

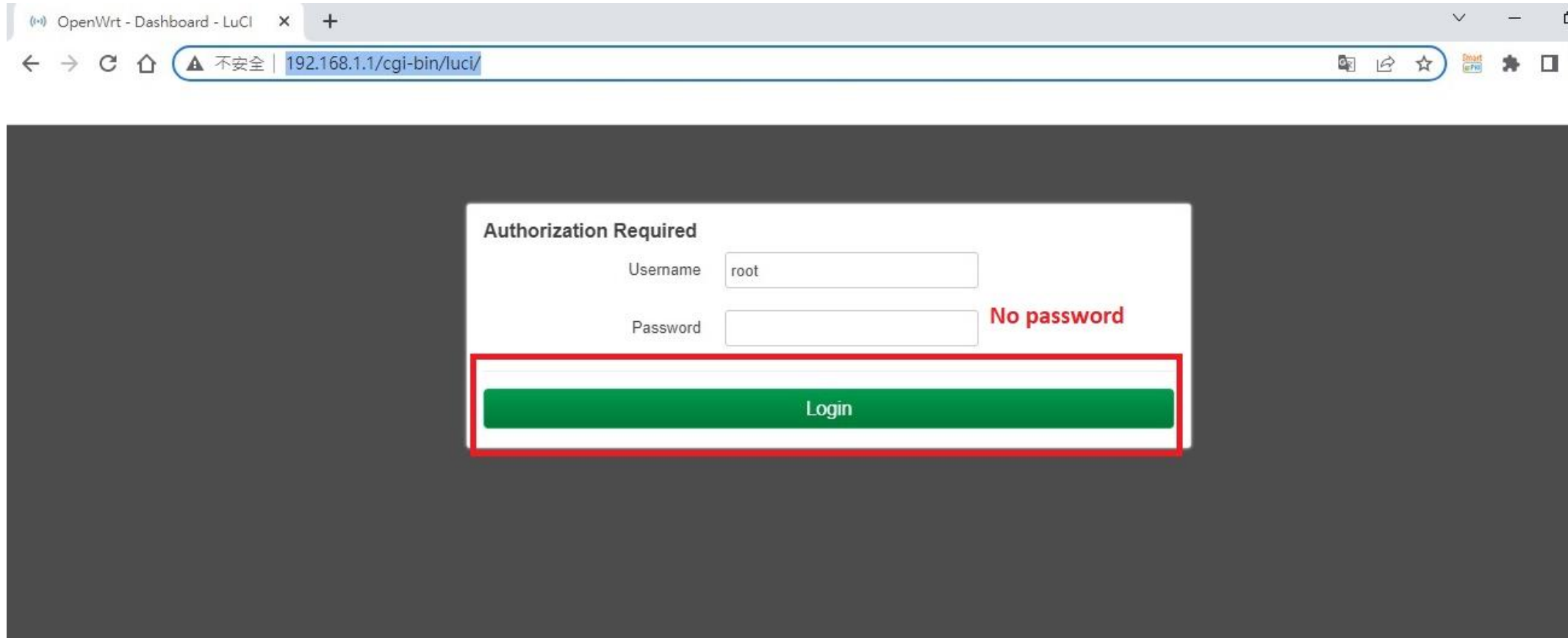
HaLow product series User Guide



OFFICIALLY SUPPORTED



How to log in



- Disable g laptop (PC)wireless / ethernet connection
- Disable firewall
- Default IP – 192.168.1.1
- No password required

Laptop 1 (AP Setting)

The screenshot shows the OpenWrt LuCI web interface for wireless settings. The browser address bar shows the URL `192.168.1.1/cgi-bin/luci/admin/network/wireless`. The page header includes navigation links for Dashboard, Status, System, Network, and Logout, along with a 'REFRESHING' button. A yellow warning box at the top states 'No password set!'. The 'Wireless Overview' section contains two entries: 'radio0' (Generic 802.11an, Device is not active) and 'disabled' (SSID: OpenWrt | Mode: Master, Wireless is disabled). The 'Edit' button for the 'disabled' entry is highlighted with a red box. Below this is the 'Associated Stations' section, which is currently empty. At the bottom right, there are buttons for 'Save & Apply', 'Save', and 'Reset'.

