

If you're new to troubleshooting network issues or are unfamiliar with ONTs, don't worry — we're here to help! In this guide, we'll walk you through the basic steps to troubleshoot common Internet connectivity problems.

Understanding Your Nokia ONT

Every Internet setup we offer includes a device called an Optical Network Terminal (ONT).

- This device plays a crucial role in converting optical laser light from the fiber optic line into an electrical signal that your Internet equipment, such as your router or laptop, can use to browse the Internet.
- If there's a problem with the Nokia ONT, it can affect the functionality of other devices connected to it.



Troubleshooting Instructions

Step 1: Isolation Testing — Removing Other Devices

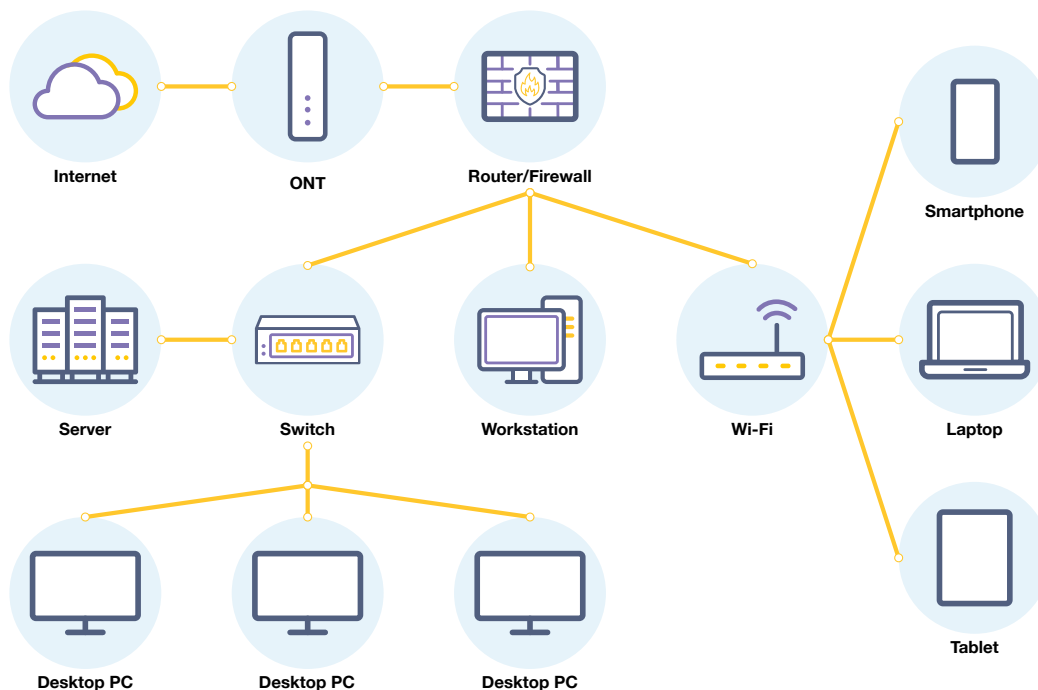
When troubleshooting, we start by isolating the problem. This means disconnecting all devices except your computer or laptop from the ONT. By doing this, we can check if the issue is with your equipment or the network itself.

1. Unplug all devices connected after the ONT.

- This includes computers, routers, smart devices, and any other equipment, from your network setup.
- View the Network Diagram below for a visual representation of a typical home or office Local Area Network (LAN) to help choose which devices to unplug.

2. Connect Laptop/Computer Directly to the ONT.

- Ensure all cables are securely connected to the same ONT port used before the isolation testing.
- Check for any error messages or indicators on your laptop/computer related to network connectivity.
- Attempt to access the Internet and perform basic tasks to gauge if the service is functioning correctly.



If Service Works:

- Your laptop/computer will successfully connect to the Internet and function without issues, indicating that the network connection from the ONT to your device is operational.
 - This suggests the issue may lie with your router or personal equipment/gear.
- **Continue to Step 2.**

If Service Doesn't Work:

- You will encounter difficulties accessing the Internet or experience slow speeds.
- There may be an issue with the network setup or configuration.
 - This suggests that the issue may lie further up the network path, potentially within the network setup or configuration.
- **Contact our support team** and they will guide you through additional troubleshooting steps to identify and resolve the connectivity issue, which may include ONT configuration adjustments, cable replacements, or further network diagnostics.

Step 2: Assessing Initial Results

If your computer connects to the Internet during isolation testing, it's a good sign that the network connection from the ONT is working. This indicates that any issues may be with other devices or settings in your setup.

If your laptop/computer successfully connects to the Internet...

- It's a good sign that the network connection from the ONT is working.
- This suggests the issue may lie with other devices or settings in your setup.
- **Continue to Step 3.**

If your laptop/computer DOES NOT successfully connect to the Internet...

- You will encounter difficulties accessing the Internet or experience slow speeds.
- There may be an issue with the network setup or configuration suggesting that the issue may lie further up the network path.
- **Contact our support team** and they will guide you through additional troubleshooting steps to identify and resolve the connectivity issue, which may include ONT configuration adjustments, cable replacements, or further network diagnostics.

Step 3: Reconnecting Your Router and Adding Devices Back One by One.

