Talkswitch

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Optimum Business Trunking and the Talkswitch Configuration Guide

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Table of Contents

1 Overview

The purpose of this configuration guide is to describe the steps needed to configure the Talkswitch PBX for proper operation Optimum Business Sip Trunking.

2 SIP Trunk Adaptor Set-up Instructions

These instructions describe the steps needed to configure the LAN side of the Optimum Business SIP Trunk Adaptor.

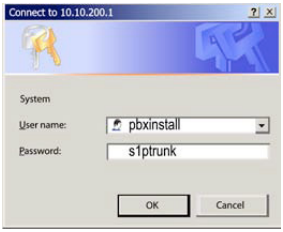
Step 1:

Log on to the Optimum Business SIP Trunk Adaptor

1. Connect a PC to port 4 of the Optimum Business SIP Trunk Adaptor, the silver device labeled Edgewater Networks, 4550 series.

2. Open a Web browser and go to IP Address http://10.10.200.1. A login box will appear.

3. Enter login and password and click 'OK'.
   Login: pbxinstall
   Password: s1ptrunk

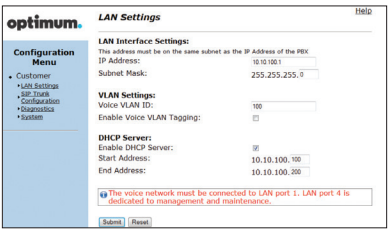


Step 2:

Click on the LAN Settings Link

1. Assign an IP Address to the LAN interface of the SIP Trunk Adaptor. The IP address must be on the same subnet as the IP PBX. This changes the address on port 1 of the Optimum Business SIP Trunk Adaptor.

   Note: This will become your local SIP proxy IP address. No other IP addresses will be provided by Cablevision.



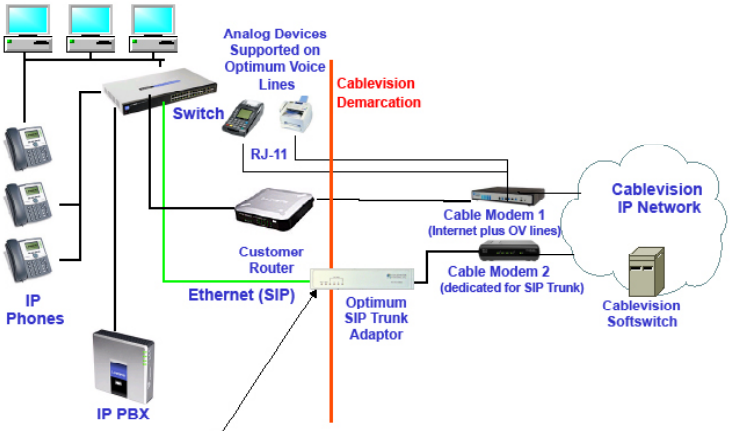
2. Optional: Specify a VLAN for your voice traffic. Click the 'Enable Voice VLAN Tagging' check box. The default VLAN ID is 100.

   Note: VLAN 200 should not be used. It is dedicated to port 4 for management.

3. Optional: Enable the DHCP server. This will allow the SIP Trunk Adaptor to act as a DHCP server, which will provide IP addresses to the voice network, and create a dedicated voice LAN, as per diagram 2.

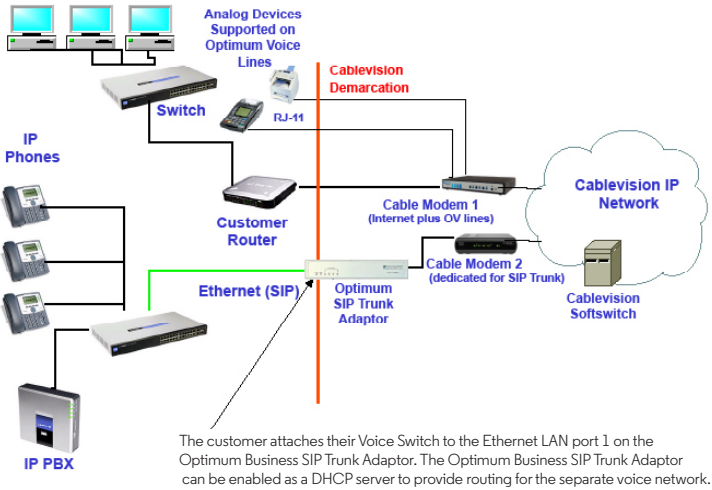
4. Click 'Submit'.

