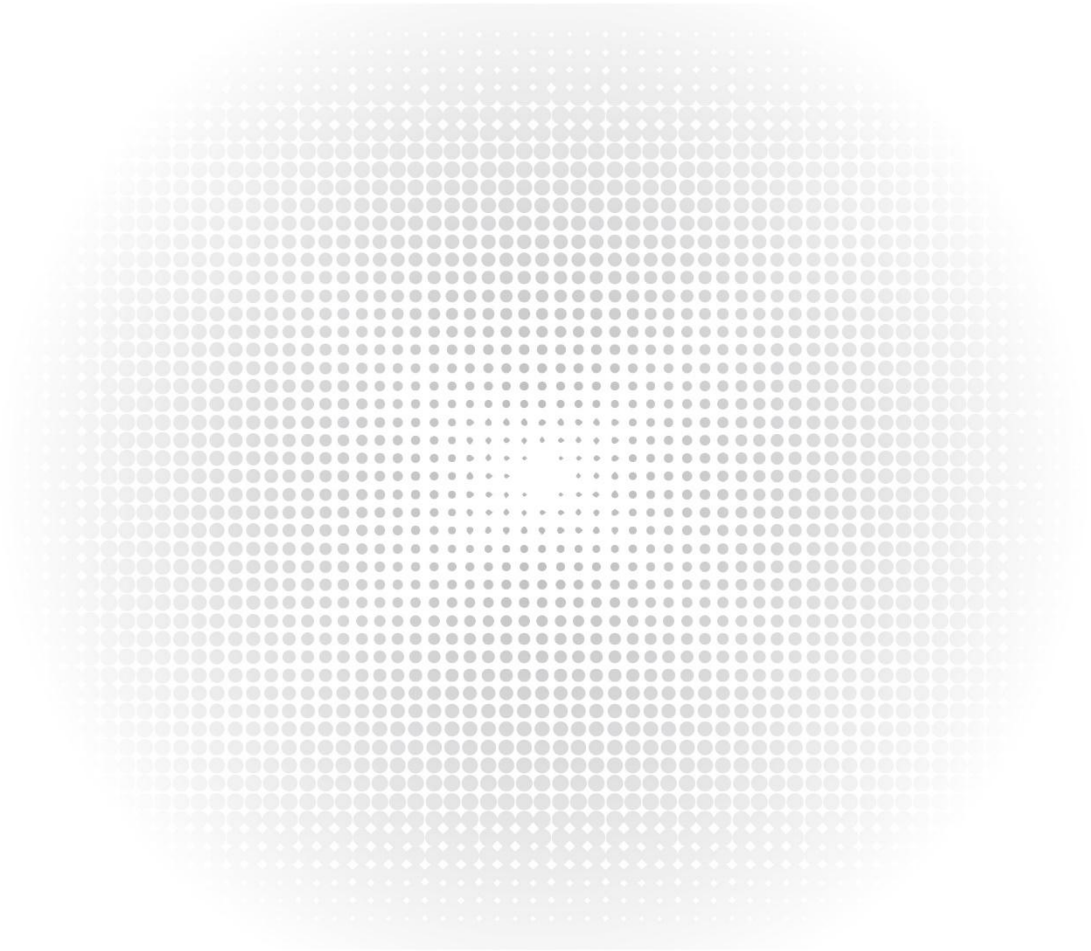
PicOS® for H100 InfiniBand Solution Test Report

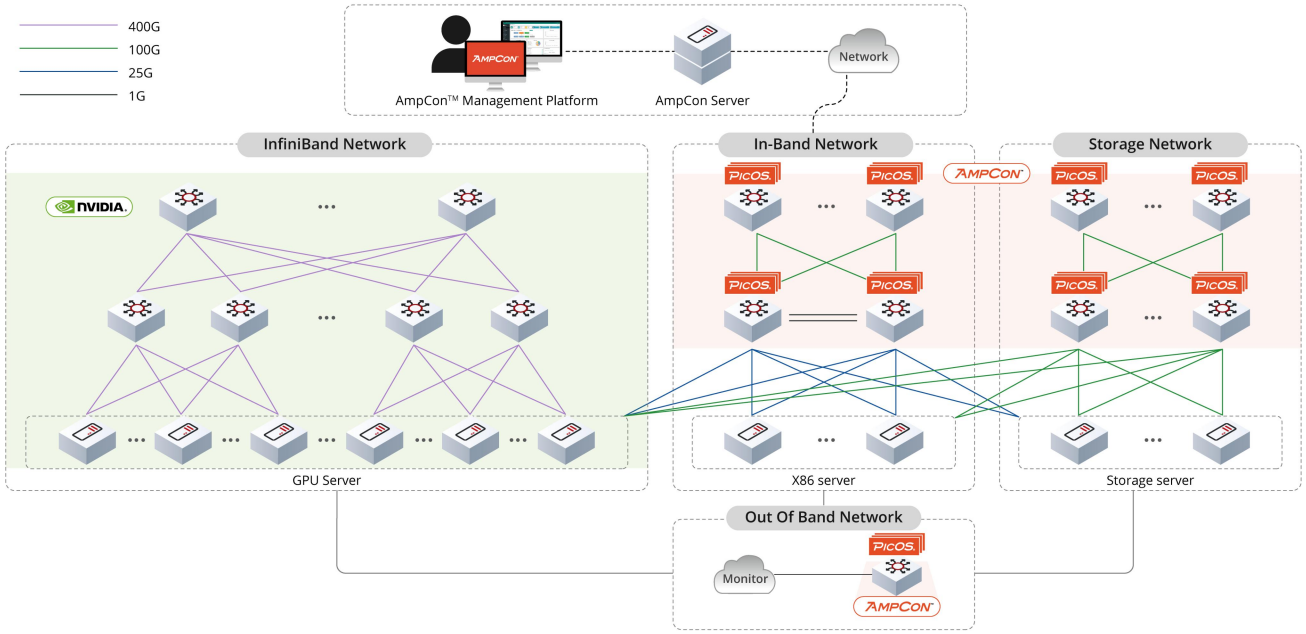


Content

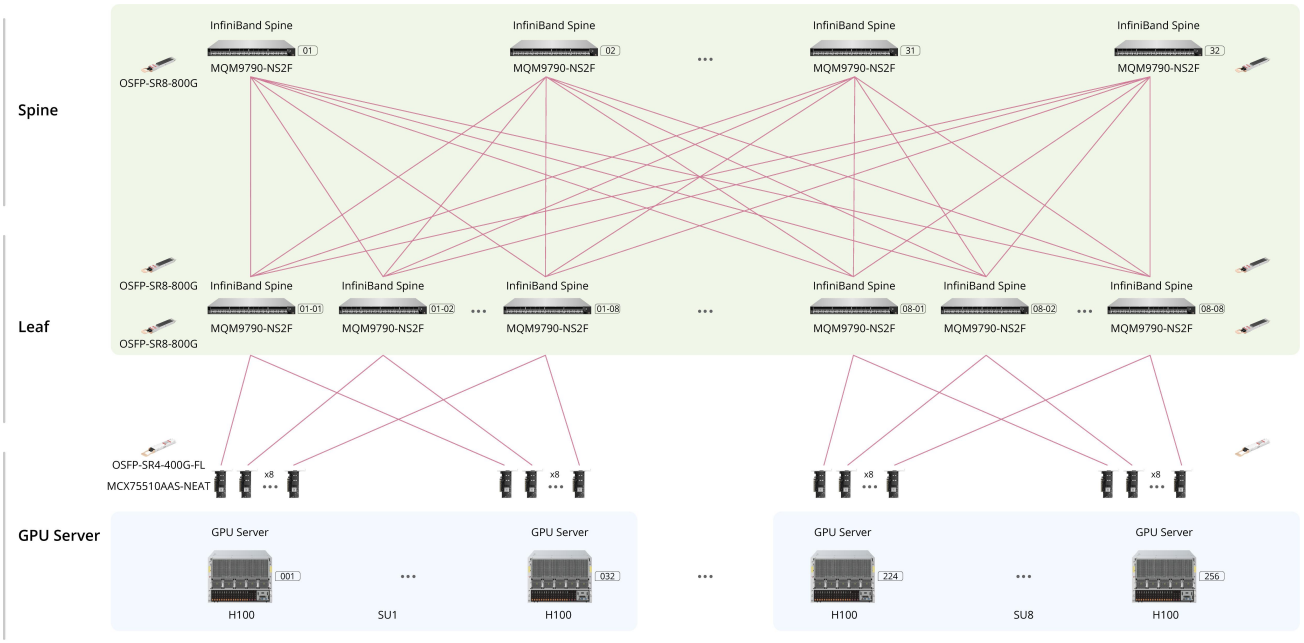
1 Overview

Based on the NVIDIA® H100 GPU, along with PicOS® software and AmpCon™ management platform, the FS H100 Infiniband solution is tailored according to the network topology of HPC architecture, including infiniband network, management network, and storage network, to meet various business needs.

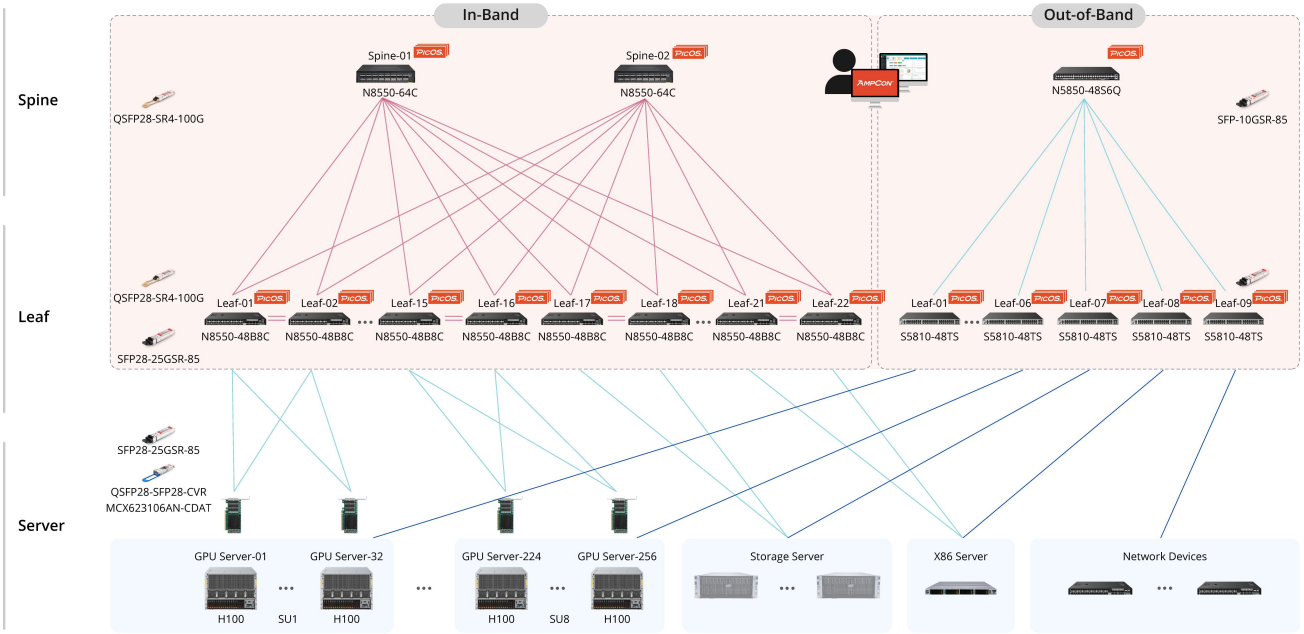
2 Network Topology



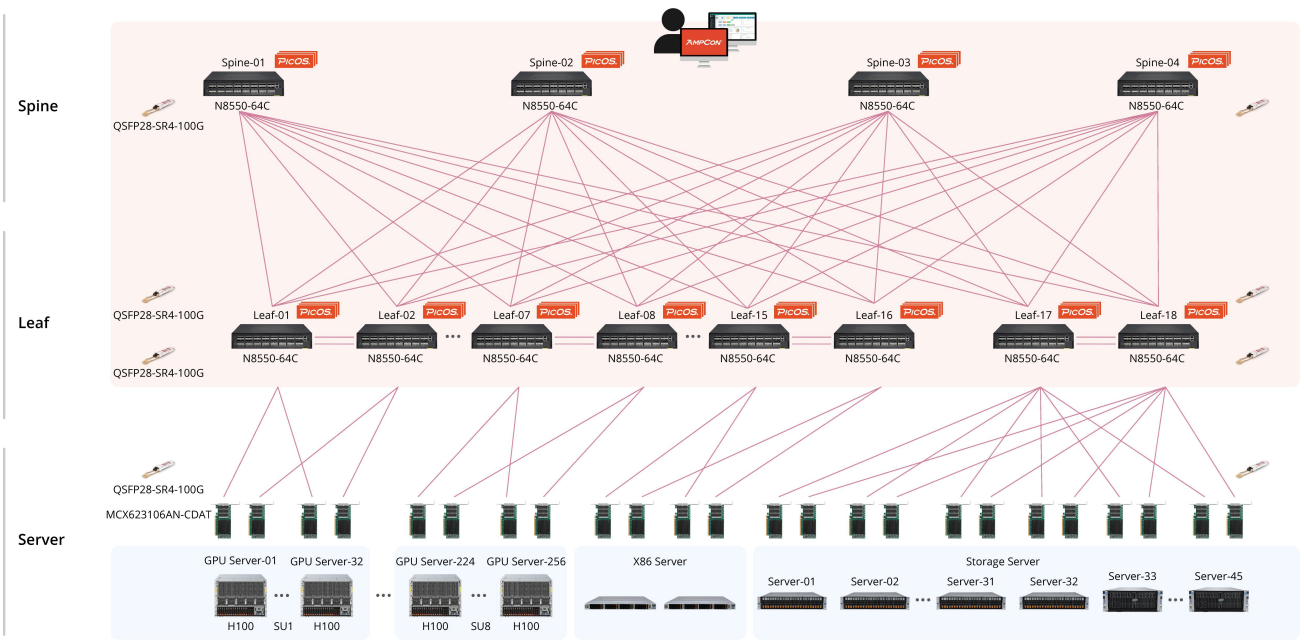
2.1 InfiniBand Network Topology



2.2 Management Network Topology



2.3 Storage Network Topology



3 Software and Hardware Environment Description

The hardware and software involved in the deployment environment are shown in tables 1 and 2.

Designation	Hardware Model
InfiniBand switch	MQM9790-NS2F
Ethernet switch	N8550-64C
	N5850-48S6Q
	N8550-48B8C
	S5810-48TS
Server	X86

Software	Version
AmpCon	ampcon-dc-2.1.0-release-581585d29b
PicOS®	4.4.5-9bca0916a3

4 AmpCon Deployment

4.1 Deploy Storage Network Switch

4.1.1 Spine N8550-64C ZTP

Test Name	Spine N8550-64C
Test Topo& Precondition	1. The AmpCon service is enabled successfully. 2. The switch has been powered on.
Test Procedure	1. Login in the AmpCon successfully. 2. Click the menu Service>System Config, set system configuration successfully. 3. Jump into the menu Service>Global Configuration, set global configuration successfully. 4. Jump into the menu Service>Config Template>Template List, click on the Upload menu to upload the template for N8550-64C switch. For details about the template, see the following. 5. Jump into the menu Service>Switch Configuration, set switch configuration successfully. Then there is a new record added to the switch list. 6. Choose the newly added switch configuration, click on the Stage menu. Wait for the interaction between the switch and AmpCon. **Template:** name: storage_N8550-64C_leaf_spine_template description: content_start: {# !storage N8550-64C leaf spine template #} set interface aggregate-ethernet ae1 mtu 9216 set interface aggregate-ethernet ae1 routed-interface name "rif-ae1" set interface aggregate-ethernet ae1 routed-interface enable true set interface aggregate-ethernet ae2 mtu 9216

	set interface aggregate-ethernet ae2 routed-interface name "rif-ae2" set interface aggregate-ethernet ae2 routed-interface enable true set interface gigabit-ethernet xe-1/1/1 mtu 9216 set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1" set interface gigabit-ethernet xe-1/1/1 routed-interface enable true set interface gigabit-ethernet xe-1/1/2 mtu 9216 set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2" set interface gigabit-ethernet xe-1/1/2 routed-interface enable true set interface gigabit-ethernet xe-1/1/3 mtu 9216 set interface gigabit-ethernet xe-1/1/3 routed-interface name "rif-xe3" set interface gigabit-ethernet xe-1/1/3 routed-interface enable true set interface gigabit-ethernet xe-1/1/4 mtu 9216 set interface gigabit-ethernet xe-1/1/4 routed-interface name "rif-xe4" set interface gigabit-ethernet xe-1/1/4 routed-interface enable true set interface gigabit-ethernet xe-1/1/5 mtu 9216 set interface gigabit-ethernet xe-1/1/5 routed-interface name "rif-xe5" set interface gigabit-ethernet xe-1/1/5 routed-interface enable true set interface gigabit-ethernet xe-1/1/6 mtu 9216 set interface gigabit-ethernet xe-1/1/6 routed-interface name "rif-xe6" set interface gigabit-ethernet xe-1/1/6 routed-interface enable true set interface gigabit-ethernet xe-1/1/7 mtu 9216 set interface gigabit-ethernet xe-1/1/7 routed-interface name "rif-xe7" set interface gigabit-ethernet xe-1/1/7 routed-interface enable true set interface gigabit-ethernet xe-1/1/8 mtu 9216 set interface gigabit-ethernet xe-1/1/8 routed-interface name "rif-xe8" set interface gigabit-ethernet xe-1/1/8 routed-interface enable true set interface gigabit-ethernet xe-1/1/9 mtu 9216 set interface gigabit-ethernet xe-1/1/9 routed-interface name "rif-xe9" set interface gigabit-ethernet xe-1/1/9 routed-interface enable true

	set interface gigabit-ethernet xe-1/1/10 mtu 9216 set interface gigabit-ethernet xe-1/1/10 routed-interface name "rif-xe10" set interface gigabit-ethernet xe-1/1/10 routed-interface enable true set interface gigabit-ethernet xe-1/1/11 mtu 9216 set interface gigabit-ethernet xe-1/1/11 routed-interface name "rif-xe11" set interface gigabit-ethernet xe-1/1/11 routed-interface enable true set interface gigabit-ethernet xe-1/1/12 mtu 9216 set interface gigabit-ethernet xe-1/1/12 routed-interface name "rif-xe12" set interface gigabit-ethernet xe-1/1/12 routed-interface enable true set interface gigabit-ethernet xe-1/1/13 mtu 9216 set interface gigabit-ethernet xe-1/1/13 routed-interface name "rif-xe13" set interface gigabit-ethernet xe-1/1/13 routed-interface enable true set interface gigabit-ethernet xe-1/1/14 mtu 9216 set interface gigabit-ethernet xe-1/1/14 routed-interface name "rif-xe14" set interface gigabit-ethernet xe-1/1/14 routed-interface enable true set interface gigabit-ethernet xe-1/1/15 mtu 9216 set interface gigabit-ethernet xe-1/1/15 routed-interface name "rif-xe15" set interface gigabit-ethernet xe-1/1/15 routed-interface enable true set interface gigabit-ethernet xe-1/1/16 mtu 9216 set interface gigabit-ethernet xe-1/1/16 routed-interface name "rif-xe16" set interface gigabit-ethernet xe-1/1/16 routed-interface enable true set interface gigabit-ethernet xe-1/1/17 mtu 9216 set interface gigabit-ethernet xe-1/1/17 routed-interface name "rif-xe17" set interface gigabit-ethernet xe-1/1/17 routed-interface enable true set interface gigabit-ethernet xe-1/1/18 mtu 9216 set interface gigabit-ethernet xe-1/1/18 routed-interface name "rif-xe18" set interface gigabit-ethernet xe-1/1/18 routed-interface enable true set interface gigabit-ethernet xe-1/1/19 mtu 9216 set interface gigabit-ethernet xe-1/1/19 routed-interface name "rif-xe19"

	set interface gigabit-ethernet xe-1/1/19 routed-interface enable true set interface gigabit-ethernet xe-1/1/20 mtu 9216 set interface gigabit-ethernet xe-1/1/20 routed-interface name "rif-xe20" set interface gigabit-ethernet xe-1/1/20 routed-interface enable true set interface gigabit-ethernet xe-1/1/21 mtu 9216 set interface gigabit-ethernet xe-1/1/21 routed-interface name "rif-xe21" set interface gigabit-ethernet xe-1/1/21 routed-interface enable true set interface gigabit-ethernet xe-1/1/22 mtu 9216 set interface gigabit-ethernet xe-1/1/22 routed-interface name "rif-xe22" set interface gigabit-ethernet xe-1/1/22 routed-interface enable true set interface gigabit-ethernet xe-1/1/23 mtu 9216 set interface gigabit-ethernet xe-1/1/23 routed-interface name "rif-xe23" set interface gigabit-ethernet xe-1/1/23 routed-interface enable true set interface gigabit-ethernet xe-1/1/24 mtu 9216 set interface gigabit-ethernet xe-1/1/24 routed-interface name "rif-xe24" set interface gigabit-ethernet xe-1/1/24 routed-interface enable true set interface gigabit-ethernet xe-1/1/25 mtu 9216 set interface gigabit-ethernet xe-1/1/25 routed-interface name "rif-xe25" set interface gigabit-ethernet xe-1/1/25 routed-interface enable true set interface gigabit-ethernet xe-1/1/26 mtu 9216 set interface gigabit-ethernet xe-1/1/26 routed-interface name "rif-xe26" set interface gigabit-ethernet xe-1/1/26 routed-interface enable true set interface gigabit-ethernet xe-1/1/27 mtu 9216 set interface gigabit-ethernet xe-1/1/27 routed-interface name "rif-xe27" set interface gigabit-ethernet xe-1/1/27 routed-interface enable true set interface gigabit-ethernet xe-1/1/28 mtu 9216 set interface gigabit-ethernet xe-1/1/28 routed-interface name "rif-xe28" set interface gigabit-ethernet xe-1/1/28 routed-interface enable true set interface gigabit-ethernet xe-1/1/29 mtu 9216

	set interface gigabit-ethernet xe-1/1/29 routed-interface name "rif-xe29" set interface gigabit-ethernet xe-1/1/29 routed-interface enable true set interface gigabit-ethernet xe-1/1/30 mtu 9216 set interface gigabit-ethernet xe-1/1/30 routed-interface name "rif-xe30" set interface gigabit-ethernet xe-1/1/30 routed-interface enable true set interface gigabit-ethernet xe-1/1/31 mtu 9216 set interface gigabit-ethernet xe-1/1/31 routed-interface name "rif-xe31" set interface gigabit-ethernet xe-1/1/31 routed-interface enable true set interface gigabit-ethernet xe-1/1/32 mtu 9216 set interface gigabit-ethernet xe-1/1/32 routed-interface name "rif-xe32" set interface gigabit-ethernet xe-1/1/32 routed-interface enable true set interface gigabit-ethernet xe-1/1/33 ether-options 802.3ad "ae1" set interface gigabit-ethernet xe-1/1/34 ether-options 802.3ad "ae1" set interface gigabit-ethernet xe-1/1/35 ether-options 802.3ad "ae1" set interface gigabit-ethernet xe-1/1/36 ether-options 802.3ad "ae1" set interface gigabit-ethernet xe-1/1/37 ether-options 802.3ad "ae2" set interface gigabit-ethernet xe-1/1/38 ether-options 802.3ad "ae2" set interface gigabit-ethernet xe-1/1/39 ether-options 802.3ad "ae2" set interface gigabit-ethernet xe-1/1/40 ether-options 802.3ad "ae2" set interface gigabit-ethernet xe-1/1/41 mtu 9216 set interface gigabit-ethernet xe-1/1/41 routed-interface name "rif-xe41" set interface gigabit-ethernet xe-1/1/41 routed-interface enable true set interface gigabit-ethernet xe-1/1/42 mtu 9216 set interface gigabit-ethernet xe-1/1/42 routed-interface name "rif-xe42" set interface gigabit-ethernet xe-1/1/42 routed-interface enable true set ip routing enable true set l3-interface loopback lo address {{ l3_interface_loopback_lo_address }} prefix-length 32 set l3-interface routed-interface rif-xe1 set l3-interface routed-interface rif-xe2

	set l3-interface routed-interface rif-xe3 set l3-interface routed-interface rif-xe4 set l3-interface routed-interface rif-xe5 set l3-interface routed-interface rif-xe6 set l3-interface routed-interface rif-xe7 set l3-interface routed-interface rif-xe8 set l3-interface routed-interface rif-xe9 set l3-interface routed-interface rif-xe10 set l3-interface routed-interface rif-xe11 set l3-interface routed-interface rif-xe12 set l3-interface routed-interface rif-xe13 set l3-interface routed-interface rif-xe14 set l3-interface routed-interface rif-xe15 set l3-interface routed-interface rif-xe16 set l3-interface routed-interface rif-xe17 set l3-interface routed-interface rif-xe18 set l3-interface routed-interface rif-xe19 set l3-interface routed-interface rif-xe20 set l3-interface routed-interface rif-xe21 set l3-interface routed-interface rif-xe22 set l3-interface routed-interface rif-xe23 set l3-interface routed-interface rif-xe24 set l3-interface routed-interface rif-xe25 set l3-interface routed-interface rif-xe26 set l3-interface routed-interface rif-xe27 set l3-interface routed-interface rif-xe28 set l3-interface routed-interface rif-xe29 set l3-interface routed-interface rif-xe30 set l3-interface routed-interface rif-xe31

	set l3-interface routed-interface rif-xe32 set l3-interface routed-interface rif-xe41 set l3-interface routed-interface rif-xe42 set l3-interface routed-interface rif-ae1 set l3-interface routed-interface rif-ae2 set protocols bgp local-as "{{ protocols_bgp_local_as }}" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id {{ l3_interface_loopback_lo_address }} set protocols bgp interface rif-xe1 remote-as "external" set protocols bgp interface rif-xe1 capability extended-nexthop set protocols bgp interface rif-xe1 ipv6-unicast activate true set protocols bgp interface rif-xe2 remote-as "external" set protocols bgp interface rif-xe2 capability extended-nexthop set protocols bgp interface rif-xe2 ipv6-unicast activate true set protocols bgp interface rif-xe3 remote-as "external" set protocols bgp interface rif-xe3 capability extended-nexthop set protocols bgp interface rif-xe3 ipv6-unicast activate true set protocols bgp interface rif-xe4 remote-as "external" set protocols bgp interface rif-xe4 capability extended-nexthop set protocols bgp interface rif-xe4 ipv6-unicast activate true set protocols bgp interface rif-xe5 remote-as "external" set protocols bgp interface rif-xe5 capability extended-nexthop set protocols bgp interface rif-xe5 ipv6-unicast activate true set protocols bgp interface rif-xe6 remote-as "external" set protocols bgp interface rif-xe6 capability extended-nexthop set protocols bgp interface rif-xe6 ipv6-unicast activate true set protocols bgp interface rif-xe7 remote-as "external" set protocols bgp interface rif-xe7 capability extended-nexthop

	set protocols bgp interface rif-xe7 ipv6-unicast activate true set protocols bgp interface rif-xe8 remote-as "external" set protocols bgp interface rif-xe8 capability extended-nexthop set protocols bgp interface rif-xe8 ipv6-unicast activate true set protocols bgp interface rif-xe9 remote-as "external" set protocols bgp interface rif-xe9 capability extended-nexthop set protocols bgp interface rif-xe9 ipv6-unicast activate true set protocols bgp interface rif-xe10 remote-as "external" set protocols bgp interface rif-xe10 capability extended-nexthop set protocols bgp interface rif-xe10 ipv6-unicast activate true set protocols bgp interface rif-xe11 remote-as "external" set protocols bgp interface rif-xe11 capability extended-nexthop set protocols bgp interface rif-xe11 ipv6-unicast activate true set protocols bgp interface rif-xe12 remote-as "external" set protocols bgp interface rif-xe12 capability extended-nexthop set protocols bgp interface rif-xe12 ipv6-unicast activate true set protocols bgp interface rif-xe13 remote-as "external" set protocols bgp interface rif-xe13 capability extended-nexthop set protocols bgp interface rif-xe13 ipv6-unicast activate true set protocols bgp interface rif-xe14 remote-as "external" set protocols bgp interface rif-xe14 capability extended-nexthop set protocols bgp interface rif-xe14 ipv6-unicast activate true set protocols bgp interface rif-xe15 remote-as "external" set protocols bgp interface rif-xe15 capability extended-nexthop set protocols bgp interface rif-xe15 ipv6-unicast activate true set protocols bgp interface rif-xe16 remote-as "external" set protocols bgp interface rif-xe16 capability extended-nexthop set protocols bgp interface rif-xe16 ipv6-unicast activate true set protocols bgp interface rif-xe17 remote-as "external"

	set protocols bgp interface rif-xe17 capability extended-nexthop set protocols bgp interface rif-xe17 ipv6-unicast activate true set protocols bgp interface rif-xe18 remote-as "external" set protocols bgp interface rif-xe18 capability extended-nexthop set protocols bgp interface rif-xe18 ipv6-unicast activate true set protocols bgp interface rif-xe19 remote-as "external" set protocols bgp interface rif-xe19 capability extended-nexthop set protocols bgp interface rif-xe19 ipv6-unicast activate true set protocols bgp interface rif-xe20 remote-as "external" set protocols bgp interface rif-xe20 capability extended-nexthop set protocols bgp interface rif-xe20 ipv6-unicast activate true set protocols bgp interface rif-xe21 remote-as "external" set protocols bgp interface rif-xe21 capability extended-nexthop set protocols bgp interface rif-xe21 ipv6-unicast activate true set protocols bgp interface rif-xe22 remote-as "external" set protocols bgp interface rif-xe22 capability extended-nexthop set protocols bgp interface rif-xe22 ipv6-unicast activate true set protocols bgp interface rif-xe23 remote-as "external" set protocols bgp interface rif-xe23 capability extended-nexthop set protocols bgp interface rif-xe23 ipv6-unicast activate true set protocols bgp interface rif-xe24 remote-as "external" set protocols bgp interface rif-xe24 capability extended-nexthop set protocols bgp interface rif-xe24 ipv6-unicast activate true set protocols bgp interface rif-xe25 remote-as "external" set protocols bgp interface rif-xe25 capability extended-nexthop set protocols bgp interface rif-xe25 ipv6-unicast activate true set protocols bgp interface rif-xe26 remote-as "external" set protocols bgp interface rif-xe26 capability extended-nexthop set protocols bgp interface rif-xe26 ipv6-unicast activate true

	set protocols bgp interface rif-xe27 remote-as "external" set protocols bgp interface rif-xe27 capability extended-nexthop set protocols bgp interface rif-xe27 ipv6-unicast activate true set protocols bgp interface rif-xe28 remote-as "external" set protocols bgp interface rif-xe28 capability extended-nexthop set protocols bgp interface rif-xe28 ipv6-unicast activate true set protocols bgp interface rif-xe29 remote-as "external" set protocols bgp interface rif-xe29 capability extended-nexthop set protocols bgp interface rif-xe29 ipv6-unicast activate true set protocols bgp interface rif-xe30 remote-as "external" set protocols bgp interface rif-xe30 capability extended-nexthop set protocols bgp interface rif-xe30 ipv6-unicast activate true set protocols bgp interface rif-xe31 remote-as "external" set protocols bgp interface rif-xe31 capability extended-nexthop set protocols bgp interface rif-xe31 ipv6-unicast activate true set protocols bgp interface rif-xe32 remote-as "external" set protocols bgp interface rif-xe32 capability extended-nexthop set protocols bgp interface rif-xe32 ipv6-unicast activate true set protocols bgp interface rif-xe41 remote-as "external" set protocols bgp interface rif-xe41 capability extended-nexthop set protocols bgp interface rif-xe41 ipv6-unicast activate true set protocols bgp interface rif-xe42 remote-as "external" set protocols bgp interface rif-xe42 capability extended-nexthop set protocols bgp interface rif-xe42 ipv6-unicast activate true set protocols bgp interface rif-ae1 remote-as "external" set protocols bgp interface rif-ae1 capability extended-nexthop set protocols bgp interface rif-ae1 ipv6-unicast activate true set protocols bgp interface rif-ae2 remote-as "external" set protocols bgp interface rif-ae2 capability extended-nexthop

	set protocols bgp interface rif-ae2 ipv6-unicast activate true
	set protocols bgp ipv4-unicast network {{ l3_interface_loopback_lo_address }}/32
	set system hostname "{{ system_hostname }}"
	set system management-ethernet eth0 ip-address IPv4
	"{{ management_ethernet_eth0_ip_address_with_prefix_length }}"
	set system management-ethernet eth0 ip-gateway IPv4
	{{ management_ethernet_eth0_ip_gateway }}
	set vlans reserved-vlan "2000-2127"
	
	content_end$
	param_start:
	{
	"l3_interface_loopback_lo_address": {
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	"type": "IPV4",
	"description": "",
	"param_check": ""
	},
	"protocols_bgp_local_as": {
	"param_default": "500",
	"required": "required",
	"type": "int",
	"description": "",
	"param_check": ""
	},
	"system_hostname": {
	"param_default": "Spine1",
	"required": "required",

	"type": "text",
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	},
	"management_ethernet_eth0_ip_address_with_prefix_length": {
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	"param_check": ""
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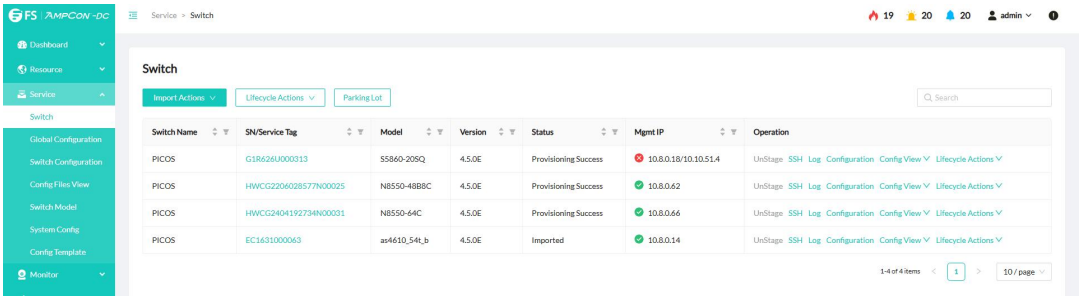
	}
	}
	param_end$