After confirming that the network connection from the ONT to your device is functional, we can continue our isolation testing by reconnecting your router and other devices one at a time. This helps us identify if a specific device or configuration is causing the issue. *If at any point you experience any issues proceed to Step 4 and check the LED lights on your Nokia ONT.*

1. Proceed to reconnect your router to the ONT.
2. After reconnecting your router, use an Ethernet cable to connect your computer directly to one of the router's LAN ports.
 - a. This setup allows us to assess the performance and functionality of your router and associated network settings.
3. Test the Internet connectivity and performance on your computer while connected to the Router's LAN port. (DO NOT USE WI-FI WHEN TESTING)
 - a. Note any specific devices or scenarios where issues arise, such as intermittent connectivity, slow speeds, or inability to access certain websites or services.
 - b. If it connects, gradually reconnect other Ethernet supported devices one at a time. Test each device's performance.

4. If your router supports Wi-Fi, enable the Wi-Fi service and connect a Wi-Fi-enabled device (e.g., smartphone, tablet, or another computer) to the network.
5. Verify that all connected devices (wired and wireless) can access the Internet without disruptions.
6. If all devices work without issues you may stop here. If not, proceed to Step 4.

Step 4: Check LED lights on Nokia ONT

Each Nokia ONT will have the following LED lights on the front of the device. To help quickly diagnose potential issues, check the status LEDs on the Nokia to ensure it's receiving power and has an active Internet connection.

Nokia ONT LED Indicators to Look Out For During Troubleshooting

PON LED is Solid Red

Contact support for help.

- It suggests a potential service outage or physical problem with the fiber optic line.
- The issue could range from a gardener accidentally cutting the line out in the yard, to a pet chewing the line inside your home.
- It's possible that a break could be caused further down the line, but they are less common.

WPS LED is On/Off

This LED indicates if your Wi-Fi service is on or off.

- Ensure the Wi-Fi service is turned on and troubleshoot any configuration problems.
- If you're experiencing issues with the Wi-Fi service, directly from the Nokia ONT, this LED will tell you if the Wi-Fi service is turned on or not.
- There is a manual switch on the back of the Nokia ONT that will allow you to turn it off or on. (Sometimes this switch gets accidentally flipped.)
- ***Please keep in mind that this ONLY applies if you have the Wi-Fi service through our Nokia ONT.***

PON LED is Flashing Green

A flashing green PON LED may indicate a service configuration issue. *If the green flashing persists for longer than 30 seconds, escalate the matter to our support team for resolution.*

- It's okay if the LED flashes, but it shouldn't last longer than 30 seconds at a time.
- If the LED is flashing and stays flashing for longer than that, then there is an issue with the service configuration that needs to be escalated and resolved.
- This indicates it is NOT a physical issue but a software one.

LAN/RJ-45 LED

These are your standard Ethernet jacks on your ONT and they confirm if your Ethernet devices are properly connected.

- **If the LED light is OFF:** There is nothing plugged into that port.
- **If the LED is on:** A device is plugged in.
- **If the LED is flashing:** The device is sending data on the cable.

Detailed breakdown of what each LED indicator signifies on the next page.

Indicator/LED	LED Color and Behavior	LED Behavior Description
PON	Off	No fiber connected or no power to the device.
	Solid Green	ONT has been configured and service is UP.
	Flashing Green	ONT is attempting to connect.
	Solid Red	Service is down or there is no physical link.
INTERNET	Green Solid	WAN port is connected: a) the device has an IP address assigned from IPCP, DHCP, or static; b) the session is dropped due to idle timeout but the PON link is still present, or transmit and receive traffic is ongoing
	Green Flashing	PPoE or DHCP connection is in progress.
	OFF (Dark)	The WAN port is not connected: a) there is no physical interface connection; b) the session has been dropped for reasons other than idle timeout.
TEL	Green Solid	Phone is off the hook and VoIP service is up.
	Flashing Green	Phone is “in call” or “talking” condition.
	Red	VoIP is not in service.
	Off	Phones are on hook or VoIP service is not set up.
WPS	Green Solid	Wi-Fi Protected Setup link is turned on.
	Green Flashing	Wi-Fi Protected setup is passing data.
	Red Solid	Wi-Fi Protected setup processing an error or multiple peers.
	Off	Wi-Fi Protected setup link, is down or no device has been linked.
WLAN	Green Solid	Wi-Fi enabled for use.
	Off (Dark)	Wi-Fi is not enabled.
LAN / RJ-45 ports	Green Solid	LAN connection is enabled.
	Off (Dark)	LAN link is off or not plugged in.
USB	Green Solid	A device is connected to the USB port.
	Green Flashing	Traffic on USB device is being passed through.
	Off (Dark)	No device is connected.

Step 5: Contact Support

If you're unable to resolve the issue or need further guidance, our support team is here 24/7 to assist you. Simply reach out for help, and provide detailed information about your network setup, any error messages or LED indicators observed, and steps taken during isolation testing. We'll work together to get your Internet connection up and running smoothly again.

Email: Support@GigabitNow.com

Call: 1-800-468-3939

Remember, troubleshooting network issues may seem complex at first, but with a structured approach and the right guidance, you can quickly identify and resolve common problems.