OpenWrt Dashboard Status System Network Logout REFRESHING

No password set!
There is no password set on this router. Please configure a root password to protect the web interface.

Wireless Overview

radio0	Generic 802.11an <i>Device is not active</i>	Restart	Scan	Add
disabled	SSID: OpenWrt Mode: Master <i>Wireless is disabled</i>	Enable	Edit	Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
<i>No information available</i>				

Save & Apply Save Reset

REFRESHING

Wireless Network: Master "OpenWrt" (radio0.net)

Device Configuration

General Setup Advanced Settings

Status **Mode: Master | SSID: OpenWrt**
-- dBm Wireless is not associated

Wireless network is disabled

Operating frequency Mode: N Band: 5 GHz Channel: 36 (5180 Mhz) Width: 20 MHz

Maximum transmit power: driver default - Current power: unknown

Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the actual transmit power may be reduced by the driver.

Interface Configuration

General Setup Wireless Security MAC-Filter Advanced Settings

Mode: Access Point

ESSID: OpenWrt

- 108 (5540 Mhz)
- 112 (5560 Mhz)
- 116 (5580 Mhz)
- 149 (5745 Mhz)
- 150 (5750 Mhz)
- 151 (5755 Mhz)
- 152 (5760 Mhz)
- 153 (5765 Mhz)
- 154 (5770 Mhz)
- 155 (5775 Mhz)
- 156 (5780 Mhz)
- 157 (5785 Mhz)
- 158 (5790 Mhz)
- 159 (5795 Mhz)
- 160 (5800 Mhz)
- 161 (5805 Mhz)
- 162 (5810 Mhz)
- 163 (5815 Mhz)
- 164 (5820 Mhz)
- 165 (5825 Mhz)**

Set up channel /
ESSID if necessary

Status **mode: master | SSID: OpenWrt**
--- dBm Wireless is not associated

Wireless network is disabled

[Enable](#)

Operating frequency

Mode	Band	Channel	Width
N	5 GHz	36 (5180 Mhz)	20 MHz

Maximum transmit power

driver default - Current power: *unknown*

Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the actual transmit power may be reduced by the driver.

Interface Configuration

[General Setup](#) [Wireless Security](#) [MAC-Filter](#) [Advanced Settings](#)

Mode **Access Point**

ESSID **OpenWrt**

Network **lan**

Choose the network(s) you want to attach to this wireless interface or fill out the *custom* field to define a new network.

Hide ESSID

Where the ESSID is hidden, clients may fail to roam and airtime efficiency may be significantly reduced.

WMM Mode

Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the actual transmit power may be reduced by the driver.

Interface Configuration

General Setup | Wireless Security | MAC-Filter | Advanced Settings

Mode: Access Point

ESSID: OpenWrt

Network: lan

Choose the network(s) you want to attach to this wireless interface or fill out the *custom* field to define a new network.

Hide ESSID:

Where the ESSID is hidden, clients may fail to roam and airtime efficiency may be significantly reduced.

WMM Mode:

Where Wi-Fi Multimedia (WMM) Mode QoS is disabled, clients may be limited to 802.11a/802.11g rates.

Dismiss | Save

No password set!

There is no password set on this router. Please configure a root password to protect the web interface.

Wireless Overview

radio0

Generic 802.11an*Device is not active*

Restart

Scan

Add

disabled

SSID: OpenWrt | Mode: Master*Wireless is disabled*

Enable

Edit

Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
---------	-------------	------	----------------	-------------------

No information available

Save & Apply ▾

Save

Reset

No password set!

There is no password set on

Applying configuration changes... 85s

Wireless Overview

radio0

Generic 802.11an

Device is not active

Restart

Scan

Add

disabled

SSID: OpenWrt | Mode: Master

Wireless is not associated

Disable

Edit

Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
---------	-------------	------	----------------	-------------------

No information available

Save & Apply

Save

Reset

Laptop 1 AP Setup Completed

OpenWrt - Wireless - LuCI x +

192.168.1.1/cgi-bin/luci/admin/network/wireless

OpenWrt Dashboard Status System Network Logout REFRESHING

No password set!
There is no password set on this router. Please configure a root password to protect the web interface.

