



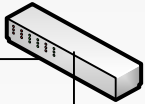
Network Connection



NORTEL BCM50-3.0
IP: 10.128.104.100
SN: 255.255.255.0
GW: 10.128.104.254

NORTEL WLAN 2245
IP TELEPHONY MANAGER
IP: 10.128.104.101
SN: 255.255.255.0
GW: 10.128.104.254

First Network Aliases: 10.128.104.1
Last Network Aliases: 10.128.104.5



Cisco 2960 Switch
With VLAN



Cisco AIR-RM1252-G-A
Access Point #1
At Phone Backboard



WLAN 6120 IP Phone
IP: 10.128.104.31
SN: 255.255.255.0
GW: 10.128.104.254

TrmType: i2004



Cisco AIR-RM1252-G-A
Access Point #2
In 25' Store Ceiling – Middle of Floor

6120 IP Phones with BCM50 3.0

WLAN Network Diagram

12/15/2009

Nev-Comm (702) 320-2800
-M. Fratarcangeli



NORTEL BCM50-3.0
IP: 10.128.104.100
SN: 255.255.255.0
GW: 10.128.104.254

Connect to the Nortel BCM50 via Laptop using Element Manager.

- 1) Browse to: SYSTEM; KEYCODES
 - BCM requires an IP Client License for each Wired/Wireless IP Phone.
- 2) Browse to: SYSTEM; IP SUBSYSTEM
 - Change IP Address, Subnet Mask and Gateway of BCM.
- 3) Browse to: RESOURCES; TELEPHONY RESOURCES.
 - Enable IP Phone Registration.
 - Enable Auto Assign DN.
 - Change Global Password to: 123456 (Used for IP Set Registration at a later step).
- 4) Browse to:

The BCM is now set-up and programmed correctly for use of the Wireless IP Phones.

Proceed to step2, Setup of the 2245 Wireless IP Telephony Manager



**NORTEL WLAN 2245
IP TELEPHONY MANAGER**

IP: 10.128.104.101

SN: 255.255.255.0

GW: 10.128.104.254

Connect to the Nortel 2245 IP Telephony Manager via Laptop using Telnet or you can connect with a DB9 Null Modem Cable to the Com Port using Procomm/Hyperterminal. 9600, 8,N,1 using VT-100 Terminal Emulation.

Press Enter to display the login screen.

Enter the default login: admin

Enter the default password: admin

Note: The login name and password are case-sensitive.

Note: Telnet can only be used after the WLAN IP Telephony Manager IP Address is configured.

1) Browse to: NETWORK CONFIGURATION

-Select Network Configuration on the NetLink SVP-II System screen to configure the IP address, hostname, subnet, default gateway and the IP address of TFTP Server.

-Press ESCape on keyboard to backup to previous menu.

2) Browse to: SVP-II Configuration

-Change Phones per Access Point to: 10

-Change 802.11 Rate to : Automatic

-Change First Alias IP Address: 10.128.104.1

-Change First Alias IP Address: 10.128.104.5

Note: enter the range of IP addresses that this WLAN IP Telephony Manager 2245 can use when acting as a proxy for the wireless handsets.

Note: All alias addresses must be on the same subnet as the WLAN IP Telephony Manager 2245. The IP addresses cannot be duplicated on other subnets or WLAN IP Telephony Managers 2245.

3) Browse to: Reset – You will need to reset the 2245 IP Telephony Manager to update the configuration and accept all changes.

The 2245 IP Telephony Manager is now set-up and programmed correctly for use with the BCM and Wireless IP Phones.

Proceed to step3, Setup of the 61XX Wireless IP Phones



WLAN 6120 IP Phone
IP: 10.128.104.31
SN: 255.255.255.0
GW: 10.128.104.254

TrmType: i2004

In order to enter the Admin menu you need to perform the following

- with handset powered off
- press and hold Green Key
- then press and release Orange Key
- then release Green Key when “Admin Menu” is displayed
- enter password (default 123456)
- use the navigation keys to scroll through the options and select menus

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- 1) Navigate to: PHONE CONFIG:
 - Change Telephony Protocol: Type 032
 - Change TrmType: i2004 {Verify this option in top half of LCD on phone. The Phone displays this option backwards sometimes.}
- 2) Navigate to: NETWORK CONFIG: Select Static or DHCP.
 - Change: Phone IP 10.128.104.31
 - Change: TFTP Server IP 10.128.104.99 – Your Laptop. Will be used to load firmware.
 - Change: Default Gateway 10.128.104.254
 - Change: Subnet Mask 255.255.255.0
 - Change: SVP IP Address (IP Address of the 2245: 10.128.104.101)
- 3)
 - Change REG DOMAIN: 01
 - Change Telephony Protocol: You MUST press LINE first, then enter 01.
- 4) Press the Orange Button to reboot the IP Phone.

NOTE: I would suggest that you do not setup any Network Security at this point. It will only make troubleshooting difficult. You can set this up later, after the IP Phones are working.

