

Intellian® OW11FM

Activation and Configuration



Activating Your System

The OW11FM system needs to be activated under a OneWeb airtime rate plan by KVH. Fill out the activation form (available from your KVH dealer or sales rep) and email it to airtimeservices@kvh.com. Please call KVH Airtime Services at +1-401-851-3862 if you need assistance.

To complete the activation form, you will need one of the following system identifiers:

- Antenna unit serial number
- IMEI
- KVH serial number, if available

The antenna unit serial number and IMEI are printed on a label on the outside of the Intellian shipping box and on the bottom of the antenna near one of the handles (see Figure 1). In some cases, a KVH serial number might be available as well on the outside of the box and on a separate activation sheet.

You will also need the CNX-WIFI or CNX-Rack serial number, which is located on the outside of the box and on the unit itself (see Figure 2).

Figure 1: Label on Intellian Shipping Box and Antenna

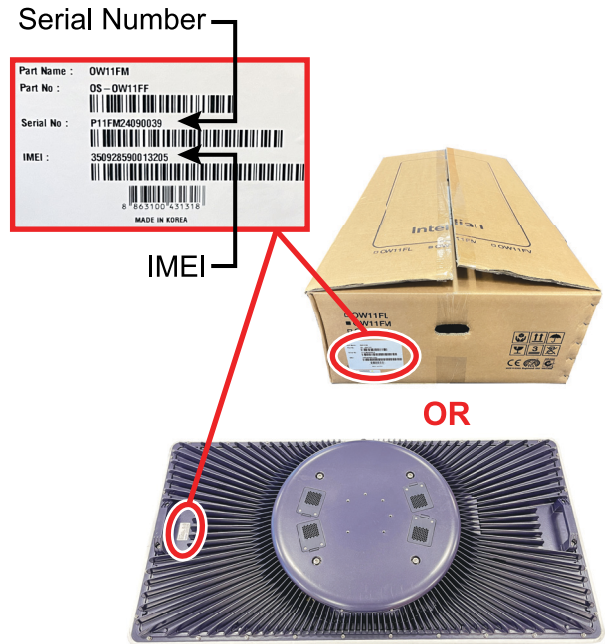
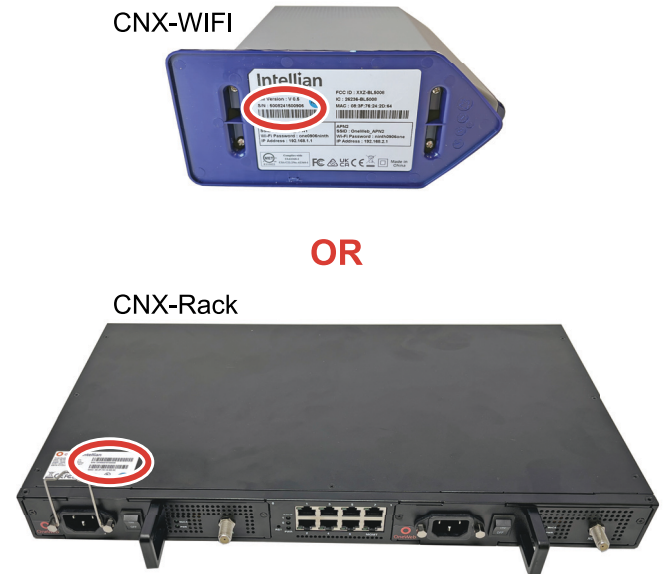


Figure 2: Label on Intellian CNX Unit



Antenna Serial No./IMEI

CNX Serial No.

Enter your serial numbers here for handy reference.

IMPORTANT!

Once your system has been activated, KVH will email your login credentials to eBill and KVH Manager where you can view your current data usage at any time.

Technical Support

Within Continental U.S.A.: 1 866 701-7103 | Worldwide: +1 401 851-3806 | Email: help@kvh.com

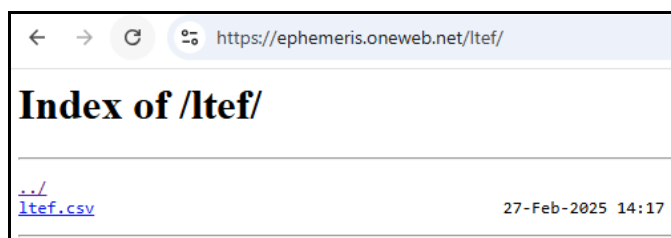
Downloading Important Files

To complete the configuration process to get the OneWeb system up and running, you will need the following files:

- **Intellian SW Updater:** If you are a KVH partner, download this file from the KVH Partner Portal (kvh.com/partners). Otherwise, contact KVH Technical Support for a link. The zip file includes both the update tool and the latest software.
- **Ephemeris Data:** Open your web browser and go to <https://ephemeris.oneweb.net>. Select the ltef/ directory. Then select the ltef.csv file to download it.

