

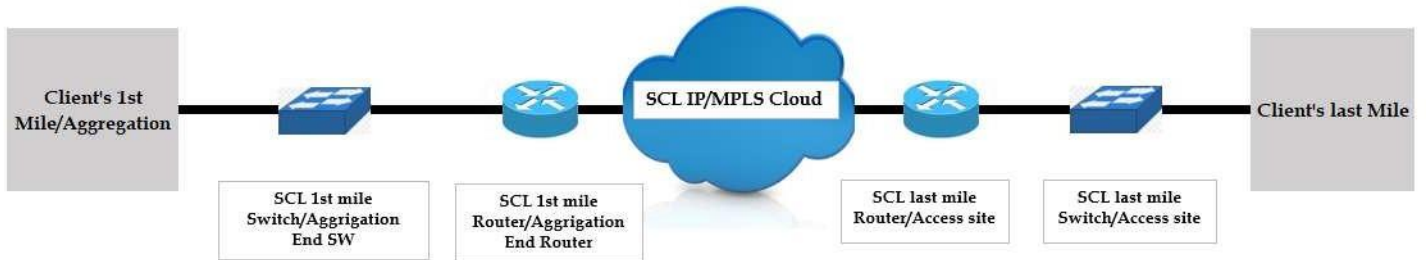
1.0 SCL ISP Connectivity Troubleshooting

1.1 Common ISP Connectivity

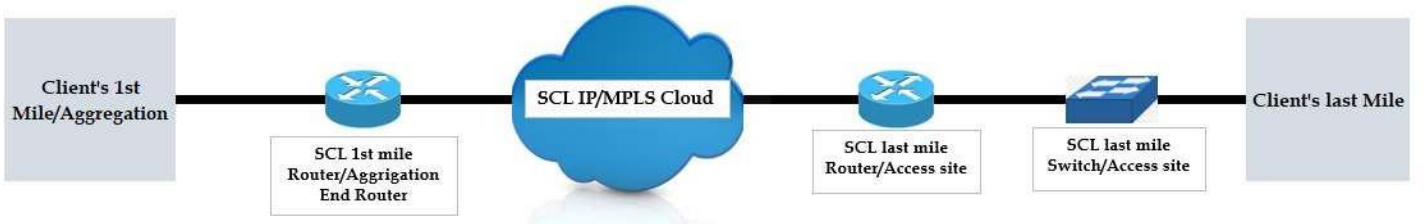
Type-1:



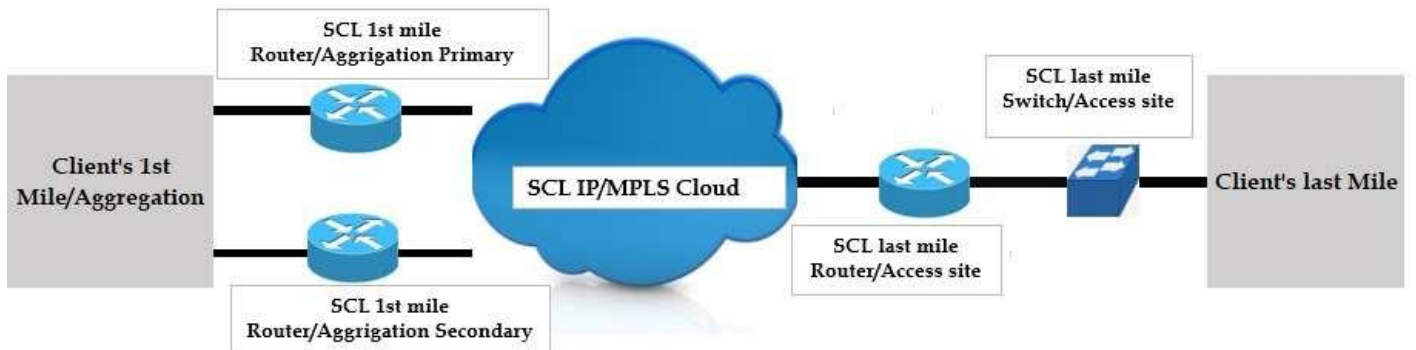
Type-2:



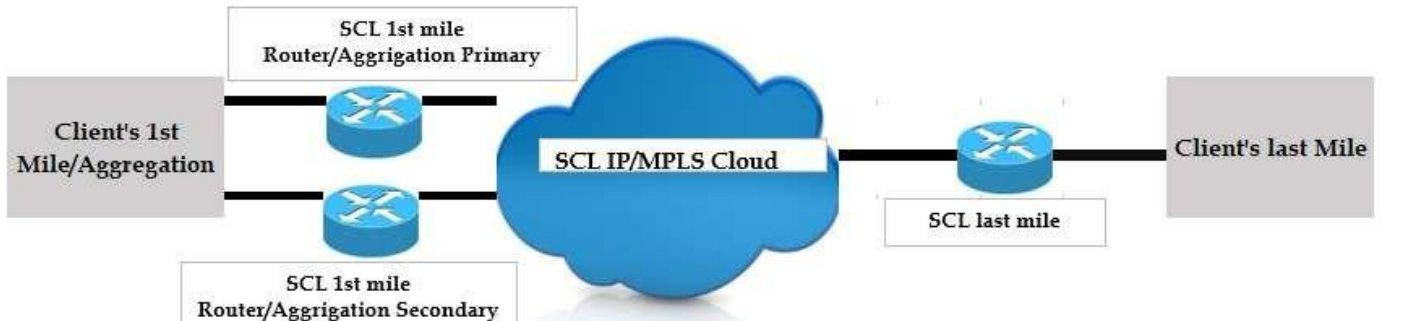
Type-3:



