neo2 aware
USER GUIDE

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OptConnect
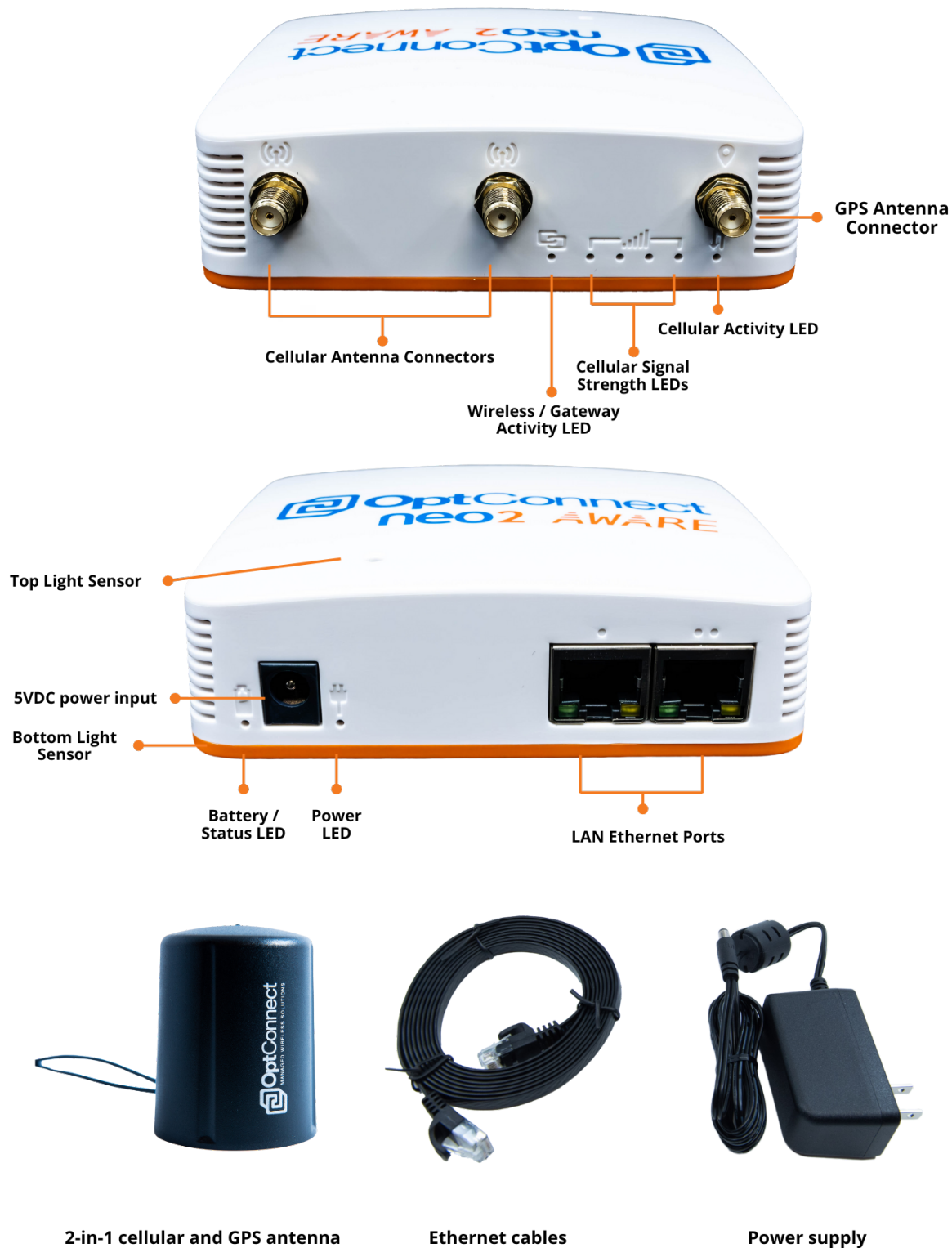MANAGED WIRELESS SOLUTIONS

Welcome to neo2 aware

The OptConnect neo2 aware is an LTE Category 4 multi-carrier cellular router perfectly suited for applications that require frequent over-the-air management, like environmental monitoring and smart safes with high data needs. The neo2 aware is also well suited to kiosks and mobile money services requiring robust remote management capabilities.

