SD-WAN Alarms

For supported software information, click [here](#).

sdwan-branch-disconnect

Description	Generated on a Controller node when the node lost connectivity on all overlay paths.
Cause	• Branch rebooted. • Software crash occurred. • System rebooted or was switched off. • IWAN interface flapped. • If path goes went down because of an issue with an intermediate router, ICMP monitoring to next-hop gateway detected the failure.

Related Commands

- Issue the **show system uptime** CLI command on the device to check branch reboot.

```
admin@vCPE101-cli> show system uptime
Current time        : Mon Sep 18 23:43:29 2017
System start time   : Wed Sep 13 17:59:26 2017
Service uptime      : 5 days, 5 hours, 44 minutes, 3 seconds
```

- Issue the **show coredumps** CLI command on the device to check for software crash.

```
admin@vCPE101-cli> show coredumps
total 636K
-rw-rw-r-x 1 root root 634K Jul 5 18:25 core.versa-vsmd.1536.versa-flexvnf.1499304350.gz
```

- Issue the **last** shell command on the device.

```
admin@vCPE101:~$ last
admin    pts/1          10.42.107.254      Mon Sep 18   22:42 still logged in
admin    pts/1          10.42.107.254      Thu Sep 14   00:08  - 02:20  (02:12)
admin    pts/1          10.42.107.254      Wed Sep 13   21:39  - 21:40  (00:00)
admin    pts/1          10.42.20.63        Wed Sep 13   17:54  - 21:15  (03:20)
reboot   system boot    3.16.0-77-generi   Wed Sep 13   17:28  - 23:45  (5+06:16)
```

```
admin    pts/3           10.42.20.52        Thu Sep 7    18:58  - 18:58  (00:00)
admin    pts/3           10.42.20.52        Thu Sep 7    18:58  - 18:58  (00:00)
admin    pts/3           10.42.20.52        Thu Sep 7    18:58  - 18:58  (00:00)
admin    ttyl                               Thu Sep 7    15:52  - crash  (6+01:36)
reboot   system boot     3.16.0-77-generi   Thu Sep 7    15:52  - 23:45  (11+07:53)
```

- Issue the **show alarms | grep InterfaceDown** CLI command to view related alarms.

```
admin@vCPE101-cli> show alarms  |  grep InterfaceDown
system interfaceDown     2017-08-25T17:06:13-0 Provider1: Interface vni-0/0 is down (n/a)
system interfaceDown     2017-08-25T17:06:13-0 Customer1: Interface vni-0/0 is down (n/a)
system interfaceDown     2017-09-06T18:29:28-0 Customer1: Interface vni-0/2.0 is down (n/a)
system interfaceDown     2017-09-06T18:29:28-0 Provider: Interface vni-0/2 is down (n/a)
sdwan-datapath-down
```

sdwan-datapath-down

Description	Generated on a branch/hub or controller device when the device dropped connectivity on an overlay path for a specific traffic class.
Cause	- Local or remote WAN link went down. - Issue with an intermediate router. - IA percentage PDU loss or actual traffic loss on the path. - Check the SLA monitor status.
Action	- Verify the interface state or check for interface alarms . - If the WAN link is down, then the path gets removed and is not displayed on the SLA monitor status command. - If the SLAs are flapping because of acongestion issue on the local or remote site, the forwarding class drops. Issue the **show orgs org-services Customer1 class-of-service interfaces brief** or **detail** command to check if there are any drops in the transmit direction. - Use the SLA metrics show command to display percentage PDU loss or actual traffic loss.

Related Commands

- Issue the **show orgs org-services** *customer-name* **class-of-service interfaces brief** to view the interface details

of the class of service.

```
admin@Branch1-cli> show orgs org-services Customer1 class-of-service interfaces brief
                    TX       TX                TX BYTES    QUEUE
NAME     TX PACKETS  PPS    DROPPED TX  BYTES       TX BPS   DROPPED    LEN
----------------------------------------------------------------------------------
vni-0/0  1310714652  8118   528060889  170523706647  8445072  68653181638  0
vni-0/1  1775447     14     0          500764808     10592    0            0
```