Actual results	

4.1.2 Leaf N8550-64C ZTP

Test Name	Leaf N8550-64C
Test Topo& Precondition	1. The AmpCon service is enabled successfully. 2. The switch has been powered on.
Test Procedure	1. Login in the AmpCon successfully. 2. Click the menu Service>System Config, set system configuration successfully. 3. Jump into the menu Service>Global Configuration, set global configuration successfully. 4. Jump into the menu Service>Config Template>Template List, click on the Upload menu to upload the template for N8550-64C switch. For details about the template, see the following. 5. Jump into the menu Service>Switch Configuration, set switch configuration successfully. Then there is a new record added to the switch list. 6. Choose the newly added switch configuration, click on the Stage menu. Wait for the interaction between the switch and AmpCon. **Template:** name: storage_N8550-64C_leaf_storage_template description: content_start: {# !storage N8550-64C leaf template #} {% set interface_ae_range_lower_bound, interface_ae_range_upper_bound = 1, 45 %} {% set ethernet_switching_native_vlan_id = 210 %} {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set interface aggregate-ethernet ae{{ i }} mtu 9216 set interface aggregate-ethernet ae{{ i }} aggregated-ether-options lacp enable true set interface aggregate-ethernet ae{{ i }} family ethernet-switching native-vlan-id

	{{ ethernet_switching_native_vlan_id }} {% endfor %} set interface aggregate-ethernet ae51 mtu 9216 set interface aggregate-ethernet ae51 routed-interface name "rif-ae51" set interface aggregate-ethernet ae51 routed-interface enable true set interface aggregate-ethernet ae52 mtu 9216 set interface aggregate-ethernet ae52 routed-interface name "rif-ae52" set interface aggregate-ethernet ae52 routed-interface enable true set interface aggregate-ethernet ae53 mtu 9216 set interface aggregate-ethernet ae53 routed-interface name "rif-ae53" set interface aggregate-ethernet ae53 routed-interface enable true set interface aggregate-ethernet ae54 mtu 9216 set interface aggregate-ethernet ae54 routed-interface name "rif-ae54" set interface aggregate-ethernet ae54 routed-interface enable true set interface aggregate-ethernet ae64 aggregated-ether-options lacp enable true set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090 set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk" set interface aggregate-ethernet ae64 family ethernet-switching vlan members {{ ethernet_switching_native_vlan_id }} {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set interface gigabit-ethernet xe-1/1/{{ i }} ether-options 802.3ad "ae{{ i }}" {% endfor %} set interface gigabit-ethernet xe-1/1/46 ether-options 802.3ad "ae51" set interface gigabit-ethernet xe-1/1/47 ether-options 802.3ad "ae51" set interface gigabit-ethernet xe-1/1/48 ether-options 802.3ad "ae51" set interface gigabit-ethernet xe-1/1/49 ether-options 802.3ad "ae51" set interface gigabit-ethernet xe-1/1/50 ether-options 802.3ad "ae52" set interface gigabit-ethernet xe-1/1/51 ether-options 802.3ad "ae52"

	set interface gigabit-ethernet xe-1/1/52 ether-options 802.3ad "ae52" set interface gigabit-ethernet xe-1/1/53 ether-options 802.3ad "ae52" set interface gigabit-ethernet xe-1/1/54 ether-options 802.3ad "ae53" set interface gigabit-ethernet xe-1/1/55 ether-options 802.3ad "ae53" set interface gigabit-ethernet xe-1/1/56 ether-options 802.3ad "ae53" set interface gigabit-ethernet xe-1/1/57 ether-options 802.3ad "ae53" set interface gigabit-ethernet xe-1/1/58 ether-options 802.3ad "ae54" set interface gigabit-ethernet xe-1/1/59 ether-options 802.3ad "ae54" set interface gigabit-ethernet xe-1/1/60 ether-options 802.3ad "ae54" set interface gigabit-ethernet xe-1/1/61 ether-options 802.3ad "ae54" set interface gigabit-ethernet xe-1/1/63 ether-options 802.3ad "ae64" set interface gigabit-ethernet xe-1/1/64 ether-options 802.3ad "ae64" set ip routing enable true set l3-interface loopback lo address {{ l3_interface_loopback_lo_address }} prefix-length 32 {% set l3_interface_vlan_interface_vlan4090_address, l3_interface_vlan_interface_vlan4090_prefix = l3_interface_vlan_interface_vlan4090_address_with_prefix.split('/')%} set l3-interface vlan-interface vlan4090 address {{ l3_interface_vlan_interface_vlan4090_address }} prefix-length {{ l3_interface_vlan_interface_vlan4090_prefix }} {% set l3_interface_vlan_interface_vlan_address, l3_interface_vlan_interface_vlan_prefix = l3_interface_vlan_interface_vlan_address_with_prefix.split('/') %} set l3-interface vlan-interface vlan{{ ethernet_switching_native_vlan_id }} address {{ l3_interface_vlan_interface_vlan_address }} prefix-length {{ l3_interface_vlan_interface_vlan_prefix }} set l3-interface routed-interface rif-ae51 set l3-interface routed-interface rif-ae52

	set l3-interface routed-interface rif-ae53 set l3-interface routed-interface rif-ae54 set protocols bgp local-as "{{ protocols_bgp_local_as }}" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id {{ l3_interface_loopback_lo_address }} set protocols bgp interface rif-ae51 remote-as "external" set protocols bgp interface rif-ae51 capability extended-nexthop set protocols bgp interface rif-ae51 ipv6-unicast activate true set protocols bgp interface rif-ae52 remote-as "external" set protocols bgp interface rif-ae52 capability extended-nexthop set protocols bgp interface rif-ae52 ipv6-unicast activate true set protocols bgp interface rif-ae53 remote-as "external" set protocols bgp interface rif-ae53 capability extended-nexthop set protocols bgp interface rif-ae53 ipv6-unicast activate true set protocols bgp interface rif-ae54 remote-as "external" set protocols bgp interface rif-ae54 capability extended-nexthop set protocols bgp interface rif-ae54 ipv6-unicast activate true set protocols bgp ipv4-unicast network {{ l3_interface_loopback_lo_address }}/32 set protocols bgp ipv4-unicast network {{ protocols_bgp_ipv4_unicast_network }} set protocols mlag domain {{ protocols_mlag_domain }} node {{ protocols_mlag_node }} set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-link "ae64" set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-vlan 4090 {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set protocols mlag domain {{ protocols_mlag_domain }} interface ae{{ i }} link {{ i }}

	{% endfor %}
	set protocols spanning-tree enable false
	set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 ip
	{{ protocols_vrrp_interface_vrid_ip }}
	set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1
	load-balance disable false
	set system hostname "{{ system_hostname }}"
	set system management-ethernet eth0 ip-address IPv4
	"{{ management_ethernet_eth0_ip_address_with_prefix_length }}"
	set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1
	set vlans reserved-vlan "2000-2127"
	set vlans vlan-id {{ ethernet_switching_native_vlan_id }} l3-interface
	"vlan{{ ethernet_switching_native_vlan_id }}"
	set vlans vlan-id 4090 l3-interface "vlan4090"
	
	content_end$
	param_start:
	{
	"l3_interface_loopback_lo_address": {
	"param_default": "111.111.111.111",
	"required": "required",
	"type": "IPV4",
	"description": "",
	"param_check": ""
	},
	"l3_interface_vlan_interface_vlan4090_address_with_prefix": {
	"param_default": "10.226.13.10/30",
	"required": "required",
	"type": "text",

"description": "eg. 10.226.13.10/30",
"param_check": ""
},
"l3_interface_vlan_interface_vlan_address_with_prefix": {
"param_default": "192.168.10.10/24",
"required": "required",
"type": "text",
"description": "eg. 192.168.10.10/24",
"param_check": ""
},
"protocols_bgp_local_as": {
"param_default": "300",
"required": "required",
"type": "int",
"description": "",
"param_check": ""
},
"protocols_bgp_ipv4_unicast_network": {
"param_default": "192.168.10.0/24",
"required": "required",
"type": "text",
"description": "eg. 192.168.10.0/24",
"param_check": ""
},
"protocols_mlag_domain": {
"param_default": "253",
"required": "required",
"type": "int",
"description": "",

"param_check": ""

},

"protocols_mlag_node": {

"param_default": "0",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_peer_ip": {

"param_default": "10.226.13.9",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"protocols_vrrp_interface_vrid_ip": {

"param_default": "192.168.10.252",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"system_hostname": {

"param_default": "Leaf17816",

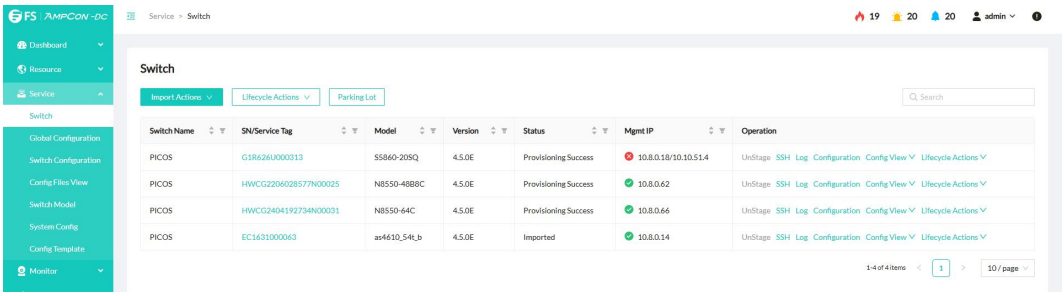
"required": "required",

"type": "text",

"description": "",

"param_check": ""

	},
	"management_ethernet_eth0_ip_address_with_prefix_length": {
	"param_default": "10.10.51.24/24",
	"required": "required",
	"type": "text",
	"description": "eg. 10.10.51.24/24",
	"param_check": ""
	},
	"management_ethernet_eth0_ip_gateway": {
	"param_default": "10.10.51.1",
	"required": "required",
	"type": "IPv4",
	"description": "eg. 10.10.51.1",
	"param_check": ""
	}
	}
	param_end$

Actual results	

4.1.3 The Server GPU Switch ZTP

Test Name	The Server GPU Switch ZTP
Test Topo& Precondition	1. The AmpCon service is enabled successfully. 2. The server switch has been powered on.
Test Procedure	1. Login in the AmpCon successfully.

2. Click the menu Service>System Config, set system configuration successfully.

3. Jump into the menu Service>Global Configuration, set global configuration successfully.

4. Jump into the menu Service>Config Template>Template List, click on the Upload menu to upload the template for GPU server. For details about the template, see the following.

5. Jump into the menu Service>Switch Configuration, set switch configuration successfully. Then there is a new record added to the switch list.

6. Choose the newly added switch configuration, click on the Stage menu. Wait for the interaction between the server and AmpCon.

Template:

```
name: storage_N8550-64C_leaf_gpu_template
description:
content_start:

{# !storage N8550-64C leaf gpu template #}
{% set interface_ae_range_lower_bound, interface_ae_range_upper_bound = 1, 32 %}
{% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %}
set interface aggregate-ethernet ae{{ i }} mtu 9216
set interface aggregate-ethernet ae{{ i }} aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae{{ i }} family ethernet-switching native-vlan-id
{{ ethernet_switching_native_vlan_id }}
{% endfor %}
set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090
set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"
set interface aggregate-ethernet ae64 family ethernet-switching vlan members
{{ ethernet_switching_native_vlan_id }}
{% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %}
set interface gigabit-ethernet xe-1/1/{{ i }} ether-options 802.3ad "ae{{ i }}"
```

	{% endfor %} set interface gigabit-ethernet xe-1/1/33 mtu 9216 set interface gigabit-ethernet xe-1/1/33 routed-interface name "rif-xe33" set interface gigabit-ethernet xe-1/1/33 routed-interface enable true set interface gigabit-ethernet xe-1/1/34 mtu 9216 set interface gigabit-ethernet xe-1/1/34 routed-interface name "rif-xe34" set interface gigabit-ethernet xe-1/1/34 routed-interface enable true set interface gigabit-ethernet xe-1/1/35 mtu 9216 set interface gigabit-ethernet xe-1/1/35 routed-interface name "rif-xe35" set interface gigabit-ethernet xe-1/1/35 routed-interface enable true set interface gigabit-ethernet xe-1/1/36 mtu 9216 set interface gigabit-ethernet xe-1/1/36 routed-interface name "rif-xe36" set interface gigabit-ethernet xe-1/1/36 routed-interface enable true set interface gigabit-ethernet xe-1/1/63 ether-options 802.3ad "ae64" set interface gigabit-ethernet xe-1/1/64 ether-options 802.3ad "ae64" set ip routing enable true set l3-interface loopback lo address {{ l3_interface_loopback_lo_address }} prefix-length 32 {% set l3_interface_vlan_interface_vlan4090_address, l3_interface_vlan_interface_vlan4090_prefix = l3_interface_vlan_interface_vlan4090_address_with_prefix.split('/')%} set l3-interface vlan-interface vlan4090 address {{ l3_interface_vlan_interface_vlan4090_address }} prefix-length {{ l3_interface_vlan_interface_vlan4090_prefix }} {% set l3_interface_vlan_interface_vlan_address, l3_interface_vlan_interface_vlan_prefix = l3_interface_vlan_interface_vlan_address_with_prefix.split('/') %} set l3-interface vlan-interface vlan{{ ethernet_switching_native_vlan_id }} address {{ l3_interface_vlan_interface_vlan_address }} prefix-length {{ l3_interface_vlan_interface_vlan_prefix }} set l3-interface routed-interface rif-xe33

	set l3-interface routed-interface rif-xe34 set l3-interface routed-interface rif-xe35 set l3-interface routed-interface rif-xe36 set protocols bgp local-as "{{ protocols_bgp_local_as }}" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id {{ l3_interface_loopback_lo_address }} set protocols bgp interface rif-xe33 remote-as "external" set protocols bgp interface rif-xe33 capability extended-nexthop set protocols bgp interface rif-xe33 ipv6-unicast activate true set protocols bgp interface rif-xe34 remote-as "external" set protocols bgp interface rif-xe34 capability extended-nexthop set protocols bgp interface rif-xe34 ipv6-unicast activate true set protocols bgp interface rif-xe35 remote-as "external" set protocols bgp interface rif-xe35 capability extended-nexthop set protocols bgp interface rif-xe35 ipv6-unicast activate true set protocols bgp interface rif-xe36 remote-as "external" set protocols bgp interface rif-xe36 capability extended-nexthop set protocols bgp interface rif-xe36 ipv6-unicast activate true set protocols bgp ipv4-unicast network {{ l3_interface_loopback_lo_address }}/32 set protocols bgp ipv4-unicast network {{ protocols_bgp_ipv4_unicast_network }} set protocols mlag domain {{ protocols_mlag_domain }} node {{ protocols_mlag_node }} set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-link "ae64" set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-vlan 4090 {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set protocols mlag domain {{ protocols_mlag_domain }} interface ae{{ i }} link {{ i }}

	{% endfor %}
	set protocols spanning-tree enable false
	set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 ip
	{{ protocols_vrrp_interface_vrid_ip }}
	set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 load-balance
	disable false
	set system hostname "{{ system_hostname }}"
	set system management-ethernet eth0 ip-address IPv4
	"{{ management_ethernet_eth0_ip_address_with_prefix_length }}"
	set system management-ethernet eth0 ip-gateway IPv4
	{{ management_ethernet_eth0_ip_gateway }}
	set vlans reserved-vlan "2000-2127"
	set vlans vlan-id {{ ethernet_switching_native_vlan_id }} l3-interface
	"vlan{{ ethernet_switching_native_vlan_id }}"
	set vlans vlan-id 4090 l3-interface "vlan4090"
	
	content_end$
	param_start:
	{
	"l3_interface_loopback_lo_address": {
	"param_default": "111.111.111.111",
	"required": "required",
	"type": "IPV4",
	"description": "",
	"param_check": ""
	},
	"ethernet_switching_native_vlan_id": {
	"param_default": "100",
	"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"l3_interface_vlan_interface_vlan4090_address_with_prefix": {

"param_default": "10.226.13.10/30",

"required": "required",

"type": "text",

"description": "eg. 10.226.13.10/30",

"param_check": ""

},

"l3_interface_vlan_interface_vlan_address_with_prefix": {

"param_default": "192.168.10.10/24",

"required": "required",

"type": "text",

"description": "eg. 192.168.10.10/24",

"param_check": ""

},

"protocols_bgp_local_as": {

"param_default": "100",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_bgp_ipv4_unicast_network": {

"param_default": "192.168.10.0/24",

"required": "required",

"type": "text",

"description": "eg. 192.168.10.0/24",

"param_check": ""

},

"protocols_mlag_domain": {

"param_default": "253",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_node": {

"param_default": "0",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_peer_ip": {

"param_default": "10.226.13.9",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"protocols_vrrp_interface_vrid_ip": {

"param_default": "192.168.10.252",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"system_hostname": {

"param_default": "Leaf17816",

"required": "required",

"type": "text",

"description": "",

"param_check": ""

},

"management_ethernet_eth0_ip_address_with_prefix_length": {

"param_default": "10.10.51.24/24",

"required": "required",

"type": "text",

"description": "eg. 10.10.51.24/24",

"param_check": ""

},

"management_ethernet_eth0_ip_gateway": {

"param_default": "10.10.51.1",

"required": "required",

"type": "IPv4",

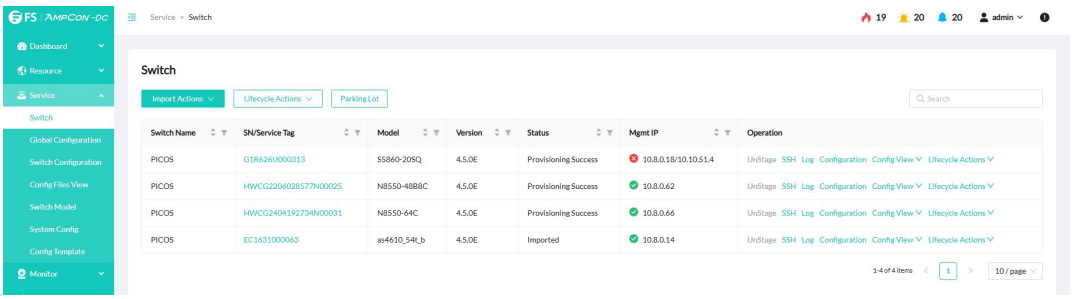
"description": "eg. 10.10.51.1",

"param_check": ""

}

}

param_end$

Actual results	

4.1.4 The Storage Server Switch ZTP

Test Name	The Storage Server Switch ZTP
Test Topo& Precondition	1. The AmpCon service is enabled successfully. 2. The switch has been powered on.
Test Procedure	1. Login in the AmpCon successfully. 2. Click the menu Service>System Config, set system configuration successfully. 3. Jump into the menu Service>Global Configuration, set global configuration successfully. 4. Jump into the menu Service>Config Template>Template List, click on the Upload menu to upload the template for server. For details about the template, see the following. 5. Jump into the menu Service>Switch Configuration, set switch configuration successfully. Then there is a new record added to the switch list. 6. Choose the newly added switch configuration, click on the Stage menu. Wait for the interaction between the server and AmpCon. **Template:** name: storage_N8550-64C_leaf_server_template description: content_start:

	{# !storage N8550-64C leaf server template #} {% set interface_ae_range_lower_bound, interface_ae_range_upper_bound = 1, 41 %} {% set ethernet_switching_native_vlan_id = 200 %} {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set interface aggregate-ethernet ae{{ i }} mtu 9216 set interface aggregate-ethernet ae{{ i }} aggregated-ether-options lacp enable true set interface aggregate-ethernet ae{{ i }} family ethernet-switching native-vlan-id {{ ethernet_switching_native_vlan_id }} {% endfor %} set interface aggregate-ethernet ae64 mtu 9216 set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090 set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk" set interface aggregate-ethernet ae64 family ethernet-switching vlan members {{ ethernet_switching_native_vlan_id }} {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set interface gigabit-ethernet xe-1/1/{{ i }} ether-options 802.3ad "ae{{ i }}" {% endfor %} set interface gigabit-ethernet xe-1/1/49 mtu 9216 set interface gigabit-ethernet xe-1/1/49 routed-interface name "rif-xe49" set interface gigabit-ethernet xe-1/1/49 routed-interface enable true set interface gigabit-ethernet xe-1/1/50 mtu 9216 set interface gigabit-ethernet xe-1/1/50 routed-interface name "rif-xe50" set interface gigabit-ethernet xe-1/1/50 routed-interface enable true set interface gigabit-ethernet xe-1/1/51 mtu 9216 set interface gigabit-ethernet xe-1/1/51 routed-interface name "rif-xe51" set interface gigabit-ethernet xe-1/1/51 routed-interface enable true set interface gigabit-ethernet xe-1/1/52 mtu 9216

	set interface gigabit-ethernet xe-1/1/52 routed-interface name "rif-xe52" set interface gigabit-ethernet xe-1/1/52 routed-interface enable true set interface gigabit-ethernet xe-1/1/63 ether-options 802.3ad "ae64" set interface gigabit-ethernet xe-1/1/64 ether-options 802.3ad "ae64" set ip routing enable true set l3-interface loopback lo address {{ l3_interface_loopback_lo_address }} prefix-length 32 {% set l3_interface_vlan_interface_vlan4090_address, l3_interface_vlan_interface_vlan4090_prefix = l3_interface_vlan_interface_vlan4090_address_with_prefix.split('/')%} set l3-interface vlan-interface vlan4090 address {{ l3_interface_vlan_interface_vlan4090_address }} prefix-length {{ l3_interface_vlan_interface_vlan4090_prefix }} {% set l3_interface_vlan_interface_vlan_address, l3_interface_vlan_interface_vlan_prefix = l3_interface_vlan_interface_vlan_address_with_prefix.split('/') %} set l3-interface vlan-interface vlan{{ ethernet_switching_native_vlan_id }} address {{ l3_interface_vlan_interface_vlan_address }} prefix-length {{ l3_interface_vlan_interface_vlan_prefix }} set l3-interface routed-interface rif-xe49 set l3-interface routed-interface rif-xe50 set l3-interface routed-interface rif-xe51 set l3-interface routed-interface rif-xe52 set protocols bgp local-as "{{ protocols_bgp_local_as }}" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id {{ l3_interface_loopback_lo_address }} set protocols bgp interface rif-xe49 remote-as "external" set protocols bgp interface rif-xe49 capability extended-nexthop

	set protocols bgp interface rif-xe49 ipv6-unicast activate true set protocols bgp interface rif-xe50 remote-as "external" set protocols bgp interface rif-xe50 capability extended-nexthop set protocols bgp interface rif-xe50 ipv6-unicast activate true set protocols bgp interface rif-xe51 remote-as "external" set protocols bgp interface rif-xe51 capability extended-nexthop set protocols bgp interface rif-xe51 ipv6-unicast activate true set protocols bgp interface rif-xe52 remote-as "external" set protocols bgp interface rif-xe52 capability extended-nexthop set protocols bgp interface rif-xe52 ipv6-unicast activate true set protocols bgp ipv4-unicast network {{ l3_interface_loopback_lo_address }}/32 set protocols bgp ipv4-unicast network {{ protocols_bgp_ipv4_unicast_network }} set protocols mlag domain {{ protocols_mlag_domain }} node {{ protocols_mlag_node }} set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-link "ae64" set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-vlan 4090 {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set protocols mlag domain {{ protocols_mlag_domain }} interface ae{{ i }} link {{ i }} {% endfor %} set protocols spanning-tree enable false set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 ip {{ protocols_vrrp_interface_vrid_ip }} set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 load-balance disable false set system hostname "{{ system_hostname }}" set system management-ethernet eth0 ip-address IPv4 "{{ management_ethernet_eth0_ip_address_with_prefix_length }}"

	set system management-ethernet eth0 ip-gateway IPv4
	{{ management_ethernet_eth0_ip_gateway }}
	set vlans reserved-vlan "2000-2127"
	set vlans vlan-id {{ ethernet_switching_native_vlan_id }} l3-interface
	"vlan{{ ethernet_switching_native_vlan_id }}"
	set vlans vlan-id 4090 l3-interface "vlan4090"
	
	content_end$
	param_start:
	{
	"l3_interface_loopback_lo_address": {
	"param_default": "111.111.111.111",
	"required": "required",
	"type": "IPV4",
	"description": "",
	"param_check": ""
	},
	"l3_interface_vlan_interface_vlan4090_address_with_prefix": {
	"param_default": "10.226.13.10/30",
	"required": "required",
	"type": "text",
	"description": "eg. 10.226.13.10/30",
	"param_check": ""
	},
	"l3_interface_vlan_interface_vlan_address_with_prefix": {
	"param_default": "192.168.200.10/24",
	"required": "required",
	"type": "text",
	"description": "eg. 192.168.200.10/24",

"param_check": ""

},

"protocols_bgp_local_as": {

"param_default": "800",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_bgp_ipv4_unicast_network": {

"param_default": "192.168.200.0/24",

"required": "required",

"type": "text",

"description": "eg. 192.168.200.0/24",

"param_check": ""

},

"protocols_mlag_domain": {

"param_default": "253",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_node": {

"param_default": "0",

"required": "required",

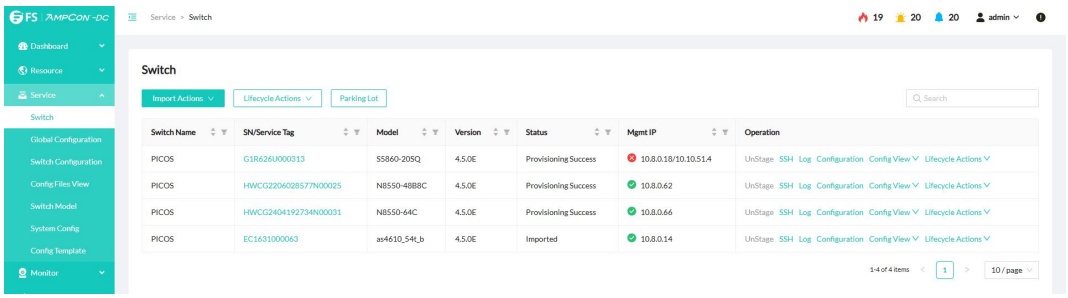
"type": "int",

"description": "",

"param_check": ""

```
},
"protocols_mlag_peer_ip": {
"param_default": "10.226.13.9",
"required": "required",
"type": "IPV4",
"description": "",
"param_check": ""
},
"protocols_vrrp_interface_vrid_ip": {
"param_default": "192.168.210.252",
"required": "required",
"type": "IPV4",
"description": "",
"param_check": ""
},
"system_hostname": {
"param_default": "Leaf17816",
"required": "required",
"type": "text",
"description": "",
"param_check": ""
},
"management_ethernet_eth0_ip_address_with_prefix_length": {
"param_default": "10.10.51.24/24",
"required": "required",
"type": "text",
"description": "eg. 10.10.51.24/24",
"param_check": ""
},
```

	"management_ethernet_eth0_ip_gateway": {
	"param_default": "10.10.51.1",
	"required": "required",
	"type": "IPv4",
	"description": "eg. 10.10.51.1",
	"param_check": ""
	}
	}
	param_end$

Actual results	

4.2 Deploy Management Network

4.2.1 Spine N8550-64C ZTP

Test Name	Spine N8550-64C ZTP
Test Topo& Precondition	1. The AmpCon service is enabled successfully. 2. The switch has been powered on.
Test Procedure	1. Login in the AmpCon successfully. 2. Click the menu Service>System Config, set system configuration successfully. 3. Jump into the menu Service>Global Configuration, set global configuration successfully. 4. Jump into the menu Service>Config Template>Template List, click on the Upload

	menu to upload the template for N8550-64C switch. For details about the template, see the following. 5. Jump into the menu Service>Switch Configuration, set switch configuration successfully. Then there is a new record added to the switch list. 6. Choose the newly added switch configuration, click on the Stage menu. Wait for the interaction between the switch and AmpCon. **Template:** name: intranet_N8550-64C_leaf_spine_template description: content_start: {} set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1" set interface gigabit-ethernet xe-1/1/1 routed-interface enable true set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2" set interface gigabit-ethernet xe-1/1/2 routed-interface enable true set interface gigabit-ethernet xe-1/1/3 routed-interface name "rif-xe3" set interface gigabit-ethernet xe-1/1/3 routed-interface enable true set interface gigabit-ethernet xe-1/1/4 routed-interface name "rif-xe4" set interface gigabit-ethernet xe-1/1/4 routed-interface enable true set interface gigabit-ethernet xe-1/1/5 routed-interface name "rif-xe5" set interface gigabit-ethernet xe-1/1/5 routed-interface enable true set interface gigabit-ethernet xe-1/1/6 routed-interface name "rif-xe6" set interface gigabit-ethernet xe-1/1/6 routed-interface enable true set interface gigabit-ethernet xe-1/1/7 routed-interface name "rif-xe7" set interface gigabit-ethernet xe-1/1/7 routed-interface enable true set interface gigabit-ethernet xe-1/1/8 routed-interface name "rif-xe8" set interface gigabit-ethernet xe-1/1/8 routed-interface enable true

	set interface gigabit-ethernet xe-1/1/9 routed-interface name "rif-xe9" set interface gigabit-ethernet xe-1/1/9 routed-interface enable true set interface gigabit-ethernet xe-1/1/10 routed-interface name "rif-xe10" set interface gigabit-ethernet xe-1/1/10 routed-interface enable true set interface gigabit-ethernet xe-1/1/11 routed-interface name "rif-xe11" set interface gigabit-ethernet xe-1/1/11 routed-interface enable true set interface gigabit-ethernet xe-1/1/12 routed-interface name "rif-xe12" set interface gigabit-ethernet xe-1/1/12 routed-interface enable true set interface gigabit-ethernet xe-1/1/13 routed-interface name "rif-xe13" set interface gigabit-ethernet xe-1/1/13 routed-interface enable true set interface gigabit-ethernet xe-1/1/14 routed-interface name "rif-xe14" set interface gigabit-ethernet xe-1/1/14 routed-interface enable true set interface gigabit-ethernet xe-1/1/15 routed-interface name "rif-xe15" set interface gigabit-ethernet xe-1/1/15 routed-interface enable true set interface gigabit-ethernet xe-1/1/16 routed-interface name "rif-xe16" set interface gigabit-ethernet xe-1/1/16 routed-interface enable true set interface gigabit-ethernet xe-1/1/17 routed-interface name "rif-xe17" set interface gigabit-ethernet xe-1/1/17 routed-interface enable true set interface gigabit-ethernet xe-1/1/18 routed-interface name "rif-xe18" set interface gigabit-ethernet xe-1/1/18 routed-interface enable true set interface gigabit-ethernet xe-1/1/19 routed-interface name "rif-xe19" set interface gigabit-ethernet xe-1/1/19 routed-interface enable true set interface gigabit-ethernet xe-1/1/20 routed-interface name "rif-xe20" set interface gigabit-ethernet xe-1/1/20 routed-interface enable true set interface gigabit-ethernet xe-1/1/21 routed-interface name "rif-xe21" set interface gigabit-ethernet xe-1/1/21 routed-interface enable true set interface gigabit-ethernet xe-1/1/22 routed-interface name "rif-xe22" set interface gigabit-ethernet xe-1/1/22 routed-interface enable true set interface gigabit-ethernet xe-1/1/23 routed-interface name "rif-xe23"

	set interface gigabit-ethernet xe-1/1/23 routed-interface enable true set interface gigabit-ethernet xe-1/1/24 routed-interface name "rif-xe24" set interface gigabit-ethernet xe-1/1/24 routed-interface enable true set interface gigabit-ethernet xe-1/1/25 routed-interface name "rif-xe25" set interface gigabit-ethernet xe-1/1/25 routed-interface enable true set interface gigabit-ethernet xe-1/1/26 routed-interface name "rif-xe26" set interface gigabit-ethernet xe-1/1/26 routed-interface enable true set interface gigabit-ethernet xe-1/1/27 routed-interface name "rif-xe27" set interface gigabit-ethernet xe-1/1/27 routed-interface enable true set interface gigabit-ethernet xe-1/1/28 routed-interface name "rif-xe28" set interface gigabit-ethernet xe-1/1/28 routed-interface enable true set interface gigabit-ethernet xe-1/1/29 routed-interface name "rif-xe29" set interface gigabit-ethernet xe-1/1/29 routed-interface enable true set interface gigabit-ethernet xe-1/1/30 routed-interface name "rif-xe30" set interface gigabit-ethernet xe-1/1/30 routed-interface enable true set interface gigabit-ethernet xe-1/1/32 routed-interface name "rif-xe32" set interface gigabit-ethernet xe-1/1/32 routed-interface enable true set interface gigabit-ethernet xe-1/1/33 routed-interface name "rif-xe33" set interface gigabit-ethernet xe-1/1/33 routed-interface enable true set interface gigabit-ethernet xe-1/1/34 routed-interface name "rif-xe34" set interface gigabit-ethernet xe-1/1/34 routed-interface enable true set interface gigabit-ethernet xe-1/1/35 routed-interface name "rif-xe35" set interface gigabit-ethernet xe-1/1/35 routed-interface enable true set interface gigabit-ethernet xe-1/1/36 routed-interface name "rif-xe36" set interface gigabit-ethernet xe-1/1/36 routed-interface enable true set interface gigabit-ethernet xe-1/1/37 routed-interface name "rif-xe37" set interface gigabit-ethernet xe-1/1/37 routed-interface enable true set interface gigabit-ethernet xe-1/1/63 routed-interface name "rif-xe63" set interface gigabit-ethernet xe-1/1/63 routed-interface enable true

	set interface gigabit-ethernet xe-1/1/64 routed-interface name "rif-xe64" set interface gigabit-ethernet xe-1/1/64 routed-interface enable true set ip routing enable true set l3-interface loopback lo address {{ l3_interface_loopback_lo_address }} prefix-length 32 set l3-interface routed-interface rif-xe1 set l3-interface routed-interface rif-xe2 set l3-interface routed-interface rif-xe3 set l3-interface routed-interface rif-xe4 set l3-interface routed-interface rif-xe5 set l3-interface routed-interface rif-xe6 set l3-interface routed-interface rif-xe7 set l3-interface routed-interface rif-xe8 set l3-interface routed-interface rif-xe9 set l3-interface routed-interface rif-xe10 set l3-interface routed-interface rif-xe11 set l3-interface routed-interface rif-xe12 set l3-interface routed-interface rif-xe13 set l3-interface routed-interface rif-xe14 set l3-interface routed-interface rif-xe15 set l3-interface routed-interface rif-xe16 set l3-interface routed-interface rif-xe17 set l3-interface routed-interface rif-xe18 set l3-interface routed-interface rif-xe19 set l3-interface routed-interface rif-xe20 set l3-interface routed-interface rif-xe21 set l3-interface routed-interface rif-xe22 set l3-interface routed-interface rif-xe23 set l3-interface routed-interface rif-xe24

	set l3-interface routed-interface rif-xe25 set l3-interface routed-interface rif-xe26 set l3-interface routed-interface rif-xe27 set l3-interface routed-interface rif-xe28 set l3-interface routed-interface rif-xe29 set l3-interface routed-interface rif-xe30 set l3-interface routed-interface rif-xe32 set l3-interface routed-interface rif-xe33 set l3-interface routed-interface rif-xe34 set l3-interface routed-interface rif-xe35 set l3-interface routed-interface rif-xe36 set l3-interface routed-interface rif-xe37 {% set l3_interface_vlan_interface_rif_xe63_address, l3_interface_vlan_interface_rif_xe63_prefix = l3_interface_vlan_interface_rif_xe63_address_with_prefix.split('/') %} set l3-interface routed-interface rif-xe63 address {{ l3_interface_vlan_interface_rif_xe63_address }} prefix-length {{ l3_interface_vlan_interface_rif_xe63_prefix }} {% set l3_interface_vlan_interface_rif_xe64_address, l3_interface_vlan_interface_rif_xe64_prefix = l3_interface_vlan_interface_rif_xe64_address_with_prefix.split('/') %} set l3-interface routed-interface rif-xe64 address {{ l3_interface_vlan_interface_rif_xe64_address }} prefix-length {{ l3_interface_vlan_interface_rif_xe64_prefix }} {% set l3_interface_vlan_interface_uplink_address, l3_interface_vlan_interface_uplink_prefix = l3_interface_vlan_interface_uplink_address_with_prefix.split('/') %} set l3-interface vlan-interface vlan{{ uplink_vlan_id }} address {{ l3_interface_vlan_interface_uplink_address }} prefix-length