Wireless Overview

radio0	Generic 802.11an Channel: 165 (5.825 GHz) Bitrate: ? Mbit/s	Restart Scan Add
---/-92 dBm	SSID: OpenWrt Mode: Master BSSID: 00:C0:CA:B0:C6:E8 Encryption: None	Disable Edit Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
No information available				

Save & Apply Save Reset

Laptop 2 (STA Setting)

The screenshot shows the OpenWrt LuCI dashboard in a browser. The browser's address bar shows the URL `openwrt.lan/cgi-bin/luci/`. The dashboard header includes the OpenWrt logo and navigation links for Dashboard, Status, System, Network, and Logout. A yellow banner at the top contains the message: "No password set! There is no password set on this router. Please configure the web interface." A dropdown menu is open over the 'Network' link, with the 'Wireless' option highlighted by a red rectangle. The main content area is divided into two columns. The left column is titled 'Internet' and contains two sub-sections: 'IPv4 Internet' and 'IPv6 Internet'. Both show 'Connected : NO'. The right column is titled 'System' and contains system information: Uptime : 0h 1m 51s, Local Time : 2022-03-21 21:37:42, Kernel Version : 5.10.107, Model : ALFA Network AHUC7292U, Architecture : ARMv7 Processor rev 5 (v7l), and Firmware Version : OpenWrt SNAPSHOT r19053+134-921392e216.

OpenWrt Dashboard Status System Network Logout REFRESHING

No password set!
There is no password set on this router. Please configure the web interface.

- Interfaces
- Wireless**
- Routing
- DHCP and DNS
- Diagnostics
- Firewall

Internet

IPv4 Internet	IPv6 Internet
Connected : NO	Connected : NO
Connected since : -	Connected since : -
Protocol : -	Protocol : -
IPv4 : -	IPv6 prefix : -
GatewayV4 : -	GatewayV6 : -
DNSv4 : -	DNSv6 : -

System

Uptime : 0h 1m 51s
Local Time : 2022-03-21 21:37:42
Kernel Version : 5.10.107
Model : ALFA Network AHUC7292U
Architecture : ARMv7 Processor rev 5 (v7l)
Firmware Version : OpenWrt SNAPSHOT r19053+134-921392e216

No password set!

There is no password set on this router. Please configure a root password to protect the web interface.

Wireless Overview

radio0

Generic 802.11an

Device is not active

Restart

Scan

Add

Join Network: Wireless Scan

Signal	SSID	Channel	Mode	BSSID	Encryption
<input type="radio"/> Starting wireless scan...					

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
No information available				

Join Network: Wireless Scan

Signal	SSID	Channel	Mode	BSSID	Encryption	
-52 dBm	OpenWrt	165	Master	00:C0:CA:B0:C6:E8	None	<input type="button" value="Join Network"/>
						<input type="button" value="Stop refresh"/> <input type="button" value="Dismiss"/>

Wireless is disabled

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
No information available				

Join Network: Wireless Scan

Signal	SSID	Channel	Mode	BSSID	Encryption	
 -50 dBm	OpenWrt	165	Master	00:C0:CA:B0:C6:E8	None	<div style="border: 2px solid orange; padding: 5px;">Join Network</div> <div style="margin-top: 5px;">Stop refresh Dismiss</div>

Disabled

Wireless is disabled

Enable

Edit

Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
---------	-------------	------	----------------	-------------------

No information available

Save & Apply ▾

Save

Reset

Joining Network: "OpenWrt"

Replace wireless configuration

Check this option to delete the existing networks from this radio.

Name of the new network

The allowed characters are: A-Z, a-z, 0-9 and _

Lock to BSSID

Instead of joining any network with a matching SSID, only connect to the BSSID 00:C0:CA:B0:C6:E4.

