

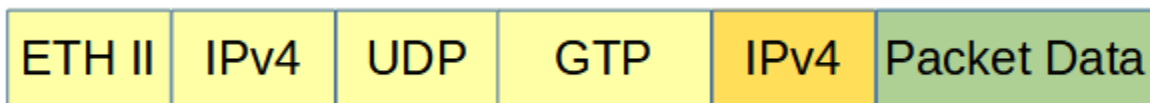
AF1G52AC

GTP Decapsulate

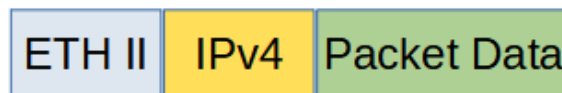
Overview:

When a GTP packet is decapsulated the GTP header segments are removed from the packet. When determining which GTP packets are decapsulated there are two options, all GTP packets or GTP packets with specific TEIDs.

GTP Encapsulated Packet



GTP Decapsulated Packet



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

1. Create a Flow
2. Create a Tap Group

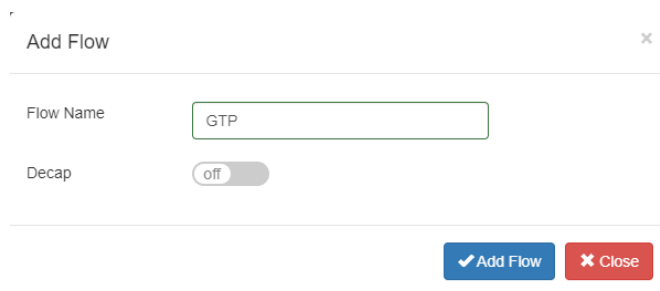
1. Create a Flow

The flow defines which GTP 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.

1.1 Flow - Decapsulate All GTP Packets

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

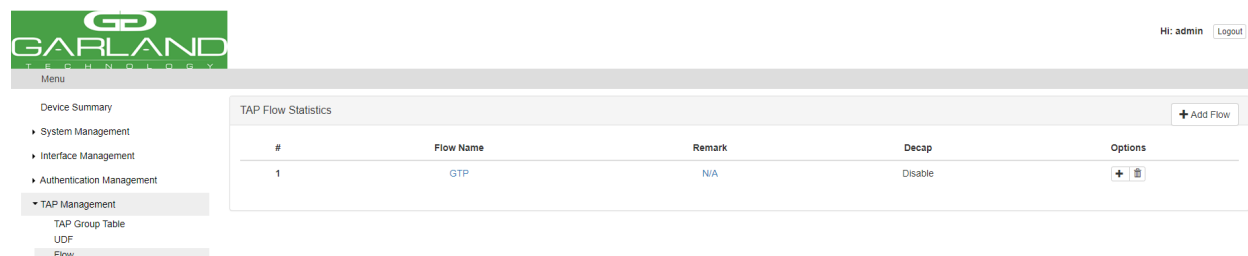
The Add Flow panel will appear.



The screenshot shows a modal window titled "Add Flow" with a close button (X) in the top right corner. Inside the modal, there is a "Flow Name" label followed by a text input field containing the text "GTP". Below this, there is a "Decap" label followed by a toggle switch currently set to "off". At the bottom right of the modal, there are two buttons: a blue button with a checkmark icon and the text "Add Flow", and a red button with an X icon and the text "Close".

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

The flow will be displayed.



The screenshot shows the main dashboard of the AF1G52AC device. On the left is a sidebar menu with the Garland Technology logo at the top. The menu items are: Device Summary, System Management, Interface Management, Authentication Management, and TAP Management (which is expanded). Under TAP Management, there are sub-items: TAP Group Table, UDF, and Flow. The main content area is titled "TAP Flow Statistics" and has an "Add Flow" button in the top right corner. Below the title is a table with the following columns: #, Flow Name, Remark, Decap, and Options. The table contains one row with the following data: # 1, Flow Name GTP, Remark N/A, Decap Disable, and Options (containing a plus icon and a trash icon). In the top right corner of the dashboard, there is a user status bar showing "Hi: admin" and a "Logout" button.

