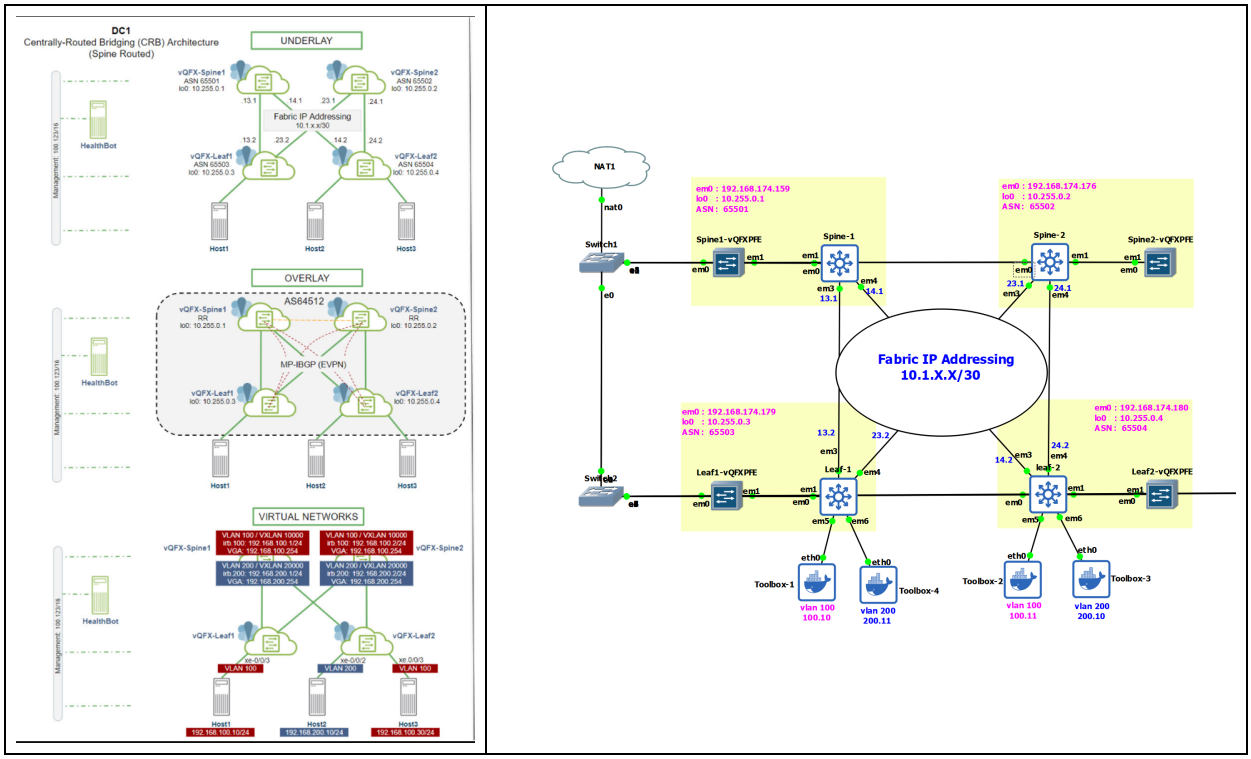
IP Fabric with EVPN-VXLAN

Notebook:	juniper qfx		
Created:	9/1/2020 3:50 PM	**Updated:**	2/23/2021 3:41 PM
Author:	Abdulilah		
URL:	https://www.juniper.net/documentation/en_US/junos/topics/reference/configuration-statement/mtu-discovery-edit-protocols-bgp.html		

