TSW212 Static Routes

The information in this page is updated in accordance with firmware version .

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Contents

Static Routes

Routes ensure that network traffic finds its path to a specified host or network, both in local and remote network scenarios. Static routes are simply fixed routing entries in the routing table(s).

This section provides the possibility to configure custom static routes.

Static IPv4 Routes

The **Static IPv4 Routes** section displays a list of user defined static IPv4 routes and provides the possibility to add and configure new ones. The list is empty by default.

To add a new route and begin editing, simply click the 'Add' button. Refer to the table below for information on static route configuration fields.

Field	Value	Description
Interface	static | dhcp | dhcp6; default: **static**	The zone where the target network resides.
Target*	ip4; default: **none**	Destination network address.
IPv4-Netmask*	netmask; default: **none**	A netmask is used to divide an IP address into sub-networks (subnets). Combined together, the 'Netmask' and 'Target' values define the exact destination network or IP address to which this route applies.
IPv4-Gateway	ip4; default: **none**	A gateway can be any machine in a network that is capable of serving as an access point to another network. Traffic that matches this route will be directed over the IP address specified in this field.

MTU	integer [68..9200]; default: **1500**	Sets the maximum transmission unit (MTU) size. It is the largest size of a protocol data unit (PDU) that can be transmitted in a single network layer transaction.
Route Type	unicast | local | broadcast | multicast | unreachable | prohibit | backhole | anycast | -- custom -- ; default: **unicast**	Selects route type. Each type specifies a different behavior for the route: • **unicast** - most common type of route, simply describes a path to a destination. • **local** - routes of this type are added to the 'local' routing table and used only for locally hosted IPs. • **broadcast** - routes of this type are added to the 'local' routing table and used by link layer devices that support the broadcast address principle. • **multicast** - used for distribution of multicast traffic. • **unreachable** - sends an ICMP "unreachable" response to the source address when a request for a routing decision returns a "destination with an unreachable route type" message. • **prohibit** - used to prohibit traffic to specified host or network. When a destination is prohibited, the kernel sends a 'Network is unreachable' response the source address. • **blackhole** - packets that match this type of route are discarded without any response. • **anycast** - provides a possibility to route incoming requests to multiple different network locations. • **-- custom --** - does not use any of the predefined route types.

*Additional notes on 'Target' & 'Netmask' fields:

You can define a rule that applies to a single IP like this:

- **Target**: some IP
- **Netmask**: 255.255.255.255

Furthermore, you can create target/netmask combinations that apply to a range of IPs. Refer to the table below for examples.

Target	Netmask	Network range
192.168.2.0	255.255.255.240	192.168.2.0 - 192.168.2.15
192.168.2.240	255.255.255.240	192.168.2.240 - 192.168.2.255
192.168.2.161	255.255.255.0	192.168.2.0 - 192.168.55.255
192.168.0.0	255.255.0.0	192.168.0.0 - 192.168.255.255
192.168.2.161	255.255.255.255	192.168.2.161

Static IPv6 Routes

The **Static IPv6 Routes** section displays a list of user defined static IPv6 routes and provides the possibility to add and configure new ones. The list is empty by default.

To add a new route and begin editing, simply click the 'Add' button. Refer to the table below for information on static route configuration fields.

Field	Value	Description
Interface	static | dhcp | dhcp6; default: **static**	The zone where the target network resides.
Target	ip6; default: **none**	Destination network address.
IPv6-Gateway	ip6; default: **none**	A gateway can be any machine in a network that is capable of serving as an access point to another network. Traffic that matches this route will be directed over the IP address specified in this field.
MTU	integer [68..9200]; default: **1500**	Sets the maximum transmission unit (MTU) size. It is the largest size of a protocol data unit (PDU) that can be transmitted in a single network layer transaction.
Route Type	unicast | local | broadcast | multicast | unreachable | prohibit | backhole | anycast | -- custom -- ; default: **unicast**	Selects route type. Each type specifies a different behavior for the route: • **unicast** - most common type of route, simply describes a path to a destination. • **local** - routes of this type are added to the 'local' routing table and used only for locally hosted IPs. • **broadcast** - routes of this type are added to the 'local' routing table and used by link layer devices that support the broadcast address principle. • **multicast** - used for distribution of multicast traffic. • **unreachable** - sends an ICMP "unreachable" response to the source address when a request for a routing decision returns a "destination with an unreachable route type" message. • **prohibit** - used to prohibit traffic to specified host or network. When a destination is prohibited, the kernel sends a 'Network is unreachable' response the source address. • **blackhole** - packets that match this type of route are discarded without any response. • **anycast** - provides a possibility to route incoming requests to multiple different network locations. • **-- custom --** - does not use any of the predefined route types.