

TeraFlow
SDN
by ETSI

Hackfest #4: Challenges

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1 - Change WebUI license

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Correct version:

2022-2024 ETSI OSG/SDG TeraFlowSDN (TFS)

2 - Modify Device upload

Configuration Rules

connect/address

127.0.0.1

connect/port

0

connect/settings

{}

3 - Correct Component-reference inventory parameter

/inventory/IOSXR-PKG/2 xrv9k-xr-7.11.1



4 - Remove inventory config rules

| Configurations: | |
|---------------------------------------|---|
| Key | Value |
| _connect/address | <ul style="list-style-type: none"> • 192.168.159.32 <input type="button" value="edit"/> <input type="button" value="remove"/> |
| _connect/port | <ul style="list-style-type: none"> • 830 <input type="button" value="edit"/> <input type="button" value="remove"/> |
| /inventory/0/0-Virtual-Motherboard | <ul style="list-style-type: none"> • attributes: {'description': 'Cisco IOS-XRv 9000 Virtual LC Motherboard', 'empty': 'false', 'location': '0/0', 'removable': 'false'} • class: • component-reference: [4, 'idx:LINECARD', ''] • name: 0/0-Virtual-Motherboard • parent-component-references: 0/0 <input type="button" value="edit"/> <input type="button" value="remove"/> |
| /inventory/0/0-Ether Port container 0 | <ul style="list-style-type: none"> • attributes: {'description': 'Port Container for port0', 'empty': 'false', 'location': '0/0', 'removable': 'false'} • class: • component-reference: [5, ''] • name: 0/0-Ether Port container 0 • parent-component-references: 0/0-Virtual-Motherboard <input type="button" value="edit"/> <input type="button" value="remove"/> |
| /inventory/0/0/0 | <ul style="list-style-type: none"> • attributes: {'description': 'N/A', 'empty': 'false', 'hardware-rev': 'N/A', 'location': '0/0/0', 'manufacturer-name': 'CISCO SYSTEMS, INC', 'removable': 'true', 'serial-num': 'N/A', 'software-rev': '7.11.1'} • class: idx:FRU • component-reference: [6, ''] • name: 0/0/0 • parent-component-references: 0/0-Ether Port container 0 <input type="button" value="edit"/> <input type="button" value="remove"/> |
| /inventory/0/0/0-Virtual-Board | <ul style="list-style-type: none"> • attributes: {'description': 'Cisco IOS-XRv 9000 Virtual 1G Module', 'empty': 'false', 'location': '0/0/0', 'removable': 'false'} • class: • component-reference: [7, 'idx:FRU', ''] • name: 0/0/0-Virtual-Board • parent-component-references: 0/0/0 <input type="button" value="edit"/> <input type="button" value="remove"/> |

