

How do I connect the Gateway to the Network / Internet

How to Guides

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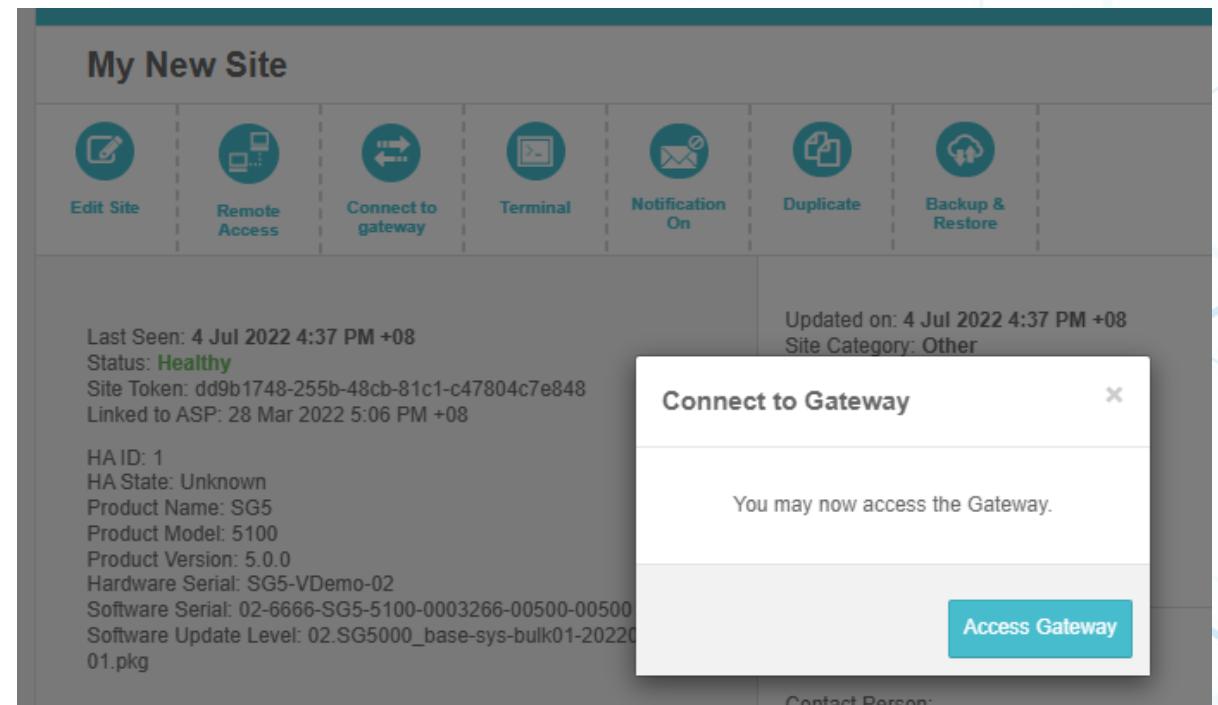
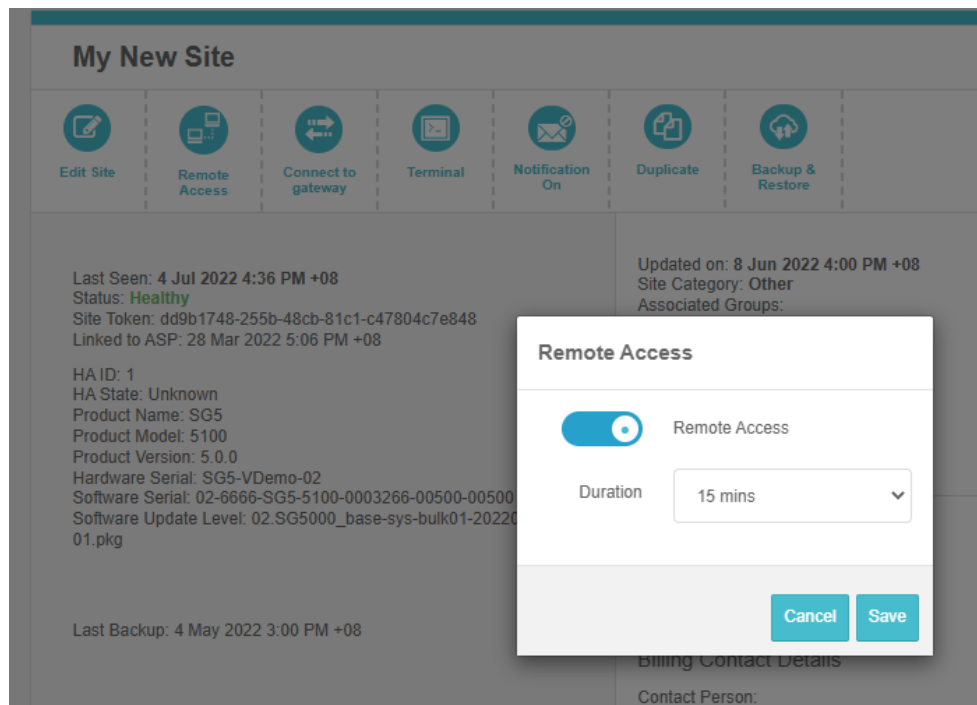
Understanding WAN

