

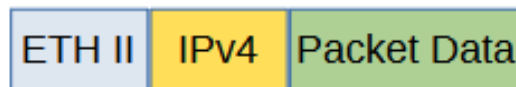
AF40G24AC

I2GRE Encapsulate

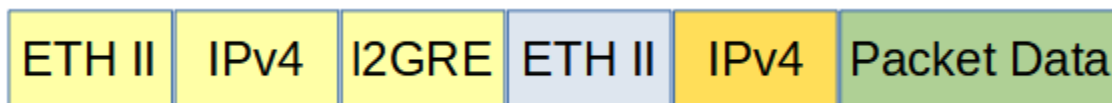
Overview:

When a packet is encapsulated with an I2GRE header the new I2GRE header segments are added to the original packet. The I2GRE header segments consist of Ethernet II, IPv4, and I2GRE as shown below.

Original Packet



I2GRE Encapsulated Packet



Encapsulating a packet with an I2GRE header involves two configuration processes.

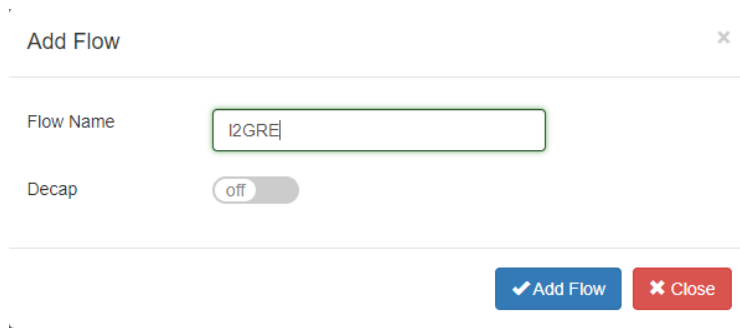
1. Create a Flow
2. Create a Tap Group

1. Create a Flow

The flow defines which packets will be encapsulated with an I2GRE 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.

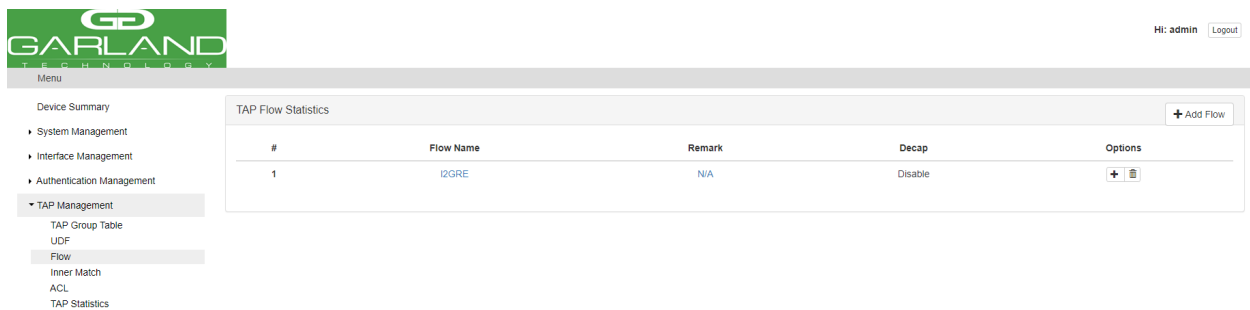
1. Select Tap Management.
2. Select Flow.
3. Select + Add Flow.

The Add Flow panel will appear.



4. Enter the Flow Name.
5. Select Add Flow.

The flow will be displayed.



#	Flow Name	Remark	Decap	Options
1	I2GRE	N/A	Disable	+ [icon]

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

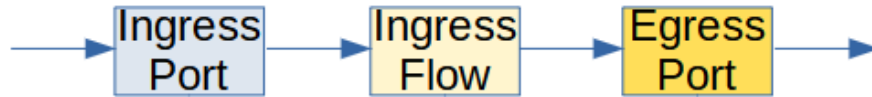
The Add Flow Entry panel will be displayed.



