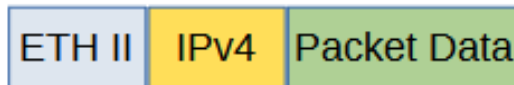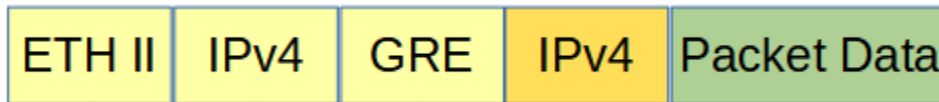## AF1G40AC

l3GRE Encapsulate

Overview:

When a packet is encapsulated with an l3GRE header the original Ethernet II segment is removed from the packet and the new GRE header segments are added. The l3GRE header segments consist of Ethernet II, IPv4, and GRE as shown below.

Original Packet

l3GRE Encapsulated Packet

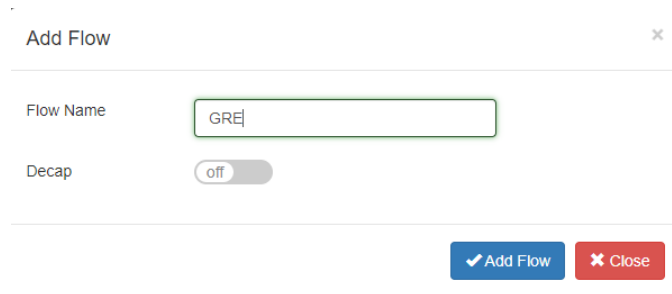Encapsulating a packet with a l3GRE header involves two configuration processes.

1. Create a Flow

2. Create a Tap Group

1. Create a Flow

The flow defines which packets will be encapsulated with a l3GRE header. Packets that do not meet the flow attributes will not be encapsulated. In some cases, it may be required to create more than 1 flow.
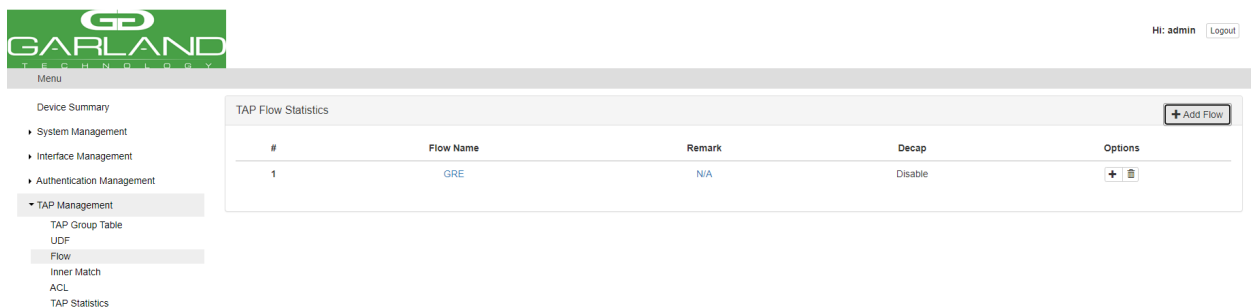
1. Select Tap Management.