ANTlabs gateway supports the following options on all WAN links

- VLAN configuration
 - Allows multiple WAN links to be defined over the same physical interface
- Physical IP address configuration
 - DHCP
 - Static
 - Hybrid (DHCP, with either static IP address or gateway)
- Floating IP address configuration (optional)
 - Static only
 - Support HA deployment
- Source NAT range
 - User definable IP address range for NAT

Step 1: Enable access to the gateway

- To configure Gateway WAN IP Address, enable **Remote Access** on site and click **Connect to Gateway** and login to Gateway GUI



Step 2: Configure WAN

- Select **Network** > **WAN**, click on WAN entry to edit or **Add** to add a new WAN link

🏠 / Network / WAN

Add

Name	VLAN ID	IP Address	Gateway	Default Interface	Source NAT Address Range	Description
WAN		DHCP	DHCP	☒		WAN Interface

Step 2: Configure WAN

■ Configuration

- Default Interface
 - Specify that this WAN interface is used as the default for routing to the Internet
- Default Gateway
 - Specify which is the default gateway when both physical and floating IP addresses are configured
- Physical IP – ID 1
 - Mode (Static, DHCP)
- Physical IP – ID 2
 - Mode (Static, DHCP)
 - Required if Floating IP is enabled
- Floating IP
 - Static only
 - Required for HA setup
- Source NAT Address Range
 - Source address range used for NAT

The screenshot displays a configuration window for a WAN interface. The fields are as follows:

- Name:** WAN
- Ethernet:** WAN
- VLAN ID:** -
- Description:** WAN Interface
- Default Interface:** ☒
- Default Gateway:** Physical IP Gateway
- Physical IP - ID 1:**
 - Mode:** DHCP
 - [Configure static IP to overwrite dynamic IP »](#)
- Physical IP - ID 2:** (Collapsed section)
- Floating IP:**
 - Enabled:** ☐
- Source NAT:**
 - Source NAT Address Range:** First IP [] Last IP []

Buttons: Save, Cancel

Step 3: Add WAN

■ Add New WAN

- Ethernet
 - Select the physical port where the WAN link will go through
- VLAN ID
 - Specify the VLAN to tag to the new WAN link
 - Leave empty if NO VLAN is required
- Default Interface
 - WAN is the default gateway for routing
 - To assign this new WAN interface as the default gateway for routing, enable this option on this new interface
- The other options are same as WAN interface configuration

The screenshot shows a configuration window for adding a new WAN interface. The window has a light blue header and a white body. The configuration fields are as follows:

- Name:** A text input field with a red asterisk icon.
- Ethernet:** A dropdown menu currently showing 'WAN'.
- VLAN ID:** A text input field.
- Description:** A larger text input field.
- Default Interface:** A toggle switch that is currently turned off.
- Default Gateway:** A dropdown menu currently showing 'Physical IP Gateway'.
- Physical IP - ID 1:** A section header for the first physical IP configuration.
- Mode:** A dropdown menu currently showing 'DHCP'. Below it is a link that says 'Configure static IP to overwrite dynamic IP >'. There is also a 'Floating IP' section below this.
- Physical IP - ID 2:** A section header for the second physical IP configuration.
- Enabled:** A toggle switch that is currently turned off.
- Source NAT:** A section header for source NAT configuration.
- Source NAT Address Range:** Two text input fields labeled 'First IP' and 'Last IP'.

