# Virtual Services Platform 9000 Software Release 3.4.1.0

## 1.  Release Summary

Release Date:  February 2014
Purpose:        Software release to address customer found software issues.

## 2.  Important Notes before Upgrading to This Release

None.

## 3.  Platforms Supported

Virtual Services Platform 9000 (all models)

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## 4.  Special Instructions for Upgrade from previous releases

None.

## 5. Notes for Upgrade

Please see "*Virtual Services Platform 9000, Release Notes*" for software release 3.4.0.2 (NN46250-401, 05.04) available at http://www.avaya.com/support for details on how to upgrade your Switch.

## File Names For This Release

| File Name | Module or File Type | File Size (bytes) |
|---|---|---|
| VSP9K.3.4.1.0.tgz | Release 3.4.1.0 archived software distribution | 114721634 |
| VSP9K.3.4.1.0_modules.tgz | Release 3.4.1.0 Encryption Modules | 41897 |

### Note about image download:

Ensure images are downloaded using the binary file transfer.

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 procedure:**
software add VSP9K.3.4.1.0.tgz
software add-modules 3.4.1.0.GA VSP9K.3.4.1.0_modules.tgz
software activate 3.4.1.0.GA

## 6. Version of Previous Release

Software Version 3.4.0.2

## 7. Compatibility

### SPB Multicast Interoperability

See details in New Feature in this Release Section.

### EDM Firefox Interoperability

Firefox version 27 does not interoperate with EDM.  Use earlier compatible browsers versions.

## 8. Changes in 3.4.1.0

### New Features in This Release

Compatibility support for VSP 4K multicast over SPB interoperability

### Multicast BEB Interoperability
- ▸ VSP 9000 release 3.4.1.0 as a Multicast BEB interoperates with the following
    - Multicast BEB: ERS8800 release 7.2.0.0 or later
    - Multicast BEB: VSP9000 release 3.4.0.0 or later
    - Multicast BEB: VSP4000 release 3.1.0.0 or later
    - BCB: All except ERS8800 release 7.1.x
- ▸ If the Ingress BEB is a VSP 9000
    - Minimum TTL=1 for UNI → NNI IP Multicast traffic
    - UNI → NNI Traffic will NOT be dropped if the TTL = 1
- ▸ Please note that the Ingress Multicast BEB will not modify the TTL on any product or release.

### General TTL Handling Behavior
- ▸ For UNI → UNI Traffic if the TTL is 1
    - If the ingress and egress vlans are the same traffic will be allowed.
    - If the ingress and egress vlans are not the same traffic will be dropped.
- ▸ For NNI → UNI Traffic if the TTL is 1
    - Traffic will be allowed if the VSN has "igmp snooping" enabled
    - Traffic will be dropped if the VSN has "spb ip-multicast" enabled
- ▸ TTL will not be decremented for
    - UNI → NNI traffic
    - NNI → UNI traffic if the L2VSN has "igmp snooping" enabled
    - UNI → UNI traffic if the ingress and egress vlans are the same
- ▸ TTL will be decremented for
    - NNI → UNI traffic if the VSN (includes GRT) has "spb ip-multicast" enabled.
    - UNI → UNI traffic if the ingress and egress vlans are not the same

### VSP 9000 Behavior Changes:
Multicast BEB L2VSN IP Multicast Traffic : TTL=1

- ▸ Traffic is dropped on the Egress BEB if all of the conditions below are met
  - A L2VSN has IGMP snooping enabled
  - Sender is connected to the SPB Network via a BEB that is either ERS8800 7.2.11.0 or VSP9000 3.4.1.0
  - Receiver is connected to the SPB Network via a BEB that is either ERS8800 prior to 7.2.11.0 or VSP9000 prior to 3.4.1.0
  - Traffic arrives at SPB Network ingress with TTL=1
- ▸ Such traffic would not be dropped for any other combinations of ERS8800/VSP9000 releases.

Multicast BEB ERS8800/VSP9000: Routed Multicast : TTL=1
- ▸ Traffic is dropped on the Egress BEB if all of the conditions below are met
  - Routed multicast (spb ip-multicast) is enabled on a L2VSN
  - Either the Sender or the Receiver is connected to the SPB Network via either ERS8800 7.2.11.0 or VSP9000 3.4.1.0
  - Receiver is on the same L2VSN as the Sender
  - Traffic arrives at SPB Network ingress with TTL=1
- ▸ In previous releases traffic would not be dropped for such a combination of (Sender, Receiver, TTL)

Multicast BEB ERS8800/VSP9000: Routed Multicast TTL Decrement
- ▸ TTL is decremented on the Egress BEB if all of the conditions below are met
  - Routed multicast (spb ip-multicast) is enabled on a L2VSN
  - Either the Sender or the Receiver is connected to the SPB Network via either ERS8800 7.2.11.0 or VSP9000 3.4.1.0
  - Receiver is on the same L2VSN as the Sender
- ▸ In previous releases TTL would not be decremented for such a combination of (Sender, Receiver)

## Old Features Removed From This Release

No features removed from this release.