VXLAN-vQFX_2



vxlan-vqfx_IRB.xlsx
12/8/2020 2:38 PM, 15.6 KB

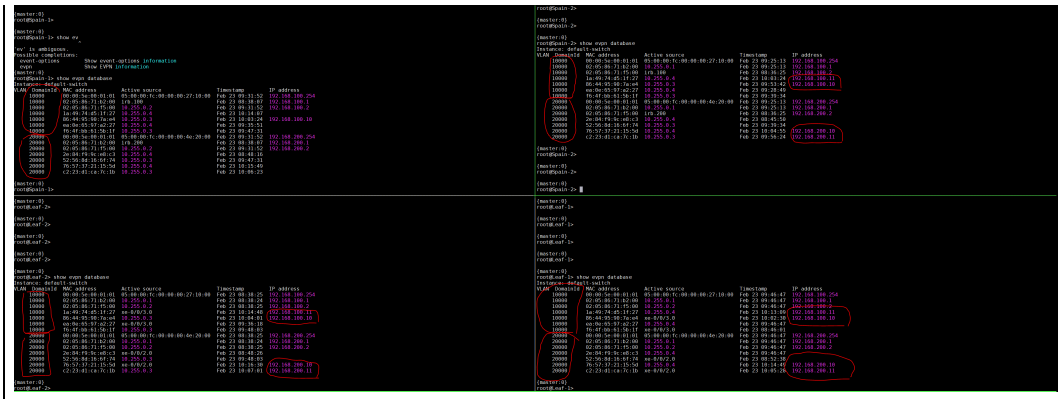
	persistent
Ubuntu docker	/bin /boot /dev /etc /home /lib /lib64 /media /mnt /opt /run /sbin

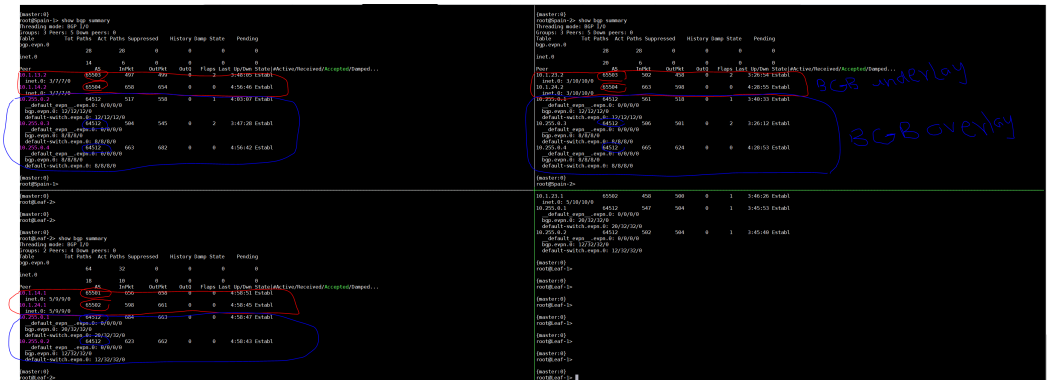
	/srv /sys /usr /var

	all node	git
archive	set system archival configuration transfer-on-commit set system archival configuration archive-sites "ftp://root@192.168.174.170/lab/juniper/VXLAN-vQFX_2" password "gns3"	
archive path	/root/lab/juniper/VXLAN-vQFX_2	/root/lab/juniper/
Github	https://github.com/baltah666/LabForLearning/tree/master/juniper/VXLAN-vQFX_2	

