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OptConnect neo 4 Cellular Router User Manual

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Product Information

Welcome to Neo, an LTE Category 4 cellular router designed for various applications such as smart vending, digital signage, kiosks, smart safes, and more. OptConnect Neo is known for its small size, allowing it to fit almost anywhere. It also features GlimpseTM, an onboard API that responds to requests from your equipment's software and provides information about Neo's cellular connection performance. Only OptConnect offers GlimpseTM.

Product Usage Instructions

1. **Identify new and its accessories:** Refer to the next pages of the manual for detailed information.
2. **Position the antenna:**
    1. Point the antenna vertically downward, routing the antenna cable away from the antenna shaft (preferred).
    2. Point the antenna horizontally (least preferred).
3. **Place neo, connect antenna & power:** Ensure that neo is properly placed and connected to the antenna and power source. Make sure the LED indicator is solid or flashing.
4. **Maximize signal strength and quality:**
    1. Log in to the OptConnect Summit portal at **www.summit3.optconnect.com**.
    2. Click on the "Total Devices" link.
    3. Locate the serial number on Neo and scroll to find it or type it in the Search/Filter box and press Enter.
    4. Click on Neo's link to view Signal Strength in the On Demand Info section.
    5. Adjust the antenna position by an inch or two.
    6. Repeat steps 5-6 until signal strength and quality are maximized.
    7. If it is not possible to maximize both signal strength and quality, prioritize maximizing quality.
    8. Recommended: Enter your device's identifier and description.
5. **Configure your equipment for DHCP:** Use this step if you do not need to initiate a remote connection to your equipment from your host. Proceed to Step 6 for setting up a Static IP.

6. **Configure your equipment for Static IP:** Skip this step if you do not need to initiate a connection from your host to your equipment through Neo. Configure the IP address, subnet mask, gateway, and DNS servers as provided in the manual.

7. **Connect ethernet cable and test:**
   1. Restart your equipment.
   2. Confirm your equipment's IP configuration (refer to Step 5 or Step 6).
   3. If your equipment is using a DHCP IP address, confirm that it has been issued one by Neo (e.g., 192.168.1.__).
   4. Repeat the test.
   5. If any issues persist, contact our OptConnect Customer Care Center at 877.678.3343.

8. **Identify remote access IP address:** Proceed to step 11 if you do not need to initiate a connection from your host to your equipment through Neo.

9. **Identify remote access ports for non-ATM equipment:** Find the IP address and contact port for remote access to your equipment.

10. **Use the OptConnect Private Network for remote access:** Proceed to Step 11 if you do not need to initiate a connection from your host to your equipment through Neo.

11. **Manage your OptConnect Device:** Follow the instructions provided in the manual to manage your OptConnect Device effectively.

Welcome to neo

- neo is an LTE Category 4 cellular router perfectly suited for smart vending, digital signage, kiosks, smart safes, and many other applications.
- OptConnect Neo's small size allows it to fit almost anywhere. Every new comes with OptConnect's managed wireless services and a lifetime license to Summit – the management system designed for your phone, tablet, or computer.
- OptConnect neo also includes Glimpse™, and onboard API that responds to requests from your equipment's software and tells your equipment how neo's cellular connection is performing. Only OptConnect has Glimpse™.

Follow steps 1 through 9 for a successful installation.

Simple Steps to Place, Plug & Play

1. Identify new and included accessories
2. Position the antenna
3. Place neo and connect antenna & power
4. Maximize signal strength and quality
5. Configure your equipment for DHCP
6. Configure your equipment for Static IP
7. Connect ethernet cable and test
8. Identify remote access IP address
9. Identify remote access ports for non-ATM equipment
10. Use the OptConnect Private Network for remote access

11. Manage your OptConnect Device

Identify Neo and its accessories

- neo cellular router
- Antenna with dual leads
- Ethernet Cable
- Power adapter

IMPORTANT

- Use only the included power adapter to maintain warranty coverage
- Your equipment's IP settings are critical. See the steps on the next pages.

Position the antenna

- Avoid placing the antenna inside equipment constructed entirely or mostly of metal
- Position the antenna's magnetic base on a metal surface 3-5 inches from any edge – the location on a metal surface can improve signal strength
- Orient the antenna
    1. Point vertically upward (best)
    2. Point vertically downward, routing antenna cable away from antenna shaft (next best)
    3. Point horizontally (least preferred)
- The position and orientation of the antenna can be optimized in Step 4

Place neo, connect antenna & power

- Place neo in your equipment
- Route antenna leads to neo
- Connect both antennae leads to neo and fully tighten
- Route the power adapter's cord from the power source to the neo

- Connect the power cord to neo – ensure the green LED next to the power port glows
- After 10-60 seconds, ensure the middle green LED glows or flashes

IMPORTANT: When Neo powers on the first time it may download a software update. This is indicated by a rapidly flashing middle green LED light for 1-2 minutes followed by the LED going dark while Neo reboots. You must allow this process to complete.

Maximizing signal strength and quality
neo may work well at this point. However, this step is strongly recommended to avoid potential future issues.

1. Log in to the OptConnect Summit portal at **www.summit3.optconnect.com**
2. Click Total Devices link
3. Locate the serial number on Neo and scroll to find it or type it in the Search/Filter box and press Enter
4. Click Neo's link to view Signal Strength in the On-Demand Info section
5. Adjust the antenna position by an inch or two
6. Click Refresh on Demand Info button – Important: neo can take 15 seconds to update
7. Repeat steps 5-6 until signal strength is maximized and signal quality is maximized
8. If it is not possible to maximize both signal strength and quality, maximize quality
9. Recommended: enter your device's identifier and description

Configure your equipment for DHCP
If you wish to initiate a remote connection to your equipment from your host, do not use DHCP. Got to Step 6 to set up a Static IP.