5 - Remove endpoints config rules

| Configurations: | |
|---|--|
| Key | Value |
| _connect/address | <ul style="list-style-type: none"> • 192.168.159.32 <input type="button" value=""/> <input type="button" value="X"/> |
| _connect/port | <ul style="list-style-type: none"> • 830 <input type="button" value=""/> <input type="button" value="X"/> |
| /endpoints/endpoint[0/0/1-GigabitEthernet0/0/0/1] | <ul style="list-style-type: none"> • sample_types: {'101': '//oci:interfaces/oci:interface[oci:name='0/0/1-GigabitEthernet0/0/0/1']/state/counters/out-pkts', '102': '//oci:interfaces/oci:interface[oci:name='0/0/1-GigabitEthernet0/0/0/1']/state/counters/in-pkts', '201': '//oci:interfaces/oci:interface[oci:name='0/0/1-GigabitEthernet0/0/0/1']/state/counters/out-octets', '202': '//oci:interfaces/oci:interface[oci:name='0/0/1-GigabitEthernet0/0/0/1']/state/counters/in-octets'} • type: - • uuid: 0/0/1-GigabitEthernet0/0/0/1 <input type="button" value=""/> <input type="button" value="X"/> |
| /endpoints/endpoint[0/0/1-SFP Socket] | <ul style="list-style-type: none"> • sample_types: {'101': '//oci:interfaces/oci:interface[oci:name='0/0/1-SFP Socket']/state/counters/out-pkts', '102': '//oci:interfaces/oci:interface[oci:name='0/0/1-SFP Socket']/state/counters/in-pkts', '201': '//oci:interfaces/oci:interface[oci:name='0/0/1-SFP Socket']/state/counters/out-octets', '202': '//oci:interfaces/oci:interface[oci:name='0/0/1-SFP Socket']/state/counters/in-octets'} • type: - • uuid: 0/0/1-SFP Socket <input type="button" value=""/> <input type="button" value="X"/> |
| /endpoints/endpoint[0/0/2-GigabitEthernet0/0/0/2] | <ul style="list-style-type: none"> • sample_types: {'101': '//oci:interfaces/oci:interface[oci:name='0/0/2-GigabitEthernet0/0/0/2']/state/counters/out-pkts', '102': '//oci:interfaces/oci:interface[oci:name='0/0/2-GigabitEthernet0/0/0/2']/state/counters/in-pkts', '201': '//oci:interfaces/oci:interface[oci:name='0/0/2-GigabitEthernet0/0/0/2']/state/counters/out-octets', '202': '//oci:interfaces/oci:interface[oci:name='0/0/2-GigabitEthernet0/0/0/2']/state/counters/in-octets'} <input type="button" value=""/> <input type="button" value="X"/> |

6 - Extend Logical Inventory: interfaces

Example on Device 3.3.3.3



/routing_policy/policy_definition[PASS_ALL]

- **policy_name:** PASS_ALL

Buttons: Edit (grey), Delete (red)

- ▼ Routing Policy
 - ▶ PASS_ALL

Example on physical router:

- ▼ Routing Policy
 - ▼ srv_ACLr
 - {"ext_community_set_name": "set_srv_ACLr"}
 - {"ext_community_member": "65000:533", "ext_community_set_name": "set_srv_ACLr"}
 - ▶ srv_ACL
 - ▶ import_export_1_import_policy
 - ▶ import_export_1_export_policy
 - ▶ Undefined

7 - Add new BGP TLV

It is proposed to add a new TLV in BGP to display latency data:

- 1) Design the format of the TLV
- 2) Indicate how it would be added in BGP
- 3) Indicate how it would be processed in TFS.

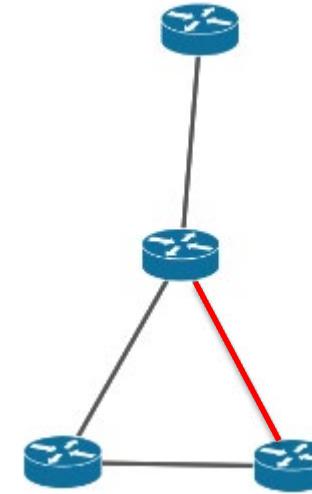
(It is not necessary to program TFS to display the changes)

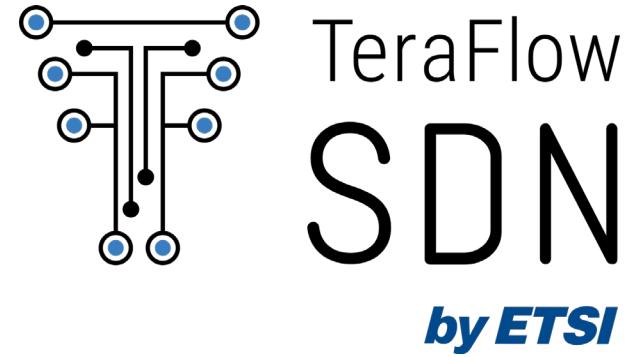
8 - Manage link deactivation

Current topology



Withdraw BGP message





Thank You all for
your participation!