#	Flow Name	Remark	Decap	Options
1	GTP	N/A	Disable	+ 🗑️

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 udp for the IP Protocol Number.

8. Select Src-port.

9. Select eq (equal).

10. Enter 2152.

11. Select Dst-port.

12. Select eq (equal).

13. Enter 2152.

14. Select Strip-header.

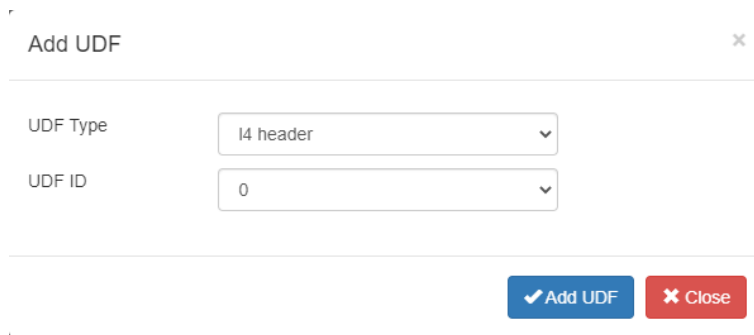
15. Select Strip-position.
16. Select Type, L4.
17. Select Strip-offset.
18. Enter 12.
19. Select Edit packet.
20. Select Edit-macda.
21. Enter the desired destination MAC.
22. Select Edit-macsa.
23. Enter the desired source MAC.
24. Select OK.

1.2 Flow - Decapsulate GTP Packets per GTP TIED

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

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

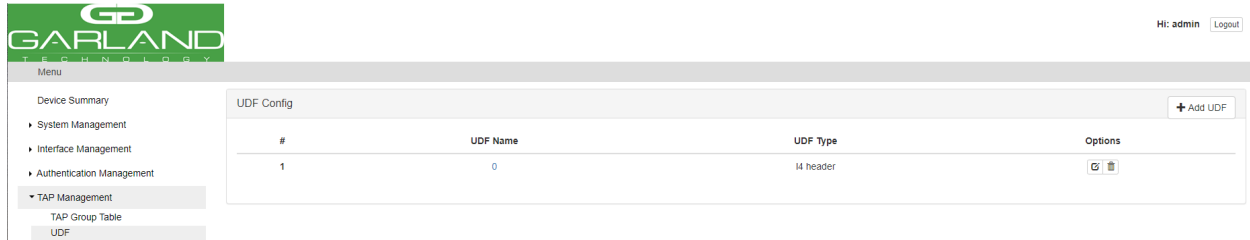
The Add UDF panel will appear.



4. UDF Type, select I4 header.
5. UDF ID, select 0-15.

6. Select Add UDF.

The UDF will be displayed.



7. Select the Edit icon under the Options column.

The Edit UDF entry panel will appear.

The 'Edit UDF Entry' modal form contains the following fields and controls:

- Match Ether Type: ☐ off
- Ip Protocol: ☒ on
- Protocol:
- Vlan Num:
- Src Port:
- Dst Port:
- Mpls Label Num:
- UDF Offset0: ☒ on
- Value:
- UDF Offset1: ☐ off
- UDF Offset2: ☐ off
- UDF Offset3: ☐ off

At the bottom right are 'OK' and 'Close' buttons.

8. Select Ip Protocol.

9. Select udp.

10. Select UDF Offset0.

11. Value, 12.

12. Select OK.

13. Select + Add Flow.

The Add Flow panel will appear.

Add Flow

Flow Name

Decap
☐ off

14. Enter the Flow Name.

15. Select Add Flow.

The flow will be displayed.