The neo2 aware features sensors that alert you during unexpected power outages, a robust battery backup system, GPS location services, easier setup with LED indicators, magnetic mounting options, and additional future-proof 'aware' capabilities. With its compact form factor and robust functionality, the neo2 aware simplifies your IoT journey from deployment to management.

Every neo2 aware includes OptConnect managed wireless services as part of our proprietary ConnectIQ system, with a license to Summit and its API — the device monitoring system designed for use on your phone, tablet,

Complete the following steps to successfully install neo2 aware.

OptConnect
MANAGED WIRELESS SOLUTIONS

Identify neo2 aware and its accessories

GPS Antenna Connector

Cellular Activity LED

Cellular Antenna Connectors

Cellular Signal Strength LEDs

Wireless / Gateway Activity LED

Top Light Sensor

5VDC power input

Bottom Light Sensor

Battery / Status LED

Power LED

LAN Ethernet Ports

2-in-1 cellular and GPS antenna

Ethernet cables

Power supply

Important: Use only the included power adapter to maintain warranty coverage. The identifiers on the bottom of the neo2 aware are important. Please do not apply tape in this area.

neo2 aware LED Indicator Chart

LED Indicator(s)	Pattern (Color)	User Description
Power	On (Green)	Line Power Present
	Off	Line Power Missing
Battery/Status	Fast Blink (Blue)	Device Turning On
	Off	Charging Disabled
	Slow Blink (Amber)	Charging
	On (Green)	Battery Full Region
	On (Amber)	Battery Mid Region
	On (Red)	Battery Low Region
	Fast Blink (Red)	Device Turning Off (up to 20 sec)
	Rapid Blink (Blue)	Device Updating Firmware
Cellular Activity	Rapid Blink (Amber)	Cellular Activity
Cellular Signal Quality	1 LED On (Green)	Poor Signal Quality
	2 LED On (Green)	OK Signal Quality
	3 LED On (Green)	Good Signal Quality
	4 LED On (Green)	Excellent Signal Quality
Wireless/Gateway Activity	Rapid Blink (Blue)	BLE Gateway Activity
	Rapid Blink (Purple)	Wi-Fi Gateway Activity
Ethernet LAN Left LED	On (Green)	100-Mbps Link Established
	Off	10-Mbps Link Established
Ethernet LAN Right LED	Rapid Blink (Amber)	Ethernet LAN Activity

Port	
Power 5VDC	Ethernet LAN x 2
Cellular Antenna x 2	GPS Antenna

Physically Install neo2 aware

Position the cellular/GNSS

- Avoid placing the antennas inside equipment constructed of metal or other material that may block RF signals.

- Position the antennas' magnetic bases on a metal surface 3-5 inches from any edge. Usage on a metal surface can improve signal strength. Orient the antennas:

  ° Pointed vertically upward (best)

  ° Pointed vertically downward, routing antenna cable away from antenna shaft (next best)

  ° Pointed horizontally (least preferred)

Place neo2 aware device at desired install location

- The bottom of the neo2 aware device features magnets for secure positioning when placed against metal equipment.

- The neo2 aware device case includes light sensors on both the top and bottom for future applications. The bottom light sensor will typically be blocked to detect device removal attempts.

Route antenna leads and power connector to neo2 aware device

- Connect cellular antennas to cellular antenna ports, and GPS antenna to its antenna port on the neo2 aware.

- Route power adapter's cord from power source to neo2 aware.

- Connect power cord to neo2 aware and ensure power LED glows green.

