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# Using the EN-1000's Management System

The EN-1000 provides wireless and wired connections to a local area network (LAN), to a wide area network (WAN), and to peripheral devices and remote devices. This document describes use of the EN-1000's browser management system.

Any platform (PC, Mac, Linux, etc.) that supports a browser (Internet Explorer, Firefox, Chrome, Safari, etc.) can manage the EN-1000. The following sections discuss use of the EN-1000's management system:

- [Connecting to the EN-1000](#)
- [Activating the Wireless Module](#)
- [Logging In](#)
- [Navigating the EN-1000's Management System](#)
- [Ending the Session](#)

## 2.1 Connecting to the EN-1000

The EN-1000's management system displays in a browser window. The management system can run on any platform (for example, a Windows, Mac, or Linux platform) that supports a web browser.

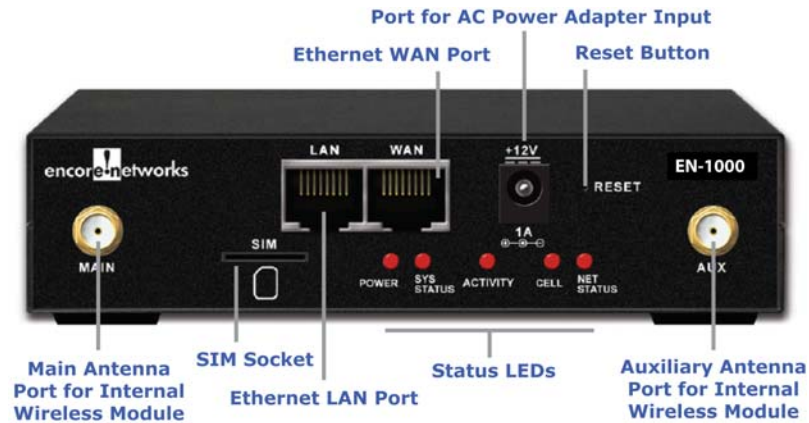
The EN-1000's default configuration is **Cell Failover**,<sup>1</sup> and the EN-1000 is fully functional for network access. Under this configuration, the EN-1000 can be managed via a direct connection to its Ethernet LAN port or (even if there is a management connection to the LAN port) via a network connection that reaches the EN-1000's WAN port or cellular wireless port.

The LAN port on the EN-1000's front panel ([Figure 2-1](#)) is on a private network. The EN-1000 software includes a DHCP server that assigns an IP address to a device connected to its LAN port. A device connected to the LAN port sees the gateway address 192.168.10.1, representing the EN-1000.

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1. For information on Quickstart configuration options, see the [EN-1000™ Quick Configuration Guide](#).

Figure 2-1. EN-1000 Front Panel



The EN-1000's WAN port (also on the rear panel) is on a separate network from its LAN port. The EN-1000's WAN port is a DHCP client, by default.

## 2.2 Activating the Wireless Module

When the EN-1000 is powered up, upon its initial attempt to connect to the Verizon CAT-1 LTE network, automatic over-the-air (OTA) activation does the following:

- registers the CAT-1 LTE cellular module's International Mobile Equipment Identity (IMEI) with the Verizon network
- registers the CAT-1 LTE cellular wireless module's subscriber identity module (SIM) ID with the Verizon network
- obtains the access point name (APN) from the Verizon CAT-1 LTE Authentication, Authorization, and Accounting (AAA) server

**Note:** This activity can take as long as 20 minutes.

No action is required by the end user.

## 2.3 Logging In

- 1 Make sure you have a terminal available to manage the EN-1000, and make sure the terminal's power is on.
- 2 Connect the EN-1000 to its AC power adaptor, and plug the adaptor into an AC outlet.

**Note:** The AC power adaptor must be rated for 12 volts DC.

❖ The EN-1000 powers on.

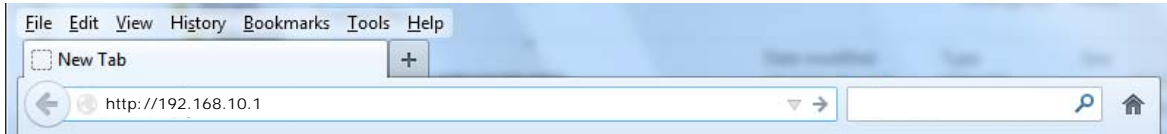
- 3 Use an Ethernet cable to connect your management terminal to the Ethernet LAN port on the EN-1000's rear panel.

❖ The LAN port assigns an IP address to your management terminal.

- 4 On the management terminal, open a web browser.
- 5 In the browser's address field, type the EN-1000's gateway IP address **192.168.10.1** (or, if you prefer, type **http://192.168.10.1**), and press the console's **Enter** key (Figure 2-2).

