest of the values are left at default. Click on **OK** to complete the configuration.
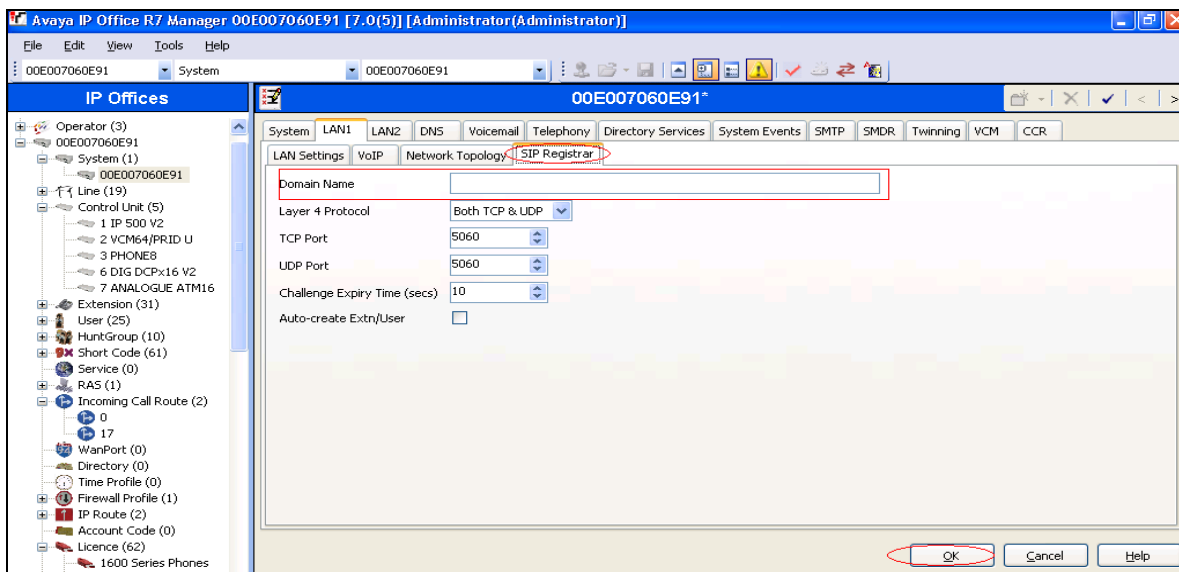

Figure 5: SIP Registrar Sub Tab Configuration

5.3. Configuring a SIP Extension and User

This section explains the steps to add a SIP Extension and assign a user to that extension. During compliance testing, 8028 SIP Endpoint will be registering to this Extension.

Figure 6 below shows expanded tree view of **Extension**. Right click on **Extension** and navigate to **New > SIP Extension**.
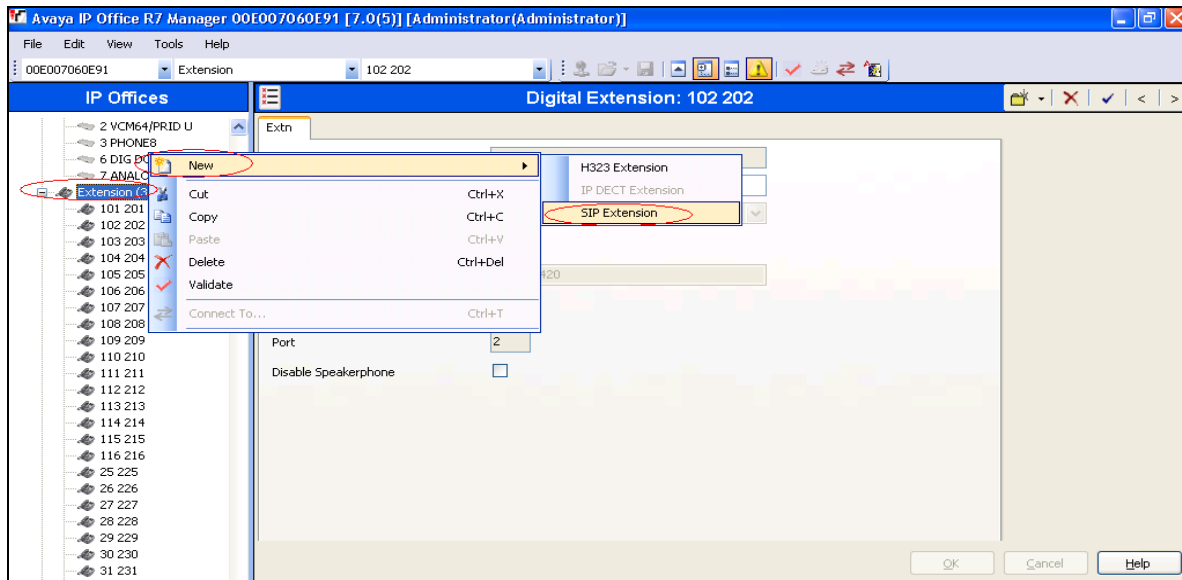