- Issue the **show orgs org-services** *customer-name* **class-of-service interfaces detail** CLI command to view the complete interface details of the class of service.

```
admin@Branch1-cli> show orgs org-services Customer1 class-of-service interfaces detail
Interface: vni-0/0

  Traffic Stats:
    TX Pockets         : 1310925543
    TX PPS             : 6740
    TX Pockets Dropped : 528248928
    TX Bytes           : 170551126910
    TX bps             : 7006120
    TX Bytes Dropped   : 68677641264
  Port Stats :
        Traffic Class      TX Pkts       TX Dropped      TX Bytes     Bytes Dropped
tc0    network-control     537069        0               101380702    0
tcl    expedited-fwd       273302        0               53059188     0
tc2    assured-fwd         273282        0               53044312     0
tc3    best-effort         1309841890    528248928       170343642688 68677641264
Pipe Stat:
    Pipe ID     : 0
    Users       : [Default]
        Traffic Class      TX Pkts       TX Dropped      TX Bytes     Bytes Dropped
tc0  network-control       537069        0               101380702    0
tcl  expedited-fwd         273302        0               53059188     0
tc2  assured-fwd           273282        0               53044132     0
tc3  best-effort           1303841890    528248928       170343642688 68677641264
```

- Issue the **show orgs org** *organization-name* **sd-wan sla-monitor metrics last** CLI command to view the SD-WAN's SLA monitor metrics. Note that SLA metrics are exported from CPE devices only if the path is in the active state. If the path is in the suspend or suspend-retry state, no logs are sent because these paths are not actively carrying traffic.

```
admin@KVM-Branch1-cli> show orgs org Org1 sd-wan sla-monitor metrics last

                              LOCAL  REMOTE
                        REMOTE  WAN   WAN    TWO   FWD   REV  PDU   FWD
REV
              PATH   FWD   LOCAL WAN  WAN    LINK  LINK  WAY  DELAY DELAY LOSS
LOSS  LOSS  FWD   REV
SITE NAME        HANDLE  CLASS LINK    LINK   ID    ID    DELAY VAR   VAR   RATIO
RATIO         RATIO  LOSS  LOSS
----------------------------------------------------------------------------------------------------------------
--
```

```
KVM-Branch2       6689024  fc_nc  WAN1      WAN1    1   1    0   1   1   0   0   0   0   0
                  6689280  fc_nc  WAN1      WAN2    1   2    0   1   1   0   0   0   0   0
                  6693120  fc_nc  WAN2      WAN1    2   1    0   1   1   0   0   0   0   0
                  6693376  fc_nc  WAN2      WAN2    2   2    0   1   1   0   0   0   0   0
                  6697728  fc_nc  WAN3      WAN3    3   3    0   2   1   0   0   0   0   0
                  6706432  fc_nc  WAN1-IPv6  WAN1-v6 5   5    0   2   1   0   0   0   0   0
                  6706688  fc_nc  WAN1-IPv6  WAN2-v6 5   6    0   1   1   0   0   0   0   0
                  6710528  fc_nc  WAN2-IPv6  WAN1-v6 6   5    0   0   0   100 0   0   0   0
                  6710784  fc_nc  WAN2-IPv6  WAN2-v6 6   6    0   0   0   100 0   0   0   0
                  6715136  fc_nc  WAN3-IPv6  WAN3-v6 7   7    0   1   1   0   0   0   0   0
KVM-Branch3       6754560  fc_nc  WAN1      WAN1    1   1    0   2   2   0   0   0   0   0
                  6754816  fc_nc  WAN1      WAN2    1   2    0   2   2   0   0   0   0   0
                  6758656  fc_nc  WAN2      WAN1    2   1    0   2   2   0   0   0   0   0
                  6758912  fc_nc  WAN2      WAN2    2   2    0   2   2   0   0   0   0   0
                  6763264  fc_nc  WAN3      WAN3    3   3    0   2   2   0   0   0   0   0
SDWAN-Controller-ESXi 78080  fc_nc  WAN3    WAN3    3   1    0   0   0   0   0   0   0   0
0
                  95488    fc_nc  WAN3-IPv6  WAN3-v6 7   5    0   0   0   0   0   0   0   0
sdwan-datapath-sla-not-met
```

sdwan-datapath-sla-not-met

Description	Generated on the branch/hub per SD-WAN rule when the SLA metrics did not comply with configured value for the rule.
Cause	If CoS is enabled and if there are drops for a forwarding class.
Action	• Check the path state command to display the status and the reason for the violation. • Check current SLA metrics by issuing the SLA metrics show command.

