



CCS-UC-1

SIP Endpoint with ShoreTel® Connect
System 21.80.7840.0

Configuration Guide
Crestron Electronics, Inc.

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CCS-UC-1: SIP Endpoint with ShoreTel Connect 21.80.7840.0

Introduction

This configuration guide describes the necessary procedure to configure the Crestron Mercury™ devices to register to the ShoreTel® Director as a basic SIP user.

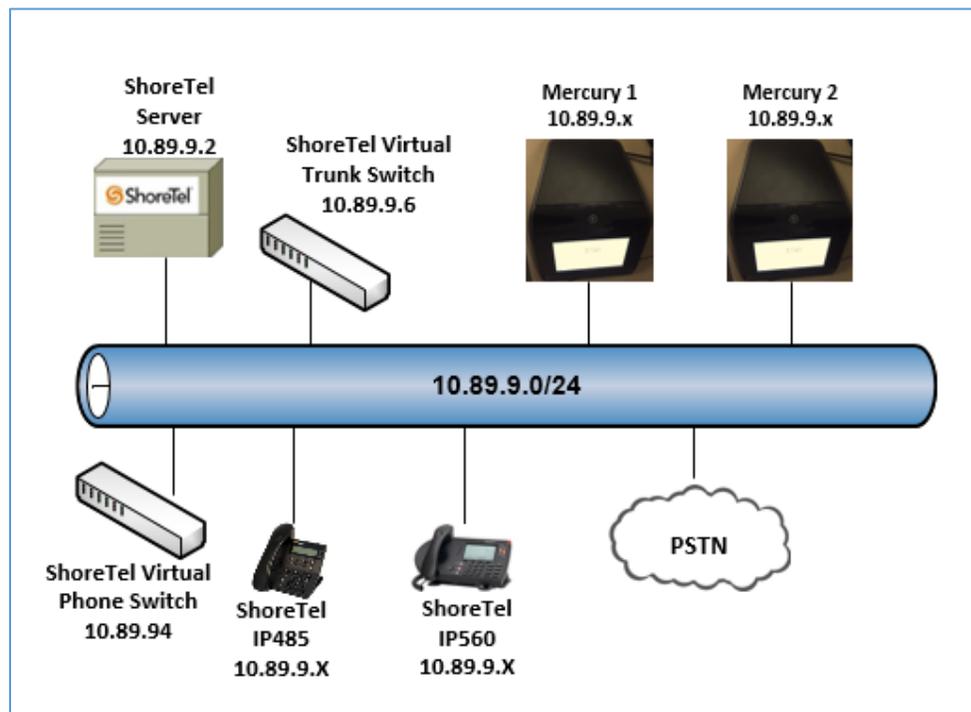
Audience

This document is intended for users attempting to configure and use the Crestron Mercury devices as SIP users registering to ShoreTel Connect.

Topology

The network topology for the Crestron Mercury endpoint to interop with the ShoreTel Connect Director is as shown below.

SIP Endpoint Integration with ShoreTel Connect - Reference Network



The lab network consists of the following components:

- ShoreTel Server/Director
- ShoreTel virtual phone switch
- ShoreTel virtual trunk switch
- ShoreTel phones
- Crestron Mercury as the SIP Users

Software Requirements

- ShoreTel Connect: 21.80.7840.0
- Crestron Mercury: v 1.3318.00013

Hardware Requirements

- ShoreTel Connect either in a virtual environment or separate hardware servers
- ShoreTel Director
- ShoreTel virtual phone switch
- ShoreTel virtual trunk switch
- PSTN gateway
- ShoreTel phones
- Crestron Mercury devices (2)

Product Description

The Crestron Mercury device is a complete solution for conference rooms. It acts as an all-in-one touch screen, speakerphone, and AirMedia® product for conference rooms that would provide microphones and speakers integrated into the user interface at the table.

Crestron Toolbox™ software is used to discover and control all Crestron devices on the network.

The Crestron Mercury web interface is used to control the Crestron Mercury devices on the network.

Summary

The Crestron Mercury devices are configured on the ShoreTel as SIP users that successfully register to the ShoreTel Director with digest authentication.

Features Supported

- Registration with digest authentication
- Basic calls with G711u, G711a, G722, and G729 codecs
- DTMF support
- Early media support

- Retrieval of a parked call
- Transferee in a call transfer
- Conference participant
- Member of hunt group
- Voice mail access and interaction

Features Not Supported

- Caller ID presentation
- Call hold and resume
- Call forwarding on the device (Forwarding can be configured on the PBX for the DN assigned to the endpoint.)
- Call waiting
- Conference
- Attended call transfer
- Early attended call transfer
- Blind call transfer
- Shared line (configuration of shared line on device)
- Call park (Initiating call park)
- Message waiting indicator
- Do Not Disturb (DND)

Known Issues and Limitations

- Even though the Crestron Mercury device has support for the G722 codec, this could not be tested on a PSTN call with ShoreTel Connect because this codec is not offered to the PSTN for negotiation.