	{{ l3_interface_vlan_interface_uplink_prefix }} set protocols bgp local-as "{{ protocols_bgp_local_as }}" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id {{ l3_interface_loopback_lo_address }} set protocols bgp interface rif-xe1 remote-as "external" set protocols bgp interface rif-xe1 capability extended-nexthop set protocols bgp interface rif-xe1 ipv6-unicast activate true set protocols bgp interface rif-xe2 remote-as "external" set protocols bgp interface rif-xe2 capability extended-nexthop set protocols bgp interface rif-xe2 ipv6-unicast activate true set protocols bgp interface rif-xe3 remote-as "external" set protocols bgp interface rif-xe3 capability extended-nexthop set protocols bgp interface rif-xe3 ipv6-unicast activate true set protocols bgp interface rif-xe4 remote-as "external" set protocols bgp interface rif-xe4 capability extended-nexthop set protocols bgp interface rif-xe4 ipv6-unicast activate true set protocols bgp interface rif-xe5 remote-as "external" set protocols bgp interface rif-xe5 capability extended-nexthop set protocols bgp interface rif-xe5 ipv6-unicast activate true set protocols bgp interface rif-xe6 remote-as "external" set protocols bgp interface rif-xe6 capability extended-nexthop set protocols bgp interface rif-xe6 ipv6-unicast activate true set protocols bgp interface rif-xe7 remote-as "external" set protocols bgp interface rif-xe7 capability extended-nexthop set protocols bgp interface rif-xe7 ipv6-unicast activate true set protocols bgp interface rif-xe8 remote-as "external" set protocols bgp interface rif-xe8 capability extended-nexthop set protocols bgp interface rif-xe8 ipv6-unicast activate true

	set protocols bgp interface rif-xe9 remote-as "external" set protocols bgp interface rif-xe9 capability extended-nexthop set protocols bgp interface rif-xe9 ipv6-unicast activate true set protocols bgp interface rif-xe10 remote-as "external" set protocols bgp interface rif-xe10 capability extended-nexthop set protocols bgp interface rif-xe10 ipv6-unicast activate true set protocols bgp interface rif-xe11 remote-as "external" set protocols bgp interface rif-xe11 capability extended-nexthop set protocols bgp interface rif-xe11 ipv6-unicast activate true set protocols bgp interface rif-xe12 remote-as "external" set protocols bgp interface rif-xe12 capability extended-nexthop set protocols bgp interface rif-xe12 ipv6-unicast activate true set protocols bgp interface rif-xe13 remote-as "external" set protocols bgp interface rif-xe13 capability extended-nexthop set protocols bgp interface rif-xe13 ipv6-unicast activate true set protocols bgp interface rif-xe14 remote-as "external" set protocols bgp interface rif-xe14 capability extended-nexthop set protocols bgp interface rif-xe14 ipv6-unicast activate true set protocols bgp interface rif-xe15 remote-as "external" set protocols bgp interface rif-xe15 capability extended-nexthop set protocols bgp interface rif-xe15 ipv6-unicast activate true set protocols bgp interface rif-xe16 remote-as "external" set protocols bgp interface rif-xe16 capability extended-nexthop set protocols bgp interface rif-xe16 ipv6-unicast activate true set protocols bgp interface rif-xe17 remote-as "external" set protocols bgp interface rif-xe17 capability extended-nexthop set protocols bgp interface rif-xe17 ipv6-unicast activate true set protocols bgp interface rif-xe18 remote-as "external" set protocols bgp interface rif-xe18 capability extended-nexthop

	set protocols bgp interface rif-xe18 ipv6-unicast activate true set protocols bgp interface rif-xe19 remote-as "external" set protocols bgp interface rif-xe19 capability extended-nexthop set protocols bgp interface rif-xe19 ipv6-unicast activate true set protocols bgp interface rif-xe20 remote-as "external" set protocols bgp interface rif-xe20 capability extended-nexthop set protocols bgp interface rif-xe20 ipv6-unicast activate true set protocols bgp interface rif-xe21 remote-as "external" set protocols bgp interface rif-xe21 capability extended-nexthop set protocols bgp interface rif-xe21 ipv6-unicast activate true set protocols bgp interface rif-xe22 remote-as "external" set protocols bgp interface rif-xe22 capability extended-nexthop set protocols bgp interface rif-xe22 ipv6-unicast activate true set protocols bgp interface rif-xe23 remote-as "external" set protocols bgp interface rif-xe23 capability extended-nexthop set protocols bgp interface rif-xe23 ipv6-unicast activate true set protocols bgp interface rif-xe24 remote-as "external" set protocols bgp interface rif-xe24 capability extended-nexthop set protocols bgp interface rif-xe24 ipv6-unicast activate true set protocols bgp interface rif-xe25 remote-as "external" set protocols bgp interface rif-xe25 capability extended-nexthop set protocols bgp interface rif-xe25 ipv6-unicast activate true set protocols bgp interface rif-xe26 remote-as "external" set protocols bgp interface rif-xe26 capability extended-nexthop set protocols bgp interface rif-xe26 ipv6-unicast activate true set protocols bgp interface rif-xe27 remote-as "external" set protocols bgp interface rif-xe27 capability extended-nexthop set protocols bgp interface rif-xe27 ipv6-unicast activate true set protocols bgp interface rif-xe28 remote-as "external"

	set protocols bgp interface rif-xe28 capability extended-nexthop set protocols bgp interface rif-xe28 ipv6-unicast activate true set protocols bgp interface rif-xe29 remote-as "external" set protocols bgp interface rif-xe29 capability extended-nexthop set protocols bgp interface rif-xe29 ipv6-unicast activate true set protocols bgp interface rif-xe30 remote-as "external" set protocols bgp interface rif-xe30 capability extended-nexthop set protocols bgp interface rif-xe30 ipv6-unicast activate true set protocols bgp interface rif-xe32 remote-as "external" set protocols bgp interface rif-xe32 capability extended-nexthop set protocols bgp interface rif-xe32 ipv6-unicast activate true set protocols bgp interface rif-xe33 remote-as "external" set protocols bgp interface rif-xe33 capability extended-nexthop set protocols bgp interface rif-xe33 ipv6-unicast activate true set protocols bgp interface rif-xe34 remote-as "external" set protocols bgp interface rif-xe34 capability extended-nexthop set protocols bgp interface rif-xe34 ipv6-unicast activate true set protocols bgp interface rif-xe35 remote-as "external" set protocols bgp interface rif-xe35 capability extended-nexthop set protocols bgp interface rif-xe35 ipv6-unicast activate true set protocols bgp interface rif-xe36 remote-as "external" set protocols bgp interface rif-xe36 capability extended-nexthop set protocols bgp interface rif-xe36 ipv6-unicast activate true set protocols bgp interface rif-xe37 remote-as "external" set protocols bgp interface rif-xe37 capability extended-nexthop set protocols bgp interface rif-xe37 ipv6-unicast activate true set protocols bgp ipv4-unicast network {{ l3_interface_loopback_lo_address }}/32 set protocols bgp ipv4-unicast redistribute static set protocols static route 0.0.0.0/0 next-hop {{ uplink_route_next_hop }}

	set protocols static route 10.1.0.0/16 next-hop {{ downlink_route_next_hop1 }}
	set protocols static route 10.1.0.0/16 next-hop {{ downlink_route_next_hop2 }}
	set system hostname "{{ system_hostname }}"
	set vlans reserved-vlan 2000-2127
	set vlans vlan-id {{ uplink_vlan_id }} l3-interface "vlan{{ uplink_vlan_id }}"
	
	content_end$
	param_start:
	{ "l3_interface_loopback_lo_address": {
	"param_default": "10.10.10.10",
	"required": "required",
	"type": "IPV4",
	"description": "",
	"param_check": ""
	},
	"uplink_vlan_id": {
	"param_default": "100",
	"required": "required",
	"type": "int",
	"description": "",
	"param_check": ""
	},
	"l3_interface_vlan_interface_uplink_address_with_prefix": {
	"param_default": "172.168.1.10/24",
	"required": "required",
	"type": "text",
	"description": "eg. 172.168.1.10/24",
	"param_check": ""
	},

"l3_interface_vlan_interface_rif_xe63_address_with_prefix": {

"param_default": "172.168.1.10/24",

"required": "required",

"type": "text",

"description": "eg. 172.168.1.10/24",

"param_check": ""

},

"l3_interface_vlan_interface_rif_xe64_address_with_prefix": {

"param_default": "172.168.2.10/24",

"required": "required",

"type": "text",

"description": "eg. 172.168.2.10/24",

"param_check": ""

},

"protocols_bgp_local_as": {

"param_default": "500",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"uplink_route_next_hop": {

"param_default": "172.16.0.1",

"required": "required",

"type": "IPV4",

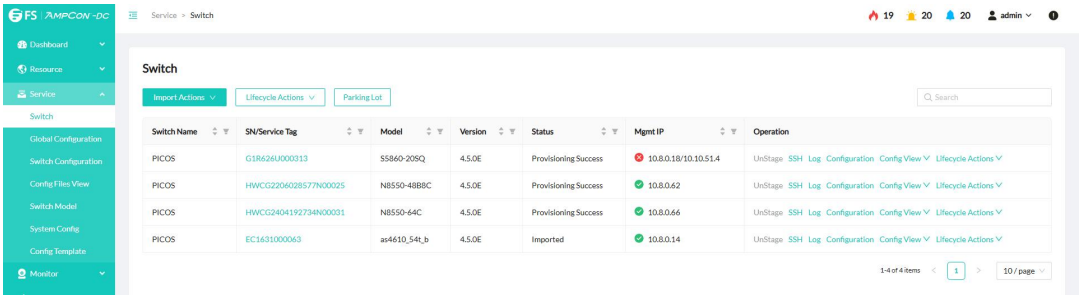
"description": "",

"param_check": ""

},

"downlink_route_next_hop1": {

	"param_default": "172.16.0.1",
	"required": "required",
	"type": "IPV4",
	"description": "",
	"param_check": ""
	},
	"downlink_route_next_hop2": {
	"param_default": "172.16.0.1",
	"required": "required",
	"type": "IPV4",
	"description": "",
	"param_check": ""
	},
	"system_hostname": {
	"param_default": "Spine1",
	"required": "required",
	"type": "text",
	"description": "",
	"param_check": ""
	}
	}
	param_end$

Actual results	

4.2.2 Leaf N8550-48B8C ZTP

Test Name	Leaf N8550-48B8C ZTP
Test Topo& Precondition	1. The AmpCon service is enabled successfully. 2. The switch has been powered on.
Test Procedure	1. Login in the AmpCon successfully. 2. Click the menu Service>System Config, set system configuration successfully. 3. Jump into the menu Service>Global Configuration, set global configuration successfully. 4. Jump into the menu Service>Config Template>Template List, click on the Upload menu to upload the template for N8550-48B8C switch. For details about the template, see the following. 5. Jump into the menu Service>Switch Configuration, set switch configuration successfully. Then there is a new record added to the switch list. 6. Choose the newly added switch configuration, click on the Stage menu. Wait for the interaction between the switch and AmpCon. **Template:** name: intranet_N8550-48B8C_leaf_storage_template description: content_start: {# !intranet N8550-48B8C leaf storage template #} {% set interface_ae_range_lower_bound, interface_ae_range_upper_bound = 1, 45 %} {% set ethernet_switching_native_vlan_id = 210 %} {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set interface aggregate-ethernet ae{{ i }} aggregated-ether-options lacp enable true set interface aggregate-ethernet ae{{ i }} family ethernet-switching native-vlan-id {{ ethernet_switching_native_vlan_id }}

	{% endfor %} set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090 set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk" set interface aggregate-ethernet ae64 family ethernet-switching vlan members {{ ethernet_switching_native_vlan_id }} {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set interface gigabit-ethernet te-1/1/{{ i }} ether-options 802.3ad "ae{{ i }}" {% endfor %} set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1" set interface gigabit-ethernet xe-1/1/1 routed-interface enable true set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2" set interface gigabit-ethernet xe-1/1/2 routed-interface enable true set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae64" set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae64" set ip routing enable true set l3-interface loopback lo address {{ l3_interface_loopback_lo_address }} prefix-length 32 {% set l3_interface_vlan_interface_vlan4090_address, l3_interface_vlan_interface_vlan4090_prefix = l3_interface_vlan_interface_vlan4090_address_with_prefix.split('/')%} set l3-interface vlan-interface vlan4090 address {{ l3_interface_vlan_interface_vlan4090_address }} prefix-length {{ l3_interface_vlan_interface_vlan4090_prefix }} {% set l3_interface_vlan_interface_vlan_address, l3_interface_vlan_interface_vlan_prefix = l3_interface_vlan_interface_vlan_address_with_prefix.split('/') %} set l3-interface vlan-interface vlan{{ ethernet_switching_native_vlan_id }} address {{ l3_interface_vlan_interface_vlan_address }} prefix-length

	{{ l3_interface_vlan_interface_vlan_prefix }} set l3-interface routed-interface rif-xe1 set l3-interface routed-interface rif-xe2 set protocols bgp local-as "{{ protocols_bgp_local_as }}" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id {{ l3_interface_loopback_lo_address }} set protocols bgp interface rif-xe1 remote-as "external" set protocols bgp interface rif-xe1 capability extended-nexthop set protocols bgp interface rif-xe1 ipv6-unicast activate true set protocols bgp interface rif-xe2 remote-as "external" set protocols bgp interface rif-xe2 capability extended-nexthop set protocols bgp interface rif-xe2 ipv6-unicast activate true set protocols bgp ipv4-unicast network {{ l3_interface_loopback_lo_address }}/32 set protocols bgp ipv4-unicast network {{ protocols_bgp_ipv4_unicast_network }} set protocols mlag domain {{ protocols_mlag_domain }} node {{ protocols_mlag_node }} set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-link "ae64" set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-vlan 4090 {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set protocols mlag domain {{ protocols_mlag_domain }} interface ae{{ i }} link {{ i }} {% endfor %} set protocols spanning-tree enable false set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 ip {{ protocols_vrrp_interface_vrid_ip }} set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 load-balance disable false

	set system management-ethernet eth0 ip-address IPv4
	"{{ management_ethernet_eth0_ip_address_with_prefix_length }}"
	set system management-ethernet eth0 ip-gateway IPv4
	{{ management_ethernet_eth0_ip_gateway }}
	set system hostname "{{ system_hostname }}"
	set vlans reserved-vlan "2000-2127"
	set vlans vlan-id {{ ethernet_switching_native_vlan_id }} l3-interface
	"vlan{{ ethernet_switching_native_vlan_id }}"
	set vlans vlan-id 4090 l3-interface "vlan4090"
	
	content_end$
	param_start:
	{
	"l3_interface_loopback_lo_address": {
	"param_default": "1.1.1.1",
	"required": "required",
	"type": "IPV4",
	"description": "",
	"param_check": ""
	},
	"l3_interface_vlan_interface_vlan4090_address_with_prefix": {
	"param_default": "10.226.13.10/30",
	"required": "required",
	"type": "text",
	"description": "eg. 10.226.13.10/30",
	"param_check": ""
	},
	"l3_interface_vlan_interface_vlan_address_with_prefix": {
	"param_default": "192.168.100.10/24",

"required": "required",
"type": "text",
"description": "eg. 192.168.100.10/24",
"param_check": ""
},
"protocols_bgp_local_as": {
"param_default": "900",
"required": "required",
"type": "int",
"description": "",
"param_check": ""
},
"protocols_bgp_ipv4_unicast_network": {
"param_default": "192.168.100.0/24",
"required": "required",
"type": "text",
"description": "eg. 192.168.100.0/24",
"param_check": ""
},
"protocols_mlag_domain": {
"param_default": "253",
"required": "required",
"type": "int",
"description": "",
"param_check": ""
},
"protocols_mlag_node": {
"param_default": "0",
"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_peer_ip": {

"param_default": "10.226.13.9",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"protocols_vrrp_interface_vrid_ip": {

"param_default": "192.168.100.252",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"management_ethernet_eth0_ip_address_with_prefix_length": {

"param_default": "10.10.51.24/24",

"required": "required",

"type": "text",

"description": "eg. 10.10.51.24/24",

"param_check": ""

},

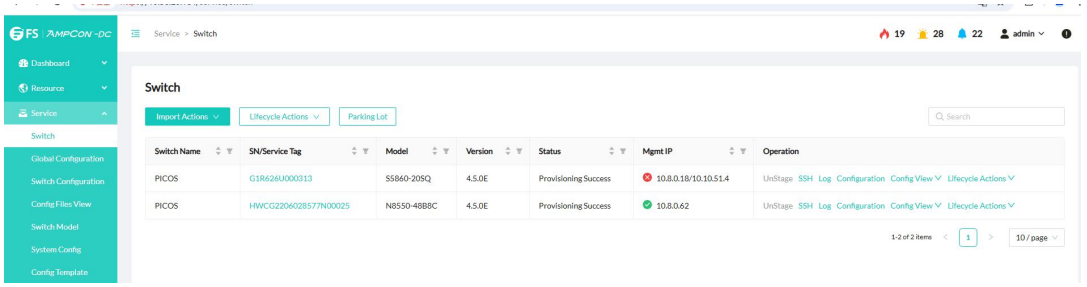
"management_ethernet_eth0_ip_gateway": {

"param_default": "10.10.51.1",

"required": "required",

"type": "IPv4",

	"description": "eg. 10.10.51.1",
	"param_check": ""
	},
	"system_hostname": {
	"param_default": "Leaf1",
	"required": "required",
	"type": "text",
	"description": "",
	"param_check": ""
	}
	}
	param_end$

Actual results	

4.2.3 The Server GPU Switch ZTP

Test Name	The Server GPU Switch ZTP
Test Topo& Precondition	1. The AmpCon service is enabled successfully. 2. The switch has been powered on.
Test Procedure	1. Login in the AmpCon successfully. 2. Click the menu Service>System Config, set system configuration successfully. 3. Jump into the menu Service>Global Configuration, set global configuration successfully. 4. Jump into the menu Service>Config Template>Template List, click on the Upload

menu to upload the template for GPU server. For details about the template, see the following.

5. Jump into the menu Service>Switch Configuration, set switch configuration successfully. Then there is a new record added to the switch list.

6. Choose the newly added switch configuration, click on the Stage menu. Wait for the interaction between the server and AmpCon.

Template:

name: intranet_N8550-48B8C _leaf_gpu_template

description:

content_start:

{# !intranet N8550-48B8C leaf gpu template #}

{% set interface_ae_range_lower_bound, interface_ae_range_upper_bound = 1, 32 %}

{% for i in range(interface_ae_range_lower_bound | int,

interface_ae_range_upper_bound | int + 1) %}

set interface aggregate-ethernet ae{{ i }} aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae{{ i }} family ethernet-switching native-vlan-id

{{ ethernet_switching_native_vlan_id }}

{% endfor %}

set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090

set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"

set interface aggregate-ethernet ae64 family ethernet-switching vlan members

{{ ethernet_switching_native_vlan_id }}

{% for i in range(interface_ae_range_lower_bound | int,

interface_ae_range_upper_bound | int + 1) %}

set interface gigabit-ethernet te-1/1/{{ i }} ether-options 802.3ad "ae{{ i }}"

{% endfor %}

	set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1" set interface gigabit-ethernet xe-1/1/1 routed-interface enable true set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2" set interface gigabit-ethernet xe-1/1/2 routed-interface enable true set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae64" set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae64" set ip routing enable true set l3-interface loopback lo address {{ l3_interface_loopback_lo_address }} prefix-length 32 {% set l3_interface_vlan_interface_vlan4090_address, l3_interface_vlan_interface_vlan4090_prefix = l3_interface_vlan_interface_vlan4090_address_with_prefix.split('/')%} set l3-interface vlan-interface vlan4090 address {{ l3_interface_vlan_interface_vlan4090_address }} prefix-length {{ l3_interface_vlan_interface_vlan4090_prefix }} {% set l3_interface_vlan_interface_vlan_address, l3_interface_vlan_interface_vlan_prefix = l3_interface_vlan_interface_vlan_address_with_prefix.split('/') %} set l3-interface vlan-interface vlan{{ ethernet_switching_native_vlan_id }} address {{ l3_interface_vlan_interface_vlan_address }} prefix-length {{ l3_interface_vlan_interface_vlan_prefix }} set l3-interface routed-interface rif-xe1 set l3-interface routed-interface rif-xe2 set protocols bgp local-as "{{ protocols_bgp_local_as }}" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id {{ l3_interface_loopback_lo_address }} set protocols bgp interface rif-xe1 remote-as "external" set protocols bgp interface rif-xe1 capability extended-nexthop

	set protocols bgp interface rif-xe1 ipv6-unicast activate true set protocols bgp interface rif-xe2 remote-as "external" set protocols bgp interface rif-xe2 capability extended-nexthop set protocols bgp interface rif-xe2 ipv6-unicast activate true set protocols bgp ipv4-unicast network {{ l3_interface_loopback_lo_address }}/32 set protocols bgp ipv4-unicast network {{ protocols_bgp_ipv4_unicast_network }} set protocols mlag domain {{ protocols_mlag_domain }} node {{ protocols_mlag_node }} set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-link "ae64" set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-vlan 4090 {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set protocols mlag domain {{ protocols_mlag_domain }} interface ae{{ i }} link {{ i }} {% endfor %} set protocols spanning-tree enable false set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 ip {{ protocols_vrrp_interface_vrid_ip }} set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 load-balance disable false set system management-ethernet eth0 ip-address IPv4 "{{ management_ethernet_eth0_ip_address_with_prefix_length }}" set system management-ethernet eth0 ip-gateway IPv4 {{ management_ethernet_eth0_ip_gateway }} set system hostname "{{ system_hostname }}" set vlans reserved-vlan "2000-2127" set vlans vlan-id {{ ethernet_switching_native_vlan_id }} l3-interface "vlan{{ ethernet_switching_native_vlan_id }}" set vlans vlan-id 4090 l3-interface "vlan4090"

content_end$

param_start:

{

"l3_interface_loopback_lo_address": {

"param_default": "1.1.1.1",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"ethernet_switching_native_vlan_id": {

"param_default": "100",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"l3_interface_vlan_interface_vlan4090_address_with_prefix": {

"param_default": "10.226.13.10/30",

"required": "required",

"type": "text",

"description": "eg. 10.226.13.10/30",

"param_check": ""

},

"l3_interface_vlan_interface_vlan_address_with_prefix": {

"param_default": "192.168.100.10/24",

"required": "required",

"type": "text",

"description": "eg. 192.168.100.10/24",

"param_check": ""

},

"protocols_bgp_local_as": {

"param_default": "900",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_bgp_ipv4_unicast_network": {

"param_default": "192.168.100.0/24",

"required": "required",

"type": "text",

"description": "eg. 192.168.100.0/24",

"param_check": ""

},

"protocols_mlag_domain": {

"param_default": "253",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_node": {

"param_default": "0",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_peer_ip": {

"param_default": "10.226.13.9",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"protocols_vrrp_interface_vrid_ip": {

"param_default": "192.168.100.252",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"management_ethernet_eth0_ip_address_with_prefix_length": {

"param_default": "10.10.51.24/24",

"required": "required",

"type": "text",

"description": "eg. 10.10.51.24/24",

"param_check": ""

},

"management_ethernet_eth0_ip_gateway": {

"param_default": "10.10.51.1",

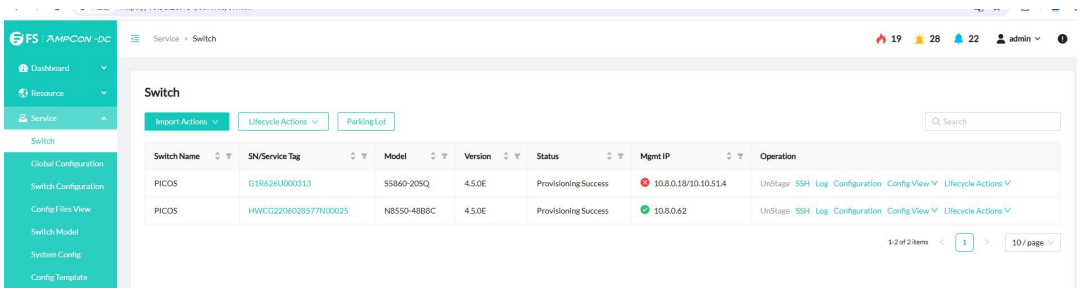
"required": "required",

"type": "IPv4",

"description": "eg. 10.10.51.1",

"param_check": ""

	},
	"system_hostname": {
	"param_default": "Leaf1",
	"required": "required",
	"type": "text",
	"description": "",
	"param_check": ""
	}
	}
	param_end$

Actual results	

4.2.4 The Storage Server Switch ZTP

Test Name	The Storage Server Switch ZTP
Test Topo& Precondition	1. The AmpCon service is enabled successfully. 2. The switch has been powered on.
Test Procedure	1. Login in the AmpCon successfully. 2. Click the menu Service>System Config, set system configuration successfully. 3. Jump into the menu Service>Global Configuration, set global configuration successfully. 4. Jump into the menu Service>Config Template>Template List, click on the Upload menu to upload the template for server. For details about the template, see the following.

5. Jump into the menu Service>Switch Configuration, set switch configuration successfully. Then there is a new record added to the switch list.

6. Choose the newly added switch configuration, click on the Stage menu. Wait for the interaction between the server and AmpCon.

Template:

name: intranet_asN8550-64C_leaf_server_template

description:

content_start:

```
{# !intranet asN8550-64C leaf server template #}
{% set interface_ae_range_lower_bound, interface_ae_range_upper_bound = 1, 41 %}
{% set ethernet_switching_native_vlan_id = 200 %}
{% for i in range(interface_ae_range_lower_bound | int,
interface_ae_range_upper_bound | int + 1) %}
set interface aggregate-ethernet ae{{ i }} aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae{{ i }} family ethernet-switching native-vlan-id
{{ ethernet_switching_native_vlan_id }}
{% endfor %}
set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090
set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"
set interface aggregate-ethernet ae64 family ethernet-switching vlan members
{{ ethernet_switching_native_vlan_id }}
{% for i in range(interface_ae_range_lower_bound | int,
interface_ae_range_upper_bound | int + 1) %}
set interface gigabit-ethernet te-1/1/{{ i }} ether-options 802.3ad "ae{{ i }}"
{% endfor %}
set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1"
set interface gigabit-ethernet xe-1/1/1 routed-interface enable true
```

	set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2" set interface gigabit-ethernet xe-1/1/2 routed-interface enable true set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae64" set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae64" set ip routing enable true set l3-interface loopback lo address {{ l3_interface_loopback_lo_address }} prefix-length 32 {% set l3_interface_vlan_interface_vlan4090_address, l3_interface_vlan_interface_vlan4090_prefix = l3_interface_vlan_interface_vlan4090_address_with_prefix.split('/')%} set l3-interface vlan-interface vlan4090 address {{ l3_interface_vlan_interface_vlan4090_address }} prefix-length {{ l3_interface_vlan_interface_vlan4090_prefix }} {% set l3_interface_vlan_interface_vlan_address, l3_interface_vlan_interface_vlan_prefix = l3_interface_vlan_interface_vlan_address_with_prefix.split('/') %} set l3-interface vlan-interface vlan{{ ethernet_switching_native_vlan_id }} address {{ l3_interface_vlan_interface_vlan_address }} prefix-length {{ l3_interface_vlan_interface_vlan_prefix }} set l3-interface routed-interface rif-xe1 set l3-interface routed-interface rif-xe2 set protocols bgp local-as "{{ protocols_bgp_local_as }}" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id {{ l3_interface_loopback_lo_address }} set protocols bgp interface rif-xe1 remote-as "external" set protocols bgp interface rif-xe1 capability extended-nexthop set protocols bgp interface rif-xe1 ipv6-unicast activate true set protocols bgp interface rif-xe2 remote-as "external"

	set protocols bgp interface rif-xe2 capability extended-nexthop set protocols bgp interface rif-xe2 ipv6-unicast activate true set protocols bgp ipv4-unicast network {{ l3_interface_loopback_lo_address }}/32 set protocols bgp ipv4-unicast network {{ protocols_bgp_ipv4_unicast_network }} set protocols mlag domain {{ protocols_mlag_domain }} node {{ protocols_mlag_node }} set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-link "ae64" set protocols mlag domain {{ protocols_mlag_domain }} peer-ip {{ protocols_mlag_peer_ip }} peer-vlan 4090 {% for i in range(interface_ae_range_lower_bound | int, interface_ae_range_upper_bound | int + 1) %} set protocols mlag domain {{ protocols_mlag_domain }} interface ae{{ i }} link {{ i }} {% endfor %} set protocols spanning-tree enable false set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 ip {{ protocols_vrrp_interface_vrid_ip }} set protocols vrrp interface vlan{{ ethernet_switching_native_vlan_id }} vrid 1 load-balance disable false set system management-ethernet eth0 ip-address IPv4 "{{ management_ethernet_eth0_ip_address_with_prefix_length }}" set system management-ethernet eth0 ip-gateway IPv4 {{ management_ethernet_eth0_ip_gateway }} set system hostname "{{ system_hostname }}" set vlans reserved-vlan "2000-2127" set vlans vlan-id {{ ethernet_switching_native_vlan_id }} l3-interface "vlan{{ ethernet_switching_native_vlan_id }}" set vlans vlan-id 4090 l3-interface "vlan4090" content_end$

param_start:

{

"l3_interface_loopback_lo_address": {

"param_default": "1.1.1.1",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"l3_interface_vlan_interface_vlan4090_address_with_prefix": {

"param_default": "10.226.13.10/30",

"required": "required",

"type": "text",

"description": "eg. 10.226.13.10/30",

"param_check": ""

},

"l3_interface_vlan_interface_vlan_address_with_prefix": {

"param_default": "192.168.100.10/24",

"required": "required",

"type": "text",

"description": "eg. 192.168.100.10/24",

"param_check": ""

},

"protocols_bgp_local_as": {

"param_default": "900",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_bgp_ipv4_unicast_network": {

"param_default": "192.168.100.0/24",

"required": "required",

"type": "text",

"description": "eg. 192.168.100.0/24",

"param_check": ""

},

"protocols_mlag_domain": {

"param_default": "253",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_node": {

"param_default": "0",

"required": "required",

"type": "int",

"description": "",

"param_check": ""

},

"protocols_mlag_peer_ip": {

"param_default": "10.226.13.9",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"protocols_vrrp_interface_vrid_ip": {

"param_default": "192.168.100.252",

"required": "required",

"type": "IPV4",

"description": "",

"param_check": ""

},

"management_ethernet_eth0_ip_address_with_prefix_length": {

"param_default": "10.10.51.24/24",

"required": "required",

"type": "text",

"description": "eg. 10.10.51.24/24",

"param_check": ""

},

"management_ethernet_eth0_ip_gateway": {

"param_default": "10.10.51.1",

"required": "required",

"type": "IPv4",

"description": "eg. 10.10.51.1",

"param_check": ""

},

"system_hostname": {

"param_default": "Leaf1",

"required": "required",

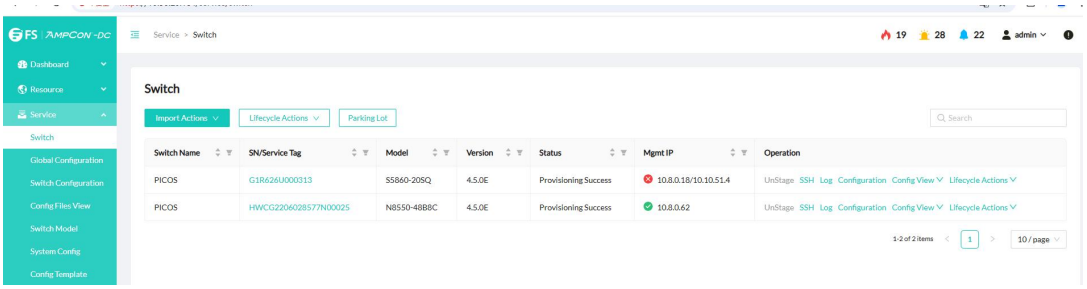
"type": "text",

"description": "",

"param_check": ""