7. Under Match Rule select the desired options and enter the desired values to define which packets are encapsulated with a I2GRE header. If desired the default options may be used to encapsulate all packets.
8. Under Action, select Add I2gre.
9. Enter the desired L2gre-src-ip. This defines the Source IP in the IPv4 segment of the I2GRE header.
10. Enter the desired L2gre-dest-ip. This defines the Destination IP in the IPv4 segment of the I2GRE header.
11. Enter the desired L2gre-dst-mac. This defines the Destination MAC in the Ethernet II segment of the I2GRE header.
12. Select the L2gre-key-length, 16, 20, 24, 32. The default is 24.
13. Enter the L2gre-key-num, 1-16777215.
14. Select OK.

2. Create a Tap Group

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



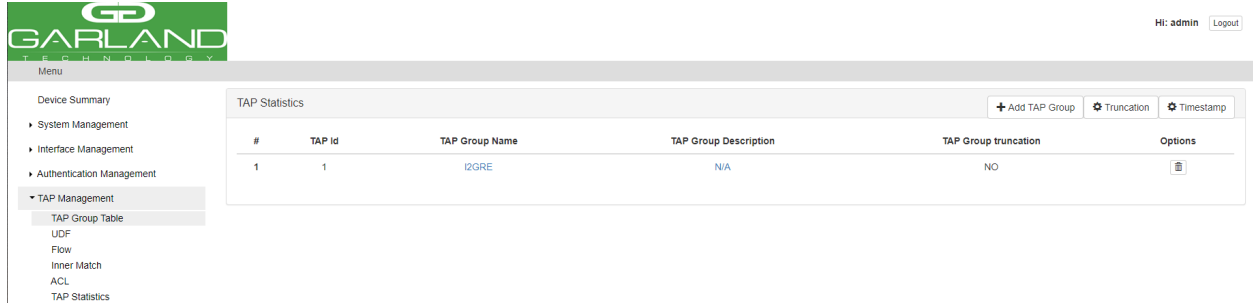
1. Select Tap Management.
2. Select TAP Group Table.
3. Select + Add TAP Group.

The TAP Group Name panel will appear.

The screenshot shows a dialog box titled 'TAP Group Name' with a close button (x) in the top right corner. It contains two input fields: 'TAP Group Name' with the value 'I2GRE' and 'TAP Group ID' with the value '0'. At the bottom right, there are two buttons: a blue 'OK' button with a checkmark and a red 'Close' button with an 'x'.

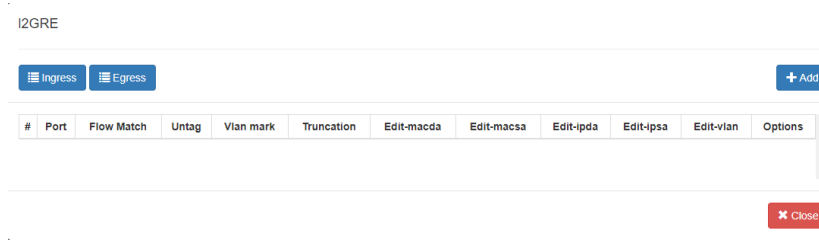
4. Enter the TAP Group Name.
5. Select OK.

The Tap Group will be displayed.



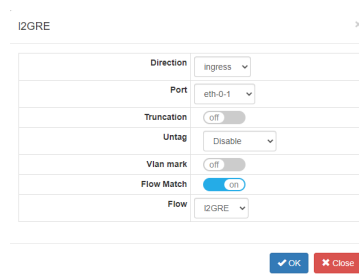
- Place the cursor on the tap group name under the TAP Group Name column and press the left mouse button.

The TAP group panel will appear.