Diagram 1 SIP Trunk Adaptor for IP-PBXs Example: Single LAN Configuration



Using a connection from the customer's LAN, the SIP Trunk Adaptor's address can be a statically assigned private IP address. It may not be assigned a Public IP address.

Diagram 2 SIP Trunk Adaptor for IP-PBXs Example: Separate Voice and Data Networks Configuration



The customer attaches their Voice Switch to the Ethernet LAN port 1 on the Optimum Business SIP Trunk Adaptor. The Optimum Business SIP Trunk Adaptor can be enabled as a DHCP server to provide routing for the separate voice network.

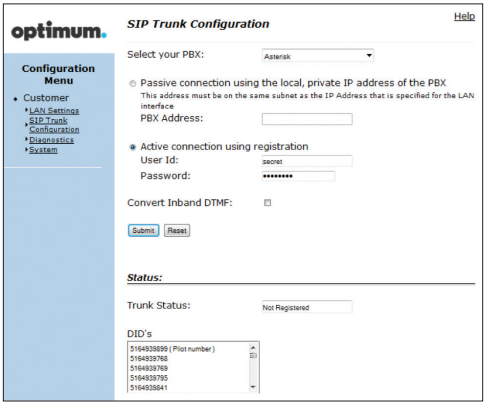
Step 3:

Click on the SIP Trunk Configuration Link

1. Select your IP PBX make and model from the drop-down menu.

2. Specify how the IP PBX will register to the Optimum Business SIP Trunk Adaptor.

3. The Cablevision network only supports Inband DTMF. Click on the check box next to "Convert Inband DTMF" if you cannot configure your IP PBX to send out Inband DTMF. The DTMF tone duration generated by the phones and/or PBX may need to be increased from their default setting. Some phones and/or PBX have a default setting between 180ms to 200ms. This setting is too low. The recommended setting is 600ms.

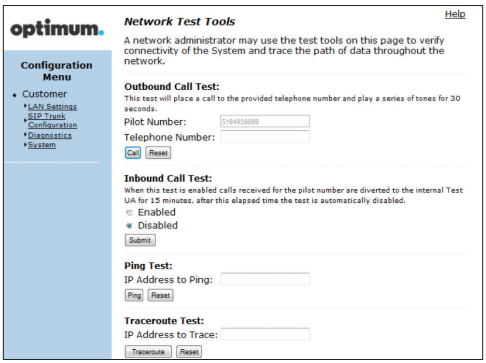


4. Click 'Submit'.

Step 4:

Diagnostics Link

You can make a test call directly from your phone or use the test call application under the Diagnostics link.