Related Commands

- Issue the **show orgs org-services** *customer-name* **sd-wan policies p1 rules path-state brief** CLI command to view the SD-WANs policies and rule path details.

```
adnin@Branch1-cli> show orgs org-services Customer1 sd-wan policies p1 rules path -state brief

         REMOTE    FORWARDING SLA    LOCAL    REMOTE    FORWARDING
NAME  BRANCH    PROFILE  PROFILE CIRCUIT   CIRCUIT    CLASS       PRIORITY
-----------------------------------------------------------------------------------------------------
RULE1 Branch2    fpl    sp1    BroadBand BroadBand   fc_be      SLA Violated
                        MPLS     MPLS      fc_be      1
      Branch3    fp1    sp1    BroadBand BroadBand   fc_be      SLA Violated
                        MPLS     MPLS      fc_be      1
```

```
            Controller1  fp1    sp1    BroadBand  C1 -Broadband fc_be      SLA Violated
                                MPLS     C1-MPLS    fc_be     Default
            Controller2  fp1    sp1    BroadBand  C2 -Broadband fc_be      Down
                                MPLS     C2-MPLS    fc_be     Default

admin@KVM-Branch1-cli> show orgs org Org1 sd-wan sla-monitor metrics last

                                  LOCAL  REMOTE
                             REMOTE  WAN   WAN   TWO  FWD  REV  PDU  FWD  REV
REV
                    PATH    FWD  LOCAL WAN WAN   LINK LINK  WAY  DELAY DELAY LOSS
LOSS  LOSS  FWD  REV
SITE NAME           HANDLE  CLASS LINK   LINK   ID   ID   DELAY VAR  VAR  RATIO
RATIO RATIO LOSS LOSS
------------------------------------------------------------------------------------------------------------
KVM-Branch2         6689024 fc_nc WAN1      WAN1   1    1    0    1    1    0    0    0    0    0
                    6689280 fc_nc WAN1      WAN2   1    2    0    1    1    0    0    0    0    0
                    6693120 fc_nc WAN2      WAN1   2    1    0    1    1    0    0    0    0    0
                    6693376 fc_nc WAN2      WAN2   2    2    0    1    1    0    0    0    0    0
                    6697728 fc_nc WAN3      WAN3   3    3    0    2    1    0    0    0    0    0
                    6706432 fc_nc WAN1-IPv6 WAN1-v6 5   5    0    2    1    0    0    0    0    0
                    6706688 fc_nc WAN1-IPv6 WAN2-v6 5   6    0    1    1    0    0    0    0    0
                    6710528 fc_nc WAN2-IPv6 WAN1-v6 6   5    0    0    0    100  0    0    0    0
                    6710784 fc_nc WAN2-IPv6 WAN2-v6 6   6    0    0    0    100  0    0    0    0
                    6715136 fc_nc WAN3-IPv6 WAN3-v6 7   7    0    1    1    0    0    0    0    0
KVM-Branch3         6754560 fc_nc WAN1      WAN1   1    1    0    2    2    0    0    0    0    0
                    6754816 fc_nc WAN1      WAN2   1    2    0    2    2    0    0    0    0    0
                    6758656 fc_nc WAN2      WAN1   2    1    0    2    2    0    0    0    0    0
                    6758912 fc_nc WAN2      WAN2   2    2    0    2    2    0    0    0    0    0
                    6763264 fc_nc WAN3      WAN3   3    3    0    2    2    0    0    0    0    0
SDWAN-Controller-ESXi 78080 fc_nc WAN3      WAN3   3    1    0    0    0    0    0    0    0    0
0
                    95488   fc_nc WAN3-IPv6 WAN3-v6 7   5    0    0    0    0    0    0    0    0
```

Supported Software Information

Releases 20.2 and later support all content described in this article.

Additional Information

Configure SLA Profiles for SD-WAN Traffic Steering
Configure VOS Device Alarms