An excerpt from the ShoreTel guide: “Within a site, G.722 wideband encoding is recommended because bandwidth in the LAN is inexpensive and readily available. Between sites, G.729a is recommended because it uses the least amount of bandwidth. Linear codecs provide slightly higher voice quality than G.711, but they should not be used if there are any bandwidth concerns.”

- Caller ID is not supported on the Crestron Mercury device. Currently only the calling party number is displayed as the caller ID. This issue will be tracked via Crestron’s Bugzilla™ software Defect: 119006.
- The active call timer on the Crestron Mercury device does not reflect the correct call duration. The active call duration includes the time for which the unit was being alerted also. This issue will be tracked via Crestron’s Bugzilla software Defect: 124001.
- The first ringback heard on the Crestron Mercury device is stuttered. It resembles a mix of local and remote ringback. This issue will be tracked via Crestron’s Bugzilla software Defect: 122421.

- On the Crestron Mercury web user interface, there is currently no notification provided to the user when certain mandatory configurations are missing. This issue will be tracked via Crestron's Bugzilla software Defect: 125193.
- On the Crestron Mercury web user interface, a configuration of DHCP OFF on the Network configuration page mandates configuration of both the adapters. The user is unable to save changes unless both the adapters are configured and is notified of an invalid IP against the default of 0.0.0.0 for an unused adapter. This issue will be tracked via Crestron's Bugzilla software Defect: 126236.
- Message Waiting Indicator (MWI) is not supported on the Crestron Mercury device. This issue will be tracked via Crestron's Bugzilla software Defect: 116290.
- On the Crestron Mercury device, for certain called numbers that cannot be reached or are invalid, the user only hears a reorder tone and does not have the option to disconnect the call except by pressing the call button again. This issue will be tracked via Crestron's Bugzilla software Defect: 122633.

Crestron Mercury Configuration

Setup

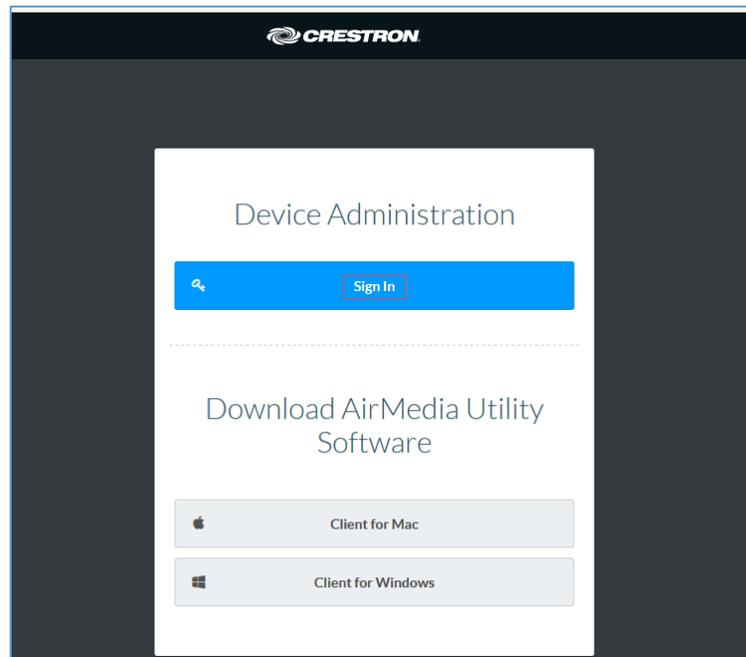
The LAN port of the Crestron Mercury device needs to be connected to one PoE+ port to power it up network for connectivity with the ShoreTel Director. The PoE+ switch that is used should have the LLDP functionality enabled for the device to power up and be completely functional. By default, the “poeplus” configuration is set to Off on the device.

Configuring the device

To configure the Crestron Mercury device, follow this procedure:

1. Access the web GUI for the device by using an http session with the device’s IP address. The device IP address used in this example was 10.89.9.56.

Crestron Mercury: Login to web GUI



2. Click **Sign In** and log in to the device. For information on device administration, refer to the CCS-UC-1 Supplemental Guide (Doc. 7844) at www.crestron.com/manuals.

The Status screen that appears displays basic information on the device.

The screenshot displays the Crestron Mercury Status interface. On the left is a dark sidebar with the Crestron logo at the top and a menu of status categories: STATUS (highlighted), HDMI INPUT, HDMI OUTPUT, NETWORK, DEVICE, AVF, and AIRMEDIA. The main content area is divided into two sections: 'General' and 'Network'. The 'General' section lists Model (MERCURY), Main Firmware Version (1.3353.00006), and Serial Number (0), with a '+ Show More' link below. The 'Network' section lists Domain Name (lab.tekvizion.com), Encrypt Connection (false), and Host Name (mercury-alpha1). Below this is a section for 'Adapter 1' containing IPv4 settings: DHCP Enabled (No), IP Address (10.89.9.56), Subnet Mask (255.255.255.0), Default Gateway (10.89.9.1), and DNS Server 1 (10.64.1.3).

