



 Sangoma

# P-Series IP Phones

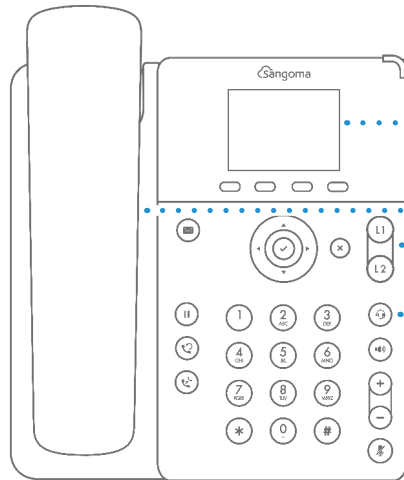
P-Series: P310, P315, P320, P325, P330, P370,  
PM200 Attendant Console

User Guide

# Getting Started

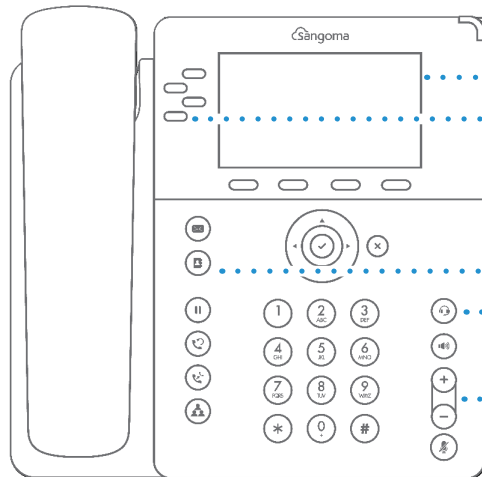
# Meet the P-Series

Sangoma IP phones are designed for the greatest interoperability with Sangoma Unified Communication platforms, including Asterisk, Business Voice, Business Voice Plus, Switchvox, PBXact, and CommUnity phone systems. This guide provides information about the setup and use of Sangoma P310, P315, P320, P325, P330, P370 IP phones (herein referred to as the P-Series) and the PM200 Attendant Console when a Sangoma Configuration Server is not being used. See the Sangoma website for information about using Sangoma phones with Switchvox or the Digium Phone Module for Asterisk (DPMA).



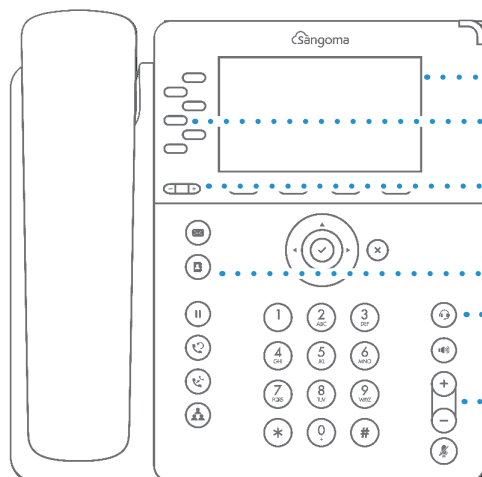
## Value-Based P310 & P315

- ..... 2.4" 320X240 BACKLIT COLOR DISPLAY
- ..... LOUD, HIGH-QUALITY SPEAKERPHONE
- ..... TWO SIP ACCOUNTS
- ..... ETHERNET (**P310** FAST, **P315** GIGABIT)
- ..... HEADSET & EHS SUPPORT
- ..... 2 X LOCK PORTS (KENSINGTON) (BACK)
- ..... MODERN DESIGN SOLID ROBUST BASE



## Mid-Range P320

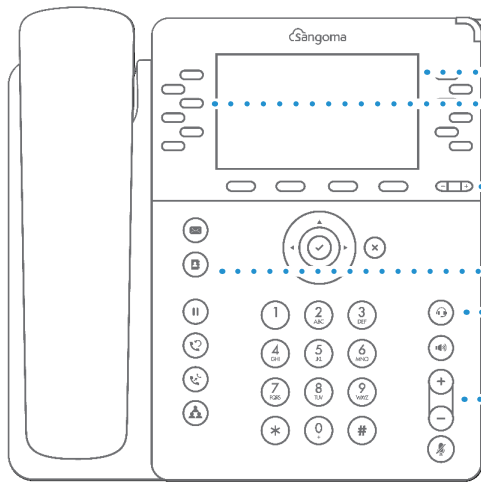
- ..... 4.3" 480X272 IPS GLASS BACKLIT COLOR DISPLAY, ALL-AROUND VIEW
- ..... FOUR SIP ACCOUNTS
- ..... GIGABIT ETHERNET
- ..... SIX DEDICATED PHONE FUNCTION KEYS
- ..... HEADSET & EHS SUPPORT
- ..... 2 X LOCK PORTS (KENSINGTON) (BACK)
- ..... BACKLIT AUDIO FUNCTION KEYS
- ..... USB PORT FOR HEADSET SUPPORT (BACK)