Create / Assign firewall-zone

to assign to this interface. Select *unspecified* to remove the interface from the associated zone or fill out the *custom* field to define a new

- unspecified
- lan lan: 📶
- wan (empty)
- custom --

Cancel

Wireless network is enabled

	Mode	Band	Channel	Width
Operating frequency	N	5 GHz	36 (5180 Mhz)	20 MHz

Maximum transmit power: driver default - Current power: unknown

? Specifies the maximum transmit power the wireless radio may use. Depending on regulatory requirements and wireless usage, the actual transmit power may be reduced by the driver.

Interface Configuration

- General Setup
- Wireless Security
- Advanced Settings

Mode: Client

ESSID: OpenWrt

BSSID:

Network: wwan

? Choose the network(s) you want to attach to this wireless interface or fill out the custom field to define a new network.

Dismiss Save

No password set!
There is no password set on this router. Please configure a root password to protect the web interface.

Wireless Overview

 radio0	Generic 802.11an <i>Device is not active</i>	Restart Scan Add
 disabled	SSID: OpenWrt Mode: Client Interface has 6 pending changes	Disable Edit Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
---------	-------------	------	----------------	-------------------

No information available

Save & Apply Save Reset

No password set!
There is no password set on this router. Please configure a password for the web interface.

- Interfaces
- Wireless
- Routing
- DHCP and DNS
- Diagnostics
- Firewall

Wireless Overview

radio0	Generic 802.11n <i>Device is not active</i>	Restart Scan Add
disabled	SSID: OpenWrt Mode: Client Interface has 6 pending changes	Disable Edit Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
No information available				

Save & Apply Save Reset

No password set!
There is no password set on this router. Please configure a root password to protect the web interface.

Interfaces Devices Global network options

Interfaces

LAN
br-lan

Protocol: Static address
Uptime: 0h 13m 21s
MAC: 00:C0:CA:B0:C6:E2
RX: 773.53 KB (7578 Pkts.)
TX: 1.72 MB (4401 Pkts.)
IPv4: 192.168.1.1/24
IPv6: fd02:7f0b:3a0f::1/60

Restart Stop Edit Delete

WWAN
radio0.network1

Protocol: DHCP client
Interface has 2 pending changes

Restart Stop Edit Delete

Add new interface...

Save & Apply Save Reset

Add new interface...

Name: Relay

Protocol: Relay bridge

- DHCP client
- DHCPv6 client
- PPP
- Unmanaged
- Static address
- PPPoE
- Relay bridge**

Buttons: Cancel, Create interface

LAN
br-lan

IPv4: 192.168.1.1/24
IPv6: fd02:7f0b:3a0f::1/60

Restart Stop Edit Delete

WWAN
radio0.network1

Protocol: DHCP client
Interface has 2 pending changes

Restart Stop Edit Delete

Add new interface...


Save & Apply Save Reset

Add new interface...

Name

Protocol

LAN

 br-lan

MAC: 00:C0:CA:B0:C6:E2
RX: 845.05 KB (8477 Pkts.)
TX: 1.85 MB (4892 Pkts.)
IPv4: 192.168.1.1/24
IPv6: fd02:7f0b:3a0f::1/60


WWAN

 radio0.network1

Protocol: DHCP client
Interface has 2 pending changes

Interfaces » RELAY

General Settings Advanced Settings Firewall Settings DHCP Server



Status  Device: Relay "Relay"
RX: 0 B (0 Pkts.)
TX: 0 B (0 Pkts.)

Protocol Relay bridge

Bring up on boot

Local IPv4 address
? Address to access local relay bridge

Relay between networks

- lan: 
- wwan: 

Dismiss **Save**

Add new interface ...

Interfaces » RELAY

General Settings **Firewall Settings** DHCP Server

Create / Assign firewall-zone

lan lan:

Choose the firewall zone you want to assign to this interface. Select *unspecified* to remove the interface from the associated zone or fill out the *custom* field to define a new zone and attach the interface to it.