Save these files to your laptop in advance while you have a good Internet connection.

Figure 3: Ephemeris Data File to Download



Note: The ephemeris data file on this site is updated every 30 days. The file expires after 90 days.

Updating the Software

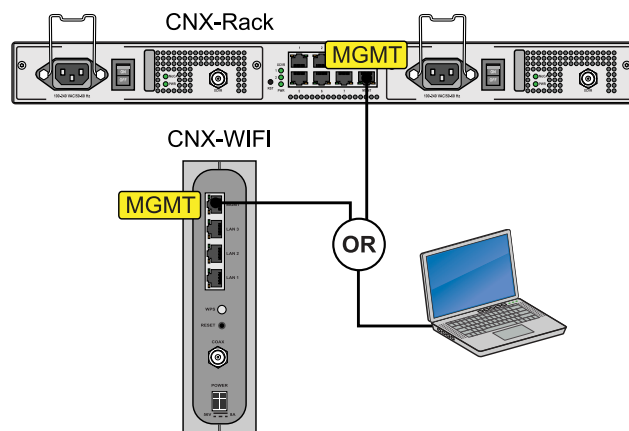
Follow these steps to update the system software using the Intellian SW Updater tool.

1. Contact KVH Technical Support for a link to download the Intellian SW Updater and the latest software file. Extract the contents of the .zip file to your laptop.

Note: KVH partners can download the tool with the latest software from the KVH Partner Portal (kvh.com/partners).

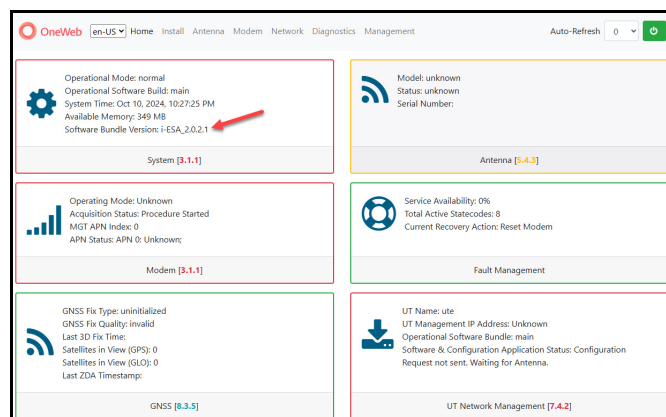
2. Make sure the Intellian OneWeb system is powered on.
3. Using an Ethernet cable, connect your laptop directly to the “MGMT” port on the CNX-WIFI or CNX-Rack.

Figure 4: Connecting to the CNX



4. Open your web browser and enter the IP address of the local user interface (LUI). The default is **192.168.100.1**.
5. At the Home page of the LUI, check the displayed software version. If it is earlier than **2.0.2.0**, you cannot use the SW Updater – contact KVH Technical Support.

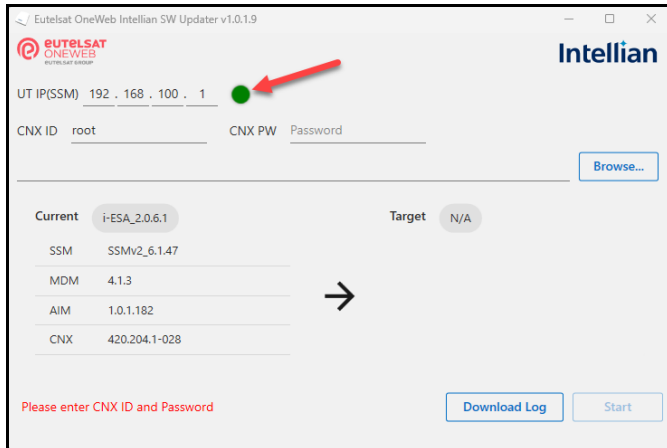
Figure 5: Software Version Displayed on Local User Interface



6. Run the Eutelsat OneWeb Intellian SW Updater.exe file to launch the tool.

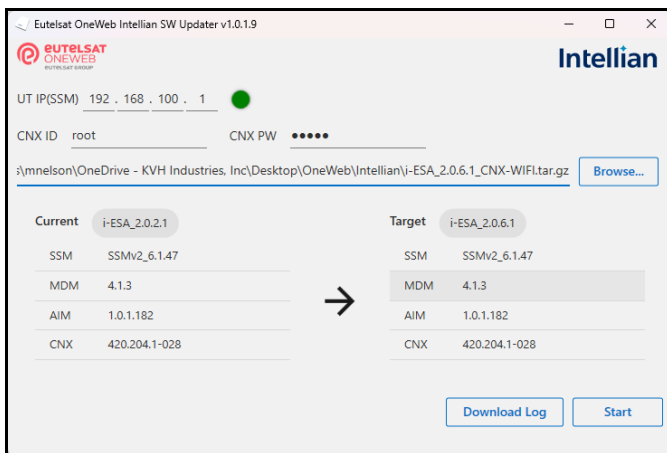
- If the installer prompts you to install .NET 8.0, please download and install it. The SW Updater application is built on .NET 8.0.
- If the UT status indicator is red on the updater's user interface, verify that the correct IP address is shown for the OneWeb modem. Change it if necessary.