Important: Upon first connection, the neo2 aware device may automatically download a software/configuration update - typically indicated by the battery LED flashing blue. The power light indicates when line power is present. The battery/status light on the device will flicker during updates. To avoid any battery backup issues, wait until battery light stops flashing red (this generally takes about 10 seconds) before reconnecting the barrel connector.

Maximize signal strength and quality

- Adjust the antenna placement to maximize the number of green signal strength indicator LEDs. Optionally, signal strength and quality can be viewed in the OptConnect Summit web portal.

1. Log in to the OptConnect Summit portal at summit.optconnect.com.

2. Click 'Total Devices' link.

3. Locate serial number on neo2 aware and scroll to find it or type it into 'Search/Filter' box and press 'Enter.'

4. Click neo2 aware link to view 'Signal Strength' in 'On Demand Info' section.

5. Adjust antenna position by an inch or two.

6. Click 'Refresh on Demand Info' button.
   Important: neo2 aware can take several seconds to update.

7. Repeat steps 5-6 above until signal strength and quality are maximized.

8. If maximizing both strength and quality is not possible, maximize quality. **Recommended:** Enter your device's identifier and description.

Physically connect your equipment

- **Ethernet** - if using Ethernet to connect your equipment, route Ethernet cord(s) from your desired equipment to one of the LAN ports on the neo2 aware device.

Ensure connectivity and configuration for neo2 aware

After physical installation, the next steps are to ensure your equipment has connectivity and is configured to work with the neo2 aware device.

Check neo2 aware local network connectivity

By default, the neo2 aware device will have a LAN subnet of 192.168.1.90/24. This may be different if your company has established a custom configuration running a different subnet.

Check DHCP configuration

The neo2 aware device runs a DHCP server by default, and connecting any equipment configured for DHCP should automatically pull a DHCP lease with the proper IP address, gateway, subnet mask, and DNS settings necessary for connectivity. The default range for DHCP leases the neo2 aware device offers is 192.168.1.100 through 192.168.1.250.

Important: If you are connecting an ATM to neo2 aware, your ATM settings should be set according to the instructions provided by your transaction processor, and full security should be enabled. For options and detailed instructions related to RMS settings, contact Customer Care at 877.678.3343.

Check static IP address configuration

To statically configure your equipment, your settings should match the neo2 aware and its local subnet. For example:

- IP Address: 192.168.1.11

- Subnet Mask: 255.255.255.0

- Gateway: 192.168.1.90

- DNS: 192.168.1.90

Ensure a network connection

To ensure connectivity of the neo2 aware, the OptConnect Summit web portal will display the current primary connectivity method and device status.

Cellular WAN functionality is always on and features dual-carrier connectivity. Summit will display the carrier IP addresses along with which address is currently in use. Additionally, Summit will display various cellular metrics, such as signal strength, signal quality, carrier sessions and cellular data usage.

Via cellular connections, if the neo2 aware device detects a loss of connectivity on its primary carrier, the device will automatically fail over to its secondary carrier.

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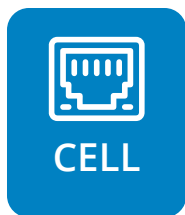
Ensure remote access to your equipment

OptConnect makes it easy to remotely access your equipment and applications via port forwards. To establish a configuration containing specific-use-case port forwards, please contact OptConnect Tech Support.

For cellular connectivity, OptConnect devices are on private networks by default, which use private/shared address space WAN IPs. In order to remotely reach these IP addresses, OptConnect offers a VPN solution to our customers. Please contact OptConnect Tech Support to set up VPN access.

Once port forward rules have been established on your configuration, you can then access your equipment via either the connected cellular IP address or through your wired ISP's IP address. If you need further assistance, contact our Customer Care Center at 877.578.3343.

Manage your OptConnect devices

To manage your neo2 aware device via the Summit web portal, read the comprehensive guide below - giving you everything you need to know, from initial login to detailed device management and connected client visibility, so you can effectively monitor and configure your device.

