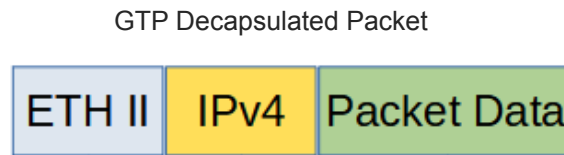
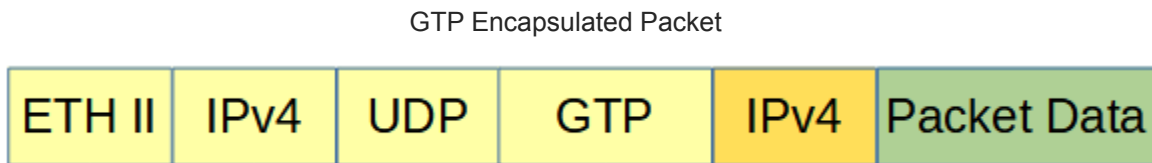


Decapsulate

When a GTP packet is decapsulated the GTP header segments are removed from the packet. A new L2 segment is added as shown below.



Decapsulating all GTP packet(s) involves two configuration procedures.

- Create a flow to strip the GTP header
- Create a TAP Group

Decapsulating the GTP packet(s) per TIED involves three configuration procedures.

- Create a UDF
- Create a flow to strip the GTP header
- Create a TAP Group

This document discusses the procedure to create a flow to strip all GTP headers and the procedure to create the UDF and flow to strip GTP headers per TIED. The procedure to create a TAP Group is discussed in the TAP Group Guide.

Create Flow to Decapsulate All GTP Packets

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

The Add Flow panel will appear.

Add Flow
×

Flow Name

Decap

✓ Add Flow
✕ Close

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

The flow will be displayed.

| TAP Flow Statistics + Add Flow | | | | |
|---|-----------|--------|---------|---------|
| # | Flow Name | Remark | Decap | Options |
| 1 | GTP | N/A | Disable | + 🗑️ |

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 | udp |
| 9. Src-port | enable |
| 10. Type | eq |
| 11. Port | 2152 |
| 12. Dst-port | enable |
| 13. Type | eq |
| 14. Port | 2152 |

Flow Action Options

- | | |
|--------------------|---|
| 15. Strip-header | enable |
| 16. Strip-position | enable |
| 17. Type | L4 |
| 18. Strip-offset | enable |
| 19. Value | 12 |
| 20. Edit packet | enable |
| 21. Edit-macda | enable |
| 22. Dst-mac | Enter the desired address. This will define the destination MAC for the new L2 segment added to the packet. |
| 23. Edit-macsa | enable |
| 24. Src-mac | Enter the desired address. This will define the source MAC for the new L2 segment added to the packet. |
25. Select OK.
26. Select the flow name to display the attributes.

The Flow Entry panel will be displayed

GTP ×

| # | Flow Entry | Options |
|---|---|---|
| 1 | sequence-num 10 permit udp src-port eq 2152 dst-port eq 2152 src-ip any dst-ip any strip-header strip-position 14 strip-offset 12 edit-macda F093.C5F1.A1A1 edit-macsa F093.C5F1.A1A2 |  |

✕ Close

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

Create a UDF and Flow to Decapsulate GTP Packets per TEID

This method utilizes a UDF filter to define the GTP TEID and it must be created prior to creating the Flow.

Create the UDF

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

The Add UDF panel will appear.

Add UDF ×

UDF Type ▼

UDF ID ▼

✓ Add UDF
✕ Close

4. UDF Type I4 header
5. UDF ID Enter the desired number. Range is 0 to 15.
6. Select Add UDF.

The UDF will be displayed.

| UDF Config + Add UDF | | | |
|---|----------|-----------|---------|
| # | UDF Name | UDF Type | Options |
| 1 | 0 | I4 header | |

7. Select the Edit icon under the Options column.

The Edit UDF Entry panel will appear.

Edit UDF Entry x

| | |
|------------------|--------------------------|
| Match Ether Type | <input type="checkbox"/> |
| Ip Protocol | <input type="checkbox"/> |
| Vlan Num | <input type="checkbox"/> |
| Src Port | <input type="checkbox"/> |
| Dst Port | <input type="checkbox"/> |
| Mpls Label Num | <input type="checkbox"/> |
| UDF Offset0 | <input type="checkbox"/> |
| UDF Offset1 | <input type="checkbox"/> |
| UDF Offset2 | <input type="checkbox"/> |
| UDF Offset3 | <input type="checkbox"/> |

8. Ip Protocol enable

9. Protocol udp

10. UDF Offset0 enable

11. Value 12

12. Select OK.

13. Select the UDF name to display the attributes.

The UDF detail panel will be displayed

UDF ID:0 x

| UDF ID | UDF Type | UDF Config |
|--------|-----------|---|
| 0 | I4 header | Udf Index 0 Udf Type : I4 header Udf Match-Field:ip-protocol udp Offset : 12 n a n a n a |

Create the Flow

1. Select TAP Management.

2. Select Flow.

3. Select + Add Flow.

The Add Flow panel will appear.

Add Flow x


Flow Name

Decap

4. Enter the Flow Name.

5. Select Add Flow.

The flow will be displayed.

| TAP Flow Statistics | | | | | + Add Flow |
|---------------------|-----------|--------|---------|---|------------|
| # | Flow Name | Remark | Decap | Options | |
| 1 | GTP | N/A | Disable | +  | |

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

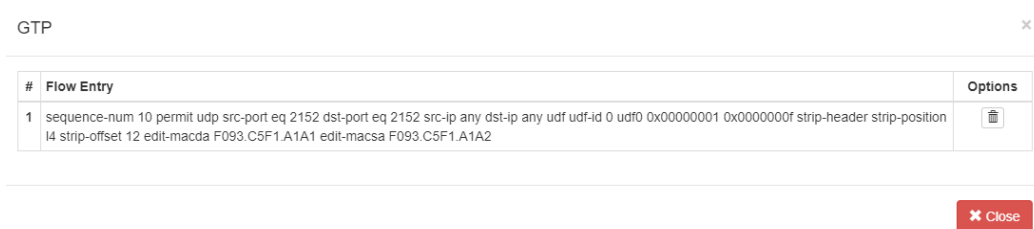
- 7. Action permit
- 8. IP Protocol Number udp
- 9. Src-port enable
- 10. Type eq
- 11. Port 2152
- 12. Dst-port enable
- 13. Type eq
- 14. port 2152
- 15. UDF enable
- 16. Type Layer 4

- 17. UDF ID Enter the number of the previously created UDF.
- 18. Offset Opt Select UDF number
- 19. UDF0 type value
- 20. UDF0 Value Enter the desired GTP TEID value, (0XXXXXXXX)
- 21. UDF0 Wildcard Enter the desired UDF0 Wildcard, (0XXXXXXXX), 0=match exact, F=any value.

Flow Action Options

- 22. Strip-header enable
- 23. Strip-position enable
- 24. Type L4
- 25. Strip-offset enable
- 26. Value 12
- 27. Edit packet enable
- 28. Edit-macda enable
- 29. Dst-mac Enter the desired address. This will define the destination MAC for the new L2 segment added to the packet.
- 30. Edit-macsa enable
- 31. Src-mac Enter the desired address. This will define the source MAC for the new L2 segment added to the packet.
- 32. Select OK.
- 33. 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.