Figure 6: UT Status Indicator



- Enter your account credentials for CNX access. The default settings are:
 - CNX ID: **root**
 - CNX PW (password): **admin**

Figure 7: Password Entered and Software Update File Selected

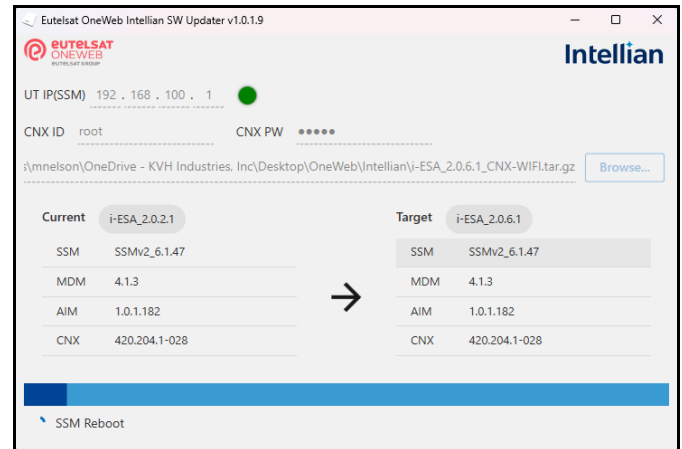


- Select **Browse** then select the software bundle update file saved on your computer. *It has a tar.gz extension.*

- Select **Start**. The tool displays each step of the update process. The system will reboot automatically, the UT status indicator will turn red, and the user interface will be unavailable, during the update process. If any errors are displayed, contact KVH Technical Support.

Note: The update process might take up to one hour to complete.

Figure 8: Software Update Progress Bar

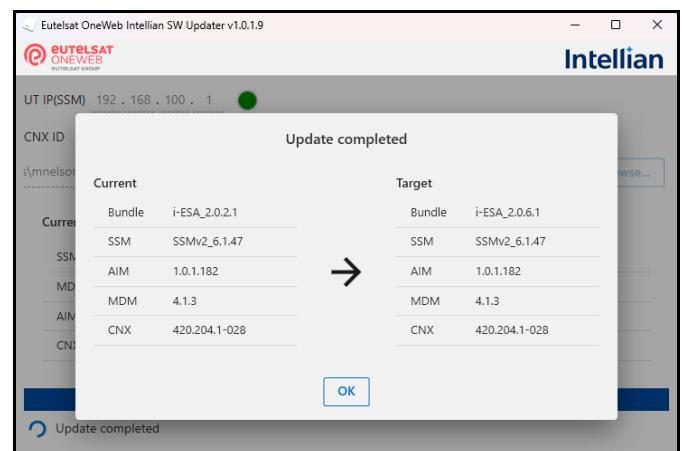


IMPORTANT!

If the update fails, disconnect your laptop's Ethernet cable from the CNX. Then connect to the CNX's Wi-Fi and try again.

- When the update is complete, select **OK** to exit.

Figure 9: Software Update Complete

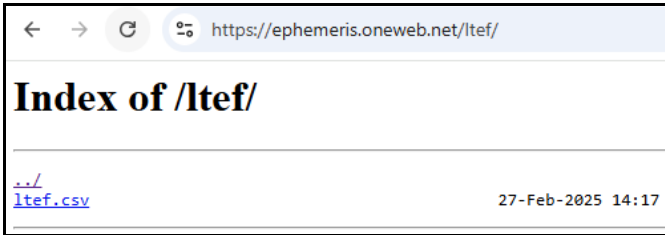


Updating Ephemeris Data

If you haven't already done so during installation, you need to run through the Install Wizard and upload the latest ephemeris data file to the system. *Ephemeris data includes information about the orbits of all available satellites.*

1. Connect a laptop to the Internet and enter **https://ephemeris.oneweb.net** in your web browser.
2. Select the **ltef/** directory. Then select the **ltef.csv** file to download it to your laptop.