}

}

	param_end$
Actual results	

5 Switch Configuration Information

5.1 Storage Network Switch Configuration

5.1.1 The Spine Switch Configuration Example

admin@Spine1# show | display set | no-more

set interface aggregate-ethernet ae1 mtu 9216

set interface aggregate-ethernet ae1 routed-interface name "rif-ae1"

set interface aggregate-ethernet ae1 routed-interface enable true

set interface aggregate-ethernet ae2 mtu 9216

set interface aggregate-ethernet ae2 routed-interface name "rif-ae2"

set interface aggregate-ethernet ae2 routed-interface enable true

set interface gigabit-ethernet xe-1/1/1 mtu 9216

set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1"

set interface gigabit-ethernet xe-1/1/1 routed-interface enable true

set interface gigabit-ethernet xe-1/1/2 mtu 9216

set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2"

set interface gigabit-ethernet xe-1/1/2 routed-interface enable true

set interface gigabit-ethernet xe-1/1/3 mtu 9216

set interface gigabit-ethernet xe-1/1/3 routed-interface name "rif-xe3"

set interface gigabit-ethernet xe-1/1/3 routed-interface enable true

set interface gigabit-ethernet xe-1/1/4 mtu 9216

set interface gigabit-ethernet xe-1/1/4 routed-interface name "rif-xe4"

set interface gigabit-ethernet xe-1/1/4 routed-interface enable true

set interface gigabit-ethernet xe-1/1/5 mtu 9216

set interface gigabit-ethernet xe-1/1/5 routed-interface name "rif-xe5"

set interface gigabit-ethernet xe-1/1/5 routed-interface enable true

set interface gigabit-ethernet xe-1/1/6 mtu 9216

set interface gigabit-ethernet xe-1/1/6 routed-interface name "rif-xe6"

set interface gigabit-ethernet xe-1/1/6 routed-interface enable true

set interface gigabit-ethernet xe-1/1/7 mtu 9216

set interface gigabit-ethernet xe-1/1/7 routed-interface name "rif-xe7"

set interface gigabit-ethernet xe-1/1/7 routed-interface enable true

set interface gigabit-ethernet xe-1/1/8 mtu 9216

set interface gigabit-ethernet xe-1/1/8 routed-interface name "rif-xe8"

set interface gigabit-ethernet xe-1/1/8 routed-interface enable true

set interface gigabit-ethernet xe-1/1/9 mtu 9216

set interface gigabit-ethernet xe-1/1/9 routed-interface name "rif-xe9"

set interface gigabit-ethernet xe-1/1/9 routed-interface enable true

set interface gigabit-ethernet xe-1/1/10 mtu 9216

set interface gigabit-ethernet xe-1/1/10 routed-interface name "rif-xe10"

set interface gigabit-ethernet xe-1/1/10 routed-interface enable true

set interface gigabit-ethernet xe-1/1/11 mtu 9216

set interface gigabit-ethernet xe-1/1/11 routed-interface name "rif-xe11"

set interface gigabit-ethernet xe-1/1/11 routed-interface enable true

set interface gigabit-ethernet xe-1/1/12 mtu 9216

set interface gigabit-ethernet xe-1/1/12 routed-interface name "rif-xe12"

set interface gigabit-ethernet xe-1/1/12 routed-interface enable true

set interface gigabit-ethernet xe-1/1/13 mtu 9216

set interface gigabit-ethernet xe-1/1/13 routed-interface name "rif-xe13"

set interface gigabit-ethernet xe-1/1/13 routed-interface enable true

set interface gigabit-ethernet xe-1/1/14 mtu 9216

set interface gigabit-ethernet xe-1/1/14 routed-interface name "rif-xe14"

set interface gigabit-ethernet xe-1/1/14 routed-interface enable true

set interface gigabit-ethernet xe-1/1/15 mtu 9216

set interface gigabit-ethernet xe-1/1/15 routed-interface name "rif-xe15"

set interface gigabit-ethernet xe-1/1/15 routed-interface enable true

set interface gigabit-ethernet xe-1/1/16 mtu 9216

set interface gigabit-ethernet xe-1/1/16 routed-interface name "rif-xe16"

set interface gigabit-ethernet xe-1/1/16 routed-interface enable true

set interface gigabit-ethernet xe-1/1/17 mtu 9216

set interface gigabit-ethernet xe-1/1/17 routed-interface name "rif-xe17"

set interface gigabit-ethernet xe-1/1/17 routed-interface enable true

set interface gigabit-ethernet xe-1/1/18 mtu 9216

set interface gigabit-ethernet xe-1/1/18 routed-interface name "rif-xe18"

set interface gigabit-ethernet xe-1/1/18 routed-interface enable true

set interface gigabit-ethernet xe-1/1/19 mtu 9216

set interface gigabit-ethernet xe-1/1/19 routed-interface name "rif-xe19"

set interface gigabit-ethernet xe-1/1/19 routed-interface enable true

set interface gigabit-ethernet xe-1/1/20 mtu 9216

set interface gigabit-ethernet xe-1/1/20 routed-interface name "rif-xe20"

set interface gigabit-ethernet xe-1/1/20 routed-interface enable true

set interface gigabit-ethernet xe-1/1/21 mtu 9216

set interface gigabit-ethernet xe-1/1/21 routed-interface name "rif-xe21"

set interface gigabit-ethernet xe-1/1/21 routed-interface enable true

set interface gigabit-ethernet xe-1/1/22 mtu 9216

set interface gigabit-ethernet xe-1/1/22 routed-interface name "rif-xe22"

set interface gigabit-ethernet xe-1/1/22 routed-interface enable true

set interface gigabit-ethernet xe-1/1/23 mtu 9216

set interface gigabit-ethernet xe-1/1/23 routed-interface name "rif-xe23"

set interface gigabit-ethernet xe-1/1/23 routed-interface enable true

set interface gigabit-ethernet xe-1/1/24 mtu 9216

set interface gigabit-ethernet xe-1/1/24 routed-interface name "rif-xe24"

set interface gigabit-ethernet xe-1/1/24 routed-interface enable true

set interface gigabit-ethernet xe-1/1/25 mtu 9216

set interface gigabit-ethernet xe-1/1/25 routed-interface name "rif-xe25"

set interface gigabit-ethernet xe-1/1/25 routed-interface enable true

set interface gigabit-ethernet xe-1/1/26 mtu 9216

set interface gigabit-ethernet xe-1/1/26 routed-interface name "rif-xe26"

set interface gigabit-ethernet xe-1/1/26 routed-interface enable true

set interface gigabit-ethernet xe-1/1/27 mtu 9216

set interface gigabit-ethernet xe-1/1/27 routed-interface name "rif-xe27"

set interface gigabit-ethernet xe-1/1/27 routed-interface enable true

set interface gigabit-ethernet xe-1/1/28 mtu 9216

set interface gigabit-ethernet xe-1/1/28 routed-interface name "rif-xe28"

set interface gigabit-ethernet xe-1/1/28 routed-interface enable true

set interface gigabit-ethernet xe-1/1/29 mtu 9216

set interface gigabit-ethernet xe-1/1/29 routed-interface name "rif-xe29"

set interface gigabit-ethernet xe-1/1/29 routed-interface enable true

set interface gigabit-ethernet xe-1/1/30 mtu 9216

set interface gigabit-ethernet xe-1/1/30 routed-interface name "rif-xe30"

set interface gigabit-ethernet xe-1/1/30 routed-interface enable true

set interface gigabit-ethernet xe-1/1/31 mtu 9216

set interface gigabit-ethernet xe-1/1/31 routed-interface name "rif-xe31"

set interface gigabit-ethernet xe-1/1/31 routed-interface enable true

set interface gigabit-ethernet xe-1/1/32 mtu 9216

set interface gigabit-ethernet xe-1/1/32 routed-interface name "rif-xe32"

set interface gigabit-ethernet xe-1/1/32 routed-interface enable true

set interface gigabit-ethernet xe-1/1/33 ether-options 802.3ad "ae1"

set interface gigabit-ethernet xe-1/1/34 ether-options 802.3ad "ae1"

set interface gigabit-ethernet xe-1/1/35 ether-options 802.3ad "ae1"

set interface gigabit-ethernet xe-1/1/36 ether-options 802.3ad "ae1"

set interface gigabit-ethernet xe-1/1/37 ether-options 802.3ad "ae2"

set interface gigabit-ethernet xe-1/1/38 ether-options 802.3ad "ae2"

set interface gigabit-ethernet xe-1/1/39 ether-options 802.3ad "ae2"

set interface gigabit-ethernet xe-1/1/40 ether-options 802.3ad "ae2"

set interface gigabit-ethernet xe-1/1/41 mtu 9216

set interface gigabit-ethernet xe-1/1/41 routed-interface name "rif-xe41"

set interface gigabit-ethernet xe-1/1/41 routed-interface enable true

set interface gigabit-ethernet xe-1/1/42 mtu 9216

set interface gigabit-ethernet xe-1/1/42 routed-interface name "rif-xe42"

set interface gigabit-ethernet xe-1/1/42 routed-interface enable true

set ip routing enable true

set l3-interface loopback lo address 10.10.10.10 prefix-length 32

set l3-interface routed-interface rif-xe1

set l3-interface routed-interface rif-xe2

set l3-interface routed-interface rif-xe3

set l3-interface routed-interface rif-xe4

set l3-interface routed-interface rif-xe5

set l3-interface routed-interface rif-xe6

set l3-interface routed-interface rif-xe7

set l3-interface routed-interface rif-xe8

set l3-interface routed-interface rif-xe9

set l3-interface routed-interface rif-xe10

set l3-interface routed-interface rif-xe11

set l3-interface routed-interface rif-xe12

set l3-interface routed-interface rif-xe13

set l3-interface routed-interface rif-xe14

set l3-interface routed-interface rif-xe15

set l3-interface routed-interface rif-xe16

set l3-interface routed-interface rif-xe17

set l3-interface routed-interface rif-xe18

set l3-interface routed-interface rif-xe19

set l3-interface routed-interface rif-xe20

set l3-interface routed-interface rif-xe21

set l3-interface routed-interface rif-xe22

set l3-interface routed-interface rif-xe23

set l3-interface routed-interface rif-xe24

set l3-interface routed-interface rif-xe25

set l3-interface routed-interface rif-xe26

set l3-interface routed-interface rif-xe27

set l3-interface routed-interface rif-xe28

set l3-interface routed-interface rif-xe29

set l3-interface routed-interface rif-xe30

set l3-interface routed-interface rif-xe31

set l3-interface routed-interface rif-xe32

set l3-interface routed-interface rif-xe41

set l3-interface routed-interface rif-xe42

set l3-interface routed-interface rif-ae1

set l3-interface routed-interface rif-ae2

set protocols bgp local-as "500"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 10.10.10.10

set protocols bgp interface rif-xe1 remote-as "external"

set protocols bgp interface rif-xe1 capability extended-nexthop

set protocols bgp interface rif-xe1 ipv6-unicast activate true

set protocols bgp interface rif-xe2 remote-as "external"

set protocols bgp interface rif-xe2 capability extended-nexthop

set protocols bgp interface rif-xe2 ipv6-unicast activate true

set protocols bgp interface rif-xe3 remote-as "external"

set protocols bgp interface rif-xe3 capability extended-nexthop

set protocols bgp interface rif-xe3 ipv6-unicast activate true

set protocols bgp interface rif-xe4 remote-as "external"

set protocols bgp interface rif-xe4 capability extended-nexthop

set protocols bgp interface rif-xe4 ipv6-unicast activate true

set protocols bgp interface rif-xe5 remote-as "external"

set protocols bgp interface rif-xe5 capability extended-nexthop

set protocols bgp interface rif-xe5 ipv6-unicast activate true

set protocols bgp interface rif-xe6 remote-as "external"

set protocols bgp interface rif-xe6 capability extended-nexthop

set protocols bgp interface rif-xe6 ipv6-unicast activate true

set protocols bgp interface rif-xe7 remote-as "external"

set protocols bgp interface rif-xe7 capability extended-nexthop

set protocols bgp interface rif-xe7 ipv6-unicast activate true

set protocols bgp interface rif-xe8 remote-as "external"

set protocols bgp interface rif-xe8 capability extended-nexthop

set protocols bgp interface rif-xe8 ipv6-unicast activate true

set protocols bgp interface rif-xe9 remote-as "external"

set protocols bgp interface rif-xe9 capability extended-nexthop

set protocols bgp interface rif-xe9 ipv6-unicast activate true

set protocols bgp interface rif-xe10 remote-as "external"

set protocols bgp interface rif-xe10 capability extended-nexthop

set protocols bgp interface rif-xe10 ipv6-unicast activate true

set protocols bgp interface rif-xe11 remote-as "external"

set protocols bgp interface rif-xe11 capability extended-nexthop

set protocols bgp interface rif-xe11 ipv6-unicast activate true

set protocols bgp interface rif-xe12 remote-as "external"

set protocols bgp interface rif-xe12 capability extended-nexthop

set protocols bgp interface rif-xe12 ipv6-unicast activate true

set protocols bgp interface rif-xe13 remote-as "external"

set protocols bgp interface rif-xe13 capability extended-nexthop

set protocols bgp interface rif-xe13 ipv6-unicast activate true

set protocols bgp interface rif-xe14 remote-as "external"

set protocols bgp interface rif-xe14 capability extended-nexthop

set protocols bgp interface rif-xe14 ipv6-unicast activate true

set protocols bgp interface rif-xe15 remote-as "external"

set protocols bgp interface rif-xe15 capability extended-nexthop

set protocols bgp interface rif-xe15 ipv6-unicast activate true

set protocols bgp interface rif-xe16 remote-as "external"

set protocols bgp interface rif-xe16 capability extended-nexthop

set protocols bgp interface rif-xe16 ipv6-unicast activate true

set protocols bgp interface rif-xe17 remote-as "external"

set protocols bgp interface rif-xe17 capability extended-nexthop

set protocols bgp interface rif-xe17 ipv6-unicast activate true

set protocols bgp interface rif-xe18 remote-as "external"

set protocols bgp interface rif-xe18 capability extended-nexthop

set protocols bgp interface rif-xe18 ipv6-unicast activate true

set protocols bgp interface rif-xe19 remote-as "external"

set protocols bgp interface rif-xe19 capability extended-nexthop

set protocols bgp interface rif-xe19 ipv6-unicast activate true

set protocols bgp interface rif-xe20 remote-as "external"

set protocols bgp interface rif-xe20 capability extended-nexthop

set protocols bgp interface rif-xe20 ipv6-unicast activate true

set protocols bgp interface rif-xe21 remote-as "external"

set protocols bgp interface rif-xe21 capability extended-nexthop

set protocols bgp interface rif-xe21 ipv6-unicast activate true

set protocols bgp interface rif-xe22 remote-as "external"

set protocols bgp interface rif-xe22 capability extended-nexthop

set protocols bgp interface rif-xe22 ipv6-unicast activate true

set protocols bgp interface rif-xe23 remote-as "external"

set protocols bgp interface rif-xe23 capability extended-nexthop

set protocols bgp interface rif-xe23 ipv6-unicast activate true

set protocols bgp interface rif-xe24 remote-as "external"

set protocols bgp interface rif-xe24 capability extended-nexthop

set protocols bgp interface rif-xe24 ipv6-unicast activate true

set protocols bgp interface rif-xe25 remote-as "external"

set protocols bgp interface rif-xe25 capability extended-nexthop

set protocols bgp interface rif-xe25 ipv6-unicast activate true

set protocols bgp interface rif-xe26 remote-as "external"

set protocols bgp interface rif-xe26 capability extended-nexthop

set protocols bgp interface rif-xe26 ipv6-unicast activate true

set protocols bgp interface rif-xe27 remote-as "external"

set protocols bgp interface rif-xe27 capability extended-nexthop

set protocols bgp interface rif-xe27 ipv6-unicast activate true

set protocols bgp interface rif-xe28 remote-as "external"

set protocols bgp interface rif-xe28 capability extended-nexthop

set protocols bgp interface rif-xe28 ipv6-unicast activate true

set protocols bgp interface rif-xe29 remote-as "external"

set protocols bgp interface rif-xe29 capability extended-nexthop

set protocols bgp interface rif-xe29 ipv6-unicast activate true

set protocols bgp interface rif-xe30 remote-as "external"

set protocols bgp interface rif-xe30 capability extended-nexthop

set protocols bgp interface rif-xe30 ipv6-unicast activate true

set protocols bgp interface rif-xe31 remote-as "external"

set protocols bgp interface rif-xe31 capability extended-nexthop

set protocols bgp interface rif-xe31 ipv6-unicast activate true

set protocols bgp interface rif-xe32 remote-as "external"

set protocols bgp interface rif-xe32 capability extended-nexthop

set protocols bgp interface rif-xe32 ipv6-unicast activate true

set protocols bgp interface rif-xe41 remote-as "external"

set protocols bgp interface rif-xe41 capability extended-nexthop

set protocols bgp interface rif-xe41 ipv6-unicast activate true

set protocols bgp interface rif-xe42 remote-as "external"

set protocols bgp interface rif-xe42 capability extended-nexthop

set protocols bgp interface rif-xe42 ipv6-unicast activate true

set protocols bgp interface rif-ae1 remote-as "external"

set protocols bgp interface rif-ae1 capability extended-nexthop

set protocols bgp interface rif-ae1 ipv6-unicast activate true

set protocols bgp interface rif-ae2 remote-as "external"

set protocols bgp interface rif-ae2 capability extended-nexthop

set protocols bgp interface rif-ae2 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 10.10.10.10/32

set protocols lldp enable true

set system login user test authentication plain-text-password

"1dLYThoFV$WbtkTY9DkKFzPUNOA/Hvr0"

set system login user test class "super-user"

set system hostname "Spine1"

set system management-ethernet eth0 ip-address IPv4 "10.10.51.10/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

5.1.2 The Storage Server Leaf Switch Configuration Example

admin@storgeserverLeaf1# show | display set | no-more

set interface aggregate-ethernet ae1 mtu 9216

set interface aggregate-ethernet ae1 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae1 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae10 mtu 9216

set interface aggregate-ethernet ae10 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae10 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae11 mtu 9216

set interface aggregate-ethernet ae11 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae11 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae12 mtu 9216

set interface aggregate-ethernet ae12 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae12 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae13 mtu 9216

set interface aggregate-ethernet ae13 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae13 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae14 mtu 9216

set interface aggregate-ethernet ae14 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae14 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae15 mtu 9216

set interface aggregate-ethernet ae15 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae15 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae16 mtu 9216

set interface aggregate-ethernet ae16 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae16 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae17 mtu 9216

set interface aggregate-ethernet ae17 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae17 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae18 mtu 9216

set interface aggregate-ethernet ae18 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae18 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae19 mtu 9216

set interface aggregate-ethernet ae19 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae19 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae2 mtu 9216

set interface aggregate-ethernet ae2 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae2 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae20 mtu 9216

set interface aggregate-ethernet ae20 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae20 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae21 mtu 9216

set interface aggregate-ethernet ae21 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae21 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae22 mtu 9216

set interface aggregate-ethernet ae22 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae22 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae23 mtu 9216

set interface aggregate-ethernet ae23 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae23 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae24 mtu 9216

set interface aggregate-ethernet ae24 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae24 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae25 mtu 9216

set interface aggregate-ethernet ae25 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae25 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae26 mtu 9216

set interface aggregate-ethernet ae26 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae26 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae27 mtu 9216

set interface aggregate-ethernet ae27 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae27 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae28 mtu 9216

set interface aggregate-ethernet ae28 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae28 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae29 mtu 9216

set interface aggregate-ethernet ae29 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae29 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae3 mtu 9216

set interface aggregate-ethernet ae3 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae3 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae30 mtu 9216

set interface aggregate-ethernet ae30 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae30 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae31 mtu 9216

set interface aggregate-ethernet ae31 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae31 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae32 mtu 9216

set interface aggregate-ethernet ae32 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae32 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae33 mtu 9216

set interface aggregate-ethernet ae33 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae33 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae34 mtu 9216

set interface aggregate-ethernet ae34 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae34 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae35 mtu 9216

set interface aggregate-ethernet ae35 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae35 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae36 mtu 9216

set interface aggregate-ethernet ae36 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae36 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae37 mtu 9216

set interface aggregate-ethernet ae37 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae37 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae38 mtu 9216

set interface aggregate-ethernet ae38 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae38 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae39 mtu 9216

set interface aggregate-ethernet ae39 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae39 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae4 mtu 9216

set interface aggregate-ethernet ae4 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae4 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae40 mtu 9216

set interface aggregate-ethernet ae40 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae40 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae41 mtu 9216

set interface aggregate-ethernet ae41 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae41 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae42 mtu 9216

set interface aggregate-ethernet ae42 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae42 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae43 mtu 9216

set interface aggregate-ethernet ae43 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae43 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae44 mtu 9216

set interface aggregate-ethernet ae44 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae44 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae45 mtu 9216

set interface aggregate-ethernet ae45 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae45 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae5 mtu 9216

set interface aggregate-ethernet ae5 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae5 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae51 mtu 9216

set interface aggregate-ethernet ae51 routed-interface name "rif-ae51"

set interface aggregate-ethernet ae51 routed-interface enable true

set interface aggregate-ethernet ae52 mtu 9216

set interface aggregate-ethernet ae52 routed-interface name "rif-ae52"

set interface aggregate-ethernet ae52 routed-interface enable true

set interface aggregate-ethernet ae53 mtu 9216

set interface aggregate-ethernet ae53 routed-interface name "rif-ae53"

set interface aggregate-ethernet ae53 routed-interface enable true

set interface aggregate-ethernet ae54 mtu 9216

set interface aggregate-ethernet ae54 routed-interface name "rif-ae54"

set interface aggregate-ethernet ae54 routed-interface enable true

set interface aggregate-ethernet ae6 mtu 9216

set interface aggregate-ethernet ae6 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae6 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae64 mtu 9216

set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090

set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"

set interface aggregate-ethernet ae64 family ethernet-switching vlan members 210

set interface aggregate-ethernet ae7 mtu 9216

set interface aggregate-ethernet ae7 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae7 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae8 mtu 9216

set interface aggregate-ethernet ae8 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae8 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae9 mtu 9216

set interface aggregate-ethernet ae9 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae9 family ethernet-switching native-vlan-id 210

set interface gigabit-ethernet xe-1/1/1 ether-options 802.3ad "ae1"

set interface gigabit-ethernet xe-1/1/2 ether-options 802.3ad "ae2"

set interface gigabit-ethernet xe-1/1/3 ether-options 802.3ad "ae3"

set interface gigabit-ethernet xe-1/1/4 ether-options 802.3ad "ae4"

set interface gigabit-ethernet xe-1/1/5 ether-options 802.3ad "ae5"

set interface gigabit-ethernet xe-1/1/6 ether-options 802.3ad "ae6"

set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae7"

set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae8"

set interface gigabit-ethernet xe-1/1/9 ether-options 802.3ad "ae9"

set interface gigabit-ethernet xe-1/1/10 ether-options 802.3ad "ae10"

set interface gigabit-ethernet xe-1/1/11 ether-options 802.3ad "ae11"

set interface gigabit-ethernet xe-1/1/12 ether-options 802.3ad "ae12"

set interface gigabit-ethernet xe-1/1/13 ether-options 802.3ad "ae13"

set interface gigabit-ethernet xe-1/1/14 ether-options 802.3ad "ae14"

set interface gigabit-ethernet xe-1/1/15 ether-options 802.3ad "ae15"

set interface gigabit-ethernet xe-1/1/16 ether-options 802.3ad "ae16"

set interface gigabit-ethernet xe-1/1/17 ether-options 802.3ad "ae17"

set interface gigabit-ethernet xe-1/1/18 ether-options 802.3ad "ae18"

set interface gigabit-ethernet xe-1/1/19 ether-options 802.3ad "ae19"

set interface gigabit-ethernet xe-1/1/20 ether-options 802.3ad "ae20"

set interface gigabit-ethernet xe-1/1/21 ether-options 802.3ad "ae21"

set interface gigabit-ethernet xe-1/1/22 ether-options 802.3ad "ae22"

set interface gigabit-ethernet xe-1/1/23 ether-options 802.3ad "ae23"

set interface gigabit-ethernet xe-1/1/24 ether-options 802.3ad "ae24"

set interface gigabit-ethernet xe-1/1/25 ether-options 802.3ad "ae25"

set interface gigabit-ethernet xe-1/1/26 ether-options 802.3ad "ae26"

set interface gigabit-ethernet xe-1/1/27 ether-options 802.3ad "ae27"

set interface gigabit-ethernet xe-1/1/28 ether-options 802.3ad "ae28"

set interface gigabit-ethernet xe-1/1/29 ether-options 802.3ad "ae29"

set interface gigabit-ethernet xe-1/1/30 ether-options 802.3ad "ae30"

set interface gigabit-ethernet xe-1/1/31 ether-options 802.3ad "ae31"

set interface gigabit-ethernet xe-1/1/32 ether-options 802.3ad "ae32"

set interface gigabit-ethernet xe-1/1/33 ether-options 802.3ad "ae33"

set interface gigabit-ethernet xe-1/1/34 ether-options 802.3ad "ae34"

set interface gigabit-ethernet xe-1/1/35 ether-options 802.3ad "ae35"

set interface gigabit-ethernet xe-1/1/36 ether-options 802.3ad "ae36"

set interface gigabit-ethernet xe-1/1/37 ether-options 802.3ad "ae37"

set interface gigabit-ethernet xe-1/1/38 ether-options 802.3ad "ae38"

set interface gigabit-ethernet xe-1/1/39 ether-options 802.3ad "ae39"

set interface gigabit-ethernet xe-1/1/40 ether-options 802.3ad "ae40"

set interface gigabit-ethernet xe-1/1/41 ether-options 802.3ad "ae41"

set interface gigabit-ethernet xe-1/1/42 ether-options 802.3ad "ae42"

set interface gigabit-ethernet xe-1/1/43 ether-options 802.3ad "ae43"

set interface gigabit-ethernet xe-1/1/44 ether-options 802.3ad "ae44"

set interface gigabit-ethernet xe-1/1/45 ether-options 802.3ad "ae45"

set interface gigabit-ethernet xe-1/1/46 ether-options 802.3ad "ae51"

set interface gigabit-ethernet xe-1/1/47 ether-options 802.3ad "ae51"

set interface gigabit-ethernet xe-1/1/48 ether-options 802.3ad "ae51"

set interface gigabit-ethernet xe-1/1/49 ether-options 802.3ad "ae51"

set interface gigabit-ethernet xe-1/1/50 ether-options 802.3ad "ae52"

set interface gigabit-ethernet xe-1/1/51 ether-options 802.3ad "ae52"

set interface gigabit-ethernet xe-1/1/52 ether-options 802.3ad "ae52"

set interface gigabit-ethernet xe-1/1/53 ether-options 802.3ad "ae52"

set interface gigabit-ethernet xe-1/1/54 ether-options 802.3ad "ae53"

set interface gigabit-ethernet xe-1/1/55 ether-options 802.3ad "ae53"

set interface gigabit-ethernet xe-1/1/56 ether-options 802.3ad "ae53"

set interface gigabit-ethernet xe-1/1/57 ether-options 802.3ad "ae53"

set interface gigabit-ethernet xe-1/1/58 ether-options 802.3ad "ae54"

set interface gigabit-ethernet xe-1/1/59 ether-options 802.3ad "ae54"

set interface gigabit-ethernet xe-1/1/60 ether-options 802.3ad "ae54"

set interface gigabit-ethernet xe-1/1/61 ether-options 802.3ad "ae54"

set interface gigabit-ethernet xe-1/1/63 ether-options 802.3ad "ae64"

set interface gigabit-ethernet xe-1/1/64 ether-options 802.3ad "ae64"

set ip routing enable true

set l3-interface loopback lo address 111.111.111.111 prefix-length 32

set l3-interface vlan-interface vlan4090 address 10.226.13.10 prefix-length 30

set l3-interface vlan-interface vlan210 address 192.168.10.10 prefix-length 24

set l3-interface routed-interface rif-ae51

set l3-interface routed-interface rif-ae52

set l3-interface routed-interface rif-ae53

set l3-interface routed-interface rif-ae54

set protocols bgp local-as "300"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 111.111.111.111

set protocols bgp interface rif-ae51 remote-as "external"

set protocols bgp interface rif-ae51 capability extended-nexthop

set protocols bgp interface rif-ae51 ipv6-unicast activate true

set protocols bgp interface rif-ae52 remote-as "external"

set protocols bgp interface rif-ae52 capability extended-nexthop

set protocols bgp interface rif-ae52 ipv6-unicast activate true

set protocols bgp interface rif-ae53 remote-as "external"

set protocols bgp interface rif-ae53 capability extended-nexthop

set protocols bgp interface rif-ae53 ipv6-unicast activate true

set protocols bgp interface rif-ae54 remote-as "external"

set protocols bgp interface rif-ae54 capability extended-nexthop

set protocols bgp interface rif-ae54 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 111.111.111.111/32

set protocols bgp ipv4-unicast network 192.168.10.0/24

set protocols lldp enable true

set protocols mlag domain 253 node 0

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-link "ae64"

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-vlan 4090

set protocols mlag domain 253 interface ae1 link 1

set protocols mlag domain 253 interface ae2 link 2

set protocols mlag domain 253 interface ae3 link 3

set protocols mlag domain 253 interface ae4 link 4

set protocols mlag domain 253 interface ae5 link 5

set protocols mlag domain 253 interface ae6 link 6

set protocols mlag domain 253 interface ae7 link 7

set protocols mlag domain 253 interface ae8 link 8

set protocols mlag domain 253 interface ae9 link 9

set protocols mlag domain 253 interface ae10 link 10

set protocols mlag domain 253 interface ae11 link 11

set protocols mlag domain 253 interface ae12 link 12

set protocols mlag domain 253 interface ae13 link 13

set protocols mlag domain 253 interface ae14 link 14

set protocols mlag domain 253 interface ae15 link 15

set protocols mlag domain 253 interface ae16 link 16

set protocols mlag domain 253 interface ae17 link 17

set protocols mlag domain 253 interface ae18 link 18

set protocols mlag domain 253 interface ae19 link 19

set protocols mlag domain 253 interface ae20 link 20

set protocols mlag domain 253 interface ae21 link 21

set protocols mlag domain 253 interface ae22 link 22

set protocols mlag domain 253 interface ae23 link 23

set protocols mlag domain 253 interface ae24 link 24

set protocols mlag domain 253 interface ae25 link 25

set protocols mlag domain 253 interface ae26 link 26

set protocols mlag domain 253 interface ae27 link 27

set protocols mlag domain 253 interface ae28 link 28

set protocols mlag domain 253 interface ae29 link 29

set protocols mlag domain 253 interface ae30 link 30

set protocols mlag domain 253 interface ae31 link 31

set protocols mlag domain 253 interface ae32 link 32

set protocols mlag domain 253 interface ae33 link 33

set protocols mlag domain 253 interface ae34 link 34

set protocols mlag domain 253 interface ae35 link 35

set protocols mlag domain 253 interface ae36 link 36

set protocols mlag domain 253 interface ae37 link 37

set protocols mlag domain 253 interface ae38 link 38

set protocols mlag domain 253 interface ae39 link 39

set protocols mlag domain 253 interface ae40 link 40

set protocols mlag domain 253 interface ae41 link 41

set protocols mlag domain 253 interface ae42 link 42

set protocols mlag domain 253 interface ae43 link 43

set protocols mlag domain 253 interface ae44 link 44

set protocols mlag domain 253 interface ae45 link 45

set protocols spanning-tree enable false

set protocols vrrp interface vlan210 vrid 1 ip 192.168.10.252

set protocols vrrp interface vlan210 vrid 1 load-balance disable false

set system login user test authentication plain-text-password "1hvq0N1ut$cdJZ5MoL6l0o3BvOuwuZN/"

set system login user test class "super-user"

set system hostname "storgeserverLeaf1"

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system management-ethernet eth0 ip-address IPv4 "10.10.51.16/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

set vlans vlan-id 210 l3-interface "vlan210"

set vlans vlan-id 4090 l3-interface "vlan4090"

