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Customer Release Notes

VSP Operating System Software

Software Release 8.2.8.0
June, 2021

INTRODUCTION:

This document provides specific information for version 8.2.8.0 of agent software for the VSP Operating System Software.

The purpose of this version is to address customer and internally found software issues. This release also includes a couple of minor feature enhancements as indicated in the New in this Release section of this document.

Newly Purchased Switches Require Software Upgrade. You should promptly upgrade the VOSS software to the latest version available by visiting the Extreme Portal.

Extreme Networks recommends that you thoroughly review this document prior to installing or upgrading this product.

For the latest firmware versions, visit the download site at:
www.extremenetworks.com/support/

NEW IN THIS RELEASE:

Please see “New Features in this release” section below for more information.

IMPORTANT NOTES BEFORE UPGRADING TO THIS RELEASE:

If upgrading systems from either release 4.2.1.0 or release 4.2.1.1 that have ISIS enabled link(s) configured with HMAC-MD5 authentication, then you need to perform the procedure described in the section ***SPECIAL INSTRUCTIONS FOR UPGRADING FROM PREVIOUS RELEASES*** in order to avoid potential network connectivity loss.

If upgrading systems running 4.1.X releases which also have TACACS+ enabled, refer to the section ***SPECIAL INSTRUCTIONS FOR UPGRADING FROM PREVIOUS RELEASES*** for upgrade instructions.
If upgrading systems running 6.0.x releases or older, refer to the section ***SPECIAL INSTRUCTIONS FOR UPGRADING FROM PREVIOUS RELEASES*** for instructions about the need to step-through a 6.1.x release prior to going to 7.1.x release.

UPGRADE CONSIDERATION WHEN UPGRADING TO 8.2.8.0 FROM PREVIOUS RELEASE:

For DVR deployments refer also to Outstanding Issues Section before upgrading.

If you have a VLAN with VRRP instance of 37 provisioned and functional on a node running with several other VLANs with DvR enabled, upon upgrade to 8.2.8.0, VRRP configuration for instance 37 is removed from that VLAN. This would result in traffic loss for members of that VLAN. Recommend renumbering the VRRP instance IDs to values other than 37 and 38 on that VLAN before upgrading.

DvR uses the same multicast addresses as VRRP ID 37 and 38 for its DvR controller and leaf implementation.

PLATFORMS SUPPORTED:

Virtual Services Platform 4400 Series
- Virtual Services Platform VSP 4450GSX-PWR+
- Virtual Services Platform VSP 4450GSX-DC
- Virtual Services Platform VSP 4450GTS-DC
- Virtual Services Platform VSP 4450GTX-HT-PWR+

Virtual Services Platform 4900 Series
- Virtual Services Platform VSP 4900-48P
- Virtual Services Platform VSP 4900-12MXU-12XE
- Virtual Services Platform VSP 4900-24S
- Virtual Services Platform VSP 4900-24XE

Virtual Services Platform 7200 Series
- Virtual Services Platform VSP 7254XSQ
- Virtual Services Platform VSP 7254XTQ

Virtual Services Platform 7400 Series
- Virtual Services Platform VSP 7432CQ
- Virtual Services Platform VSP 7400-48Y-8C

Virtual Services Platform 8200 Series
- Virtual Services Platform 8284XSQ

Virtual Services Platform 8400 Series
- Virtual Services Platform 8404
- Virtual Services Platform 8404C

ExtremeAccess Platform XA1400 Series
- ExtremeAccess Platform 1440
- ExtremeAccess Platform 1480

Extreme Switching 5520 Series
- 5520-24T
- 5520-24W
- 5520-48T
- 5520-48W
- 5520-12MW-36W
- 5520-24X
- 5520-48SE

SPECIAL INSTRUCTIONS FOR UPGRADING FROM PREVIOUS RELEASES:

I. The following procedure should be followed when upgrading systems running one of the following two releases, 4.2.1.0 or 4.2.1.1 which also have ISIS enabled links with HMAC-MD5 authentication on:

Disable ISIS authentication throughout the network a system at a time, a link at a time by disabling it on either side of each link, ensuring the link is stable before moving to the next. When a system has been reconfigured free of ISIS HMAC-MD5 authentication in all of its links, save the configuration file and

perform the upgrade to release 4.2.3.0 or greater. After all these systems have been upgraded to release 4.2.3.0 or greater, you may re-enable authentication a system at a time, a link at a time and save the configuration file in each of the involved systems.