2. Select Flow.

3. Select + Add Flow.

The Add Flow panel will appear.
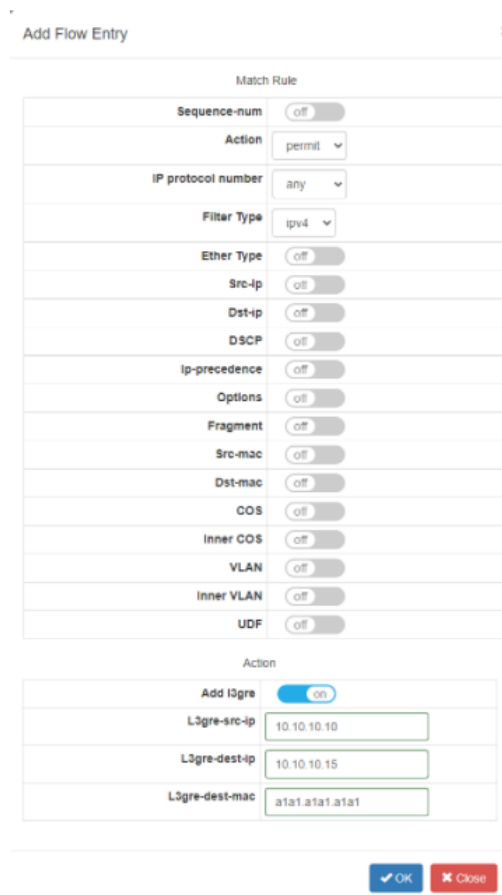

4. Enter the Flow Name.

5. Select Add Flow.

The flow will be displayed.

6. Select the + in the Options column for the desired flow to define the flow attributes.

   The Add Flow Entry panel will be displayed.

7. Under Match Rule select the desired options and enter the desired values to define which packets are encapsulated with a l3GRE header. If desired the default options may be used to encapsulate all packets.

8. Under Action, select Add l3gre.

9. Enter the desired L3gre-src-ip. This defines the Source IP in the IPv4 segment of the l3GRE header.
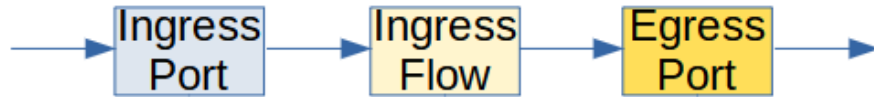
10. Enter the desired L3gre-dest-ip. This defines the Destination IP in the IPv4 segment of the l3GRE header.

11. Enter the desired L3gre-dst-mac. This defines the Destination MAC in the Ethernet II segment of the l3GRE header.

12. Select OK.

3

2. Create a Tap Group

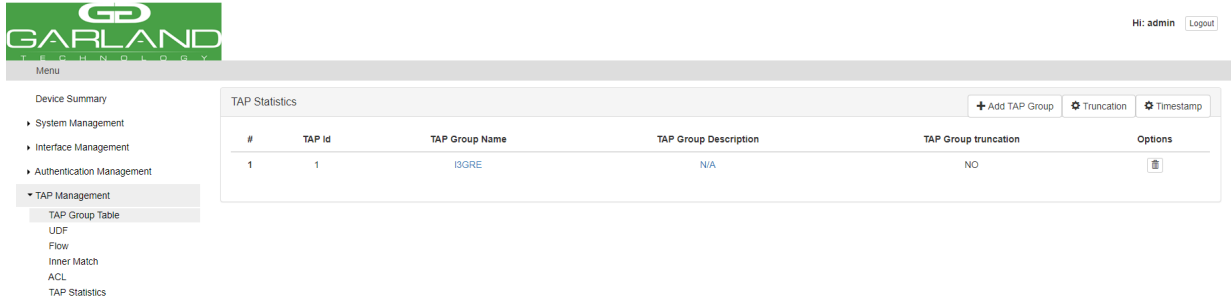The Tap Group defines the ingress port, ingress flow, and egress port.

1. Select Tap Management.

2. Select TAP Group Table.

3. Select + Add TAP Group.

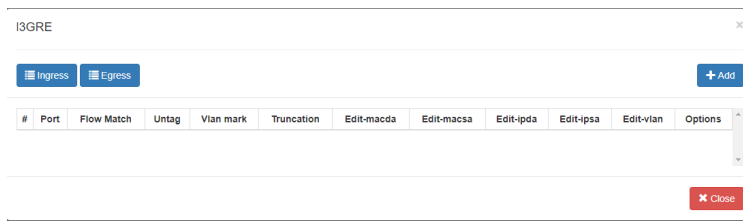The TAP Group Name panel will appear.

4. Enter the TAP Group Name.

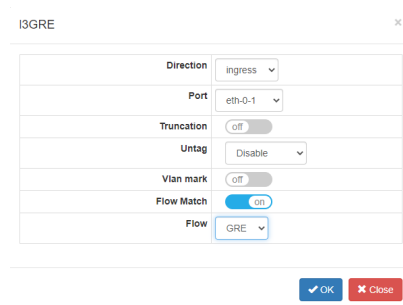5. Select OK.