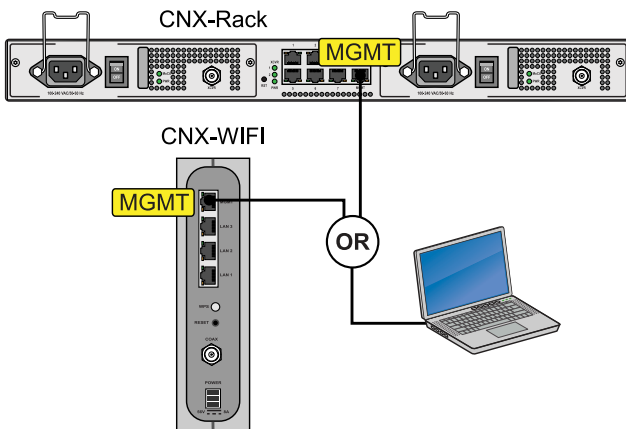
Figure 10: CSV File to Download



Note: The ephemeris data file on this site is updated every 30 days. The file expires after 90 days.

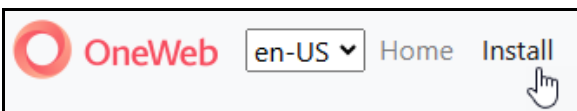
3. Make sure the Intellian OneWeb system is powered on.
4. Connect your laptop directly to the “MGMT” port on the CNX-WIFI or CNX-Rack.

Figure 11: Laptop Connection to CNX



5. Open your web browser and go to **192.168.100.1**.
6. At the local user interface, select **Install** from the menu.

Figure 12: Accessing the Install Wizard

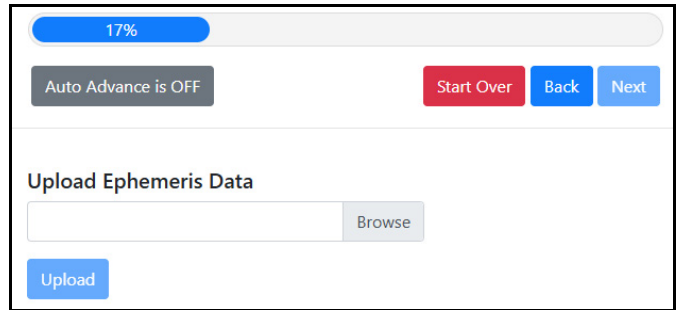


7. At the Install Wizard, select **Start Installation**.
8. Select **Next** until you see “Upload Ephemeris Data.”

IMPORTANT!

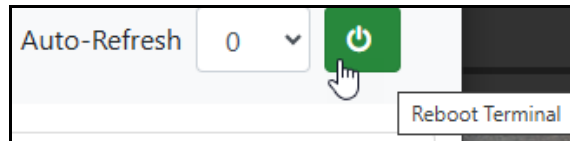
Do not attempt to update software at “Upload Software Bundle.”

Figure 13: Install Wizard: Upload Ephemeris Data



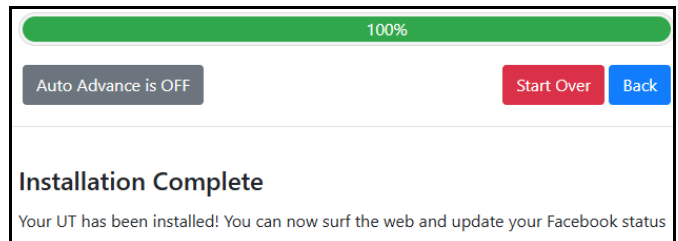
9. Select **Browse**.
10. Find the **ltef.csv** file you saved earlier on your laptop. Then select **Open**.
11. Select **Upload**.
12. When the upload is complete, select **Next**. Then click the Reboot button in the upper-right corner. (Select **OK** at the confirmation dialog box.) A reboot is required for the new ephemeris data to take effect.

Figure 14: Reboot Button



13. Run through the remaining steps of the Install Wizard until you see “Installation Complete.”

Figure 15: Install Wizard: Installation Complete



Changing the CNX-WIFI Mode

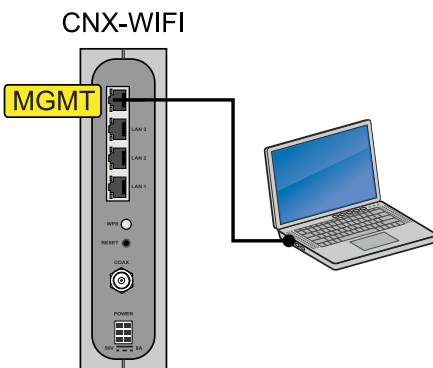
IMPORTANT!

This section only applies if the system is equipped with a CNX-WIFI.

The default operating mode of the CNX-WIFI is “Wi-Fi Router.” In this mode, the CNX-WIFI operates as a Layer-3 router and assigns IP addresses via DHCP in a 192.168.0.x/24 network rather than 192.168.100.x/25. Depending on the vessel network configuration, this may cause issues accessing the OneWeb modem and CNX interfaces. If you experience this issue, or you prefer a different mode, change the CNX-WIFI operating mode following the steps below.

