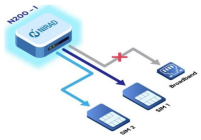
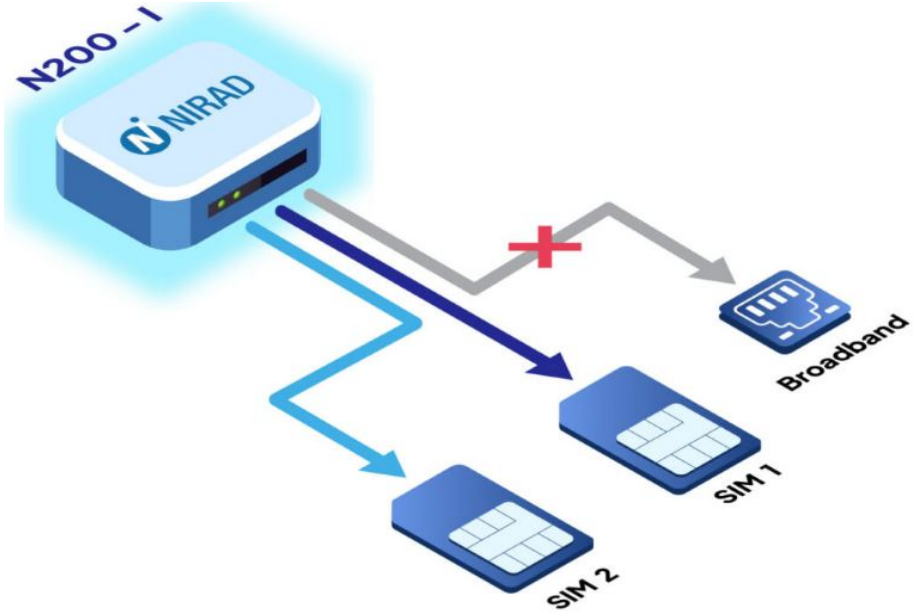


NIRAD Networks N200-I-SDWAN-EDGE Indoor EDGE Router Installation Guide

Contents

NIRAD Networks N200-I-SDWAN-EDGE Indoor EDGE Router



Product Information

EDGE Indoor EDGE Router

The EDGE Router provides the latest generate connectivity to wired and wireless products anywhere you want. It is extremely useful during disasters to provide connectivity for relief teams and the public for internet connectivity. With its one-touch setup, this router can be deployed and start working in minutes. Being cloud managed, the router can be managed from anywhere in the world.

Product Usage Instructions

Installing and Configuring Your Router

1. Connect your PC with an active Ethernet adapter to the router using an Ethernet cable.
2. Open a web browser (Edge, Chrome, Firefox, Opera etc.) and navigate to the default IP: 192.168.99.1.
3. Enter the username and password (admin/admin) when prompted. If you get a warning for a certificate, refer to the provided link to bypass it.

Various Tabs and Nested Options in the Router LuCI Interface

Status

- **Overview:** This page gives you a bird's eye view of the router's firmware, model number, uptime, IP assigned, memory, etc. Nothing on this page is editable.
- **Firewall:** This page provides you with information about the Firewall rules and zones (IPv4 and IPv6) that are configured. Here you can see the total packets counts, traffic,target, protocol used, etc. None of the fields on this page are editable.
- **Routes:** As the name suggests, you can see the details about the various routes configured/existing on the router.
  Again, this would display information about the IPv4 and IPv6 Routes.
- **System Log:** This tab shows the output of logs that are generated in the router including Kernel logs, services,and applications.

- **Kernel Log:** This tab shows information about the kernel and its kernel modules. Since the kernel buffer is low, this shows only the recent data.
- **Processes:** Gives an overview of currently-running system processes in real-time with their status.
- **Realtime Graphs (RTG):** This tab shows the information about the Load, Traffic, Wireless, and Connection in graphical format. This is a real-time graph that keeps on updating itself periodically.
- **Load Balancing:** This tab shows the output of the MWAN interfaces that are active/inactive and disabled. Additional options that are available are as follows:

System

In this tab, you can configure the basic aspects of your device like the Hostname, DHCP Settings, Logging, Language, Preferred
TimeZone, etc.