	Spine__AS65501____10.255.0.1	Spine__AS65502____10.255.0.2	leaf1_AS65503____1
BGB_Underlay	set protocols bgp group IPCLOS_eBGP type external set protocols bgp group IPCLOS_eBGP mtu-discovery set protocols bgp group IPCLOS_eBGP import IPCLOS_BGP_IMP set protocols bgp group IPCLOS_eBGP export IPCLOS_BGP_EXP set protocols bgp group IPCLOS_eBGP local-as 65501 set protocols bgp group IPCLOS_eBGP multipath multiple-as set protocols bgp group IPCLOS_eBGP neighbor 10.1.13.2 description "EBGP peering to Leaf1" set protocols bgp group IPCLOS_eBGP neighbor 10.1.13.2 peer-as 65503 set protocols bgp group IPCLOS_eBGP neighbor 10.1.14.2 description "EBGP peering to Leaf2" set protocols bgp group IPCLOS_eBGP neighbor 10.1.14.2 peer-as 65504	set protocols bgp group IPCLOS_eBGP type external set protocols bgp group IPCLOS_eBGP mtu-discovery set protocols bgp group IPCLOS_eBGP import IPCLOS_BGP_IMP set protocols bgp group IPCLOS_eBGP export IPCLOS_BGP_EXP set protocols bgp group IPCLOS_eBGP local-as 65502 set protocols bgp group IPCLOS_eBGP multipath multiple-as set protocols bgp group IPCLOS_eBGP neighbor 10.1.23.2 description "EBGP peering to Leaf1" set protocols bgp group IPCLOS_eBGP neighbor 10.1.23.2 peer-as 65503 set protocols bgp group IPCLOS_eBGP neighbor 10.1.24.2 description "EBGP peering to Leaf2" set protocols bgp group IPCLOS_eBGP neighbor 10.1.24.2 peer-as 65504	set protocols bgp group IPCLOS_eB external set protocols bgp group IPCLOS_eB discovery set protocols bgp group IPCLOS_eB IPCLOS_BGP_IMP set protocols bgp group IPCLOS_eB IPCLOS_BGP_EXP set protocols bgp group IPCLOS_eB 65503 set protocols bgp group IPCLOS_eB multiple-as set protocols bgp group IPCLOS_eB **10.1.13.1** description "EBGP peering set protocols bgp group IPCLOS_eB **10.1.13.1** peer-as 65501 set protocols bgp group IPCLOS_eB **10.1.23.1** description "EBGP peering set protocols bgp group IPCLOS_eB **10.1.23.1** peer-as 65502
BGB_Overlay	set protocols bgp group OVERLAY type internal set protocols bgp group OVERLAY local-address 10.255.0.1 set protocols bgp group OVERLAY family evpn signaling set protocols bgp group OVERLAY cluster 10.255.0.10 set protocols bgp group OVERLAY multipath set protocols bgp group OVERLAY neighbor **10.255.0.3** description "IBGP/overlay peering to Leaf1" set protocols bgp group OVERLAY neighbor **10.255.0.4** description "IBGP/overlay peering to Leaf2" set protocols bgp group OVERLAY_RR_MESH type internal set protocols bgp group OVERLAY_RR_MESH local-address **10.255.0.1** set protocols bgp group OVERLAY_RR_MESH family evpn signaling set protocols bgp group OVERLAY_RR_MESH neighbor **10.255.0.2** description "IBGP/overlay peering to Spine2"	set protocols bgp group OVERLAY type internal set protocols bgp group OVERLAY local-address 10.255.0.2 set protocols bgp group OVERLAY family evpn signaling set protocols bgp group OVERLAY cluster 10.255.0.10 set protocols bgp group OVERLAY multipath set protocols bgp group OVERLAY neighbor **10.255.0.3** description "IBGP/overlay peering to Leaf1" set protocols bgp group OVERLAY neighbor **10.255.0.4** description "IBGP/overlay peering to Leaf2" set protocols bgp group OVERLAY_RR_MESH type internal set protocols bgp group OVERLAY_RR_MESH local-address **10.255.0.2** set protocols bgp group OVERLAY_RR_MESH family evpn signaling set protocols bgp group OVERLAY_RR_MESH neighbor **10.255.0.1** description "IBGP/overlay peering to Spine1" **set protocols bgp group IPCLOS_eBGP mtu-discovery**	set protocols bgp group OVERLAY t set protocols bgp group OVERLAY l 10.255.0.3 set protocols bgp group OVERLAY f signaling set protocols bgp group OVERLAY n **10.255.0.1** description "IBGP/overla Spine1" set protocols bgp group OVERLAY n **10.255.0.2** description "IBGP/overla Spine2"

