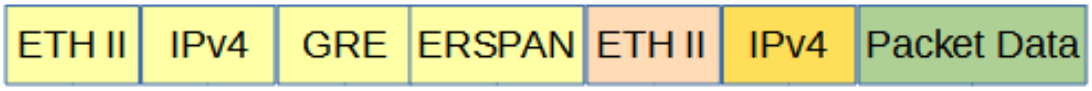
Encapsulate

When a packet is encapsulated with an ERSPAN Type 1 header the new ERSPAN Type 1 header segments are added to the original packet. The ERSPAN Type 1 header segments consists of L2, L3, GRE and ERSPAN Type 1 as shown below.

Original Packet

ERSPAN Type 1 Encapsulated Packet



Encapsulating a packet with an ERSPAN Type 1 header involves two configuration procedures.

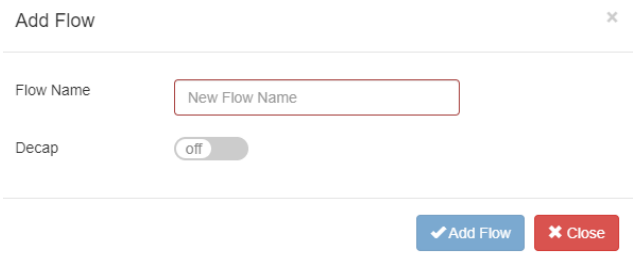
- Create a flow to add the ERSPAN Type 1 header
- Create a TAP Group

This document discusses the procedure to create a flow to add the ERSPAN Type 1 header. The procedure to create a TAP Group is discussed in the TAP Group Guide.

Create a Flow

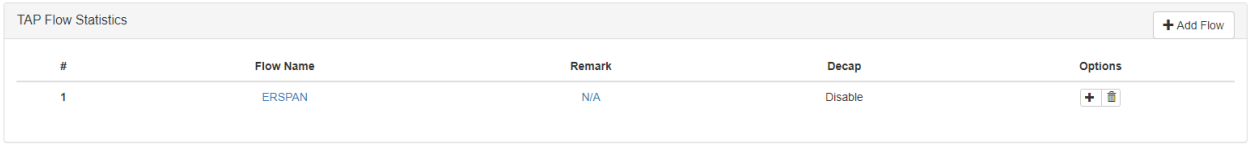
1. Select TAP Management.
2. Select Flow.
3. Select + Add Flow.

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 to define the attributes.

The Add Flow Entry panel will be displayed.

The Add Flow Entry panel is divided into two sections, match rule and action.

Match Rule Section

- Defines whether the packets are permitted or denied
- Determines the permitted or denied packet filter criteria
- Determines which permitted packets will be modified by any action(s) selected and defined in the action section

Action Section

- The action section is used to define the modification(s) that will be performed on any packet(s) that is permitted by the match rule section

Flow Match Options

7. Action permit

8. IP Protocol Number any

9. Select any other desired options and enter the desired values to define which packets will be encapsulated. The defaults may be used to encapsulate all packets.

Flow Match Options

10. Add Erspantype-1 enable

11. Erspantype-1-dest-mac Enter the desired address. This defines the destination MAC in the L2 segment of the ERSPAN header.

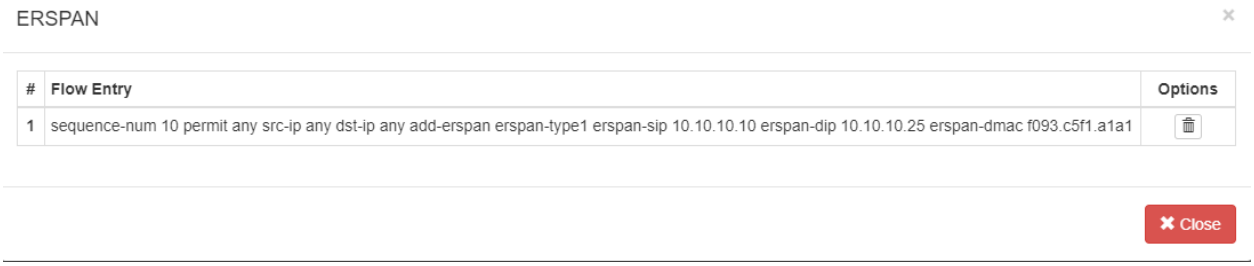
12. Erspantype-1-src-ip Enter the desired address. This defines the destination IP in the L3 segment of the ERSPAN header.

13. Erspantype-1-dest-ip Enter the desired address. This defines the destination IP in the L3 segment of the l2GRE header.

14. Select OK.

15. Select the flow name to display the attributes.

The Flow Entry panel will be displayed

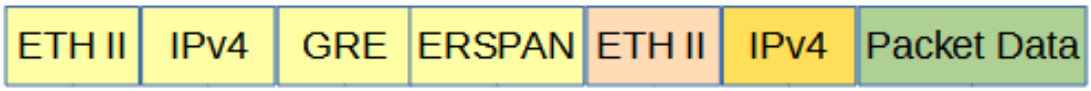


Additional entries may be created for the flow. Entries may be deleted by selecting the Trash Can. Entries may not be modified.

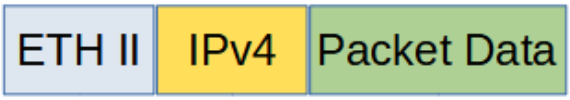
Decapsulate (IP Protocol-GRE)

When an ERSPAN Type 1 packet is decapsulated the ERSPAN Type 1 header segments are removed from the packet along with the original L2 segment. A new L2 segment is added as shown below.

ERSPAN Type 1 Encapsulated Packet



ERSPAN Type 1 Decapsulated Packet



Decapsulating the ERSPAN Type 1 header from a packet(s) involves two configuration procedures.