- **Software:** This option shows you the list of packages that are installed on the router. Here, you can download and install additional packages on the router that you need. You can also update the existing packages if available. Please be cautious while installing the packages.
- **Startup:**
- **Scheduled Tasks:**

About the Router

1. The Router provides latest generate connectivity to wired and wireless products anywhere you want.
2. It is extremely useful during disaster to provide connectivity for relief teams and to public for internet connectivity. With its one-touch setup, this router can be deployed and start working in minutes.
3. Being cloud managed, the router can be managed from anywhere in the world.

Installing and configuring your router

Mounting and placement of the Router:

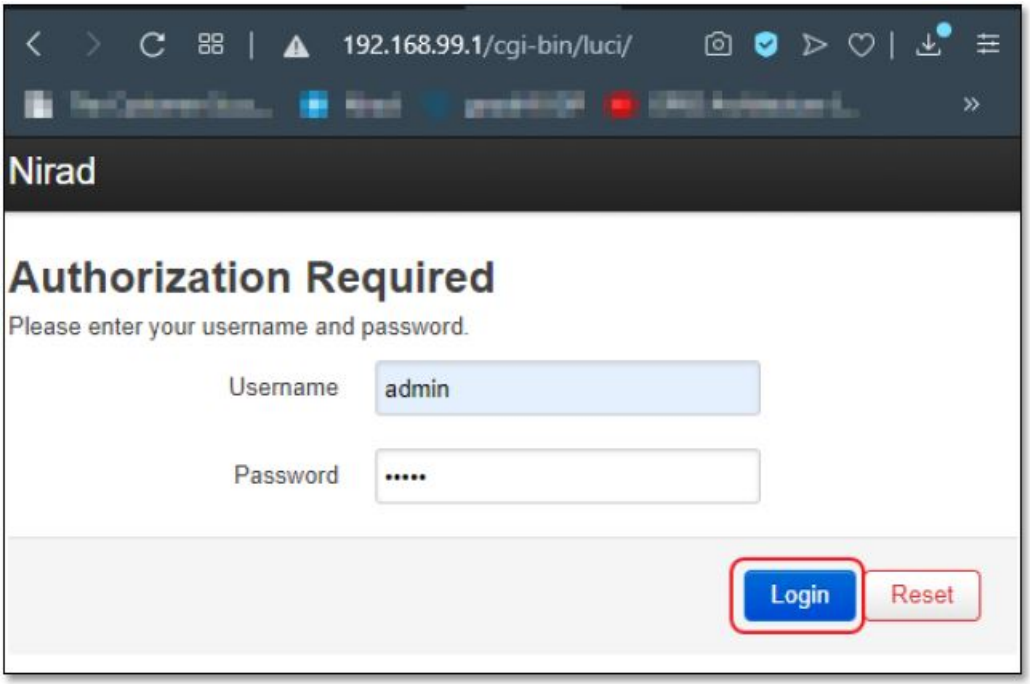
1. Since the router is working on mobile networks and broadcasts wireless network for the devices to connect, significant consideration should be given to its mounting and placement since the wireless signal strength and coverage vary depending on the actual environment where your router is in. Many obstacles may limit the range of the wireless signal, for example, concrete structures, thickness, and number of walls.
2. Mounting the router on a pole and with a clean LOS is always advisable.

To Configure the router, you would need:

1. PC with an active Ethernet adapter and Ethernet cable.
2. Web Browser (Edge, Chrome, Firefox, Opera etc)
3. Microsoft .NET Framework 4 and above.