	show evpn database





	spine1	spine2	leaf1_10.255.0.3	leaf2
spine1	**vtep.32768** Logical interface vtep.32768 (Index 552) (SNMP ifIndex 561) Flags: Up SNMP-Traps 0x4000 Encapsulation: ENET2 Ethernet segment value: 00:00:00:00:00:00:00:00:00:00, Mode: single-homed, Multi-homed status: Forwarding VXLAN Endpoint Type: Source, VXLAN Endpoint Address: 10.255.0.1, L2 Routing Instance: default-switch, L3 Routing Instance: default **Input packets : 0** **Output packets: 0**	**vtep.32769** Logical interface vtep.32769 (Index 571) (SNMP ifIndex 562) Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.2, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 25555 Output packets: 27452 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode	**vtep.32771** Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.3, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 13599 Output packets: 26946 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode	**vtep.32770** Logical interface vtep.32770 (Index 572) (SNMP ifIndex 563) Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.4, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 16581 Output packets: 15374 Protocol eth-switch, MTU: Unlimited Flags: Is-Primary, Trunk-Mode
spine2	vtep.32770 Logical interface vtep.32770 (Index 572) (SNMP ifIndex 563) Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.1, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 41666 Output packets: 13167 Protocol eth-switch, MTU: Unlimited Flags: Is-Primary, Trunk-Mode	**vtep.32768** Logical interface vtep.32768 (Index 554) (SNMP ifIndex 561) Flags: Up SNMP-Traps 0x4000 Encapsulation: ENET2 Ethernet segment value: 00:00:00:00:00:00:00:00:00:00, Mode: single-homed, Multi-homed status: Forwarding VXLAN Endpoint Type: Source, VXLAN Endpoint Address: 10.255.0.2, L2 Routing Instance: default-switch, L3 Routing Instance: default **Input packets : 0** **Output packets: 0**	vtep.32769 Logical interface vtep.32769 (Index 571) (SNMP ifIndex 562) Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.3, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 17 Output packets: 25991 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode	vtep.32771 Logical interface vtep.32771 (Index 573) (SNMP ifIndex 564) Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.4, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 206 Output packets: 17919 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode
leaf1	**vtep.32769** Logical interface vtep.32769 (Index 569) (SNMP ifIndex 560)	**vtep.32770** Logical interface vtep.32770 (Index 570) (SNMP ifIndex 561)	**vtep.32768** Logical interface vtep.32768 (Index 553) (SNMP ifIndex 559)	**vtep.32771** Logical interface vtep.32771 (Index 571) (SNMP ifIndex 562)

	Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: **10.255.0.1,** L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 12336 Output packets: 13383 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode	Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: **10.255.0.2**, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 11398 Output packets: 364 Protocol eth-switch, MTU: Unlimited	Flags: Up SNMP-Traps 0x4000 Encapsulation: ENET2 Ethernet segment value: 00:00:00:00:00:00:00:00:00:00, Mode: single-homed, Multi-homed status: Forwarding VXLAN Endpoint Type: Source, VXLAN Endpoint Address: **10.255.0.3, L2** Routing Instance: default-switch, L3 Routing Instance: default **Input packets : 0** **Output packets: 0**	Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.4, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 25403 Output packets: 26152 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode
leaf2	vtep.32769 Logical interface vtep.32769 (Index 569) (SNMP ifIndex 542) Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.1, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 15150 Output packets: 28887 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode	vtep.32770 Logical interface vtep.32770 (Index 570) (SNMP ifIndex 543) Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.3, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 27954 Output packets: 27996 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode	vtep.32771 Logical interface vtep.32771 (Index 571) (SNMP ifIndex 544) Flags: Up SNMP-Traps Encapsulation: ENET2 VXLAN Endpoint Type: Remote, VXLAN Endpoint Address: 10.255.0.2, L2 Routing Instance: default-switch, L3 Routing Instance: default Input packets : 16323 Output packets: 13792 Protocol eth-switch, MTU: Unlimited Flags: Trunk-Mode	**vtep.32768** Logical interface vtep.32768 (Index 550) (SNMP ifIndex 559) Flags: Up SNMP-Traps 0x4000 Encapsulation: ENET2 Ethernet segment value: 00:00:00:00:00:00:00:00:00:00, Mode: single-homed, Multi-homed status: Forwarding VXLAN Endpoint Type: Source, VXLAN Endpoint Address: 10.255.0.4, L2 Routing Instance: default-switch, L3 Routing Instance: default **Input packets : 0** **Output packets: 0**