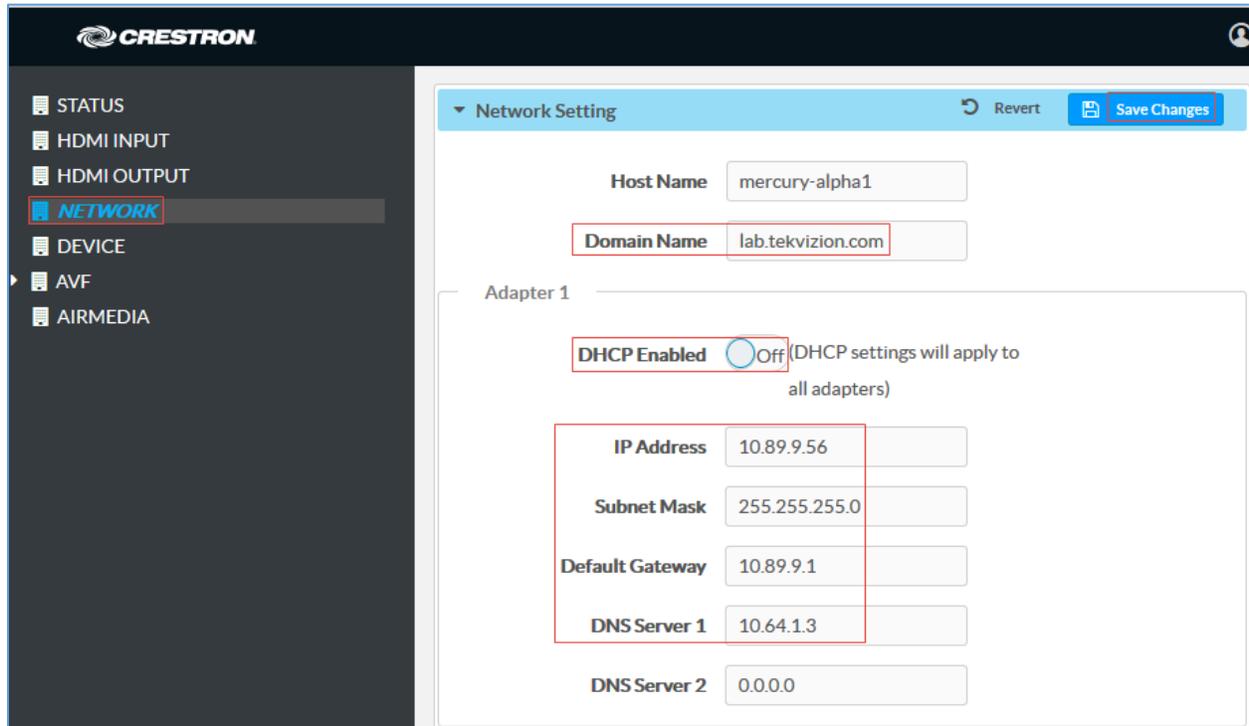
General	
Model	MERCURY
Main Firmware Version	1.3353.00006
Serial Number	0
+ Show More	

Network	
Domain Name	lab.tekvizion.com
Encrypt Connection	false
Host Name	mercury-alpha1
Adapter 1	
IPv4	
DHCP Enabled	No
IP Address	10.89.9.56
Subnet Mask	255.255.255.0
Default Gateway	10.89.9.1
DNS Server 1	10.64.1.3

The device can be configured from the **Network** page.

3. On the web GUI, navigate to **Network**.

Crestron Mercury Configuration: Network Setting: DHCP Off: Static IP Configured



4. Enter the following parameters in the **Adapter 1** section to configure the Crestron Mercury device.

- **Domain Name:** *lab.tekvizion.com* was used in this example.
- **DHCP:** Choose either of the following:
 - Obtain an IP address automatically
 - Use the following IP address

For the example, a static IP was configured:

- **IP address:** *10.89.9.56* was used in this example.
- **Subnet Mask:** *255.255.255.0* was used in this example.
- **Default Gateway:** *10.89.9.1* was used in this example.
- **DNS Server 1:** *10.64.1.3* was used in this example.

5. Click **Save Changes**.

Configuring the SIP Parameters

To configure the SIP parameters, follow this procedure.

1. On the web GUI, navigate to **Device > SIP Calling**.

Crestron Mercury: Device Configuration: SIP Calling Parameters

The screenshot shows the Crestron web GUI for configuring SIP parameters. The left sidebar contains a menu with options: STATUS, HDMI INPUT, HDMI OUTPUT, NETWORK, **DEVICE**, AVF, and AIRMEDIA. The main content area is titled 'SIP Calling' and includes a 'Revert' button and a 'Save Changes' button. The configuration fields are as follows:

Enable SIP	<input checked="" type="checkbox"/>
Transport Type	UDP
Server IP Address	10.89.9.4
Port	5060
Server Username	Mercury1
Server Password	••••••
Server Realm	*
Local Extension	162
Proxy Server	NONE

At the bottom, the 'SIP Server Status' is shown as 'Online'.