The IP Phones are now set-up and programmed correctly for use with the BCM and 2245 IP Telephony Manager.

Proceed to step4, Download Firmware to 61XX Wireless IP Phones and 2245 IP Telephony Manager.

You will need to install the HAT TOOL Software on your Laptop to download the firmware to the 61XX IP Phones.

NOTE: You will require the following Firmware: **HAT_tool_2.4.0.15.zip** used to upload firmware to the IP Phones and communicate with the Dual Desktop USB Charger.

61XX IP Phones: **115_022**

2245 Telephony Manager: **174.035.zip**

You will also need to install a TFTP Server software onto Laptop. This is needed to allow the firmware to install to the IP Phones and 2245 Telephony Manager.

You can use a free TFTP Software by Solarwinds: http://www.solarwinds.com/products/freetools/free_TFTP_server.aspx



Please note: The driver for the Dual Desktop Charger to USB Connection is located within the HAT_tool_2.4.0.15.zip Folder and is named: **slnkusb.sys**

You will need this file (**slnkusb.sys**) in order for your Laptop to recognize the USB to Dual Desktop Charger. Without this file you cannot communicate with the Dual Desktop Charger.

1) Once you unzip the HAT Firmware to your desktop, you can then connect the Dual Desktop Charger to your Laptop USB Connection. You will be prompted to provide a driver so that the Laptop will recognize the Dual Desktop Charger. Locate the file **slnkusb.sys** in the HAT_tool folder and the system will install it. When complete, you should be able to communicate with the Dual Desktop Charger.

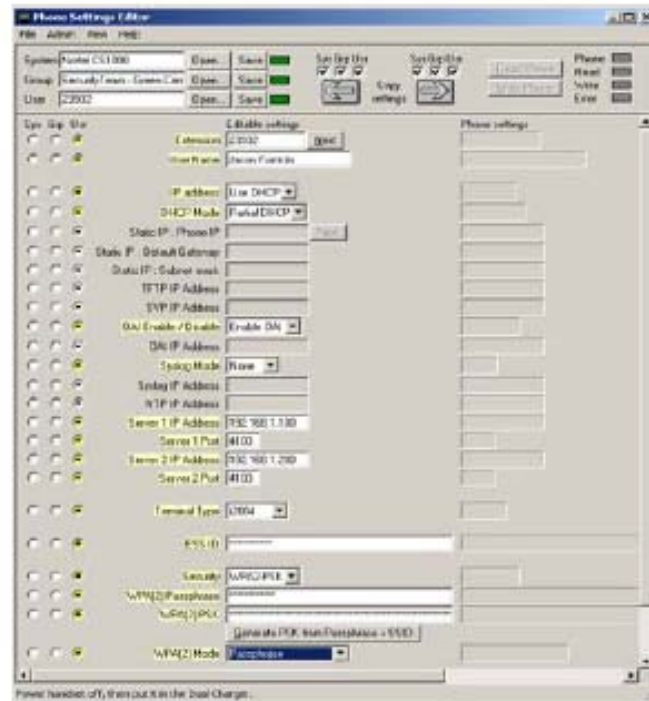
2) Unzip the IP Phones Firmware 115_022 to your desktop.

3) Install the TFTP Server software to your laptop. You will need to Start the TFTP Service by navigating to the newly installed SolarWinds TFTP Server Folder located in all programs. Select TFTP Server. An icon of two computers with a blue and black screen will be shown in your taskbar. Right hand corner near the clock. Right click on the icon and select OPEN. Then select FILE-> CONFIGURE. You will now need to provide a path to the IP Phones Firmware by using the BROWSE button under the heading: TFTP Server Root Directory.

The path should point to the 115_022 Firmware Folder. Now, make sure to START the TFTP Server Service.

4) Turn the IP Phone OFF. Place the IP Phone into the Dual Desktop Charger and it should power itself up and connect automatically to your Laptop. You can use the HAT Firmware Software to also download the firmware to the IP Phones.

The IP Phones are now set-up and programmed correctly for use with the BCM and 2245 IP Telephony Manager.



For the WLAN Handset 6120 or WLAN Handset 6140 products, the HAT comprises a standard Dual-slot Desktop Charger [NTTQ4023E6] with a Nortel supplied USB cable [NTTQ4043E6] to enable it to be connected into a local PC (running Microsoft Windows). PC Software will be provided on the nortel.com Technical Support Portal software download site in the same location as the WLAN Handset 6120 or WLAN Handset 6140 firmware.



NOTE: You will require the following Firmware: HAT_tool_2.4.0.15.zip
 You will require the following Hardware: Dual-Slot Desktop Charger –
 See notes above.

You will also need the following Firmware: **HAT_tool_2.4.0.15.zip** used to upload firmware and communicate with USB Dual Desktop Charger
 61XX IP Phones: 115_022
 2245 Telephony Manager: 174.035.zip