How to log into the router:

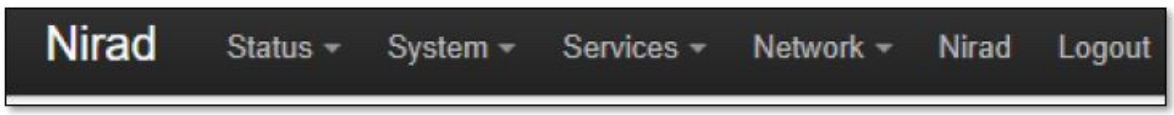
1. Open a browser and type in the Default IP: 192.168.99.1
2. Username = admin; Password = admin;



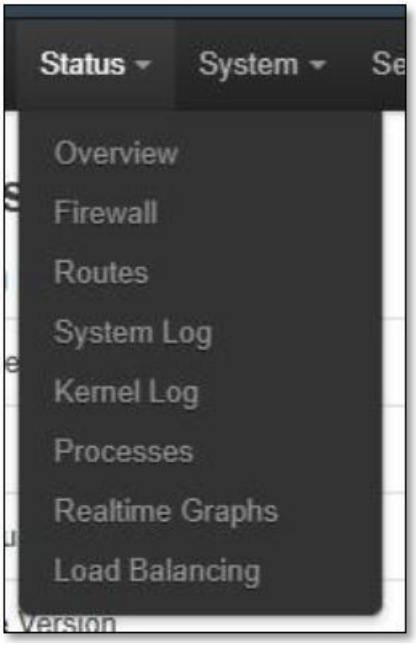
You might get a warning for certificate. Please refer this link to surpass it and access the username and password prompt.

Once logged in, you would be at the Status page. This page gives a glance of various vital information about the router including Hostname, Model, Current Firmware Version, Uptime, Local Time, IP Address assigned to the sim (if sim is inserted), active DHCP Leases, Wireless status and the MWAN interface status (if its active or inactive)

Various tabs and nested options in the Router LuCI Interface



Status



Overview:

- This is the default page that gives you a bird's eye view of the router's firmware, model number, uptime, IP assigned, memory etc. Nothing on this page is editable.

Firewall:

- This page provides you information about the Firewall rules and zones (IPv4 and IPv6) that are configured. Here you can see the total packets counts, traffic, target, protocol used etc. None of the field on this page is editable.

Routes:

- As the name suggests, you can see the details about the various routes configured/existing on the router. Again, this would display information about the IPv4 and IPv6 Routes.

System Log

- This tab shows the output of logs that are generated in the router including Kernel logs, services, and applications.

Kernel Log

- This tab shows information about the kernel and its kernel modules.
  Since the kernel buffer is low, this shows only the recent data

Processes

- Gives an overview of currently running system processes in real-time with their status.

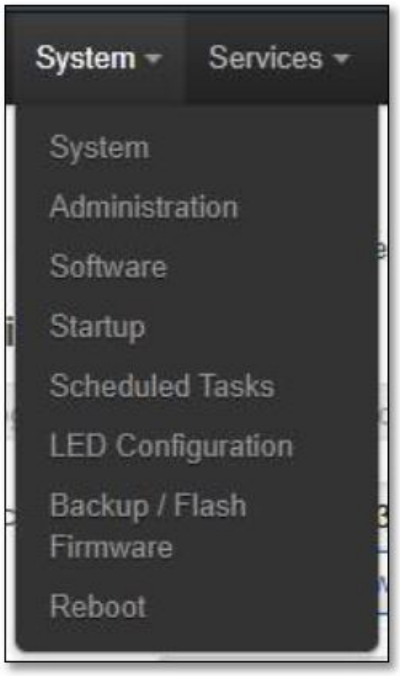
Realtime Graphs (RTG)

- This tab shows the information about the Load, Traffic, Wireless and Connection in graphical format. This is a real-time graph that keeps on updating itself periodically.

