



Pactolus SIP Trunking
FreePBX
User Setup Guide

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What is FreePBX?

This setup guide will walk you through the process to set up Nextiva SIP Trunking for a FreePBX, a popular Asterisk-based PBX.

FreePBX Setup

NOTE: You must log in to the [Nextiva Trunking portal](#) to access your SIP Trunking account. Once there, you must configure your trunk to ensure that your Nextiva SIP Trunking account is prepared to connect to your PBX. Document your **Authentication Name** and **Authentication Key** when you configure them in the Nextiva Trunking portal.

Logging into the FreePBX Administration Console

FreePBX can be configured through a web-based portal. Follow the steps below to log in:

1. Open a web browser on your computer (Internet Explorer, Firefox, Chrome, etc.).
2. Enter the **IP address** of the FreePBX in the address bar.
3. Click the **FreePBX Administration** icon on the left side of the screen (*Figure 1-1*).

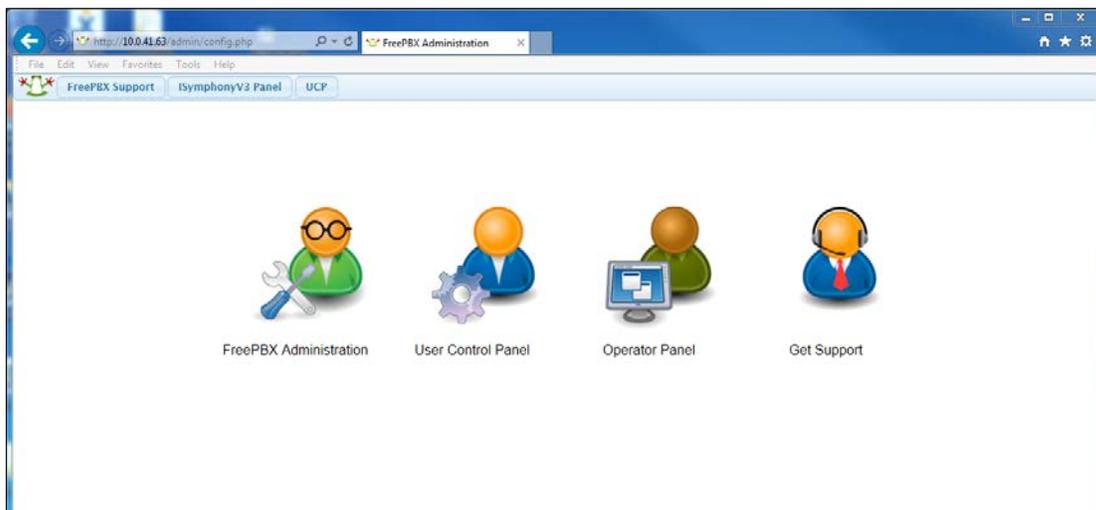


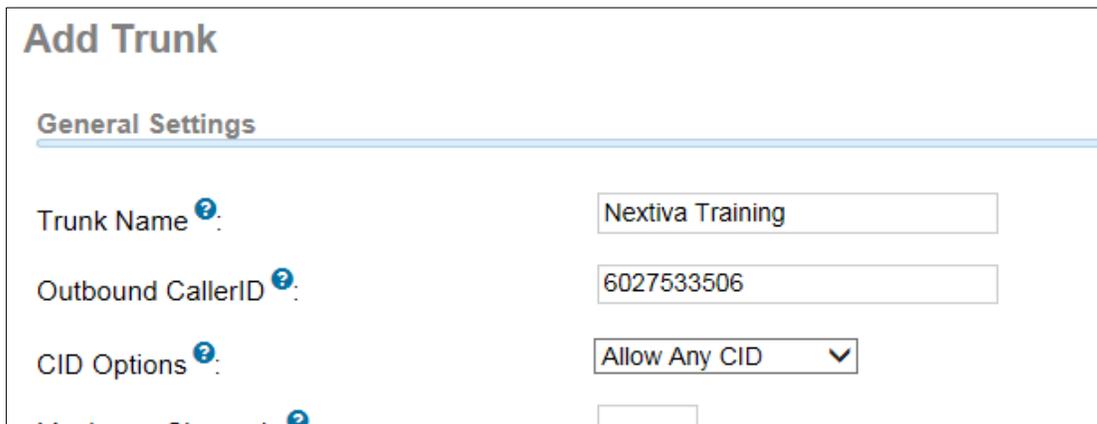
Figure 1-1: FreePBX Administration Console

4. Enter the **User ID** and **Password** for the FreePBX.

Adding a Trunk

The trunk is the first thing you will need to set up. It will contain the proxy server address and the authentication details, as well as other settings related to the PBX's connection to Nextiva. For the purposes of this setup guide, the value of **AUTHORIZATION NAME** is the Authentication Name and the value of **PASSWORD** is the Authentication Key you documented from your Nextiva Trunking portal.