5.1.3 The Storage GPU Server Leaf Switch Configuration Example

admin@strogeGPULeaf1# show | display set | no-more

set interface aggregate-ethernet ae1 mtu 9216

set interface aggregate-ethernet ae1 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae1 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae10 mtu 9216

set interface aggregate-ethernet ae10 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae10 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae11 mtu 9216

set interface aggregate-ethernet ae11 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae11 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae12 mtu 9216

set interface aggregate-ethernet ae12 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae12 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae13 mtu 9216

set interface aggregate-ethernet ae13 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae13 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae14 mtu 9216

set interface aggregate-ethernet ae14 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae14 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae15 mtu 9216

set interface aggregate-ethernet ae15 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae15 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae16 mtu 9216

set interface aggregate-ethernet ae16 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae16 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae17 mtu 9216

set interface aggregate-ethernet ae17 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae17 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae18 mtu 9216

set interface aggregate-ethernet ae18 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae18 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae19 mtu 9216

set interface aggregate-ethernet ae19 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae19 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae2 mtu 9216

set interface aggregate-ethernet ae2 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae2 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae20 mtu 9216

set interface aggregate-ethernet ae20 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae20 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae21 mtu 9216

set interface aggregate-ethernet ae21 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae21 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae22 mtu 9216

set interface aggregate-ethernet ae22 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae22 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae23 mtu 9216

set interface aggregate-ethernet ae23 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae23 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae24 mtu 9216

set interface aggregate-ethernet ae24 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae24 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae25 mtu 9216

set interface aggregate-ethernet ae25 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae25 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae26 mtu 9216

set interface aggregate-ethernet ae26 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae26 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae27 mtu 9216

set interface aggregate-ethernet ae27 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae27 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae28 mtu 9216

set interface aggregate-ethernet ae28 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae28 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae29 mtu 9216

set interface aggregate-ethernet ae29 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae29 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae3 mtu 9216

set interface aggregate-ethernet ae3 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae3 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae30 mtu 9216

set interface aggregate-ethernet ae30 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae30 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae31 mtu 9216

set interface aggregate-ethernet ae31 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae31 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae32 mtu 9216

set interface aggregate-ethernet ae32 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae32 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae4 mtu 9216

set interface aggregate-ethernet ae4 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae4 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae5 mtu 9216

set interface aggregate-ethernet ae5 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae5 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae6 mtu 9216

set interface aggregate-ethernet ae6 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae6 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae64 mtu 9216

set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090

set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"

set interface aggregate-ethernet ae64 family ethernet-switching vlan members 100

set interface aggregate-ethernet ae7 mtu 9216

set interface aggregate-ethernet ae7 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae7 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae8 mtu 9216

set interface aggregate-ethernet ae8 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae8 family ethernet-switching native-vlan-id 100

set interface aggregate-ethernet ae9 mtu 9216

set interface aggregate-ethernet ae9 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae9 family ethernet-switching native-vlan-id 100

set interface gigabit-ethernet xe-1/1/1 ether-options 802.3ad "ae1"

set interface gigabit-ethernet xe-1/1/2 ether-options 802.3ad "ae2"

set interface gigabit-ethernet xe-1/1/3 ether-options 802.3ad "ae3"

set interface gigabit-ethernet xe-1/1/4 ether-options 802.3ad "ae4"

set interface gigabit-ethernet xe-1/1/5 ether-options 802.3ad "ae5"

set interface gigabit-ethernet xe-1/1/6 ether-options 802.3ad "ae6"

set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae7"

set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae8"

set interface gigabit-ethernet xe-1/1/9 ether-options 802.3ad "ae9"

set interface gigabit-ethernet xe-1/1/10 ether-options 802.3ad "ae10"

set interface gigabit-ethernet xe-1/1/11 ether-options 802.3ad "ae11"

set interface gigabit-ethernet xe-1/1/12 ether-options 802.3ad "ae12"

set interface gigabit-ethernet xe-1/1/13 ether-options 802.3ad "ae13"

set interface gigabit-ethernet xe-1/1/14 ether-options 802.3ad "ae14"

set interface gigabit-ethernet xe-1/1/15 ether-options 802.3ad "ae15"

set interface gigabit-ethernet xe-1/1/16 ether-options 802.3ad "ae16"

set interface gigabit-ethernet xe-1/1/17 ether-options 802.3ad "ae17"

set interface gigabit-ethernet xe-1/1/18 ether-options 802.3ad "ae18"

set interface gigabit-ethernet xe-1/1/19 ether-options 802.3ad "ae19"

set interface gigabit-ethernet xe-1/1/20 ether-options 802.3ad "ae20"

set interface gigabit-ethernet xe-1/1/21 ether-options 802.3ad "ae21"

set interface gigabit-ethernet xe-1/1/22 ether-options 802.3ad "ae22"

set interface gigabit-ethernet xe-1/1/23 ether-options 802.3ad "ae23"

set interface gigabit-ethernet xe-1/1/24 ether-options 802.3ad "ae24"

set interface gigabit-ethernet xe-1/1/25 ether-options 802.3ad "ae25"

set interface gigabit-ethernet xe-1/1/26 ether-options 802.3ad "ae26"

set interface gigabit-ethernet xe-1/1/27 ether-options 802.3ad "ae27"

set interface gigabit-ethernet xe-1/1/28 ether-options 802.3ad "ae28"

set interface gigabit-ethernet xe-1/1/29 ether-options 802.3ad "ae29"

set interface gigabit-ethernet xe-1/1/30 ether-options 802.3ad "ae30"

set interface gigabit-ethernet xe-1/1/31 ether-options 802.3ad "ae31"

set interface gigabit-ethernet xe-1/1/32 ether-options 802.3ad "ae32"

set interface gigabit-ethernet xe-1/1/33 mtu 9216

set interface gigabit-ethernet xe-1/1/33 routed-interface name "rif-xe33"

set interface gigabit-ethernet xe-1/1/33 routed-interface enable true

set interface gigabit-ethernet xe-1/1/34 mtu 9216

set interface gigabit-ethernet xe-1/1/34 routed-interface name "rif-xe34"

set interface gigabit-ethernet xe-1/1/34 routed-interface enable true

set interface gigabit-ethernet xe-1/1/35 mtu 9216

set interface gigabit-ethernet xe-1/1/35 routed-interface name "rif-xe35"

set interface gigabit-ethernet xe-1/1/35 routed-interface enable true

set interface gigabit-ethernet xe-1/1/36 mtu 9216

set interface gigabit-ethernet xe-1/1/36 routed-interface name "rif-xe36"

set interface gigabit-ethernet xe-1/1/36 routed-interface enable true

set interface gigabit-ethernet xe-1/1/63 ether-options 802.3ad "ae64"

set interface gigabit-ethernet xe-1/1/64 ether-options 802.3ad "ae64"

set ip routing enable true

set l3-interface loopback lo address 112.112.112.112 prefix-length 32

set l3-interface vlan-interface vlan4090 address 10.226.13.10 prefix-length 30

set l3-interface vlan-interface vlan100 address 192.168.10.10 prefix-length 24

set l3-interface routed-interface rif-xe33

set l3-interface routed-interface rif-xe34

set l3-interface routed-interface rif-xe35

set l3-interface routed-interface rif-xe36

set protocols bgp local-as "100"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 112.112.112.112

set protocols bgp interface rif-xe33 remote-as "external"

set protocols bgp interface rif-xe33 capability extended-nexthop

set protocols bgp interface rif-xe33 ipv6-unicast activate true

set protocols bgp interface rif-xe34 remote-as "external"

set protocols bgp interface rif-xe34 capability extended-nexthop

set protocols bgp interface rif-xe34 ipv6-unicast activate true

set protocols bgp interface rif-xe35 remote-as "external"

set protocols bgp interface rif-xe35 capability extended-nexthop

set protocols bgp interface rif-xe35 ipv6-unicast activate true

set protocols bgp interface rif-xe36 remote-as "external"

set protocols bgp interface rif-xe36 capability extended-nexthop

set protocols bgp interface rif-xe36 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 112.112.112.112/32

set protocols bgp ipv4-unicast network 192.168.10.0/24

set protocols lldp enable true

set protocols mlag domain 253 node 0

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-link "ae64"

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-vlan 4090

set protocols mlag domain 253 interface ae1 link 1

set protocols mlag domain 253 interface ae2 link 2

set protocols mlag domain 253 interface ae3 link 3

set protocols mlag domain 253 interface ae4 link 4

set protocols mlag domain 253 interface ae5 link 5

set protocols mlag domain 253 interface ae6 link 6

set protocols mlag domain 253 interface ae7 link 7

set protocols mlag domain 253 interface ae8 link 8

set protocols mlag domain 253 interface ae9 link 9

set protocols mlag domain 253 interface ae10 link 10

set protocols mlag domain 253 interface ae11 link 11

set protocols mlag domain 253 interface ae12 link 12

set protocols mlag domain 253 interface ae13 link 13

set protocols mlag domain 253 interface ae14 link 14

set protocols mlag domain 253 interface ae15 link 15

set protocols mlag domain 253 interface ae16 link 16

set protocols mlag domain 253 interface ae17 link 17

set protocols mlag domain 253 interface ae18 link 18

set protocols mlag domain 253 interface ae19 link 19

set protocols mlag domain 253 interface ae20 link 20

set protocols mlag domain 253 interface ae21 link 21

set protocols mlag domain 253 interface ae22 link 22

set protocols mlag domain 253 interface ae23 link 23

set protocols mlag domain 253 interface ae24 link 24

set protocols mlag domain 253 interface ae25 link 25

set protocols mlag domain 253 interface ae26 link 26

set protocols mlag domain 253 interface ae27 link 27

set protocols mlag domain 253 interface ae28 link 28

set protocols mlag domain 253 interface ae29 link 29

set protocols mlag domain 253 interface ae30 link 30

set protocols mlag domain 253 interface ae31 link 31

set protocols mlag domain 253 interface ae32 link 32

set protocols spanning-tree enable false

set protocols vrrp interface vlan100 vrid 1 ip 192.168.10.252

set protocols vrrp interface vlan100 vrid 1 load-balance disable false

set system login user test authentication plain-text-password "1fUVu2CnG$h8DY0d23a.NXLbEzwOabs1"

set system login user test class "super-user"

set system hostname "strogeGPULeaf1"

set system management-ethernet eth0 ip-address IPv4 "10.10.51.11/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

set vlans vlan-id 100 l3-interface "vlan100"

set vlans vlan-id 4090 l3-interface "vlan4090"

5.1.4 The X86 Server Leaf Switch Configuration

admin@X86serverLeaf1# show | display set | no-more

set interface aggregate-ethernet ae1 mtu 9216

set interface aggregate-ethernet ae1 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae1 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae10 mtu 9216

set interface aggregate-ethernet ae10 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae10 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae11 mtu 9216

set interface aggregate-ethernet ae11 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae11 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae12 mtu 9216

set interface aggregate-ethernet ae12 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae12 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae13 mtu 9216

set interface aggregate-ethernet ae13 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae13 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae14 mtu 9216

set interface aggregate-ethernet ae14 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae14 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae15 mtu 9216

set interface aggregate-ethernet ae15 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae15 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae16 mtu 9216

set interface aggregate-ethernet ae16 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae16 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae17 mtu 9216

set interface aggregate-ethernet ae17 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae17 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae18 mtu 9216

set interface aggregate-ethernet ae18 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae18 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae19 mtu 9216

set interface aggregate-ethernet ae19 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae19 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae2 mtu 9216

set interface aggregate-ethernet ae2 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae2 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae20 mtu 9216

set interface aggregate-ethernet ae20 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae20 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae21 mtu 9216

set interface aggregate-ethernet ae21 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae21 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae22 mtu 9216

set interface aggregate-ethernet ae22 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae22 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae23 mtu 9216

set interface aggregate-ethernet ae23 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae23 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae24 mtu 9216

set interface aggregate-ethernet ae24 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae24 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae25 mtu 9216

set interface aggregate-ethernet ae25 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae25 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae26 mtu 9216

set interface aggregate-ethernet ae26 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae26 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae27 mtu 9216

set interface aggregate-ethernet ae27 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae27 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae28 mtu 9216

set interface aggregate-ethernet ae28 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae28 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae29 mtu 9216

set interface aggregate-ethernet ae29 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae29 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae3 mtu 9216

set interface aggregate-ethernet ae3 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae3 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae30 mtu 9216

set interface aggregate-ethernet ae30 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae30 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae31 mtu 9216

set interface aggregate-ethernet ae31 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae31 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae32 mtu 9216

set interface aggregate-ethernet ae32 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae32 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae33 mtu 9216

set interface aggregate-ethernet ae33 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae33 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae34 mtu 9216

set interface aggregate-ethernet ae34 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae34 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae35 mtu 9216

set interface aggregate-ethernet ae35 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae35 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae36 mtu 9216

set interface aggregate-ethernet ae36 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae36 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae37 mtu 9216

set interface aggregate-ethernet ae37 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae37 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae38 mtu 9216

set interface aggregate-ethernet ae38 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae38 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae39 mtu 9216

set interface aggregate-ethernet ae39 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae39 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae4 mtu 9216

set interface aggregate-ethernet ae4 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae4 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae40 mtu 9216

set interface aggregate-ethernet ae40 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae40 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae41 mtu 9216

set interface aggregate-ethernet ae41 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae41 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae5 mtu 9216

set interface aggregate-ethernet ae5 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae5 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae6 mtu 9216

set interface aggregate-ethernet ae6 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae6 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae64 mtu 9216

set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090

set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"

set interface aggregate-ethernet ae64 family ethernet-switching vlan members 200

set interface aggregate-ethernet ae7 mtu 9216

set interface aggregate-ethernet ae7 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae7 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae8 mtu 9216

set interface aggregate-ethernet ae8 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae8 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae9 mtu 9216

set interface aggregate-ethernet ae9 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae9 family ethernet-switching native-vlan-id 200

set interface gigabit-ethernet xe-1/1/1 ether-options 802.3ad "ae1"

set interface gigabit-ethernet xe-1/1/2 ether-options 802.3ad "ae2"

set interface gigabit-ethernet xe-1/1/3 ether-options 802.3ad "ae3"

set interface gigabit-ethernet xe-1/1/4 ether-options 802.3ad "ae4"

set interface gigabit-ethernet xe-1/1/5 ether-options 802.3ad "ae5"

set interface gigabit-ethernet xe-1/1/6 ether-options 802.3ad "ae6"

set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae7"

set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae8"

set interface gigabit-ethernet xe-1/1/9 ether-options 802.3ad "ae9"

set interface gigabit-ethernet xe-1/1/10 ether-options 802.3ad "ae10"

set interface gigabit-ethernet xe-1/1/11 ether-options 802.3ad "ae11"

set interface gigabit-ethernet xe-1/1/12 ether-options 802.3ad "ae12"

set interface gigabit-ethernet xe-1/1/13 ether-options 802.3ad "ae13"

set interface gigabit-ethernet xe-1/1/14 ether-options 802.3ad "ae14"

set interface gigabit-ethernet xe-1/1/15 ether-options 802.3ad "ae15"

set interface gigabit-ethernet xe-1/1/16 ether-options 802.3ad "ae16"

set interface gigabit-ethernet xe-1/1/17 ether-options 802.3ad "ae17"

set interface gigabit-ethernet xe-1/1/18 ether-options 802.3ad "ae18"

set interface gigabit-ethernet xe-1/1/19 ether-options 802.3ad "ae19"

set interface gigabit-ethernet xe-1/1/20 ether-options 802.3ad "ae20"

set interface gigabit-ethernet xe-1/1/21 ether-options 802.3ad "ae21"

set interface gigabit-ethernet xe-1/1/22 ether-options 802.3ad "ae22"

set interface gigabit-ethernet xe-1/1/23 ether-options 802.3ad "ae23"

set interface gigabit-ethernet xe-1/1/24 ether-options 802.3ad "ae24"

set interface gigabit-ethernet xe-1/1/25 ether-options 802.3ad "ae25"

set interface gigabit-ethernet xe-1/1/26 ether-options 802.3ad "ae26"

set interface gigabit-ethernet xe-1/1/27 ether-options 802.3ad "ae27"

set interface gigabit-ethernet xe-1/1/28 ether-options 802.3ad "ae28"

set interface gigabit-ethernet xe-1/1/29 ether-options 802.3ad "ae29"

set interface gigabit-ethernet xe-1/1/30 ether-options 802.3ad "ae30"

set interface gigabit-ethernet xe-1/1/31 ether-options 802.3ad "ae31"

set interface gigabit-ethernet xe-1/1/32 ether-options 802.3ad "ae32"

set interface gigabit-ethernet xe-1/1/33 ether-options 802.3ad "ae33"

set interface gigabit-ethernet xe-1/1/34 ether-options 802.3ad "ae34"

set interface gigabit-ethernet xe-1/1/35 ether-options 802.3ad "ae35"

set interface gigabit-ethernet xe-1/1/36 ether-options 802.3ad "ae36"

set interface gigabit-ethernet xe-1/1/37 ether-options 802.3ad "ae37"

set interface gigabit-ethernet xe-1/1/38 ether-options 802.3ad "ae38"

set interface gigabit-ethernet xe-1/1/39 ether-options 802.3ad "ae39"

set interface gigabit-ethernet xe-1/1/40 ether-options 802.3ad "ae40"

set interface gigabit-ethernet xe-1/1/41 ether-options 802.3ad "ae41"

set interface gigabit-ethernet xe-1/1/49 mtu 9216

set interface gigabit-ethernet xe-1/1/49 routed-interface name "rif-xe49"

set interface gigabit-ethernet xe-1/1/49 routed-interface enable true

set interface gigabit-ethernet xe-1/1/50 mtu 9216

set interface gigabit-ethernet xe-1/1/50 routed-interface name "rif-xe50"

set interface gigabit-ethernet xe-1/1/50 routed-interface enable true

set interface gigabit-ethernet xe-1/1/51 mtu 9216

set interface gigabit-ethernet xe-1/1/51 routed-interface name "rif-xe51"

set interface gigabit-ethernet xe-1/1/51 routed-interface enable true

set interface gigabit-ethernet xe-1/1/52 mtu 9216

set interface gigabit-ethernet xe-1/1/52 routed-interface name "rif-xe52"

set interface gigabit-ethernet xe-1/1/52 routed-interface enable true

set interface gigabit-ethernet xe-1/1/63 ether-options 802.3ad "ae64"

set interface gigabit-ethernet xe-1/1/64 ether-options 802.3ad "ae64"

set ip routing enable true

set l3-interface loopback lo address 111.111.111.111 prefix-length 32

set l3-interface vlan-interface vlan4090 address 10.226.13.10 prefix-length 30

set l3-interface vlan-interface vlan200 address 192.168.200.10 prefix-length 24

set l3-interface routed-interface rif-xe49

set l3-interface routed-interface rif-xe50

set l3-interface routed-interface rif-xe51

set l3-interface routed-interface rif-xe52

set protocols bgp local-as "800"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 111.111.111.111

set protocols bgp interface rif-xe49 remote-as "external"

set protocols bgp interface rif-xe49 capability extended-nexthop

set protocols bgp interface rif-xe49 ipv6-unicast activate true

set protocols bgp interface rif-xe50 remote-as "external"

set protocols bgp interface rif-xe50 capability extended-nexthop

set protocols bgp interface rif-xe50 ipv6-unicast activate true

set protocols bgp interface rif-xe51 remote-as "external"

set protocols bgp interface rif-xe51 capability extended-nexthop

set protocols bgp interface rif-xe51 ipv6-unicast activate true

set protocols bgp interface rif-xe52 remote-as "external"

set protocols bgp interface rif-xe52 capability extended-nexthop

set protocols bgp interface rif-xe52 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 111.111.111.111/32

set protocols bgp ipv4-unicast network 192.168.200.0/24

set protocols lldp enable true

set protocols mlag domain 253 node 0

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-link "ae64"

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-vlan 4090

set protocols mlag domain 253 interface ae1 link 1

set protocols mlag domain 253 interface ae2 link 2

set protocols mlag domain 253 interface ae3 link 3

set protocols mlag domain 253 interface ae4 link 4

set protocols mlag domain 253 interface ae5 link 5

set protocols mlag domain 253 interface ae6 link 6

set protocols mlag domain 253 interface ae7 link 7

set protocols mlag domain 253 interface ae8 link 8

set protocols mlag domain 253 interface ae9 link 9

set protocols mlag domain 253 interface ae10 link 10

set protocols mlag domain 253 interface ae11 link 11

set protocols mlag domain 253 interface ae12 link 12

set protocols mlag domain 253 interface ae13 link 13

set protocols mlag domain 253 interface ae14 link 14

set protocols mlag domain 253 interface ae15 link 15

set protocols mlag domain 253 interface ae16 link 16

set protocols mlag domain 253 interface ae17 link 17

set protocols mlag domain 253 interface ae18 link 18

set protocols mlag domain 253 interface ae19 link 19

set protocols mlag domain 253 interface ae20 link 20

set protocols mlag domain 253 interface ae21 link 21

set protocols mlag domain 253 interface ae22 link 22

set protocols mlag domain 253 interface ae23 link 23

set protocols mlag domain 253 interface ae24 link 24

set protocols mlag domain 253 interface ae25 link 25

set protocols mlag domain 253 interface ae26 link 26

set protocols mlag domain 253 interface ae27 link 27

set protocols mlag domain 253 interface ae28 link 28

set protocols mlag domain 253 interface ae29 link 29

set protocols mlag domain 253 interface ae30 link 30

set protocols mlag domain 253 interface ae31 link 31

set protocols mlag domain 253 interface ae32 link 32

set protocols mlag domain 253 interface ae33 link 33

set protocols mlag domain 253 interface ae34 link 34

set protocols mlag domain 253 interface ae35 link 35

set protocols mlag domain 253 interface ae36 link 36

set protocols mlag domain 253 interface ae37 link 37

set protocols mlag domain 253 interface ae38 link 38

set protocols mlag domain 253 interface ae39 link 39

set protocols mlag domain 253 interface ae40 link 40

set protocols mlag domain 253 interface ae41 link 41

set protocols spanning-tree enable false

set protocols vrrp interface vlan200 vrid 1 ip 192.168.210.252

set protocols vrrp interface vlan200 vrid 1 load-balance disable false

set system login user test authentication plain-text-password

"1Skug3FWd$MwfLL8PAd57XRfStqDbSv0"

set system login user test class "super-user"

set system hostname "X86serverLeaf1"

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system management-ethernet eth0 ip-address IPv4 "10.10.51.20/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

set vlans vlan-id 200 l3-interface "vlan200"

set vlans vlan-id 4090 l3-interface "vlan4090"

5.2 Management Network Switch Configuration

5.2.1 The Out-Band N5850-48S6Q Switch Configuration

admin@outbandspine# show | display set | no-more

set interface gigabit-ethernet te-1/1/1 routed-interface name "rif-te1"

set interface gigabit-ethernet te-1/1/1 routed-interface enable true

set interface gigabit-ethernet te-1/1/2 routed-interface name "rif-te2"

set interface gigabit-ethernet te-1/1/2 routed-interface enable true

set interface gigabit-ethernet te-1/1/3 routed-interface name "rif-te3"

set interface gigabit-ethernet te-1/1/3 routed-interface enable true

set interface gigabit-ethernet te-1/1/4 routed-interface name "rif-te4"

set interface gigabit-ethernet te-1/1/4 routed-interface enable true

set interface gigabit-ethernet te-1/1/5 routed-interface name "rif-te5"

set interface gigabit-ethernet te-1/1/5 routed-interface enable true

set interface gigabit-ethernet te-1/1/6 routed-interface name "rif-te6"

set interface gigabit-ethernet te-1/1/6 routed-interface enable true

set interface gigabit-ethernet te-1/1/7 routed-interface name "rif-te7"

set interface gigabit-ethernet te-1/1/7 routed-interface enable true

set interface gigabit-ethernet te-1/1/8 routed-interface name "rif-te8"

set interface gigabit-ethernet te-1/1/8 routed-interface enable true

set interface gigabit-ethernet te-1/1/9 routed-interface name "rif-te9"

set interface gigabit-ethernet te-1/1/9 routed-interface enable true

set interface gigabit-ethernet te-1/1/10 routed-interface name "rif-te10"

set interface gigabit-ethernet te-1/1/10 routed-interface enable true

set interface gigabit-ethernet te-1/1/11 routed-interface name "rif-te11"

set interface gigabit-ethernet te-1/1/11 routed-interface enable true

set interface gigabit-ethernet te-1/1/12 routed-interface name "rif-te12"

set interface gigabit-ethernet te-1/1/12 routed-interface enable true

set interface gigabit-ethernet te-1/1/13 routed-interface name "rif-te13"

set interface gigabit-ethernet te-1/1/13 routed-interface enable true

set interface gigabit-ethernet te-1/1/14 routed-interface name "rif-te14"

set interface gigabit-ethernet te-1/1/14 routed-interface enable true

set interface gigabit-ethernet te-1/1/15 routed-interface name "rif-te15"

set interface gigabit-ethernet te-1/1/15 routed-interface enable true

set interface gigabit-ethernet te-1/1/16 routed-interface name "rif-te16"

set interface gigabit-ethernet te-1/1/16 routed-interface enable true

set interface gigabit-ethernet te-1/1/17 routed-interface name "rif-te17"

set interface gigabit-ethernet te-1/1/17 routed-interface enable true

set interface gigabit-ethernet te-1/1/18 routed-interface name "rif-te18"

set interface gigabit-ethernet te-1/1/18 routed-interface enable true

set interface gigabit-ethernet te-1/1/19 routed-interface name "rif-te19"

set interface gigabit-ethernet te-1/1/19 routed-interface enable true

set interface gigabit-ethernet te-1/1/20 routed-interface name "rif-te20"

set interface gigabit-ethernet te-1/1/20 routed-interface enable true

set interface gigabit-ethernet te-1/1/21 routed-interface name "rif-te21"

set interface gigabit-ethernet te-1/1/21 routed-interface enable true

set interface gigabit-ethernet te-1/1/22 routed-interface name "rif-te22"

set interface gigabit-ethernet te-1/1/22 routed-interface enable true

set interface gigabit-ethernet te-1/1/23 routed-interface name "rif-te23"

set interface gigabit-ethernet te-1/1/23 routed-interface enable true

set interface gigabit-ethernet te-1/1/24 routed-interface name "rif-te24"

set interface gigabit-ethernet te-1/1/24 routed-interface enable true

set interface gigabit-ethernet xe-1/1/5 routed-interface name "rif-xe5"

set interface gigabit-ethernet xe-1/1/5 routed-interface enable true

set interface gigabit-ethernet xe-1/1/6 routed-interface name "rif-xe6"

set interface gigabit-ethernet xe-1/1/6 routed-interface enable true

set ip routing enable true

set l3-interface loopback lo address 20.20.20.20 prefix-length 32

set l3-interface routed-interface rif-te1

set l3-interface routed-interface rif-te2

set l3-interface routed-interface rif-te3

set l3-interface routed-interface rif-te4

set l3-interface routed-interface rif-te5

set l3-interface routed-interface rif-te6

set l3-interface routed-interface rif-te7

set l3-interface routed-interface rif-te8

set l3-interface routed-interface rif-te9

set l3-interface routed-interface rif-te10

set l3-interface routed-interface rif-te11

set l3-interface routed-interface rif-te12

set l3-interface routed-interface rif-te13

set l3-interface routed-interface rif-te14

set l3-interface routed-interface rif-te15

set l3-interface routed-interface rif-te16

set l3-interface routed-interface rif-te17

set l3-interface routed-interface rif-te18

set l3-interface routed-interface rif-te19

set l3-interface routed-interface rif-te20

set l3-interface routed-interface rif-te21

set l3-interface routed-interface rif-te22

set l3-interface routed-interface rif-te23

set l3-interface routed-interface rif-te24

set l3-interface routed-interface rif-xe5 address 172.16.10.10 prefix-length 24

set l3-interface routed-interface rif-xe6 address 172.16.20.10 prefix-length 24

set protocols bgp local-as "700"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 20.20.20.20

set protocols bgp interface rif-te1 remote-as "external"

set protocols bgp interface rif-te1 capability extended-nexthop

set protocols bgp interface rif-te1 ipv6-unicast activate true

set protocols bgp interface rif-te2 remote-as "external"

set protocols bgp interface rif-te2 capability extended-nexthop

set protocols bgp interface rif-te2 ipv6-unicast activate true

set protocols bgp interface rif-te3 remote-as "external"

set protocols bgp interface rif-te3 capability extended-nexthop

set protocols bgp interface rif-te3 ipv6-unicast activate true

set protocols bgp interface rif-te4 remote-as "external"

set protocols bgp interface rif-te4 capability extended-nexthop

set protocols bgp interface rif-te4 ipv6-unicast activate true

set protocols bgp interface rif-te5 remote-as "external"

set protocols bgp interface rif-te5 capability extended-nexthop

set protocols bgp interface rif-te5 ipv6-unicast activate true

set protocols bgp interface rif-te6 remote-as "external"

set protocols bgp interface rif-te6 capability extended-nexthop

set protocols bgp interface rif-te6 ipv6-unicast activate true

set protocols bgp interface rif-te7 remote-as "external"

set protocols bgp interface rif-te7 capability extended-nexthop

set protocols bgp interface rif-te7 ipv6-unicast activate true

set protocols bgp interface rif-te8 remote-as "external"

set protocols bgp interface rif-te8 capability extended-nexthop

set protocols bgp interface rif-te8 ipv6-unicast activate true

set protocols bgp interface rif-te9 remote-as "external"

set protocols bgp interface rif-te9 capability extended-nexthop

set protocols bgp interface rif-te9 ipv6-unicast activate true

set protocols bgp interface rif-te10 remote-as "external"

set protocols bgp interface rif-te10 capability extended-nexthop

set protocols bgp interface rif-te10 ipv6-unicast activate true

set protocols bgp interface rif-te11 remote-as "external"

set protocols bgp interface rif-te11 capability extended-nexthop

set protocols bgp interface rif-te11 ipv6-unicast activate true

set protocols bgp interface rif-te12 remote-as "external"

set protocols bgp interface rif-te12 capability extended-nexthop

set protocols bgp interface rif-te12 ipv6-unicast activate true

set protocols bgp interface rif-te13 remote-as "external"

set protocols bgp interface rif-te13 capability extended-nexthop

set protocols bgp interface rif-te13 ipv6-unicast activate true

set protocols bgp interface rif-te14 remote-as "external"

set protocols bgp interface rif-te14 capability extended-nexthop

set protocols bgp interface rif-te14 ipv6-unicast activate true

set protocols bgp interface rif-te15 remote-as "external"

set protocols bgp interface rif-te15 capability extended-nexthop

set protocols bgp interface rif-te15 ipv6-unicast activate true

set protocols bgp interface rif-te16 remote-as "external"

set protocols bgp interface rif-te16 capability extended-nexthop

set protocols bgp interface rif-te16 ipv6-unicast activate true

set protocols bgp interface rif-te17 remote-as "external"

set protocols bgp interface rif-te17 capability extended-nexthop

set protocols bgp interface rif-te17 ipv6-unicast activate true

set protocols bgp interface rif-te18 remote-as "external"

set protocols bgp interface rif-te18 capability extended-nexthop

set protocols bgp interface rif-te18 ipv6-unicast activate true

set protocols bgp interface rif-te19 remote-as "external"

set protocols bgp interface rif-te19 capability extended-nexthop

set protocols bgp interface rif-te19 ipv6-unicast activate true

set protocols bgp interface rif-te20 remote-as "external"

set protocols bgp interface rif-te20 capability extended-nexthop

set protocols bgp interface rif-te20 ipv6-unicast activate true

set protocols bgp interface rif-te21 remote-as "external"

set protocols bgp interface rif-te21 capability extended-nexthop

set protocols bgp interface rif-te21 ipv6-unicast activate true

set protocols bgp interface rif-te22 remote-as "external"

set protocols bgp interface rif-te22 capability extended-nexthop

set protocols bgp interface rif-te22 ipv6-unicast activate true

set protocols bgp interface rif-te23 remote-as "external"

set protocols bgp interface rif-te23 capability extended-nexthop

set protocols bgp interface rif-te23 ipv6-unicast activate true

set protocols bgp interface rif-te24 remote-as "external"

set protocols bgp interface rif-te24 capability extended-nexthop

set protocols bgp interface rif-te24 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 20.20.20.20/32

set protocols bgp ipv4-unicast redistribute static

set protocols lldp enable true

set protocols static route 0.0.0.0/0 next-hop 172.16.0.1

set system login user test authentication plain-text-password "1S.Sebrpj$RNYgrduwKyfUqG5EG.uVl."

set system login user test class "super-user"

set system hostname "outbandspine"

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system management-ethernet eth0 ip-address IPv4 "10.10.51.30/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

5.2.2 The Out-Band Leaf Switch Configuration

admin@outbandLeaf1# show | display set | no-more

set interface gigabit-ethernet ge-1/1/1 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/2 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/3 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/4 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/5 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/6 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/7 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/8 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/9 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/10 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/11 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/12 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/13 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/14 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/15 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/16 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/17 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/18 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/19 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/20 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/21 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/22 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/23 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/24 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/25 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/26 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/27 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/28 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/29 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/30 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/31 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/32 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/33 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/34 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/35 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/36 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/37 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/38 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/39 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/40 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/41 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/42 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/43 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/44 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/45 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/46 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/47 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet ge-1/1/48 family ethernet-switching native-vlan-id 1000

set interface gigabit-ethernet te-1/1/4 routed-interface name "rif-te4"

set interface gigabit-ethernet te-1/1/4 routed-interface enable true

set ip routing enable true

set l3-interface loopback lo address 11.11.11.11 prefix-length 32

set l3-interface vlan-interface vlan1000 address 192.168.200.1 prefix-length 24

set l3-interface routed-interface rif-te4

set protocols bgp local-as "11"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 11.11.11.11

set protocols bgp interface rif-te4 remote-as "external"

set protocols bgp interface rif-te4 capability extended-nexthop

set protocols bgp interface rif-te4 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 11.11.11.11/32

set protocols bgp ipv4-unicast network 192.168.200.0/24

set protocols lldp enable true

set system login user test authentication plain-text-password "1JjeifSyw$2jikN59H.mDhlYLx2bt0A0"

set system login user test class "super-user"

set system hostname "outbandLeaf1"

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system management-ethernet eth0 ip-address IPv4 "10.10.51.32/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

set vlans vlan-id 1000 l3-interface "vlan1000"

