

How to set up Cisco/Linksys SPA phones to connect to VoipNow

Applies to VoipNow 3 and higher!

This article explains how to set up a Cisco/Linksys SPA phone terminal that will be used with the VoipNow phone provisioning module. These recommendations apply to the following phone devices:

- Linksys IP Phone SPA-901 with firmware 4.1.11 and newer.
- Linksys IP Phone SPA-921/922/941/942/962 with firmware 4.1.10 and newer.
- Cisco SPA 500 series (501g, 502g, 504g, etc) with firmware 7.4.x or newer.

Also, you can follow these instructions even if you're doing this for the very first time.

Phone installation

Assuming that your phone is reset to the default configuration:

1. Assemble the power adapter. After plugging the adapter in a wall outlet, push the power jack into the power socket on the bottom of the phone base unit.
2. Connect one end of the RJ-7 cable to the RJ-7 socket on the back of the phone and the other end of the handset cord.
3. Connect the standard RJ-45 Ethernet Cable to the phone LAN (or SW, depending on model) port on the bottom of the phone.
4. Connect the other end of the cable to an Ethernet switch or router.

For more information on the physical installation, check the phone terminal's user guides provided by the vendor.

Configuration of phone network parameters

If the administrator has set up DHCP, the phone will automatically get its network parameters from the DHCP server. At this point, you can skip to the [Configuration of phone provisioning parameters](#) section.

If the administrator has not set up DHCP, you must assign a static IP address to the phone. To do this, take the following steps:

STEP 1: Press the **Setup** key on the phone pad. The **Setup** menu is displayed on the LCD screen. Use the **up** and **down** arrow keys to navigate through the menu.

STEP 2: Navigate to the **Network** entry. Press the key corresponding to the **select** option on the screen (i.e. the left key under the LCD screen). The **Network** menu will be displayed on the LCD screen.

STEP 3: Press the key corresponding to the **edit** (or **select** on newer phones) option on the screen.

STEP 4: Press the key corresponding to the **y/n** option until **No** is displayed on the LCD screen. On SPA 500 series, navigate to **Wan ConnectionType**.

STEP 5: Press the key corresponding to the **ok** option on the screen. The settings will be saved and you will be returned to the **Network** menu. On SPA 500 series, press the **option** key until you get **StaticIP** on the screen. Press the **save** soft key.

STEP 6: Navigate to the **Non-DHCP IP Address** entry and press **edit**.

STEP 7: Using the phone keypad, enter the IP address assigned to the phone. This address must be provided by the VoipNow system administrator. Use the * (star) key to type . (dot).

STEP 8: Press **OK** to save the settings and return to the **Network** menu.

STEP 9: Repeat steps 6, 7, 8 for each of the following entries: Non-DHCPSubnetMask, Non-DHCPDefaultRoute, Non-DHCPDNS1, Non-DHCPDNS2.

STEP 10: Press the key corresponding to the **save** option in the **Network** menu in order to save your network settings and go back to the **Setup** menu.

STEP 11: Next, select the **Restart** entry. Press the key corresponding to **select** and then press **OK**.

Configuration of phone provisioning parameters

STEP 1: Open a web browser and type `http://<Non-DHCP IP Address>/admin/advanced` in the address bar. Assuming that everything was configured correctly, the browser should display the phone web interface.

You can find the IP address assigned to your phone by pressing the **Setup** button. Use the **down** arrow key to navigate to the **Network** entry. Press the key corresponding to **select** and locate the **CurrentIP** entry.

STEP 2: Configure the provisioning feature by following the next steps:

- Click the **Provisioning** tab.
- In the **Configuration Profile** section, set **Provisioning Enable** to **yes**.
- In the **Configuration Profile** section, make sure that the **Resync On Reset** and **Resync After Upgrade Attempt** parameters are both set to **yes**.

- Fill in the provisioning link in the **Profile Rule** field (i.e. the link where the phone will find the configuration files). This link is usually provided by the administrator. In case you did not receive it, check the [Appendix](#) to learn how to obtain it yourself.
- Click the **Submit All Changes** button. The phone will now reboot.

At this point, you should be able to make your first phone call.

Appendix

If your administrator lets you provide the link for the phone yourself, then you should take the following steps:

STEP 1: Log in to the VoipNow web interface with your extension account.

STEP 2: Click the **Provisioning and SIP** icon available in the **Telephony** section.

STEP 3: Customize the following fields taking into consideration the explanations below.

Provisioning

- **Use provisioning** - When enabled, the phone device associated with the extension will get all its setup parameters from the provisioning server. Otherwise, the extension user will have to set the phone parameters manually.
- **Regenerate provisioning location** - When enabled, VoipNow will delete the existing configuration file and will create a new one.

Device Information

- **Friendly name** - Fill in a custom name that will differentiate the provisioned device
- **Phone brand and model** - From the drop-down list, select your phone terminal brand and model.
- **Firmware** - From the drop-down list, select one of the firmware versions corresponding to your phone terminal.
- **Phone MAC** - Fill in the phone's MAC address. You will find it on the back of the phone device. The MAC address for Cisco phones begins with 0018B9.
- **Use MAC based provisioning** - When enabled, the provisioning link will be generated based on the device MAC address as long as the **Allow MAC based provisioning on HTTP(S)** option is enabled from the **Unified Communications Provisioning templates Global preferences**.

Device Settings

- **Phone admin username** - You can leave this field empty.
- **Phone admin password** - You can leave this field empty.
- **Confirm phone admin password** - You can leave this field empty.
- **Phone update interval** - The number of minutes the phone waits before checking for updates on the provisioning server.
- **Update protocol** - This is the protocol used by the phone to access the configuration file on the provisioning server.

SIP Preferences

- **Allowed codecs** - Select the checkboxes corresponding to the codecs supported by the phone device.
- **Equipment description** - You can leave this field empty.

STEP 4: Click **OK** to save the data. The provisioning link will be displayed at the top of the screen.

Related articles

- [How to configure the time for a Phone Terminal through provisioning](#)
- [Understanding and blocking ghost calls](#)
- [How to monitor VoipNow with Homer](#)
- [How to use Homer capture agents with VoipNow](#)
- [How SIP forking works in VoipNow](#)