Load Balancing

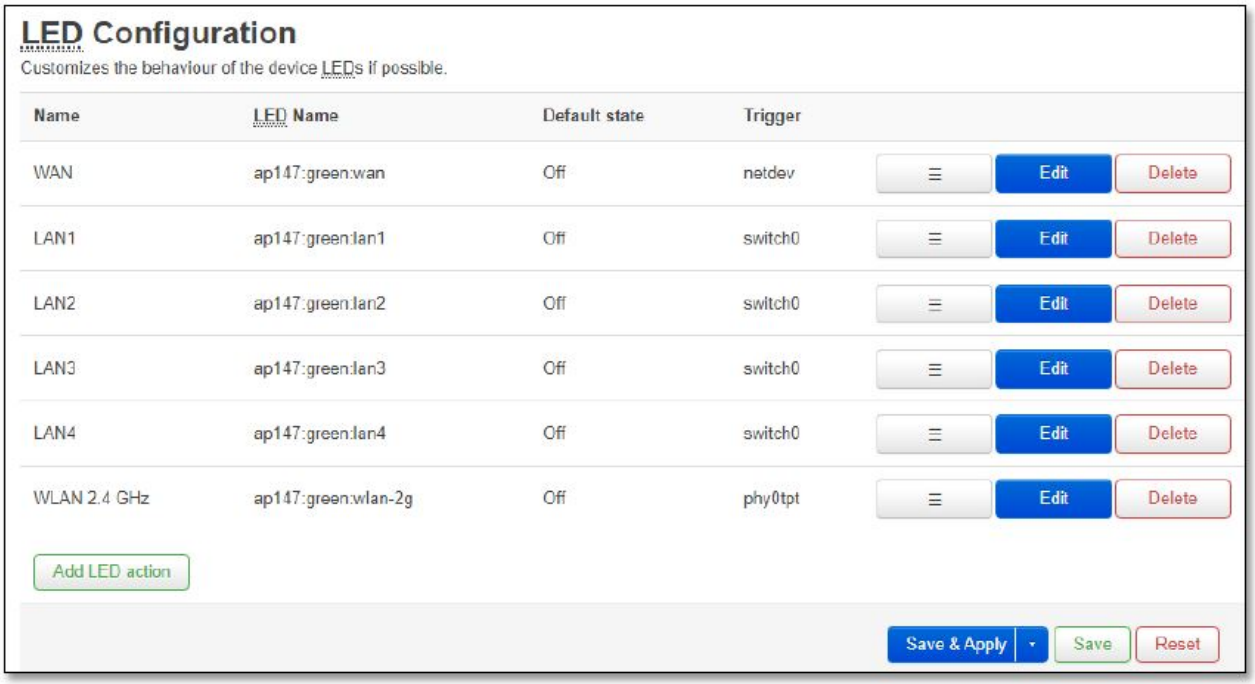
- This tab shows the output of the MWAN interfaces that are active/inactive and disabled. Additional options that are available are as follows:

System

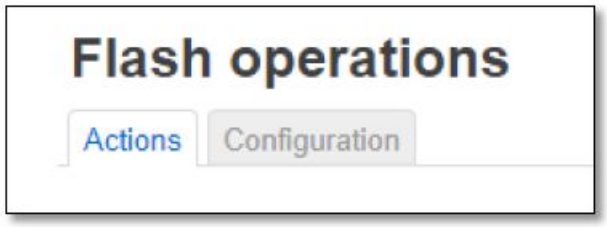


In this tab gives you can configure the basic aspects of your device like the Hostname, DHCP Settings, Logging, Language, Preferred Time- Zone etc