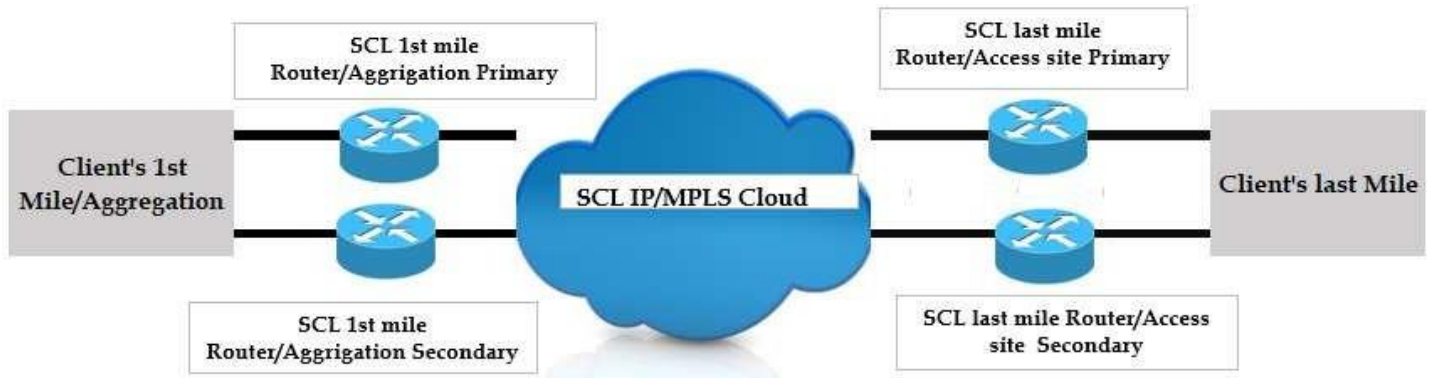
Type-4:



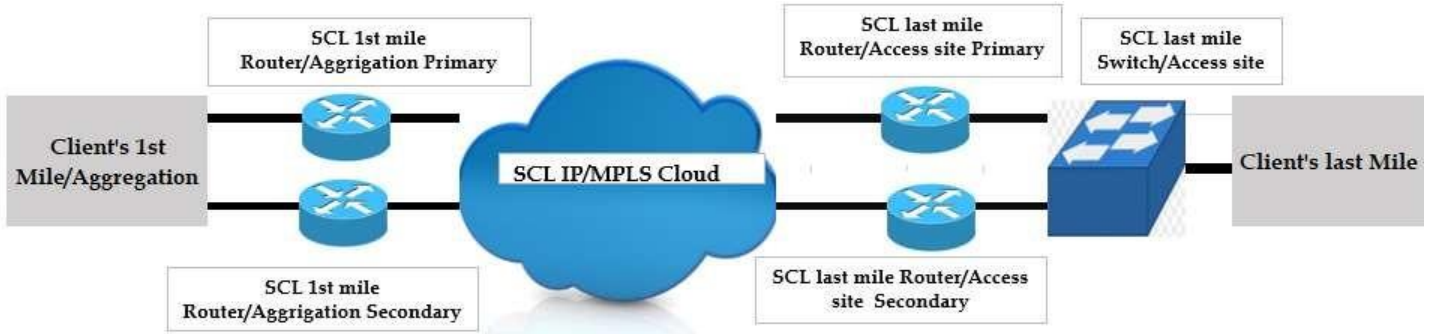
Type-5:



Type-6:



Type-7:



NB: Above are the main ISP connectivity scenario in SCL network. Have one or two rare and different case which willdiscased later. But these are main scenario.

1.2 General configuration for ISP client

1.2.1 Access/Trunk/Full QinQ/Partial QinQ

Device	Juniper	Huawei
Access Mode	<pre> set interfaces ge-4/2/2 description UNI: set interfaces ge-4/2/2 mtu 9192 set interfaces ge-4/2/2 encapsulation ethernet-ccc set interfaces ge-4/2/2 unit 0 input-vlan-map push set interfaces ge-4/2/2 unit 0 input-vlan-map vlan-id 416set interfaces ge-4/2/2 unit 0 output-vlan-map pop </pre>	<pre> interface GigabitEthernet0/2/15 mtu 9192 description UNI:..... undo shutdown Access mode with Native vlan: interface Vlanif1510 description UNI:..... mtu 9192 mpls l2vc 10.73.0.129 1510 control-word interface GigabitEthernet0/2/18 portswitch description UNI:..... undo shutdown port link-type dot1q-tunnel port default vlan 1510 </pre>