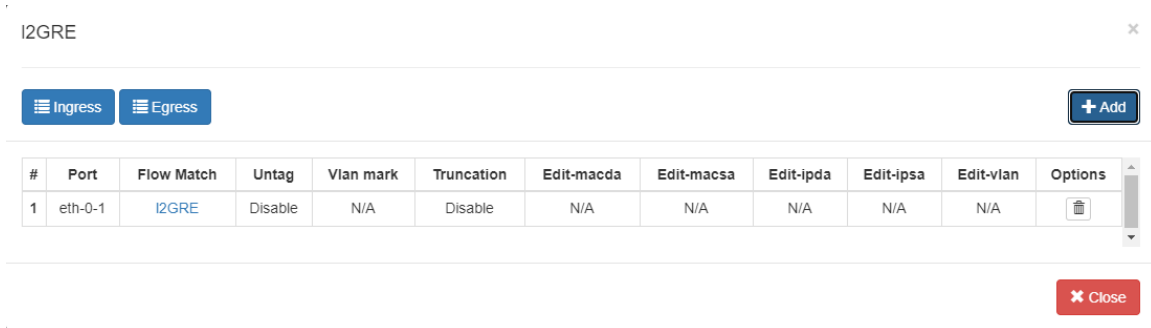


- Select the + Add to define the ingress port and ingress flow.

The add panel will appear.

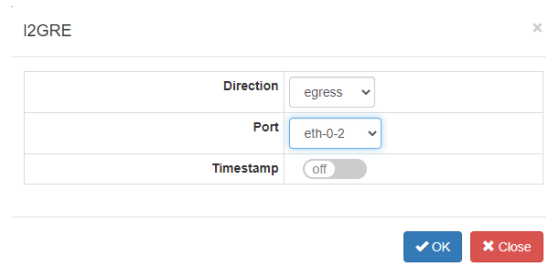


- Select the Direction, ingress.
- Select the desired ingress port.
- Enable Flow Match.
- Select the I2GRE flow.
- Select OK.



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

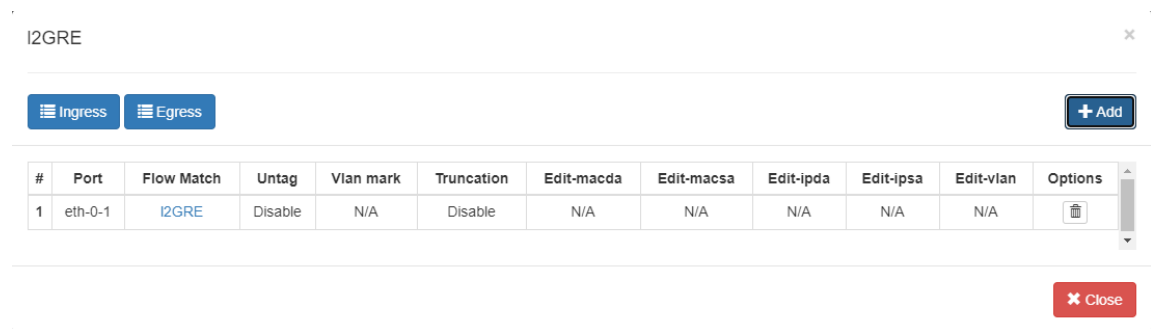
The add panel will appear.



14. Select the Direction, egress.

15. Select the desired egress port.

16. Select OK.



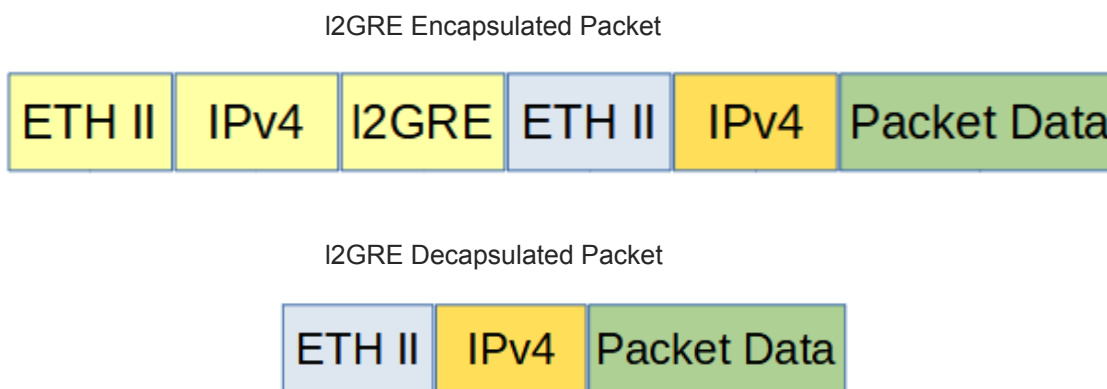
17. The ingress port, ingress flow, and egress port may be displayed by selecting Ingress or Egress. Additional ingress ports, ingress flows, or egress ports may be added to the Tap Group using the same steps.

