



Lumewave by Echelon

# BaseStation 2.0 Cellular (P/N 100143)

End User Cellular Activation Manual

Rev. A  
3-14-2016

Revision	Date	Notes
A	3-14-2016	Initial Draft

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## Introduction

This document provides details instructions to activate the cellular connection on a Lumewave by Echelon Cellular BaseStation (Echelon P/N 100143). A cellular data plan for M2M is required. The Lumewave by Echelon Cellular Gateway is certified for use with most carriers.

It is recommended that the data plan selected utilizes a private IP address that is accessible via a VPN configured by your network provider.

### Tools required

1. Desktop or Laptop (recommended) computer with an Ethernet port
2. CAT 5 patch cable
3. Torx T6 screwdriver (if installing SIM card)
4. Ethernet Gateway (P/N 100140)

### CDMA:

Step 1) Provide MEID from the cloudgate label located inside the enclosure to your Mobile Virtual Network Operator (MVNO) and add the MEID to a new or existing M2M data plan.

Step 2) The network operator should provide you with the IP address associated with the MEID once it has been activated.

Step 3) Proceed to **Cellular Configuration Procedure**

## GSM

- Step 1) Your network provider will provide you with a SIM card, as well as the network information associated with the SIM card including; IP address, APN, and VPN connection details.
- Step 2) Install the SIM card in the Lumewave Radio module.

### Install the SIM

For some UMTS and 3G operators, such as AT&T, T-Mobile and European operators, you must install a SIM card associated with the service plan.

**TIP:** For other wireless operators, such as Sprint or Verizon Wireless, make sure a service plan is associated with the device before continuing the installation.



To install the SIM:

Using a T6 Torx screwdriver, remove the four screws from the top plate on the back panel, and then remove the plate.

Insert the SIM into the SIM slot.

Re-assemble the top cover plate and screws.

**⚠ Important:** The torque used to fix the screws of the cover plate should be set to any value between 30 and 50 Ncm. Any value above 50 Ncm might damage the screws!

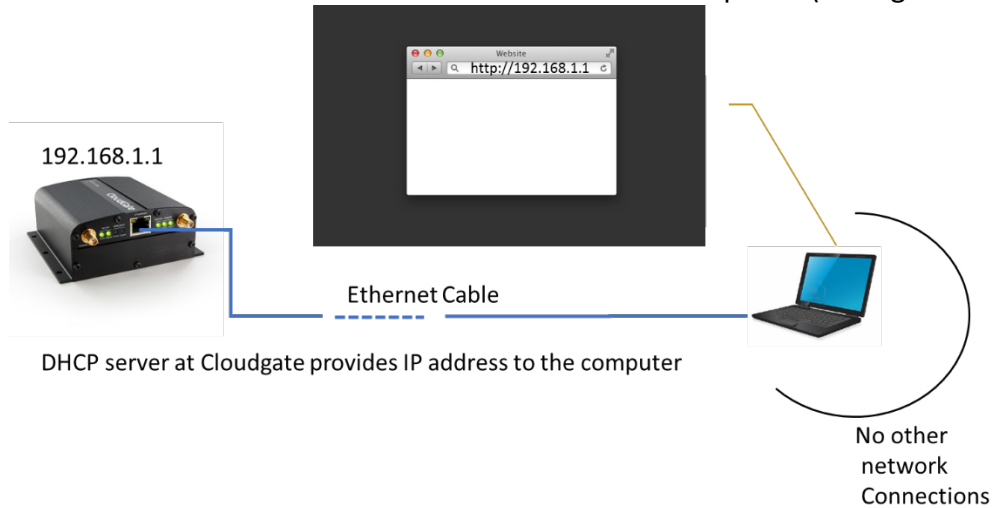
- Step 3) Proceed to **Cellular Configuration Procedure**

## Cellular Configuration Procedure

**MAKE SURE THAT THE COMPUTER USED IS NOT CONNECTED TO ANY OTHER NETWORK AND IT IS CONFIGURED TO RECEIVE IP ADDRESS FROM A DHCP SEVER.**

Step 1. Connect one end of the Ethernet cable to the CloudGate.