At the bottom right of the window, there are two buttons: 'Add' (in blue) and 'Cancel' (in white with a blue border).

Understanding DNS

ANTlabs gateway comes with built-in high performance DNS server

- Intercepts all DNS traffic for downstream users
 - Prevents external DNS poisoning
 - Protected users against “Wanncry” ransomware
- User configurable DNS Host records
 - Allows configuration of SmartURL like logout.now, dashboard. Etc
- Supports zero-config for Proxy and SMTP
 - resolving non-existent domain (NX Domain) to gateway’s IP
- Forwards all DNS request to venue’s preferred DNS server
- Supports Web filtering via DNS even with users configured DNS server

Understanding DNS

- DOH, DOT
 - DOH and DOT bypass gateway DNS which disables all the above features
 - **Note:** Do not assign the downstream network DNS server to google (8.8.8.8, 8.8.8.4) or Cloudflare (1.1.1.1) or any server that supports DOH and DOT which degrades the gateway capability

Configure DNS

- Select **Network > DNS**
- Only 2 DNS servers can be configured, click on either on to configure

* DNS Server

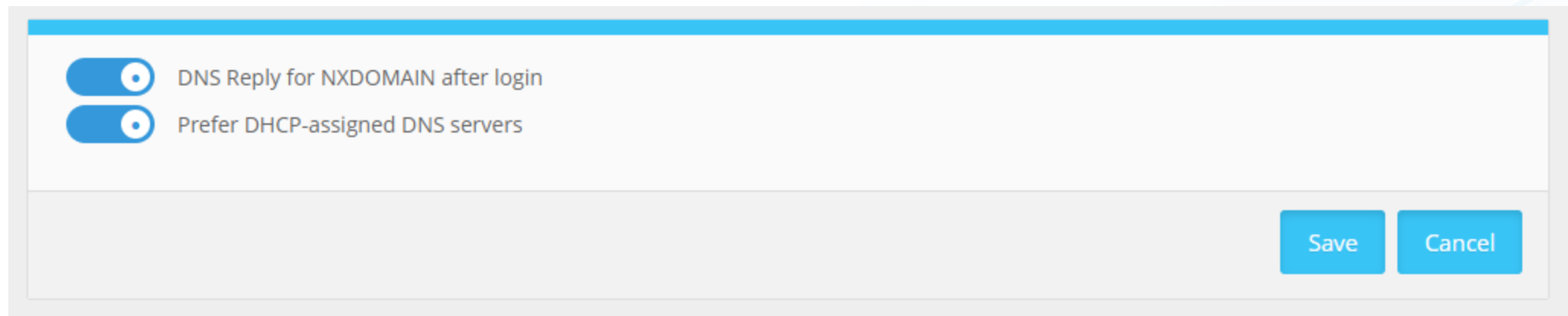
8.8.8.8

SaveCancel

Order	DNS Server
1	8.8.8.8
2	8.8.4.4

Configure DNS

- DNS Reply for NXDOMAIN
 - If enabled, and downstream user's DNS requests result in NXDomain, gateway will reply the LAN IP to the downstream user.
- Prefer DHCP-assigned DNS servers
 - If enabled, and DHCP mode is set for default WAN interface, the system will use the DNS server returned by DHCP (if available) instead of the 2 configured DNS servers