## Mid-Range P325

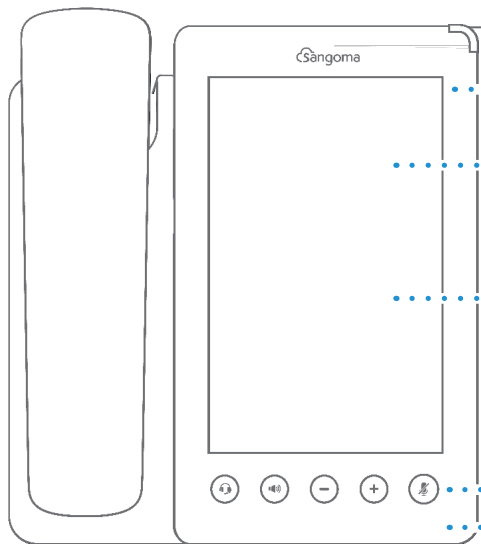
- ..... 4.3" 480X272 BACKLIT COLOR DISPLAY IPS GLASS, ALL-AROUND VIEW
- ..... SIX SIP ACCOUNTS
- ..... PAGE KEY FOR VIRTUAL BLF KEYS
- ..... GIGABIT ETHERNET
- ..... SIX DEDICATED PHONE FUNCTION KEYS
- ..... HEADSET & EHS SUPPORT
- ..... USB PORT FOR HEADSET SUPPORT (BACK)
- ..... BACKLIT AUDIO FUNCTION KEYS
- ..... 2 X LOCK PORTS (KENSINGTON) (BACK)

## Mid-Ranged P330



- ..... 4.3" 480X272 BACKLIT COLOR DISPLAY IPS GLASS, ALL-AROUND VIEW
- ..... 12 SIP ACCOUNTS
- ..... GIGABIT ETHERNET
- ..... PAGE KEY FOR VIRTUAL BLF KEYS
- ..... SUPPORTS EXPANSION ATTENDANT CONSOLE
- ..... SIX DEDICATED PHONE FUNCTION KEYS
- ..... HEADSET & EHS SUPPORT
- ..... BUILT-IN BLUETOOTH & WI-FI 2.4/5G CONNECTIVITY
- ..... BACKLIT AUDIO FUNCTION KEYS
- ..... 2 X USB PORT FOR HEADSET & EXPANSION MODULE (BACK & SIDE)
- ..... 2 X LOCK PORTS (KENSINGTON) (BACK)

## Executive P370

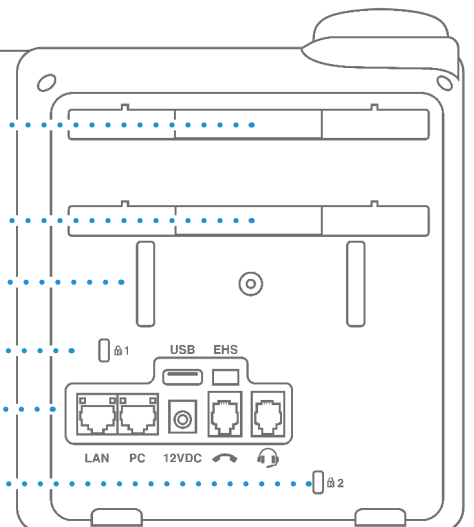


- ..... 7.0" 800X1280 BACKLIT COLOR MULTI-POINT TOUCH DISPLAY MADE OF IPS GLASS WITH ALL-AROUND VISIBILITY
- ..... BUILT-IN BLUETOOTH & WI-FI 2.4/5G CONNECTIVITY
- ..... 2 X USB PORT FOR HEADSET & SIDECAR EXPANSION
- ..... GIGABIT ETHERNET
- ..... 16 SIP ACCOUNTS
- ..... HEADSET & EHS SUPPORT
- ..... SUPPORTS EXPANSION ATTENDANT CONSOLE
- ..... 2 X LOCK PORTS (KENSINGTON) (BACK)
- ..... DEDICATED AUDIO PATH & VOLUME TOUCH KEYS
- ..... 2 X USB PORT FOR HEADSET & EXPANSION MODULE (BACK & SIDE)

## P-Series Back View

*Varies Slightly by Model*

- ..... DESK STAND SLOT (LOW ANGLE)
- ..... DESK STAND SLOT (HIGH ANGLE)
- ..... WALL-MOUNT SLOTTING TABS
- ..... LOCK PORT #1 (DESK STAND IN-USE)
- ..... **CONNECTION POINTS**
- ..... USB, EHS, LAN, PC, DC POWER, HANDSET, HEADSET
- ..... LOCK PORT #2 (WALL-MOUNT IN-USE)