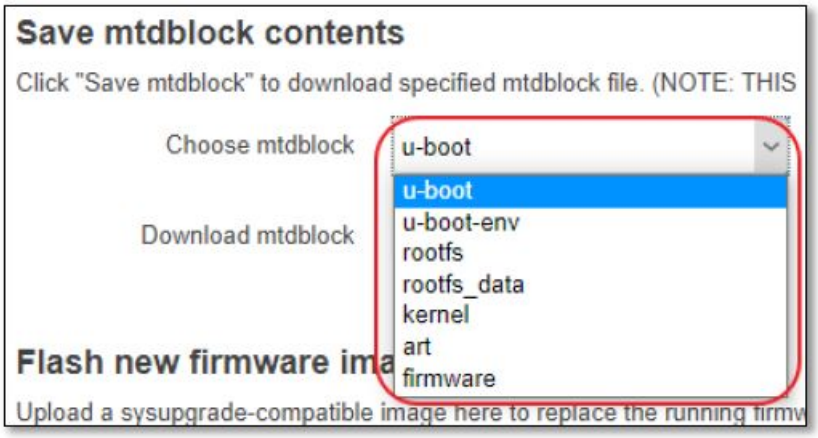
1. **Software**
    - This option shows you the list of packages that are installed on the router. Here, you can download and install additional packages on the router that you need. You can also update the existing packages, if available. Once again, please be cautious while installing the packages.
2. **Startup**:
    - Initscripts: This option allows you to specify scripts and/or job to be run/stop during startup. Since this is an advanced option, it is advisible to make changes only if you are aware of the results.
    - Local Startup: You can specify any commands that you need to execute AFTER the boot process.
3. **Scheduled Tasks:**
    - This is the GUI option for system crontab. Hence you can specify any job to be run at any specified time here.
4. **LED Configurations:**
    - This option allows to customize the behaviour of the device's LEDs based on triggers and the interfaces. If needed, you can add additional LED Action.



5. **Backup/Flash Firmware:**



- This option has the following options:
  - **Actions:** This tab give you the access to various options on how to perform a Backup, Restore and your existing configuration.
  - **Backup:** Once you click on “Generate archive” it creates a tar.gz file of all the important files in the router to be saved.
  - **Reset to defaults:** to perform a factory reset.
  - **Restore:** To upload the files that were saved from the “Backup” option.
  - **Save mtdblock contents:** This option allows to download specific MTD (Memory Technology Devices). You have the options to download all the available mtdblock. (This is a more advanced feature of the router)
  - **Flash new Firmware image:** this option allows you to upload new firmware images on the router. These firmware images are released solely by Nirad networks and should be used cautiously, otherwise it could break the router if incorrect image is uploaded to the router.
  - **Configurations:** In this tab, you can specify any other file you wish to preserve along with the existing list of files. Click on “Save” to save it.



Nirad

- This tab allows to configure the device to communicate to the Nirad Cloud Server. You can specify the following parameters for establishing a successfully communication with the Nirad Cloud for managing the device through cloud.
    - **Operating Mode:** You can choose from either:
        - **Routed Mode:** Choose this option for the device to work in routed mode, working as a router.
        - **Bridged Mode:** For running this device in bridge mode, acting as… All the settings below this option, if chosen, would be disabled.
    - **Ethernet Wan Configuration:** You can choose the type of WAN configuration you have. You can choose to have either:
        - **DHCP:** Choose this option when you do not have any of the protocol to choose from (PPPoE or Static IP address)
        - **PPPoE:** Choose this if your internet connection uses the PPPoE protocol. You would have to enter the username and password for authentication.
        - **Static:** Provide the static IP assigned to your connection with the Subnet and Gateway for successful communication.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC warning

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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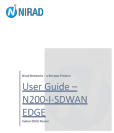
Documents / Resources

	NIRAD Networks N200-I-SDWAN-EDGE Indoor EDGE Router [pdf] Installation Guide N200, N200-I-SDWAN-EDGE, 2BBHY-N200, 2BBHYN200, N200-I-SDWAN, EDGE Indoor ED GE Router, Indoor EDGE Router, EDGE Router, Router