DNS Reply for NXDOMAIN after login

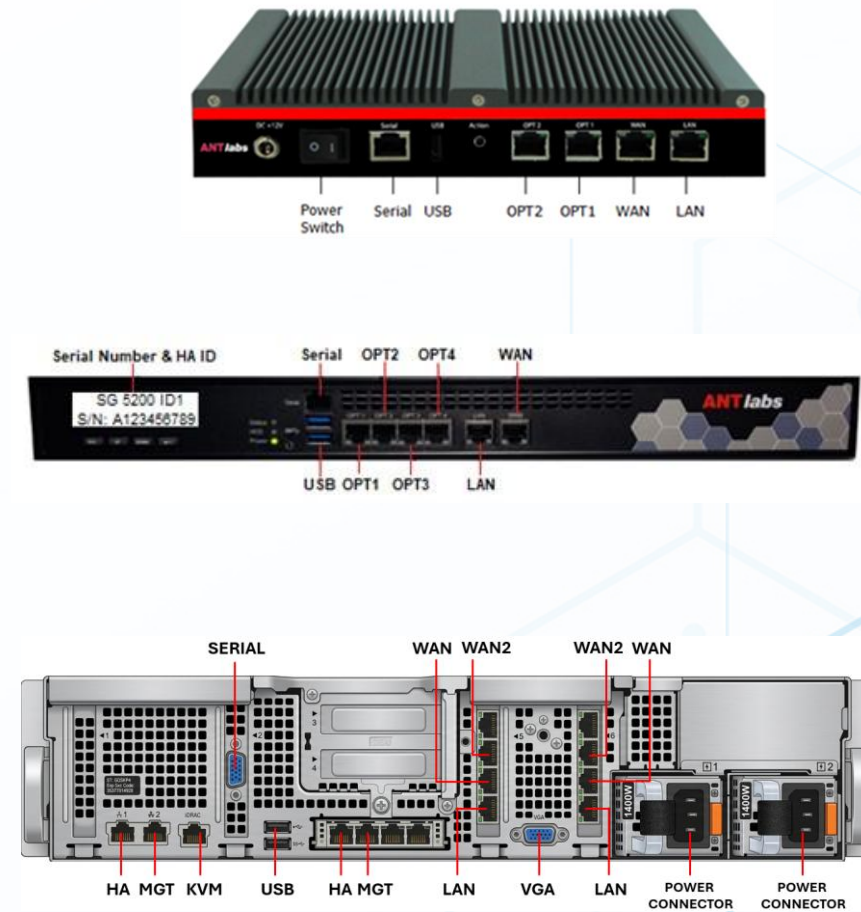
