TIPT – Grandstream WP820

Installation Guide

1. WP820 Package contents

1x Rechargeable Battery

1x Charging Station

1x Handset Belt Clip

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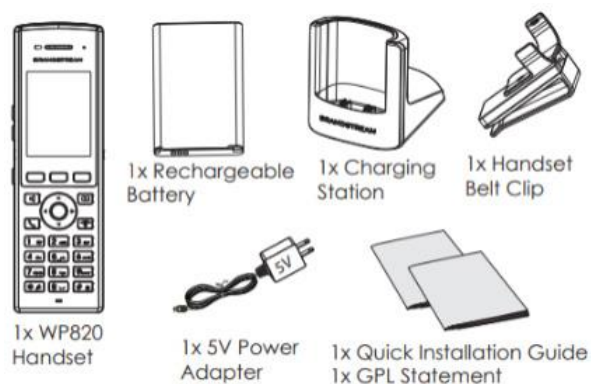
VLAN Requirements

VLAN segmentation is required to demarcate and

allow prioritisation of voice traffic. VLAN ID 100 is recommended as the Voice VLAN to ensure configuration consistency across all sites. PC's will typically piggy-back from the IP Phone but reside in the Data VLAN (that is: VLAN ID 1).

The use of Cisco switches with CDP provides

automatic VLAN assignment of IP Phones where Voice VLAN's have been configured.

In non-Cisco LAN switch environments, the VLAN

ID (that is: VLAN 100) will need to be manually configured, unless the IP handset has support for LLDP. (All our handsets support LLDP, so LLDP will need to be configured on the switch or alternatively handsets will need to be manually set with the voice VLAN (not recommended).
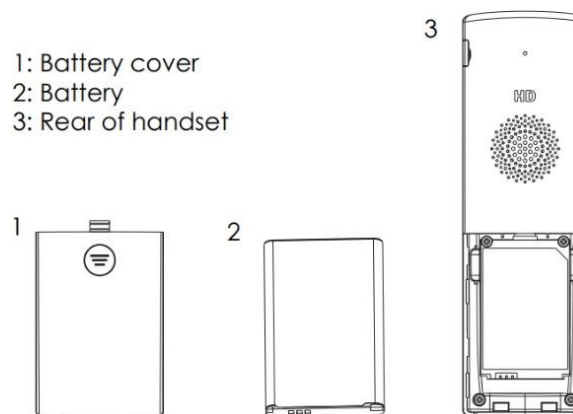
For TIPT customers connecting over the internet,

QoS is not mandatory, however a separate prioritised voice VLAN should be implemented where possible.
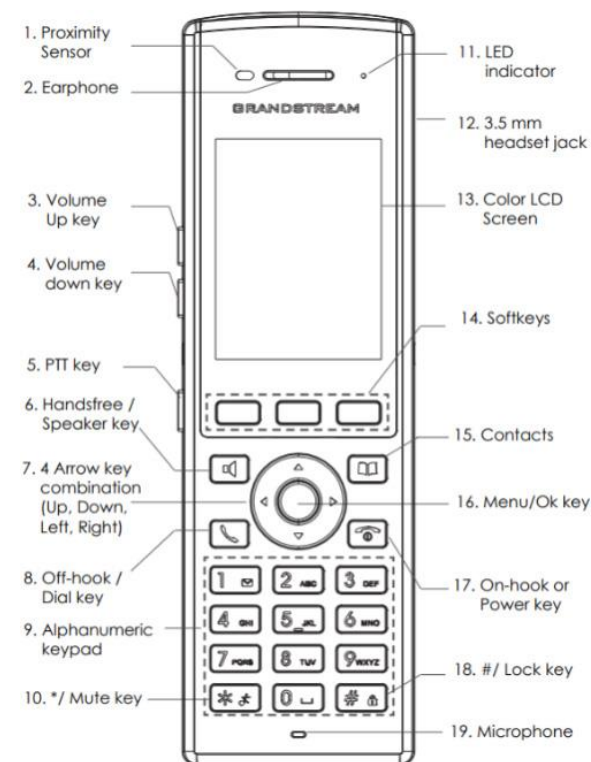
2. Charging station and handset

Plug the power adapter into a power source socket to start using the charging station.