2. Enable the check box for **Enable SIP**.
3. Configure the **Server IP Address**: Enter the IP Address of the ShoreTel virtual phone switch. *10.89.9.4* was used in this example.
4. Configure the **Port**: *5060* was used in this example.
5. Configure the **Server Username**: Enter the end user configured on ShoreTel Director for this device. *Mercury1* was used in this example.
6. Configure the **SIP Server Password**: Enter the password as configured on ShoreTel Director for this end user.
7. Configure the **SIP Local Extension**: Enter the directory number that was configured for this device on ShoreTel Director. *162* was used in this example.
8. Retain all other default configurations.
9. Click **Save Changes**.

Once the device successfully registers with the ShoreTel Director, the **SIP Server Status** updates its status to show *Online*.

ShoreTel Director Configuration

This section describes the configuration necessary on the ShoreTel Director to support registration of the devices and connectivity to PSTN.

NOTE: It is assumed that the general installation and basic ShoreTel configuration have already been administered.

Configure Custom Codec List

To configure the custom codec list, follow this procedure.

1. Navigate to **Features > Call Control > Codec Lists**.

ShoreTel Connect Director: Configure Codec List



2. Click **NEW**.
3. Set **Description**: *PSTN* was used for this example
4. Select and add codecs from the list of available codecs: *G722/8000*, *PCMU/8000*, *PCMA/8000*, and *G729/8000* were chosen and added for this example.
5. Click **SAVE**.

Configure Custom Sites

To configure custom sites, follow this procedure:

1. Navigate to **System > Sites**.

ShoreTel Connect Director: Configure Site

The screenshot displays the ShoreTel Connect Director web interface. The left sidebar shows the navigation menu with 'System' > 'Sites' selected. The main content area is titled 'Sites' and shows the configuration for a site named 'Headquarters'. The 'GENERAL' tab is active. The configuration fields are as follows:

- Name: Headquarters
- Service Appliance Conference backup site: <None>
- Language: English(US)
- Country / area: United States of America
- Time zone: (UTC-06:00) Central Time (US & Canada), Central Standard Time
- Parent: <None>
- Use parent site for emergency calls and other calls when no local trunks are available:
- Local area code: 214 (must be 3 digits)
- Additional local area codes: 972
- Emergency number list: 911 (Trunk access code required:)
- Caller's emergency service identification (CESID):
- Operator extension:
- Fax redirect extension:
- Admission control bandwidth: 1500 kbps
- Intra-site calls: PSTN
- Inter-site calls: PSTN
- Fax and modem calls: Fax Codecs - Low Bandwidth Passthrough
- Virtual IP address:
- Proxy switch 1: Lab109-vPS1
- Proxy switch 2: <None>
- SMTP relay server:
- Network time protocol server:

2. Set **Name**: *Headquarters*
3. Set **Local area code**: 214 was used in this example.
4. Set **Intra-site calls**: Newly created codec list, *PSTN*, was selected from the drop-down menu for this example. This selection contains only G711 codecs.
5. Set **Inter-site calls**: Newly codec list *PSTN* is selected from the drop-down menu.
6. Retain all other default configurations.
7. Click **SAVE**.

Configure SIP Trunk Profile

A SIP trunk towards the PSTN is configured to route calls to PSTN numbers. To configure the SIP trunk profile, follow this procedure.

1. Navigate to **Trunks > SIP Profiles**.

ShoreTel Connect Director: Default SIP Trunk Profile

The screenshot displays the ShoreTel Connect Director web interface. The left sidebar shows the navigation menu with 'Trunks' and 'SIP Profiles' highlighted. The main content area shows a table of SIP Trunk Profiles. The 'Default ITSP' profile is selected, and its configuration details are shown below the table.

NAME	ENABLED
<input checked="" type="checkbox"/> Default ITSP	<input checked="" type="checkbox"/>
<input type="checkbox"/> Default Sky ITSP	<input checked="" type="checkbox"/>
<input type="checkbox"/> Default Tie Trunk	<input checked="" type="checkbox"/>
<input type="checkbox"/> Mobility Router	<input checked="" type="checkbox"/>
<input type="checkbox"/> ShoreTel SIP	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Default ITSP [SAVE] [RESET] [CANCEL]

GENERAL

Name:

