



IP Address and Pre-configuration Information

Ethernet Connectivity: Connect your workstation or device to the Digi Connect WAN via one of these methods:

1. Direct from workstation to Digi Connect WAN via an Ethernet crossover cable.
2. Via network hub or switch using a straight-thru Ethernet cable.

Ethernet Port IP Addressing: Follow the Quick Start Guide and assign the Digi Connect WAN an IP Address. In most cases a static IP address is desired.

DHCP Sever: The Digi Connect WAN/VPN includes a DHCP server and can provide IP address configuration to remote devices and/or workstations. DHCP server is on by default and is configured to provide workstation IP addresses starting at 192.168.1.100.

Static IP Addresses: If static IP addresses are used, disable the Digi Connect WAN DHCP server via *Configure>Network>DHCP Server Settings* and follow these directions:

1. In order to properly communicate via the Digi Connect WAN, your workstation should be in the same subnet as the Digi Connect WAN. The simplest way to accomplish this is to use the Digi Connect WAN's DHCP server. If you are using the DHCP server, and the Digi device is at IP address 192.168.1.1, you should configure your workstation to be something like:

IP address: 192.168.1.2

Subnet mask: 255.255.255.0

Default gateway: 192.168.1.1 (i.e. the IP address of Digi Connect WAN)

2. As shown above, any device using the Digi Connect WAN as a gateway via the cellular wireless network must have its default gateway configured to the Digi Connect WAN's Ethernet port IP address.

3. DNS Server IP addresses: If you plan to "browse" the Internet or make other outbound connections that utilize DNS names (e.g., www.digi.com), the carrier's DNS server IP addresses should be entered into the workstation's IP configuration. For example, for most Cingular® Blue APN types use 209.183.48.10 & .11. DNS info can be confirmed once the Digi Connect WAN has connected to the cellular network using the Digi Connect WAN Web UI via *Administration>System Info>Mobile*.

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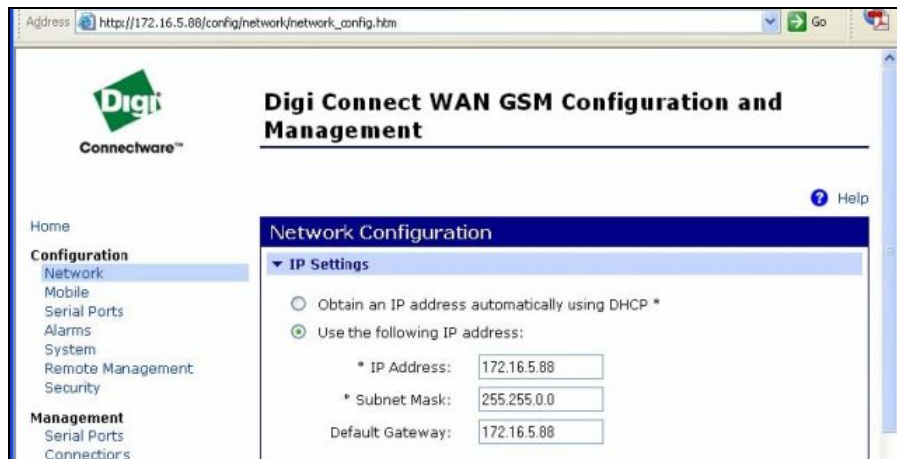
Changing the Digi Connect IP Address: The Digi Connect WAN IP address settings can be changed using the built-in Web UI or via command line.

Via Command Line: Use either the console port and a terminal emulation program or telnet to the Digi Connect WAN's IP address. Use the "set net" command similar to:

```
set net ip=172.16.5.88 mask=255.255.0.0 gateway=172.16.5.88
```

Type `set net` with no parameters to verify the settings. Reboot the Digi Connect WAN by either re-powering or via the `boot action=reset` command.

Via Web UI: Point your browser to the Digi Connect WAN's Ethernet port IP address, select *Configuration*>*Network* and enter the desired settings, as shown below.



Press *Apply*, and then reboot the Digi Connect WAN for changes to take effect. You will lose connectivity to the unit until you reconfigure your workstation to be in the same subnet as the Digi Connect WAN; or use DHCP.

APN Configuration

In order to communicate via GPRS on a GSM network, the Digi Connect WAN must be configured for a certain APN (Access Point Name) type. Follow the steps below to configure the Digi Connect WAN for the iMotient/Cingular network.