		Transparent Channel interface GigabitEthernet5/0/12.1 mode l2mtu 9192 description UNI: statistic enable mode single encapsulation default rewrite push vid 1668
Trunk Mode	set interfaces ae4 unit 470 description UNI:... set interfaces ae4 unit 470 encapsulation vlan-ccc set interfaces ae4 unit 470 vlan-id 470 set interfaces ae4 unit 470 output-vlan-map swap	interface GigabitEthernet0/2/4.2498 vlan-type dot1q 2498 description UNI:..... mtu 9192
		I2 mode interface Eth-Trunk9.217 mode l2 mtu 9192 description UNI: statistic enable mode single encapsulation dot1q vid 217
Full Q-in-Q	set interfaces ge-0/3/9 description UNI:.....set interfaces ge-0/3/9 flexible-vlan-tagging set interfaces ge-0/3/9 mtu 9192 set interfaces ge-0/3/9 encapsulation flexible-ethernet-services set interfaces ge-0/3/9 unit 0 encapsulation vlan-cccset interfaces ge-0/3/9 unit 0 vlan-id-range 1-4094 set interfaces ge-0/3/9 unit 0 input-vlan-map push set interfaces ge-0/3/9 unit 0 input-vlan-map vlan-id 1929 set interfaces ge-0/3/9 unit 0 output-vlan-map pop	interface GigabitEthernet0/2/3.2709mtu 9192 description UNI:..... qinq stacking vid 1 to 4094 qinq stacking pe-vid 2709
Partial Q-in-Q	set interfaces xe-3/2/8 unit 1082 description UNI:..... set interfaces xe-3/2/8 unit 1082 encapsulation vlan-ccc set interfaces xe-3/2/8 unit 1082 vlan-id-range 2390-2393set interfaces xe-3/2/8 unit 1082 input-vlan-map push set interfaces xe-3/2/8 unit 1082 input-vlan-map vlan-id 1082 set interfaces xe-3/2/8 unit 1082 output-vlan-map pop	interface GigabitEthernet0/2/3.2709mtu 9192 description UNI:..... qinq stacking vid 2710 to 2713 qinq stacking pe-vid 2709
	Access Mode	Trunk Mode
EDGE Core Switch	description UNI:..... switchport allowed vlan add 2372 untaggedswitchport native vlan 2372 switchport allowed vlan remove 1 switchport mode access	description switchport allowed vlan add 1 untagged switchport mode trunk switchport allowed vlan add 1,1817-1820 tagged

5.0 Some Basic Troubleshooting Command for Juniper and Huawei device

Juniper	Huawei
Show	display
Exit	return
match	include
request system reboot	reboot
show configuration	display current-configuration
configure / edit	system view
Disable	shut down
Commit	save
Delete	undo
show system storage	dir
show ntp status	display ntp-service status
show cli history	display history-command
show chassis fpc	display device pic-status
show chassis fpc detail	display device
show chassis routing engine	display memory-usage
show system processes extensive	display cpu-usage
show system users	display users
show version	display version
show system alarms	display alarm all / active
show arp	display arp all
show interfaces (interface name)	display ip interface (interface name)
show interface terse	display ip interface brief
show route	display ip routing-table
show system statistics	display ip statistics
delete interfaces ge-X/X/X disable	undo shut down
show interfaces diagnostic optics interface	display interface gig x/x/x
show interfaces aex	reset arp
traceroute (IP address)	tracert (IP address)
show log messages	display logbuffer
clear interface statistics interface	reset counters interface xx
	reset ip routing-table statistics protocol all
Traceoptions	debugging
request support info	display diagnostic-information
show ospf neighbor	display ospf peer/nexthop
show ospf database	display ospf lsdb
show ospf interface	display ospf interface
show ospf overview	display ospf brief
show ospf database	display ospf lsdb

Juniper	Huawei
show ospf interface	display ospf interface
show ospf statistics	display ospf statistics
show route protocol ospf	display ip routing-table protocol ospf
show isis interface	display isis interface
show isis adjacency	display isis peer
show isis database	display isis lsdb
show isis route	display isis route
show isis spf log	display isis spf-log
show bgp neighbor	display bgp peer
show bgp group	display bgp group
show route protocol bgp	display bgp routing-table
show bgp summary	display bgp peer
clear bgp neighbor	reset bgp all
show mpls interface	display mpls interface
show ldp overview	display mpls ldp all
show mpls ldp interface	display mpls ldp interface
show ldp neighbor	display mpls ldp adjacency
show rsvp interface	display mpls rsvp-te interface
show rsvp neighbor	display mpls rsvp-te peer
show rsvp session	display mpls rsvp-te session x
show ldp session	display mpls ldp session
show log int-protocol-log match	display logbuffer include
show l2circuit connections brief	display mpls l2vc brief
ping routing-instance (VRF name) (destination ip address) source (source IP address)	ping -vpn-instance(VRF name) -a (source ip address) (destination IP address)
show route table (VRF name.0)	display ip routing-table vpn-instance (VRF name)