Enable

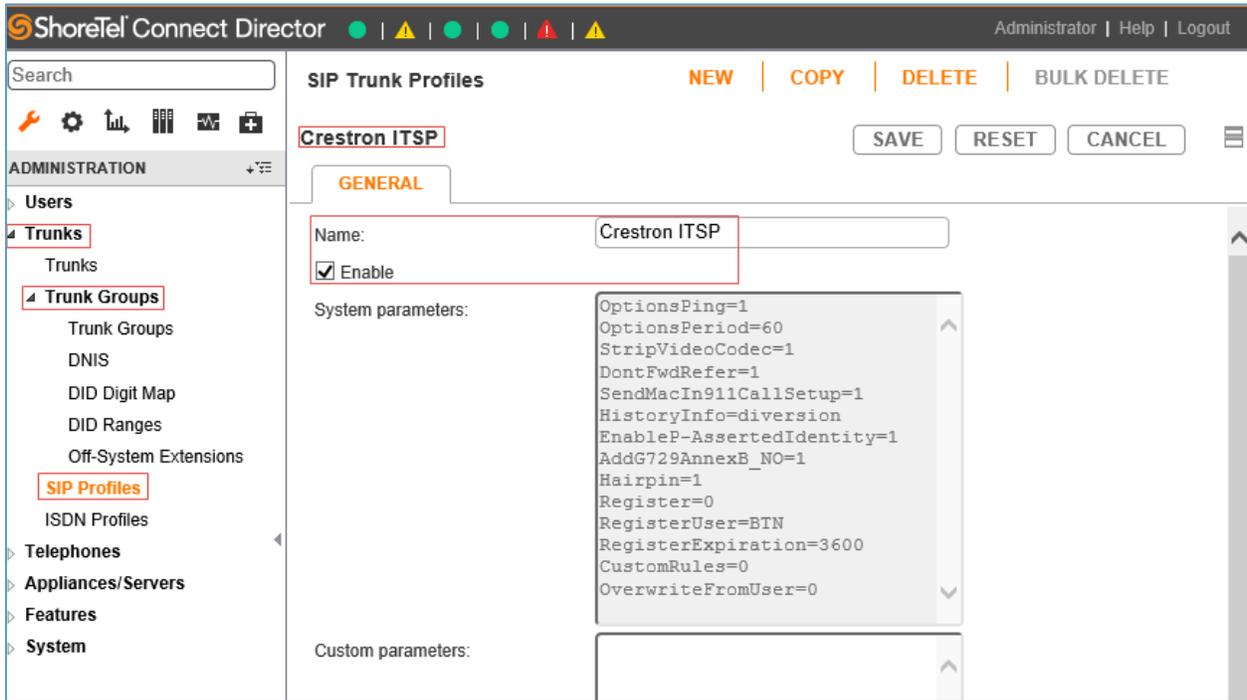
System parameters:

```
OptionsPing=1
OptionsPeriod=60
StripVideoCodec=1
DontFwdRefer=1
SendMacIn911CallSetup=1
HistoryInfo=diversion
EnableP-AssertedIdentity=1
AddG729AnnexB_NO=1
Hairpin=1
Register=0
RegisterUser=BTN
RegisterExpiration=3600
CustomRules=0
OverwriteFromUser=0
```

2. Under **NAME**, check the **Default ITSP** check box.
3. Click **COPY**.

4. Set **Name**: Change the name from *Default ITSP* to *Crestron_ITSP*.

ShoreTel: Custom SIP Trunk Profile



5. Set **Custom parameters** if required: None are configured for this example.
6. Click **SAVE**.

Add Trunk Group

To add a trunk group, follow this procedure:

1. Navigate to **Trunks > Trunk Groups > Trunk Groups**.
2. Select the **GENERAL** tab.

ShoreTel Connect Director: Add Trunk Group: GENERAL Tab

The screenshot shows the ShoreTel Connect Director web interface. The left sidebar contains a navigation menu with the following items: Users, Trunks (expanded), Trunk Groups (selected), DNIS, DID Digit Map, DID Ranges, Off-System Extensions, SIP Profiles, ISDN Profiles, Telephones, and Appliances/Servers. The main content area is titled "Trunk Groups" and shows the configuration for a "PSTN Trunk for Crestron". The "GENERAL" tab is selected. The configuration fields are: Name: PSTN Trunk for Crestron; Site: Headquarters; Trunk type: SIP; Language: English(US); Profile: Crestron ITSP; Digest authentication: -None-; Username: (empty); Password: (masked with dots). There are buttons for NEW, COPY, DELETE, SAVE, RESET, and CANCEL. The top right corner shows "Administrator | Help | Logout".

- a. Set **Name**: *PSTN Trunk for Crestron* was used in this example.
- b. Set **Trunk Type**: *SIP*.
- c. Set **Profile**: *Crestron ITSP*, created in the previous step, is selected from the drop-down menu.
- d. Click **SAVE**.

3. Select the **INBOUND** tab.

ShoreTel Connect Director: Add Trunk Group: INBOUND Tab

The screenshot shows the ShoreTel Connect Director web interface. The top navigation bar includes the logo, status indicators, and user information (Administrator | Help | Logout). The left sidebar shows the navigation menu with 'Trunk Groups' selected. The main content area is titled 'Trunk Groups' and shows the configuration for 'PSTN Trunk for Crestron'. The 'INBOUND' tab is active. The configuration includes:

- Number of digits from CO: 10
- DNIS [Edit DNIS](#)
- DID [Edit DID Range](#)
- Extension
- Translation table: <None>
- Prepend dial in prefix: [text input]
- Use site extension prefix
- Tandem trunking
- User group: <None>
- Prepend dial in prefix: [text input]
- Destination: 700 : Default

- a. Set **Number of digits from CO**: 10 was used in this example.
- b. Check the **DNIS** check box.
- c. Check the **DID** check box.

