SPB monitoring CLI commands 1/2

General commands

show running-config

show tech

show autotopology nmm-table

show ip arp vrfids 0-255 | 0-512

show ip vrf

show ip vrf max-routes

show ip interface vrfids 0-255 | 0-512

show ip route vrfids 0-255 | 0-512

show ip route alternative vrfids 0-255 | 0-512

show ip route count-summary vrfids 0-255 | 0-512

show ip rsmlt vrfids 0-255 | 0-512

show ip vrrp vrfids 0-255 | 0-512

show ip vrrp interface vrfids 0-255 | 0-512

show ip vrrp address vrfids 0-255 | 0-512

ISIS core

show sys mgid-usage

show spanning-tree mstp config | port role

show mlt

show isis spbm

show isis interface

show isis adjacencies

show isis spbm unicast-tree 4051 | 4052

show isis spbm unicast-fib

show i-sid

l2 ping vlan 4051 | 4052 routernodename <bbswitch>

l2 traceroute vlan 4051 | 4052 routernodename <bbswitch>

show isis lsdb tlv 3 detail

show isis lsdb tlv 22 detail

show isis lsdb tlv 143 detail

IP shortcut

show isis

show ip route

show ip isis redistribute

l2 ping ip-address x.x.x.x

l2 traceroute ip-address x.x.x.x

show isis lsdb tlv 135 detail

L2VSN

show vlan i-sid

show i-sid mac-address-entry remote

show vlan mac-address-entry spbm-tunnel-as-mac

vlan mac-address-entry vvvv sync (conf t)

show i-sid mac-address-entry remote

show isis spbm i-sid all

show isis spbm multicast-fib i-sid zzzzzzz

l2 tracetree 4051 | 4052 zzzzzzz

show vlan mac-address-entry vvvv

show vlan remote-mac-table vvvv

show mac-address-table vid vvvv

show mac-address-table spbm i-sid zzzzzzz

show isis lsdb tlv 144 detail

Integrated Application Hosting (IAH)

show boot config flags insight-port-connect-type

virtual service <NewVM> install package <NewVM.img>

show virtual-service install NewVM

show virtual-service config

show virtual-service config statistics

virtual-service <VM> console

SPB MSTP Multi-Area

show isis [remote]   (designated/non-designated)

show isis area

show isis area-vnode

show isis multi-area l2 redistribute i-sid

show isis multi-area l2 isid-list

show isis multi-area ip redistribute unicast

show isis multi-area ip redistribute unicast vrf [name]

#Physical layer & counters:

show pluggable-optical-modules basic | detail

show alarm database

show interfaces gigabitEthernet error

show interfaces gigabitEthernet error verbose

show interfaces gigabitEthernet error collision show mlt error

show mlt error main

clear-stats <ports>

clear ?

clear ssh ?

clear telnet ?

show core-file

show debug-file

debug file remove [all]

show sys-info

SPB MSTP Multihoming

show spanning-tree mstp status

show i-sid mac-address-entry 16777003

show spanning-tree mstp port statistics x/y

show spanning-tree mstp port config x/y

Abbreviations:

x.x.x.x	ip addr
vvvv	vlan
zzzzzzz	i-sid
bbswitch	sys-name
4051	4052	BVLAN

VLAN-id:

ERS8K	max 4000
VSP9K	max 4084
VOSS	max 4059
VSP4900	max 4000

VRF-id:

ERS8K	0-255 (max 256 VRFs)
VSP9K	0-512 (max 512 VRFs)
VOSS	0-512 (max 24 or scaled 256)
VSP4450	0-512 (max 24 or scaled 128)

Reserved i-sid:

0-255 -> IEEE reserved (allowed by VOSS)
256-15.999.998 -> User selectable
15.999.999 -> Used by ZTFv2
15.990.000-15.999.095 -> EPT default offset
16.000.001-16.600.000 -> MCoSPB

16.774.744-16.775.744	DVR up to v6.0.1.0
16.678.217-16.678.472	DVR domain from v6.0.1.2
16.678.216	DVR Backbone I-SID

16.776.000-16.776.999 -> RSPAN

16.777.001	FabricAreaNetwork
16.777.003	MSTP Multihoming
16.777.215	ff:ff:ff (max value)

SPB monitoring CLI commands 2/2

L3VSN

show ip ipvpn

show isis spbm ip-unicast-fib id zzzzzzz

show ip route vrf vrfname

l2 ping ip-address x.x.x.x vrf vrfname

show isis lsdb tlv 184 detail

DVR

show dvr

show dvr members

show dvr interfaces ?

show dvr host-entries ?   clear dvr host-entries ?

show dvr routes ?   clear ip arp ?

show dvr backbone-members

show dvr backbone-entries ?

show dvr l3vsn ? (same as show ip ipvpn)

show dvr database ?

show i-sid mac-address-entry port x/y   (on LEAF)

show i-sid   show ip route   show ip arp [vlan id] [vrfid id]