Step 2. Connect the other end of the Ethernet cable to a computer. (See figure below)

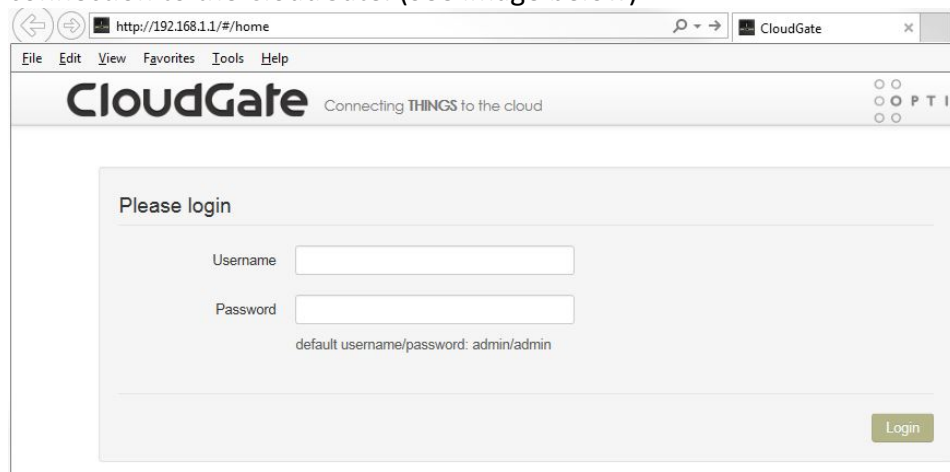


Step 3. Connect power adapter to the CloudGate and apply power.

At this point CloudGate will boot and system state led will turn orange. Wait until it turns green. Once it finishes booting up, the computer will have an active network connection with a valid IP address.

Step 4. Open a browser window and go to address <http://192.168.1.1>

A CloudGate page should be visible. This confirms a good Ethernet connection to the CloudGate. (See image below)

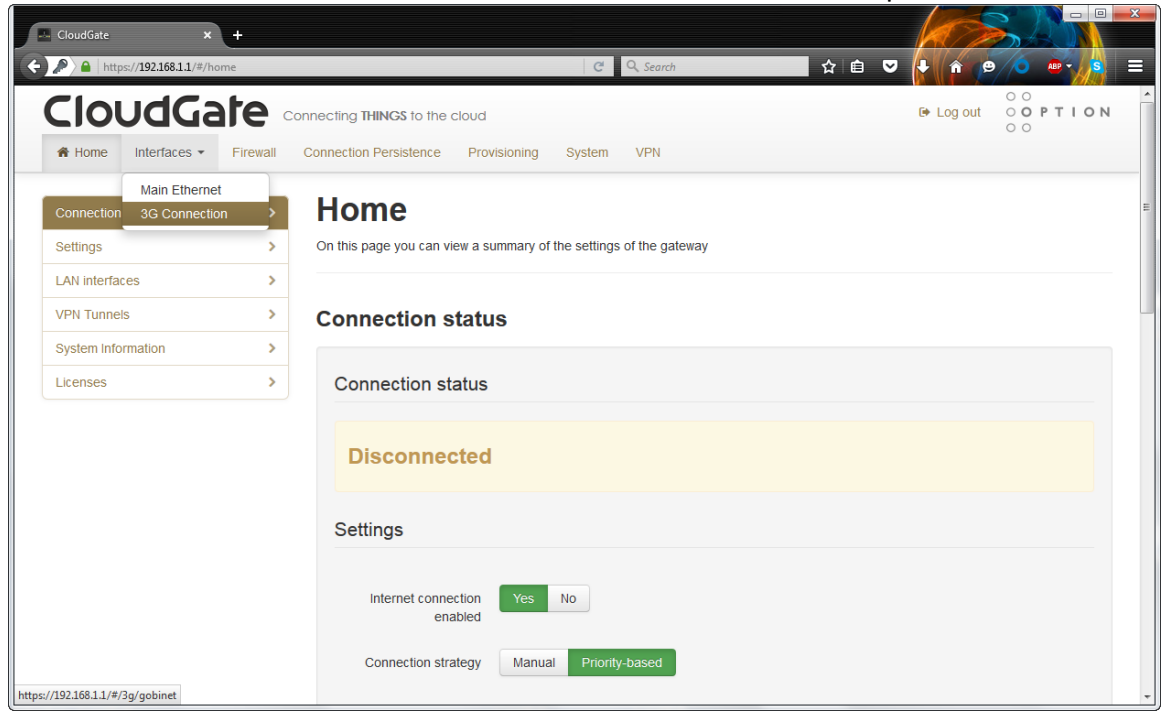


Step 5. Enter the following credentials to login to CloudGate web interface.