5.2.3 The In-Band Spine Switch Configuration

admin@InbandSpine1# show | display set | no-more

set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1"

set interface gigabit-ethernet xe-1/1/1 routed-interface enable true

set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2"

set interface gigabit-ethernet xe-1/1/2 routed-interface enable true

set interface gigabit-ethernet xe-1/1/3 routed-interface name "rif-xe3"

set interface gigabit-ethernet xe-1/1/3 routed-interface enable true

set interface gigabit-ethernet xe-1/1/4 routed-interface name "rif-xe4"

set interface gigabit-ethernet xe-1/1/4 routed-interface enable true

set interface gigabit-ethernet xe-1/1/5 routed-interface name "rif-xe5"

set interface gigabit-ethernet xe-1/1/5 routed-interface enable true

set interface gigabit-ethernet xe-1/1/6 routed-interface name "rif-xe6"

set interface gigabit-ethernet xe-1/1/6 routed-interface enable true

set interface gigabit-ethernet xe-1/1/7 routed-interface name "rif-xe7"

set interface gigabit-ethernet xe-1/1/7 routed-interface enable true

set interface gigabit-ethernet xe-1/1/8 routed-interface name "rif-xe8"

set interface gigabit-ethernet xe-1/1/8 routed-interface enable true

set interface gigabit-ethernet xe-1/1/9 routed-interface name "rif-xe9"

set interface gigabit-ethernet xe-1/1/9 routed-interface enable true

set interface gigabit-ethernet xe-1/1/10 routed-interface name "rif-xe10"

set interface gigabit-ethernet xe-1/1/10 routed-interface enable true

set interface gigabit-ethernet xe-1/1/11 routed-interface name "rif-xe11"

set interface gigabit-ethernet xe-1/1/11 routed-interface enable true

set interface gigabit-ethernet xe-1/1/12 routed-interface name "rif-xe12"

set interface gigabit-ethernet xe-1/1/12 routed-interface enable true

set interface gigabit-ethernet xe-1/1/13 routed-interface name "rif-xe13"

set interface gigabit-ethernet xe-1/1/13 routed-interface enable true

set interface gigabit-ethernet xe-1/1/14 routed-interface name "rif-xe14"

set interface gigabit-ethernet xe-1/1/14 routed-interface enable true

set interface gigabit-ethernet xe-1/1/15 routed-interface name "rif-xe15"

set interface gigabit-ethernet xe-1/1/15 routed-interface enable true

set interface gigabit-ethernet xe-1/1/16 routed-interface name "rif-xe16"

set interface gigabit-ethernet xe-1/1/16 routed-interface enable true

set interface gigabit-ethernet xe-1/1/17 routed-interface name "rif-xe17"

set interface gigabit-ethernet xe-1/1/17 routed-interface enable true

set interface gigabit-ethernet xe-1/1/18 routed-interface name "rif-xe18"

set interface gigabit-ethernet xe-1/1/18 routed-interface enable true

set interface gigabit-ethernet xe-1/1/19 routed-interface name "rif-xe19"

set interface gigabit-ethernet xe-1/1/19 routed-interface enable true

set interface gigabit-ethernet xe-1/1/20 routed-interface name "rif-xe20"

set interface gigabit-ethernet xe-1/1/20 routed-interface enable true

set interface gigabit-ethernet xe-1/1/21 routed-interface name "rif-xe21"

set interface gigabit-ethernet xe-1/1/21 routed-interface enable true

set interface gigabit-ethernet xe-1/1/22 routed-interface name "rif-xe22"

set interface gigabit-ethernet xe-1/1/22 routed-interface enable true

set interface gigabit-ethernet xe-1/1/23 routed-interface name "rif-xe23"

set interface gigabit-ethernet xe-1/1/23 routed-interface enable true

set interface gigabit-ethernet xe-1/1/24 routed-interface name "rif-xe24"

set interface gigabit-ethernet xe-1/1/24 routed-interface enable true

set interface gigabit-ethernet xe-1/1/25 routed-interface name "rif-xe25"

set interface gigabit-ethernet xe-1/1/25 routed-interface enable true

set interface gigabit-ethernet xe-1/1/26 routed-interface name "rif-xe26"

set interface gigabit-ethernet xe-1/1/26 routed-interface enable true

set interface gigabit-ethernet xe-1/1/27 routed-interface name "rif-xe27"

set interface gigabit-ethernet xe-1/1/27 routed-interface enable true

set interface gigabit-ethernet xe-1/1/28 routed-interface name "rif-xe28"

set interface gigabit-ethernet xe-1/1/28 routed-interface enable true

set interface gigabit-ethernet xe-1/1/29 routed-interface name "rif-xe29"

set interface gigabit-ethernet xe-1/1/29 routed-interface enable true

set interface gigabit-ethernet xe-1/1/30 routed-interface name "rif-xe30"

set interface gigabit-ethernet xe-1/1/30 routed-interface enable true

set interface gigabit-ethernet xe-1/1/32 routed-interface name "rif-xe32"

set interface gigabit-ethernet xe-1/1/32 routed-interface enable true

set interface gigabit-ethernet xe-1/1/33 routed-interface name "rif-xe33"

set interface gigabit-ethernet xe-1/1/33 routed-interface enable true

set interface gigabit-ethernet xe-1/1/34 routed-interface name "rif-xe34"

set interface gigabit-ethernet xe-1/1/34 routed-interface enable true

set interface gigabit-ethernet xe-1/1/35 routed-interface name "rif-xe35"

set interface gigabit-ethernet xe-1/1/35 routed-interface enable true

set interface gigabit-ethernet xe-1/1/36 routed-interface name "rif-xe36"

set interface gigabit-ethernet xe-1/1/36 routed-interface enable true

set interface gigabit-ethernet xe-1/1/63 routed-interface name "rif-xe63"

set interface gigabit-ethernet xe-1/1/63 routed-interface enable true

set interface gigabit-ethernet xe-1/1/64 routed-interface name "rif-xe64"

set interface gigabit-ethernet xe-1/1/64 routed-interface enable true

set ip routing enable true

set l3-interface loopback lo address 10.10.10.10 prefix-length 32

set l3-interface routed-interface rif-xe1

set l3-interface routed-interface rif-xe2

set l3-interface routed-interface rif-xe3

set l3-interface routed-interface rif-xe4

set l3-interface routed-interface rif-xe5

set l3-interface routed-interface rif-xe6

set l3-interface routed-interface rif-xe7

set l3-interface routed-interface rif-xe8

set l3-interface routed-interface rif-xe9

set l3-interface routed-interface rif-xe10

set l3-interface routed-interface rif-xe11

set l3-interface routed-interface rif-xe12

set l3-interface routed-interface rif-xe13

set l3-interface routed-interface rif-xe14

set l3-interface routed-interface rif-xe15

set l3-interface routed-interface rif-xe16

set l3-interface routed-interface rif-xe17

set l3-interface routed-interface rif-xe18

set l3-interface routed-interface rif-xe19

set l3-interface routed-interface rif-xe20

set l3-interface routed-interface rif-xe21

set l3-interface routed-interface rif-xe22

set l3-interface routed-interface rif-xe23

set l3-interface routed-interface rif-xe24

set l3-interface routed-interface rif-xe25

set l3-interface routed-interface rif-xe26

set l3-interface routed-interface rif-xe27

set l3-interface routed-interface rif-xe28

set l3-interface routed-interface rif-xe29

set l3-interface routed-interface rif-xe30

set l3-interface routed-interface rif-xe32

set l3-interface routed-interface rif-xe33

set l3-interface routed-interface rif-xe34

set l3-interface routed-interface rif-xe35

set l3-interface routed-interface rif-xe36

set l3-interface routed-interface rif-xe63 address 172.168.1.10 prefix-length 24

set l3-interface routed-interface rif-xe64 address 172.168.2.10 prefix-length 24

set protocols bgp local-as "500"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 10.10.10.10

set protocols bgp interface rif-xe1 remote-as "external"

set protocols bgp interface rif-xe1 capability extended-nexthop

set protocols bgp interface rif-xe1 ipv6-unicast activate true

set protocols bgp interface rif-xe2 remote-as "external"

set protocols bgp interface rif-xe2 capability extended-nexthop

set protocols bgp interface rif-xe2 ipv6-unicast activate true

set protocols bgp interface rif-xe3 remote-as "external"

set protocols bgp interface rif-xe3 capability extended-nexthop

set protocols bgp interface rif-xe3 ipv6-unicast activate true

set protocols bgp interface rif-xe4 remote-as "external"

set protocols bgp interface rif-xe4 capability extended-nexthop

set protocols bgp interface rif-xe4 ipv6-unicast activate true

set protocols bgp interface rif-xe5 remote-as "external"

set protocols bgp interface rif-xe5 capability extended-nexthop

set protocols bgp interface rif-xe5 ipv6-unicast activate true

set protocols bgp interface rif-xe6 remote-as "external"

set protocols bgp interface rif-xe6 capability extended-nexthop

set protocols bgp interface rif-xe6 ipv6-unicast activate true

set protocols bgp interface rif-xe7 remote-as "external"

set protocols bgp interface rif-xe7 capability extended-nexthop

set protocols bgp interface rif-xe7 ipv6-unicast activate true

set protocols bgp interface rif-xe8 remote-as "external"

set protocols bgp interface rif-xe8 capability extended-nexthop

set protocols bgp interface rif-xe8 ipv6-unicast activate true

set protocols bgp interface rif-xe9 remote-as "external"

set protocols bgp interface rif-xe9 capability extended-nexthop

set protocols bgp interface rif-xe9 ipv6-unicast activate true

set protocols bgp interface rif-xe10 remote-as "external"

set protocols bgp interface rif-xe10 capability extended-nexthop

set protocols bgp interface rif-xe10 ipv6-unicast activate true

set protocols bgp interface rif-xe11 remote-as "external"

set protocols bgp interface rif-xe11 capability extended-nexthop

set protocols bgp interface rif-xe11 ipv6-unicast activate true

set protocols bgp interface rif-xe12 remote-as "external"

set protocols bgp interface rif-xe12 capability extended-nexthop

set protocols bgp interface rif-xe12 ipv6-unicast activate true

set protocols bgp interface rif-xe13 remote-as "external"

set protocols bgp interface rif-xe13 capability extended-nexthop

set protocols bgp interface rif-xe13 ipv6-unicast activate true

set protocols bgp interface rif-xe14 remote-as "external"

set protocols bgp interface rif-xe14 capability extended-nexthop

set protocols bgp interface rif-xe14 ipv6-unicast activate true

set protocols bgp interface rif-xe15 remote-as "external"

set protocols bgp interface rif-xe15 capability extended-nexthop

set protocols bgp interface rif-xe15 ipv6-unicast activate true

set protocols bgp interface rif-xe16 remote-as "external"

set protocols bgp interface rif-xe16 capability extended-nexthop

set protocols bgp interface rif-xe16 ipv6-unicast activate true

set protocols bgp interface rif-xe17 remote-as "external"

set protocols bgp interface rif-xe17 capability extended-nexthop

set protocols bgp interface rif-xe17 ipv6-unicast activate true

set protocols bgp interface rif-xe18 remote-as "external"

set protocols bgp interface rif-xe18 capability extended-nexthop

set protocols bgp interface rif-xe18 ipv6-unicast activate true

set protocols bgp interface rif-xe19 remote-as "external"

set protocols bgp interface rif-xe19 capability extended-nexthop

set protocols bgp interface rif-xe19 ipv6-unicast activate true

set protocols bgp interface rif-xe20 remote-as "external"

set protocols bgp interface rif-xe20 capability extended-nexthop

set protocols bgp interface rif-xe20 ipv6-unicast activate true

set protocols bgp interface rif-xe21 remote-as "external"

set protocols bgp interface rif-xe21 capability extended-nexthop

set protocols bgp interface rif-xe21 ipv6-unicast activate true

set protocols bgp interface rif-xe22 remote-as "external"

set protocols bgp interface rif-xe22 capability extended-nexthop

set protocols bgp interface rif-xe22 ipv6-unicast activate true

set protocols bgp interface rif-xe23 remote-as "external"

set protocols bgp interface rif-xe23 capability extended-nexthop

set protocols bgp interface rif-xe23 ipv6-unicast activate true

set protocols bgp interface rif-xe24 remote-as "external"

set protocols bgp interface rif-xe24 capability extended-nexthop

set protocols bgp interface rif-xe24 ipv6-unicast activate true

set protocols bgp interface rif-xe25 remote-as "external"

set protocols bgp interface rif-xe25 capability extended-nexthop

set protocols bgp interface rif-xe25 ipv6-unicast activate true

set protocols bgp interface rif-xe26 remote-as "external"

set protocols bgp interface rif-xe26 capability extended-nexthop

set protocols bgp interface rif-xe26 ipv6-unicast activate true

set protocols bgp interface rif-xe27 remote-as "external"

set protocols bgp interface rif-xe27 capability extended-nexthop

set protocols bgp interface rif-xe27 ipv6-unicast activate true

set protocols bgp interface rif-xe28 remote-as "external"

set protocols bgp interface rif-xe28 capability extended-nexthop

set protocols bgp interface rif-xe28 ipv6-unicast activate true

set protocols bgp interface rif-xe29 remote-as "external"

set protocols bgp interface rif-xe29 capability extended-nexthop

set protocols bgp interface rif-xe29 ipv6-unicast activate true

set protocols bgp interface rif-xe30 remote-as "external"

set protocols bgp interface rif-xe30 capability extended-nexthop

set protocols bgp interface rif-xe30 ipv6-unicast activate true

set protocols bgp interface rif-xe32 remote-as "external"

set protocols bgp interface rif-xe32 capability extended-nexthop

set protocols bgp interface rif-xe32 ipv6-unicast activate true

set protocols bgp interface rif-xe33 remote-as "external"

set protocols bgp interface rif-xe33 capability extended-nexthop

set protocols bgp interface rif-xe33 ipv6-unicast activate true

set protocols bgp interface rif-xe34 remote-as "external"

set protocols bgp interface rif-xe34 capability extended-nexthop

set protocols bgp interface rif-xe34 ipv6-unicast activate true

set protocols bgp interface rif-xe35 remote-as "external"

set protocols bgp interface rif-xe35 capability extended-nexthop

set protocols bgp interface rif-xe35 ipv6-unicast activate true

set protocols bgp interface rif-xe36 remote-as "external"

set protocols bgp interface rif-xe36 capability extended-nexthop

set protocols bgp interface rif-xe36 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 10.10.10.10/32

set protocols bgp ipv4-unicast redistribute static

set protocols lldp enable true

set protocols static route 0.0.0.0/0 next-hop 172.16.0.1

set protocols static route 10.1.0.0/16 next-hop 172.1.0.1

set protocols static route 10.1.0.0/16 next-hop 172.2.0.1 distance 1

set system login user test authentication plain-text-password "1QfrZ7CTj$Ir2spMD0lWXiU7wvkd/Nq/"

set system login user test class "super-user"

set system hostname "InbandSpine1"

set system management-ethernet eth0 ip-address IPv4 "10.10.51.40/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan 2000-2127

5.2.4 The In-Band GPU Server Leaf Switch Configuration

set interface aggregate-ethernet ae1 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae1 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae10 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae10 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae11 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae11 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae12 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae12 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae13 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae13 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae14 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae14 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae15 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae15 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae16 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae16 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae17 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae17 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae18 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae18 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae19 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae19 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae2 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae2 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae20 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae20 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae21 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae21 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae22 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae22 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae23 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae23 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae24 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae24 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae25 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae25 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae26 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae26 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae27 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae27 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae28 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae28 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae29 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae29 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae3 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae3 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae30 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae30 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae31 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae31 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae32 aggregated-ether-options lacp enable true
set interface aggregate-ethernet ae32 family ethernet-switching native-vlan-id 103
set interface aggregate-ethernet ae4 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae4 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae5 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae5 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae6 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae6 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090

set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"

set interface aggregate-ethernet ae64 family ethernet-switching vlan members 103

set interface aggregate-ethernet ae7 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae7 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae8 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae8 family ethernet-switching native-vlan-id 103

set interface aggregate-ethernet ae9 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae9 family ethernet-switching native-vlan-id 103

set interface gigabit-ethernet te-1/1/1 ether-options 802.3ad "ae1"

set interface gigabit-ethernet te-1/1/2 ether-options 802.3ad "ae2"

set interface gigabit-ethernet te-1/1/3 ether-options 802.3ad "ae3"

set interface gigabit-ethernet te-1/1/4 ether-options 802.3ad "ae4"

set interface gigabit-ethernet te-1/1/5 ether-options 802.3ad "ae5"

set interface gigabit-ethernet te-1/1/6 ether-options 802.3ad "ae6"

set interface gigabit-ethernet te-1/1/7 ether-options 802.3ad "ae7"

set interface gigabit-ethernet te-1/1/8 ether-options 802.3ad "ae8"

set interface gigabit-ethernet te-1/1/9 ether-options 802.3ad "ae9"

set interface gigabit-ethernet te-1/1/10 ether-options 802.3ad "ae10"

set interface gigabit-ethernet te-1/1/11 ether-options 802.3ad "ae11"

set interface gigabit-ethernet te-1/1/12 ether-options 802.3ad "ae12"

set interface gigabit-ethernet te-1/1/13 ether-options 802.3ad "ae13"

set interface gigabit-ethernet te-1/1/14 ether-options 802.3ad "ae14"

set interface gigabit-ethernet te-1/1/15 ether-options 802.3ad "ae15"

set interface gigabit-ethernet te-1/1/16 ether-options 802.3ad "ae16"

set interface gigabit-ethernet te-1/1/17 ether-options 802.3ad "ae17"

set interface gigabit-ethernet te-1/1/18 ether-options 802.3ad "ae18"

set interface gigabit-ethernet te-1/1/19 ether-options 802.3ad "ae19"

set interface gigabit-ethernet te-1/1/20 ether-options 802.3ad "ae20"

set interface gigabit-ethernet te-1/1/21 ether-options 802.3ad "ae21"

set interface gigabit-ethernet te-1/1/22 ether-options 802.3ad "ae22"

set interface gigabit-ethernet te-1/1/23 ether-options 802.3ad "ae23"

set interface gigabit-ethernet te-1/1/24 ether-options 802.3ad "ae24"

set interface gigabit-ethernet te-1/1/25 ether-options 802.3ad "ae25"

set interface gigabit-ethernet te-1/1/26 ether-options 802.3ad "ae26"

set interface gigabit-ethernet te-1/1/27 ether-options 802.3ad "ae27"

set interface gigabit-ethernet te-1/1/28 ether-options 802.3ad "ae28"

set interface gigabit-ethernet te-1/1/29 ether-options 802.3ad "ae29"

set interface gigabit-ethernet te-1/1/30 ether-options 802.3ad "ae30"

set interface gigabit-ethernet te-1/1/31 ether-options 802.3ad "ae31"

set interface gigabit-ethernet te-1/1/32 ether-options 802.3ad "ae32"

set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1"

set interface gigabit-ethernet xe-1/1/1 routed-interface enable true

set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2"

set interface gigabit-ethernet xe-1/1/2 routed-interface enable true

set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae64"

set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae64"

set ip routing enable true

set l3-interface loopback lo address 10.2.222.103 prefix-length 32

set l3-interface vlan-interface vlan4090 address 10.2.254.2 prefix-length 30

set l3-interface vlan-interface vlan103 address 10.2.3.252 prefix-length 24

set l3-interface routed-interface rif-xe1

set l3-interface routed-interface rif-xe2

set protocols bgp local-as "64763"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 10.2.222.103

set protocols bgp interface rif-xe1 remote-as "external"

set protocols bgp interface rif-xe1 capability extended-nexthop

set protocols bgp interface rif-xe1 ipv6-unicast activate true

set protocols bgp interface rif-xe2 remote-as "external"

set protocols bgp interface rif-xe2 capability extended-nexthop

set protocols bgp interface rif-xe2 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 10.2.222.103/32

set protocols bgp ipv4-unicast network 10.2.3.0/24

set protocols dhcp relay interface vlan103 disable false

set protocols dhcp relay interface vlan103 dhcp-server-address 10.2.201.249

set protocols dhcp relay interface vlan103 relay-agent-address 10.2.3.254

set protocols lldp enable true

set protocols mlag domain 103 node 1

set protocols mlag domain 103 peer-ip 10.2.254.1 peer-link "ae64"

set protocols mlag domain 103 peer-ip 10.2.254.1 peer-vlan 4090

set protocols mlag domain 103 interface ae1 link 1

set protocols mlag domain 103 interface ae2 link 2

set protocols mlag domain 103 interface ae3 link 3

set protocols mlag domain 103 interface ae4 link 4

set protocols mlag domain 103 interface ae5 link 5

set protocols mlag domain 103 interface ae6 link 6

set protocols mlag domain 103 interface ae7 link 7

set protocols mlag domain 103 interface ae8 link 8

set protocols mlag domain 103 interface ae9 link 9

set protocols mlag domain 103 interface ae10 link 10

set protocols mlag domain 103 interface ae11 link 11

set protocols mlag domain 103 interface ae12 link 12

set protocols mlag domain 103 interface ae13 link 13

set protocols mlag domain 103 interface ae14 link 14

set protocols mlag domain 103 interface ae15 link 15

set protocols mlag domain 103 interface ae16 link 16

set protocols mlag domain 103 interface ae17 link 17

set protocols mlag domain 103 interface ae18 link 18

set protocols mlag domain 103 interface ae19 link 19

set protocols mlag domain 103 interface ae20 link 20

set protocols mlag domain 103 interface ae21 link 21

set protocols mlag domain 103 interface ae22 link 22

set protocols mlag domain 103 interface ae23 link 23

set protocols mlag domain 103 interface ae24 link 24

set protocols mlag domain 103 interface ae25 link 25

set protocols mlag domain 103 interface ae26 link 26

set protocols mlag domain 103 interface ae27 link 27

set protocols mlag domain 103 interface ae28 link 28

set protocols mlag domain 103 interface ae29 link 29

set protocols mlag domain 103 interface ae30 link 30

set protocols mlag domain 103 interface ae31 link 31

set protocols mlag domain 103 interface ae32 link 32

set protocols spanning-tree enable false

set protocols vrrp interface vlan103 vrid 1 ip 10.2.3.254

set protocols vrrp interface vlan103 vrid 1 load-balance disable false

set system management-ethernet eth0 ip-address IPv4 "10.1.226.8/24"

set system management-ethernet eth0 ip-gateway IPv4 10.1.226.254

set system hostname "INTRA-GPU03-LEAF02"

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.2.201.249

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.2.201.247

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.2.201.240 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

set vlans vlan-id 103 l3-interface "vlan103"

set vlans vlan-id 4090 l3-interface "vlan4090"

5.2.5 The In-Band Storage Server Leaf Switch Configuration

admin@storageserverLeaf1# show | display set | no-more

set interface aggregate-ethernet ae1 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae1 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae10 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae10 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae11 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae11 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae12 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae12 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae13 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae13 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae14 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae14 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae15 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae15 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae16 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae16 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae17 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae17 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae18 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae18 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae19 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae19 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae2 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae2 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae20 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae20 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae21 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae21 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae22 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae22 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae23 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae23 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae24 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae24 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae25 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae25 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae26 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae26 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae27 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae27 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae28 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae28 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae29 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae29 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae3 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae3 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae30 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae30 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae31 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae31 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae32 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae32 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae33 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae33 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae34 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae34 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae35 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae35 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae36 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae36 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae37 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae37 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae38 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae38 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae39 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae39 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae4 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae4 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae40 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae40 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae41 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae41 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae42 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae42 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae43 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae43 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae44 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae44 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae45 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae45 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae5 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae5 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae6 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae6 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090

set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"

set interface aggregate-ethernet ae64 family ethernet-switching vlan members 210

set interface aggregate-ethernet ae7 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae7 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae8 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae8 family ethernet-switching native-vlan-id 210

set interface aggregate-ethernet ae9 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae9 family ethernet-switching native-vlan-id 210

set interface gigabit-ethernet te-1/1/1 ether-options 802.3ad "ae1"

set interface gigabit-ethernet te-1/1/2 ether-options 802.3ad "ae2"

set interface gigabit-ethernet te-1/1/3 ether-options 802.3ad "ae3"

set interface gigabit-ethernet te-1/1/4 ether-options 802.3ad "ae4"

set interface gigabit-ethernet te-1/1/5 ether-options 802.3ad "ae5"

set interface gigabit-ethernet te-1/1/6 ether-options 802.3ad "ae6"

set interface gigabit-ethernet te-1/1/7 ether-options 802.3ad "ae7"

set interface gigabit-ethernet te-1/1/8 ether-options 802.3ad "ae8"

set interface gigabit-ethernet te-1/1/9 ether-options 802.3ad "ae9"

set interface gigabit-ethernet te-1/1/10 ether-options 802.3ad "ae10"

set interface gigabit-ethernet te-1/1/11 ether-options 802.3ad "ae11"

set interface gigabit-ethernet te-1/1/12 ether-options 802.3ad "ae12"

set interface gigabit-ethernet te-1/1/13 ether-options 802.3ad "ae13"

set interface gigabit-ethernet te-1/1/14 ether-options 802.3ad "ae14"

set interface gigabit-ethernet te-1/1/15 ether-options 802.3ad "ae15"

set interface gigabit-ethernet te-1/1/16 ether-options 802.3ad "ae16"

set interface gigabit-ethernet te-1/1/17 ether-options 802.3ad "ae17"

set interface gigabit-ethernet te-1/1/18 ether-options 802.3ad "ae18"

set interface gigabit-ethernet te-1/1/19 ether-options 802.3ad "ae19"

set interface gigabit-ethernet te-1/1/20 ether-options 802.3ad "ae20"

set interface gigabit-ethernet te-1/1/21 ether-options 802.3ad "ae21"

set interface gigabit-ethernet te-1/1/22 ether-options 802.3ad "ae22"

set interface gigabit-ethernet te-1/1/23 ether-options 802.3ad "ae23"

set interface gigabit-ethernet te-1/1/24 ether-options 802.3ad "ae24"

set interface gigabit-ethernet te-1/1/25 ether-options 802.3ad "ae25"

set interface gigabit-ethernet te-1/1/26 ether-options 802.3ad "ae26"

set interface gigabit-ethernet te-1/1/27 ether-options 802.3ad "ae27"

set interface gigabit-ethernet te-1/1/28 ether-options 802.3ad "ae28"

set interface gigabit-ethernet te-1/1/29 ether-options 802.3ad "ae29"

set interface gigabit-ethernet te-1/1/30 ether-options 802.3ad "ae30"

set interface gigabit-ethernet te-1/1/31 ether-options 802.3ad "ae31"

set interface gigabit-ethernet te-1/1/32 ether-options 802.3ad "ae32"

set interface gigabit-ethernet te-1/1/33 ether-options 802.3ad "ae33"

set interface gigabit-ethernet te-1/1/34 ether-options 802.3ad "ae34"

set interface gigabit-ethernet te-1/1/35 ether-options 802.3ad "ae35"

set interface gigabit-ethernet te-1/1/36 ether-options 802.3ad "ae36"

set interface gigabit-ethernet te-1/1/37 ether-options 802.3ad "ae37"

set interface gigabit-ethernet te-1/1/38 ether-options 802.3ad "ae38"

set interface gigabit-ethernet te-1/1/39 ether-options 802.3ad "ae39"

set interface gigabit-ethernet te-1/1/40 ether-options 802.3ad "ae40"

set interface gigabit-ethernet te-1/1/41 ether-options 802.3ad "ae41"

set interface gigabit-ethernet te-1/1/42 ether-options 802.3ad "ae42"

set interface gigabit-ethernet te-1/1/43 ether-options 802.3ad "ae43"

set interface gigabit-ethernet te-1/1/44 ether-options 802.3ad "ae44"

set interface gigabit-ethernet te-1/1/45 ether-options 802.3ad "ae45"

set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1"

set interface gigabit-ethernet xe-1/1/1 routed-interface enable true

set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2"

set interface gigabit-ethernet xe-1/1/2 routed-interface enable true

set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae64"

set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae64"

set ip routing enable true

set l3-interface loopback lo address 1.1.1.1 prefix-length 32

set l3-interface vlan-interface vlan4090 address 10.226.13.10 prefix-length 30

set l3-interface vlan-interface vlan210 address 192.168.100.10 prefix-length 24

set l3-interface routed-interface rif-xe1

set l3-interface routed-interface rif-xe2

set protocols bgp local-as "900"

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 1.1.1.1

set protocols bgp interface rif-xe1 remote-as "external"

set protocols bgp interface rif-xe1 capability extended-nexthop

set protocols bgp interface rif-xe1 ipv6-unicast activate true

set protocols bgp interface rif-xe2 remote-as "external"

set protocols bgp interface rif-xe2 capability extended-nexthop

set protocols bgp interface rif-xe2 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 1.1.1.1/32

set protocols bgp ipv4-unicast network 192.168.100.0/24

set protocols lldp enable true

set protocols mlag domain 253 node 0

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-link "ae64"

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-vlan 4090

set protocols mlag domain 253 interface ae1 link 1

set protocols mlag domain 253 interface ae2 link 2

set protocols mlag domain 253 interface ae3 link 3

set protocols mlag domain 253 interface ae4 link 4

set protocols mlag domain 253 interface ae5 link 5

set protocols mlag domain 253 interface ae6 link 6

set protocols mlag domain 253 interface ae7 link 7

set protocols mlag domain 253 interface ae8 link 8

set protocols mlag domain 253 interface ae9 link 9

set protocols mlag domain 253 interface ae10 link 10

set protocols mlag domain 253 interface ae11 link 11

set protocols mlag domain 253 interface ae12 link 12

set protocols mlag domain 253 interface ae13 link 13

set protocols mlag domain 253 interface ae14 link 14

set protocols mlag domain 253 interface ae15 link 15

set protocols mlag domain 253 interface ae16 link 16

set protocols mlag domain 253 interface ae17 link 17

set protocols mlag domain 253 interface ae18 link 18

set protocols mlag domain 253 interface ae19 link 19

set protocols mlag domain 253 interface ae20 link 20

set protocols mlag domain 253 interface ae21 link 21

set protocols mlag domain 253 interface ae22 link 22

set protocols mlag domain 253 interface ae23 link 23

set protocols mlag domain 253 interface ae24 link 24

set protocols mlag domain 253 interface ae25 link 25

set protocols mlag domain 253 interface ae26 link 26

set protocols mlag domain 253 interface ae27 link 27

set protocols mlag domain 253 interface ae28 link 28

set protocols mlag domain 253 interface ae29 link 29

set protocols mlag domain 253 interface ae30 link 30

set protocols mlag domain 253 interface ae31 link 31

set protocols mlag domain 253 interface ae32 link 32

set protocols mlag domain 253 interface ae33 link 33

set protocols mlag domain 253 interface ae34 link 34

set protocols mlag domain 253 interface ae35 link 35

set protocols mlag domain 253 interface ae36 link 36

set protocols mlag domain 253 interface ae37 link 37

set protocols mlag domain 253 interface ae38 link 38

set protocols mlag domain 253 interface ae39 link 39

set protocols mlag domain 253 interface ae40 link 40

set protocols mlag domain 253 interface ae41 link 41

set protocols mlag domain 253 interface ae42 link 42

set protocols mlag domain 253 interface ae43 link 43

set protocols mlag domain 253 interface ae44 link 44

set protocols mlag domain 253 interface ae45 link 45

set protocols spanning-tree enable false

set protocols vrrp interface vlan210 vrid 1 ip 192.168.100.252

set protocols vrrp interface vlan210 vrid 1 load-balance disable false

set system login user test authentication plain-text-password "1xMncfjCp$ZlSSu/FEuaZ50pahjCt9.."

set system login user test class "super-user"

set system management-ethernet eth0 ip-address IPv4 "10.10.51.36/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system hostname "storageserverLeaf1"

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

set vlans vlan-id 210 l3-interface "vlan210“

set vlans vlan-id 4090 l3-interface "vlan4090"