The Tap Group will be displayed.

6. Place the cursor on the tap group name under the TAP Group Name column and press the left mouse button.
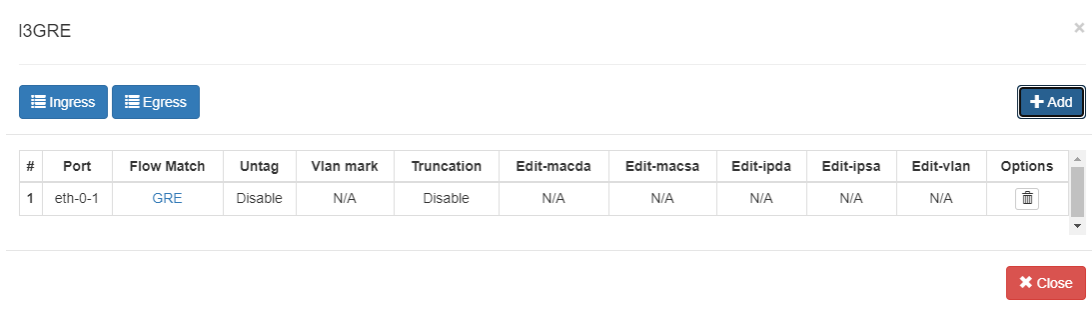
The TAP group panel will appear.

7. Select the + Add to define the ingress port and ingress flow.
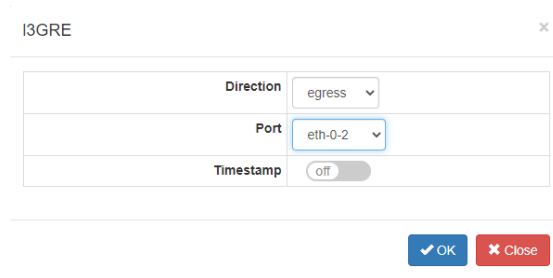
The add panel will appear.

8. Select the Direction, ingress.

9. Select the desired ingress port.

10. Enable Flow Match.

11. Select the l3GRE flow.

12. Select OK.

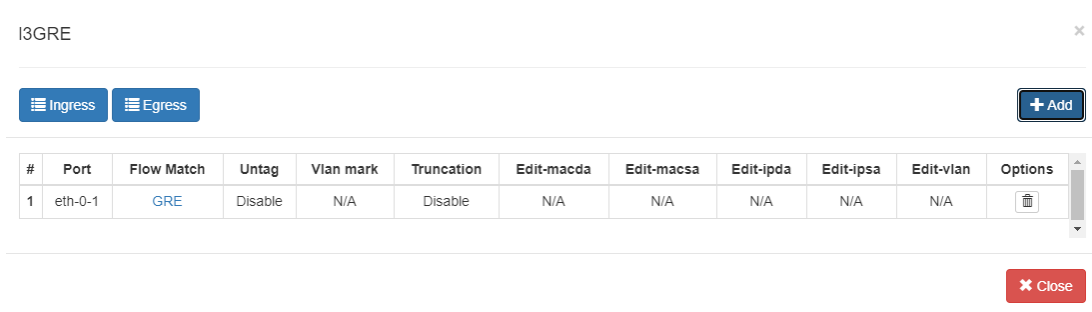13. Select the + Add to define the egress port.

The add panel will appear.

14. Select the Direction, egress.

15. Select the desired egress port.

16. Select OK.

17. The ingress port, ingress flow, and egress port may be displayed by selecting Ingress or Egress. Additional ingress ports, ingress flows or egress ports may be added to the Tap Group using the same steps.
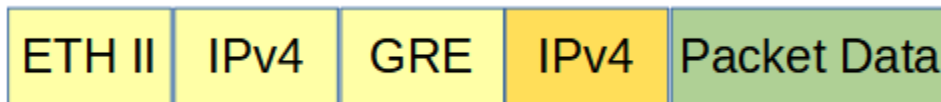
18. Select Close to return the TAP Group Table display.
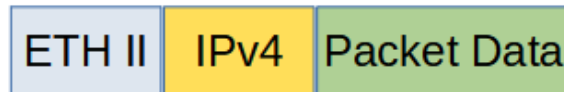
l3GRE Decapsulate

Overview:

When a l3GRE packet is decapsulated the l3GRE header segments are removed from the packet. A new Ethernet II segment is added as shown below.

