

AA100G64

MPLS Decapsulate

Overview:

When MPLS labels are removed from packets there are two options. Removing MPLS labels is not supported if Match Mode is enabled.

Option 1 - "all". This option is used to remove the MPLS label from packets with only 1 MPLS label.

1 N	/IPLS Labe	el Pack	et			
	ETH II	MP	LS	IPv4	Packe	et Data
MF	PLS Label	Remov	/ed			
	ET	ΉШ	IPv4	1 Pa	icket Da	ıta

Option 2 – "once". This option is used to remove the first MPLS label from packets with 2 or 3 MPLS labels.

2 MPLS Label Packet



First MPLS Label Removed



Removing an MPLS label from packets involves three configuration processes.

- 1. Create a 1 MPLS Label Pass Filter or 2 MPLS Label Pass Filter
- 2. Create an All Action or Once Action
- 3. Create a Mapping Rule



1. Create a 1 MPLS Label Pass Filter

The pass filter defines which packets will have MPLS label removed. Packets that do not meet the pass filter attributes will not the have MPLS label removed. In some cases, it may be required to create more than 1 pass filter.

- 1. Select Mapping.
- 2. Select Pass Filter.
- 3. Select the GREEN + to create a new pass filter.

The Add Pass Filter panel will appear.

ilter				
	MPLS_One			
	MAC Address	IPv4 IP Address	IPv6 IP Address	GRE Tunnel
	L2GRE Tunnel	VXLAN Tunnel	Transit L2GRE Tu	nnel
	Transit VXLAN 1	funnel MPLS	ICMP ARP	RARP
	Match Value			•
~	12345			×
~	7			×
~	0x8847			
	*	MPLS_One MAC Address L2GRE Tunnel Transit VXLAN Match Value 12345 V 7	MPLS_One MAC Address L2GRE Tunnel VXLAN Tunnel Transit VXLAN Tunnel MPLS Match Value 12345 7	MPLS_One MAC Address IPv4 IP Address IPv6 IP Address L2GRE Tunnel VXLAN Tunnel Transit L2GRE Tu Transit VXLAN Tunnel MPLS ICMP ARP Match Value 12345 7

- 4. Select the MPLS template. When MPLS is selected the pass filter will automatically display the required options; mpls_label, mpls_tc and dl_type. The dl_type is already defined as 0x8847.
- 5. Enter the Name.
- 6. Enter the MPLS label number found in the MPLS label to be removed, (1-1048571).
- 7. Enter the MPLS Traffic Class found in the MPLS label to be removed, (0-7). The traffic class in the MPLS label in dispalyed in binary, (000-111).
- 9. Select Save Changes.



Create a 2 MPLS Label Pass Filter

The pass filter defines which packets will have MPLS label removed. Packets that do not meet the pass filter attributes will not the have MPLS label removed. In some cases, it may be required to create more than 1 pass filter.

- 1. Select Mapping.
- 2. Select Pass Filter.
- 3. Select the GREEN + to create a new pass filter.

The Add Pass Filter panel will appear.

Name		MPLS_Two				
Template		MAC Address	IPv4 IP Address	IPv6 IP Address	GRE Tunnel	
		L2GRE Tunnel	VXLAN Tunnel	Transit L2GRE T	unnel	
		Transit VXLAN T	unnel MPLS	ICMP ARP	RARP	
Match Field		Match Value				ł
mpls_label	~	12345				,
mpls_tc	~	7				,
dl_type	~	0x8847				,
mala Jahal2		23456				

- Select the MPLS template. When MPLS is selected the pass filter will automatically display the required options; mpls_label, mpls_tc, and dl_type. The dl_type is already defined as 0x8847.
- 5. Using the GREEN + add the mpls_label2 Match Field.
- 6. Enter the Name.
- 7. Enter the MPLS label number found in the first MPLS label, (1-1048571).
- 8. Enter the MPLS Traffic Class found in the first MPLS label, (0-7). The traffic class in the MPLS label in dispalyed in binary, (000-111).
- 9. Enter the MPLS label number found in the second MPLS label, (1-1048571).
- 10. Select Save Changes.



2. Create an All Action

The action provides the ability for the MPLS label to be removed from packets with 1 MPLS label.

- 1. Select Mapping.
- 2. Select Action.
- 3. Select the GREEN + to create an action.

The Add Action panel will appear.

Add Action		x
Name	MPLS_all	
Action Field	Action Value	•
pop_mpls 🗸 🗸	All	× ×
		Close Save changes

- 4. Enter the Name.
- 5. Select the Action Field, pop_mpls.
- 6. Select the Action Value, All.
- 7. Select Save Changes.



Create a Once Action

The action provides the ability for the first MPLS label to be removed from packets with 2 or more MPLS labels.

- 1. Select Mapping.
- 2. Select Action.
- 3. Select the GREEN + to create an action.

The Add Action panel will appear.

Add Action		x
Name	MPLS_Once	
Action Field	Action Value	•
pop_mpls 🗸	Once	× ×
		Close Save changes

- 4. Enter the Name.
- 5. Select the Action Field, pop_mpls.
- 6. Select the Action Value, Once.
- 7. Select Save Changes.



3. Create a Mapping Rule

The Mapping Rule defines the ingress port, pass filter, action, and egress port.



- 1. Select Mapping.
- 2. Select Mapping Rules.
- 3. Select the GREEN + to create a new mapping rule.

The Add Mapping Rule panel will appear.

Sequence:	1	
Ingress Port:	te-1/1/1	v
Egress Port:	te-1/1/2	v
Pass Filter:	MPLS_One	v
Action:	MPLS_all	~

- 4. Enter the Sequence number. The range 1-1000. The sequence number defines the priority of the mapping rule. The priority is established based on the highest number to the lowest number.
- 5. Select the Ingress Port.
- 6. Select the Egress Port.
- 7. Select the Pass Filter, 1 MPLS label, or 2 MPLS label.
- 8. Select the Action, All or Once.
- 9. Select Save Changes.

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