[Product Name] Programming Instructions

[Product Photo]

Items Needed

- Work Station, PoE Switch, Cat5 cables (already set up)
- [Product Name]
- Paper and pen

Three System Applications Will Be Used:

Command Prompt	PuTTY	Web Browser
>_	PuTTY	

Imaging Steps

1. Write down the last 4 digits of the [Product Name]'s MAC address (sticker on bottom of [Product Name]).
2. As shown in Figure 1, navigate to **Search**, type this command:

cmd

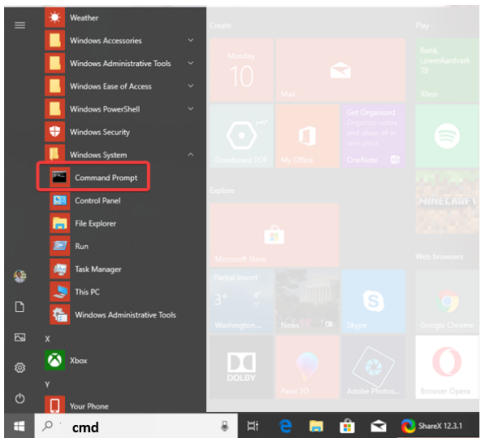


Figure 1

3. A command prompt window will appear:

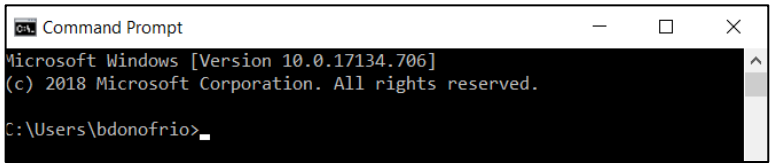


Figure 2

4. Type this command:

nmap -sP -n 172.16.80.0/24

5. Search for *Raspberry Pi Foundation* as shown in Figure 3 (there will likely be only one instance of it); write down the IP address (likely ending in [redacted][1].

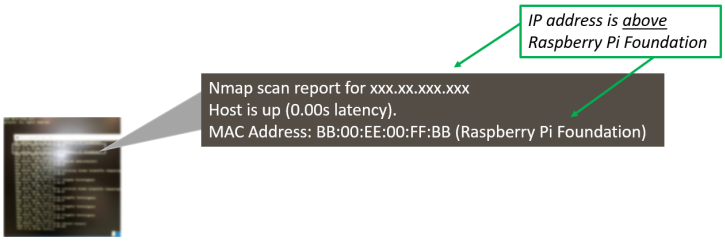


Figure 3

6. Using the CAT5 cables, connect the [Product Name] to the PoE server.

[1] This IP address is for another device that happens to exist on this network; we want to make note of it so we do not mistakenly use it in this process.

7. On the [Product Name], visually verify there is an orange and a green LED on the Ethernet port as shown in Figure 4. It may take about 20 seconds for the LEDs to appear after connecting them:

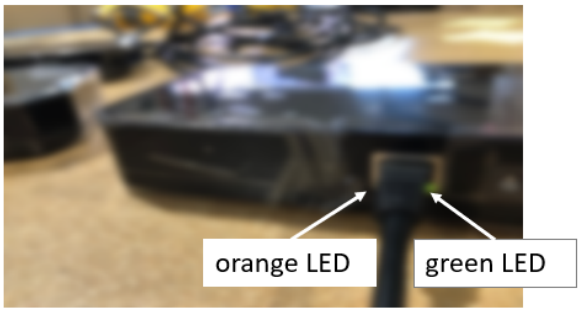


Figure 4

8. Now that the [Product Name] is connected, in the command prompt window type this command again:

nmap -[redacted]

9. Wait a few seconds for the screen to respond.
10. Verify a new *Raspberry Pi Foundation* instance now appears (which represents the new [Product Name]).
11. Write down the IP address for the new *Raspberry Pi Foundation*. Verify that the last 4 digits of the MAC address on the screen matches what's on the [Product Name] sticker.