Anycast-gateway

show ip anycast-gateway interfaces

show ip anycast-gateway i-sid [all-routers]

show isis lsdb local tlv 187 detail

Multicast

show ip vrf mvpn

show isis spbm multicast

show isis spbm multicast-fib

show ip igmp interface vrf <vrfname>

show ip igmp sender vrf <vrfname> | show ip igmp sender count

show isis spb-mcast-summary

show isis spbm ip-multicast-route all/vlan xxxx detail/vsn-isid yyyy detail

show ip igmp snoop-trace vrf <vrfname>

show ip igmp group/cache vrf <vrfname>

---

show ip mroute route vrf <vrfname>

l2 traceroute source s.s.s.s group g.g.g.g vlan xxxx vrf <vrfname>

show isis lsdb tlv 185 detail

show isis lsdb tlv 186 detail

Fabric Extend - ONA

show isis logical-interface

show isis int-l1-cntl-pkts

show khi fe-ona status

show khi fe-ona detail

Fabric Attach (ERS/VSP)

show fa

show fa assignment

show fa elements

show fa interface

show fa stats

Fabric Attach (EXOS)

show vlan

show lacp lag

show vlan fabric attach mapping

show fabric attach neighbors

show lldp ports xx-yy neighbors <detail>

show port vid description

ISIS core

show debug spbm fib summary slot x

Troubleshoot Performance issues

show sys mgid-usage

show qos cosq-stats interface

show qos cosq-stats cpu-port

show qos cosq-stats loopback

show khi performance pthread sort cpu (all CPUs)

show interfaces gigabitEthernet config

show interfaces gigabitEthernet l1-config

show interfaces gigabitEthernet statistics -> 2nd part OUTLOSS PACKETS !!!!

```
Type:

UnspecifiedType    (00)
Ether2_LACP        (01)
Ether2_LLDP        (03)
Ether2_VLACP       (05)
Ether2_SLPP        (07)
Ether2_RARP other  (13)
Ether2_ARP_Request (10)
Ether2_ARP_Other   (11)
IPV4_UDP_DHCP      (14)
IPV6_UDP_DHCP      (15)
IPV4_UDP_Other     (16)
IPV4_VRRP          (30)
IPV4_OSPF_MC       (32)
IPV4_OSPF_UC       (34)
IPV6_UDP_IPMC      (38)
IPV4_ICMP          (39)
IPV4_ICMP_ND_MC    (42)
IPV6_ICMP_ND_UC    (43)
IPV4_TCP_TELNET    (52)
IPV4_TCP_SSH       (54)
IPV4_TCP_HTTP      (62)
Ether2_Other       (63)
IPV4_UDP_SNMP      (64)
IPV4_TCP_IST       (66)
IPV4_UDP_NTP       (69)
IPV6_Other_MC      (78)
IPV4_TCP_FTP       (81)
Ipv4_TCP_Other     (83)
IPV4_IGMP          (85)
IPV4_GRE_Other     (86)
LLC_BPDU           (93)
LLC_TDP            (94)
LLC_ISIS           (95)
```

(Rotated text, right side): CPU INFO CPP: 60 percent of tbuf's are in use: 0 in Tx queue, 0 in RxQueue0 0 in RxQueue1 0 in RxQueue2 0 in RxQueue3 0 in RxQueue4 0 in RxQueue5 0 in RxQueue6 1841 in RxQueue7 Pkts in Q7 (type): 4(5), 1837(95)

60% of the buffer for messages to the CPU are used by:

1841 in RxQueue7 Pkts in Q7 (type): 4(5), 1837(95)

4 packets from type (5) -> Ether2_VLACP(5)
1837 packet from type (95) -> LLC_ISIS(95)
The types can be found in "show khi cpp port-statistics"

#Logging:

show logging file module clilog

show logging file module snmplog

#Mirror-by-port:

mirror-by-port 10 in-port 2/1 out-port 1/40 mode rx enable

mirror-by-port 10 in-port 1/28 out-port 1/4/4 mode tx enable

#CPU tracing:
trace shutdown
clear trace
trace grep
trace level 9 3
trace level 14 3
trace level 15 3
trace shutdown
show trace file
clear trace
#MAC Flapping:
trace level 11 1
trace level 25 2

**** DEBUG ****
show io l2-tables
show io l3-tables

dbg enable
telnet to the line-card in slot s by issuing the following ACLI command:
telnet 127.0.1.s
then issue the following COP shell commands:
ercdDumpRecords "mac",3
ercdDumpRecords "arp",3
ercdDumpRecords "ip",3
leave the COP shell by issuing COP shell command: logout

VSP8600:
show io control
show io l2 slot all
show io l3 slot all
show io control

All VSP:
#dbg en <-- Enter "priv" password when prompted.
#debug mode
(debug)#process cbcp-main.x
(debug, pname:cbcp-main.x)#module res_mgr
(debug, pname:cbcp-main.x, mod:res_mgr)#exec l3_defip_count
(debug, pname:cbcp-main.x, mod:res_mgr)#exec l3_entry_count
(debug, pname:cbcp-main.x, mod:res_mgr)#exec res_mgr_model_stats
(debug, pname:cbcp-main.x, mod:res_mgr)#exit
(debug)#exit
#debug mode;exec bash
#dbg dis

#reset -coredump