## Problems Resolved in This Release

| ID | Description |
|---|---|
| wi01117528 | Crash seen while executing CFM CMAC-l2 traceroute <ip-address> |
| wi01131449 | Following messages seen in log when invalid MIB get for non-existent ports.<br><br>IO5  [09/05/13 03:30:48.655] 0x0011052a 00000000 GlobalRouter COP-SW ERROR lcdPimPortToMac: invalid PIM_PORT[63]<br>IO5  [09/05/13 03:30:48.655] 0x0011052a 00000000 GlobalRouter COP-SW ERROR lcdPimPortToMacPort: invalid PIM_PORT[63]<br>IO5  [09/05/13 03:30:48.655] 0x0025c554 00000000 |

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| | GlobalRouter COP-SW ERROR cb_sw_port_get_stats error: wrong unit[4] |
| wi01133761 | IP redirect next-hop filter is not remarking the ingress DSCP value or dot1q correctly at the egress |
| wi01137524 | Configuring CP-limit on port 9/1 will incorrectly configure CP-limit on management port 1/1 - causing invalid config to load |
| wi01137529 | Newly created VLANs with VRF's and ISIDs do not have the routing bit set. |
| wi01137534 | SPBM L2VSN connectivity issue due to broadcast traffic (i.e. Arp requests) not being transmitted out an MLT port that has ISIS enabled on it. Issue would only be seen if ports were added to the MLT after ISIS was enabled on the MLT. |
| wi01137858 | ISIS IP route metric reset to one with disabled route-policies |
| wi01140262 | BGP peer groups for VRFs are not saved correctly in config file. "ip bgp" statement is missing |
| wi01140600 | Allow dynamic change of lacp timeout scale value |

| wi01140900 | Application connectivity issues with following log messages observed.<br><br>COP-SW ERROR K2-0 Zag-1 PMM Error Ext Adr = 0x1010, Data = 0x80010000<br><br>Frame Error and Exception drops incrementing in "show khi forwarding rsp" output.<br><br>CB-70:1#show khi forwarding rsp 5<br><br>[data omitted for brevity]<br><br>-----------------------------------------------------------------------------<br><br>Health Indicator    Ports 5-8    Ports 13-16    Ports 21-24<br><br>-----------------------------------------------------------------------------<br><br>LSM<br>Drops    3862420    3863299    3863454<br><br>Exception Drops    478    0    0<br><br>Frame Error Drops    472    0    0 |
|---|---|
| wi01141033 | A discovered I-sid incorrectly labelled as local |
| wi01141051 | MIB attribute for spbm nickname is displayed differently than CLI and EDM |
| wi01141461 | Hide the following unsupported ipv6 filters commands.<br><br>1.pkt type filter in:<br>filter acl  type<br><br>2. ipv6 filter in:<br>filter acl ace<br><br>3. ipv6 filter in:<br>show filter acl |
| wi01143196 | Failed RSP Microcode ERROR resulted in invalid SMLT forwarding. |

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| wi01145272 | VRRP was not working over NNI. |
| wi01147016 | Deleting vlan while CFM is enabled may cause standby CP to crash. |
| wi01148566 | FAN speed on 9010 chassis may be stuck at higher speeds than necessary on bootup. |
| wi01151658 | Holddown time of ISIS adjacency did not get reset properly after bouncing MLT links multiple times. |

### 10. Outstanding Issues

Please see "*Virtual Services Platform 9000, Release Notes* release 3.4.0.2" (NN46250-401, 05.04) available at http://www.avaya.com/support for details regarding Known Issues.

In addition, the following issues have been identified:

| ID | Problem Description | Workaround |
|---|---|---|
| wi01133152 | When port membership of an MLT is changed the MSTP spanning tree state is enabled for the MLT regardless of its previous state. That is, configure for any port in the mlt<br><br>   no spanning-tree mstp force-port-state enable<br>and<br>   show spanning-tree mstp port role<br>shows spanning tree disabled and port state forwarding for each port in the mlt.<br>Now add a port to the mlt, or delete one.<br> show spanning-tree mstp port role<br>spanning tree is now enabled for each port in the mlt. | Delete MLT member ports from the MLT and re-add the MLT member ports back to the MLT |
| wi01134134 | ACL filter "default" deny action with "permit" control-packet-action not working after line card power off/on. | Once in the bad state, simply re-keying in<br>"filter acl set 30 default-action deny control-packet-action permit" restores the functionality. |
| wi01135195 | "show filter acl log" doesn't allow multiple port input as documentation states.<br>show filter acl log {slot/port[-slot/port][,...]} [<1–2048>] [<1–2000>]<br><br>Only "show filter acl log slot/port" is allowed. | No work around.  Issue command for each port desired. |
| wi01135592 | When ip mroute stats is enable via EDM, "PktsPerSecond" count is always showing zero. | Display properly by performing "**show ip mroute stats**" on ACLI. |
| wi01136699 | syslog with ip-header-type circuitless-ip not working. | Use syslog with the default management interface ip address. |