Figure 6: Adding SIP Extension

Figure 7 shows the **Extn** tab. The value seen in **Extension ID** field is automatically provided by IPO. Enter the **Base Extension** value. During compliance testing *28002* was configured as the **Base Extension**.
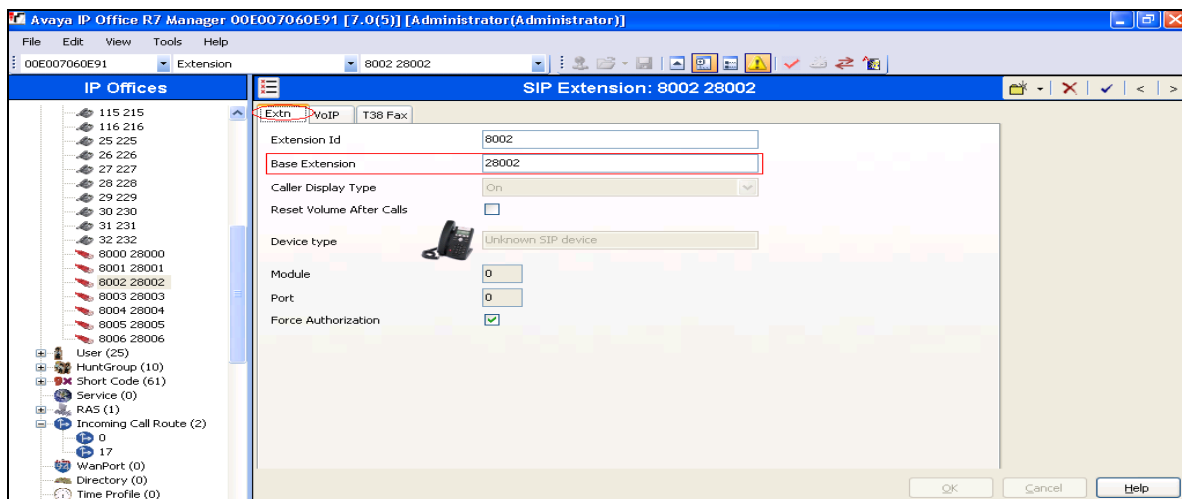