Dismiss

Save

LAN

br-lan

Protocol: Static address
Uptime: 0h 27m 26s
MAC: 00:C0:CA:B0:C6:E2
RX: 1.24 MB (13473 Pkts.)
TX: 2.34 MB (6529 Pkts.)
IPv4: 192.168.1.1/24
IPv6: fd02:7f0b:3a0f::1/60

Restart Stop Edit Delete

WWAN

radio0.network1

Protocol: DHCP client
Interface has 2 pending changes

Restart Stop Edit Delete

Add new interface...

Save & Apply Save Reset

Interfaces » RELAY

General Settings **Firewall Settings** DHCP Server

Create / Assign firewall-zone

unspecified
unspecified
lan lan:
wan wwan:
-- custom --

... to assign to this interface. Select *unspecified* to remove the interface from the ... field to define a new zone and attach the interface to it.

Dismiss

Save

LAN
br-lan

MAC: 00:C0:CA:B0:C6:E2
RX: 1.19 MB (12885 Pkts.)
TX: 2.24 MB (6261 Pkts.)
IPv4: 192.168.1.1/24
IPv6: fd02:7f0b:3a0f::1/60

Restart Stop Edit Delete

WWAN
radio0.network1

Protocol: DHCP client
Interface has 2 pending changes

Restart Stop Edit Delete




Add new interface...

Save & Apply Save Reset

No password set!
There is no password set on this router. Please configure a root password to protect the web interface.

Interfaces Devices Global network options

Interfaces

RELAY 	Protocol: Relay bridge Interface has 4 pending changes	Restart Stop Edit Delete
LAN  br-lan	Protocol: Static address Uptime: 0h 7m 4s MAC: 00:C0:CA:B0:C6:E6 RX: 747.56 KB (5921 Pkts.) TX: 999.81 KB (3469 Pkts.) IPv4: 192.168.1.1/24 IPv6: fd90:40f1:c6aa::1/60	Restart Stop Edit Delete
WWAN  wlannrc80211	Protocol: DHCP client Uptime: 0h 1m 18s MAC: 00:C0:CA:B0:C6:E8 RX: 5.62 KB (44 Pkts.) TX: 196.10 KB (365 Pkts.) IPv4: 192.168.2.248/24	Restart Stop Edit Delete

[Add new interface...](#)

Interfaces » LAN

General Settings Advanced Settings Firewall Settings **DHCP Server**

General Setup Advanced Settings IPv6 Settings IPv6 RA Settings

Ignore interface

✔ Disable DHCP for this interface.

Start

🔗 Lowest leased address as offset from the network address.

Limit

🔗 Maximum number of leased addresses.

Lease time

🔗 Expiry time of leased addresses, minimum is 2 minutes (2m).

Dismiss

Save

No password set!

There is no password set on this router. Please configure a root password to protect the web interface.

Interfaces Devices Global network options

Interfaces

RELAY



Protocol: Relay bridge
Interface has 4 pending changes

Restart Stop Edit Delete

LAN



br-lan

Protocol: Static address
Interface has 2 pending changes

Restart Stop Edit Delete

WWAN



wlanrc80211

Protocol: DHCP client
Uptime: 0h 6m 3s
MAC: 00:C0:CA:B0:C6:E8
RX: 15.41 KB (130 Pkts.)
TX: 797.95 KB (1818 Pkts.)
IPv4: 192.168.2.248/24

Restart Stop Edit Delete

Add new interface...

Save & Apply ▾ Save Reset

There is no password set on this router. Please configure a root password to protect the web interface.

Interfaces Devices Glob

Applying configuration changes... 86s

Interfaces

RELAY br-relay	Protocol: Relay bridge Interface has 4 pending changes	Restart Stop Edit Delete
LAN br-lan	Protocol: Static address Uptime: 0h 29m 46s MAC: 00:C0:CA:B0:C6:E2 RX: 1.37 MB (14682 Pkts.) TX: 2.51 MB (7084 Pkts.) IPv4: 192.168.1.1/24 IPv6: fd02:7f0b:3a0f::1/60	Restart Stop Edit Delete
WWAN radio0.network1	Protocol: DHCP client Interface has 2 pending changes	Restart Stop Edit Delete

Add new interface...

Save & Apply Save Reset

No password set!