12. Open Putty by going to the **Start** menu, then search for **PuTTY (64 bit)** > **PuTTY**:

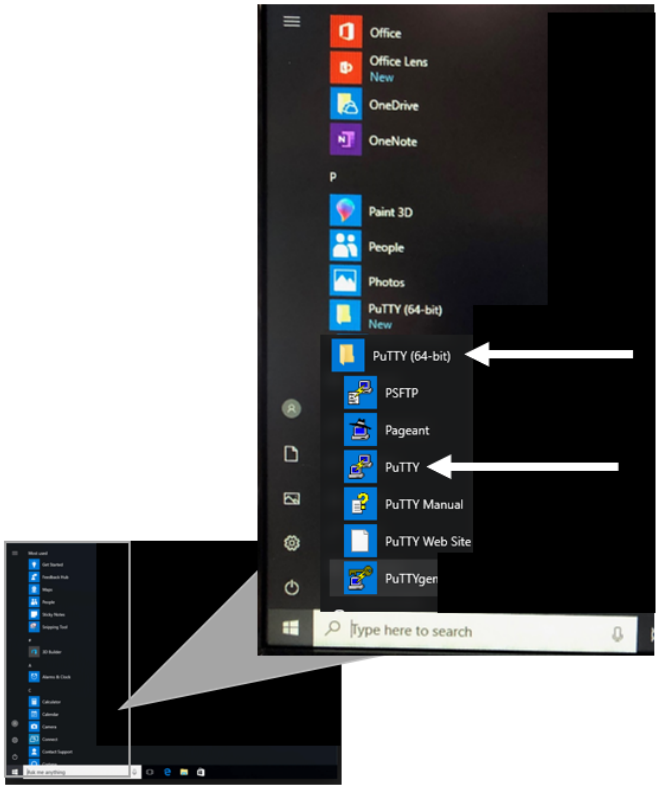


Figure 5

13. The **PuTTY Configuration** dialog box appears (see Figure 6 below). In the **host name** field, enter the IP address and click **Open**:

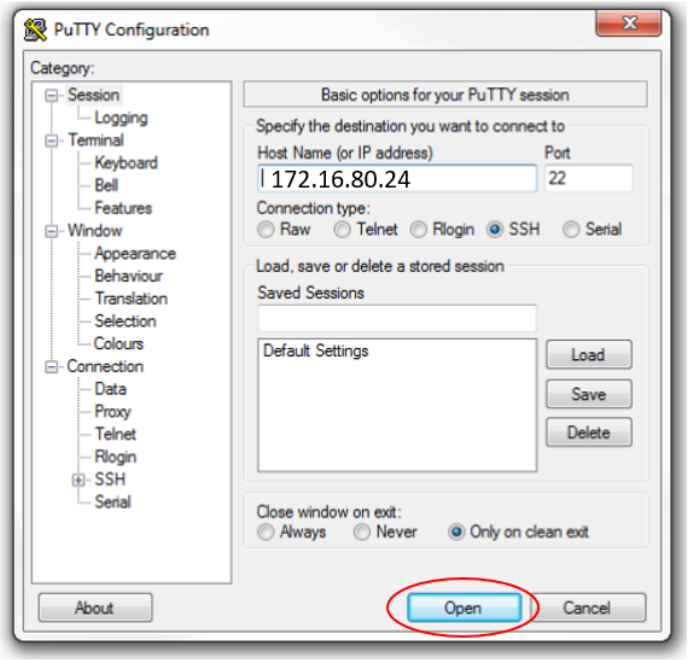


Figure 6

A new window appears…

Figure 7

	Tip: PuTTY commands are case sensitive.

14. **log in as**:

    pi

15. **password**:

    raspberry

16. On the new screen, arrow down to **Exit** and press Enter:

Figure 8

	Tip: Step 17 requires that the bash file already be on the desktop.

17. In the command prompt application…

Figure 9

,

… type this:

User-specific

scp C:\Users\ttienor\Desktop\Bootstrap_gw.bash pi@24: home/pi

but change 24 to the IP address.

18. **password**:

raspberry

19. Ensure this is the response:

Figure 10

20. Return to the PuTTY application.
21. Type this in PuTTY:

```
ls
```

(that's a small letter "L).

22. Ensure the response is:

Figure 11

23. In PuTTY, type this:

```
sudo bash Bootstrap_gw.bash
```

(Hint: after the capital B, you can press tab and it will autofill the rest).