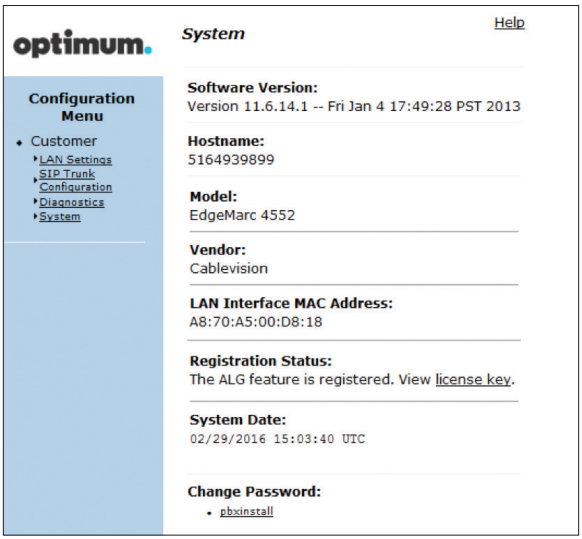


Step 4 continued

Field	Description
Outbound Call Test TelephoneNumber	Specifies an outside phone number to which an outbound call will be initiated. The pilot telephone number of the SIP Trunk will be prepopulated.
Pilot Number	Displays the provisioned pilot number, which is used for outbound and inbound call tests.
Call	Initiates a call outbound to a telephone number entered or inbound to the pilot number displayed.
Inbound Call Test (radio button)	Indicates whether inbound test call will be enabled or disabled. If inbound test calls are enabled, calls made to the pilot number will be redirected to the test UA for fifteen minutes. When the pilot number is dialed, you will hear a test message play.
Submit	Enables or disables the inbound call test.
IP Address to Ping	Verifies basic connectivity to a networking device. Successful ping test results indicate that both physical and virtual path connections exist between the system and the test IP address.
Ping Button	Sends a ping to the IP address specified in the field “IP Address to Ping”.
IP Address to Trace	Tracks the progress of a packet through the network. The packet can be tracked through the WAN or LAN interfaces of the adaptor.
Interface (radio button)	Indicates whether a packet will be tracked through the LAN or the WAN.
Traceroute Button	Initiates a traceroute to the specified IP address on either the LAN or the WAN.
Reset	Clears all fields and selections and allows you to enter new information. Reset applies to outbound call test, ping and traceroute.

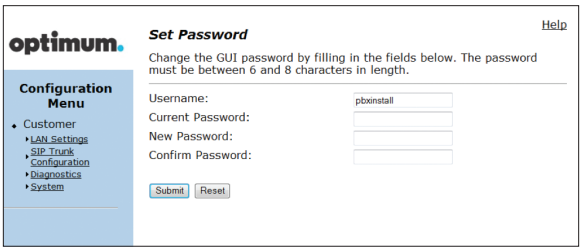
3 Additional Set-up Information

Systems



Field	Description
Pbxinstall Link	Select to change the default password for the pbxinstall login ID. Only the password can be changed. The login ID cannot be changed.

Password



Field	Description
Username	Specifies the username for which the password can be changed.
Current Password	Specifies the current password.
New Password	Specifies the new password.
Confirm Password	Confirms the new password.
Submit	Applies the settings configured on this page.
Reset	Clears all fields and selections and allows you to enter new information.

4 International Calling

Optimum Voice Business Trunking offers an optional International Calling Service for direct-dialed calls made from the Customer's business or from any phone via the Optimum Voice International Calling remote access number to destinations outside of the United States, Puerto Rico, Canada and the U.S. Virgin Islands at per minute rates. The Customer must login to the Optimum Business Account Center and activate the service on the Optimum Business Trunk Pilot telephone number to activate the service and manage the monthly International spending limit for the account.

Activating International calling on the Pilot TN will enable International calling for all Direct Inward Dial (DIDs) telephone numbers as well. Blocking International calling for one or more DIDs is managed by the customer directly from the PBX phone system configuration. To minimum the exposure to fraudulent calling, It is recommended to limit International calling capability to those DID's that require it and set up an account spending limit that reflects what is necessary to run the business.

It is the Customer (and/or the Customer Agent's) responsibility to properly secure the customer's PBX to prevent the PBX from being compromised and fraudulent calls from being made by unauthorized (internal or external) users. If fraudulent calls are detected, Cablevision reserves the right to disable International Calling until the PBX is properly secured by the customer.

Talkswitch Configuration

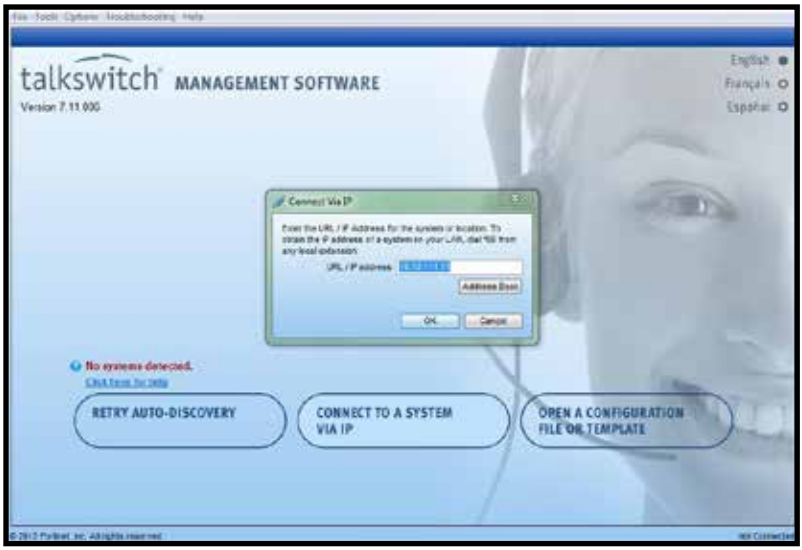
The steps below describe the minimum configuration required to enable the Talkswitch PBX to use Optimum Business SIP Trunking for inbound and outbound calling. Please refer to the Talkswitch product documentation for more information on other advanced PBX features.