- Set your equipment to obtain an IP address through DHCP
- Special case for ATMs
- Configure your ATM according to your processor's setup guide as if you were connecting it to a LAN, DSL modem, or other landline Internet connection. Use the host addresses, host ports, protocols, and TLS encryption settings exactly as your processor instructs. (Note: this may be different from other OptConnect products.)
- **IMPORTANT:** OptConnect strongly recommends that you enable TLS encryption and SSL Certificate Verification on your ATM to prevent attacks such as "man in the middle." Enabling SSL Certificate Verification may require later ATM software versions from your equipment's manufacturer.

Configure your equipment for Static IP
Skip this step if you do not need to initiate a connection from your host to your equipment through neo

- Set your equipment as follows:
  - IP address 192.168.1.11
  - Subnet mask 255.255.255.0
  - Gateway 192.168.1.90
  - DNS server 1 192.168.1.90
  - DNS server 2 8.8.8.8
- Special case for ATMs
- Follow the instructions immediately above, but set your ATM's IP Address to 192.168.1.91
- If you require outbound RMS, enter your RMS server's protocols, and TLS encryption settings exactly as your

processor instructs. For proper security, enable SSL Certificate Verification.

Connect ethernet cable and test

- Connect the ethernet cable to your equipment and to neo ensure the green LED next to the ethernet port glows
- Restart your equipment or cause it to refresh its network environment
- Perform a test with your equipment
- If the test fails
    1. Restart your equipment
    2. Confirm your equipment's IP configuration (see Step 5 or Step 6)
    3. If your equipment is using a DHCP IP address, confirm it has been issued by Neo, ex. 192.168.1.
    4. Repeat test
    5. Contact our OptConnect Customer Care Center at 877.678.3343

Identify remote access IP address
Skip to step 11 if you do not need to initiate a connection from your host to your equipment through neo

- Look up the IP address of your neo in Summit or contact our Customer Care Center at 877.678.3343
- Ensure your equipment is configured for a static IP address (see Step 6)
- For equipment other than ATMs:
- If you have more than one piece of equipment, configure the second piece of equipment as directed in Step 6 with an address of 192.168.1.12
- Continue to Step 9
- For ATMs:
- Configure your ATM to communicate to your RMS server's hostname/IP address and port number. (**Note**: this may be different from other OptConnect Products.)
- Configure your RMS host system to contact your ATM using Neo's IP address and the standard OptConnect RMS ports

Identify remote access ports for non-ATM equipment

- neo is configured for common remote access protocols such as HTTP, RDP, vnc, SSH, GoToMyPC, etc. for two clients
- Learn your preferred protocol's TCP/IP port number from a manual or published resources, ex. HTTP is port 443
- Prepend a digit to the protocol's port number to reach your equipment according to the table below where xxx is the port number on which your equipment will respond:
    - To reach your equipment on port xxx: Contact port
    - 192.168.1.11: xx
    - 192.168.1.12: 2xxx
- **Ex:** directing your browser to <neo IP address>: 2443 establishes an HTTP session on port 443 with your equipment at IP address 192.168.1.12, the 2nd device in the table above
- neo is pre-configured for remote access to two static IP clients as per the table above. Contact our Customer Care Center at 877.678.3343 for custom port configurations or to support remote access for more than two

clients.

Use the OptConnect Private Network for remote access

- Skip to Step 11 if you do not need to initiate a connection from your host to your equipment through Neo.
- OptConnect cellular products, including Neo, operate on a private network to protect them and your equipment from attempted malicious access originating from the Internet.
- Your computer, or your host system, must use VPN credentials to be granted access to our private network and to remotely access your equipment through neo.
- If this neo is your first OptConnect device, contact our Customer Care Center at 877.678.3343 to install our free software VPN client or to discuss other options.
- If this neo is part of a larger portfolio of OptConnect devices, your company is already using credentials to remotely access your equipment. You do not need to take any additional steps for remote access.

Manage your OptConnect Device

neo includes a lifetime license to Summit to help you manage your cellular devices. Log in at **www.summit3.optconnect.com** or contact our Customer Care Center at 877.678.3343

FAQ

How do I log in to Neo?
There is no log in for neo. OptConnect manages all aspects of neo as part of our Managed Wireless Services.

How do I change Neo's IP address, firewall settings, etc.?
Each neo you receive is configured to your specifications before it arrives. neo 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 neo's configuration.

How do I know if Neo is online?
The middle green LED will flash or glow steadily when Neo is communicating with the cellular network. For more detailed performance and historical information see Summit at summit.optconnect.com or add Glimpse™ support to your equipment's software.

How do I get support?
Contact our Customer Care Center at 877.678.3343

Let us show you why thousands of customers have made OptConnect the leading IoT-managed services provider for headache-free cellular connectivity with award-winning products and top-rated customer service.

OptConnect.com

877.678.3343

Documents / Resources

Quick Start Guide OptConnect neo Europe Size Matters	**OptConnect neo 4 Cellular Router** [pdf] User Manual neo 4 Cellular Router, neo, 4 Cellular Router, Cellular Router, Router

References

- **OptConnect | Cellular Connectivity Solutions**
- **Summit Login**