Example:

```
VSP:1(config)#interface gigabitethernet x/y
VSP:1(config-if)#no isis hello-auth
VSP:1(config-if)#save config
VSP:1(config-if)# PERFORM THE UPGRADE
VSP:1(config)#interface gigabitethernet x/y
VSP:1(config-if)# isis hello-auth type hmac-md5 key <keyname> [key-id
<keyed>]
VSP:1(config-if)#save config
```

II. The following procedure should be followed when upgrading systems running 4.1.X releases which also have TACACS+ enabled on:

When you upgrade from VOSS 4.1.X to VOSS 4.2 or a higher release, the TACACS+ host configurations will be lost. After the upgrade, the TACACS+ host configurations will not take effect so you must reconfigure them. After you make the configurations, you must save the changes on the device. You should also save the configuration to a file to retain the configuration settings.

III. Upgrading DvR configurations from releases 6.0.1.1 and earlier to 6.0.1.2 and beyond.
   a. All DvR nodes must be upgraded to the same release.
   b. All DvR leaves should be upgraded first.

IV. Upgrading from releases 6.0.x and earlier
   a. Direct upgrade from 6.0.x or earlier releases to 7.x+ releases is not supported.
   b. Please upgrade to a 6.1.x release first (Release 6.1.6.0 or higher is recommended). Then upgrade to the desired 7.x+ release (Release 7.1.1.0 or higher recommended).

Review items 5, 6, and 7 if the ISIS L1 area is **`00.1515.fee1.900d.1515.fee1.900d`**, 00.0000.0000 or all zero's.

V. Legacy ZTF Procedures for Releases 7.0.0.0 - 7.1.2.0, 8.0.0.0, 8.0.1.0, and 8.0.5.0
   a. Boot with factory-defaults fabric.
   b. ISIS manual-area set to 00.0000.0000, Dynamically Learned Area (DLA) displayed as 00.0000.0000 and ISIS enabled with other parameters.
   c. HELLO PDUs not sent.
   d. Listen on active ISIS interfaces for ISIS HELLO with non-zero Area ID. Zeros of any length up to 13 bytes are considered a zero value.
   e. When an ISIS HELLO with a non-zero Area ID is received, use that area ID as the DLA and start sending HELLO with DLA on all ISIS interfaces.
   f. DLA set and displayed as learned in the previous step.
   g. Saving the configuration will save into the configuration file `manual-area 00.0000.0000`.
   h. Boot with the saved configuration. The ZTF procedures are triggered. ISIS interfaces in passive mode not sending ISIS HELLOs. Only process incoming ISIS HELLO with non-zero Area ID.

   Note: You can reach the fourth step by manually configuring the ISIS/SPBM with a manual-area equal to 0 (all values of 0, regardless of the length of zeros, are considered the same) and enabling ISIS.

VI. Modified ZTF Procedures for Releases 7.1.3.0+ and 8.0.6.0+

a. Boot with factory-defaults fabric
b. ISIS manual-area set to 00.1515.fee1.900d.1515.fee1.900d, Dynamically Learned Area (DLA) is blank and ISIS enabled with other parameters.
c. HELLO PDUs not sent
d. Listen on active ISIS interfaces for ISIS HELLO with and Area ID not equal to **`00.1515.fee1.900d.1515.fee1.900d`**.
e. When an ISIS HELLO with an Area ID not equal to **`00.1515.fee1.900d.1515.fee1.900d`** is received, use that Area ID as the DLA and start sending HELLO with DLA on all ISIS interfaces.
f. DLA set and displayed as learned in the previous step.
g. Saving the configuration file will save into the configuration file `manual-area 00.1515.fee1.900d.1515.fee1.900d`.
h. Boot with the saved configuration. ZTF procedures are triggered. ISIS interfaces in passive mode not sending ISIS HELLO's, only processing incoming ISIS HELLO with an Area ID note equal to **`00.1515.fee1.900d.1515.fee1.900d`**.

Note: You can reach the fourth step by manually configuring the ISIS/SPBM with a manual-area equal to 00.1515.fee1.900d.1515.fee1.900d and enabling ISIS.

VII. Migration to a Release supporting Modified ZTF such as 7.1.3.0+ or 8.0.6.0+

a. From Pre-ZTF feature Release such as 6.1.6.0

The following considerations should be taken into account when upgrading to this release from a pre-ZTF release:

i. Check the ISIS manual area (show isis manual-area).
ii. Determine if the manual area equals 00.1515.fee1.900d.1515.fee1.900d.
iii. This is a normal Area ID before the upgrade. After the upgrade, ZTF procedures, as previously described, will be triggered.
- If the existing behavior is desired, the ISIS manual area used in the network needs to be changed to a different value. Note, if ISIS is the management network used to get to the node, it will not form an ISIS adjacency after the upgrade and not join the network. This will isolate the node. The changes to the manual area within the topology should be made before any upgrades are performed.

b. From a Release Running Legacy ZTF such as 7.1.2.0

The following considerations should be taken into account when upgrading to a release supporting Modified ZTF from a Legacy ZTF release.