| wi01152560 | ISIS adjacency over the IST port comes down and does not get re-established automatically when the IST is deconfigured. | The configuration of SMLT peer-system-id and SMLT virtual BMAC is tied to having a valid IST configuration on the switch. Deletion of IST on a switch running SPBM is a service impacting operation and the following procedure must be followed when doing so. |
|---|---|---|

The configuration of SMLT peer-system-id and SMLT virtual BMAC is tied to having a valid IST configuration on the switch. Deletion of IST on a switch running SPBM is a service impacting operation and the following procedure must be followed when doing so.

- Disable ISIS
- Clear the SMLT peer system-id
- Clear the SMLT Virtual BMAC
- Delete the IST peer configuration
- Enable ISIS and
- Bounce the ports that are/were part of the IST MLT.

Here is an example session output following this procedure.

```
/* disable ISIS */
CB15:1(config)#no router isis enable
WARNING:Disable ISIS will cause traffic disruption
Do you want to continue (y/n) ? y

/* Clear the SMLT peer system-id */
CB15:1(config)#router isis
CB15:1(config-isis)#spbm 1 smlt-peer-system-id 0000.0000.0000

/* Clear the SMLT Virtual BMAC */
CB15:1(config-isis)#spbm 1 smlt-virtual-bmac 0x00:0x00:0x00:0x00:0x00:0x00
CB15:1(config-isis)#exit

/* delete IST peer configuration */
CB15:1(config)#interface mlt 2
CB15:1(config-mlt)#no ist enable
WARNING : Disabling IST may cause loop in the network!
Do you really want go DISABLE IST  (y/n) ? y
CB15:1(config-mlt)#no ist peer-ip
CB15:1(config-mlt)#exit
```

| | | /* enable isis */<br>CB15:1(config)#router isis enable<br><br>/* At this point, the interface still needs to be bounced */<br>CB15:1(config)#interface gigabitEthernet 10/17<br>CB15:1(config-if)#shut<br>CB15:1(config-if)#no shut |
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## 11.  Known Limitations

Please see "*Virtual Services Platform 9000, Release Notes* release 3.4.0.2" (NN46250-401, 05.04) available at http://www.avaya.com/support for details regarding Known Limitations.

MLT configuration recommendation:
MLT is designed for redundancy/robustness for when components/subsystems that comprise the network fail. To take advantage of this, it is suggested that MLT links span different IO cards so that if there is a failure on a card it only takes down one MLT link and the others continue to operate normally.  If there are more MLT ports required on a single card, then those links should reside in different "slices" on a given card.   A "slice" is a grouping of ports that are handled by a single forwarding engine on the IO card.

For 24x10G card, a "slice" is grouping of eight ports, and for 48x1G it is a grouping of 24 ports. For MLT links on the same 10G card, they should span different "slices", or groups of eight ports, i.e. 1-8, 9-16, 17-24. For MLT links on the same 1G card, they should span different "slices", or groups of 24 ports, i.e. 1-24, 25-48.

You may have to wait up to 30 seconds between subsequent "show pluggables" commands to give time for pluggable information to be refreshed.

New external flash devices come with a FAT16 format. While this appears to work correctly when inserted into a 9080CP card, there is an incompatibility issue when there are more than 169 log files created. The incompatibility will cause the logging mechanism to stop writing any new log files. To correct this issue you need to reformat any new flash device after it has been inserted into the 9080CP with the "dos-format" ACLI command as explained in the document:  "CP Module Compact Flash Replacement".

VSP 9000 Power Supply LEDs are in a non-deterministic state when the CP Power Supply indicator is lit RED indicating fault.  There will be log messages indicating the Power Supply fault event but the PS LEDs may be RED, GREEN or OFF.

IPFIX is not supported on ISIS interfaces.  Log messages such as the following will start filling up the log files:

IO3  [10/25/13 13:58:50.722] 0x0001c68d 00000000 GlobalRouter HW ERROR getSlotIdFromLpid: LPID (2868) is not associated with a slot!

IO3  [10/25/13 14:02:30.791] 0x000005e0 00000000 GlobalRouter SW ERROR Invalid LPID: 2904 for getPimPortFromLpid conversion!!!

## 12.  Documentation Corrections

For other known issues, please refer to the product release notes and technical documentation available from the Avaya Technical Support web site at: http://www.avaya.com/support .