4. Select the **OUTBOUND** tab.

ShoreTel Connect Director: Add Trunk Group: OUTBOUND Tab

The screenshot shows the configuration page for a PSTN Trunk Group named "PSTN Trunk for Crestron". The "OUTBOUND" tab is selected. The "Outgoing" checkbox is checked. Under "Network call routing", the "Access code" is set to 9, "Local area code" is 972, and "Billing telephone number" is +1 (972) 265-7277. Under "Trunk services", several checkboxes are checked: Local, Long distance, International, Enable original caller information, n11, Emergency, Easily recognizable codes (ERC), Explicit carrier selection, Operator assisted, and Caller ID not blocked by default. Under "Trunk digit manipulation", the "Remove leading 1 from 1+10D" checkbox is checked, while others are unchecked.

- a. Check the **Outgoing** check box.
- b. Set the **Access code**: 9 was used in this example.
- c. Set the **Local area code**: 214 was used in this example.
- d. Set the **Billing telephone number**: Use any DID (typically a billing number provided by the Service Provider). 9722657277 was used in this example. This configuration is not specifically required for this example.
- e. Check the **Caller ID not blocked by default** check box.
- f. Leave the **Dial 7 digits for local area code** check box unchecked.

- g. Retain all other default configurations..
- h. Click **SAVE**.

Configure DID Ranges

To configure DID ranges, follow this procedure:

1. Navigate to **Trunks > Trunk Groups > DID Ranges**.

ShoreTel Connect Director: Configure DID Ranges

The screenshot shows the ShoreTel Connect Director web interface. The top navigation bar includes the logo, status indicators, and user information (Administrator | Help | Logout). The left sidebar shows the navigation menu with 'DID Ranges' highlighted. The main content area displays the 'DID Ranges' configuration page for the range '9722657277 - 3'. The page includes a search bar, a 'NEW' button, and buttons for 'COPY', 'DELETE', and 'BULK DELETE'. The configuration fields are: 'Trunk group' (dropdown menu set to 'PSTN Trunk for Crestron'), 'Base phone number' (text input set to '9722657277'), and 'Number of phone numbers' (text input set to '3'). There are buttons for 'SAVE', 'RESET', and 'CANCEL'.

2. Click **NEW**.
3. Select **Trunk group**: *PSTN Trunk for Crestron* was used in this example.
4. Enter **Base phone number**: *9722657277* was used in this example.
5. Enter **Number of phone numbers**: *3* was used in this example.
6. Click **SAVE**.

Configure Trunks

To configure trunks, follow this procedure:

1. Navigate to **Trunks > Trunks**.

ShoreTel Connect Director: Configure Trunks

The screenshot shows the ShoreTel Connect Director web interface. The top navigation bar includes the logo, status indicators, and user information (Administrator | Help | Logout). The left sidebar shows the navigation menu with 'Trunks' selected. The main content area is titled 'Trunks' and includes buttons for 'NEW', 'COPY', 'DELETE', and 'BULK DELETE'. Below this, there are buttons for 'SAVE', 'RESET', and 'CANCEL'. The configuration form is titled 'ToPSTN' and has a 'GENERAL' tab. The form fields are: Site (Headquarters), Trunk group (PSTN Trunk for Crestron (SIP)), Name (ToPSTN), Switch (Lab109-vTS1), IP address or FQDN (10.64.1.72), and Number of trunks (10). A red box highlights the configuration fields. Below the form, there is a note: '(Max SIP trunk capacity 500/1000 with/without advanced features. Remaining switch SIP trunk capacity 990 without advanced features)'

2. Click **NEW**.
3. Set **Site**: *Headquarters* is selected from the drop-down menu.
4. Set **Trunk group**: *PSTN Trunk for Crestron (SIP)* is selected from the drop-down menu.
5. Set **Name**: *ToPSTN* was used in this example.
6. Set **Switch**: *Lab109-vTS1* is the trunk switch that was selected from the drop-down menu.
7. Set **IP address or FQDN**: Enter the LAN IP Address of the PSTN GW. *10.64.1.72* was used in this example.
8. Set **Number of Trunks**: *10*.
9. Click **SAVE**.

Configure SIP profile for Phones/Devices

To configure the SIP profile for phone and devices, follow this procedure:

1. Navigate to **Telephones > SIP Profiles**.

ShoreTel Connect Director: Configure SIP Profile for Phones/Devices

The screenshot shows the ShoreTel Connect Director web interface. The top navigation bar includes the logo, status indicators, and user information (Administrator | Help | Logout). The left sidebar shows the navigation menu with 'Telephones' expanded and 'SIP Profiles' selected. The main content area displays the configuration for a SIP Phone Profile named 'Crestron'. The 'GENERAL' tab is active, showing the following fields:

- Name:** Crestron
- User agent:** .*
- Priority:** 100
- Enable:**
- System parameters:**

```
OptionsPing=0
SendEarlyMedia=0
MWI=none
1CodecAnswer=1
StripVideoCodec=0
```
- Custom parameters:** 1CodecAnswer=0

Buttons for 'SAVE', 'RESET', and 'CANCEL' are visible at the top right of the configuration area.