- Check the ISIS manual area (show isis manual-area).
- Determine if the manual area equals 00.0000.0000 or is a 00 of any length.
- This Area ID triggered the ZTF procedures before the upgrade. After the upgrade, ZTF procedures, as previously described, will NOT be triggered.
- If the existing behavior is desired, replace the value of ISIS manual area with 00.1515.fee1.900d.1515.fee1.900d. Note, if ISIS is the management network used to get

to the node, it will not form an ISIS adjacency after the upgrade and not join the network. This will isolate the node. The change should be made before the upgrade.

- Determine if the manual area equals 00.1515.fee1.900d.1515.fee1.900d.
    - This is a normal Area ID before the upgrade. After the upgrade to a release implementing
- Modified ZTF, the ZTF procedures, as previously described, will be triggered.
- If this is not desired, replace the value of ISIS manual area with a different value. Note, if ISIS is the management network used to get to the node, it will not form an ISIS adjacency after the upgrade and not join the network. This will isolate the node. The change should be made before the upgrade.

NOTES FOR UPGRADE:

Please see “Release Notes for VSP Operating System Software (VOSS)” for software release 8.2.5 available at https://www.extremenetworks.com/support/release-notes for details regarding Known Limitations.

FILE NAMES FOR THIS RELEASE:

Virtual Services Platform 4400 Series

File Name	Module or File Type	File Size (bytes)
VOSS4400.8.2.8.0.sha512	SHA512 Checksums	1395
VOSS4400.8.2.8.0.md5	MD5 Checksums	476
VOSS4400.8.2.8.0.tgz	Release 8.2.8.0 archived software distribution	112348695
VOSS4400.8.2.8.0_mib.zip	Archive of all MIB files	1173422
VOSS4400.8.2.8.0_mib.txt	MIB file	7797308
VOSS4400.8.2.8.0_mib_sup.txt	MIB file	1413418
VOSSv820_HELP_EDM_gzip.zip	EDM Help file	4414827
restconf_yang.tgz	YANG model	506020

Virtual Services Platform 4900 Series

File Name	Module or File Type	File Size (bytes)
VOSS4900.8.2.8.0.sha512	SHA512 Checksums	1547
VOSS4900.8.2.8.0.md5	MD5 Checksums	532
VOSS4900.8.2.8.0.tgz	Release 8.2.8.0 archived software distribution	247878547
VOSS4900.8.2.8.0_mib.zip	Archive of all MIB files	1173422
VOSS4900.8.2.8.0_mib.txt	MIB file	7797308
VOSS4900.8.2.8.0_mib_sup.txt	MIB file	1436064
VOSSv820_HELP_EDM_gzip.zip	EDM Help file	4414827
restconf_yang.tgz	YANG model	506020
TPVM_7400_8.2.8.0.img	Third Party Virtual Machine (TPVM)	1677066240

Virtual Services Platform 7200 Series

File Name	Module or File Type	File Size (bytes)
VOSS7200.8.2.8.0.sha512	SHA512 Checksums	1395
VOSS7200.8.2.8.0.md5	MD5 Checksums	476
VOSS7200.8.2.8.0.tgz	Release 8.2.8.0 archived software distribution	126732577
VOSS7200.8.2.8.0_mib.zip	Archive of all MIB files	1173422
VOSS7200.8.2.8.0_mib.txt	MIB file	7797308
VOSS7200.8.2.8.0_mib_sup.txt	MIB file	1379657
VOSSv820_HELP_EDM_gzip.zip	EDM Help file	4414827
restconf_yang.tgz	YANG model	506020

Virtual Services Platform 7400 Series

File Name	Module or File Type	File Size (bytes)
VOSS7400.8.2.8.0.sha512	SHA512 Checksums	1705
VOSS7400.8.2.8.0.md5	MD5 Checksums	594
VOSS7400.8.2.8.0.tgz	Release 8.2.8.0 archived software distribution	247540644
VOSS7400.8.2.8.0_mib.zip	Archive of all MIB files	1173422
VOSS7400.8.2.8.0_mib.txt	MIB file	7797308
VOSS7400.8.2.8.0_mib_sup.txt	MIB file	1430261
VOSSv820_HELP_EDM_gzip.zip	EDM Help file	4414827
restconf_yang.tgz	YANG model	506020
TPVM_7400_8.2.8.0.img	Third Party Virtual Machine (TPVM)	1677066240
FabricIPSecGW_VM_2.05.qcow2	Fabric Ipsec Gateway Virtual Machine	2111307776