1. Click the **Connectivity** button at the top of the screen, and then select **Trunks** from the drop-down list that appears. The Add a Trunk screen will appear.
2. Click the **Add SIP (chan_sip) Trunk** link at the top of the screen. The Add Trunk screen will appear (*Figure 1-2*).



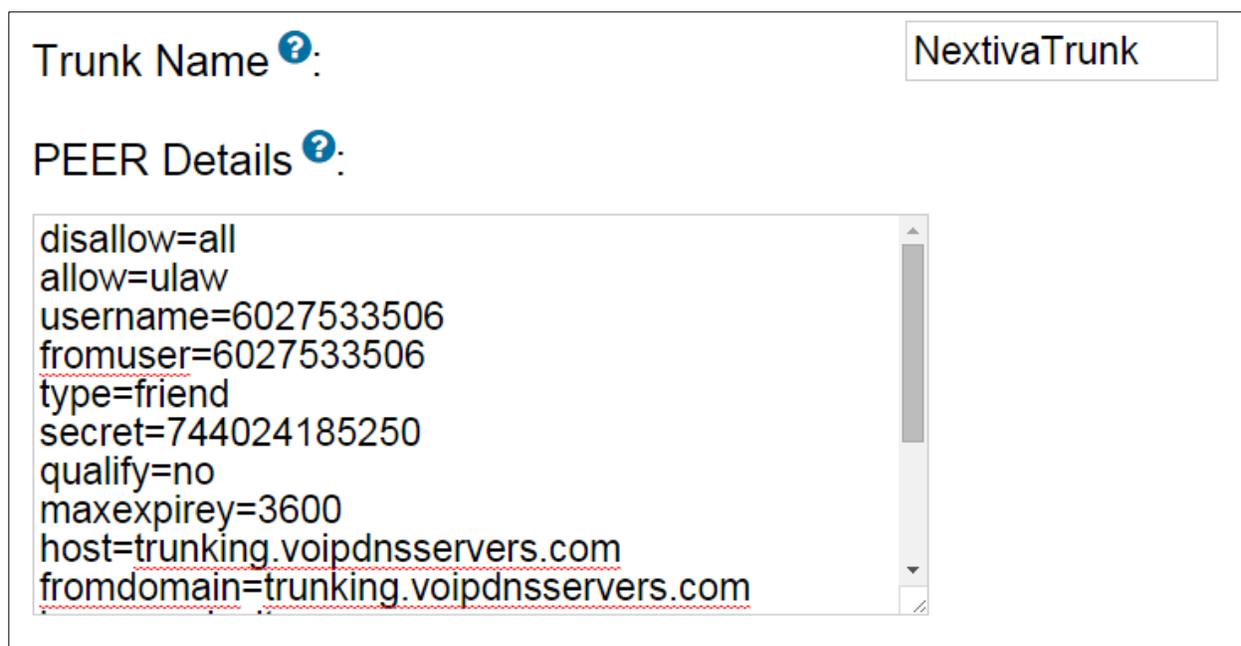
The screenshot shows the 'Add Trunk' configuration interface. Under the 'General Settings' heading, there are three input fields: 'Trunk Name' with the value 'Nextiva Training', 'Outbound CallerID' with the value '6027533506', and 'CID Options' with a dropdown menu set to 'Allow Any CID'. Each field has a small blue question mark icon to its left.

Figure 1-2: Add Trunk

3. Enter a descriptive name for the trunk in the **Trunk Description** text box at the top of the screen. In the example above, the Trunk Name is "Nextiva Training."
4. Enter the Pilot Number/Authorization Name in the **Outbound Caller ID** text box at the top of the screen.
5. Enter a name for the trunk in the **Trunk Name** text box under the **Outgoing Settings** heading. You may need to scroll down to see this field.