VQFX-Spain-1

```
set version 18.1R3-S5.3
set system host-name Spine1
set system root-authentication encrypted-password
"$6$qof52BzI$Mt9G322859Vd5UEETw13aEOAo9sLCsmqottP/vwejzaNqpVkeyrkmTQAL2sUc1joyUxL.8f1qO4
set system login user jcluser uid 2000
set system login user jcluser class super-user
set system login user jcluser authentication encrypted-password
"$6$XeoPVCvj$I5gW5wkIXxdUn/m.TFeV19GInoPlrS2sFN7yvotyrtR1/aRF8R/NVeT41NDZnf5651P2RbGp0yey
set system services ssh root-login allow
set system services telnet
set system services netconf ssh
set system syslog user * any emergency
set system syslog file messages any notice
set system syslog file messages authorization info
set system syslog file interactive-commands interactive-commands any
set system extensions providers juniper license-type juniper deployment-scope commercial
set system extensions providers chef license-type juniper deployment-scope commercial
set system ntp server 100.123.0.1

set interfaces xe-0/0/0 description "to leaf1"
set interfaces xe-0/0/0 mtu 9192
set interfaces xe-0/0/0 unit 0 family inet address 10.1.13.1/30
set interfaces xe-0/0/1 description "to leaf2"
set interfaces xe-0/0/1 mtu 9192
set interfaces xe-0/0/1 unit 0 family inet address 10.1.14.1/30
set interfaces xe-0/0/2 unit 0
set interfaces xe-0/0/3 unit 0
```

```
set interfaces xe-0/0/4 unit 0
set interfaces xe-0/0/5 unit 0
set interfaces xe-0/0/6 unit 0
set interfaces xe-0/0/7 unit 0

set interfaces em0 unit 0 family inet address 100.123.13.201/16

set interfaces em1 unit 0 family inet address 169.254.0.2/24

set interfaces irb unit 100 proxy-macip-advertisement
set interfaces irb unit 100 virtual-gateway-accept-data
set interfaces irb unit 100 family inet address 192.168.100.1/24 preferred
set interfaces irb unit 100 family inet address 192.168.100.1/24 virtual-gateway-address 192.168.100.254

set interfaces irb unit 200 proxy-macip-advertisement
set interfaces irb unit 200 virtual-gateway-accept-data
set interfaces irb unit 200 family inet address 192.168.200.1/24 preferred
set interfaces irb unit 200 family inet address 192.168.200.1/24 virtual-gateway-address 192.168.200.254

set interfaces lo0 unit 0 family inet address 10.255.0.1/32




set policy-options policy-statement IPCLOS_BGP_EXP term loopback from protocol direct
set policy-options policy-statement IPCLOS_BGP_EXP term loopback from protocol bgp
set policy-options policy-statement IPCLOS_BGP_EXP term loopback then accept
set policy-options policy-statement IPCLOS_BGP_EXP term default then reject
set policy-options policy-statement IPCLOS_BGP_IMP term loopback from protocol bgp
set policy-options policy-statement IPCLOS_BGP_IMP term loopback from protocol direct
set policy-options policy-statement IPCLOS_BGP_IMP term loopback then accept
set policy-options policy-statement IPCLOS_BGP_IMP term default then reject
set policy-options policy-statement PFE-LB then load-balance per-packet




set snmp community public authorization read-only
set forwarding-options storm-control-profiles default all
#set routing-options static route 100.123.0.0/16 next-hop 100.123.0.1
set routing-options static route 0.0.0.0/0 next-hop 100.123.0.1
set routing-options router-id 10.255.0.1
set routing-options autonomous-system 64512
set routing-options forwarding-table export PFE-LB
set routing-options forwarding-table ecmp-fast-reroute

set protocols bgp log-updown
set protocols bgp graceful-restart

set protocols bgp group IPCLOS_eBGP type external
set protocols bgp group IPCLOS_eBGP mtu-discovery
set protocols bgp group IPCLOS_eBGP import IPCLOS_BGP_IMP
```

```
set protocols bgp group IPCLOS_eBGP export IPCLOS_BGP_EXP
set protocols bgp group IPCLOS_eBGP local-as 65501
set protocols bgp group IPCLOS_eBGP multipath multiple-as
set protocols bgp group IPCLOS_eBGP neighbor 10.1.13.2 description "EBGP peering to Leaf1"
set protocols bgp group IPCLOS_eBGP neighbor 10.1.13.2 peer-as 65503
set protocols bgp group IPCLOS_eBGP neighbor 10.1.14.2 description "EBGP peering to Leaf2"
set protocols bgp group IPCLOS_eBGP neighbor 10.1.14.2 peer-as 65504

set protocols bgp group OVERLAY type internal
set protocols bgp group OVERLAY local-address 10.255.0.1
set protocols bgp group OVERLAY family evpn signaling
set protocols bgp group OVERLAY cluster 10.255.0.10
set protocols bgp group OVERLAY multipath
set protocols bgp group OVERLAY neighbor 10.255.0.3 description "IBGP/overlay peering to Leaf1"
set protocols bgp group OVERLAY neighbor 10.255.0.4 description "IBGP/overlay peering to Leaf2"
set protocols bgp group OVERLAY_RR_MESH type internal
set protocols bgp group OVERLAY_RR_MESH local-address 10.255.0.1
set protocols bgp group OVERLAY_RR_MESH family evpn signaling
set protocols bgp group OVERLAY_RR_MESH neighbor 10.255.0.2 description "IBGP/overlay peering to Spir

set protocols evpn encapsulation vxlan
set protocols evpn default-gateway no-gateway-community
set protocols evpn extended-vni-list all

set protocols lldp interface all
set protocols igmp-snooping vlan default



set switch-options vtep-source-interface lo0.0
set switch-options route-distinguisher 10.255.0.1:1
set switch-options vrf-target target:64512:1111
set switch-options vrf-target auto

set vlans VNI_10000 vlan-id 100
set vlans VNI_10000 l3-interface irb.100
set vlans VNI_10000 vxlan vni 10000
set vlans VNI_20000 vlan-id 200
set vlans VNI_20000 l3-interface irb.200
set vlans VNI_20000 vxlan vni 20000
set vlans default vlan-id 1
```