1. Make sure the CNX-WIFI is powered on.
2. Connect your laptop directly to the “MGMT” port on the CNX-WIFI.

Figure 16: Laptop Connection to CNX-WIFI



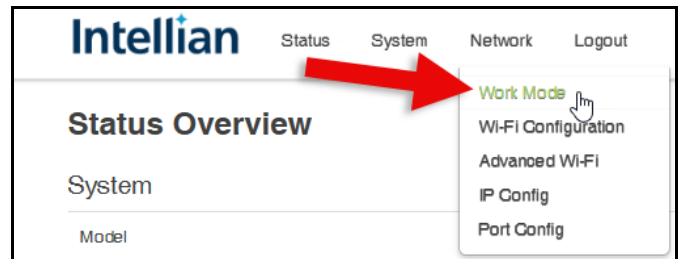
3. Open your web browser and go to **192.168.100.3**.
4. Log into the CNX-WIFI. If this is the first login, set the router (CNX) password to “**admin**” (or choose your own password).

Figure 17: Setting the CNX Password

The screenshot shows the Intellian web interface for setting the router password. The page title is 'Router Password' and it says 'Set the administrator password for accessing the device.' There are two input fields: 'Password' and 'Confirmation'. At the bottom right, there are two buttons: 'Save and Apply' and 'Reset'.

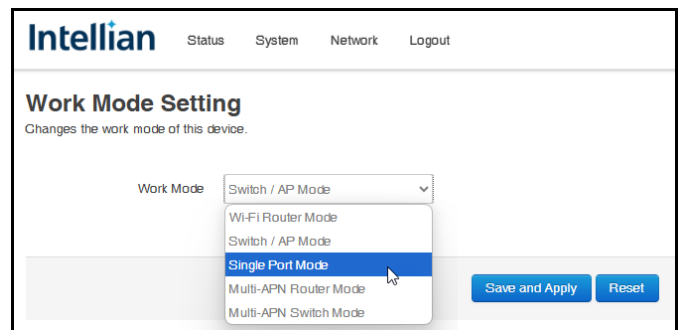
5. Select **Work Mode** from the Network menu.

Figure 18: Work Mode Option



6. Select the desired mode. Recommended options:
 - **Switch / AP Mode:** CNX-WIFI operates as a Layer-2 switch and wireless access point; all LAN ports and the built-in Wi-Fi are enabled
 - **Single Port Mode:** CNX-WIFI operates as a single-port bridge; only the MGMT port is enabled; all LAN ports and the built-in Wi-Fi are disabled

Figure 19: Work Mode Setting



7. Select **Save and Apply**. The CNX-WIFI will reboot.

Changing the IP Address

If you need to change the IP address of the Intellian OneWeb system, you need to change the IP for both the modem and the CNX, and they must be on the same subnet. *For example, you need to change their IP addresses to the 198.19.55.x subnet if you are connecting the OneWeb system to a KVH TracNet™ H-series or Coastal Pro system for hybrid functionality.*

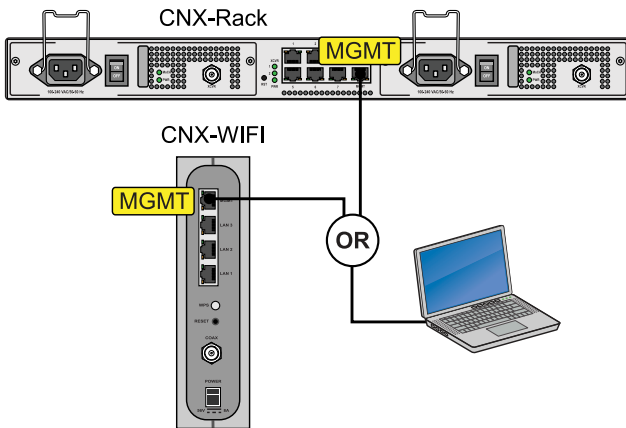
IMPORTANT!

The IP addresses of the OneWeb modem and the CNX must on the same subnet.

Connect to the CNX

1. Make sure the Intellian OneWeb system is powered on.
2. Connect your laptop directly to the “MGMT” port on the CNX-WIFI or CNX-Rack.

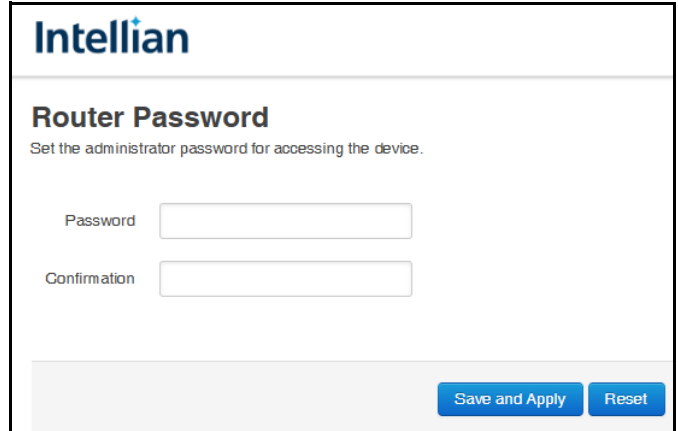
Figure 20: Laptop Connection to CNX



Change the IP Address of the CNX-WIFI (if applicable)