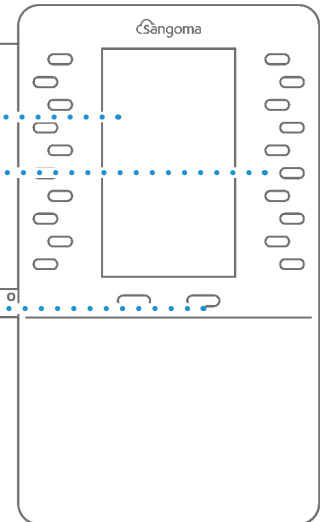


## PM200 Expansion Module

4.3" 480X272 IPS GLASS BACKLIT COLOR DISPLAY, ALL-AROUND VIEW

20 RAPID DIAL KEYS

USB UPLINK CONNECTOR FOR DAISY CHAINING (P325/P370)  
PAGE NAVIGATION (THREE VIRTUAL PAGES)



## Connecting to the Network

### AUTOMATIC

The Sangoma P-series phone uses DHCP and LLDP-MED to discover IP address and VLAN membership information. If successful, it attempts to find a configuration server.

### MANUAL

If not successful, follow instructions in Setting the Network Information (page 5) or Web UI (page 12).

## Configuring P-Series Phone

### XML CONFIGURATION FILE (PREFERRED)

Create and make this file available to the phone as instructed in Getting the Phone Configuration (page 6)

### WEBUI\*\* TOOL

Enter all the configuration information as described in Web User Interface Settings on (page 9).

## Upgrading Phone Firmware

### UC SOFTWARE (PREFERRED)

The recommended method to upgrade firmware is via the UC software platform using the supported method for the UC platform in question. Customers connecting these phones directly to a properly updated and configured Sangoma UC system will have their phones automatically updated to the latest firmware by the phone system platform itself.

### MANUAL FIRMWARE UPGRADE METHOD

Firmware files can be found here: <http://phones.dl.sangoma.com/firmware/p-series/>. From a workstation, download the firmware for the desired model and version. With the phone in the factory default condition, upload the firmware directly using the phone's web user interfaces (WebUI), accessible using a URL with the phone's IP e.g.: <http://<phone IP address>/firmware> The default admin credentials for a P-Series phone are: **Username:** admin **Password:** 789


**NOTE:** Information on default username/passwords for all Sangoma phones is available here: <https://help.sangoma.com/community/s/article/What-are-the-default-login-and-password-for-a-Sangoma-phone>

**NOTE:** The P-series phone WebUI is locked once the phone has been provisioned to a Sangoma UC platform. Once locked, you must first Factory Reset the phone to gain access to the WebUI.

# Get Connected Networks & System Tools

As soon as your Sangoma P-series Phone powers up, the main display shows the Sangoma logo and indicates that it is initializing, loading necessary information, and starting the phone. By default, the phone uses the dynamic protocols DHCP and LLDP-MED to attempt to get an IP address and VLAN membership information. If successful, the phone then attempts to find a configuration server.

The following sections describe what to do if your phone cannot get on the network and get configuration information.

For phone hardware specific information, press the  nav button to bring up the Main Menu then select About. This will display the Phone Model, Firmware Version, firmware Date, MAC address, and IP address.

## Setting the Network Information

To display and configure network settings, press the  nav button to bring up the Main Menu then select Admin Settings.

**NOTE:** Accessing the Admin Settings menu requires the phone admin password. The default admin credentials for a P-Series phone are: **Username:** admin **Password:** 789

Select Network Settings. Here you can manually insert or change the following network parameters: Protocol, IP Address, Netmask, Gateway, Primary DNS, or Secondary DNS.

You can also configure the phone's network using the Network Tab from the Web User Interface provided the phone has not previously been provisioned using an XML config file. If the phone has already been provisioned, then a factory reset is required to unlock access to the phone WebUI. The Factory Reset selection is in the Main menu.

### PROTOCOL

DHCP is selected (highlighted) by default. To enter the IP information manually, press the Next softkey. This changes the protocol from DHCP to Static and enables input fields in which you specify four-part network addresses for the following:

 IP Address  Netmask  Gateway  Primary DNS  Secondary DNS (optional)

**NOTE:** The Delete softkey lets you delete a key-in character, and the Back softkey redisplay the Network Settings Options, or backs up to the previous display page. Use the navigation arrow keys to move from one input box to the next. When ready, press Submit, which will restart the phone for the new settings to take effect. Press Back to redisplay the Admin Settings screen from which you can select any of the other network options.

### QUALITY OF SERVICE SETTINGS

You can set priority values for Voice DSCP and SIP DSCP. However, if LLDP returns specific values to the phone, the values entered here are ignored.