There is no password set on this router. Please configure a root password to protect the web interface.

Wireless Overview

radio0

Generic 802.11an

Channel: 165 (5.825 GHz) | Bitrate: 6 Mbit/s

Restart

Scan

Add

-58/-92 dBm

SSID: OpenWrt | Mode: Client

BSSID: 00:C0:CA:B0:C6:E4 | Encryption: None

Disable

Edit

Remove

Associated Stations

Network	MAC address	Host	Signal / Noise	RX Rate / TX Rate
Client "OpenWrt" (wlannrc80211)	00:C0:CA:B0:C6:E8	?	-54/-92 dBm	6.0 Mbit/s, 20 MHz 6.0 Mbit/s, 20 MHz

Save & Apply

Save

Reset

Interfaces

RELAY
Icons: relay, bridge, network

Protocol: Relay bridge
Interface has 4 pending changes

Restart Stop **Edit** Delete

LAN
Icons: LAN, bridge
br-lan

Protocol: Static address
Uptime: 0h 4m 26s
MAC: 00:C0:CA:B0:C6:E6
RX: 761.90 KB (5347 Pkts.)
TX: 1.12 MB (4087 Pkts.)
IPv4: 192.168.1.1/24
IPv6: fdef.894d:4b0a::1/60

Restart Stop **Edit** Delete

WWAN
Icon: WWAN
wlannc80211

Protocol: DHCP client
Uptime: 0h 1m 41s
MAC: 00:C0:CA:B0:C6:E8
RX: 221.95 KB (557 Pkts.)
TX: 208.10 KB (572 Pkts.)
IPv4: 192.168.2.248/24

Restart Stop **Edit** Delete

Add new interface...

Save & Apply Save Reset

Interfaces » WWAN


General Settings **Advanced Settings** **Firewall Settings** DHCP Server

Create / Assign firewall-zone

wan **wwan:** 
unspecified
lan lan:  Relay: 
wan **wwan:** 
-- custom --

it to assign to this interface. Select *unspecified* to remove the interface from the *from* field to define a new zone and attach the interface to it.

Dismiss **Save**

WWAN

wlannc80211

Protocol: DHCP client
Uptime: 0h 3m 1s
MAC: 00:C0:CA:B0:C6:E8
RX: 270.81 KB (763 Pkts.)
TX: 279.33 KB (785 Pkts.)
IPv4: 192.168.2.248/24

Restart Stop **Edit** Delete

Add new interface...

Save & Apply + Save Reset

Interfaces » WWAN

General Settings Advanced Settings **Firewall Settings** DHCP Server

Create / Assign firewall-zone

lan lan: Relay: ▾

Choose the firewall zone you want to assign to this interface. Select *unspecified* to remove the interface from the associated zone or fill out the *custom* field to define a new zone and attach the interface to it.

Dismiss

Save

IPv6: fdef:894d:4b0a::1/60

Protocol: DHCP client

Uptime: 0h 4m 21s

MAC: 00:C0:CA:B0:C6:E8

RX: 301.17 KB (926 Pkts.)

TX: 316.06 KB (956 Pkts.)