When connecting to the Talkswitch from the LAN with a PC, make sure there is no other enabled NIC or Network (like wireless) on the PC. This will interfere with the configuration process.

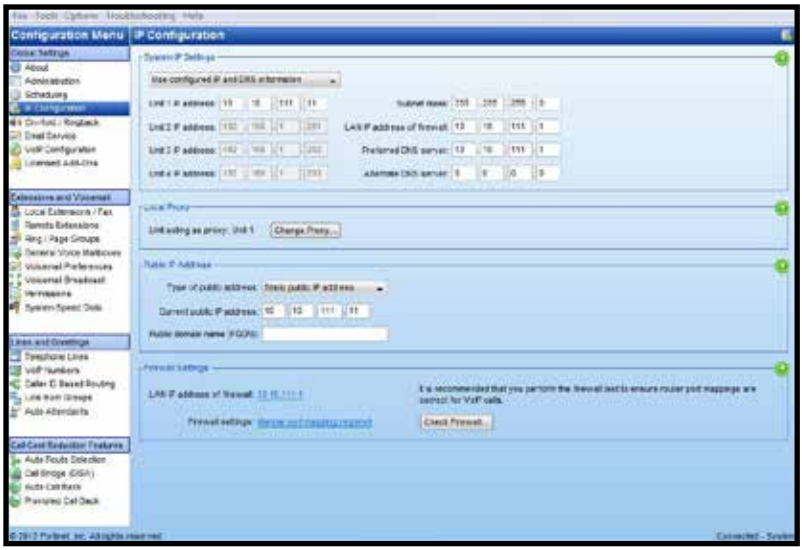
Configuration:

Plug PC into LAN side of PBX. By default a 192.168.3.1
By default the password will be 1234
In this configuration guide the IP address will be 10.10.111.11.
The Optimum Business SIP Trunk Adaptor needs to have the “Convert Inband DTMF” check box selected.

1 Start by detecting the Talkswitch and connecting to it via the LAN IP.

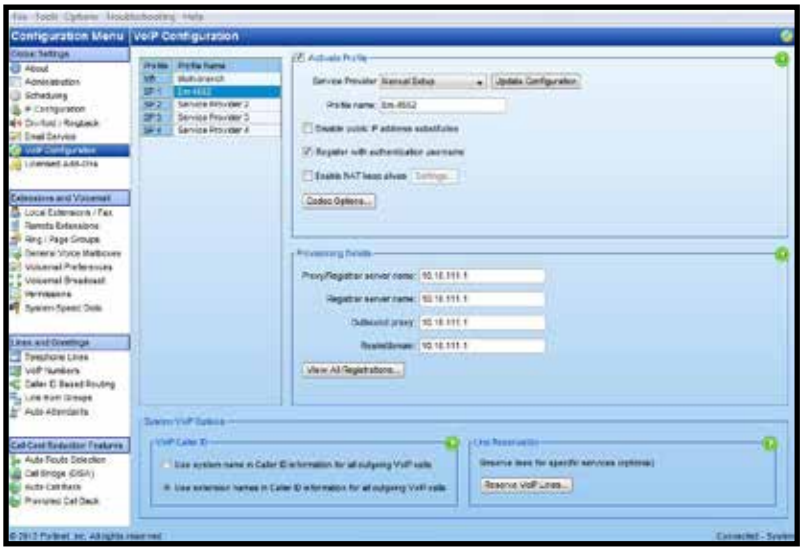


2 Configure the IP address settings for the Talkswitch to work properly with the network it will be residing on. Configuration Menu ▸ IP configuration.