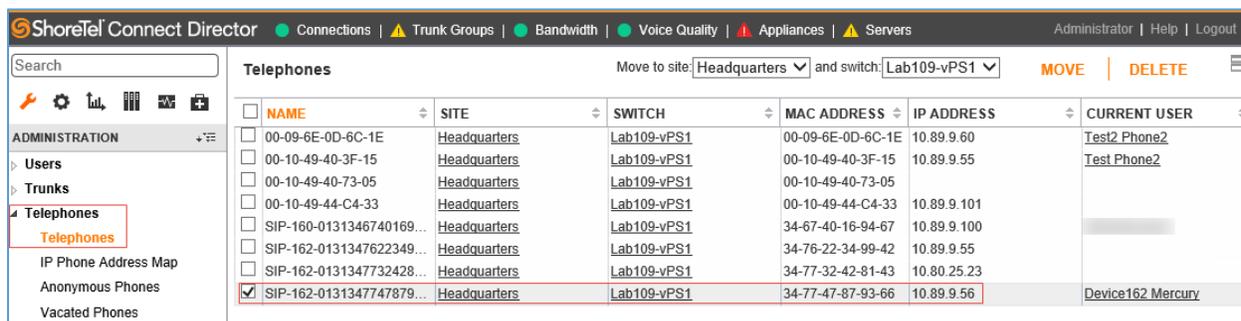
2. Click **NEW**.
3. Set **Name**: *Crestron* was used in this example.
4. Set **User agent**. Enter .* (a period and asterisk).
5. Check the **Enable** check box.
6. Set **Custom parameters**: *1CodecAnswer=0* was configured for this example to enable mid-call codec negotiations to occur by offering multiple codecs.
7. Click **SAVE**.

Configure User for Each Device/Phone

A user was configured for each phone and Crestron device used in the example. After the basic network configuration is completed on the Crestron Mercury device (i.e., the IP, mask, and default router), it is listed under the Telephones tab of the ShoreTel Connect Director.

For this test, two Crestron Mercury devices were configured: one with static IP *10.89.9.56*, and the other with acquired IP (via DHCP) *10.80.25.23*.

ShoreTel Connect Director: Telephones



NAME	SITE	SWITCH	MAC ADDRESS	IP ADDRESS	CURRENT USER
<input type="checkbox"/> 00-09-6E-0D-6C-1E	Headquarters	Lab109-vPS1	00-09-6E-0D-6C-1E	10.89.9.60	Test2_Phone2
<input type="checkbox"/> 00-10-49-40-3F-15	Headquarters	Lab109-vPS1	00-10-49-40-3F-15	10.89.9.55	Test_Phone2
<input type="checkbox"/> 00-10-49-40-73-05	Headquarters	Lab109-vPS1	00-10-49-40-73-05		
<input type="checkbox"/> 00-10-49-44-C4-33	Headquarters	Lab109-vPS1	00-10-49-44-C4-33	10.89.9.101	
<input type="checkbox"/> SIP-160-0131346740169...	Headquarters	Lab109-vPS1	34-67-40-16-94-67	10.89.9.100	
<input type="checkbox"/> SIP-162-0131347622349...	Headquarters	Lab109-vPS1	34-76-22-34-99-42	10.89.9.55	
<input type="checkbox"/> SIP-162-0131347732428...	Headquarters	Lab109-vPS1	34-77-32-42-81-43	10.80.25.23	
<input checked="" type="checkbox"/> SIP-162-0131347747879...	Headquarters	Lab109-vPS1	34-77-47-87-93-66	10.89.9.56	Device162 Mercury

Users are configured against the listed Telephones. To configure a user, follow this procedure:

1. Navigate to **Users > Users**.

ShoreTel Connect Director: Configure User

ShoreTel Connect Director Administrator | Help | Logout

Search

Users **NEW** | COPY | DELETE | EXPORT... | BULK DELETE | BULK EDIT

Extension 162: Device162 Mercury **SAVE** **RESET** **CANCEL**

GENERAL TELEPHONY VOICE MAIL ROUTING MEMBERSHIP APPLICATIONS

DNIS

First name: Device162

Last name: Mercury

Extension: 162

Email address: [Edit System Directory record](#)

Client username: Mercury1

Include in System Dial by Name directory

Make extension private

DID Settings: +19722657279 [hide details...](#)

Enable DID

DID Range: +19722657277 (0 of 3 available) PSTN Trunk for Crestron

[View System Directory for DID usage](#)

DID number: +19722657279

PSTN failover: None

Caller ID (overwrite DID): (e.g. +1 (408) 331-3300)

License type: Extension and Mailbox

Access license: Phone Only

User group: Executives [Go to this user group](#)

Site: Headquarters [Go to this site](#)

Language: English(US)

Primary phone port: IP phone: SIP-162-0131347732428143236 [change settings...](#)

Current port: SIP-162-0131347747879366952 **GO PRIMARY PHONE**

Jack #:

Mailbox server: Headquarters

Client password: (6 - 26 characters)

must change on next login

SIP phone password: (6 - 26 characters)

2. Click **NEW**.
3. Enter **First name**: *Device162* was used in this example.
4. Enter **Last name**: *Mercury* was used in this example.
5. Enter **Extension**: *162* was used in this example.
6. Enter **Client username**: *Mercury1* was used in this test (this is configured against the SIP Server User Name on the Crestron Mercury SIP Calling config). The other user was configured with client username *Mercury 2* and extension *160*.