IPv4: 192.168.2.248/24

Restart

Stop

Edit

Delete

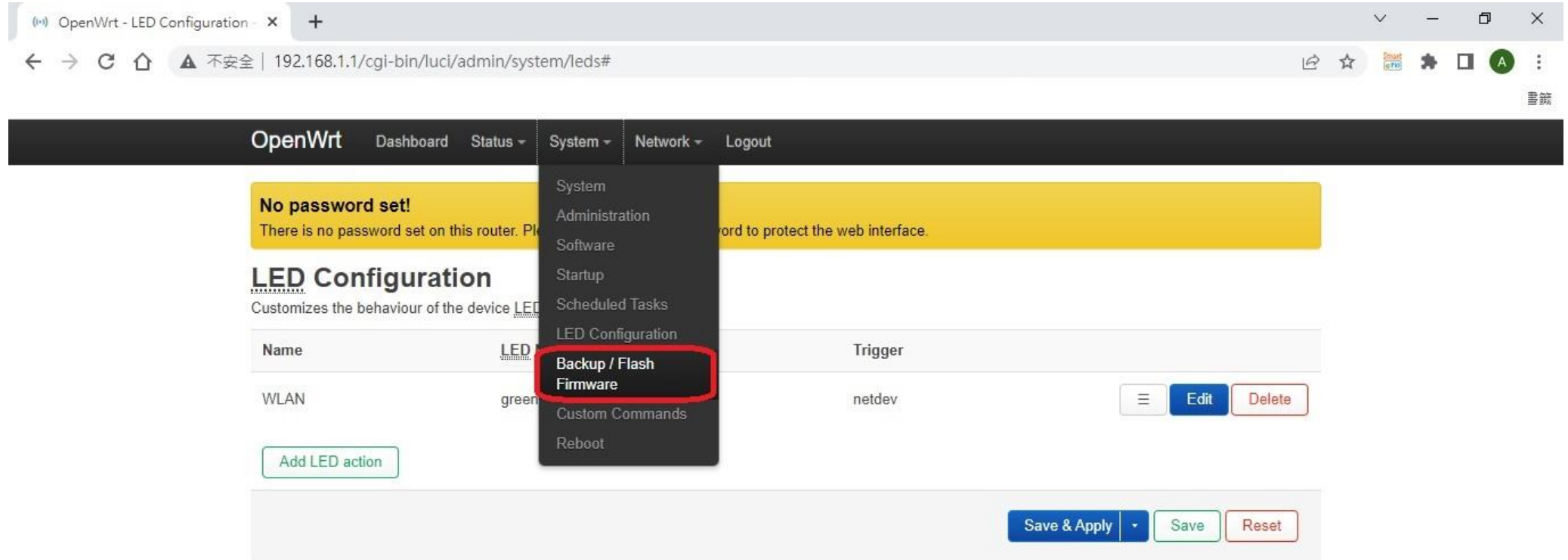
Add new interface...

Save & Apply ▾

Save

Reset

Default Setting



The screenshot shows the OpenWrt LED Configuration page. A dropdown menu is open over the 'System' navigation item, listing various system-related options. The 'Backup / Flash Firmware' option is highlighted with a red circle. The main content area shows a table with LED configurations and a 'No password set!' warning.

No password set!
There is no password set on this router. Please set a password to protect the web interface.

LED Configuration

Customizes the behaviour of the device LEDs

Name	LED	Trigger	
WLAN	green	netdev	<input type="checkbox"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/>

System Administration Software Startup Scheduled Tasks LED Configuration **Backup / Flash Firmware** Custom Commands Reboot

Flash operations

Actions Configuration

Backup

Click "Generate archive" to download a tar archive of the current configuration files.

Download backup [Generate archive](#)

Restore

To restore configuration files, you can upload a previously generated backup archive here. To reset the firmware to its initial state, click "Perform reset" (only possible with squashfs images).

[Reset to defaults](#) [Perform reset](#)

Restore backup [Upload archive...](#)

? Custom files (certificates, scripts) may remain on the system. To prevent this, perform a factory-reset first.

Save mtddblock contents

Click "Save mtddblock" to download specified mtddblock file. (NOTE: THIS FEATURE IS FOR PROFESSIONALS!)

Choose mtddblock

Download mtddblock [Save mtddblock](#)

REFRESHING

Actions Configuration

Erasing...
 The system is erasing the configuration partition now and will reboot itself when finished.

Backup

Click "Generate archive" to download a tar archive of the current configuration files.

Download backup

less than 1 minute time to reboot

Restore

To restore configuration files, you can upload a previously generated backup archive here. To reset the firmware to its initial state, click "Perform reset" (only possible with squashfs images).

Reset to defaults

Restore backup

Custom files (certificates, scripts) may remain on the system. To prevent this, perform a factory-reset first.

Save mtddblock contents

Click "Save mtddblock" to download specified mtddblock file. (NOTE: THIS FEATURE IS FOR PROFESSIONALS!)

Choose mtddblock

Download mtddblock

Authorization Required

Username

Password

[Login](#)