6. Enter the peer details below in the **PEER Details** text box. Make sure to clear out any details that are already entered, and replace the text below in red with the authentication name and authentication key you documented previously from the Nextiva Trunking portal (*Figure 1-3*).

```
disallow=all
allow=ulaw
username=AUTHORIZATIONNAME
fromuser=AUTHORIZATIONNAME
type=friend
secret=PASSWORD
qualify=no
maxexpirey=3600
host=bt.voipdnsservers.com
fromdomain=bt.voipdnsservers.com
insecure=invite
dtmfmode=rfc2833
session-timers=refuse
defaultexpirey=60
nat=no
canreinvite=no
context=from-trunk
```



The screenshot shows a configuration window for a trunk. At the top, there is a label "Trunk Name" with a question mark icon, followed by a text input field containing "NextivaTrunk". Below this is a label "PEER Details" with a question mark icon, followed by a large text area. The text area contains the following configuration parameters, with the values for username, fromuser, secret, host, and fromdomain underlined in red:

```
disallow=all
allow=ulaw
username=6027533506
fromuser=6027533506
type=friend
secret=744024185250
qualify=no
maxexpirey=3600
host=trunking.voipdnsservers.com
fromdomain=trunking.voipdnsservers.com
```

Figure 1-3: Add Trunk

7. Enter the register string in the **Register String** text box at the bottom of the screen using the template below. Replace the text in **red** with the values discussed previously (*Figure 1-4*)

AUTHORIZATIONNAME:PASSWORD@bt.voipdnsservers.com/AUTHORIZATIONNAME



Registration

Register String [?]:

6027533506:744024185250@trunking.voipdnsservers.com/6027533506

[Submit Changes](#) [Duplicate Trunk](#)

Figure 1-4: Register String

8. Click the **Submit Changes** button at the bottom of the screen.

Applying the Configuration

After you have set up a trunk, you need to apply the configuration to the FreePBX server. Otherwise, the changes you have made will not take effect. Click the red **Apply Config** button at the top of the screen to apply the configuration changes (*Figure 1-5*).

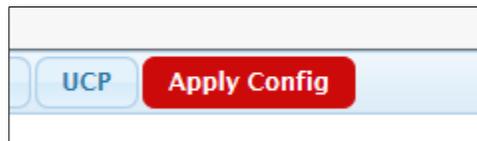
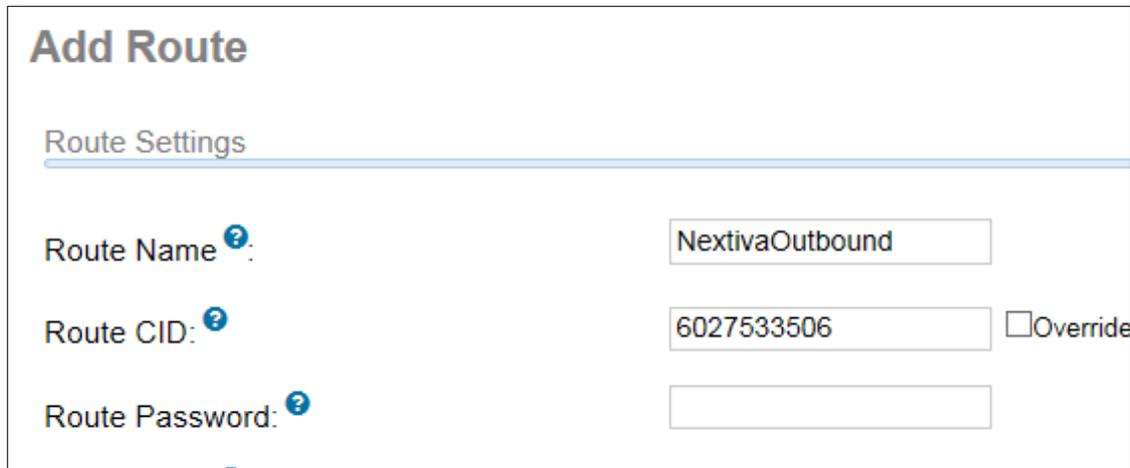


Figure 1-5: Apply Config

Setting Up an Outbound Route

To make sure that outbound calls route through the new Nextiva trunk, you need to set up an outbound route.