Virtual Services Platform 8200 Series

File Name	Module or File Type	File Size (bytes)
VOSS8200.8.2.8.0.sha512	SHA512 Checksums	1395
VOSS8200.8.2.8.0.md5	MD5 Checksums	476
VOSS8200.8.2.8.0.tgz	Release 8.2.8.0 archived software distribution	126734327
VOSS8200.8.2.8.0_mib.zip	Archive of all MIB files	1173422
VOSS8200.8.2.8.0_mib.txt	MIB file	7797308
VOSS8200.8.2.8.0_mib_sup.txt	MIB file	1379657
VOSSv820_HELP_EDM_gzip.zip	EDM Help file	4414827
restconf_yang.tgz	YANG model	506020

Virtual Services Platform 8400 Series

File Name	Module or File Type	File Size (bytes)
VOSS8400.8.2.8.0.sha512	SHA512 Checksums	1395
VOSS8400.8.2.8.0.md5	MD5 Checksums	476

File Name	Module or File Type	File Size (bytes)
VOSS8400.8.2.8.0.tgz	Release 8.2.8.0 archived software distribution	188271624
VOSS8400.8.2.8.0_mib.zip	Archive of all MIB files	1173422
VOSS8400.8.2.8.0_mib.txt	MIB file	7797308
VOSS8400.8.2.8.0_mib_sup.txt	MIB file	1379657
VOSSv820_HELP_EDM_gzip.zip	EDM Help file	4414827
restconf_yang.tgz	YANG model	506020

ExtremeAccess 1400 Series

File Name	Module or File Type	File Size (bytes)
VOSS1400.8.2.8.0.sha512	SHA512 Checksums	1395
VOSS1400.8.2.8.0.md5	MD5 Checksums	476
VOSS1400.8.2.8.0.tgz	Release 8.2.8.0 archived software distribution	322443275
VOSS1400.8.2.8.0_mib.zip	Archive of all MIB files	1173422
VOSS1400.8.2.8.0_mib.txt	MIB file	7797308
VOSS1400.8.2.8.0_mib_sup.txt	MIB file	1087469
VOSSv820_HELP_EDM_gzip.zip	EDM Help file	4414827

Extreme Switching 5520 Series

File Name	Module or File Type	File Size (bytes)
5520.8.2.8.0.sha512	SHA512 Checksums	1368
5520.8.2.8.0.md5	MD5 Checksums	453
5520.8.2.8.0.voss	Release 8.2.8.0 archived software distribution	103960474
5520.8.2.8.0_mib.zip	Archive of all MIB files	1173422
5520.8.2.8.0_mib.txt	MIB file	7797308
5520.8.2.8.0_mib_sup.txt	MIB file	1435650
VOSSv820_HELP_EDM_gzip.zip	EDM Help file	4414827
restconf_yang.tgz	YANG model	506020

Note about image download:

Ensure images are downloaded using the binary file transfer. Perform MD5 checksum check on downloaded files to ensure file integrity.

Check that the file type suffix is ".tgz" and the image names after download to device match those shown in the above table. Some download utilities have been observed to append ".tar" to the file name or change the filename extension from ".tgz" to ".tar". If file type suffix is ".tar" or file name does not exactly match the names shown in above table, rename the downloaded file to the name shown in the table above so that the activation procedures will operate properly.

Load activation procedures:

```
software add VOSS4400.8.2.8.0.tgz
software activate 8.2.8.0.GA
```

or

```
software add VOSS4900.8.2.8.0.tgz
software activate 8.2.8.0.GA
```

or

```
software add VOSS7200.8.2.8.0.tgz
software activate 8.2.8.0.GA
```

or

```
software add VOSS7400.8.2.8.0.tgz
software activate 8.2.8.0.GA
```

or

```
software add VOSS8200.8.2.8.0.tgz
software activate 8.2.8.0.GA
```

or

```
software add VOSS8400.8.2.8.0.tgz
software activate 8.2.8.0.GA
```

or

```
software add VOSS1400.8.2.8.0.tgz
software activate 8.2.8.0.GA
```

or

```
software add 5520.8.2.8.0.voss
software activate 8.2.8.0.GA
```

COMPATIBILITY:

This software release is managed with Enterprise Device Manager (EDM), which is integrated into the agent software.

CHANGES IN THIS RELEASE:

New Features in This Release

A new command provides statistics about CPP counters and CPP Receive Queue utilization (VOSS-21112):