24. While it processes, the screen might look like this:

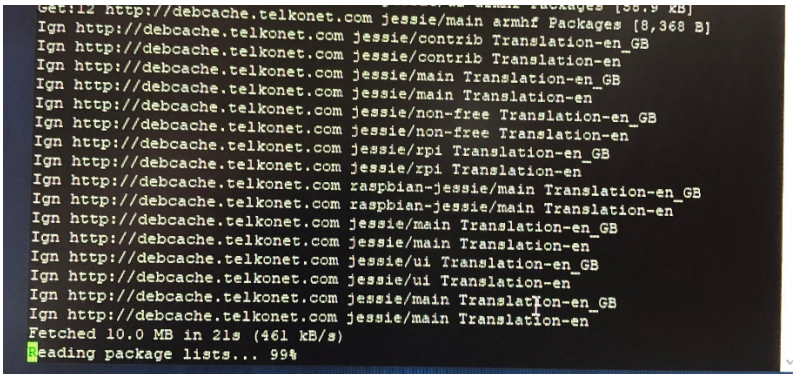


Figure 12

25. When the process is complete (it takes about 5 minutes), this dialog box appears:

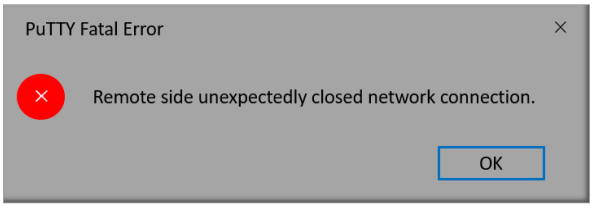


Figure 13

26. This is correct! Press OK.
27. Right click at top of PuTTY window; in the drop down, select **Restart Session.**
28. **log in as**:

pi

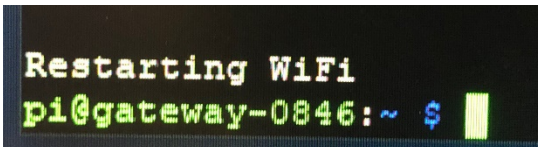
29. **Password**:

raspberry

30. On the new screen as shown in Figure 14, arrow down to select Exit and press Enter:

Figure 14

31. Make note of the gw number (in this example, 0846):



32. Open a browser, enter this in the URL:

command.internal.company.com

33. Select the **Pending** tab, locate the applicable Gw and click **Accept**:

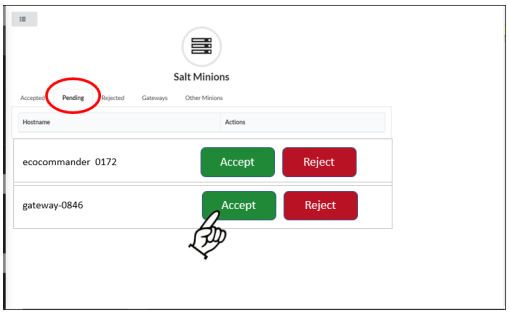


Figure 15

34. Return to the PuTTY shell.
35. Type this:

sudo salt-call state.apply

This process will take 8-10 minutes to compete.

You may see this “fail” message, which is normal; this does not mean your process has failed:

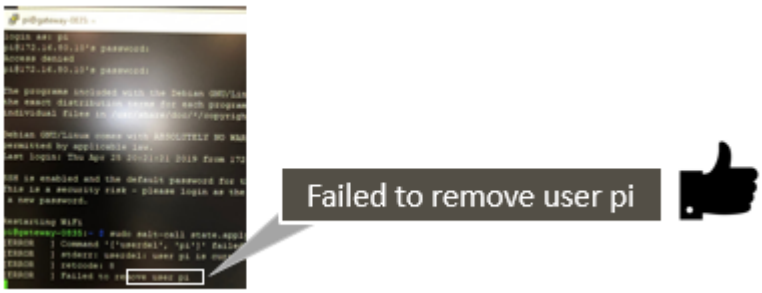


Figure 16

36. Process is finished when you see this message:

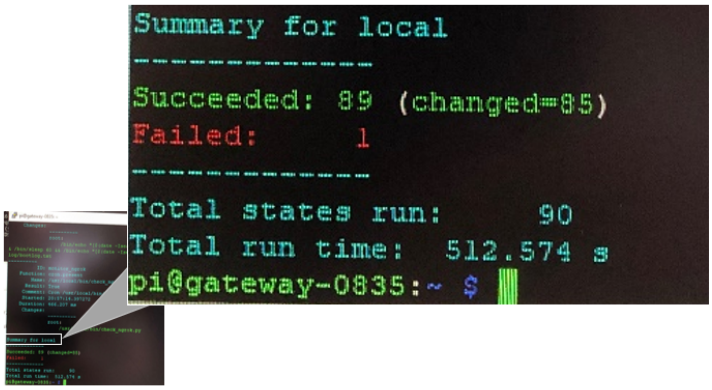


Figure 17

37. Unplug and re-plug the Gw (this reboots it).
    38. Wait for the steady green LED and the Company logo to turn on.
    39. Open your browser.
    40. Enter this address in the URL, where xx is the last two digits of the IP address:

172.16.80.xx:5000

41. Verify the "Company Gw Login" screen appears as shown in Figure 18, displaying the correct Gw number:

Figure 18

42. Close the command prompt windows by typing this command:

Exit

43. Close PuTTY by clicking on the "**x**" button at the top right corner.