1. Click the **Connectivity** button at the top of the screen, and select **Outbound Routes** from the menu. The Add Route screen will appear (*Figure 1-6*).



Add Route

Route Settings

Route Name [?]:

Route CID: [?] Override

Route Password: [?]

Figure 1-6: Add Route

2. Enter a name for the outbound route in the **Route Name** text box at the top of the screen. In the example above, the name used is “NextivaOutbound.”
3. Enter the Authorization Name in the **Route CID** text box at the top of the screen.

NOTE: This field must contain the Authorization Name or outbound calls will fail.

4. Scroll down until the **Dial patterns wizards** drop-down box is visible, and select the following wizards from the drop-down:
 - Local 7/10 digit
 - Toll-free
 - Long-distance
 - International
 - Emergency

5. Select the trunk you created earlier in the **0 drop-down box** under the Trunk Sequence for Matched Routes heading. The screen should look like Figure 1-7 below.

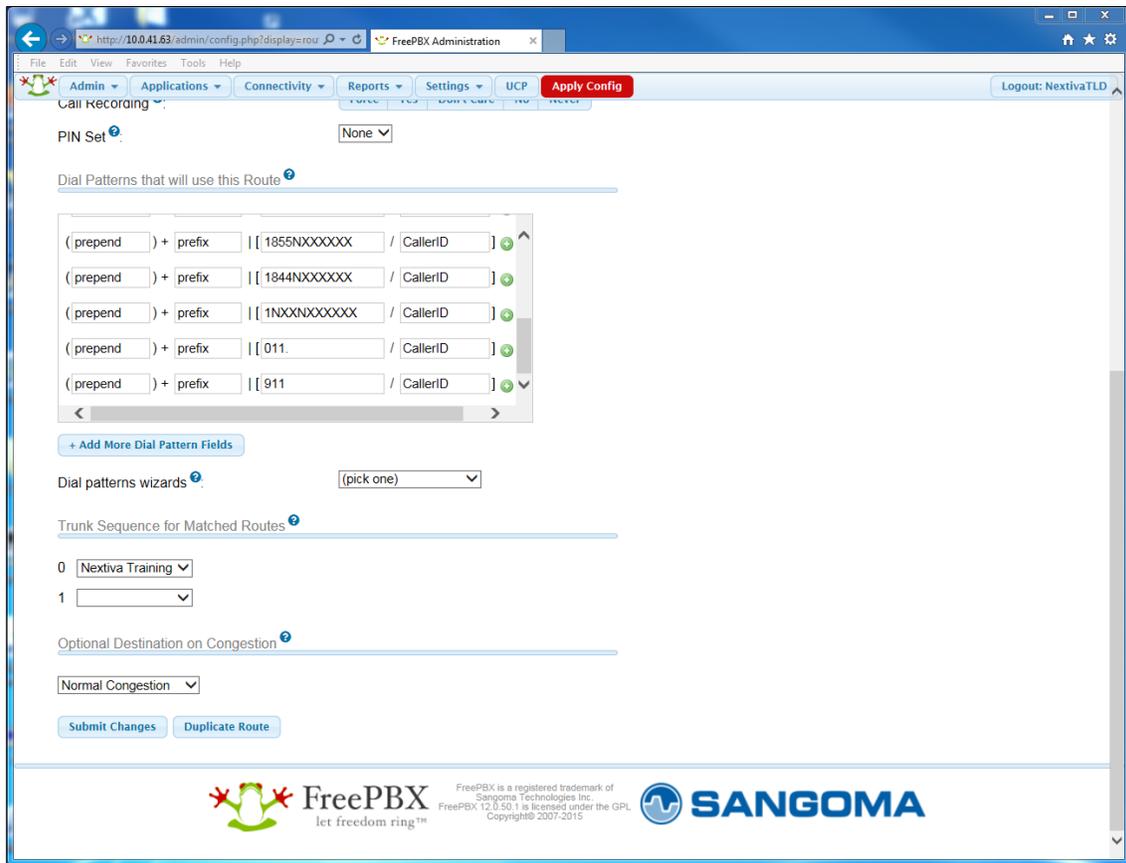


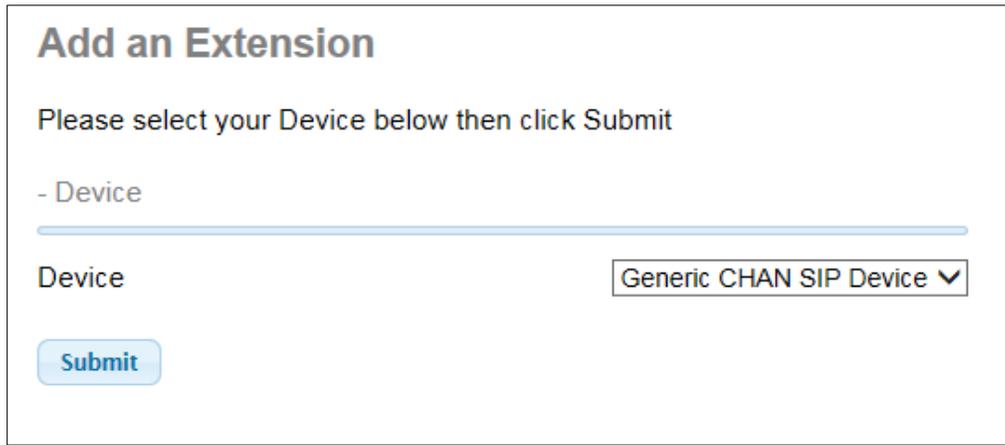
Figure 1-7: Completed Add Route

6. Click the **Submit Changes** button at the bottom of the screen.
7. Click the red **Apply Config** button at the top of the screen.

Creating an Extension

Follow the steps below to create an extension for your trunk:

1. Click the **Applications** button at the top of screen, and select **Extensions** from the menu. The Add an extension screen will appear (*Figure 1-8*).



Add an Extension

Please select your Device below then click Submit