OptConnect SUMMIT

Go to Summit

Logging in

As part of your neo2 aware purchase, you receive a license to access the OptConnect Summit portal, your one stop for efficient device management. After purchase, watch for an email message that includes your credentials and invites you to join an organization on the Summit portal. Simply click the registration link in the email to access the Summit login page. Here, you will be directed to enter your username and password to access the system's main dashboard.

- Log in at summit.optconnect. com or contact Customer Care at 877.678.3343.

Navigating to the Device List

Once logged in, you can reach the device list in two ways:

- From the dashboard - Navigate to the dashboard and use the device status chart. Select pre-filters to drill down to specific device criteria.

- Via direct access - Alternatively, you may use the left navigation menu to directly access the device list.

Customizing the Device List View

The device list page may be customized to suit your specific needs:

- Configure columns - Use the columns configuration dropdown to customize the information displayed. This allows you to select which data points are visible in the device list, ensuring you see only the most relevant information.

- Column filter - Apply specific filters to refine your view. For instance, select the appropriate model from the model filter to display only neo2 aware devices.

- Column sorting - Sort the data in your device list either in ascending or descending order.

- Export list - Export the customized list to a CSV file to more easily share or analyze the data offline.

Identifying and Accessing Device Information

On the device list page, quickly identify devices using their ID, description, model or any other preferred data point. This page also displays crucial information at a glance, including connectivity status, for additional details and deeper insights into each device's performance and settings via quick links.

Detailed Device Management

Summit makes it easy to view and manage detailed settings for a specific device via:

- Accessing device details - Click on the desired device in the list to access the device details page. At the top of the page, find essential information such as the device's identifiers, network and connectivity - plus information on data usage, signal, sessions, and so on.

  - **Note:** For bulk or initial setups, you can request multi-device configuration profiles at the time of shipment, ensuring your devices are ready to use upon arrival.

- Location tracking - Gain precise insight into each device's location with Summit's location tracking feature. Additionally, the neo2 aware offers enhanced, more precise location tracking due to its GPS capabilities.

- Overview chart - Use this dynamic visualization tool to select specific areas of focus for more detailed analysis. You may choose the time frame for displayed data and access detailed insights into four key aspects of device performance:

  - Signal report - displays the strength and quality of the signal over time, allowing you to monitor and analyze fluctuations and trends in signal reception.

  - IP changes - tracks any changes in IP addresses through detailed
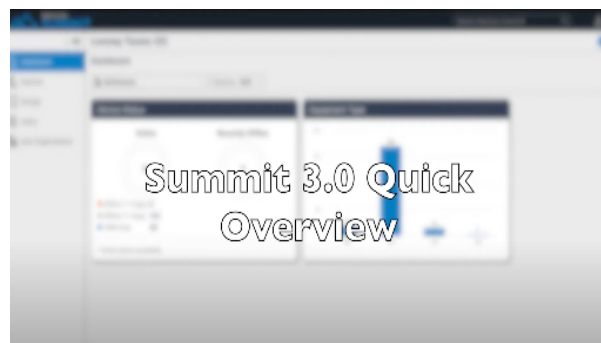
Watch our Summit Playlist

Frequently Asked Questions

How do I get support?

- Contact our Customer Care Center at 877.678.3343.

How do I log in to the neo2 aware device?

- There is no login for neo2 aware devices. OptConnect manages most aspects of the neo2 aware device as part of our Managed Wireless Services. Information about devices and some features such as Wi-Fi can be found via Summit.

How do I change the neo2 aware IP address, firewall settings, and other settings?

- Each neo2 aware you receive is configured to your specifications prior to shipment. Your neo2 aware does not need to be configured on site unless your equipment/application requirements have changed. Contact our Customer Care Center at 877.678.3343 to adjust configuration for neo2 aware.

How do I know if my neo2 aware device is online?

- The device will display cellular signal strength indicators, and the neo2 aware cellular activity LED will flash or glow steadily when neo2 aware is communicating with the cellular network. For more detailed performance and historical information, visit summit.optconnect. com or add Glimpse™ support to your equipment's software.