### VLAN (VIRTUAL LOCAL AREA NETWORK) SETTINGS

Discovery Mode– LLDP (Link Layer Discovery Protocol) is selected (highlighted) by default. If the phone does not get a response from LLDP for LLDP-MED voice endpoint, it will assume there is no VLAN. (VLAN information cannot be obtained via DHCP.)

PC Port VLAN ID - (with None or 0 selected in Discovery Mode). Select this option to enter the VLAN information manually. Enter the PC Port VLAN ID (1-4095).

Voice 802.1p Priority - Set a value for PC Port 802.1p Priority. If LLDP returns specific values to the phone, the values entered here are ignored. When finished, press the Submit softkey. NOTE: The Back softkey re-displays the Network Settings Options

#### **ETHERNET PORT MODES**

LAN Port Mode. By default, this is set to Automatic. Press Next to change to 10Mb/s Half Duplex, 10Mb/s Full Duplex, 100Mb/s Half Duplex, 100Mb/s Full Duplex, or 1000Mb/s Full Duplex.

PC Port Mode. By default, this is set to Automatic. Press Next to change to 10Mb/s Half Duplex, 10Mb/s Full Duplex, 100Mb/s Half Duplex, 100Mb/s Full Duplex, 1000Mb/s Full Duplex, or Disable.

**NOTE:** Prev softkey returns the previous choice; Back softkey redisplay the Network Settings Options.

#### **WI-FI SETTINGS (ON SUPPORTED P-SERIES MODELS)**

This option allows for setting up a network connection to a Wi-Fi source for certain P-Series phones.

Navigate to the Admin Settings menu, and select the Wi-Fi Settings selection (☐ nav button > Admin Settings > Wi-Fi Settings)

**NOTE:** Wi-Fi Settings selection may not be visible until you use the nav buttons to scroll down

**Wi-Fi** - press the soft key  to toggle Wi-Fi to enabled.

**SSID** – (Service Set Identifier) or more commonly, the name for the WiFi network you wish to connect to. Key-in the name of the Wi-Fi you wish to connect to or press the Scan soft key to search your network for available Wi-Fi networks. Select your Wi-Fi network. If valid this Wi-Fi name will be entered in the SSID field

**Wi-Fi key type** – This field is “None” by default. However, when a valid SSID Wi-Fi is entered (as above), the key type is automatically recognized and entered here.

**NOTE:** The available key types are:  None  WEP  WPA-WPA2-Personal

**Password** – IF the selected Wi-Fi key type is secured, you will be required to input the specific key type password for that SSID.

**NOTE:** If a password is required, and you do not enter a valid password, you will receive a “Wi-Fi connection failed. Please verify the Wi-Fi settings.” error message.

## Getting the Phone Configuration

The phone can be configured by using either an XML-formatted configuration file (to be downloaded from a PBX server), or by defining configuration information using the phone’s Web User Interface (WebUI) Tool As noted in the previous “Setting the Network Information” section, the WebUI is only available when the phone has not been provisioned or after a Factory Reset.

**NOTE:** If you do not want to manage your full phone configuration, you can manually enter the basic information for your SIP accounts using the SIP Accounts option.

If you are going to create your own XML configuration file, see: <https://wiki.sangoma.com/display/PHON> for a full description of the content and XML format.

The following are possible results of your phone's attempt to find a configuration source:

- It finds more than one source for a configuration file and displays them in a list. It prompts you to select the source you want.
- It finds only one source for a configuration file. It tries to obtain that configuration after 5 seconds.
- It finds no source for a configuration file and indicates that with the message, "There were no configuration servers found ...". The "Settings" soft button will display the boot Settings Menu.

**NOTE:** The boot Settings Menu option, "Sangoma Configuration Server" applies to Sangoma UC products such as Switchvox, PBXact, etc.

#### **OPTION 66**

If you are creating your own configuration file and DHCP returns option 66 with a URL, the file location is found in this order:

```
<URL>lowercase_mac.cfg  
<URL>UPPERCASE_mac.cfg  
<URL>000000000000.cfg
```

The following is an example for the URL 10.10.8.237 and the phone MAC 00-19-15- 9C-06-46:

```
http://10.10.8.237/0019159c0646.cfg  
http://10.10.8.237/0019159C0646.cfg  
http://10.10.8.237/000000000000.cfg  
http://10.10.8.237
```

The phone uses Wget to make the request to the URL indicated by option 66, so the URL can contain user-name, password, and a port number if necessary.

If the phone can fetch a configuration file, it saves the file location. If the phone later restarts and does not get a response from option 66, it will use the previously saved file location to try and obtain a configuration file, or downloads configuration file to your local phone.

#### **FETCH CONFIGURATION FILE FROM URL**

If you are creating your own configuration file, but not using option 66, you may enter a location for the configuration file by selecting Fetch Configuration File from URL.