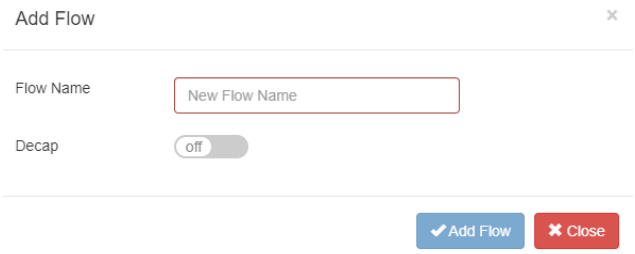
- Create a flow to strip the ERSPAN Type 1 header
- Create a TAP Group

This document discusses the procedure to create a flow to strip the ERSPAN Type 1 header. The procedure to create a TAP Group is discussed in the TAP Group Guide.

Create a Flow

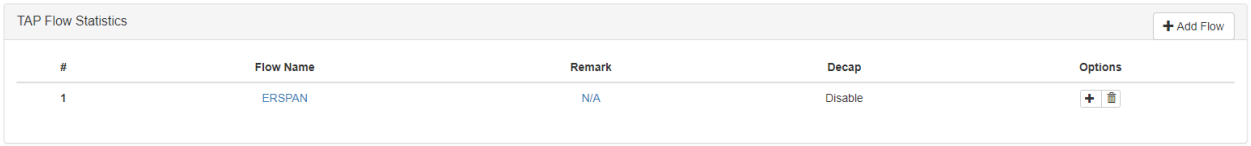
1. Select TAP Management.
2. Select Flow.
3. Select + Add Flow.

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 to define the attributes.

The Add Flow Entry panel will be displayed.

The Add Flow Entry panel is divided into two sections, match rule and action.

Match Rule Section

- Defines whether the packets are permitted or denied
- Determines the permitted or denied packet filter criteria
- Determines which permitted packets will be modified by any action(s) selected and defined in the action section

Action Section

- The action section is used to define the modification(s) that will be performed on any packet(s) that is permitted by the match rule section

Flow Match Rule Options

7. Action permit

8. IP Protocol Number gre

9. Select any other desired options and enter the desired values to define which ERSPAN packets will be decapsulated. The defaults may be used to decapsulate all ERSPAN packets.

Flow Action Options

10. Strip-header enable

11. Strip-position enable

12. Type L4

13. Strip-offset enable

14. Value 4

15. Edit packet enable

16. Edit-macda Enter the desired address. This will define the destination MAC for the new L2 segment added to the packet.

17. Edit-macsa Enter the desired address. This will define the source MAC for the new L2 segment added to the packet.

18. Select OK.

19. Select the flow name to display the attributes.

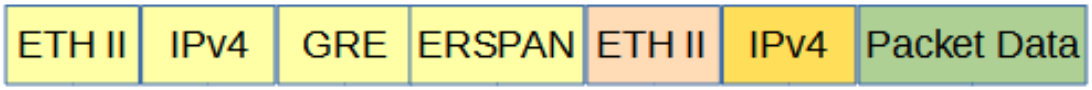
The Flow Entry panel will be displayed

Additional entries may be created for the flow. Entries may be deleted by selecting the Trash Can. Entries may not be modified.

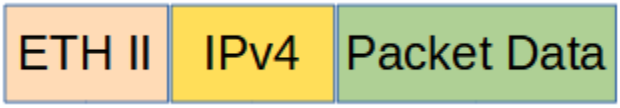
Decapsulate (IP Protocol-GRE ERSPAN)

When an ERSPAN Type 1 packet is decapsulated the ERSPAN Type 1 header segments are removed from the packet. The original packet is not modified as shown below.

ERSPAN Type 1 Encapsulated Packet



ERSPAN Type 1 Decapsulated Packet



Decapsulating the ERSPAN Type 1 header from a packet(s) involves two configuration procedures.

- Create a flow to strip the ERSPAN Type 1 header
- Create a TAP Group

This document discusses the procedure to create a flow to strip the ERSPAN Type 1 header. The procedure to create a TAP Group is discussed in the TAP Group Guide.

Create a Flow

The GRE ERSPAN flow must be created using CLI commands. This flow type cannot be created using the GUI. The flow defines which ERSPAN Type 1 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.

Connect to the Advanced Features unit. A connection to the unit may be established using two options:

Directly connected to the Console Interface to COM Port using Putty/Serial connection.

Connected via the IP Management Interface using Putty/SSH connection.

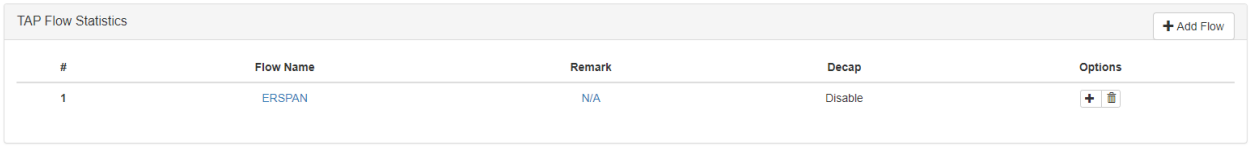
1. Press the Return key.
2. Enter enable.
3. Enter configure terminal.
4. Enter the following commands to create the flow.

```
Switch(config)# flow ERSPAN
```

ERSPAN is the flow name.

```
Switch(config-flow-ERSPAN)# permit gre erspan any src-ip any dst-ip any strip-
                            header strip-position l4 strip-offset 4
```

5. Once the flow is created it will be displayed in the GUI.



6. Select the flow name to display the attributes.

The Flow Entry panel will be displayed

Additional entries may be created for the flow. Entries may be deleted by selecting the Trash Can. Entries may not be modified.