1: Charging station
2: Power adapter
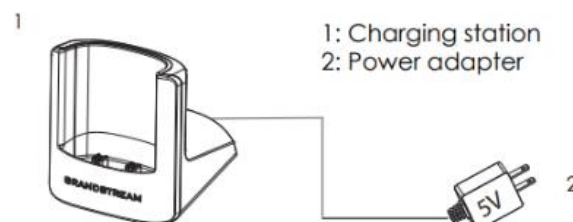
- Open the battery cover.
- Insert the battery with the electrodes in the bottom left corner.
- Close the battery cover.

1: Battery cover
2: Battery
3: Rear of handset

3. WP 820 Description

1. Proximity Sensor
2. Earphone
3. Volume Up key
4. Volume down key
5. PTT key
6. Handsfree / Speaker key
7. 4 Arrow key combination (Up, Down, Left, Right)
8. Off-hook / Dial key
9. Alphanumeric keypad
10. */ Mute key
11. LED indicator
12. 3.5 mm headset jack
13. Color LCD Screen
14. Softkeys
15. Contacts
16. Menu/Ok key
17. On-hook or Power key
18. #/ Lock key
19. Microphone

4. Connecting to Wi-Fi Network

- On the LCD menu, press Menu key and navigate to Settings → Network Settings → Wi-Fi.
- Set Wi-Fi to "On" and navigate to "Wi-Fi Settings". A list of Wi-Fi networks will be displayed.
- Select the desired network to connect to. (Enter the correct password to connect if requested).

WP820 will display the Wi-Fi icon on top of the main

LCD menu if the connection to the Wi-Fi network is successful.

5. Provisioning through DHCP enabled Router / Modem

Grandstream handsets support DHCP, HTTPS, HTTP provisioning, and CDP.

As shipped, they support DHCP-based provisioning (DHCP option 66, 160, 159, or 150 point to a provisioning server). The DHCP "Option To Use" parameter has 66,160,159,150,60,43,125 as default values.

Where your network DHCP has been set up as expected, provisioning a new WP820 handset will be as simple as connecting to Wi-Fi.

Turn on the Grandstream handset using the OnHook/Power key (see Description diagram, item 17).

There will be a short delay while the handset collects its configuration from the TIPT Platform. You will then be able to enter your credentials.

The basic steps for provisioning Grandstream handsets are:

1. Press "**Configure**" soft key from the Welcome screen.
2. Select the language from the options on the next screen. By default, English (United States) is the selected option.
3. Select the time-zone from the options on the next screen. Use the up arrow to navigate to the Australian standard time zone.
4. Select the Find and Select the appropriate Wi-Fi network. Enter the WI-Fi Password.
5. The handset restarts, connects to the Wi-Fi network with the DHCP option configured, and downloads the bootstrap file. If the device has any firmware other than that accredited for use with TIPT, there will be a short delay while the correct firmware is downloaded.

6. There is a download indicator on the top right corner suggesting the firmware download in progress. After ~5 minutes, the device will download firmware and display the following message **Firmware downloaded successfully. Installing in ** seconds**. You can press **install soft key** to start the installation or wait for the device to auto upgrade after ** seconds.
7. Once the firmware installation is completed the device will restart. The device will display the installed firmware version followed by the credential input page. Enter your credentials and press **Save**.
8. The device will download it's TIPT configuration and restart.
9. The device will boot-up to the Welcome screen. Press **Cancel** to go to the home screen to view the registered lines.
10. Select the Wi-Fi network to connect the handset. Enter the **Wifi password** and press **Connect**.

6. Provisioning through NO-DHCP enabled Router / Modem

Provisioning via Handset :

- If the device is connected to a Wi-fi router with no DHCP options configured, then the bootstrap URL must be populated manually using the handset keypad.
- Navigate to Settings > Advanced Settings > System Upgrade > Config > Config modify
- Set the Upgrade mode – http Config server path - polydms.digitalbusiness.telstra.com/dms/bootstrap/
- Then Save and follow from Step 5 from the Provisioning through DHCP Enabled Router / Modem.