Fill in the following fields for this option:

- Select the Protocol you wish to use to fetch the file. Choices are http, https, ftp, ftps.
- Enter the four-part Server address.
- Enter the Port number (optional)
- Enter the Path.
- Enter the Username (optional).
- Enter the Password (optional)

Click "Submit" or click "Back" to quit and return to the Phone Setup/Configuration Options.

If the phone can fetch a configuration file, it saves the file location.

**WEB USER INTERFACE TOOL**

If you are not creating your own configuration file, you can use the Web User Interface tool to enter configuration information. This is described in Web User Interface Settings on page 9.



## Resetting, Reconfiguring, or Restarting

**RESET TO FACTORY DEFAULTS**

Select Factory Reset, which is listed under the phone's Main Menu (press the  $\square$  nav button > Factory Reset), to clear all configuration information from the phone and start over.

**CAUTION:** This removes all existing accounts and contacts as well as configuration information.

**RECONFIGURE**

Select Reconfigure, which is listed under the phone's Main Menu. The phone asks you to confirm the reconfigure request. Click Yes to begin the operation. Reconfigure does not remove the current configuration until the new configuration is obtained. Unsupported UC platforms, you can also reconfigure the phone from the Asterisk command line interface as follows:

- ⦿ pjsip send notify digium-check-cfg endpoint <list of pjsip endpoints>
- ⦿ pjsip send notify digium-check-cfg uri <list of pjsip URIs>

This Asterisk command notifies the Sangoma Phone to get its configuration again.

**RESTART**

Click the Restart option from the phone's Main Menu to restart the phone using the current configuration. The phone issues a prompt that asks if you are sure you want to restart your phone. Click the Yes softkey to restart; or click No to cancel the operation and redisplay the phone's Main Menu



## Tech Support (TS)

This section displays a list of available tech support tools to gather additional phone information and for troubleshooting. The first options under the Tech Support settings page are used at the direction of Sangoma Technical Support.

**IMPORTANT:** Do not use these settings unless it is at the request of Sangoma Technical Support.

- ⦿ Enable/Disable Tech Support Access – To enable or disable ability of technical support persons to have remote access to this phone
- ⦿ Connect to Tech Support – You can enter a password (provided by tech support representative) which will allow a Tech support agent to connect to your phone.
- ⦿ Proxy Settings – To setup a proxy server host IP address and username/password

**NETWORK UTILITIES**

Utilities/Tools for the Tech support person to use in trouble-shooting phone problems

- ⦿ Ping – Allows TS to verify active IP Addresses
- ⦿ Traceroute – Tool for TS to track the pathway taken by a packet of data on an IP address from source to destination
- ⦿ Nslookup – Look up IP address for a given domain name
- ⦿ List mDNS Services – mDNS (multicast DNS) resolves hostnames to IP addresses within small networks
- ⦿ Enable Boot Up Debug Mode – When selected the phone will prompt if you are sure you want to restart your phone



# What's Next?

# Web User Interface Settings

The Sangoma P-series phone web user interface (WebUI) provides a means of setting basic phone configuration options manually from a web browser. To access the phone's WebUI, it must not have been previously provisioned by a Sangoma configuration server.

Otherwise, to get to the phone's WebUI, using a browser go to:

- ◉ **http://phone-ip** (phone IP address)
- ◉ **Username:** admin (phone administrator username)
- ◉ **Password:** 789 (default factory admin password)

**NOTE:** If you cannot access the phone's Web UI, and receive the following message, "Access to this Web User Interface has been disabled", then your phone must be Factory Reset, as described above. To Factory Reset, navigate to the Main Menu, scroll to the bottom and select "Factory Reset". After resetting and a reboot, the phone's WebUI should now be accessible.

**NOTE:** To find your phone's IP address, using softkeys navigate to Main Menu > About. This displays the phone's model number, firmware version, MAC address, and IP address. To find the IP address when the phone has no configuration, press the About softkey from the Settings menu.

The Web User Interface page for the Sangoma Phone Settings includes tabs that display pages for these items: ◉ **Lines** ◉ **General** ◉ **Preferences** ◉ **Contacts** ◉ **Network** ◉ **Logging** ◉ **Ringtones**

**IMPORTANT:** Anytime you click Submit Phone Settings (at the bottom of the page), it saves all changes that have been entered under any tab.

## Lines Tab

To define the Sangoma Phone's Line keys (the SIP accounts), click the Lines tab. This displays the Lines page with tabs for individual lines. For each line, select its tab, then enter or select information as indicated:

### LINE STATUS

If a line is not enabled, that line is not available for use on your phone. Enable this Line—YES or NO. If enabled, this line will be displayed on your phone's line keys, otherwise its settings will be preserved, and it will not appear on your phone.