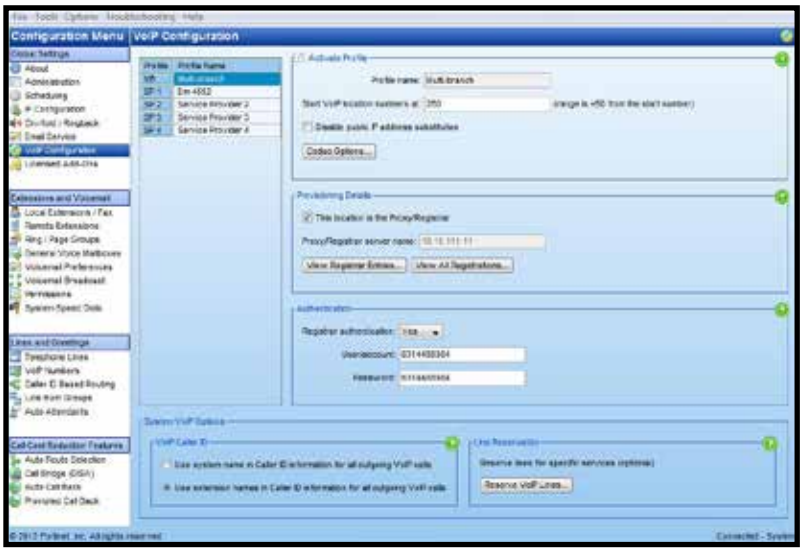
3 Configure the VoIP/SIP Server settings. Configuration Menu ▸ VoIP Configuration ▸ SP 1.

a Service Provider drop-down box, Select Manual Setup.
b Fill in the Profile Name.
c Under Codec Options make sure G.711u is selected and set as the preferred codec.
d Fill in the Proxy Server Name, Registrar Server Name, Outbound Proxy, and Realm/Domain fields with the SIP Servers IP address or domain name. Typically this is the LAN IP address of the Optimum Business SIP Trunk Adaptor. Note: for Non-registration Static mode, only fill in the Proxy Server and Realm/Domain to prevent the Talkswitch from registering).

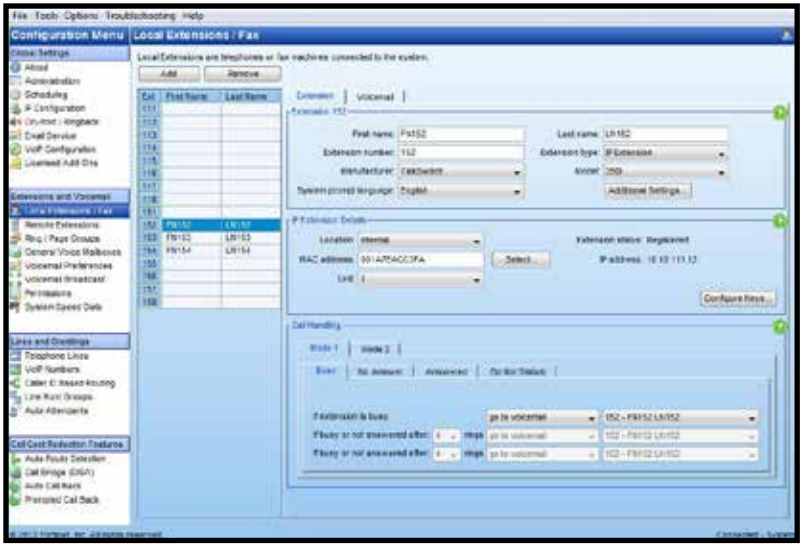


4 If setting up registration to the Optimum Business SIP Trunk Adaptor, configure the Talkswitch profile as well. Check the “This location is the Proxy/Registrar”, and configure the Authentication fields with the register information. Under the user/account name and password enter the Pilot DID, for this example we used 6314488984.

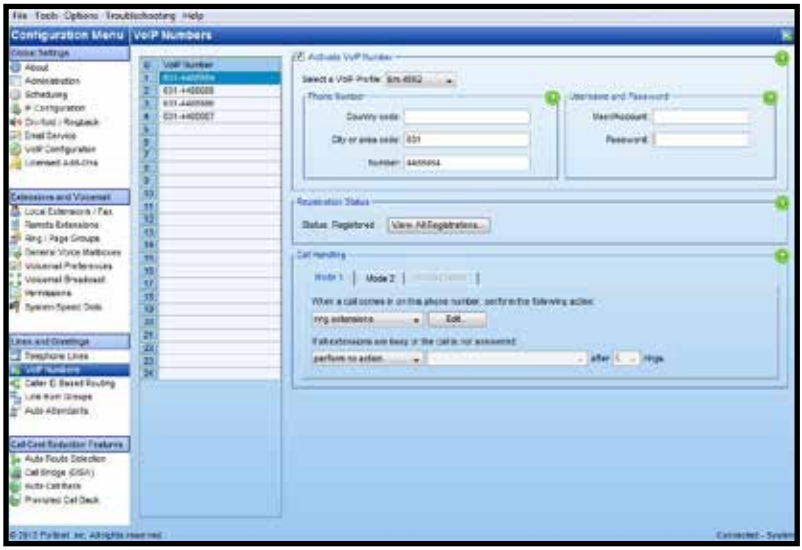
The user/account and password must match what was configured in the Optimum Business SIP Trunk Adaptor. This was step 3 of the Optimum Business SIP Trunk Set-up Guide.