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

I2GRE Decapsulate

Overview:

When an I2GRE packet is decapsulated the I2GRE header segments are removed from the packet.



Decapsulating the I2GRE header from a packet involves two configuration processes.

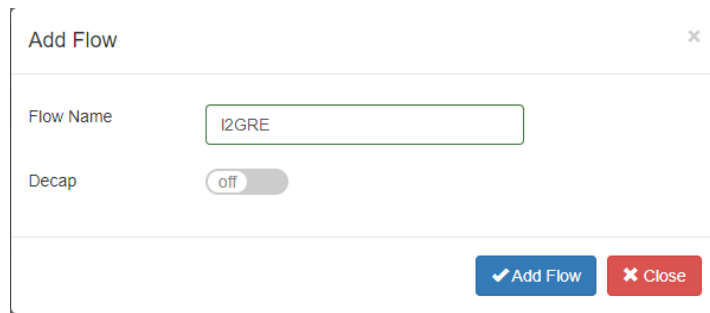
1. Create a Flow
2. Create a Tap Group

1. Create a Flow

The flow defines which I2GRE 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.

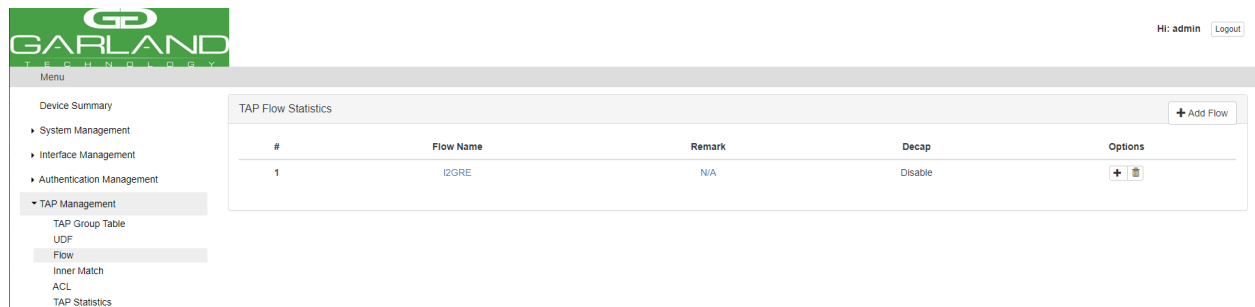
1. Select Tap Management.
2. Select Flow.
3. Select + Add Flow.

The Add Flow panel will appear.



4. Enter the Flow Name.
5. Select Add Flow.

The flow will be displayed.



#	Flow Name	Remark	Decap	Options
1	I2GRE	N/A	Disable	+ [trash icon]

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

The Add Flow Entry panel will be displayed.

Add Flow Entry
✕

Match Rule

Sequence-num	<input type="checkbox"/>
Action	permit
IP protocol number	nvgre
NVGRE-VNI	<input type="checkbox"/>
Filter Type	ipv4
Ether Type	<input type="checkbox"/>
Src-ip	<input type="checkbox"/>
Dst-ip	<input type="checkbox"/>
DSCP	<input type="checkbox"/>
Ip-precedence	<input type="checkbox"/>
Options	<input type="checkbox"/>
Fragment	<input type="checkbox"/>
Src-mac	<input type="checkbox"/>
Dst-mac	<input type="checkbox"/>
COS	<input type="checkbox"/>
Inner COS	<input type="checkbox"/>
VLAN	<input type="checkbox"/>
Inner VLAN	<input type="checkbox"/>
UDF	<input type="checkbox"/>