**NOTE:** Line 1 is the main or primary extension for your phone, and you cannot disable it.

### GENERAL

- ◉ User ID / Extension
- ◉ Authorization Name – By default this is the same as your User ID / Extension. Leave this blank unless instructed by your provider.
- ◉ Line Label on Phone
- ◉ Caller ID Name
- ◉ Register – NO or YES
- ◉ Password – SIP secret
- ◉ Voicemail Extension or SIP URI. Numeric Extension or a URI formatted as sip:user@host
- ◉ Digitmap – The digitmap is the setting that describes different dialing patterns of numbers. When a dialed number matches a digitmap pattern, the number is sent to the SIP account to place the call. The pattern may include a timer at the end. If no numbers are entered before the time expires, the number matching the pattern will be sent. If additional numbers are entered before the time elapses, the pattern no longer matches.

**PRIMARY HOST**

- ⊙ IP Address or Hostname of SIP server
- ⊙ Port
- ⊙ Transport—UDP, TCP or TLS
- ⊙ Seconds until Re-Registration
- ⊙ Seconds until Retry on Failure

**ALTERNATE HOST**

If the phone cannot register to the Primary Host, it registers to the Alternate Host. Setting fields are the same as the Primary Host (above).

**SIP OUTBOUND PROXY**

- ⊙ IP Address or Hostname.
- ⊙ Port



## General Tab

Enter the following general setting information as indicated and click the “Submit Phone Settings” button when finished.

**SETTINGS PASSWORD PROTECTION**

- ⊙ Enter the Admin Password.
  - ⊙ The program informs you of the quality of the password—too short, weak, strong, etc.
- ⊙ Enter the password again for confirmation.

**TIME**

- ⊙ Select Timezone / Location from dropdown.
- ⊙ Enter NTP Server
- ⊙ Enter Seconds until NTP Resync

**SIP**

- ⊙ Select either “Accept all calls from any host” or “SIP Account Hosts”. If you choose “SIP account hosts”, the phone will only accept calls from servers to which the phone has registered accounts.
- ⊙ Local SIP Port (default is 5060) – this is the SIP signaling port used locally by the phone and is not related to the SIP port(s) used for line registration.

**FIRMWARE**

- ⊙ Displays the Current Firmware Version: in the following format: 4\_9\_2
- ⊙ Click Firmware Update to upload apply a different firmware version to your phone
  - ⊙ Click in Firmware File box to select the desired firmware file on your workstation
  - ⊙ When the firmware file is selected, press Update to this Firmware Version.
  - ⊙ Select Yes to proceed with firmware update, Select No to cancel.

**PHONE RELOAD**

- ⊙ Select Restart Phone
- ⊙ Press Yes to continue, or No to return to previous selection

**ADVANCED: AUDIO CODECS**

- Click the arrow to expand the list display.
  - Use the arrow icon to reorder the list up or down.
  - Use the disable icon to remove a codec.
  - Use the enable icon to add a codec.
  - Click the gear (setup) icon to view/edit that individual codec settings

**Preferences Tab**

The following preferences can be set. Click Submit Phone Settings when finished.

**LOCALIZATION**

- Language/Locale. From the pull-out menu, select the language locale you wish the phone to use. This affects the date and time display format and these tones: busy, dial tone, call-waiting beep, congestion (fast busy), and ring back. English/United States is the default.
- Time Format. From the pull-out menu, select the time format you wish the phone to use: 2:30 pm (12 hour); 15:30 (24 hour); or, 15.30 (24 hour)

**IDLE SCREEN**

- Logo Image—the current image is displayed, and you have the option of uploading a different image
- Wallpaper
- Small clock

**CALL ANSWERING**

- Headset Answer—select NO or YES. If YES, when you press the Answer softkey during an incoming call, the call is answered on the headset, not the speaker.
- Ring Headset Only—select NO or YES
- Electronic Hook Switch Type—Options are Automatic, Plantronics, and Jabra IQ. If you select Jabra IQ, the Jabra headset must be set to IQ mode. If the Jabra headset does not support Jabra IQ, you may need to update the firmware on the headset. See the manufacturer's documentation for more information.

**DISPLAY**

- Brightness. Adjust by moving the marker on the sliding scale.
- Contrast. Adjust by moving the marker on the sliding scale.
- Backlight Dimming—select NO or YES
  - If YES, enter the Seconds until Backlight Dim
  - If YES, adjust the Backlight Dim Level. It cannot be greater than brightness
- Display Missed Calls Notification—select YES or NO

**SOUNDS**

- Select the Default Ringtone from the dropdown.
- Adjust the following volumes by moving the marker on the sliding scale.
  - Ringer Volume
  - Speaker Volume
  - Handset Volume
  - Headset Volume
- Set Reset Volume Every Call—select NO or YES
- Set Call Waiting Tone—select NO or YES



## Contacts Tab

Set the Rapid Dial Keys for the Phone. When finished, click Submit Phone Settings.