5.2.6 The In-Band X86 Server Leaf Switch Configuration

admin@X86serverLeaf1# show | display set | no-more

set interface aggregate-ethernet ae1 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae1 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae10 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae10 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae11 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae11 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae12 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae12 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae13 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae13 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae14 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae14 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae15 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae15 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae16 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae16 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae17 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae17 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae18 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae18 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae19 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae19 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae2 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae2 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae20 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae20 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae21 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae21 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae22 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae22 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae23 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae23 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae24 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae24 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae25 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae25 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae26 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae26 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae27 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae27 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae28 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae28 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae29 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae29 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae3 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae3 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae30 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae30 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae31 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae31 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae32 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae32 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae33 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae33 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae34 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae34 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae35 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae35 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae36 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae36 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae37 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae37 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae38 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae38 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae39 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae39 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae4 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae4 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae40 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae40 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae41 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae41 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae5 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae5 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae6 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae6 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae64 family ethernet-switching native-vlan-id 4090

set interface aggregate-ethernet ae64 family ethernet-switching port-mode "trunk"

set interface aggregate-ethernet ae64 family ethernet-switching vlan members 200

set interface aggregate-ethernet ae7 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae7 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae8 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae8 family ethernet-switching native-vlan-id 200

set interface aggregate-ethernet ae9 aggregated-ether-options lacp enable true

set interface aggregate-ethernet ae9 family ethernet-switching native-vlan-id 200

set interface gigabit-ethernet te-1/1/1 ether-options 802.3ad "ae1"

set interface gigabit-ethernet te-1/1/2 ether-options 802.3ad "ae2"

set interface gigabit-ethernet te-1/1/3 ether-options 802.3ad "ae3"

set interface gigabit-ethernet te-1/1/4 ether-options 802.3ad "ae4"

set interface gigabit-ethernet te-1/1/5 ether-options 802.3ad "ae5"

set interface gigabit-ethernet te-1/1/6 ether-options 802.3ad "ae6"

set interface gigabit-ethernet te-1/1/7 ether-options 802.3ad "ae7"

set interface gigabit-ethernet te-1/1/8 ether-options 802.3ad "ae8"

set interface gigabit-ethernet te-1/1/9 ether-options 802.3ad "ae9"

set interface gigabit-ethernet te-1/1/10 ether-options 802.3ad "ae10"

set interface gigabit-ethernet te-1/1/11 ether-options 802.3ad "ae11"

set interface gigabit-ethernet te-1/1/12 ether-options 802.3ad "ae12"

set interface gigabit-ethernet te-1/1/13 ether-options 802.3ad "ae13"

set interface gigabit-ethernet te-1/1/14 ether-options 802.3ad "ae14"

set interface gigabit-ethernet te-1/1/15 ether-options 802.3ad "ae15"

set interface gigabit-ethernet te-1/1/16 ether-options 802.3ad "ae16"

set interface gigabit-ethernet te-1/1/17 ether-options 802.3ad "ae17"

set interface gigabit-ethernet te-1/1/18 ether-options 802.3ad "ae18"

set interface gigabit-ethernet te-1/1/19 ether-options 802.3ad "ae19"

set interface gigabit-ethernet te-1/1/20 ether-options 802.3ad "ae20"

set interface gigabit-ethernet te-1/1/21 ether-options 802.3ad "ae21"

set interface gigabit-ethernet te-1/1/22 ether-options 802.3ad "ae22"

set interface gigabit-ethernet te-1/1/23 ether-options 802.3ad "ae23"

set interface gigabit-ethernet te-1/1/24 ether-options 802.3ad "ae24"

set interface gigabit-ethernet te-1/1/25 ether-options 802.3ad "ae25"

set interface gigabit-ethernet te-1/1/26 ether-options 802.3ad "ae26"

set interface gigabit-ethernet te-1/1/27 ether-options 802.3ad "ae27"

set interface gigabit-ethernet te-1/1/28 ether-options 802.3ad "ae28"

set interface gigabit-ethernet te-1/1/29 ether-options 802.3ad "ae29"

set interface gigabit-ethernet te-1/1/30 ether-options 802.3ad "ae30"

set interface gigabit-ethernet te-1/1/31 ether-options 802.3ad "ae31"

set interface gigabit-ethernet te-1/1/32 ether-options 802.3ad "ae32"

set interface gigabit-ethernet te-1/1/33 ether-options 802.3ad "ae33"

set interface gigabit-ethernet te-1/1/34 ether-options 802.3ad "ae34"

set interface gigabit-ethernet te-1/1/35 ether-options 802.3ad "ae35"

set interface gigabit-ethernet te-1/1/36 ether-options 802.3ad "ae36"

set interface gigabit-ethernet te-1/1/37 ether-options 802.3ad "ae37"

set interface gigabit-ethernet te-1/1/38 ether-options 802.3ad "ae38"

set interface gigabit-ethernet te-1/1/39 ether-options 802.3ad "ae39"

set interface gigabit-ethernet te-1/1/40 ether-options 802.3ad "ae40"

set interface gigabit-ethernet te-1/1/41 ether-options 802.3ad "ae41"

set interface gigabit-ethernet xe-1/1/1 routed-interface name "rif-xe1"

set interface gigabit-ethernet xe-1/1/1 routed-interface enable true

set interface gigabit-ethernet xe-1/1/2 routed-interface name "rif-xe2"

set interface gigabit-ethernet xe-1/1/2 routed-interface enable true

set interface gigabit-ethernet xe-1/1/7 ether-options 802.3ad "ae64"

set interface gigabit-ethernet xe-1/1/8 ether-options 802.3ad "ae64"

set ip routing enable true

set l3-interface loopback lo address 1.1.1.1 prefix-length 32

set l3-interface vlan-interface vlan4090 address 10.226.13.10 prefix-length 30

set l3-interface vlan-interface vlan200 address 192.168.200.10 prefix-length 24

set l3-interface routed-interface rif-xe1

set l3-interface routed-interface rif-xe2

set protocols bgp local-as 800

set protocols bgp ebgp-requires-policy false

set protocols bgp bestpath as-path multipath-relax

set protocols bgp router-id 1.1.1.1

set protocols bgp interface rif-xe1 remote-as "external"

set protocols bgp interface rif-xe1 capability extended-nexthop

set protocols bgp interface rif-xe1 ipv6-unicast activate true

set protocols bgp interface rif-xe2 remote-as "external"

set protocols bgp interface rif-xe2 capability extended-nexthop

set protocols bgp interface rif-xe2 ipv6-unicast activate true

set protocols bgp ipv4-unicast network 1.1.1.1/32

set protocols bgp ipv4-unicast network 192.168.200.0/24

set protocols lldp enable true

set protocols mlag domain 253 node 0

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-link "ae64"

set protocols mlag domain 253 peer-ip 10.226.13.9 peer-vlan 4090

set protocols mlag domain 253 interface ae1 link 1

set protocols mlag domain 253 interface ae2 link 2

set protocols mlag domain 253 interface ae3 link 3

set protocols mlag domain 253 interface ae4 link 4

set protocols mlag domain 253 interface ae5 link 5

set protocols mlag domain 253 interface ae6 link 6

set protocols mlag domain 253 interface ae7 link 7

set protocols mlag domain 253 interface ae8 link 8

set protocols mlag domain 253 interface ae9 link 9

set protocols mlag domain 253 interface ae10 link 10

set protocols mlag domain 253 interface ae11 link 11

set protocols mlag domain 253 interface ae12 link 12

set protocols mlag domain 253 interface ae13 link 13

set protocols mlag domain 253 interface ae14 link 14

set protocols mlag domain 253 interface ae15 link 15

set protocols mlag domain 253 interface ae16 link 16

set protocols mlag domain 253 interface ae17 link 17

set protocols mlag domain 253 interface ae18 link 18

set protocols mlag domain 253 interface ae19 link 19

set protocols mlag domain 253 interface ae20 link 20

set protocols mlag domain 253 interface ae21 link 21

set protocols mlag domain 253 interface ae22 link 22

set protocols mlag domain 253 interface ae23 link 23

set protocols mlag domain 253 interface ae24 link 24

set protocols mlag domain 253 interface ae25 link 25

set protocols mlag domain 253 interface ae26 link 26

set protocols mlag domain 253 interface ae27 link 27

set protocols mlag domain 253 interface ae28 link 28

set protocols mlag domain 253 interface ae29 link 29

set protocols mlag domain 253 interface ae30 link 30

set protocols mlag domain 253 interface ae31 link 31

set protocols mlag domain 253 interface ae32 link 32

set protocols mlag domain 253 interface ae33 link 33

set protocols mlag domain 253 interface ae34 link 34

set protocols mlag domain 253 interface ae35 link 35

set protocols mlag domain 253 interface ae36 link 36

set protocols mlag domain 253 interface ae37 link 37

set protocols mlag domain 253 interface ae38 link 38

set protocols mlag domain 253 interface ae39 link 39

set protocols mlag domain 253 interface ae40 link 40

set protocols mlag domain 253 interface ae41 link 41

set protocols spanning-tree enable false

set protocols vrrp interface vlan200 vrid 1 ip 192.168.210.252

set protocols vrrp interface vlan200 vrid 1 load-balance disable false

set system login user test authentication plain-text-password "1VZF74/Sr$A7HPSS6G0lL8ihiwnpKt9."

set system login user test class "super-user"

set system management-ethernet eth0 ip-address IPv4 "10.10.51.38/24"

set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1

set system hostname "X86serverLeaf1"

set system management-vrf enable true

set system ntp vrf "mgmt-vrf"

set system ntp server-ip 10.10.51.42

set system dns-server-ip 8.8.8.8

set system syslog server-ip 10.2.201.241

set system syslog vrf "mgmt-vrf"

set system aaa tacacs-plus server-ip 10.10.51.42

set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk"

set system aaa tacacs-plus vrf "mgmt-vrf"

set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris"

set system aaa radius vrf "mgmt-vrf"

set system aaa local-auth-fallback disable false

set vlans reserved-vlan "2000-2127"

set vlans vlan-id 200 l3-interface "vlan200"

set vlans vlan-id 4090 l3-interface "vlan4090"

6 PicOS® Switch Function Test

6.1 Routed-Interface Function Test

Test Name	Routed-Interface Function Test
Test Topo& Precondition	admin@outbandspine# show vlans | display set set vlans reserved-vlan "2000-2127" admin@outbandspine# show interface | display set set interface gigabit-ethernet te-1/1/1 routed-interface name "rif-te1"

	set interface gigabit-ethernet te-1/1/1 routed-interface enable true set interface gigabit-ethernet te-1/1/2 routed-interface name "rif-te2" set interface gigabit-ethernet te-1/1/2 routed-interface enable true set interface gigabit-ethernet te-1/1/3 routed-interface name "rif-te3" set interface gigabit-ethernet te-1/1/3 routed-interface enable true set interface gigabit-ethernet te-1/1/4 routed-interface name "rif-te4" set interface gigabit-ethernet te-1/1/4 routed-interface enable true set interface gigabit-ethernet te-1/1/5 routed-interface name "rif-te5" set interface gigabit-ethernet te-1/1/5 routed-interface enable true set interface gigabit-ethernet te-1/1/6 routed-interface name "rif-te6" set interface gigabit-ethernet te-1/1/6 routed-interface enable true set interface gigabit-ethernet te-1/1/7 routed-interface name "rif-te7" set interface gigabit-ethernet te-1/1/7 routed-interface enable true set interface gigabit-ethernet te-1/1/8 routed-interface name "rif-te8" set interface gigabit-ethernet te-1/1/8 routed-interface enable true set interface gigabit-ethernet te-1/1/9 routed-interface name "rif-te9" set interface gigabit-ethernet te-1/1/9 routed-interface enable true set interface gigabit-ethernet te-1/1/10 routed-interface name "rif-te10" set interface gigabit-ethernet te-1/1/10 routed-interface enable true set interface gigabit-ethernet te-1/1/11 routed-interface name "rif-te11" set interface gigabit-ethernet te-1/1/11 routed-interface enable true set interface gigabit-ethernet te-1/1/12 routed-interface name "rif-te12" set interface gigabit-ethernet te-1/1/12 routed-interface enable true set interface gigabit-ethernet te-1/1/13 routed-interface name "rif-te13" set interface gigabit-ethernet te-1/1/13 routed-interface enable true set interface gigabit-ethernet te-1/1/14 routed-interface name "rif-te14" set interface gigabit-ethernet te-1/1/14 routed-interface enable true set interface gigabit-ethernet te-1/1/15 routed-interface name "rif-te15" set interface gigabit-ethernet te-1/1/15 routed-interface enable true

	set interface gigabit-ethernet te-1/1/16 routed-interface name "rif-te16" set interface gigabit-ethernet te-1/1/16 routed-interface enable true set interface gigabit-ethernet te-1/1/17 routed-interface name "rif-te17" set interface gigabit-ethernet te-1/1/17 routed-interface enable true set interface gigabit-ethernet te-1/1/18 routed-interface name "rif-te18" set interface gigabit-ethernet te-1/1/18 routed-interface enable true set interface gigabit-ethernet te-1/1/19 routed-interface name "rif-te19" set interface gigabit-ethernet te-1/1/19 routed-interface enable true set interface gigabit-ethernet te-1/1/20 routed-interface name "rif-te20" set interface gigabit-ethernet te-1/1/20 routed-interface enable true set interface gigabit-ethernet te-1/1/21 routed-interface name "rif-te21" set interface gigabit-ethernet te-1/1/21 routed-interface enable true set interface gigabit-ethernet te-1/1/22 routed-interface name "rif-te22" set interface gigabit-ethernet te-1/1/22 routed-interface enable true set interface gigabit-ethernet te-1/1/23 routed-interface name "rif-te23" set interface gigabit-ethernet te-1/1/23 routed-interface enable true set interface gigabit-ethernet te-1/1/24 routed-interface name "rif-te24" set interface gigabit-ethernet te-1/1/24 routed-interface enable true set interface gigabit-ethernet xe-1/1/5 routed-interface name "rif-xe5" set interface gigabit-ethernet xe-1/1/5 routed-interface enable true set interface gigabit-ethernet xe-1/1/6 routed-interface name "rif-xe6" set interface gigabit-ethernet xe-1/1/6 routed-interface enable true
Test Procedure	1. Enable the ports to routed-interface, and configure ip address on some routed-interface. 2. After configuring, check the routed-interface status---Result1. 3. Check the spanning-tree status, the routed-interface did not participate in stp calculation---Result2. 4. The routed-interface did not learn mac address---Result3. 5. Delete the routed-interface and then rollback 1, and then check the configuration

	and routed-interface status---Result1. 6. Rollback to default configuration and then configure again, check the routed-interface status---Result1.
Expect results	**Result1: The routed-interace are all "UP" status.** admin@outbandspine# run show l3-interface lo State:UP Inet addr: 20.20.20.20/32 Description: Traffic statistics: 5 sec input rate IPv4 0 packets/sec, IPv6 0 packets/sec 5 sec forwarding rate IPv4 0 packets/sec, IPv6 0 packets/sec IPv4 Input Packets.....0 IPv4 Forwarding Packets.....0 IPv6 Input Packets.....0 IPv6 Forwarding Packets.....0 rif-te1 Hwaddr 0C:61:AE:DB:00:01, Vlan:2000, MTU: 1500, State:UP Inet addr: fe80::e61:ae20:1db:1/64 Description: Traffic statistics: 5 sec input rate IPv4 0 packets/sec, IPv6 0 packets/sec 5 sec forwarding rate IPv4 0 packets/sec, IPv6 0 packets/sec IPv4 Input Packets.....0 IPv4 Forwarding Packets.....0 IPv6 Input Packets.....0 IPv6 Forwarding Packets.....0 rif-te10 Hwaddr 0C:61:AE:DB:00:01, Vlan:2009, MTU: 1500, State:UP Inet addr: fe80::e61:ae20:adb:1/64

	Description: Traffic statistics: 5 sec input rate IPv4 0 packets/sec, IPv6 0 packets/sec 5 sec forwarding rate IPv4 0 packets/sec, IPv6 0 packets/sec IPv4 Input Packets.....0 IPv4 Forwarding Packets.....0 IPv6 Input Packets.....0 IPv6 Forwarding Packets.....0 rif-te11 Hwaddr 0C:61:AE:DB:00:01, Vlan:2010, MTU: 1500, State:UP Inet addr: fe80::e61:ae20:bdb:1/64 Description: Traffic statistics: 5 sec input rate IPv4 0 packets/sec, IPv6 0 packets/sec 5 sec forwarding rate IPv4 0 packets/sec, IPv6 0 packets/sec IPv4 Input Packets.....0 IPv4 Forwarding Packets.....0 IPv6 Input Packets.....0 IPv6 Forwarding Packets.....0 --More-- admin@outbandspine# **Result2: The routed-interace on stp are all "FORWARDING".** admin@outbandspine# run show spanning-tree mstp interface MSTP Spanning Tree Interface Status for instance 0 Interface Port ID Designated Designated Bridge Ext Path Int Path State Role Port ID ID Cost Cost --- te-1/1/1 128.1 128.1 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED te-1/1/2 128.2 128.2 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED

	te-1/1/3 128.3 128.3 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED te-1/1/4 128.4 128.4 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED te-1/1/5 128.5 128.5 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED te-1/1/6 128.6 128.6 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED te-1/1/7 128.7 128.7 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED te-1/1/8 128.8 128.8 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED te-1/1/9 128.9 128.9 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED te-1/1/10 128.10 128.10 32768.0c:61:ae:db:00:01 2000 2000 FORWARDING MSTP DISABLED --More-- admin@outbandspine# **Result3: The routed-interface ports can not learn mac address.**
Actual results	Pass

6.2 Static Route and ECMP Route Function Test

Test Name	Static Route and ECMP Route Function Test
Test Topo& Precondition	set protocols static route 0.0.0.0/0 next-hop 172.16.0.1 set protocols static route 10.1.0.0/16 next-hop 172.168.1.20 set protocols static route 10.1.0.0/16 next-hop 172.168.2.20 distance 1
Test Procedure	1. Enable routed-interface and configure ip address for two routed-interface. 2. Configure the default route and static ecmp route on default vrf. 3. Check the software route and hardware route table---Result1. 4. Communicate with externel network---Result2. 5. Down one routed-interface and then check the software route and hardware route table, and communicate with externel network---Result3. 6. Up this routed-interface and then check the software route and hardware route table, and communicate with externel network---Result1, Result2.

	7. Down the other routed-interface and then check the software route and hardware route table---Result4. 8. Up the routed-interface and then check the software route and hardware route table, and communicate with externel network---Result1, Result2. 9. Delete the static route, and then check the software route and hardware route table---Result5. 10. Rollback the configuration after step9 and check the software route and hardware route table---Result1. 11. Restarting the switch, after restarting and checking the software route and hardware route table---Result1.
Expect results	**Result1:** admin@outbandspine# run show route ipv4 Codes: K - kernel route, C - connected, S - static, R - RIP, O - OSPF, I - IS-IS, B - BGP, T - Table, D - SHARP, F - PBR, > - selected route, * - FIB route, q - queued, r - rejected, b - backup t - trapped, o - offload failure S>* 0.0.0.0/0 [1/0] via 172.16.0.1, rif-te4, weight 1, 00:05:44 K * 0.0.0.0/0 [255/8192] unreachable (blackhole), 00:33:04 S>* 10.1.0.0/16 [1/0] via 172.168.1.20, rif-te1, weight 1, 00:24:24 via 172.168.2.20, rif-te2, weight 1, 00:24:24 C>* 172.16.0.0/24 is directly connected, rif-te4, 00:05:44 C>* 172.168.1.0/24 is directly connected, rif-te1, 00:31:25 C>* 172.168.2.0/24 is directly connected, rif-te2, 00:31:25 admin@outbandspine# run show route forward-route ipv4 all Destination NextHopMac Port --- 10.1.0.0/16 0C:5A:C6:C2:00:01 te-1/1/2

	10.1.0.0/16 0C:5A:C6:C2:00:01 te-1/1/1 172.16.0.0/24 0C:D4:64:59:00:01 connected 172.168.1.0/24 0C:D4:64:59:00:01 connected 172.168.2.0/24 0C:D4:64:59:00:01 connected Total route count:5 **Result2:** admin@outbandspine# run ping 10.1.0.20 PING 10.1.0.20 (10.1.0.20) 56(84) bytes of data. 64 bytes from 10.1.0.20: icmp_seq=1 ttl=63 time=25.5 ms 64 bytes from 10.1.0.20: icmp_seq=2 ttl=63 time=13.6 ms 64 bytes from 10.1.0.20: icmp_seq=3 ttl=63 time=19.9 ms 64 bytes from 10.1.0.20: icmp_seq=4 ttl=63 time=17.7 ms 64 bytes from 10.1.0.20: icmp_seq=5 ttl=63 time=13.8 ms **Result3:** admin@outbandspine# run show route ipv4 Codes: K - kernel route, C - connected, S - static, R - RIP, O - OSPF, I - IS-IS, B - BGP, T - Table, D - SHARP, F - PBR, > - selected route, * - FIB route, q - queued, r - rejected, b - backup t - trapped, o - offload failure S>* 0.0.0.0/0 [1/0] via 172.16.0.1, rif-te4, weight 1, 01:50:45 K * 0.0.0.0/0 [255/8192] unreachable (blackhole), 02:18:05 S>* 10.1.0.0/16 [1/0] via 172.168.1.20, rif-te1, weight 1, 00:00:31 C>* 172.16.0.0/24 is directly connected, rif-te4, 01:50:45 C>* 172.168.1.0/24 is directly connected, rif-te1, 02:16:26 admin@outbandspine# run show route forward-route ipv4 all Destination NextHopMac Port

	10.1.0.0/16 0C:5A:C6:C2:00:01 te-1/1/1 172.16.0.0/24 0C:D4:64:59:00:01 connected 172.168.1.0/24 0C:D4:64:59:00:01 connected Total route count:3 admin@outbandspine# run ping 10.1.0.20 PING 10.1.0.20 (10.1.0.20) 56(84) bytes of data. 64 bytes from 10.1.0.20: icmp_seq=1 ttl=63 time=23.4 ms 64 bytes from 10.1.0.20: icmp_seq=2 ttl=63 time=20.2 ms 64 bytes from 10.1.0.20: icmp_seq=3 ttl=63 time=17.4 ms 64 bytes from 10.1.0.20: icmp_seq=4 ttl=63 time=14.8 ms 64 bytes from 10.1.0.20: icmp_seq=5 ttl=63 time=20.8 ms **Result4:** admin@outbandspine# run show route ipv4 Codes: K - kernel route, C - connected, S - static, R - RIP, O - OSPF, I - IS-IS, B - BGP, T - Table, D - SHARP, F - PBR, > - selected route, * - FIB route, q - queued, r - rejected, b - backup t - trapped, o - offload failure S>* 0.0.0.0/0 [1/0] via 172.16.0.1, rif-te4, weight 1, 01:54:27 K * 0.0.0.0/0 [255/8192] unreachable (blackhole), 02:21:47 S>* 10.1.0.0/16 [1/0] via 172.168.2.20, rif-te2, weight 1, 00:00:06 C>* 172.16.0.0/24 is directly connected, rif-te4, 01:54:27 C>* 172.168.2.0/24 is directly connected, rif-te2, 00:00:06 admin@outbandspine# run show route forward-route ipv4 all Destination NextHopMac Port --- 10.1.0.0/16 0C:5A:C6:C2:00:01 te-1/1/2

	172.16.0.0/24 0C:D4:64:59:00:01 connected 172.168.2.0/24 0C:D4:64:59:00:01 connected Total route count:3 admin@outbandspine# run ping 10.1.0.20 PING 10.1.0.20 (10.1.0.20) 56(84) bytes of data. 64 bytes from 10.1.0.20: icmp_seq=1 ttl=63 time=24.5 ms 64 bytes from 10.1.0.20: icmp_seq=2 ttl=63 time=13.1 ms 64 bytes from 10.1.0.20: icmp_seq=3 ttl=63 time=10.6 ms 64 bytes from 10.1.0.20: icmp_seq=4 ttl=63 time=9.81 ms 64 bytes from 10.1.0.20: icmp_seq=5 ttl=63 time=7.47 ms **Result5:** admin@outbandspine# run show route ipv4 Codes: K - kernel route, C - connected, S - static, R - RIP, O - OSPF, I - IS-IS, B - BGP, T - Table, D - SHARP, F - PBR, > - selected route, * - FIB route, q - queued, r - rejected, b - backup t - trapped, o - offload failure K>* 0.0.0.0/0 [255/8192] unreachable (blackhole), 00:03:16 C>* 172.16.0.0/24 is directly connected, rif-te4, 00:02:36 C>* 172.168.1.0/24 is directly connected, rif-te1, 00:02:36 C>* 172.168.2.0/24 is directly connected, rif-te2, 00:02:36 admin@outbandspine# run show route forward-route ipv4 all Destination NextHopMac Port --- 0.0.0.0/0 0C:D4:64:59:00:01 connected 172.16.0.0/24 0C:D4:64:59:00:01 connected 172.168.1.0/24 0C:D4:64:59:00:01 connected

	172.168.2.0/24 0C:D4:64:59:00:01 connected Total route count:4
Actual results	Pass

6.3 Unnumber BGP+BGP ECMP Route Function Test

Test Name	Unnumber BGP+BGP ECMP Route Function Test
Test Topo& Precondition	set protocols bgp local-as "64763" set protocols bgp ebgp-requires-policy false set protocols bgp bestpath as-path multipath-relax set protocols bgp router-id 10.2.222.103 set protocols bgp interface rif-xe1 remote-as "external" set protocols bgp interface rif-xe1 capability extended-nexthop set protocols bgp interface rif-xe1 ipv6-unicast activate true set protocols bgp interface rif-xe2 remote-as "external" set protocols bgp interface rif-xe2 capability extended-nexthop set protocols bgp interface rif-xe2 ipv6-unicast activate true set protocols bgp ipv4-unicast network 10.2.222.103/32 set protocols bgp ipv4-unicast network 10.2.3.0/24
Test Procedure	1. Enable routed-interface and configure unnumber BGP using ebgp on leaf and spine switches. 2. Check the bgp summary and neighbor information---Result1. 3. Check the bgp ipv4 unicast, software route and hardware route table ---Result2. 4. The leaf switch communicate with other leaf switch---Result3. 5. Down one up-link port on the leaf switch and then check bgp ipv4 unicast, software route and hardware route table, the leaf switch communicate with other leaf switch---Result4, Result3. 6. Up this up-link port and check the software route and hardware route table, the leaf

	switch communicate with other leaf switch---Result2, Result3. 7. Down the other up-link port and then check the bgp ipv4 unicast, software route and hardware route table,the leaf switch communicate with other leaf switch---Result5, Result3. 8. Up this up-link port and then check the software route and hardware route table, the leaf switch communicate with other leaf switch---Result2, Result3. 9. Delete the bgp configuration, and then check the bgp summury and neighbor information---Result6. 10. Rollback the configuration after step9 and then check bgp ipv4 unicast, software route and hardware route table, the leaf switch communicate with other leaf switch--Result1, Result2. 11. Restarting the switch, after restarting and checking bgp ipv4 unicast, software route and hardware route table, the leaf switch communicate with other leaf switch---Result1, Result2, Result3.
Expect results	**Result1:** admin@Leaf1# run show bgp summary show bgp ipv4 unicast summary ========== BGP router identifier 10.2.222.103, local AS number 64763 vrf-id 0 BGP table version 4 RIB entries 7, using 1344 bytes of memory Peers 2, using 1448 KiB of memory Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd PfxSnt Desc rif-te1 4 65001 30 31 0 0 0 00:22:28 2 4 N/A rif-te2 4 65001 30 31 0 0 0 00:22:14 2 4 N/A Total number of neighbors 2 show bgp ipv6 unicast summary ==========

	BGP router identifier 10.2.222.103, local AS number 64763 vrf-id 0 BGP table version 0 RIB entries 0, using 0 bytes of memory Peers 2, using 1448 KiB of memory Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd PfxSnt Desc rif-te1 4 65001 30 31 0 0 0 00:22:28 0 0 N/A rif-te2 4 65001 30 31 0 0 0 00:22:14 0 0 N/A Total number of neighbors 2 admin@Leaf1# run show bgp neighbor BGP neighbor on rif-te1: fe80::e01:1020:14e:1, remote AS 65001, local AS 64763, external link Local Role: undefined Remote Role: undefined Hostname: PICOS BGP version 4, remote router ID 10.2.222.101, local router ID 10.2.222.103 BGP state = Established, up for 00:23:03 Last read 00:00:03, Last write 00:00:03 Hold time is 180 seconds, keepalive interval is 60 seconds Configured hold time is 180 seconds, keepalive interval is 60 seconds Configured conditional advertisements interval is 60 seconds Neighbor capabilities: 4 Byte AS: advertised and received Extended Message: advertised and received AddPath: IPv4 Unicast: RX advertised and received IPv6 Unicast: RX advertised and received Extended nexthop: advertised and received

	Address families by peer: IPv4 Unicast Long-lived Graceful Restart: advertised and received Address families by peer: Route refresh: advertised and received(old & new) --More-- **Result2:** admin@Leaf1# run show bgp ipv4 unicast BGP table version is 6, local router ID is 10.2.222.103, vrf id 0 Default local pref 100, local AS 64763 Status codes: s suppressed, d damped, h history, * valid, > best, = multipath, i internal, r RIB-failure, S Stale, R Removed Nexthop codes: @NNN nexthop's vrf id, < announce-nh-self Origin codes: i - IGP, e - EGP, ? - incomplete RPKI validation codes: V valid, I invalid, N Not found Network Next Hop Metric LocPrf Weight Path *> 10.2.3.0/24 0.0.0.0 0 32768 i *= 10.2.4.0/24 rif-te2 0 65001 64764 i *> rif-te1 0 65001 64764 i *> 10.2.222.101/32 rif-te1 0 0 65001 i *> 10.2.222.102/32 rif-te2 0 0 65001 i *> 10.2.222.103/32 0.0.0.0 0 32768 i *= 10.2.222.104/32 rif-te2 0 65001 64764 i *> rif-te1 0 65001 64764 i Displayed 6 routes and 8 total paths admin@Leaf1# run show route ipv4

Codes: K - kernel route, C - connected, S - static, R - RIP,

O - OSPF, I - IS-IS, B - BGP, T - Table, D - SHARP,

F - PBR,

> - selected route, * - FIB route, q - queued, r - rejected, b - backup

t - trapped, o - offload failure

K>* 0.0.0.0/0 [255/8192] unreachable (blackhole), 00:57:42

C>* 10.2.3.0/24 is directly connected, rif-te3, 00:13:08

B>* 10.2.4.0/24 [20/0] via fe80::e01:1020:14e:1, rif-te1, weight 1, 00:13:03

via fe80::e53:2520:1a3:1, rif-te2, weight 1, 00:13:03

B>* 10.2.222.101/32 [20/0] via fe80::e01:1020:14e:1, rif-te1, weight 1, 00:01:31

B>* 10.2.222.102/32 [20/0] via fe80::e53:2520:1a3:1, rif-te2, weight 1, 00:00:38

C>* 10.2.222.103/32 is directly connected, lo, 00:43:45

B>* 10.2.222.104/32 [20/0] via fe80::e01:1020:14e:1, rif-te1, weight 1, 00:20:59

via fe80::e53:2520:1a3:1, rif-te2, weight 1, 00:20:59

admin@Leaf1# run show route forward-route ipv4 all

Destination NextHopMac Port

0.0.0.0/0 0C:53:C7:B7:00:01 connected

10.2.3.0/24 0C:53:C7:B7:00:01 connected

10.2.4.0/24 0C:01:10:4E:00:01 te-1/1/1

10.2.4.0/24 0C:53:25:A3:00:01 te-1/1/2

10.2.222.101/32 0C:01:10:4E:00:01 te-1/1/1

10.2.222.102/32 0C:53:25:A3:00:01 te-1/1/2

10.2.222.103/32 0C:53:C7:B7:00:01 connected

10.2.222.104/32 0C:01:10:4E:00:01 te-1/1/1

10.2.222.104/32 0C:53:25:A3:00:01 te-1/1/2

Total route count: 9

	Result3: admin@Leaf1# run ping 10.2.222.104 PING 10.2.222.104 (10.2.222.104) 56(84) bytes of data. 64 bytes from 10.2.222.104: icmp_seq=1 ttl=63 time=16.3 ms 64 bytes from 10.2.222.104: icmp_seq=2 ttl=63 time=14.8 ms 64 bytes from 10.2.222.104: icmp_seq=3 ttl=63 time=10.8 ms 64 bytes from 10.2.222.104: icmp_seq=4 ttl=63 time=17.0 ms 64 bytes from 10.2.222.104: icmp_seq=5 ttl=63 time=15.0 ms **Result4:** admin@Leaf1# run show bgp ipv4 unicast BGP table version is 9, local router ID is 10.2.222.103, vrf id 0 Default local pref 100, local AS 64763 Status codes: s suppressed, d damped, h history, * valid, > best, = multipath, i internal, r RIB-failure, S Stale, R Removed Nexthop codes: @NNN nexthop's vrf id, < announce-nh-self Origin codes: i - IGP, e - EGP, ? - incomplete RPKI validation codes: V valid, I invalid, N Not found Network Next Hop Metric LocPrf Weight Path *> 10.2.3.0/24 0.0.0.0 0 32768 i *> 10.2.4.0/24 rif-te2 0 65001 64764 i *> 10.2.222.102/32 rif-te2 0 0 65001 i *> 10.2.222.103/32 0.0.0.0 0 32768 i *> 10.2.222.104/32 rif-te2 0 65001 64764 i Displayed 5 routes and 5 total paths admin@Leaf1# run show route ipv4 Codes: K - kernel route, C - connected, S - static, R - RIP,

	O - OSPF, I - IS-IS, B - BGP, T - Table, D - SHARP, F - PBR, > - selected route, * - FIB route, q - queued, r - rejected, b - backup t - trapped, o - offload failure K>* 0.0.0.0/0 [255/8192] unreachable (blackhole), 01:10:47 C>* 10.2.3.0/24 is directly connected, rif-te3, 00:26:13 B>* 10.2.4.0/24 [20/0] via fe80::e53:2520:1a3:1, rif-te2, weight 1, 00:02:27 B>* 10.2.222.102/32 [20/0] via fe80::e53:2520:1a3:1, rif-te2, weight 1, 00:13:43 C>* 10.2.222.103/32 is directly connected, lo, 00:56:50 B>* 10.2.222.104/32 [20/0] via fe80::e53:2520:1a3:1, rif-te2, weight 1, 00:02:27 admin@Leaf1# run show route forward-route ipv4 all Destination NextHopMac Port --- 0.0.0.0/0 0C:53:C7:B7:00:01 connected 10.2.3.0/24 0C:53:C7:B7:00:01 connected 10.2.4.0/24 0C:53:25:A3:00:01 te-1/1/2 10.2.222.102/32 0C:53:25:A3:00:01 te-1/1/2 10.2.222.103/32 0C:53:C7:B7:00:01 connected 10.2.222.104/32 0C:53:25:A3:00:01 te-1/1/2 Total route count: 6 **Result5:** admin@Leaf1# run show bgp ipv4 unicast BGP table version is 15, local router ID is 10.2.222.103, vrf id 0 Default local pref 100, local AS 64763 Status codes: s suppressed, d damped, h history, * valid, > best, = multipath, i internal, r RIB-failure, S Stale, R Removed Nexthop codes: @NNN nexthop's vrf id, < announce-nh-self

Origin codes: i - IGP, e - EGP, ? - incomplete

RPKI validation codes: V valid, I invalid, N Not found

Network Next Hop Metric LocPrf Weight Path

*> 10.2.3.0/24 0.0.0.0 0 32768 i

*> 10.2.4.0/24 rif-te1 0 65001 64764 i

*> 10.2.222.101/32 rif-te1 0 0 65001 i

*> 10.2.222.103/32 0.0.0.0 0 32768 i

*> 10.2.222.104/32 rif-te1 0 65001 64764 i

Displayed 5 routes and 5 total paths

admin@Leaf1# run show route ipv4

Codes: K - kernel route, C - connected, S - static, R - RIP,

O - OSPF, I - IS-IS, B - BGP, T - Table, D - SHARP,

F - PBR,

> - selected route, * - FIB route, q - queued, r - rejected, b - backup

t - trapped, o - offload failure

K>* 0.0.0.0/0 [255/8192] unreachable (blackhole), 01:13:05

C>* 10.2.3.0/24 is directly connected, rif-te3, 00:28:31

B>* 10.2.4.0/24 [20/0] via fe80::e01:1020:14e:1, rif-te1, weight 1, 00:00:07

B>* 10.2.222.101/32 [20/0] via fe80::e01:1020:14e:1, rif-te1, weight 1, 00:00:31

C>* 10.2.222.103/32 is directly connected, lo, 00:59:08

B>* 10.2.222.104/32 [20/0] via fe80::e01:1020:14e:1, rif-te1, weight 1, 00:00:07

admin@Leaf1# run show route forward-route ipv4 all

Destination NextHopMac Port

	0.0.0.0/0 0C:53:C7:B7:00:01 connected 10.2.3.0/24 0C:53:C7:B7:00:01 connected 10.2.4.0/24 0C:01:10:4E:00:01 te-1/1/1 10.2.222.101/32 0C:01:10:4E:00:01 te-1/1/1 10.2.222.103/32 0C:53:C7:B7:00:01 connected 10.2.222.104/32 0C:01:10:4E:00:01 te-1/1/1 Total route count: 6 **Result6: After the bgp configuration is deleted, the "run show bgp" command cannot be used.**
Actual results	Pass

6.4 MLAG+Active-Active VRRP Function Test

Test Name	MLAG+Active-Active VRRP Test
Test Topo& Precondition	set protocols mlag domain 3 node 0 set protocols mlag domain 3 peer-ip 10.3.254.2 peer-link "ae64" set protocols mlag domain 3 peer-ip 10.3.254.2 peer-vlan 4090 set protocols mlag domain 3 interface ae1 link 1 set protocols mlag domain 3 interface ae2 link 2 set protocols mlag domain 3 interface ae3 link 3 set protocols mlag domain 3 interface ae4 link 4 set protocols mlag domain 3 interface ae5 link 5 set protocols mlag domain 3 interface ae6 link 6 set protocols mlag domain 3 interface ae7 link 7 set protocols mlag domain 3 interface ae8 link 8 set protocols mlag domain 3 interface ae9 link 9 set protocols mlag domain 3 interface ae10 link 10

	set protocols mlag domain 3 interface ae11 link 11 set protocols mlag domain 3 interface ae12 link 12 set protocols mlag domain 3 interface ae13 link 13 set protocols mlag domain 3 interface ae14 link 14 set protocols mlag domain 3 interface ae15 link 15 set protocols mlag domain 3 interface ae16 link 16 set protocols mlag domain 3 interface ae17 link 17 set protocols mlag domain 3 interface ae18 link 18 set protocols mlag domain 3 interface ae19 link 19 set protocols mlag domain 3 interface ae20 link 20 set protocols mlag domain 3 interface ae21 link 21 set protocols mlag domain 3 interface ae22 link 22 set protocols mlag domain 3 interface ae23 link 23 set protocols mlag domain 3 interface ae24 link 24 set protocols mlag domain 3 interface ae25 link 25 set protocols mlag domain 3 interface ae26 link 26 set protocols mlag domain 3 interface ae27 link 27 set protocols mlag domain 3 interface ae28 link 28 set protocols mlag domain 3 interface ae29 link 29 set protocols mlag domain 3 interface ae30 link 30 set protocols mlag domain 3 interface ae31 link 31 set protocols mlag domain 3 interface ae32 link 32 set protocols spanning-tree enable false set protocols vrrp interface vlan103 vrid 1 ip 10.3.3.254 set protocols vrrp interface vlan103 vrid 1 load-balance disable false
Test Procedure	1. Configure mlag and active-active vrrp configurations. 2. Check the mlag domain status and the mlag link summary---Result1. 3. Check the mlag consistency-parameter summary---Result2. 4. Check the vrrp status---Result3.