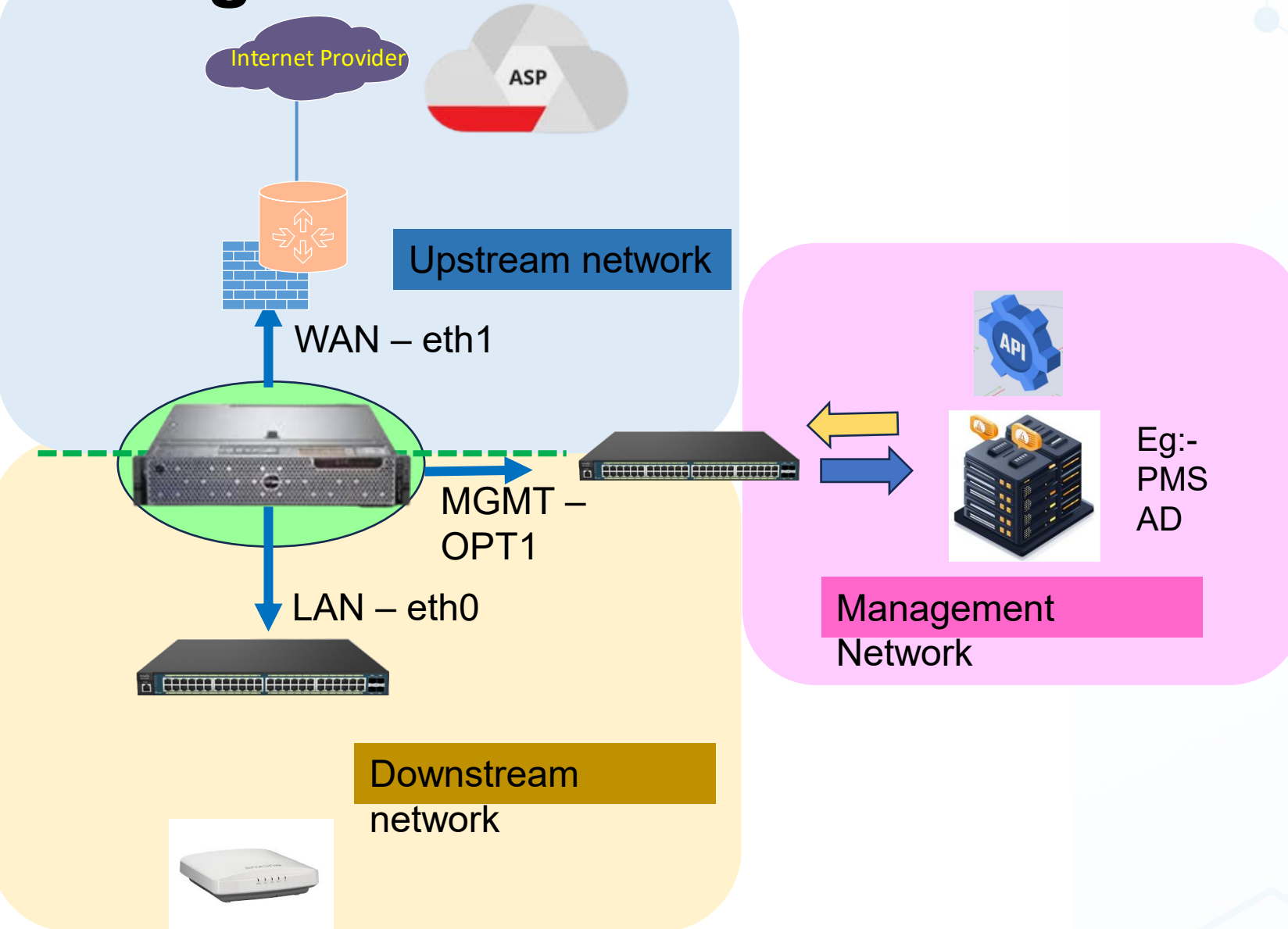
Prefer DHCP-assigned DNS servers