- ⦿ Enable Contacts on Main Line Keys—select NO or YES. If YES, your unregistered line keys will be used as Rapid Dial Keys for contacts.
- ⦿ Number of Rapid Dial Subscriptions (i.e., the number of Rapid Dial contacts to subscribe to presence updates from). Use the sliding bar to select up to 105. The default is 15.



## Network Tab

Network Tab settings may be set from either the Phone or the Phone Web Interface. Setting from the Phone is described in “Network & System Tools” (page 5). When finished setting values, Click Submit Phone Settings.

### IPV4 ADDRESS

- ⦿ Automatic DHCP—select YES or NO. If set to NOS, the following parameters are available to be set:
- ⦿ Static IP Address
- ⦿ Subnet Mask
- ⦿ Default Gateway
- ⦿ Primary DNS Server
- ⦿ Secondary DNS Server

### VIRTUAL LAN

- ⦿ Discovery Mode. LLDP, Manual, or None
- ⦿ ID (1-4095).
- ⦿ Voice 802.1p Priority.
- ⦿ SIP 802.1p Priority.
- ⦿ PC Port VLAN ID (1-4095).
- ⦿ PC Port 802.1p Priority

### QUALITY OF SERVICE

- ⦿ Voice DSCP. Select a value using the sliding scale, 0-63.
- ⦿ SIP DSCP. Select a value using the sliding scale, 0-63.

### ETHERNET PORT MODES

- ⦿ LAN Port Mode. Select value from dropdown menu (Manual, 10Mb/s Half Duplex or Full Duplex, or 100Mb/s Half Duplex or Full Duplex).
- ⦿ PC Port Mode. Select value from dropdown menu (Manual, 10Mb/s Half Duplex or Full Duplex, or 100Mb/s Half Duplex or Full Duplex, or Disable).

### ADVANCED NETWORK SETTINGS

Click the Arrow icon to display Miscellaneous Settings.

- ⦿ Enable UDP Persist-Connection—select NO or YES. If YES, the next option is available.
- ⦿ UDP Persist-Connection Interval—Select a priority 5-300 using the sliding scale. This option attempts to keep the NAT tunnel active by pinging the server on a regular interval.



## Logging Tab

Logging Tab is a Technical Support tool; do not change the default settings unless support requires you to.

### LOG LEVEL

- ◉ Log Level. To change, select level from the dropdown menu: Error, Warning, Information, Debug.

### ENABLE NETWORK LOGGING (SYSLOG)

- ◉ Select NO or YES. If YES (enabled), the following options can be set.
- ◉ Enter IP Address or Hostname.
- ◉ Enter number for Port.

### IP ADDRESS OF HOSTNAME

Enter the IP address of the host.

### PORT

Enter the Port number.



## Ringtones Tab

Select this tab to display the Upload Ringtone page. This page lists the already uploaded ringtones, including the pre-loaded tones, and it displays how much space you have available for adding more ringtones.

To add a new ringtone, do the following:

- ◉ Click the Upload Ringtone icon.
- ◉ Enter the Ringtone File name. It must be a WAV file.
- ◉ Enter the Name you are calling the ringtone on your phone.
- ◉ Click the Upload Ringtone button.

### RINGTONE LIST

The list of ringtones includes each ringtone's Name, File Size, Type, and Action options: Play, Edit, and Delete. The following tones are pre-loaded; they cannot be edited or deleted:

- ◉ Alarm
- ◉ Beep
- ◉ Chimes
- ◉ Digium
- ◉ Guitar Strum
- ◉ Jingle
- ◉ Office
- ◉ Office 2
- ◉ Rotary Phone
- ◉ Steel Drum
- ◉ Techno
- ◉ Theme
- ◉ Tweedle
- ◉ Twinkle
- ◉ Vibe


# Phone Apps & Calling

## Phone Apps

### CALL LOG

Press the Call Log app to display your call activity for received, dialed, and missed calls. You can dial from the Call Log, see the details of the call, and save the caller as a Contact. Select from the available options on the 'Filter' softkey to choose the type of calls displayed in the call history, All Calls, Missed Calls, Dialed Calls or Received Calls.


### FORWARD CALLS

Use the Forward Calls app to automatically send all incoming calls to another number. From the idle screen select the configured softkey or access from the main menu by pressing the  nav button, select Applications, then select Forward.

The main display window now displays a text box. Manually enter a forwarding number or press the Contacts softkey to select one of your contacts. Then press the Set softkey. To turn off forwarding, return to the Forward Calls app and press the Off softkey.

### BLUETOOTH / WIRELESS HEADSET (FOR SUPPORTED MODELS ONLY)

Bluetooth/Wireless Headset app allows you to turn on and off the option to use BT for BT wireless headsets.

- ◉ Navigate to the Main Menu ( nav button)
- ◉ Select Applications then select Bluetooth

There are further instructions on this page of how to proceed.

