

# Template:Networking rutos manual hotspot 2.0 rut2 rut9

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## Contents

- [1 Hotspot 2.0](#)
  - [1.1 Hotspot 2.0 Configuration](#)
    - [1.1.1 General Setup](#)
    - [1.1.2 OSU Provider](#)
    - [1.1.3 WAN Metrics](#)
  - [1.2 Venue Name Information](#)
  - [1.3 3GPP Cellular Network Information](#)
  - [1.4 Network Access Identifier \(NAI\) Realm Information](#)
  - [1.5 Operator Friendly Name](#)
  - [1.6 Connection Capability](#)

## Hotspot 2.0

The **Hotspot 2.0** displays available WiFi interfaces. In order to begin configuring an interface click the 'Edit' button next to it:

[[File:Networking\_rutos\_manual\_hotspot\_2.0\_interfaces\_edit\_button\_wifi\_v3\_{{{wifi}}}.png|border|class=tilt-border]]

After this you should be redirected to the configuration page for that interface.

## Hotspot 2.0 Configuration

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The main **configuration parameters** of a Hotspot 2.0 interface will be discussed in this section.

A Hotspot 2.0 interface requires WPA2-EAP encryption. You can configure it in the *Network → Wireless* page (click 'Edit' next to an interface and find the `[[{{{name}}} Wireless#Wireless_Security|Wireless Security]]` section).

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### General Setup

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**Field**

**Value**

**Description**

Enable	off   on; default: <b>off</b>	Turns Hotspot 2.0 for this interface on or off.
Internet access	off   on; default: <b>off</b>	Is used to inform the client device whether internet access is available.
Access Network Type	Private network   Private network with guest access   Chargeable public network   Free public network   Personal device network   Emergency services only network   Test or experimental; default: <b>Private network</b>	The access network type present in beacon and probe response frames. Mobile devices can use this information when selecting a hotspot.
HESSID	mac; default: <b>none</b>	Homogeneous ESS identifier (optional). This shall be identical to one of the BSSIDs in the homogeneous ESS.
Roaming consortium OI	3 or 5 octet hexstring; default: <b>none</b>	Only first three entries are available through Beacon and Probe Response frames.
Network authentication type	Not configured   Acceptance of terms and conditions   On-line enrollment supported   http/https redirection   DNS redirection; default: <b>Not configured</b>	Type of authentication used on this network.
IP Address type availability	Address type not available   Public IPv4 address available   Port restricted IPv4 address available   Single NATed IPv4 address available   Double NATed IPv4 address available   Port restricted IPv4 address and single NATed IPv4 address available   Port restricted IPv4 address and double NATed IPv4 address available   Availability of the address type is not known; default: <b>Availability of the address type is not known</b>	Provides information about the IP address version and type that would be available to a mobile device after it authenticates to the network.
Domain name	domain name; default: <b>none</b>	The Domain Name ANQP-element provides a list of one or more domain names of the entity operating the hotspot network.
Venue group	various; default: <b>Unspecified</b>	Describes the venue in which the hotspot is located.
Venue type	various; default: <b>Unspecified</b>	Describes the venue in which the hotspot is located.

## OSU Provider

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Field	Value	Description
OSU ssid	string; default: <b>none</b>	Informs client devices about the SSID used for OSU connections.
OSU server URL	url; default: <b>none</b>	Is used to inform the client device whether internet access is available.

Name language code	string; default: <b>none</b>	Two or three character language code (ISO-639).
OSU friendly name	string; default: <b>none</b>	User-friendly name of an OSU service provider.
OSU NAI	string; default: <b>none</b>	OSU network access identifier.
OSU method list	OMA-DM   SOAP-XML; default: <b>none</b>	Configures the supported OSU method(s) of the OSU provider.
Description language code	string; default: <b>none</b>	Two or three character language code (ISO-639).
Description	string; default: <b>none</b>	OSU service description.

## WAN Metrics

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Field	Value	Description
Link Status	Link up   Link Down; default: <b>Link up</b>	Provides information about the WAN link that connects the hotspot to the Internet.
Downlink Speed	integer [1..4294967295]; default: <b>none</b>	Maximum downlink speed in Kbps.
Uplink Speed	integer [1..4294967295]; default: <b>none</b>	Maximum uplink speed in Kbps.

## Venue Name Information

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The **Venue Name Information** is used to configure one or more Venue Name values for Venue Name ANQP information. To add a new Venue configuration, click the 'Add' button.



You should see a new entry appear in the Venue Name Information list.



Field	Value	Description
Language Code	string; default: <b>none</b>	Two or three character language code (ISO-639).
Venue Name	string; default: <b>none</b>	Name of this venue.
Venue URL Information	url; default: <b>none</b>	Venue URL to provide additional information corresponding to Venue Name information ( <u>the URL should contain protocol</u> ).

## 3GPP Cellular Network Information

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The **3GPP Cellular Network Information** section is used to uniquely identify mobile network operators. To add a new mobile operator instance, click the 'Add' button.



You should see a new entry appear in the 3GPP Cellular Network Information list.



Field	Value	Description
Mobile Country Code	integer; default: <b>none</b>	Mobile country code (3 decimal digits).
Mobile Network Code	integer; default: <b>none</b>	Mobile network code (2 or 3 decimal digits).

## Network Access Identifier (NAI) Realm Information

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The **Network Access Identifier (NAI) Realm Information** parameters provide information for stations using interworking network selection to allow automatic connection to a network based on credentials. To add a new NAI Realm Information configuration, click the 'Add' button.



You should see a new entry appear in the Network Access Identifier (NAI) Realm Information list.



Field	Value	Description
NAI Realm	url; default: <b>Link up</b>	The NAI Realm provides a list of NAI realms corresponding to the Home SPs that can authenticate a client device.
EAP Method	EAP-TLS   EAP-TTLS   PEAP   EAP-FAST; default: <b>Undefined</b>	Identifies the EAP method supported by that NAI realm for authentication.
Authentication Parameter	Undefined   Non EAP PAP   Non EAP CHAP   Non EAP MSCHAP   Non EAP MSCHAPV2   Credential certificate   Credential username/password; default: <b>Undefined</b>	EAP method authentication parameter.

## Operator Friendly Name

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The client device may obtain the **Operator Friendly Name** via GAS/ANQP queries to assist the user during manual hotspot selection. To add a new Operator Friendly Name configuration, click the 'Add' button.



You should see a new entry appear in the Operator Friendly Name list.



Field	Value	Description
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Language Code string; default: **Link up** Two or three character language code (ISO-639).  
Operator's Name string; default: **none** Provides a friendly name for the Hotspot Operator.

## Connection Capability

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The **Connection Capability** section provides information on the status of commonly used communication protocols and ports. To add a new protocol/port configuration, click the 'Add' button.



You should see a new entry appear in the Connection Capability list.



Field	Value	Description
Protocol	ICMP   TCP   UDP; default: <b>ICMP</b>	Network protocol type.
Port Number	integer [0..65535]; default: <b>none</b>	TCP/UDP port number.
Status	Closed   Open   Unknown; default: <b>Closed</b>	Status to be displayed for the selected protocol/port combination.