Figure 7: Configuring Base Extension

Values in the **VoIP** tab are left at default as shown in **Figure 8** below. Click on **OK** to complete the SIP Extension configuration.
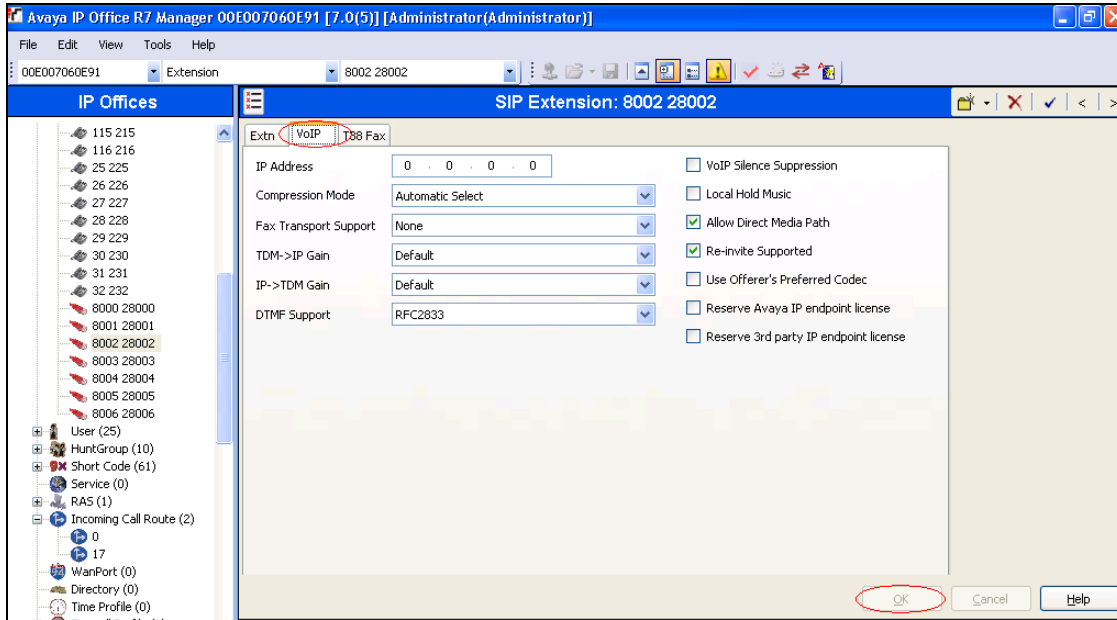

Figure 8: Configuring VoIP

To assign a User to the above created Extension, right click on **User** seen on the left hand window pane of the IPO Manager as shown in **Figure 9** below and select **New**.
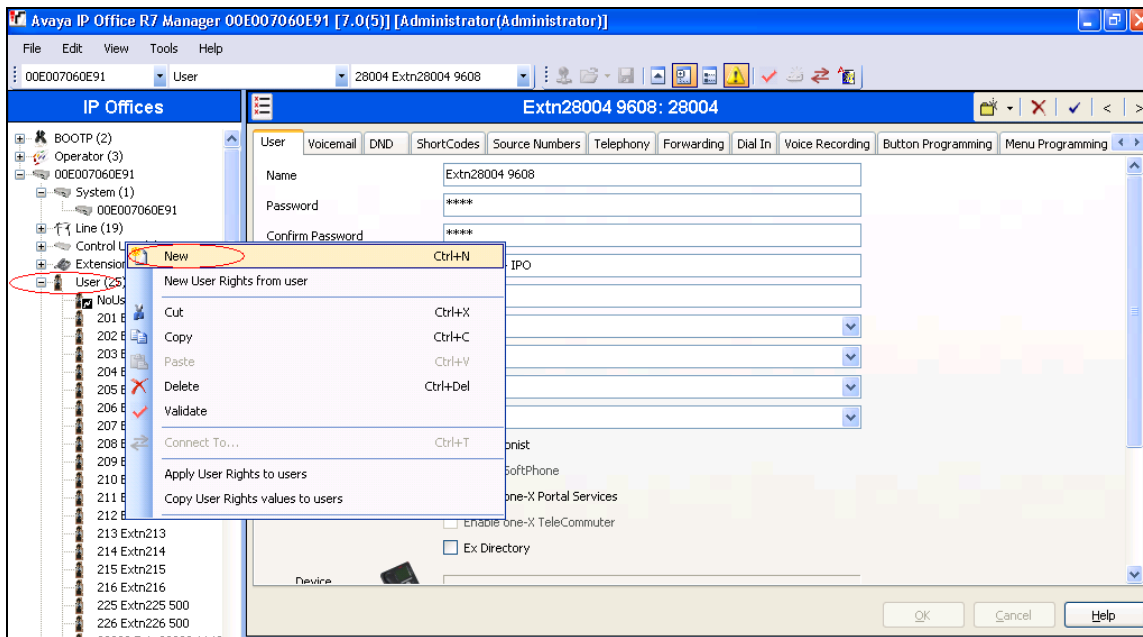