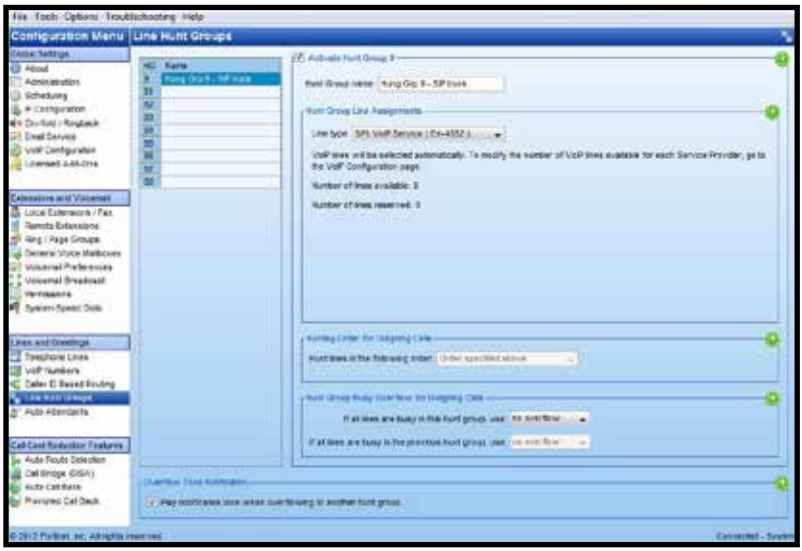
5 Set up each extension, Extensions and Voicemail ▸ Local Extensions / Fax. Fill in the MAC address of the phone and give the Extension a First and Last Name.



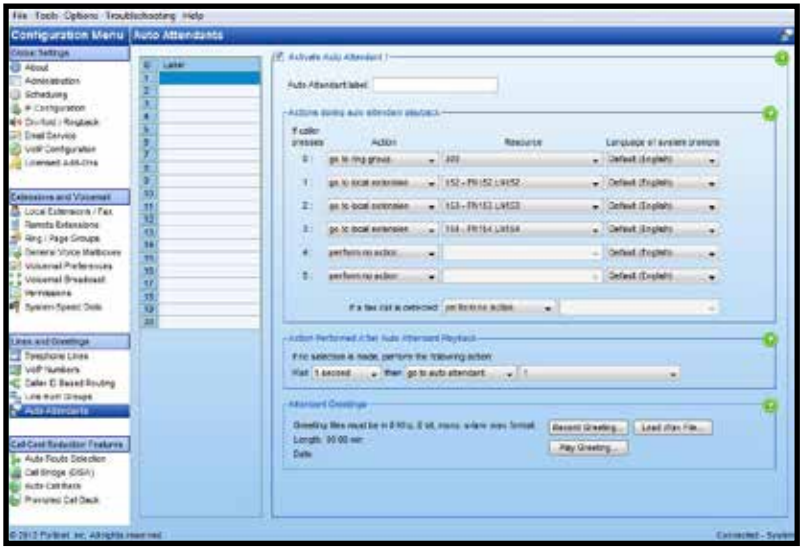
6 Set up the Incoming Call Routing, Lines and Greetings ▸ VoIP Numbers. Configure each line with a DID and set it to an Extension. Also set up one of the DID's to go to the Auto Attendant.



7 Set up the outbound Trunk. Lines and Greetings ▸ Line Hunt Group. Check the box on top “Activate Hunt Group 9”.



8 Configure the Auto Attendant. Lines and Greetings ▸ Auto Attendants (Menus). Next to each number that will be pressed select “go to local extension” as the Action and select the extension number as the Resource. Then select “go to auto attendant” as the action if no selection is made and enter the desired time to wait.



Due to the Cablevision DTMF network requirements, the DTMF tone duration generated by the phones and/or PBX may need to be increased from the default value of 180ms-200ms to 600ms. Make sure to check this setting in the IP PBX and/or Phones.