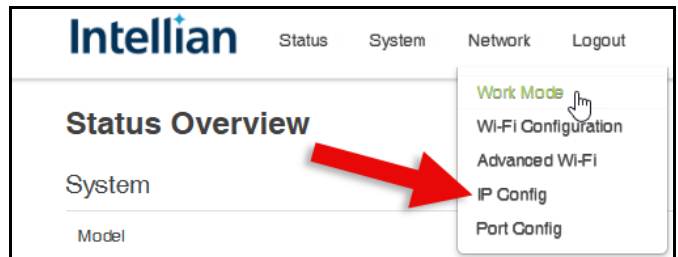
1. Open your web browser and go to **192.168.100.3**.
2. Log into the CNX. If this is the first login, set the router (CNX) password to “**admin**” (or choose your own password).

Figure 21: Setting the CNX Password



3. Select **IP Config** from the Network menu.

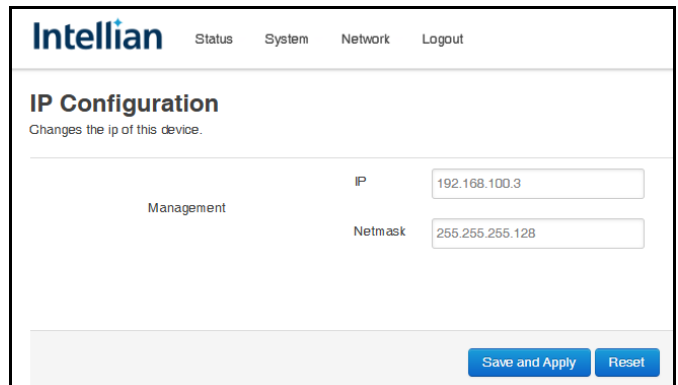
Figure 22: IP Config Option



4. Change the IP address of the CNX, as needed. Keep the last octet set to 3.

If you are connecting the OneWeb system to a KVH TracNet system, use **198.19.55.3**.

Figure 23: IP Configuration

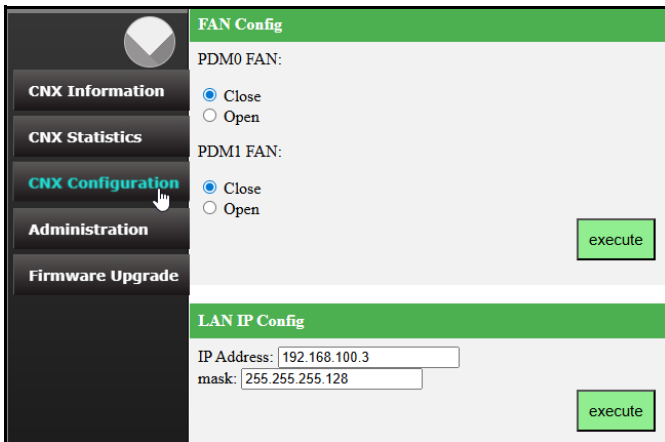


5. Select **Save and Apply**.

Change the IP Address of the CNX-Rack (if applicable)

1. Open your web browser and go to **192.168.100.3:8080**.
2. Select **CNX Configuration** from the menu.

Figure 24: CNX Configuration

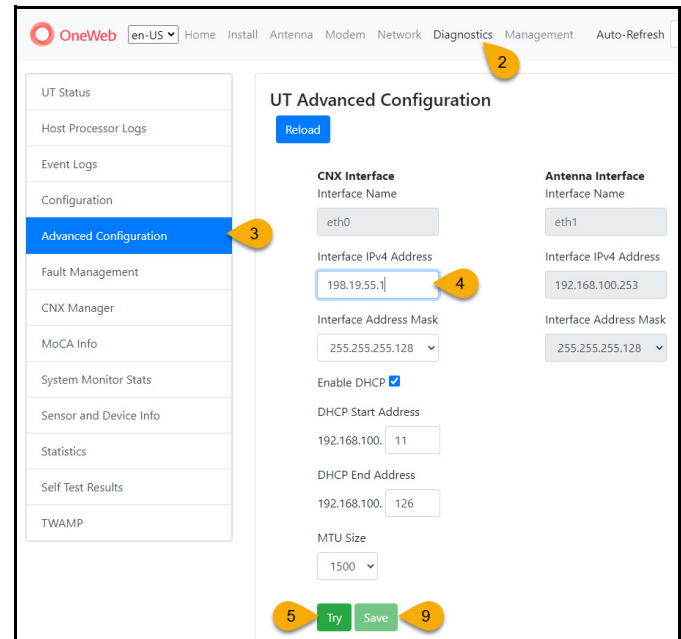


3. Under “LAN IP Config,” change the IP address of the CNX, as needed. Keep the last octet set to 3.
If you are connecting the OneWeb system to a KVH TracNet system, use **198.19.55.3**.
4. Select **Execute**.

