OPERATIONS HANDBOOK

Router Troubleshooting & Operations Handbook

Standard Operating Procedure / SOP

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Maintained by: Network Operations Center

For on-site troubleshooting of NOC offline status and app connection or account-binding issues. Identify the symptom first, then follow the relevant procedure.

How to Use This Manual

01 **Identify the symptom**: Record the indicator status, whether the device is part of a Mesh network, and any messages shown in the app or NOC.

02 **Choose a procedure**: Use the quick reference below to find the matching scenario, then follow the steps in order.

03 **Check the result**: After each step, check whether the issue has been resolved. If it persists, escalate as specified in the relevant procedure.

> **Before You Begin**
> If the indicator is solid white, first distinguish between a Mesh child node and a standalone main router that is not part of a Mesh network. Do not proceed directly to restarting or resetting a Mesh child node.

Chapter	Topic	Status
01	NOC Shows Offline	Complete
02	App Cannot Connect to the Router	Complete

Quick Reference & Ticket

Identify the symptom and select the matching procedure

Symptom	Initial assessment / action	Procedure
NOC shows offline; indicator is red or yellow / orange	Upstream network or physical link issue	1.1 Check the On-Site Network
NOC shows offline; indicator is solid white and previously flashed blue during Mesh setup	Mesh child node; check its status through the main router	1.2 Confirm the Mesh Node
NOC shows offline; indicator is solid white; device is not part of a Mesh network	Standalone main router; follow the recovery steps in order	1.3 Follow the Recovery Procedure
App reports that the device is already bound to another account	Remove the existing account binding first	2.1 Account Binding
App reports an incorrect password during binding	Verify the password	2.2 Password Verification
Phone is connected to the router, but the “Set Up Router” button does not appear	Check the phone's location setting	2.3 Phone Location Setting
App displays “Unknown Error” or “Network Connection Failed”	Confirm connectivity and provide the SN; checking NOC status is also recommended	2.4 Report the Issue

Support Ticket Template · Solid White Indicator, but Offline in NOC

Use this template when restarting, resetting, and reconfiguring the network have not resolved the issue, and upstream connectivity is normal. Verify the actions actually completed before submitting.

> [Fault Report] Router indicator is solid white, but NOC shows offline
>
> Device SN : [Enter the serial number from the label on the underside]
> Actions taken : Disconnected power completely for at least 15 seconds and restarted; performed a hardware Reset and reconfigured the network. The issue persists.
> Upstream status : Internet connectivity is normal; internet access works.

01 / NOC Shows Offline

Check the uplink and identify Mesh nodes

Where to start: Observe the indicator, then determine whether the device is part of a Mesh network.

1.1 Red or Yellow / Orange Indicator: Check the On-Site Network

Applicable symptom: NOC shows the device as offline, and its indicator is red or yellow / orange.

> **Troubleshooting focus | Upstream network or physical link**
> The device cannot access the internet, so NOC cannot receive its heartbeat. Focus on the on-site network; this is not a cloud management account issue.

01 **Check the WAN cable**: Ensure that both ends of the cable are firmly connected. Check whether the Ethernet port indicator is flashing normally.

02 **Check upstream equipment and the broadband service**: Check the modem or upstream router. Confirm whether the broadband service has been suspended for unpaid bills and whether the modem's LOS indicator is red.

03 **Confirm recovery**: Once upstream connectivity is restored, the router's indicator will automatically turn white, and NOC will automatically show the device as online again.

1.2 Solid White After Flashing Blue During Mesh Setup: Confirm a Mesh Child Node

Applicable symptom: The indicator flashed blue during network configuration or Mesh startup, then became solid white after successful pairing.

> **Normal behavior | Mesh child node**
> This device is currently a Mesh child node (Slave). It neither needs nor is able to connect directly to NOC on its own. Check its status through the main router; repeated restarts or resets are unnecessary.

Check	Details
Indicator sequence	Flashed blue during Mesh setup, then became solid white after successful pairing
Communication mechanism	The child node connects through the main router using wireless / wired backhaul; the main router handles external communication on its behalf
Where to verify	The Mesh network's main-router management page in NOC → downstream topology and node list

Expected outcome: Confirm the device's status in the main router's topology and node list. A separate direct connection from the child node to NOC is not required to assess its status.

01 / Standalone Router Recovery

Restart, reset and reconfigure, then escalate if needed

1.3 Solid White, No Mesh Network: Recover a Standalone Main Router

Applicable symptom: The device is a standalone main router that is not part of a Mesh network. Its indicator is solid white, but NOC still shows it as offline.

> **Required order | Restart → Reset and reconfigure → Report the SN**
> The underlying system is ready, but the persistent connection to the cloud has been interrupted. Follow the steps below in order. Stop troubleshooting once NOC shows the device as online again.

Step 1 · Power Cycle the Router

01 Unplug the router's power cable. Leave it completely disconnected from power for **at least 15 seconds**, then reconnect it.

02 Wait approximately **2 minutes**, until the indicator is solid white.

03 Refresh the NOC page and check whether the device is online again.

Result: Online again → troubleshooting complete. Still offline → proceed to Step 2.

Step 2 · Perform a Hardware Reset and Reconfigure the Network

> **Reminder | Network configuration is required after a reset**
> This step includes both a hardware reset and network reconfiguration. Continue with network configuration after initialization is complete.

01 With the device **powered on**, use a SIM-eject tool to press and hold the recessed Reset button for **8-10 seconds**.

02 Release it when the indicator starts **flashing rapidly**.

03 Wait **2-3 minutes** for initialization to finish, then **reconfigure the network**.

04 After network configuration is complete, check whether NOC shows the device as online again.

Result: Online again → troubleshooting complete. Still offline → proceed to Step 3.

Step 3 · Provide the SN and Escalate to Technical Operations

If the device remains offline after a reset and network reconfiguration, possible causes include a cloud authentication issue, an invalid certificate, or an incorrect tenant mapping.

01 Record the **serial number (SN)** from the label on the underside of the device.

02 Summarize the actions already taken and the upstream network status.

03 Send this information to the technical operations team for backend investigation.

02 / App Cannot Connect

Choose a procedure based on the error or screen behavior

Where to start: Select the relevant procedure based on the app message or the behavior shown on screen.

2.1 Router Is Already Bound to Another Account

Check: Whether the router is already bound to another account.

Action: If it is, remove the existing account binding before continuing to bind the router to the current account.

2.2 Incorrect Password During Binding

Check: Whether the password entered during binding is correct.

Action: Verify the password, then try binding again once it has been confirmed.

2.3 Phone Is Connected, but the “Set Up Router” Button Does Not Appear

Prerequisite: The phone has been confirmed to be connected to this router, but the app still does not display the “Set Up Router” button.

Action: The phone's location setting may be turned off. Check the setting and enable location, then check whether the button appears.

2.4 “Unknown Error” or “Network Connection Failed” During Binding

01 **First confirm that the network connection is working normally.**

02 Once connectivity has been confirmed, provide the router's **serial number (SN)** to the operations team for assistance.

03 **Checking the device's online status in NOC is also recommended.**: Include the result to help the engineer locate the issue.

> **Information to Include**
> Along with the SN, provide the exact app error message, the network connection status, and whether the device is online in NOC.