Figure 9: Adding new User

In the **User** tab, populate the *Name*, *Password, Confirm Password, Full Name* and *Extension* fields as shown in **Figure 10** below. The value of *28002* in the *Extension* field is based on the configuration as explained in **Figure 7** above. Click on **OK** to complete the configuration
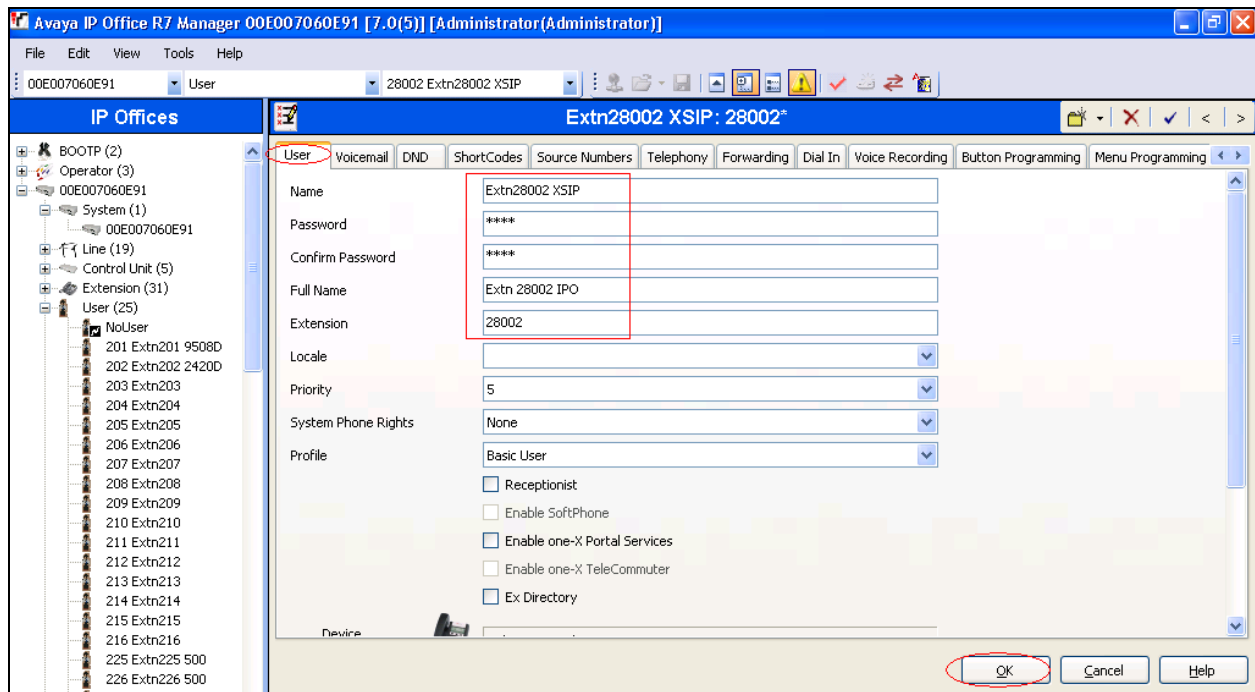

Figure 10: Configuring User values

6. Configuring the Algo 8028

This section explains the steps required to configure the 8028 to interoperate with IPO. Assumption is made that all the required wiring between the 8028 controller and the Doorphone is successfully completed. For complete information on 8028 installation and configuration refer to **Section 9[2]**.

6.1. Obtaining the IP Address of the Doorphone Control Panel

The 8028 controller has two jacks, one for Ethernet and the other for Door Station. During compliance testing the Ethernet jack was connected to a PoE device in the lab providing an IP address through a DHCP server. Connect the Door Station jack to the 8028 Door Station. To obtain the IP Address (DHCP) of the 8028 controller, press the call button on the Door Station. A recorded voice will speak the IP address that was assigned to the 8028 controller. During compliance testing, *10.10.10.2* was the assigned IP address by the DHCP server.