	5. The storage server communication with other storage server---Result4. 6. Check the mac address on the mlag switches---Result5. 7. Down one mlag member port, and then check the mac address on the mlag switches, and check the packets on peer-link port---Result6. 8. Up the mlag member port, and then show the the mac address on the mlag switches, and check the packets on peer-link port---Result5. 9. The storage server communication with GW(the vrrp virtual ip) and check the arp table on mlag switches---Result7. 10. The storage server cummunication with externel network---Result8. 11. Restarting or Poweroff one mlag switch, the storage server communication with other storage server---Result4. 12. After restarting, show the mlag status and mac address table---Result1, Result5. 13. The switching time of the storage server communication with other storage server after down one mlag member port and rebooting the mlag peer switch---Result9. 14. The switching time of the storage server cummunication with externel network after down one up-link port---Result10.
Expect results	**Result1:** admin@STOR-GPU03-LEAF02# run show mlag domain summary Domain ID: 3 Domain MAC: 48:6E:73:FF:00:fc Node ID: 0 --- Peer Link Peer IP Peer Vlan Neighbor Status Config Matched MAC Synced # of Links --- ae64 10.3.254.2 4090 ESTABLISHED No Yes 32 admin@INTRA-GPU03-LEAF02> show mlag link summary |no-more Total Links: 32 --- Link Local LAG Link Status Local Status Peer Status Config Matched Flood ---

	1 ae1 FULL UP UP Yes No 10 ae10 FULL UP UP Yes No 11 ae11 FULL UP UP Yes No 12 ae12 FULL UP UP Yes No 13 ae13 FULL UP UP Yes No 14 ae14 FULL UP UP Yes No 15 ae15 FULL UP UP Yes No 16 ae16 FULL UP UP Yes No 17 ae17 FULL UP UP Yes No 18 ae18 FULL UP UP Yes No 19 ae19 FULL UP UP Yes No 2 ae2 FULL UP UP Yes No 20 ae20 FULL UP UP Yes No 21 ae21 FULL UP UP Yes No 22 ae22 FULL UP UP Yes No 23 ae23 FULL UP UP Yes No 24 ae24 FULL UP UP Yes No 25 ae25 FULL UP UP Yes No 26 ae26 FULL UP UP Yes No 27 ae27 FULL UP UP Yes No 28 ae28 FULL UP UP Yes No 29 ae29 FULL UP UP Yes No 3 ae3 FULL UP UP Yes No 30 ae30 FULL UP UP Yes No 31 ae31 FULL UP UP Yes No 32 ae32 FULL UP UP Yes No 4 ae4 FULL UP UP Yes No 5 ae5 FULL UP UP Yes No 6 ae6 FULL UP UP Yes No

	7 ae7 FULL UP UP Yes No 8 ae8 FULL UP UP Yes No 9 ae9 FULL UP UP Yes No **Result2:** admin@STOR-GPU03-LEAF02> show mlag consistency-parameter summary | no-more Overall: PASS --- Global: PASS Link 1: PASS Link 2: PASS Link 3: PASS Link 4: PASS Link 5: PASS Link 6: PASS Link 7: PASS Link 8: PASS Link 9: PASS Link 10: PASS Link 11: PASS Link 12: PASS Link 13: PASS Link 14: PASS Link 15: PASS Link 16: PASS Link 17: PASS Link 18: PASS Link 19: PASS Link 20: PASS Link 21: PASS

	Link 22: PASS Link 23: PASS Link 24: PASS Link 25: PASS Link 26: PASS Link 27: PASS Link 28: PASS Link 29: PASS Link 30: PASS Link 31: PASS Link 32: PASS MLAG Configurations: --- Property Local Value Peer Value Result --- Domain ID 103 103 PASS Node ID 1 0 PASS Peer VLAN 4090 4090 PASS Link Count 32 32 PASS Link IDs 1 2 3 4 1 2 3 4 PASS 5 6 7 8 5 6 7 8 9 10 11 12 9 10 11 12 13 14 15 16 13 14 15 16 17 18 19 20 17 18 19 20 21 22 23 24 21 22 23 24 25 26 27 28 25 26 27 28 29 30 31 32 29 30 31 32 Spanning-Tree Configurations: --- Property Local Value Peer Value Result --- Enable No No PASS DHCP Snooping Configurations:

	Property Local Value Peer Value Result VLAN Count 0 0 PASS VLAN IDs PASS IGMP Snooping Configurations: Property Local Value Peer Value Result Enable No No PASS VXLAN Configurations: Property Local Value Peer Value Result VXLAN N/A N/A PASS VXLAN VNI Count 0 0 PASS VXLAN VNIs PASS **Result3:** admin@INTRA-GPU03-LEAF02# run show vrrp Interface: vlan1000 VRID: 1 Version: 2 Load-balance: enable State: backup Master IP: 10.3.3.252 Virtual MAC: 00:00:5e:00:02:01 Preempt: enable Adver Interval: 4 Priority: 100

	Virtual IP: 10.3.3.254 Auth-type: none Auth-key: **Result4：** admin@STOR-GPU03-LEAF02> ping 10.3.3.2 PING 10.3.3.2 (10.3.3.2) 56(84) bytes of data. 64 bytes from 10.3.3.2: icmp_seq=1 ttl=64 time=9.42 ms 64 bytes from 10.3.3.2: icmp_seq=2 ttl=64 time=0.905 ms 64 bytes from 10.3.3.2: icmp_seq=3 ttl=64 time=0.877 ms 64 bytes from 10.3.3.2: icmp_seq=4 ttl=64 time=0.944 ms 64 bytes from 10.3.3.2: icmp_seq=5 ttl=64 time=0.998 ms **Result5: The mac address on one switch is "Dymaic" and "Peer-Sync" on mlag peer switch.** admin@STOR-GPU03-LEAF02# run show mac-address table | match ae1 103 18:5a:58:3c:48:a1 Peer-Sync 300 ae1 xorp admin@STOR-GPU03-LEAF01# run show mac-address table | match ae1 103 18:5a:58:3c:48:a1 Dymaic 300 ae1 xorp **Result6: The mac address on one switch is "Dymaic" on ae1 and "Peer-Sync" on peer-link port on mlag peer switch.** admin@STOR-GPU03-LEAF01# run show mac-address table | match ae1 103 18:5a:58:3c:48:a1 Peer-Sync 300 ae64 xorp admin@STOR-GPU03-LEAF02# run show mac-address table | match ae1 103 18:5a:58:3c:48:a1 Dymaic 300 ae1 xorp **Result7: The storage server can get the arp reply from GW, and the server's arp on the mlag switches are the same.** **Result8: The storage server can communicate with externel network sucessfully.** **Result9: The switching time is less than 2s after down one mlag member port and rebooting the mlag peer switch.** **Result10: The switching time is about 2s after down one up-link port.**

Actual results	Pass

6.5 MLAG+Active-Active VRRP+DHCP Relay Function Test

Test Name	MLAG+Active-Active VRRP+DHCP Relay Test
Test Topo& Precondition	set protocols dhcp relay interface vlan103 disable false set protocols dhcp relay interface vlan103 dhcp-server-address 10.2.201.249 set protocols dhcp relay interface vlan103 relay-agent-address 10.2.3.254 set protocols mlag domain 103 node 0 set protocols mlag domain 103 peer-ip 10.2.254.2 peer-link "ae64" set protocols mlag domain 103 peer-ip 10.2.254.2 peer-vlan 4090 set protocols mlag domain 103 interface ae1 link 1 set protocols mlag domain 103 interface ae2 link 2 set protocols mlag domain 103 interface ae3 link 3 set protocols mlag domain 103 interface ae4 link 4 set protocols mlag domain 103 interface ae5 link 5 set protocols mlag domain 103 interface ae6 link 6 set protocols mlag domain 103 interface ae7 link 7 set protocols mlag domain 103 interface ae8 link 8 set protocols mlag domain 103 interface ae9 link 9 set protocols mlag domain 103 interface ae10 link 10 set protocols mlag domain 103 interface ae11 link 11 set protocols mlag domain 103 interface ae12 link 12 set protocols mlag domain 103 interface ae13 link 13 set protocols mlag domain 103 interface ae14 link 14 set protocols mlag domain 103 interface ae15 link 15 set protocols mlag domain 103 interface ae16 link 16 set protocols mlag domain 103 interface ae17 link 17 set protocols mlag domain 103 interface ae18 link 18

	set protocols mlag domain 103 interface ae19 link 19 set protocols mlag domain 103 interface ae20 link 20 set protocols mlag domain 103 interface ae21 link 21 set protocols mlag domain 103 interface ae22 link 22 set protocols mlag domain 103 interface ae23 link 23 set protocols mlag domain 103 interface ae24 link 24 set protocols mlag domain 103 interface ae25 link 25 set protocols mlag domain 103 interface ae26 link 26 set protocols mlag domain 103 interface ae27 link 27 set protocols mlag domain 103 interface ae28 link 28 set protocols mlag domain 103 interface ae29 link 29 set protocols mlag domain 103 interface ae30 link 30 set protocols mlag domain 103 interface ae31 link 31 set protocols mlag domain 103 interface ae32 link 32 set protocols spanning-tree enable false set protocols vrrp interface vlan103 vrid 1 ip 10.2.3.254 set protocols vrrp interface vlan103 vrid 1 load-balance disable false
Test Procedure	1. Configure mlag, active-active vrrp and dhcp relay configurations. 2. Check the mlag domain status, the mlag link summary and mlag consistency-parameter summary---Result1. 3. Check the vrrp status ---Result2. 4. The GPU server communication with GW(the vrrp virtual ip), check the mac and arp table on mlag switches---Result3. 5. The GPU servers communicate with dhcp server and get the ip address from the dhcp server and check the dhcp recorded information on mlag switches---Result4. 6. The GPU server communication with other GPU server---Result5. 7. Check the mac address on the mlag switches---Result6. 8. Down one mlag member port, and then check the mac address on the mlag switches, check the packets on peer-link port and the dhcp recorded information on

	mlag switches---Result7. 9. Up the mlag member port, and then show the the mac address on the mlag switches, and check the packets on peer-link port and the dhcp recorded information on mlag switches---Result4, Result5. 10. The GPU server cummunication with externel network---Result8. 11. Restarting or Poweroff one mlag switch, the GPU server communication with other GPU server---Result4. 12. After restarting, show the mlag status and mac address table---Result1. 13. The switching time of the GPU server communication with other GPU server after down one mlag member port and rebooting the mlag peer switch---Result9. 14. The switching time of the GPU server cummunication with externel network after down one up-link port---Result10.
Expect results	**Result1:** admin@INTRA-GPU03-LEAF01# run show mlag domain summary Domain ID: 103 Domain MAC: 48:6E:73:FF:00:fc Node ID: 0 --- Peer Link Peer IP Peer Vlan Neighbor Status Config Matched MAC Synced # of Links --- ae64 10.2.254.2 4090 ESTABLISHED No Yes 32 **Result2:** admin@INTRA-GPU03-LEAF01# run show vrrp Interface: vlan1000 VRID: 1 Version: 2 Load-balance: enable State: backup Master IP: 10.2.3.252 Virtual MAC: 00:00:5e:00:02:01 Preempt: enable

	Adver Interval: 4 Priority: 100 Virtual IP: 10.2.3.254 Auth-type: none Auth-key: **Result3: The GPU server can get the arp reply from GW, and the GPU server's arp on the mlag switches are the same.** **Result4: The GPU server can get the ip address and the dhcp recorded information on mlag switches are consistent.** **Result5:** admin@INTRA-GPU03-LEAF01> ping 10.2.3.4 PING 10.2.3.4 (10.2.3.4) 56(84) bytes of data. 64 bytes from 10.2.3.4: icmp_seq=1 ttl=64 time=8.33 ms 64 bytes from 10.2.3.4: icmp_seq=2 ttl=64 time=0.929 ms 64 bytes from 10.2.3.4: icmp_seq=3 ttl=64 time=0.858 ms 64 bytes from 10.2.3.4: icmp_seq=4 ttl=64 time=0.861 ms 64 bytes from 10.2.3.4: icmp_seq=5 ttl=64 time=0.867 ms **Result6: The mac address on one switch is "Dymaic" and "Peer-Sync" on mlag peer switch.** admin@STOR-GPU03-LEAF02# run show mac-address table | match ae1 103 18:5a:58:3c:48:a1 Peer-Sync 300 ae1 xorp admin@STOR-GPU03-LEAF01# run show mac-address table | match ae1 103 18:5a:58:3c:48:a1 Dymaic 300 ae1 xorp **Result7: The mac address on one switch is "Dymaic" on ae1 and "Peer-Sync" on peer-link port on mlag peer switch, and the dhcp recorded information is on peer-link.** admin@STOR-GPU03-LEAF01# run show mac-address table | match ae1 103 18:5a:58:3c:48:a1 Peer-Sync 300 ae64 xorp admin@STOR-GPU03-LEAF02# run show mac-address table | match ae1

	103 18:5a:58:3c:48:a1 Dymaic 300 ae1 xorp **Result8: The storage server can communicate with externel network sucessfully.** **Result9: The switching time is less than 2s after down one mlag member port and rebooting the mlag peer switch.** **Result10: The switching time is about 2s after down one up-link port.**
Actual results	Pass Known issues: Bug16739 Bug16220 Bug16172

6.6 NTP in Mgmt-Vrf Function Test

Test Name	NTP in Mgmt-Vrf Function Test
Test Topo& Precondition	set system management-vrf enable true set system ntp vrf "mgmt-vrf" set system ntp server-ip r 120.25.115.20
Test Procedure	1. Enable mgmt-vrf. 2. Configure NTP server ip and mgmt-vrf. 3. Check the ntp status---Result1. 4. Add a new ntp server ip and then check the ntp status---Result2. 5. Delete the mgmt-vrf and ntp mgmt-vrf, and then check the ntp status---Result2. 6. Rollback the configuration, check the ntp status----Result2.
Expect results	**Result1:** admin@outbandspine# run show system ntp-status NTP Server information (from Local Configuration): server 120.25.115.20 NTP Server Sync information: remote refid st t when poll reach delay offset jitter == 120.25.115.20 10.137.53.7 2 u 38 64 1 40.905 -0.006 0.041

	Result2: admin@outbandspine# run show system ntp-status NTP Server information (from Local Configuration): server 120.25.115.20 server 202.114.10.51 NTP Server Sync information: remote refid st t when poll reach delay offset jitter ========== 120.25.115.20 10.137.53.7 2 u 38 64 1 40.905 -0.006 0.041 202.114.10.51 .INIT. 16 u - 64 0 0.000 +0.000 0.000
Actual results	Pass

6.7 Management Port in Mgmt-Vrf Function Test

Test Name	Management Port in Mgmt-Vrf Function Test
Test Topo& Precondition	set system management-vrf enable true
Test Procedure	1. Enable mgmt-vrf. 2. Using dhcp to get the ip address, it can get the ip address---Result1. 3. Configure the static ip address, the static ip address of eth0 can work normally ---Result2. 4. Delete the mgmt-vrf, the static ip address of eth0 can work normally---Result3. 5. Delete the mgmt-vrf and static ip address of eth0, it can get the ip address using dhcp---Result4. 6. Rollback to the default configuration and then configure again, check the configuration---Result1.

Expect results	**Result1:**
	admin@outbandspine# run show system management-ethernet
	eth0 Hwaddr: 18:5a:58:37:64:60 State: UP
	Master: mgmt-vrf
	Gateway : 10.10.51.1
	Inet addr:
	10.10.51.48/24
	fe80::1a5a:58ff:fe37:6460/64
	Traffic statistics
	Input Packets.....290025
	Input Bytes.....18936945
	Output Packets.....172631
	Output Bytes.....21790627
	Result2:
	admin@outbandspine# show system management-ethernet eth0 | display set
	set system management-ethernet eth0 ip-address IPv4 "10.10.51.48/24"
	set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1
	admin@outbandspine# run ping 10.10.51.1 vrf mgmt-vrf
	PING 10.10.51.1 (10.10.51.1) 56(84) bytes of data.
	64 bytes from 10.10.51.1: icmp_seq=1 ttl=64 time=0.771 ms
	64 bytes from 10.10.51.1: icmp_seq=2 ttl=64 time=0.791 ms
	Command interrupted!
	
	Result3:
	admin@outbandspine# delete system management-vrf
	Deleting:
	management-vrf {
	enable: true
	}

	OK admin@outbandspine# commit Commit OK. Save done. admin@outbandspine# show system management-ethernet eth0 | display set set system management-ethernet eth0 ip-address IPv4 "10.10.51.48/24" set system management-ethernet eth0 ip-gateway IPv4 10.10.51.1 admin@outbandspine# admin@outbandspine# run show system management-ethernet eth0 Hwaddr: 18:5a:58:37:64:60 State: UP Gateway : 10.10.51.1 Inet addr: 10.10.51.48/24 fe80::1a5a:58ff:fe37:6460/64 Traffic statistics Input Packets.....290361 Input Bytes.....18963924 Output Packets.....172772 Output Bytes.....21807549 admin@outbandspine# admin@outbandspine# run ping 10.10.51.1 PING 10.10.51.1 (10.10.51.1) 56(84) bytes of data. 64 bytes from 10.10.51.1: icmp_seq=1 ttl=64 time=2.75 ms 64 bytes from 10.10.51.1: icmp_seq=2 ttl=64 time=0.978 ms 64 bytes from 10.10.51.1: icmp_seq=3 ttl=64 time=0.717 ms 64 bytes from 10.10.51.1: icmp_seq=4 ttl=64 time=0.987 ms

64 bytes from 10.10.51.1: icmp_seq=5 ttl=64 time=1.02 ms

--- 10.10.51.1 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4037ms

rtt min/avg/max/mdev = 0.717/1.289/2.747/0.736 ms

Result4:

admin@outbandspine# delete system management-vrf

Deleting:

management-vrf {

enable: true

}

OK

admin@outbandspine# commit

Commit OK.

Save done.

admin@outbandspine# delete system management-ethernet eth0

Deleting:

eth0 {

ip-address {

IPv4: "10.10.51.48/24"

}

ip-gateway {

IPv4: 10.10.51.1

}

}

OK

admin@outbandspine# commit

Commit OK.

	Save done. admin@outbandspine# admin@outbandspine# run show system management-ethernet eth0 Hwaddr: 18:5a:58:37:64:60 State: UP Gateway : 10.10.51.1 Inet addr: 10.10.51.48/24 fe80::1a5a:58ff:fe37:6460/64 Traffic statistics Input Packets.....290471 Input Bytes.....18972241 Output Packets.....172793 Output Bytes.....21809772 admin@outbandspine# run ping 10.10.51.1 PING 10.10.51.1 (10.10.51.1) 56(84) bytes of data. 64 bytes from 10.10.51.1: icmp_seq=1 ttl=64 time=1.42 ms 64 bytes from 10.10.51.1: icmp_seq=2 ttl=64 time=0.760 ms Command interrupted! admin@outbandspine#
Actual results	Pass

6.8 AAA in Mgmt-Vrf Function Test

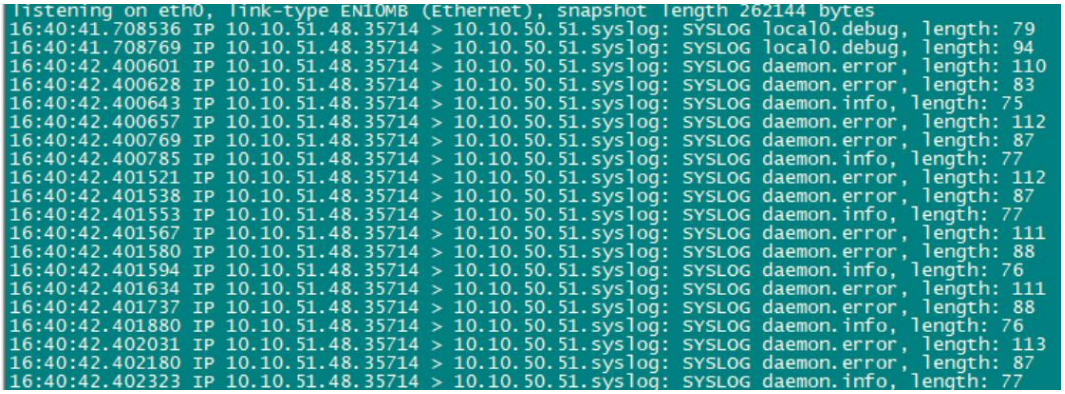
Test Name	AAA in Mgmt-Vrf Function Test
Test Topo& Precondition	set system aaa tacacs-plus server-ip 10.10.51.42 set system aaa tacacs-plus key "WE09c3drZXk5QHBvbGFyaXM=YzNk" set system aaa tacacs-plus vrf "mgmt-vrf"

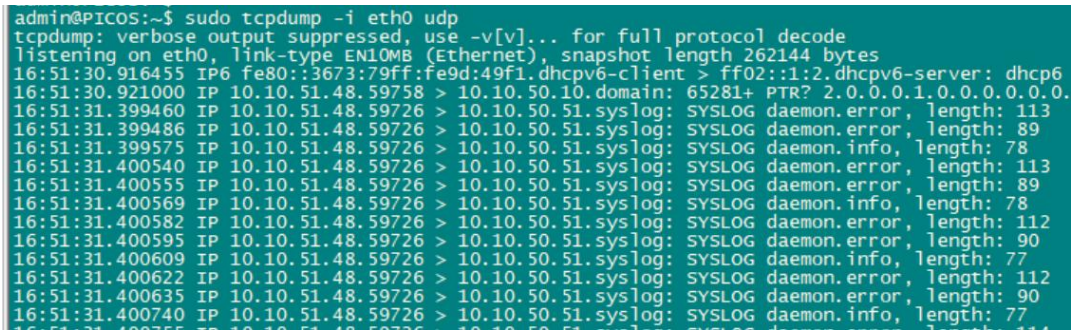
	set system aaa radius authorization server-ip 10.10.51.168 shared-key "swkey9@polaris" set system aaa radius vrf "mgmt-vrf" set system aaa local-auth-fallback disable false
Test Procedure	1. Enable mgmt-vrf, configure tacacs and radius on mgmt-vrf, and enable local-auth-fallback. 2. Using the tacacs user to login the switch, it can login successfully---Result1. 3. Using the radius user to login the switch, it can login successfully---Result2. 4. Stopping the tacacs and radius service, using tacacs, radius and local user login ---Result3. 5. Delete the tacacs and radius on mgmt-vrf and management-vrf. 6. Using the tacacs user to login the switch, it can login successfully---Result1. 7. Using the radius user to login the switch, it can login successfully---Result2. 8. Stopping the tacacs and radius service, using tacacs, radius and local user login ---Result3 9. Delete the configurations, using tacacs, radius and local user login---Result3.
Expect results	**Result1: The tacacs user can login successfully.** **Result2: The radius user can login successfully.** **Result3: Only the local user can login successfully.**
Actual results	Pass

6.9 Syslog in Mgmt-Vrf Function Test

Test Name	Syslog in Mgmt-Vrf Function Test
Test Topo& Precondition	set system management-vrf enable true set system syslog server-ip 10.10.50.51 set system syslog vrf "mgmt-vrf"
Test Procedure	1. Enable mgmt-vrf, configure syslog server on mgmt-vrf.

	2. Dump the syslog packets on management port---Result1. 3. Delete the syslog on mgmt-vrf and management-vrf, check the configuration and then dump the syslog packets---Result2. 4. Rollback the configuration and then repeat step2---Result1. 5. Rollback to the default configuration and then configure again, check the configuration and then dump the syslog packets---Result1. 6. Delete the syslog configuration, and then dump dump the syslog packets---Result3.

Expect results	**Result1:**
	 
	Result2:
	admin@PICOS# delete system management-vrf
	Deleting:
	management-vrf {
	enable: true
	}
	OK
	admin@PICOS# delete system syslog vrf
	Deleting:
	vrf: "mgmt-vrf"
	OK
	admin@PICOS# commit
	Commit OK.
	Save done.

	admin@PICOS# show system syslog | display set set system syslog server-ip 10.10.50.51  **Result3: It can not dump the syslog packets.** admin@PICOS# show system | display set set system log-level "trace"
Actual results	Pass

7 InfiniBand RDMA Test

7.1 IB_Write Test Under Same Leaf

fs@h11-gpu-polaris: **~**$ ib_write_bw -d mlx5_9 --report_gbits -D 60

Waiting for client to connect... *

RDMA_Write BW Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

CQ Moderation: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 0[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

---

local address: LID 0x82 QPN 0x006d PSN 0x562700 RKey 0x200000 VAddr 0x007f37e383d000

remote address: LID 0x2f QPN 0x0055 PSN 0x28bf34 RKey 0x1fff00 VAddr 0x007fc6b8b43000

#bytes #iterations BW peak[Gb/sec] BW average[Gb/sec] MsgRate[Mpps]

65536 22099897 0.00 386.40 0.736993

---

fs@h9-gpu-polaris: **~**$ sudo ib_write_bw -d mlx5_9 10.2.6.36 --report_gbits -D 60

RDMA_Write BW Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

TX depth: 128

CQ Moderation: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 0[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

---

local address: LID 0x2f QPN 0x0055 PSN 0x28bf34 RKey 0x1fff00 VAddr 0x007fc6b8b43000

remote address: LID 0x82 QPN 0x006d PSN 0x562700 RKey 0x200000 VAddr 0x007f37e383d000

#bytes #iterations BW peak[Gb/sec] BW average[Gb/sec] MsgRate[Mpps]

Conflicting CPU frequency values detected: 2101.000000 != 3799.940000. CPU Frequency is not max.

65536 22099897 0.00 386.40 0.736993

7.2 IB_Write Test Under Difference Leaf

fs@h11-gpu-polaris: **~**$ ib_write_bw -d mlx5_8 --report_gbits -D 60

Waiting for client to connect... *

RDMA_Write BW Test

Dual-port: OFF Device: mlx5_8

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

CQ Moderation: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 0[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

local address: LID 0x27 QPN 0x0053 PSN 0x16bafb RKey 0x1fff00 VAddr 0x007fa4b70a6000

remote address: LID 0x2f QPN 0x0057 PSN 0x1053f1 RKey 0x1fff00 VAddr 0x007f30273e2000

#bytes #iterations BW peak[Gb/sec] BW average[Gb/sec] MsgRate[Mpps]

65536 22080006 0.00 386.05 0.736330

fs@h9-gpu-polaris: ~$ sudo ib_write_bw -d mlx5_9 10.2.6.36 --report_gbits -D 60

RDMA_Write BW Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

TX depth: 128

CQ Moderation: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 0[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

local address: LID 0x2f QPN 0x0057 PSN 0x1053f1 RKey 0x1fff00 VAddr 0x007f30273e2000

remote address: LID 0x27 QPN 0x0053 PSN 0x16bafb RKey 0x1fff00 VAddr 0x007fa4b70a6000

#bytes #iterations BW peak[Gb/sec] BW average[Gb/sec] MsgRate[Mpps]

Conflicting CPU frequency values detected: 2101.000000 != 800.000000. CPU Frequency is not max.

65536 22080006 0.00 386.05 0.736330

7.3 IB_Send Test Under Same Leaf

fs@h11-gpu-polaris: ~$ ib_send_bw -d mlx5_9 --report_gbits -D 60

Waiting for client to connect... *

Send BW Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

RX depth: 512

CQ Moderation: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 0[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

local address: LID 0x82 QPN 0x006e PSN 0xc33a95

remote address: LID 0x2f QPN 0x0058 PSN 0x213555

#bytes #iterations BW peak[Gb/sec] BW average[Gb/sec] MsgRate[Mpps]

Conflicting CPU frequency values detected: 800.000000 != 1400.000000. CPU Frequency is not max.

65536 22105329 0.00 386.32 0.736846

fs@h9-gpu-polaris: **~**$ sudo ib_send_bw -d mlx5_9 10.2.6.36 --report_gbits -D 60

Send BW Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

TX depth: 128

CQ Moderation: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 0[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

---

local address: LID 0x2f QPN 0x0058 PSN 0x213555

remote address: LID 0x82 QPN 0x006e PSN 0xc33a95

#bytes #iterations BW peak[Gb/sec] BW average[Gb/sec] MsgRate[Mpps]

Conflicting CPU frequency values detected: 2101.000000 != 3799.888000. CPU Frequency is not max.

65536 22105277 0.00 386.49 0.737172

7.4 Send Test Under Difference Leaf

fs@h11-gpu-polaris: **~**$ ib_send_bw -d mlx5_8 --report_gbits -D 60

Waiting for client to connect... *

Send BW Test

Dual-port: OFF Device: mlx5_8

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

RX depth: 512

CQ Moderation: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 0[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

---

local address: LID 0x27 QPN 0x0054 PSN 0xe6ea0d

remote address: LID 0x2f QPN 0x0059 PSN 0xcf5d35

#bytes #iterations BW peak[Gb/sec] BW average[Gb/sec] MsgRate[Mpps]

Conflicting CPU frequency values detected: 800.000000 != 2101.000000. CPU Frequency is not max.

65536 22095212 0.00 386.14 0.736507

---

fs@h9-gpu-polaris: **~**$ sudo ib_send_bw -d mlx5_9 10.2.6.36 --report_gbits -D 60

Send BW Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

TX depth: 128

CQ Moderation: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 0[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

local address: LID 0x2f QPN 0x0059 PSN 0xcf5d35

remote address: LID 0x27 QPN 0x0054 PSN 0xe6ea0d

#bytes #iterations BW peak[Gb/sec] BW average[Gb/sec] MsgRate[Mpps]

Conflicting CPU frequency values detected: 2101.000000 != 3799.887000. CPU Frequency is not max.

65536 22095191 0.00 386.31 0.736836

7.5 IB_Send Latency Test Under Same Leaf

fs@h11-gpu-polaris: **~**$ ib_send_lat -d mlx5_9 --report_gbits -D 60

Waiting for client to connect... *

Send Latency Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

RX depth: 512

Mtu: 4096[B]

Link type: IB

Max inline data: 236[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

local address: LID 0x82 QPN 0x006f PSN 0x94351a

remote address: LID 0x2f QPN 0x005a PSN 0x51580a

#bytes #iterations t_avg[usec] tps average

Conflicting CPU frequency values detected: 800.000000 != 2101.000000. CPU Frequency is not max.

Conflicting CPU frequency values detected: 800.000000 != 2101.000000. CPU Frequency is not max.

2 7618419 1.97 253949.18

fs@h9-gpu-polaris: **~**$ sudo ib_send_lat -d mlx5_9 10.2.6.36 --report_gbits -D 60

Send Latency Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

TX depth: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 236[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

local address: LID 0x2f QPN 0x005a PSN 0x51580a

remote address: LID 0x82 QPN 0x006f PSN 0x94351a

#bytes #iterations t_avg[usec] tps average

Conflicting CPU frequency values detected: 2101.000000 != 3796.181000. CPU Frequency is not max.

Conflicting CPU frequency values detected: 2101.000000 != 3799.845000. CPU Frequency is not max.

2 7618418 1.97 254060.91

7.6 IB_Send Latency Test Under Difference Leaf

fs@h11-gpu-polaris: ~$ ib_send_lat -d mlx5_7 --report_gbits -D 60

Waiting for client to connect... *

Send Latency Test

Dual-port: OFF Device: mlx5_7

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

RX depth: 512

Mtu: 4096[B]

Link type: IB

Max inline data: 236[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

local address: LID 0x90 QPN 0x0126 PSN 0xc602ac

remote address: LID 0x2f QPN 0x005b PSN 0x7b612a

#bytes #iterations t_avg[usec] tps average

Conflicting CPU frequency values detected: 800.000000 != 2101.000000. CPU Frequency is not max.

Conflicting CPU frequency values detected: 800.000000 != 2101.000000. CPU Frequency is not max.

2 5564559 2.70 185485.80

fs@h9-gpu-polaris: ~$ sudo ib_send_lat -d mlx5_9 10.2.6.36 --report_gbits -D 60

Send Latency Test

Dual-port: OFF Device: mlx5_9

Number of qps: 1 Transport type: IB

Connection type: RC Using SRQ: OFF

PCIe relax order: ON

ibv_wr* API: ON

TX depth: 1

Mtu: 4096[B]

Link type: IB

Max inline data: 236[B]

rdma_cm QPs: OFF

Data ex. method: Ethernet

---

local address: LID 0x2f QPN 0x005b PSN 0x7b612a

remote address: LID 0x90 QPN 0x0126 PSN 0xc602ac

#bytes #iterations t_avg[usec] tps average

Conflicting CPU frequency values detected: 2101.000000 != 3799.723000. CPU Frequency is not max.

Conflicting CPU frequency values detected: 2101.000000 != 800.000000. CPU Frequency is not max.

2 5564558 2.69 185568.26