Change IP Address of the Modem

1. Open your web browser and go to **192.168.100.1**.
2. At the local user interface, select **Diagnostics** from the main menu.
3. Select **Advanced Configuration** from the sidebar menu.

Figure 25: IP Address Field in Local Web Interface



4. Under “CNX Interface,” change the Interface IPv4 Address, making sure it is in the same subnet as the CNX IP address. Keep the last octet set to 1. *Despite the heading, this field is the IP address of the OneWeb modem.*

If you are connecting the OneWeb system to a KVH TracNet system, use **198.19.55.1**.

5. Select **Try**.
6. Wait a few minutes for the new network settings to take effect.
7. Enter the new modem IP address in your web browser to regain access to the local user interface.
8. Return to the Diagnostics > Advanced Configuration page.
9. Select **Save**.

Connecting to the Internet

Connect your vessel’s computer or network device to the “MGMT” port on the Intellian system’s CNX (CNX-WIFI or CNX-Rack).

The Intellian system’s DHCP server assigns IP addresses automatically to connected devices. However, if your vessel device is not set up for DHCP, it needs to be configured as follows:

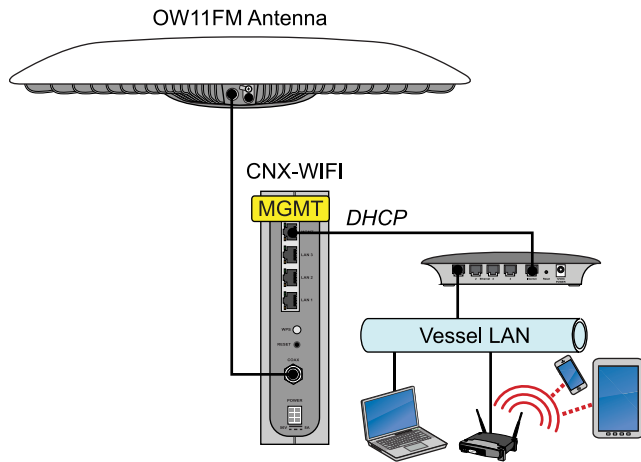
If CNX-WIFI is set to “Wi-Fi Router” Mode:

- **Static IP address:** Between 192.168.0.10 and 192.168.0.126
- **Gateway:** 192.168.0.1
- **Subnet:** 255.255.255.0 (/24)

All other modes/CNX units:

- **Static IP address:** Between 192.168.100.10 and 192.168.100.126
- **Gateway:** 192.168.100.1
- **Subnet:** 255.255.255.128 (/25)

Figure 26: OneWeb Internet Data Connection (CNX-WIFI Shown)



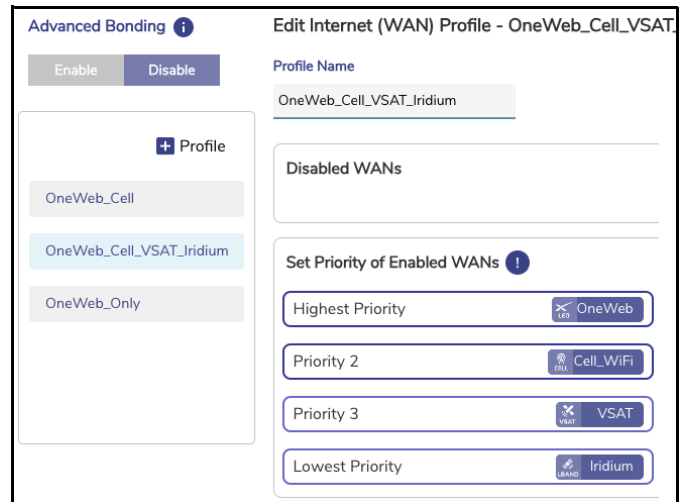
Optional CommBox™ Edge

KVH’s CommBox Edge Communications Gateway allows you to integrate and control all of your communication channels, including OneWeb, Starlink, 5G/LTE, VSAT, Wi-Fi, and more. It offers a powerful suite of network and bandwidth management tools, including:

- Prioritization and bonding of multiple WAN (wide area network) connections
- Fully configurable application controls, content filters, rate limits, and usage quotas
- Captive access network and user data allocations
- Secure remote access to onboard networked devices
- Cloud-managed user interface and mobile app with real-time metering and analysis

Visit kvh.com/edge or contact the KVH Sales Department at sales@kvh.com to learn more.