Leaf-1

```
set version 18.1R3-S5.3
set system host-name Leaf1
set system root-authentication encrypted-password
"$6$N.olvWXe$bre63i2oxPcMYkWxX7rmAStuvvnjlPcKDUZ.6laUqp.G6Ywo/8RfDgvCyp6BHTTGxOy2XFb4LSX
set system login user jcluser uid 2000
set system login user jcluser class super-user
```

```
set system login user jcluser authentication encrypted-password
"$6$0L1vpE3h$lifJp5SXAKGH7HjlkQ2y3TNBdshF2scac8I6dSqQQwu11k2EQOd3Faa1OtaSCFJ8kAQaBODzck8
set system services ssh root-login allow
set system services telnet
set system services netconf ssh
set system syslog user * any emergency
set system syslog file messages any notice
set system syslog file messages authorization info
set system syslog file interactive-commands interactive-commands any
set system extensions providers juniper license-type juniper deployment-scope commercial
set system extensions providers chef license-type juniper deployment-scope commercial
set system ntp server 100.123.0.1


set interfaces xe-0/0/0 description "to spine1"
set interfaces xe-0/0/0 mtu 9192
set interfaces xe-0/0/0 unit 0 family inet address 10.1.13.2/30

set interfaces xe-0/0/1 description "to spine2"
set interfaces xe-0/0/1 mtu 9192
set interfaces xe-0/0/1 unit 0 family inet address 10.1.23.2/30

set interfaces xe-0/0/3 unit 0 family ethernet-switching vlan members VNI_10000

#set interfaces em0 unit 0 family inet address 100.123.13.203/16
#set interfaces em1 unit 0 family inet address 169.254.0.2/24
set interfaces lo0 unit 0 family inet address 10.255.0.3/32

set snmp community public authorization read-only
set forwarding-options storm-control-profiles default all
set routing-options static route 100.123.0.0/16 next-hop 100.123.0.1
set routing-options static route 0.0.0.0/0 next-hop 100.123.0.1
set routing-options router-id 10.255.0.3
set routing-options autonomous-system 64512
set routing-options forwarding-table export PFE-LB
set routing-options forwarding-table ecmp-fast-reroute

set protocols bgp log-updown
set protocols bgp graceful-restart

set protocols bgp group IPCLOS_eBGP type external
set protocols bgp group IPCLOS_eBGP mtu-discovery
set protocols bgp group IPCLOS_eBGP import IPCLOS_BGP_IMP
set protocols bgp group IPCLOS_eBGP export IPCLOS_BGP_EXP
set protocols bgp group IPCLOS_eBGP local-as 65503
set protocols bgp group IPCLOS_eBGP multipath multiple-as
set protocols bgp group IPCLOS_eBGP neighbor 10.1.13.1 description "EBGP peering to Spine1"
set protocols bgp group IPCLOS_eBGP neighbor 10.1.13.1 peer-as 65501
set protocols bgp group IPCLOS_eBGP neighbor 10.1.23.1 description "EBGP peering to Spine2"
set protocols bgp group IPCLOS_eBGP neighbor 10.1.23.1 peer-as 65502

set protocols bgp group OVERLAY type internal
```