L3GRE Encapsulated Packet

ETH II	IPv4	GRE	IPv4	Packet Data

l3GRE Decapsulated Packet

ETH II	IPv4	Packet Data

Decapsulating the l3GRE header from a packet involves two configuration processes.
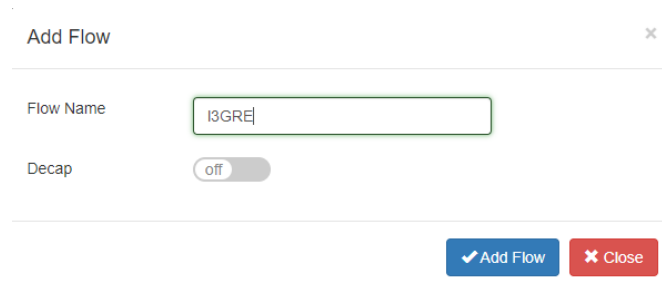
1. Create a Flow

2. Create a Tap Group

1. Create a Flow

The flow defines which l3GRE packets will be decapsulated. Packets that do not meet the flow attributes will not be decapsulated. In some cases, it may be required to create more than 1 flow.
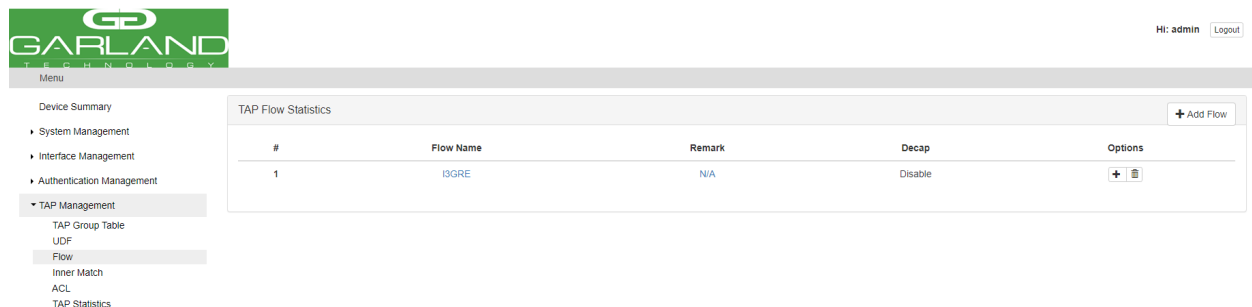
1. Select Tap Management.

2. Select Flow.

3. Select + Add Flow.

       The Add Flow panel will appear.

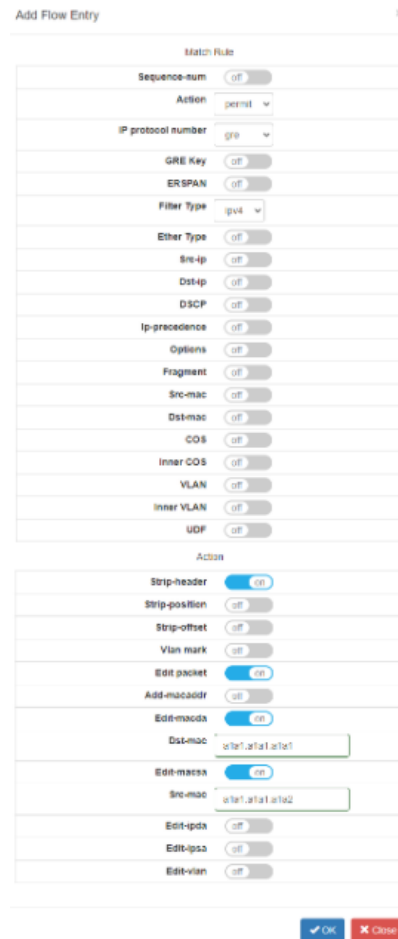

4. Enter the Flow Name.

5. Select Add Flow.

       The flow will be displayed.