Connecting the Digi Connect WAN

1. Ensure the SIM is in place. If not, insert the SIM into the SIM garage.
2. Attach the antenna to the Digi Connect WAN. Place the Digi Connect WAN and/or antenna in a location that will ensure the best signal.
3. Connect the Digi Connect WAN Ethernet port to your workstation or device in the method mentioned above (either via hub/switch or direct via

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crossover Ethernet cable).

4. Apply power to the Digi Connect WAN. After a few minutes observe the following:

- a. The green Ethernet link LED located on the Ethernet port should be on. If not, make sure you are using the proper cable.
- b. Signal Strength LEDs on top of unit should show 2-4 LEDs. If not, try repositioning the antenna and unit if necessary. Do not extend the antenna cable. Instead, reposition the Digi Connect WAN unit itself via longer Ethernet cable connection.
- c. Activity LED will be on solid for a few moments then go off.
- d. The Wireless Link LED on top of unit should go on solid once the APN type is properly configured. If not, verify the APN provisioning via *Configuration > Mobile*.

The screenshot shows the 'Digi Connect WAN GSM Configuration and Management' web interface. The left sidebar contains navigation menus for Configuration, Management, and Administration. The main content area is titled 'Mobile Configuration' and includes sections for 'Mobile Settings', 'Mobile Service Provider Settings', and 'Mobile Connection Settings'. The 'Mobile Service Provider Settings' section shows the following configuration:

Field	Value
Service Provider	Cingular Wireless (Blue Network)
Service Plan	Custom APN
Custom Plan Name	gprs02.motient.net

The 'Mobile Connection Settings' section shows the following configuration:

Field	Value
Re-establish connection when no data is received for a period of time	<input checked="" type="checkbox"/>
Inactivity timeout	1440 secs

An 'Apply' button is located at the bottom of the configuration area.

e. Make sure it is set for the correct APN configuration. The proper selection in the Service Provider box is “**Cingular Wireless (Blue Network)**.”

f. The proper selection in the Service Plan box is “*Custom APN*.”

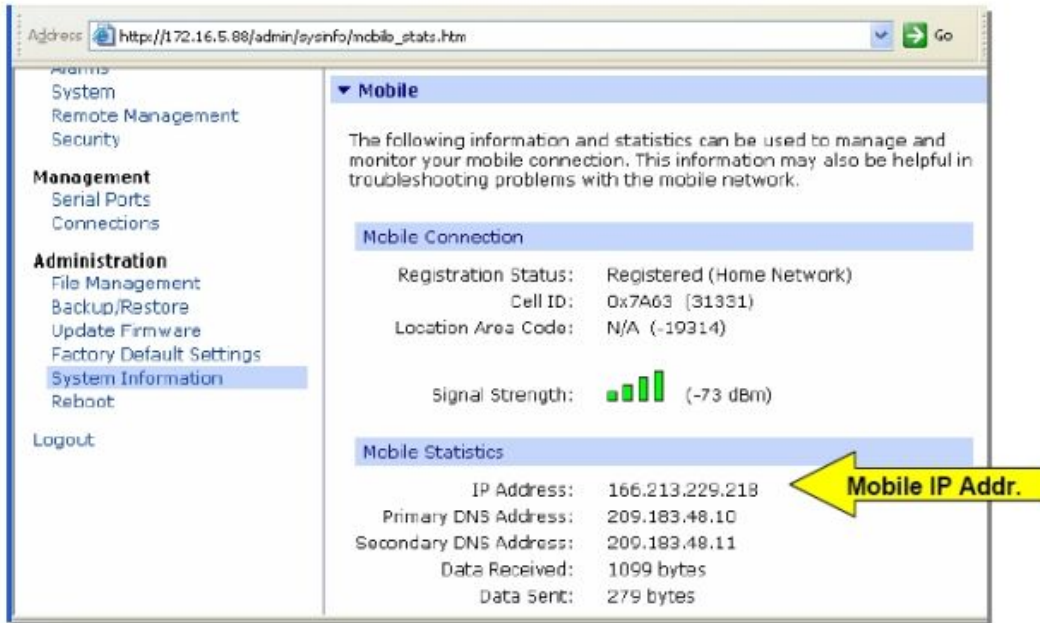
g. In the Custom Plan Name box, enter the APN provided by iMotient Solutions on the Device Activation spreadsheet.

(For example: **gprs02.Motient.net**)

5. If you changed the APN information or mobile provider, or IP address settings, reboot the Digi Connect WAN via *Administration > Reboot*.