"show khi performance rx-queue"

```
VSP-8404:1(config)#show khi performance rx-queue
-----------------------
CPP COUNTERS
-----------------------
FBUF COUNTERS
InUseFBuffs:                 0
FreeFBuffs:                  3072
…

PACKET COUNTERS:
…
PcapPktsRcvd:                 0
Ipv6PktsRcvd:                 35765
…

PACKET ERROR/DISCARD COUNTERS (non-zero counters only)
OutOfFbufErrors                  10555

NODE COUNTERS
pRxNodeList count:             0
pRxFreeList count:             0
…

CPP BUDGET COUNTERS
cppHardBudgetCount:  27224
cppSoftBudgetCount:  2407814
…

CPP QUEUE STATS:
…
CPP Priority Queue Num 1  Total Rx Queue Count:     3838168
CPP Priority Queue Num 1  Current Rx Queue Count:   0
CPP Priority Queue Num 1  Max Rx Queue Count:       2047
…
CPP Priority Queue Num 7  Total Rx Queue Count:     23530
CPP Priority Queue Num 7  Current Rx Queue Count:   0
CPP Priority Queue Num 7  Max Rx Queue Count:       2048

CPP Tx Queue Count:                         0
CPP Tx Max Queue Count:                     8
```

A new command provides information about IO resources (VOSS-16155):

"show io resources" with the following options:

l3_defip_count
l3_entry_count
res_mgr_bcast_show
res_mgr_filter_show
res_mgr_interface_show
res_mgr_mirror_show
res_mgr_model_stats
res_mgr_nlb_show
res_mgr_qos_grp_show
res_mgr_spbm_uni_detail
res_mgr_spbm_uni_show
vxlan_vtep_count

```
CHI-COR-A:1(config)#sho io resources l3-defip-count
********************************************************************************
                Command Execution Time: Tue May 11 16:44:28 2021 UTC
********************************************************************************

================================================================================
                                  L3 DEFIP TABLE
================================================================================
--------------------------------------------------------------------------------

L3_DEFIP Resource Manager Stats
L3_DEFIP total size: 15488
L3_DEFIP entries free: 15475
L3_DEFIP entries in use: 13
----------------------------
ipv4 routes static/dynamic 5
ipv4 routes local 27
ipv4 routes total 32
----------------------------
ipv6 routes static/dynamic 4
ipv6 routes local 0
ipv6 routes total 4
----------------------------
L3_DEFIP_128 total size: 0
L3_DEFIP_128 entries free: 0
L3_DEFIP_128 entries in use: 0


CHI-COR-A:1(config)#sho io resources l3-entry-count
********************************************************************************
                Command Execution Time: Tue May 11 18:09:37 2021 UTC
********************************************************************************

================================================================================
                                  L3 ENTRY TABLE
================================================================================
--------------------------------------------------------------------------------

L3_EGRESS Resource Manager Stats
L3_EGRESS table size: 48000
```

```
L3_EGRESS entries free: 47968
L3_EGRESS entries in use: 32
----------------------------
L3_EGRESS total ResMgr entries 32
L3_EGRESS reserved for SPBM VPs: 0
----------------------------

L3_ENTRY Resource Manager Stats
L3_ENTRY table size: 80000
L3_ENTRY entries free: 79912
L3_ENTRY entries in use: 88
----------------------------
L3_ENTRY ipv4 ARP dyn 32
L3_ENTRY ipv4 ARP local 75
L3_ENTRY ipv4 host routes 56
L3_ENTRY ipv4 total 163
----------------------------
L3_ENTRY ipv6 NBR dyn 0
L3_ENTRY ipv6 NBR local 0
L3_ENTRY ipv6 host routes 0

L3_ENTRY ipv6 total 0
----------------------------
L3_ENTRY ipv4 SGV 0
L3_ENTRY ipv6 SGV 0


CHI-COR-A:1(config)#sho io resources interface
********************************************************************************
                Command Execution Time: Tue May 11 18:14:16 2021 UTC
********************************************************************************

================================================================================
                                 INTERFACE TABLE
================================================================================
--------------------------------------------------------------------------------
8k interface resource Manager stats
-----------------------------------
 Total entries: 512
 Free entries:  476

Entries in use:

 Interface  VLAN/VRF   ID
   ip      1001
   …
   ip      4054
   dvr         1
l3vsn         0        1
l3vsn         0        2
l3vsn         0        3

CHI-COR-A:1(config)#sho io resources mirror
********************************************************************************
                Command Execution Time: Tue May 11 18:21:26 2021 UTC
********************************************************************************
```

```
================================================================================
                                MIRROR TABLE
================================================================================
--------------------------------------------------------------------------------
VSP8400 Mirror Resource Manager stats:
        1 unique mirror destinations allocated, system max is 4
--------------------------------------------------------------------------------
 Mirror      | Mirror    | Total | Mirror
 Destination | Direction | Refs  | Users
--------------------------------------------------------------------------------
 Port CPU    | Ingress   |   1   | ISIS IP Tunnel
--------------------------------------------------------------------------------

CHI-COR-A:1(config)#sho io resources model
********************************************************************************
               Command Execution Time: Tue May 11 18:26:57 2021 UTC
********************************************************************************

================================================================================
                             SLICE STATS SUMMARY
================================================================================
--------------------------------------------------------------------------------
BCM slice stats:
 ##     CAP Group / Table             Size   Total   In-use   Free    Mode
 --  ------------------------        ------  ------  ------  ------  -------
  1  ICAP Filter SEC group            large     512       0     512  Double
  2  ICAP Filter QOS group            small     256       0     256  Double
  3  ICAP Filter IPv6 group           large     512       0     512  Double
  4  ICAP QOS group                   small     256      93     163  Double
  5  ICAP Unknown Src Discard group   small     256     256       0  Single
  6  ICAP NLB & BCAST MAC group       small     256       5     251  Single
  7  ICAP NLB group                   small     200       0     200  Single
  8  ICAP ANYLAG group                small     256     256       0  Double
  9  ECAP Filter group                small     248       0     248  Double
 10  ECAP IPV6 Filter group           small     256       0     256  Double
 11  my_station TCAM table              N/A     512      36     476  N/A
 12  SWUNI VFI/VPN table                N/A    8189      23    8166  N/A
 13  SWUNI AVP table                    N/A   14336      21   14315  N/A
 14  SWUNI VLAN_XLATE table             N/A   16384      21   16363  N/A
 15  SWUNI EGR_VLAN_XLATE table         N/A   16384      23   16361  N/A
 16  L3_DEFIP table                     N/A   15488      13   15475  N/A
 17  L3_DEFIP_128 table                 N/A       0       0       0  N/A
 18  L3_ENTRY table                     N/A   80000      87   79913  N/A
 19  L3_EGRESS table                    N/A   48000      32   47968  N/A
 20  VXLAN VTEP table                   N/A     500       0     500  N/A

CHI-COR-A:1(config)#sho io resources spbm-uni-detail
********************************************************************************
               Command Execution Time: Tue May 11 18:42:29 2021 UTC
********************************************************************************

================================================================================
                           SPBM UNICAST DETAIL TABLE
================================================================================
--------------------------------------------------------------------------------
 SPBM UNI VPN/VFI Table:
==============================
```

```
----------------------------------------
   ISID   | VLANID | VRFID | NumOfEntries |
----------------------------------------
    23212 |  3212  |     0 |        1     |
   905001 |  3053  |     0 |        1     |
   …
   907003 |  3036  |     0 |        1     |
 16777001 |     0  |     0 |        1     |
----------------------------------------

 SPBM UNI AVP Table:
============================
----------------------------------------
   ISID   | VLANID | VRFID | NumOfEntries |
----------------------------------------
    23212 |  3212  |     0 |        1     |
   905001 |  3053  |     0 |        1     |
   …
   907003 |  3036  |     0 |        1     |
----------------------------------------

 SPBM UNI VLAN_XLATE Table:
==================================
----------------------------------------
   ISID   | VLANID | VRFID | NumOfEntries |
----------------------------------------
    23212 |  3212  |     0 |        1     |
   905001 |  3053  |     0 |        1     |
   …
   907003 |  3036  |     0 |        1     |
----------------------------------------

 SPBM UNI EGR_VLAN_XLATE Table:
====================================
----------------------------------------
   ISID   | VLANID | VRFID | NumOfEntries |
----------------------------------------
    23212 |  3212  |     0 |        1     |

   905001 |  3053  |     0 |        1     |
   …
   907003 |  3036  |     0 |        1     |
 16777001 |     0  |     0 |        1     |
----------------------------------------


CHI-COR-A:1(config)#sho io resources spbm-uni-show
*********************************************************************************
                Command Execution Time: Tue May 11 18:46:40 2021 UTC
*********************************************************************************

================================================================================
                                SPBM UNICAST TABLE
================================================================================
--------------------------------------------------------------------------------

SPBM UNI Resource Manager Stats
```

```
-----------------------------------------------------------
        | VFI/VPN |   AVP   | VLAN_XLATE | EGR_VLAN_XLATE |
-----------------------------------------------------------|
 Total  |  8189   |  14336  |   16384    |     16384      |
-----------------------------------------------------------|
 Free   |  8166   |  14315  |   16363    |     16361      |
-----------------------------------------------------------|
 In Use |    23   |     21  |      21    |        23      |
-----------------------------------------------------------|

CHI-COR-A:1(config)#sho io resources filter
*******************************************************************************
                Command Execution Time: Tue May 11 19:11:08 2021 UTC
*******************************************************************************

===============================================================================
                                  FILTER TABLE
===============================================================================
-------------------------------------------------------------------------------
ACL Filter Resource Manager stats
-------------------------------------------------------------------------------
 BCM CAP Group: | ICAP_SEC  | ICAP_QOS  | ICAP_IPv6 | ECAP_SEC  | ECAP_IPv6
    Group Mode: | Double    | Double    | Double    | Double    | Double
-------------------------------------------------------------------------------
 Total Entries: |     512   |     256   |     512   |     248   |     256
  Free Entries: |     507   |     255   |     512   |     248   |     256
        In Use: |       5   |       1   |       0   |       0   |       0
-------------------------------------------------------------------------------

 Filter table:
-----------------------------------------------------------------
  ACL |        |Port/Vlan|  Sec  |  QoS  |
  ID  | Flags  | Members | ACE's | ACE's | Type
-----------------------------------------------------------------
  105 |00002004|      1  |    4  |    0  | inVsn, non-IPv6
-----------------------------------------------------------------


CHI-COR-A:1(config)#sho io resources nlb
*******************************************************************************
                Command Execution Time: Tue May 11 18:53:18 2021 UTC
*******************************************************************************

===============================================================================
                                   NLB TABLE
===============================================================================
-------------------------------------------------------------------------------
8k NLB resource Manager stats
------------------------------
 Total entries: 200
 Free entries:  200

Entries in use:

 ip              VRF

CHI-COR-A:1(config)#sho io resources qos-group
```