6. Select the + in the Options column for the desired flow to define the flow attributes.

The Add Flow Entry panel will be displayed.

7. Under Match Rule select gre for the IP Protocol Number.

8. Select the other desired options and enter the desired values to define which l3GRE packets are decapsulated. The defaults may be used to decapsulate all l3GRE packets.

9. Under Actions enable Strip-header.

10. Enable Edit packet.

11. Enable Edit-macda.

12. Enter the desired Dst-mac. This will define the Destination MAC for the new Ethernet II segment added to the packet.

13. Enable Edit-macsa.

14. Enter the desired Src-mac. This will define the Source MAC for the new Ethernet II segment added to the packet.

15. Select OK.

2. Create a Tap Group

The Tap Group defines the ingress port, ingress flow and egress port.

1. Select Tap Management.

2. Select TAP Group Table.

3. Select + Add TAP Group.

      The TAP Group Name panel will appear.

4. Enter the TAP Group Name.

5. Select OK.

      The Tap Group will be displayed.
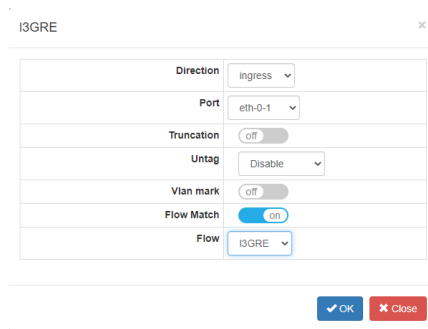
6. Place the cursor on the tap group name under the TAP Group Name column and press the left mouse button.
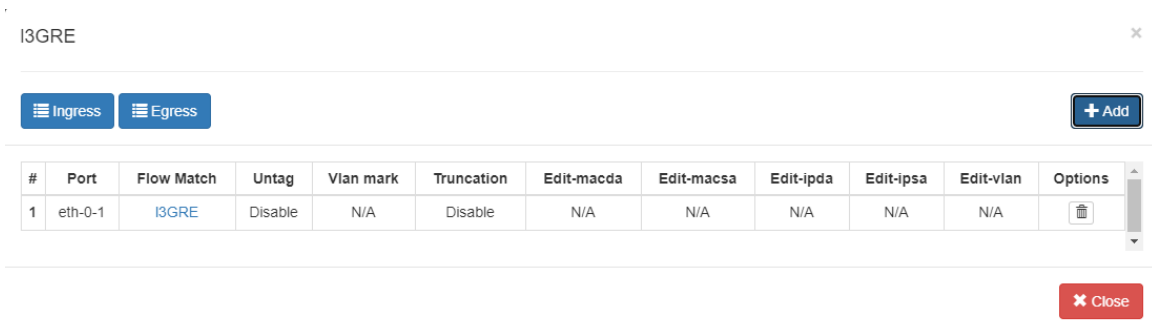
> The TAP group panel will appear.

7. Select the + Add to define the ingress port and ingress flow.

> The add panel will appear.

8. Select the Direction, ingress.

9. Select the desired ingress port.

10. Enable Flow Match.

11. Select the l3GRE flow.

12. Select OK.

13. Select the + Add to define the egress port.

> The add panel will appear.

l3GRE	✕
Direction	egress ▾
Port	eth-0-2 ▾
Timestamp	off

| | ✔ OK | ✖ Close |

14. Select the Direction, egress.

15. Select the desired egress port.

16. Select OK.

l3GRE   ✕

| ☰ Ingress | ☰ Egress | | | | | | | | | | ➕ Add |

#	Port	Flow Match	Untag	Vlan mark	Truncation	Edit-macda	Edit-macsa	Edit-ipda	Edit-ipsa	Edit-vlan	Options
1	eth-0-1	l3GRE	Disable	N/A	Disable	N/A	N/A	N/A	N/A	N/A	🗑

| | ✖ Close |

17. The ingress port, ingress flow, and egress port may be displayed by selecting Ingress or Egress. Additional ingress ports, ingress flows, or egress ports may be added to the Tap Group using the same steps.

18. Select Close to return the TAP Group Table display.