Hi: admin Logout

Menu

Device Summary
System Management
Interface Management
Authentication Management
TAP Management
TAP Group Table
UDF
Flow

TAP Flow Statistics

#	Flow Name	Remark	Decap	Options
1	GTP	N/A	Disable	+ ✕

16. 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 ☐

Action

IP protocol number

Filter Type

Ether Type ☐

Src-ip ☐

Dst-ip ☐

DSCP ☐

ip-precedence ☐

Options ☐

Fragment ☐

Src-port

Type

Port

Dst-port

Type

Port

Src-mac ☐

Dst-mac ☐

QoS ☐

Inner QoS ☐

VLAN ☐

Inner VLAN ☐

UDP ☐

Type

UDP ID

Offset Opt ☒ set0

UDF0 type

UDF0 Value

UDF0 Wildcard

Vlan-VNI ☐

Action

Strip-header ☐

Strip-position ☐

Type

Strip-offset ☐

Value

Vlan mark ☐

Edit packet ☐

Add-macaddr ☐

Edit-macda ☐

Dst-mac

Edit-macsa ☐

Src-mac

Edit-ipda ☐

Edit-ipsa ☐

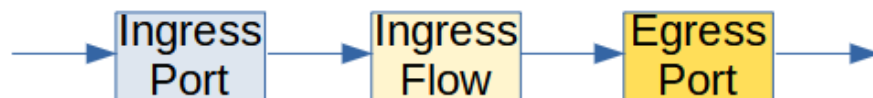
Edit-vlan ☐

7. Under Match Rule select udp for the IP Protocol Number.
8. Select Src-port.
9. Select eq (equal).
10. Enter 2152.

11. Select Dst-port.
12. Select eq (equal).
13. Enter 2152.
14. Select UDF.
15. Select Type, L4.
16. UDF ID, select the previously created UDF.
17. Select Offset Opt.
18. Select UDF0 type, value.
19. Enter the desired GTP TEID value, (0XXXXXXXX)
20. Enter the desired UDF0 Wildcard, (0XXXXXXXX), 0=match exact, F=any value.
21. Select Strip-header.
22. Select Strip-position.
23. Select Type, L4.
24. Enter Value, 12.
25. Select Edit packet.
26. Select Edit-macda.
27. Enter the desired destination MAC.
28. Select Edit-macsa.
29. Enter the desired source MAC.
30. 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

GTP

TAP Group ID

0

OK

Close

4. Enter the TAP Group Name.

5. Select OK.

The Tap Group will be displayed.

Hi: admin | Logout

Menu

Device Summary

System Management

Interface Management

Authentication Management

TAP Management

TAP Group Table

TAP Statistics

+ Add TAP Group

Truncation

Timestamp

#	TAP Id	TAP Group Name	TAP Group Description	TAP Group truncation	Options
1	10	GTP	N/A	NO	

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.

GTP

Ingress

Egress

+ Add

#	Port	Flow Match	Untag	Vlan mark	Truncation	Edit-macda	Edit-macsa	Edit-ipda	Edit-ipsa	Edit-vlan	Options
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Close

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

The add panel will appear.

The screenshot shows a 'GTP' configuration window with the following settings:

- Direction: ingress
- Port: eth-0-1
- Truncation: off
- Untag: Disable
- Vlan mark: off
- Flow Match: on
- Flow: GTP

At the bottom right, there are 'OK' and 'Close' buttons.

8. Select the Direction, ingress.

9. Select the desired ingress port.

10. Select Flow Match.

11. Select the GTP flow.

12. Select OK.

The screenshot shows the 'GTP' configuration window with a table of ingress rules. The table has columns for #, Port, Flow Match, Untag, Vlan mark, Truncation, Edit-macda, Edit-macsa, Edit-ipda, Edit-ipsa, Edit-vlan, and Options. There is one rule listed with #1, Port eth-0-1, Flow Match GTP, and other default settings.

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

At the bottom right, there is a 'Close' button.

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

The add panel will appear.

The screenshot shows a 'GTP' configuration window with the following settings:

- Direction: egress
- Port: eth-0-2
- Timestamp: off

At the bottom right, there are 'OK' and 'Close' buttons.

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

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

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.