New Features in This Release

```
********************************************************************************
                Command Execution Time: Tue May 11 18:54:25 2021 UTC
********************************************************************************

================================================================================
                              QoS GROUP USAGE TABLE
================================================================================
--------------------------------------------------------------------------------
QoS ICAP Group Resource Manager stats
--------------------------------------------------------------------------------
 Total Entries:    256
  Free Entries:    163
       In Use:     93
--------------------------------------------------------------------------------

 QoS Group Usage:
----------------------------------------------------------------
  User          |  Entry Count    High Water
----------------------------------------------------------------
 Base           |      73            73
 IPv4 FHS       |       6             6
 IPv6 FHS       |      14            14
----------------------------------------------------------------

CHI-COR-A:1(config)#sho io resources vxlan-vtep-count
********************************************************************************
                Command Execution Time: Tue May 11 18:56:20 2021 UTC
********************************************************************************

================================================================================
                                VXLAN VTEP TABLE
================================================================================
--------------------------------------------------------------------------------
VXLAN VTEP total size: 500
VXLAN VTEP entries free: 500
VXLAN VTEP entries in use: 0
```

Old Features Removed From This Release

None.

Problems Resolved in This Release	
VOSS-19914	Duplication of IP address of IP VLAN interface on multiple DvR controllers leads to stale backbone entries that cannot be removed
VOSS-20045	VSP7400-48Y-8C: 40Gb "Checksum Error"
VOSS-20116	Missing L3 HW Records for ARP and DVR host routes.
VOSS-20253	High CPU utilization at 75 – 80% for long periods if the IP more-specific-non-local-route feature is enabled

Problems Resolved in This Release	
VOSS-20349	Management Clip (172.16.X.X/32) lost after reboot (cold/warm) of the switch running in non-spbm mode.
VOSS-20415	Crash after SPB ISIS adjacency with a router (sending a different TLV 184) is formed
VOSS-20466	Both members of cluster rebooted due to dbSyncThread
VOSS-20481	EDM: while placing the cursor on the port, the port label show up incorrect
VOSS-20516	License - When revoke a license Gemalto server returns "Internal error" when doing bulk revocation
VOSS-20520	VSP4900 Ports 2+8n (2, 10, 18, 26....) frequently go down
VOSS-20664	VLACP sequence number mismatch on all NNI's
VOSS-20732	High SSIO tMainTask utilization while processing a large number of l3 vsn route add operations
VOSS-20736	NULL pointer dereference caused crash
VOSS-20764	VSP 7400: Switch is coring often while MAC flapping noted in logs
VOSS-20770	Rebooting the switch hangs while terminating processes
VOSS-20779	VRRP to DVR Conversion Caused about 80% Reachability Loss
VOSS-20890	Unicast packet duplication and flooding in fabric
VOSS-20891	Switch rebooted with core dump
VOSS-20892	25G Unable to establish link and FEC, high FCS errors also
VOSS-20893	While making a change to BGP the node rebooted with core file
VOSS-20895	VSP 4900 crash when specific LLDP packets expose a memory leak
VOSS-20896	Slow memory leak in cbcp-main.x due to processing rcIpInsertDhcpOption82 packets
VOSS-20897	VRRP not transitioning to backup
VOSS-20898	Ports 1/1 thru 1/23 all reset at same time and has occurred twice in as many days
VOSS-20899	VSP4450GSX - frequent silent resets and a core dump in 'bcmINTR' without backtrace
VOSS-20910	Software add/activate wouldn't complete when closing the session they were issued from
VOSS-20911	LLDP-MED not assigning ip phone to voice vlan
VOSS-20912	DVR: show command anomalies when IP address is max 15 characters long.
VOSS-20913	SSIO's tMainTask at 53% CPU during intensive SNMP polling
VOSS-20914	Default OSPF backbone areas created within VRF context are counted in the total OSPF areas, even when not in use, thereby reducing OSPF Area scaling limits
VOSS-20915	Switch reset with core file immediately after XMC saved config
VOSS-20916	VSP stopped responding to console and SSH
VOSS-20917	VSP8404 rebooted with core file
VOSS-20920	VSP 8404C rebooted by inserting line cards multiple times
VOSS-20921	Cannot configure 10.20.0.255 as NTP server
VOSS-20922	Frame buffer oversubscription with a large number of ISIS adjacencies mitigated by staggering LSPs
VOSS-20923	Traffic sourced from CLIP starts taking non GRT VRF default route when a L3-vsn added to the VRF
VOSS-20925	Mellanox QSFP+ to SFP+ adaptor not reporting correct DDI values
VOSS-20926	Sflow Task ~30% higher CPU utilization after upgrade
VOSS-20929	VSP7400 SSIO crash with DMA is getting locked because of lost MSI interrupts.
VOSS-20937	VSP7400 switch rebooted with backtrace