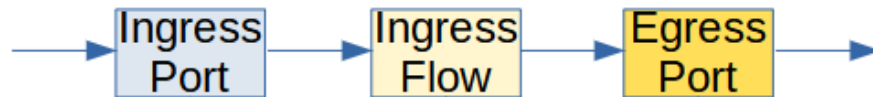
Action

Strip-header	<input checked="" type="checkbox"/>
Strip-position	<input type="checkbox"/>
Strip-offset	<input type="checkbox"/>
Vlan mark	<input type="checkbox"/>
Edit packet	<input type="checkbox"/>
Add I2gre	<input type="checkbox"/>
Add I3gre	<input type="checkbox"/>
Add Vxlan	<input type="checkbox"/>
Add Ersptype-1	<input type="checkbox"/>
Add Ersptype-2	<input type="checkbox"/>

7. Under Match Rule select nvgre for the IP Protocol Number.
8. Select the other desired options and enter the desired values to define which I2GRE packets are decapsulated. The defaults may be used to decapsulate all I2GRE packets.
9. Under Actions enable Strip-header.
10. 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.

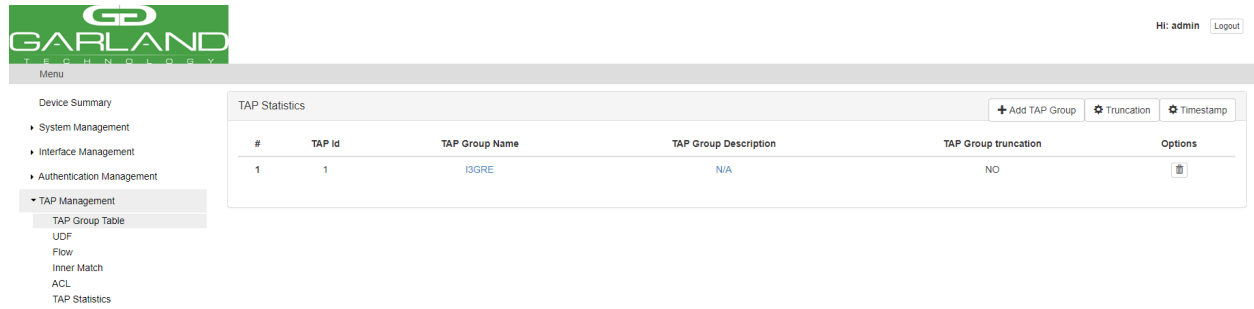
TAP Group Name

TAP Group Name

TAP Group ID

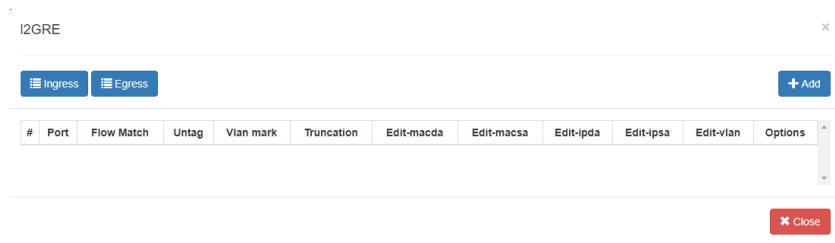
4. Enter the TAP Group Name.
5. Select OK.

The Tap Group will be displayed.



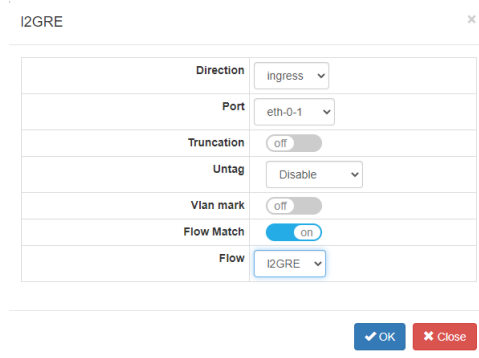
6. Place the cursor on the tap group name under the TAP Group Name column and press the left mouse button.

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 I2GRE flow.

12. Select OK.

I2GRE

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	I2GRE	Disable	N/A	Disable	N/A	N/A	N/A	N/A	N/A	

Close

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

The add panel will appear.

I2GRE

Direction: egress

Port: eth-0-2

Timestamp: off

OK Close

14. Select the Direction, egress.

15. Select the desired egress port.

16. Select OK.

I2GRE

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	I2GRE	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 the TAP Group Table display.