

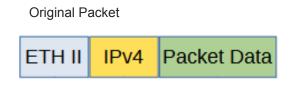


AF1G52AC

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.



I2GRE Encapsulated Packet

ETH II	IPv4	I2GRE	ETH II	IPv4	Packet Data
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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.

Add Flow		×
Flow Name	I2GRE	
Decap	Off	
L		✓ Add Flow Close

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

The flow will be displayed.

					HI: admin Logo
Device Summary	TAP Flow Statistics				+ Add Flow
 System Management 					
 Interface Management 	#	Flow Name	Remark	Decap	Options
Authentication Management	1	I2GRE	N/A	Disable	+ 🗊
▼ TAP Management					
TAP Group Table					
UDF					
Flow					
Inner Match					
ACL					
TAP Statistics					

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



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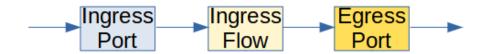
The Add Flow Entry panel will be displayed.

- Under Match Rule select the desired options and enter the desired values to define which packets are encapsulated with an 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.

TAP Group Name		×
TAP Group Name	I2GRE	
TAP Group ID	0	
		✓ OK K Close

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



The Tap Group will be displayed.

GARLANC						Hi: admin Logout
Menu						
Device Summary	TAP Statis	tics			+ Add TAP Group	Truncation 🌣 Timestamp
 System Management 						
 Interface Management 	#	TAP Id	TAP Group Name	TAP Group Description	TAP Group truncation	Options
Authentication Management	1	1	I2GRE	N/A	NO	Î
▼ TAP Management						
TAP Group Table						
UDF						
Flow						
Inner Match						
ACL						
TAP Statistics						

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.

2G	RE										
	Ingress	Egress									+ Ad
#	Port	Flow Match	Untag	Vian mark	Truncation	Edit-macda	Edit-macsa	Edit-ipda	Edit-ipsa	Edit-vlan	Options
											× Clos

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

The add panel will appear.

Direction	ingress 🗸
Port	eth-0-1 🗸
Truncation	Off
Untag	Disable 🗸
Vlan mark	Off
Flow Match	On
Flow	I2GRE ¥

- 8. Select the Direction, ingress.
- 9. Select the desired ingress port.
- 10. Enable Flow Match.
- 11. Select the I2GRE flow.
- 12. Select OK.

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	Ingress	≣ Egress									+ Ad
¥	Port	Flow Match	Untag	Vlan mark	Truncation	Edit-macda	Edit-macsa	Edit-ipda	Edit-ipsa	Edit-vlan	Options
	eth-0-1	I2GRE	Disable	N/A	Disable	N/A	N/A	N/A	N/A	N/A	

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

The add panel will appear.

I2GRE	×
Direction	egress 🗸
Port	eth-0-2 🗸
Timestamp	Off
	✓ OK X Close

- 14. Select the Direction, egress.
- 15. Select the desired egress port.
- 16. Select OK.

.	Ingress	Egress									+ A0
	Port	Flow Match	Untag	Vlan mark	Truncation	Edit-macda	Edit-macsa	Edit-ipda	Edit-ipsa	Edit-vlan	Options
	eth-0-1	I2GRE	Disable	N/A	Disable	N/A	N/A	N/A	N/A	N/A	Ê

- 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.

I2GRE Encapsulated Packet



I2GRE Decapsulated Packet

ETH II	IPv4	Packet Data
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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.

Add Flow		×
Flow Name	12GRE	
Decap	off	
		✓Add Flow X Close

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

The flow will be displayed.

					Hi: admin Logout
Device Summary	TAP Flow Statistics				+ Add Flow
System Management Interface Management	#	Flow Name	Remark	Decap	Options
Authentication Management	1	12GRE	N/A	Disable	+ 1
 ■ TAP Management 					
TAP Group Table UDF					
Flow					
Inner Match ACL					
TAP Statistics					



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

Match	Rule
Sequence-num	off
Action	permit 🗸
IP protocol number	nvgre 🗸
NVGRE-VNI	Off
Filter Type	lpv4 ~
Ether Type	off
Src-ip	off
Dst-ip	TIO
DSCP	10
Ip-precedence	TIO
Options	10
Fragment	Off
Src-mac	Off
Dst-mac	TIO
cos	Off
Inner COS	10
VLAN	10
Inner VLAN	Off
UDF	Off
Actic	n
Strip-header	on
Strip-position	Off
Strip-offset	off
Vlan mark	off
Edit packet	Off
Add I2gre	Off
Add I3gre	Off
Add Vxlan	Off
Add Erspantype-1	off
Add Erspantype-1	

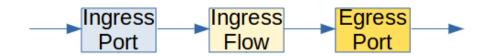
The Add Flow Entry panel will be displayed.

- 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	I2GRE	
TAP Group ID	0	
		✓ OK K Close

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

The Tap Group will be displayed.



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						Hi: admin Log
Device Summary	TAP Stati	istics			+ Add TAP C	Group 🗘 Truncation 🗘 🌣 Timestamp
System Management Interface Management	#	TAP Id	TAP Group Name	TAP Group Description	TAP Group truncation	Options
Authentication Management	1	1	13GRE	N/A	NO	
▼ TAP Management						
TAP Group Table UDF Flow Inner Match ACL TAP Statistics						

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.

I2GRE											×
Ingress	s 🛛 遭 Egress									+ A	dd
# Port	Flow Match	Untag	Vian mark	Truncation	Edit-macda	Edit-macsa	Edit-ipda	Edit-ipsa	Edit-vlan	Options	*
										× Clo	se

- 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.

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Ingress	Egress									+ A
Port	Flow Match	Untag	Vlan mark	Truncation	Edit-macda	Edit-macsa	Edit-ipda	Edit-ipsa	Edit-vlan	Options
eth-0-1	I2GRE	Disable	N/A	Disable	N/A	N/A	N/A	N/A	N/A	Ê

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

The add panel will appear.

I2GRE	×
Direction	egress 🗸
Port	eth-0-2 🗸
Timestamp	off
	✓ OK K Close

- 14. Select the Direction, egress.
- 15. Select the desired egress port.
- 16. Select OK.

	Ingress	≣ Egress									+ A
ŧ	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	Ê

- 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.

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