Provisioning via Handset Web GUI :

- Connect the computer to the same network as WP820.
- Make sure the WP820 is booted up and powered correctly.
- You may check WP820 IP address via a subscribed WP820 on its LCD menu Settings → Network Status. Please see [WP820 Network Status]
- Open the Web browser on your computer and enter the WP820 IP address in the address bar of the browser.
- Enter the administrator's username and password to access the Web Configuration Menu. The default administrator username and password are "admin"; the default end-user username is "user" and the password is "123". - If 'Disable web UI access' parameter is enabled under Advanced settings → System security; web UI access will be disabled.

Provisioning via Handset Web GUI – Cont'd:

- Once logged in Navigate to Maintenance > Upgrade > Config File > Configure via Network
- Uncheck Use Grandstream GAPS to display the options to enter bootstrap URL Config Update Via - HTTP Config Server Path polydms.digitalbusiness.telstra.com/dms/bootstrap/
- **Note:** The setup wizard will always appear on a new/fresh factory reset device until it is completed or cancelled from the handset LCD no matter what is being configured in the background or web UI. This is by design.
- The device will show the Configure welcome screen after every reboot ie: Step 5, Step 7 and Step 8.
- You can also select the Roaming mode in the next screen after Step 4.

Stability mode:

Longer Wi-Fi scanning interval. Suitable for stable wireless environments or device is stationary.

Aggressive mode:

Short Wi-Fi scanning interval. Suitable for unstable wireless environments or frequent device movement.

7. Useful Links from Grandstream

Grandstream WP 820 User Guide – Here

Grandstream WP 820 Admin Guide – Here

8. Group tgs for the TIPT Administration Portal

Note: If provisioned via UCSS tags are set up automatically at the group level for the devices and if needed, can be changed based on the customer requirements.

Group level – NAPTR mode (Phone could be used on any Network)	
Tag Name	Tag Value(s)
%TIPT_STATE% (Based on the state)	vic-all.business.connect.telstra.com wa-all.business.connect.telstra.com tas-all.business.connect.telstra.com sa-all.business.connect.telstra.com qld-all.business.connect.telstra.com nt-all.business.connect.telstra.com nsw-all.business.connect.telstra.com
%IFOLDER%	1

Group level – TCP mode (Phone could be used on TBB)	
Tag Name	Tag Value(s)
%TIPT_STATE%	vic-all.business.connect.telstra.com wa-all.business.connect.telstra.com tas-all.business.connect.telstra.com sa-all.business.connect.telstra.com qld-all.business.connect.telstra.com nt-all.business.connect.telstra.com nsw-all.business.connect.telstra.com act-all.business.connect.telstra.com
%DNS_MODE%	1
%SIP_TRANSPORT_TYPE%	1
%SIP_PORT_1%	5060
%SIP_PORT_2%	5060

Group level – UDP mode (Phone could be used on MPLS /TBB)	
Tag Name	Tag Value(s)
%TIPT_STATE% (Based on the state)	vic-all.business.connect.telstra.com wa-all.business.connect.telstra.com tas-all.business.connect.telstra.com sa-all.business.connect.telstra.com qld-all.business.connect.telstra.com nt-all.business.connect.telstra.com nsw-all.business.connect.telstra.com act-all.business.connect.telstra.com
%DNS_MODE%	1
%SIP_TRANSPORT_TYPE%	0
%SIP_PORT_1%	5060
%SIP_PORT_2%	5062

Group level – TLS mode (Phone could be used on TBB /3rd Party)	
Tag Name	Tag Value(s)
%TIPT_STATE%	vic-all.business.connect.telstra.com wa-all.business.connect.telstra.com tas-all.business.connect.telstra.com sa-all.business.connect.telstra.com qld-all.business.connect.telstra.com nt-all.business.connect.telstra.com nsw-all.business.connect.telstra.com act-all.business.connect.telstra.com
%DNS_MODE%	1
%SIP_TRANSPORT_TYPE%	2
%SIP_PORT_1%	5061
%SIP_PORT_2%	5061