**Note:** Instead of using a direct connection to the LAN port, you can connect across a public network. In that case, type **https://** followed by the EN-1000's public IP address.

Figure 2-2. Browser Address Field



**Note:** If the browser asks whether the EN-1000 router (**192.168.10.1**) may set cookies, answer **Yes**, or **Yes for the Session**, or something similar.

- ! **Caution:** Do not block cookies for the EN-1000. Otherwise, you might not be able to manage the EN-1000.
- ❖ The browser navigates to the specified IP address and displays the EN-1000 Log-In Screen (Figure 2-3).

**Note:** The **Username** field might display the user name.

Figure 2-3. EN-1000 Log-In Screen

A screenshot of a web page titled "Authorization Required". Below the title, it says "Please enter your username and password." There are two input fields: "Username" and "Password". At the bottom of the form, there are two buttons: "Login" and "Reset".

- ! **Caution:** The EN-1000 management system uses JavaScript in its browser-based display. A message to enable JavaScript (similar to the message in Figure 2-4) might display in your browser.

Figure 2-4. Message to Enable JavaScript

**JavaScript required!**  
You must enable JavaScript in your browser or the management system will not work properly.

If you see the message in Figure 2-4, do the following:

- On the browser menu, open **Tools** or **Options** (or an equivalent menu item in your browser).
- In the browser's menu system, **Enable** JavaScript, and **Save** that setting.
- Right-click on the browser screen, and select **Refresh**, **Rewrite**, or **Reload** (or the equivalent for your browser).

- ❖ The EN-1000 Log-In Screen is redisplayed, without a message to enable JavaScript.
- 6 Type your user name and password in the appropriate fields of the EN-1000 Log-In Screen. Use the default log-in values:
- The default user name for the EN-1000 is **admin**.

**Note:** EN-1000 routers shipped before July 09, 2018, use the default password **encore!1**.

All devices, including EN-1000 routers, shipped from the factory on or after July 09, 2018, use a randomly generated default password. That password is in the lower right corner of a sticker on the bottom of the router's chassis. Retain that sticker; you will need the default password if the router must be reset.

**Note:** You may wish to change the password; however, save the default password somewhere, in case you need to reset the router in the future.

Check with your network administrator for all names and passwords.

- 7 Then press the console's **Enter** key or select the screen's **Login** button (below the Log-In fields).
- ❖ The system accepts your log-in. Then the EN-1000 Status Overview Screen is displayed (Figure 2-5). This screen provides an overview of the EN-1000's status.

Figure 2-5. EN-1000 Status Overview Screen

The screenshot shows the EN-1000 Status Overview Screen. At the top, the Encore Networks logo is on the left, and the device status is on the right: EN1000 LTE Router Phone/MTN#, Device Mode: Cell Fallback, Cell Signal: -125dBm, Operation Status: Online using WAN. Below the logo is a navigation menu with 'Status' selected. The main content area is titled 'Status' and includes a sub-menu with 'Overview', 'Routes', 'System Log', and 'Realtime Graphs'. The 'Status' section is divided into several panels:

- System:** Device Name: EN1000, Device Model: EN1000, Firmware Version: 17229 01 10, Local Time: Mon Sep 22 23:36:56 2014, Uptime: 3h 11m 5s.
- Cellular Information:** Cell Signal: -125 dBm, IMEI: 359692051010438, SIM ID.
- Network:** A table showing the status of three network interfaces:
 

Network	Status
CELL eth2	Uptime: 0h 0m 0s MAC-Address: 94:B9:B4:09:B2:4A Protocol: dhcp RX: 9.57 KB (184 Pkts.) TX: 1.50 MB (3819 Pkts.)
LAN eth0	Uptime: 3h 10m 43s MAC-Address: 04:F0:21:11:86:44 Protocol: static RX: 5.56 MB (24617 Pkts.) TX: 34.78 MB (37421 Pkts.) IPv4: 192.168.10.1/24
WAN eth1	Uptime: 3h 8m 23s MAC-Address: 04:F0:21:11:86:45 Protocol: dhcp RX: 35.54 MB (49551 Pkts.) TX: 5.72 MB (34362 Pkts.) IPv4: 192.168.1.151/24
- DHCP Leases:** A table showing the lease information for the WAN port:
 

Hostname	IPv4-Address	MAC-Address	Leasetime remaining
HP-p6-2016	192.168.10.198	38:60:77:82:55:1a	11h 28m 6s

**Note:** If the EN-1000's WAN port is connected to a network, you might see the WAN port's assigned IP address. (The WAN port is a DHCP client by default.) In Figure 2-5, the IP address assigned to the WAN port is 192.168.1.151.