Save Cancel

Management Port

- Allows Gateway to communicate to Internal network without going through Internet
- Dedicated link that is separate from LAN and WAN
- Either via OPT1 port (shared with HA) dedicated MGT port
- Downstream user traffic are not allowed to reach the Internal network through the Management port
- Useful to connect to corporate servers such as PMS, webserver, AAA etc

Management Port



Configure Management Port

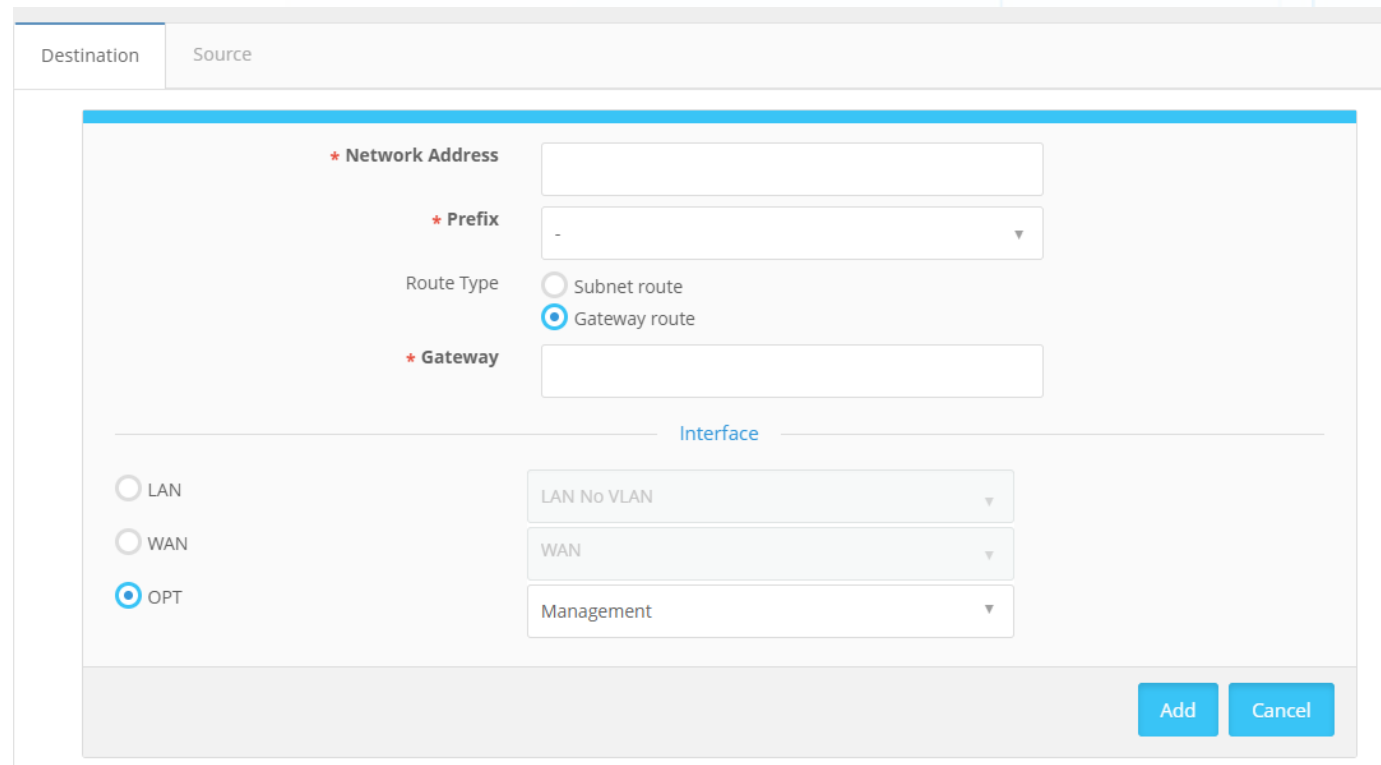
1. Select **Network > Management**
2. Configure Physical IP address of ID 1 and ID 2 (optional)
3. Enable and configure Floating IP (if required)

The screenshot displays a configuration window for network management. It is divided into three sections: 'Physical IP - ID 1', 'Physical IP - ID 2', and 'Floating IP'. Each section contains input fields for IP Address and Prefix. The 'Physical IP - ID 1' section has IP Address 192.168.2.1 and Prefix 24. The 'Physical IP - ID 2' section has IP Address 192.168.2.2 and Prefix 24. The 'Floating IP' section has an 'Enabled' toggle switch turned on, IP Address 192.168.3.1, and Prefix 24. At the bottom right, there are 'Save' and 'Cancel' buttons.

Section	Field	Value
Physical IP - ID 1	IP Address	192.168.2.1
	Prefix	24
Physical IP - ID 2	* IP Address	192.168.2.2
	* Prefix	24
Floating IP	Enabled	On
	* IP Address	192.168.3.1
	* Prefix	24

Configure Management Routing

1. Select **Network** > **Static Routes** > **Destination**
2. Specify the IP host / subnet to route through the Management Port
3. Under Route Type, select **Gateway route**
4. Select **OPT** interface
5. Select **Management**



The screenshot shows a configuration window with two tabs: "Destination" and "Source". The "Destination" tab is active. The form contains the following fields and options:

- * Network Address**: A text input field.
- * Prefix**: A dropdown menu showing "-".
- Route Type**: Two radio buttons: "Subnet route" (unselected) and "Gateway route" (selected).
- * Gateway**: A text input field.
- Interface**: A section with three radio buttons: "LAN" (unselected), "WAN" (unselected), and "OPT" (selected). To the right of these are three dropdown menus: "LAN No VLAN", "WAN", and "Management".

At the bottom right, there are two buttons: "Add" and "Cancel".

Learning Summary

You have learned about the different options that is supported when configuring the WAN port of the gateway to the Internet.

You also learned how the DNS server on the gateway works and how to configure it.

Finally, we also covered how you can use the Management port to connect to the Internal network for remote access and connection to internal systems and servers.