- ◉ Press the BT On soft key to activate BT.
- ◉ Press the Search soft key to find BT enabled devices
- ◉ When the device you are looking for is found, press the Pair soft key, and the device will pair up and show as Connected.
- ◉ First search for available devices, then pair or unpair the device. When a Bluetooth/Wireless device is paired, the headset audio path causes audio to go to the Bluetooth/Wireless device, instead of to the normal wired headset.

### CONTACTS

The Contacts app is used for rapid dialing, direct dialing to voicemail, checking another phone user's status and for seeing detailed information about an entry in the contact list.

- ◉ Press the Contacts softkey or select it from the Applications in the Main Menu to view contacts list,
- ◉ Use the arrow buttons to scroll through the entries in the contact list. To see details for a contact, press the Show softkey in a list of contacts. Details include the phone user's status.

### PARKED CALLS

When in an active call, pressing the "Park" softkey will place the current active call in the parking lot. When the phone is idle, pressing the "Parked Calls" softkey will allow the phone user to visually browse all calls waiting in the parking lot, and retrieve one to answer.

### CALL QUEUES

Press Call Queues to access the queue management established for your phone.

### STATUS

Press the Status softkey to update the phone user's status. A list of status options will be displayed, which

may differ depending on the UC platform the phone is registered to. With a very basic configuration, the phone user can choose from Do Not Disturb (DND) and Available. When set to DND, the phone sends a SIP response 486, which indicates busy.

#### **VOICEMAIL**

Press the Voicemail button to open the voicemail system as indicated in your phone configuration



## Calling

The following are the basic calling features of the Digium Phone:

#### **DIALING**

Pick up the handset or press a line key and dial a number. Alternatively, dial a number and then lift the handset or press the Dial softkey.

Dialing is also possible from Contacts app or from the Call Log. Scroll through the list until the desired number is highlighted then press the Dial softkey.

#### **RECEIVING CALLS**

While the phone is ringing, pick up the handset or press the answer softkey to answer the call. Pressing the Ignore softkey makes the call stop ringing but uses your Call Rules.

During a call, you can answer another incoming call. Press the blinking line key to answer and put the active call on hold or continue with your active call, press the down direction key to highlight the new call, and press a softkey

#### **REDIAL**

Press the Redial button to redial the last call you made. (If you have multiple lines, Redial automatically uses the correct line.)

#### **HOLD**

During a call, press Hold. The line key flashes red. To resume that call, press either the flashing line key or the Resume softkey. If you have multiple calls on hold, and you want to resume one of the calls, highlight that call in your call list and press its Resume softkey.

#### **TRANSFER**

##### **ASSISTED**

During a call, press the Transfer button. Enter a number or press the Contacts softkey to find a number. Press the Dial softkey. When someone answers, inform them of the call to be transferred. Press the Transfer softkey, and the transfer is completed.

##### **UNASSISTED (BLIND)**

During a call, press the Transfer button. Enter a number or press the Contacts softkey to find a number. Press the Transfer softkey, and the transfer is completed.

#### **CONFERENCE (3-WAY CALLS)**

During a call, press the Conference softkey. Make a call, or Resume an existing call. Press Conference again to connect all participants. To end the Conference and put both calls on Hold, press the Split softkey on either call.

# Terms & Definitions

<b>DHCP</b>	Dynamic Host Configuration Protocol
<b>DDNS</b>	Domain Name System – Human language representation of an IP address
<b>IP</b>	Internet Protocol
<b>LLDP</b>	Line Link Discovery Protocol
<b>LLDP-MED</b>	Line Link Discovery Protocol – Media Endpoint Devices
<b>OPTION 66</b>	DHCP option. When set devices will also receive the address of a provisioning server, for autoprovisioning
<b>PBX</b>	Private Branch Exchange system – a communication system that provides voice connectivity through desk phones within an organization
<b>PRIMARYDNS</b>	The main authoritative nameserver for a domain
<b>SECONDARYDNS</b>	As it indicates, the secondary or backup for a Primary DNS
<b>PROTOCOL</b>	In networking, a set of rules for formatting, processing and transporting data over an internet network
<b>PROVISIONING</b>	A process that configures a SIP phone to work with an IP PBX system
<b>NETMASK</b>	A mathematical mask that hides a portion of an IP address and replaces it with other numbers
<b>GATEWAY</b>	A network node or device that forms a passage between two networks operating with different transmission protocols
<b>SIP</b>	Session Initiation Protocol (SIP Trunking) – communications protocol for integrating multimedia communication sessions
<b>URL</b>	Uniform Resource Locator – a reference address to a resource on the internet
<b>VLAN</b>	Virtual Local Area Network
<b>VOICE DSCP</b>	Voice using Differentiated Services Code Point
<b>XML</b>	Extensible Markup Language – a markup language that defines a set of rules for encoding documents in a format that is both machine-readable and human-readable. a markup language much like HTML