On the EN-1000 management screens, the top row of tabs indicates the management areas.

- ◆ Status
- ◆ System
- ◆ Network
- ◆ Logout
- ◆ Quickstart

There is a second row of tabs under each management area. The second row provides detail for the selected management area. (The EN-1000 senses its hardware configuration and displays tabs to represent that configuration.) In [Figure 2-5](#), the **Status** management area shows the following detail tabs:

- ◆ Overview
- ◆ Routes
- ◆ System Log
- ◆ Realtime Graphs

An **Auto Refresh** indicator (to the right of the Encore Networks logo) is displayed on several screens. You can select this indicator to turn automatic screen refreshment **on** or **off**.

**8** Do the following:

- a** To use the EN-1000, see [Navigating the EN-1000's Management System](#).
- b** To configure the EN-1000's parameters, see the document [Configuring the EN-1000 for its Network Functions](#).
- c** To review the EN-1000's settings and performance, see the document [Monitoring the EN-1000](#).

## 2.4 Navigating the EN-1000's Management System

### 2.4.1 Saving or Discarding Changes

Buttons to **Reset**, **Save**, or **Save & Apply** are displayed in the lower righthand corner of EN-1000 configuration screens. You can use them as described below:

- Select the **Save & Apply** button to save changes that take effect immediately.
- Select the **Save** button to save changes that will take effect after the EN-1000 is rebooted.
- Select the **Reset** button to discard changes you have made but have not yet saved, and to see the screen with its values before you made those changes.

If you close the browser without saving changes in the configuration, the previous configuration is used when you reopen the EN-1000 management system in the browser.

## 2.4.2 Restarting (Rebooting) the EN-1000

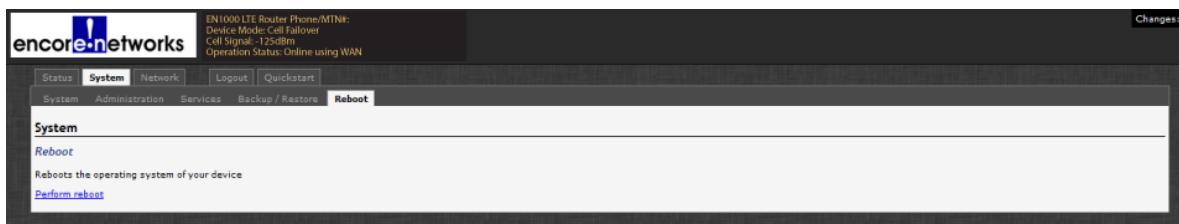
There may be times when the EN-1000 needs to be restarted. We recommend using the menu system to restart the EN-1000, because that provides a controlled approach to restarting. Any processes that are running will be shut down properly before the router restarts.

- ! **Caution:** In general, do not manually restart the EN-1000 by disconnecting it from its power source and then reconnecting it to power. That method of rebooting might interrupt processes running on the EN-1000.

- 1 To restart the EN-1000, select the **System** management area.
- 2 Then select the **Reboot** tab.

❖ The System Reboot screen is displayed ([Figure 2-6](#)).

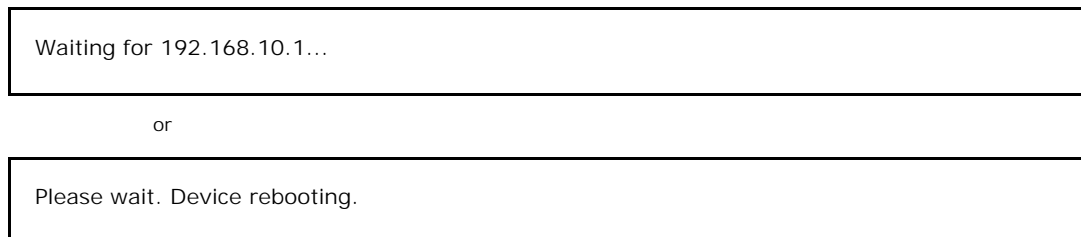
Figure 2-6. EN-1000 System Reboot



- 3 On this screen, select **Perform Reboot**.

❖ The menu system restarts the EN-1000. During the reboot, a message similar to one of the messages in [Figure 2-7](#) might be displayed.

Figure 2-7. Message while Rebooting



**Note:** Rebooting might take a minute or longer.

❖ When the EN-1000 has rebooted, the EN-1000 Log-In Screen is displayed ([Figure 2-8](#)).

Figure 2-8. EN-1000 Log-In Screen

**Authorization Required**

Please enter your username and password.

Username

Password

## 2.5 Ending the Session

- 1 When you wish to log out, select the **Logout** tab.
  - ❖ The system logs out, and the EN-1000 Log-In Screen is redisplayed (recall [Figure 2-8](#)).