6.2. Configuring the 8028 SIP Doorphone Control Panel

Open a browser and enter the IP address of the 8028 controller in the URL as shown in **Figure 11** below. The IP address was obtained as explained in **Section 6.1**. The Welcome screen of the 8028 SIP Doorphone Control Panel is presented. Enter the **Password** and click on **Login**. The default password is **algo**.
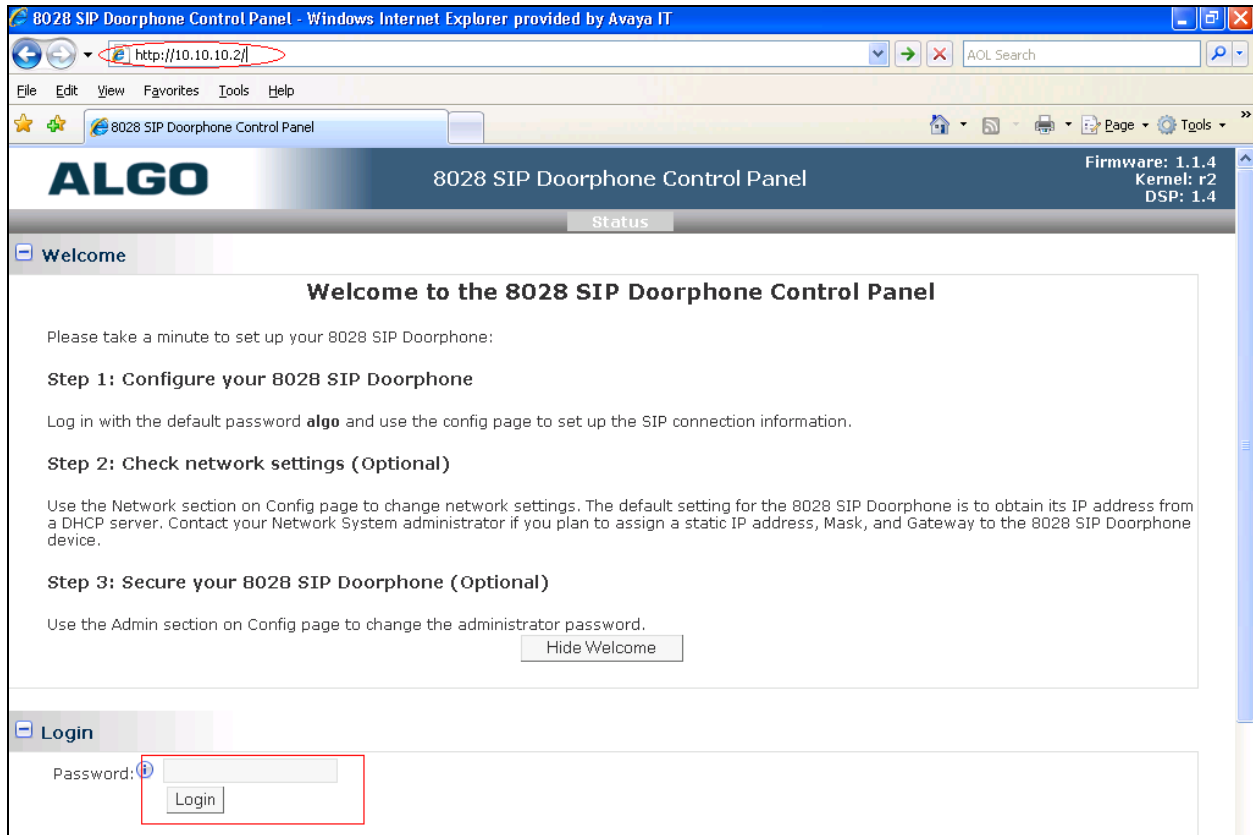

Figure 11: Doorphone Control Panel Login Screen

Navigate to the **Config** tab as shown in **Figure 12** below. Under the **SIP** section, enter the **SIP Domain/Proxy** value. This is the IP Address of the IPO as explained in **Figure 3** above. Enter the value of the **Extension** along with the **Auth ID** and **Password**. These values are the ones that were explained in **Figure 10** above. Also, enter the value for the **Dialing Extension**. This is the Extension that will ring when user presses the call button of the Door Station. During compliance testing, extension *28000* was used. All other values are left at default. Click on **Save Settings** to complete the configuration.