- Device

Device Generic CHAN SIP Device ▾

Figure 1-8: Add an Extension

2. Make sure that **Generic CHAN SIP Device** is selected in the Device drop-down, and click the **Submit** button. The Add SIP Extension screen will appear (*Figure 1-9*).



Add SIP Extension

- Add Extension

User Extension [?]

Display Name [?]

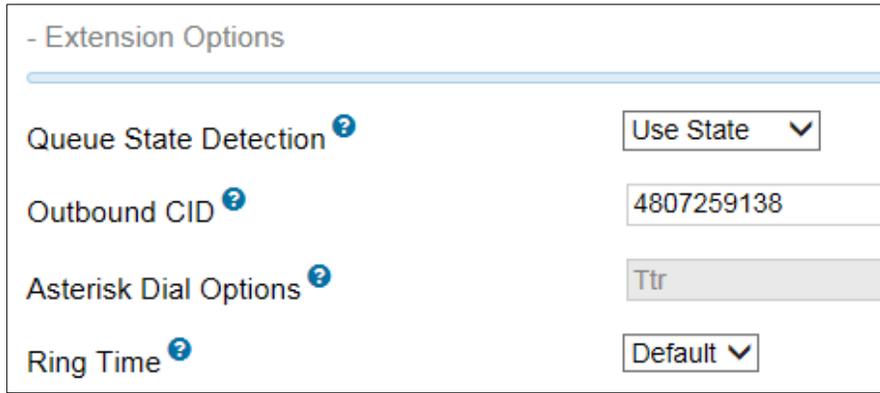
CID Num Alias [?]

Figure 1-9: Add SIP Extension

3. Enter an extension number in the **User Extension** text box at the top of the screen.
4. Enter a descriptive name for the extension in the **Display Name** text box at the top of the screen.

5. Enter one of your Nextiva-provided phone numbers in the **Outbound CID** text box (Figure 1-10).

NOTE: This will cause outbound calls from the extension to show the entered number as the outgoing caller ID number, rather than the first number, which is the User ID.



- Extension Options

Queue State Detection [?] Use State ▾

Outbound CID [?] 4807259138

Asterisk Dial Options [?] Ttr

Ring Time [?] Default ▾

Figure 1-10: The Outbound CID text box.

6. Change the password for the extension in the **Secret** text box to **n3xt1v@** (Figure 1-11). You may need to scroll down to see this. This is the password that the phone associated with this extension will use to register to your FreePBX.



Secret [?] n3xt1v@

DTMF Signaling [?] RFC 2833 ▾

Figure 1-11: Updated Password for Extension

7. Click the **Submit** button at the bottom of the screen.
8. Click the red **Apply Config** button at the top of the screen.