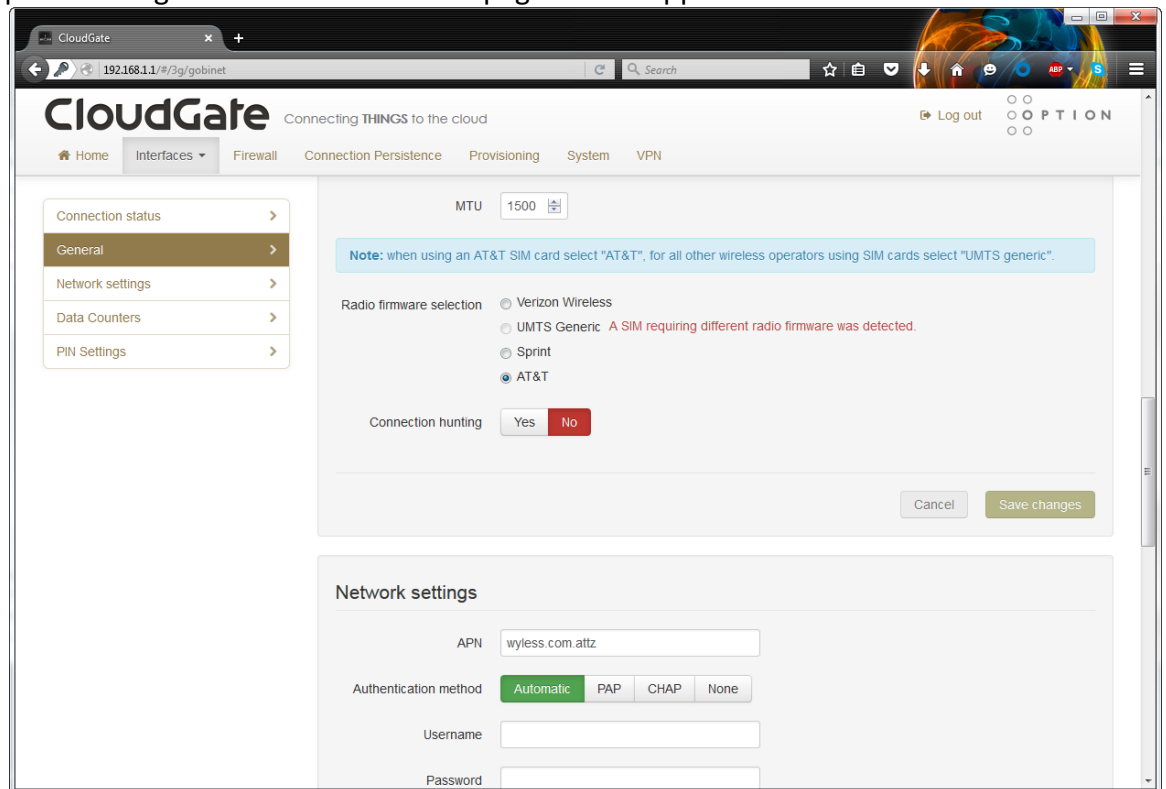
Username: *admin*

Password: *admin*

Step 6. Click on “**Interfaces**” menu item and then select “**3G Connection**” option.



At this point settings on the **3G Connection** page should appear as below



Step 7. Scroll down to the “Radio Firmware Selection” area and select the appropriate radio firmware

- Select “Verizon Wireless” for Verizon CDMA
- Select “AT&T” for AT&T
- Select “Sprint” for Sprint
- Select “UTMS Generic” for all others.

Click “**Save Settings**”

Step 8. Under “Network Settings” enter the APN provided by your network operator in the APN field and click “Save Settings”

Step 9. The device will reboot

**Verification of Network Settings**

Step 10. Go to <http://192.168.1.1> and log in using the following credentials

Username = admin

Password = admin



Step 11. Once logged in you will see your connection status on the Home Page

The screenshot shows the CloudGate web interface. At the top, the logo "CloudGate" is displayed with the tagline "Connecting THINGS to the cloud". To the right, there is a "Log out" button and a "OPTION" menu. Below the logo, a navigation bar includes "Home", "Interfaces", "Firewall", "Connection Persistence", "Provisioning", "System", and "VPN". On the left side, a sidebar menu lists "Connection status", "Settings", "LAN interfaces", "VPN Tunnels", "System Information", and "Licenses". The main content area is titled "Home" and contains a sub-section "Connection status". This section displays a green box with the text "Connected" and "You are connected to the Internet through the interface 3G Connection". Below this, there are two settings: "Internet connection enabled" with a "Yes" button selected and "Connection strategy" with "Manual" and "Priority-based" buttons, where "Priority-based" is selected.

## Configure VPN for cellular connection on PC

- Step 1) Follow the network provider's instructions on how to configure the VPN on the PC running the LumeStar software.
- Step 2) Connect to the VPN
- Step 3) Open the LumeStar software
- Step 4) Set the Network IP to the IP address provided by your network provider.
- Step 5) Click "Apply"
- Step 6) The network should turn green