Figure 12: Configuring the SIP Doorphone Control Panel

Figure 13 shows the **Status** of the 8028 SIP Doorphone controller where the Extension *28002* is successfully registered to the IPO as a SIP endpoint.
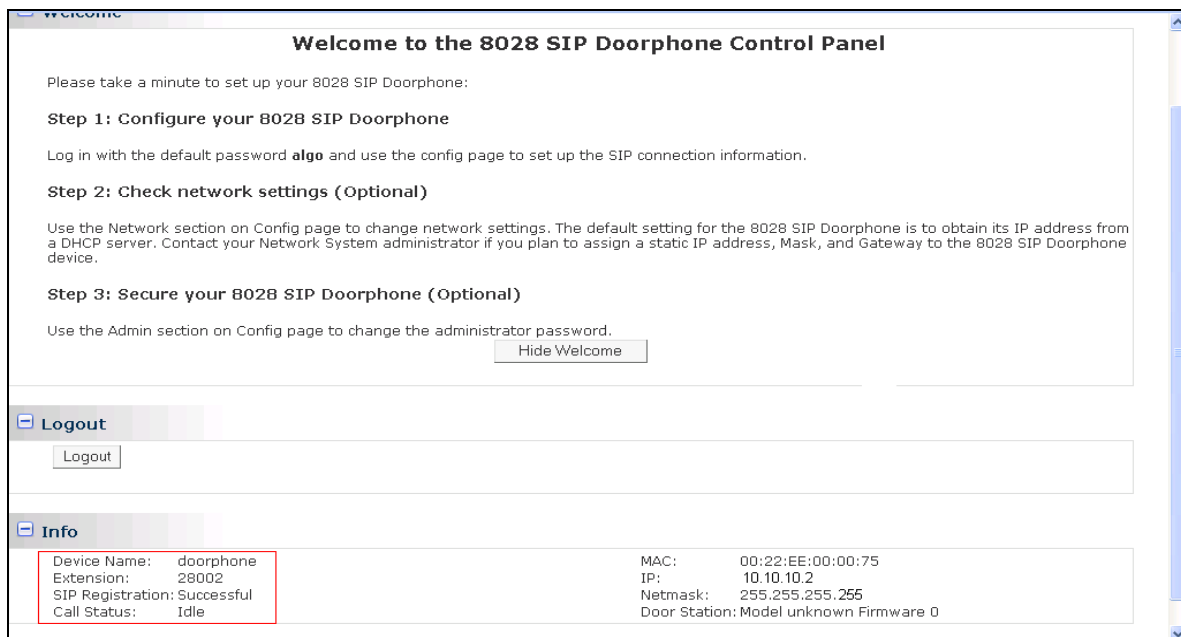

Figure 13: Configuring the SIP Doorphone Control Panel

7. Verification Steps

The following tests were conducted to verify the solution between the Algo 8028 and Avaya IPO

- Verify that the 8028 controller registers as a SIP endpoint with IPO.
- Verify that when the call button on the Door Station is pressed the telephone on the IPO rings and a clear speech path is established.
- Verify that the telephone that receives the incoming call from the Door Station 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 etc) and that DTMF tones generated from these different clients are able to unlock the door release.
- Verify that 8028 goes into an idle state when the call is completed.
- Verify that the 8028 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**. The Algo 8028 SIP Doorphone is considered compliant with Avaya IP Office Release 7.0.

9. Additional References

[1] Product documentation for Avaya products may be found at:
 https://support.avaya.com/css/Products/

[2] Product documentation for Algo 8028 may be found at:
http://www.algosolutions.com/8028

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