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6. Once the mobile link LED is on solid (which may take a few minutes), verify the mobile IP address from the Digi Connect WAN home page, via *Management>Connections*, or via *Administration>System Information>Mobile*, as shown below.




The screenshot shows a web browser window with the address `http://172.16.5.88/admin/sysinfo/mobile_stats.htm`. The left sidebar contains a navigation menu with categories: Administration (System, Remote Management, Security), Management (Serial Ports, Connections), Administration (File Management, Backup/Restore, Update Firmware, Factory Default Settings, System Information, Reboot), and Logout. The main content area is titled "Mobile" and contains the following information:

The following information and statistics can be used to manage and monitor your mobile connection. This information may also be helpful in troubleshooting problems with the mobile network.

Mobile Connection

Registration Status:	Registered (Home Network)
Cell ID:	0x7A63 (31331)
Location Area Code:	N/A (-19314)

Signal Strength:  (-73 dBm)

Mobile Statistics

IP Address:	166.213.229.218
Primary DNS Address:	209.183.48.10
Secondary DNS Address:	209.183.48.11
Data Received:	1099 bytes
Data Sent:	279 bytes

A yellow arrow points to the IP Address value (166.213.229.218) with the text "Mobile IP Addr." written inside the arrow.

The Digi Connect WAN should now be ready to use.

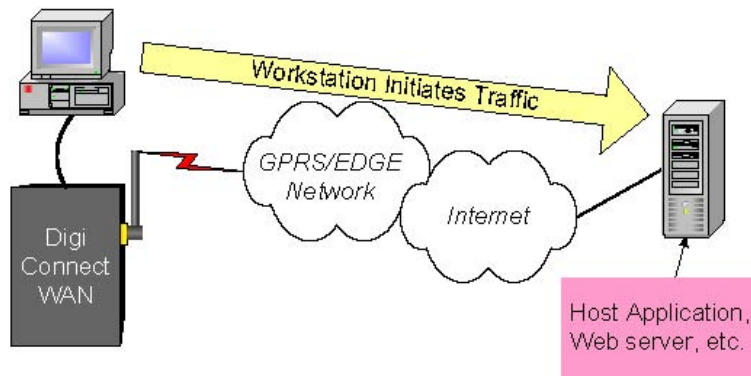
Testing the Digi Connect from a Workstation

Once the Digi Connect WAN is connected to the cellular network and is accessible from network devices connected to its Ethernet port, you can do some simple tests to verify communications through the device.

A simple test is to connect *out* through the Digi Connect WAN to your iMotient Host computer. Make sure your workstation's IP network is configured to use the Digi Connect WAN's Ethernet port IP as the default gateway. From the command line, execute a ping command to the IP address of the host computer on the iMotient Tunnel connection.

For example: `ping 172.16.0.16`

You should see an echo response indicating that the data reached that IP address.



Inbound connections require additional configuration to test. First, not all APN types allow incoming connections. Second, the Digi Connect WAN uses NAT (Network Address Translation)* to route traffic from the Public IP address on the cellular interface to the Ethernet port's private IP network. NAT provides two main benefits:

Security: NAT hides the private IP addresses of the devices on the Digi Connect WAN's Ethernet network.

IP Address Availability: IP addresses are in short supply and cost money. The Digi Connect WAN need be provided only one IP address from the wireless carrier.

Port forwarding* entries are required to pass incoming traffic through the Digi Connect WAN to a device or workstation connected to the Digi Connect WAN's Ethernet port.

* Note that the Digi Connect Remote Gateway (RG) does not support NAT or port forwarding.

Refer to the Digi Connect WAN application guide on mobile terminated connections

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for details on setting up inbound connections.

If your account is set up to include a static IP for the mobile device, a simple test to verify the Digi Connect WAN is on the wireless network and is accessible is to ping the IP address from your iMotient Host computer. For example, if your assigned static IP is 10.255.0.4:

```
ping 10.255.0.4
```

If the request times out, try adding a “-w 5000” or “-w 10000” to the ping command:

```
ping -w 5000 10.255.0.4
```

Other application scenario examples, such as using the Digi Connect WAN for a backup wireless WAN connection, are available from Digi International.

Finishing Up and Getting Assistance

Please register your Digi Connect WAN at <http://www.digi.com/support/customer%20services/warranty.jsp> .

If you have any questions or need assistance, please contact your Digi Connect WAN vendor or Digi International at 952-912-3444, or Digi technical support at <http://www.digi.com/support/eservice/eservicelogin.jsp> .