Problems Resolved in This Release	
VOSS-21009	VSP8404 7.1.0.0 cored due to Memory reached critical level
VOSS-21018	VSP 8400: ARP refreshing for devices on single home MLTs generating DVR TLV messages
VOSS-21099	VSP7400 stopped working - before outage memory utilization went up
VOSS-21112	Port "sh-execute cpps" to CLI to "show khi performance rx-queue"
VOSS-21146	VSP7254: After upgrading to 8.1.9.0, except port 2/2 all other slot 2 ports are not even detecting the GBIC
VOSS-21284	EDM Incorrectly displays port name as 1/1 : Mgmt-oob 1
VOSS-21296	VSP 7400 : Rebooted with incomplete core dumps
VOSS-21468	OOM crashes & MIIM crashes driven by rapid MAC address movement

Fixes from Previous Releases
VOSS 8.2.8.0 incorporates all fixes from prior releases, up to and including VOSS 7.1.7.0, VOSS 8.0.9.0 and VOSS 8.1.9.0.

OUTSTANDING ISSUES:

Please see “Release Notes for VSP Operating System Software (VOSS)” for software release 8.2.5 for details regarding Known Issues.

VOSS-19471	DVR: Backbone host entry may be incorrectly removed from other DVR domains when a DVR controller in the local domain is taken down. The host entries will be repopulated when the down controller is recovered. Workaround: Clear dvr host entries in the remaining DVR controller in the local domain using this command: *clear dvr host-entries ipv4 <IP> l3isid <I-SID>* or *clear dvr host-entries l3isid <I-SID>* - this could be disruptive in the local domain
VOSS-20030	An interaction between DVR host learning and wireless solutions configured with proxy-ARP and bridging at the AP may create instability within the DVR domain due to specific combinations of roaming events and topology factors. This interaction is exposed when a client roams between AP’s connected to different BEB’s and both AP’s momentarily respond for the client IP on both BEB’s (host duplication). These interactions can be avoided by using VRRP instead of DVR for wireless segments.
VOSS-20291	XA 1400: FE interface in decoupled mode is failing to come up if IP compression is added along with Frag-before-encrypt flag. Workaround: The IPSec compression cannot be used in the same time with IPsec frag-before-encryption. If you have both enable on the logical interface, disable one of them in order to avoid the issue
VOSS-20258	XA1440: EDM: IP Compression is not editable from EDM Workaround: use CLI to configure
VOSS-21087	After duplicates hosts are resolved a traffic loss for some hosts may occur Workaround: Clear the dvr host for each impacted individual host entry using this command in the domain in which the host resides: *clear dvr host-entries ipv4 <IP> l3isid <I-SID>*

VOSS-21358	Extended presence of a duplicate host may lead to a DP-CP discrepancy on controllers in other domains after the duplicate is resolved. This may impact traffic originating in the other domains towards the impacted host

KNOWN LIMITATIONS:

Please see “Release Notes for VSP Operating System Software (VOSS)” for software release 8.2.5 available at https://www.extremenetworks.com/support/release-notes for details regarding Known Limitations.

Regular cleanup of unneeded files on USB drives is recommended to minimize possibility of USB corruption when a system is reset, shut down, or power is lost.

DOCUMENTATION CORRECTIONS:

For other known issues, please refer to the product release notes and technical documentation available at: https://www.extremenetworks.com/support/documentation.

GLOBAL SUPPORT

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For the toll-free support number in your country:
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By Web: www.extremenetworks.com/support/

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San Jose, CA 95119

For information regarding the latest software available, recent release note revisions, or if you require additional assistance, please visit the Extreme Networks Support website.