7. DID Settings:
 - a. Check the **Enable DID** check box.
 - b. Select the **DID Range** corresponding to the PSTN Trunk configured earlier.
 - c. Configure the **DID number** that is the next available number in the list of DID range.
8. Select **Access license**. *Phone Only* was used in this example.
9. Select **Primary phone port**. Select *IP Phone*. Select the desired device listed under **Telephones**.
10. Enter the **Client password**: *123456* was used in this test.
11. Confirm the password.
12. Click **SAVE**.

Hunt Group

To configure a hunt group, follow this procedure:

1. Navigate to **Features > Call Control > Hunt Groups**.
2. Click **NEW**.

ShoreTel Connect Director: Configure Hunt Group

The screenshot shows the ShoreTel Connect Director web interface. The top navigation bar includes the logo, status indicators, and user information (Administrator | Help | Logout). The main content area is titled 'Hunt Groups' and includes buttons for 'NEW', 'COPY', 'DELETE', and 'BULK DELETE'. Below this, the specific hunt group '164 : CrestronHG' is selected, with 'SAVE', 'RESET', and 'CANCEL' buttons. The 'GENERAL' tab is active, showing fields for Name (CrestronHG), Extension (164), and Backup extension (161 : Test Phone2). The DID Settings section is expanded, showing 'Enable DID' checked, 'DID Range' set to '+19722657277 (0 of 3 available) PSTN Trunk for Crestron', and 'DID number' set to '+1 9722657277'. Other options include 'Include in System Dial by Name directory' (checked), 'Make extension private' (unchecked), 'Switch' (Lab109-vPS1), 'Call stack depth' (8), and 'Distribution pattern' (Simultaneous). The 'Rings per member' is set to 3 and 'No answer number of rings' is set to 4. The 'Call forward destinations' section includes fields for 'Call stack full' and 'No answer', with a note that if no destination is specified, a busy tone is played and calls will disconnect after 2 minutes.

3. Set **Name**. *CrestronHG* was used in this example.
4. **Extension**: Select the default extension provided from list of available numbers. *164* was used in this example.
5. **BackUp extension**: *161* was used in this example. Any ShoreTel phone or Crestron Mercury device extension can be configured.

6. Configure the **DID Settings**:

ShoreTel Connect Director: Configure Hunt Group

- a. Click **change settings**.
 - b. Check the **Enable DID** check box.
 - c. **DID Range**: Select the DID range corresponding to the PSTN Trunk configured earlier.
 - d. Configure the **DID number** that is the next available number in the list of DID range.
7. Select from the **Switch** drop-down list the virtual phone switch. *Lab109-vPS1* was selected in this example.
 8. In **Distribution pattern**, select **Simultaneous**.
 9. Retain all other default configurations.

10. Click the **MEMBERS** tab.

ShoreTel Connect Director: Configure Hunt Group Members

Hunt Groups NEW | COPY | DELETE | BU

164 : CrestronHG SAVE RESET

GENERAL **MEMBERS** DNIS

Available:

EXTENSION	NAME
100	Auto-Attendant
134	
135	
136	
144	
145	IVR
150	login

Selected:

EXTENSION
160
161

Navigation: > < ^ v

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11. Select each Extension necessary to be part of the Hunt Group and click > to move it to the list of selected extensions. The extension is listed on the right pane. 160 and 161 were added as members in this example.

Voice Mail

ShoreTel Connect has an embedded voice mail feature. To configure the voice mail extensions, perform the following procedure:

1. Navigate to **System > Dialing Plan > System Extensions > Voice mail**.

ShoreTel Connect Director: Configure Voice Mail Extensions

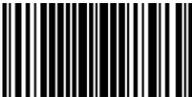
The screenshot displays the ShoreTel Connect Director web interface. The top navigation bar includes the logo, status indicators, and user information (Administrator | Help | Logout). The left sidebar shows the 'ADMINISTRATION' menu with 'System' expanded to 'Dialing Plan' and 'System Extensions' selected. The main content area is titled 'System Extensions' and features a 'Voice mail' section. The configuration fields are as follows:

Field	Value
Extension:	101
Login extension:	102
Broadcast mailbox:	600
Account codes:	107
Music on Hold:	114
Auto-attendant:	100
Backup extension:	103
Make Me conference:	108
ShoreTel conference:	113
External number:	
Additional calling information:	

Buttons for 'SAVE', 'RESET', and 'CANCEL' are located at the top right of the configuration area.

2. Enter **Extension**: 101 was used in this example.
3. Enter **Login extension**: 102 was used in this example.
4. Click **SAVE**.

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Specifications subject to
change without notice.