Registering an X-Lite Softphone

the steps below to register an X-Lite softphone to your PBX for testing purposes, or skip this section if you have another phone you are testing with.

1. Download and install X-Lite from the Counterpath website. Below are links to download this softphone:

Windows: http://counterpath.s3.amazonaws.com/downloads/X-Lite_Win32_4.8.1_76067.exe

MAC: http://counterpath.s3.amazonaws.com/downloads/X-Lite_4.9.3_79959.dmg

2. When prompted, click the **Account Settings** link to set up a new SIP account.
3. Enter the required information as indicated below (*Figure 1-12*):
 - User ID: **the extension number**
 - Domain: **10.0.41.63** (the IP address of the FreePBX)
 - Password: **n3xt1v@** (The password you entered in step 6 of the Creating an Extension section of this document)
 - Display name: **User 1** (the name of the user)



The screenshot shows a window titled "User Details" with the following fields and values:

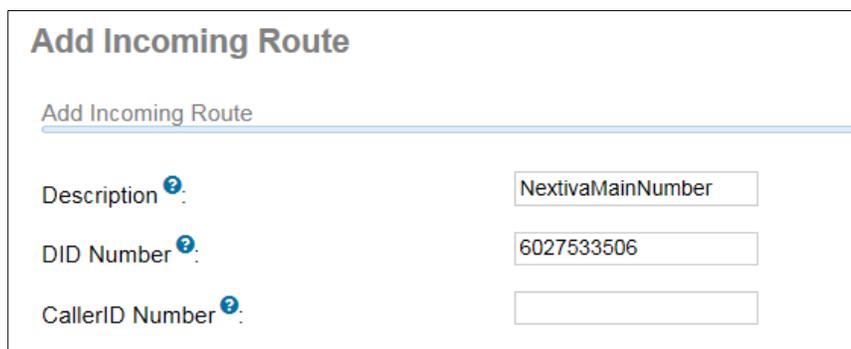
- * User ID: 101
- * Domain: 10.0.41.63
- Password: [masked with dots]
- Display name: User 1
- Authorization name: [empty]

Figure 1-12: SIP Account screen in X-Lite

Setting Up an Inbound Route

You need to configure an inbound route so you can accept incoming phone calls. If you don't, calls to that phone number will produce a message indicating the number has been disconnected. Follow the steps below to set up an inbound route on your FreePBX so you can receive inbound calls:

1. Click the **Connectivity** button at the top of the screen, and select **Inbound Routes** from the menu. The Add Incoming Route screen will appear (*Figure 1-13*).



Add Incoming Route

Add Incoming Route

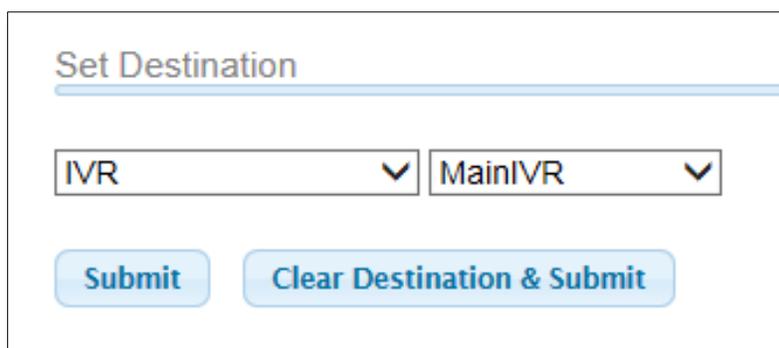
Description [?]: NextivaMainNumber

DID Number [?]: 6027533506

CallerID Number [?]:

Figure 1-13: Add Incoming Route

2. Enter a name for the inbound route in the **Description** text box at the top of the screen.
3. Enter the dialed phone number in the **DID Number** text box at the top of the screen.
4. Scroll to the bottom of the Add Incoming Route screen, and select the phone number's intended destination from the drop-down list under the **Set Destination** heading (*Figure 1-14*).



Set Destination

IVR ▼ MainIVR ▼

Submit Clear Destination & Submit

Figure 1-14: Set Destination

5. Click the **Submit** button at the bottom of the screen.
6. Repeat steps 1 through 5 for any remaining phone numbers you wish to assign.
7. Click the red **Apply Config** button at the top of the screen.