Figure 27: CommBox Edge OneWeb WAN Profile



Pairing OneWeb System with a KVH Antenna System (If Applicable)

The following supplemental instructions explain how to connect your OneWeb system to a KVH TracNet™ H-series or Coastal Pro or TracPhone® HTS-series antenna system (if installed on your vessel) and enable automatic switching between them, with OneWeb as primary, KVH as backup.*

IMPORTANT!

Before you begin, install the OneWeb antenna system as described in the instructions provided by Intellian.

* **Note:** The TracPhone V30 model requires a third-party network management device, such as the KVH CommBox Edge, for automatic switching. Contact the KVH Sales Department at sales@kvh.com for details.

Change the IP of the OneWeb System

IMPORTANT!

This step only applies to TracNet **H-series** and **Coastal Pro** systems.

The gateway IP address of the OneWeb modem needs to be changed to **198.19.55.1** to work with the TracNet H-series or Coastal Pro system. If you haven't already done so, follow the steps in "Changing the IP Address" on [page 6](#) to change the modem IP to 198.19.55.1 and the CNX IP to 198.19.55.3.

Connect the CNX to the KVH System

1. Unplug the power cable(s) from the Intellian CNX unit.
2. Using a Cat5E or better Ethernet cable, connect the "MGMT" port on the CNX to the designated Ethernet port on the TracNet system's Hub+ or Hub or the TracPhone system's ICM. Use Ethernet port 4 unless KVH has specified a different port number for your particular configuration.
3. Reconnect the CNX power cable(s).

Figure 28: Intellian CNX-WIFI Connection Diagram

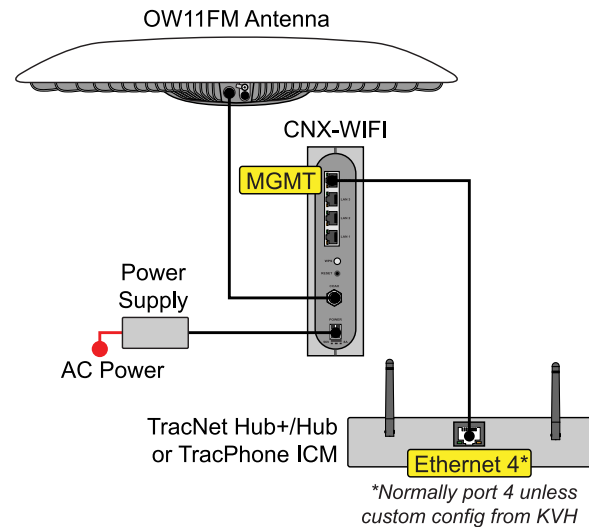
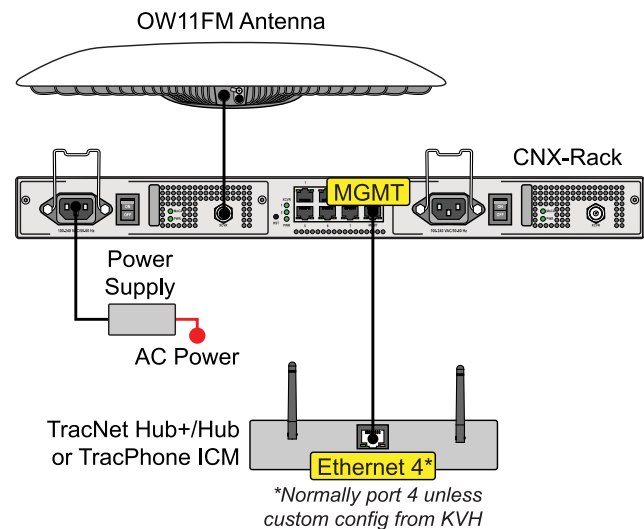


Figure 29: Intellian CNX-Rack Connection Diagram



Update the KVH Software (If Necessary)

The latest software version should be installed in the KVH antenna system to ensure optimum OneWeb integration. You can find the currently installed version on the Support page of the system's web interface. If an update is needed, use the KVH app or web interface to upload the latest file. Refer to the system's Help for details (see www.kvh.com/support/product-help).

Configure the KVH Antenna

IMPORTANT!

This step only applies to TracPhone **HTS-series** systems.

Contact KVH Technical Support (mvbsupport@kvh.com) to configure the KVH antenna system software for OneWeb integration and enable the system to automatically switch to OneWeb whenever OneWeb service is available. KVH will deliver your configuration file over the air via your TracPhone system's Internet connection.

Select a Compatible Port Configuration

IMPORTANT!

This step only applies to TracNet **H-series** or **Coastal Pro** systems.

Log into the TracNet system's web interface or KVH Manager and select any port configuration that includes the "Alternate WAN." Refer to the system's Help for details. The OneWeb system connected to port 4 on the Hub+/Hub will be considered the "Alternate WAN" – the preferred connection. In automatic mode, the TracNet system will use the OneWeb connection whenever it is available for use.