	set protocols bgp group OVERLAY local-address 10.255.0.3 set protocols bgp group OVERLAY family evpn signaling set protocols bgp group OVERLAY neighbor 10.255.0.1 description "IBGP/overlay peering to Spine1" set protocols bgp group OVERLAY neighbor 10.255.0.2 description "IBGP/overlay peering to Spine2" set protocols evpn encapsulation vxlan set protocols evpn extended-vni-list all set protocols lldp interface all set protocols igmp-snooping vlan default set policy-options policy-statement IPCLOS_BGP_EXP term loopback from protocol direct set policy-options policy-statement IPCLOS_BGP_EXP term loopback from protocol bgp set policy-options policy-statement IPCLOS_BGP_EXP term loopback then accept set policy-options policy-statement IPCLOS_BGP_EXP term default then reject set policy-options policy-statement IPCLOS_BGP_IMP term loopback from protocol bgp set policy-options policy-statement IPCLOS_BGP_IMP term loopback from protocol direct set policy-options policy-statement IPCLOS_BGP_IMP term loopback then accept set policy-options policy-statement IPCLOS_BGP_IMP term default then reject set policy-options policy-statement PFE-LB then load-balance per-packet set switch-options vtep-source-interface lo0.0 set switch-options route-distinguisher **10.255.0.3:1** set switch-options vrf-target target:**64512:1111** set switch-options vrf-target auto set vlans VNI_10000 vlan-id 100 set vlans VNI_10000 vxlan vni 10000 set vlans VNI_20000 vlan-id 200 set vlans VNI_20000 vxlan vni 20000 set vlans default vlan-id 1

	set protocols bgp group IPCLOS_eBGP mtu-discovery	Configure TCP path maximum transmission unit (MTU) discovery. TCP path MTU discovery enables BGP to automatically discover the best TCP path MTU for each BGP session. In Junos OS, TCP path MTU discovery is disabled by default for all BGP neighbor sessions. When MTU discovery is disabled, TCP sessions that are not directly connected transmit packets of 512-byte maximum segment size (MSS). These small packets minimize the chances of packet fragmentation at a device along the path to the destination. However, because most links use an MTU of at least 1500 bytes, 512-byte packets do not result in the most efficient use of link bandwidth.

		For directly connected EBGP sessions, MTU mismatches prevent the BGP session from being established. As a workaround, enable path MTU discovery within the EBGP group. **Path MTU discovery dynamically determines the MTU size on the network path between the source and the destination, with the goal of avoiding IP fragmentation** . Path MTU discovery works by setting the Don't Fragment (DF) bit in the IP headers of outgoing packets. When a device along the path has an MTU that is smaller than the packet, the device drops the packet. The device also sends back an ICMP Fragmentation Needed (Type 3, Code 4) message that contains the device's MTU, thus allowing the source to reduce its path MTU appropriately. The process repeats until the MTU is small enough to traverse the entire path without fragmentation.
	set protocols bgp group IPCLOS_eBGP multipath multiple-as	BGP, typically selects only one best path for each prefix and installs that route in the forwarding table. When BGP multipath is enabled, the device selects multiple equal-cost BGP paths to reach a given destination, and all these paths are installed in the forwarding table. BGP advertises only the active path to its neighbors, unless add-path is in use. The Junos OS BGP multipath feature supports the following applications: • Load balancing across multiple links between two routing devices belonging to different autonomous systems (ASs) • Load balancing across a common subnet or multiple subnets to different routing devices belonging to the same peer AS • Load balancing across multiple links between two routing devices belonging to different external confederation peers • Load balancing across a common subnet or multiple subnets to different routing devices belonging to external confederation peers
	set policy-options policy-statement PFE-LB then load-balance per-packet	You can configure Junos OS so that, for the active route, all next-hop addresses for a destination are installed in the forwarding table. This feature is called *per-packet load balancing*. The naming may be counter-intuitive. However, Junos *per-packet* load balancing is functionally equivalent to what other vendors may term *per-flow* load balancing. You can use load balancing to spread traffic across multiple paths between routers. Figure 1 shows a simple load balancing scenario. Device R1 is in AS 64500 and is connected to both Device R2 and Device R3, which are in AS 64501. Device R1 can be configured to load balance traffic across the two links. Figure 1: Simple Load Balancing Scenario