

Virtual Services Platform 9000 Software Release 4.1.2.0

1. Release Summary

Release Date: May 2016

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)

4. Special Instructions for Upgrade from previous releases

None.

5. Notes for Upgrade

Please see “*Virtual Services Platform 9000, Release Notes*” for software release 4.1.0.0 (NN46250-401) 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.4.1.2.0.tgz	Release 4.1.2.0 archived distribution	176745963
VSP9K.4.1.2.0_modules.tgz	Encryption modules	41899
VSP9K.4.1.2.0_mib.zip	Archive of all MIB files	825195
VSP9K.4.1.2.0_mib.txt	MIB file	5490981
VSP9K.4.1.2.0_mib_sup.txt	MIB file	957849
VSP9000v410_HELP_EDM_gzip.zip	EDM Help file	3882169
VSP9K.4.1.2.0.md5	MD5 Checksums	586

VSP9K.4.1.2.0.sha512	SHA encryption	1546
VSP9000v4.1.0.0.zip	EDM WAR plugin for COM	5656346

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 procedure:

```
software add VSP9K.4.1.2.0.tgz
software add-modules 4.1.2.0.GA VSP9K.4.1.2.0_modules.tgz
software activate 4.1.2.0.GA
```

6. Version of Previous Release

Software Version 3.4.x.x, 4.0.0.0, 4.0.1.0, 4.0.1.1, 4.0.1.2, 4.1.0.0, 4.1.1.0

7. Compatibility

8. Changes in 4.1.2.0

New Features in This Release

None

Old Features Removed From This Release

None

Problems Resolved in This Release

Issue Number	Issue Description
VSP9000-477	Stale entries in the MAC database, added during the MAC learning activity on port 3/1, can cause high memory utilization in the IO modules. This may lead to all IO modules in all the slots except slot 3 to eventually reset.

VSP9000-574	Intermittent traffic loss on ISID traffic on Gen-2 IO modules, after HA failover.
VSP9000-569	Traffic loss seen for traffic flowing from GEN1 UNI ports to GEN2 NNI ports after reset of GEN1 IO module.
VSP9000-494	While executing “show logging file tail”, the log server process may crash resulting in the log not being displayed correctly until the logserver is restarted manually. Other management functions are not affected.
VSP9000-492, VSP9000-520	On some occasions multicast traffic loss is observed on a specific lane of the 9024XL IO module due to lane lock up. A detection and recovery mechanism has been implemented to address the lock up. Log entry “Slice <no> Zag <no> RE PLC Underflow Error Detected and Recovered” is displayed after the recovery routine clears the issue. If this recovery logic is triggered more than 10 times per minute or more than 100 times a day, the log entry is suppressed to prevent the logs from filling up.
VSP9000-523	SNMP GET EXACT requests on the ospfLsdbTable may cause system reset.
VSP9000-530	The SPB IPVPN default route can be lost from the hardware records of already operational IO modules when a new IO module is inserted into the chassis or is reset. This can be recovered by disable/enable of IPVPN for that VRF.
VSP9000-466, VSP9000-522, VSP9000-525	On Gen-2 IO modules, if traffic enters on one NNI port in L2VSN, and the traffic has to be routed out a different NNI in the same L2VSN using the default route, traffic is incorrectly dropped by the datapath.
VSP9000-540	Robustness fix for Radius and TACACS authentication to block non-admin/non-RWA access to EDM.
VSP9000-506	Continuous SSH sessions from scanning tools may sometimes prevent additional SSH connections from establishing.
VSP9000-495	On Gen-2 IO modules, High MAC and ARP activity may cause high sustained CPU utilization on IO modules and may result in spotty traffic loss and network sluggishness.

VSP9000-541	Routed traffic loss may be seen when an IO module is inserted/power-cycled, if the newly inserted module does not have any port belonging to a particular VLAN.
VSP9000-526	Inter-VRF pings from the GRT to remote VRF addresses may fail or the system may consider these pings as local and respond to it, leading to reachability issues.
VSP9000-546	Backup with COM/BCM using SCP cannot be done when access policies are enabled globally.
VSP9000-552	Port mirroring does not work when port 3/1 on a Gen-2 IO module is mirrored to another port. No issues are seen when 3/1 is the monitor port.
VSP9000-561	Ingress broadcast/multicast traffic on the UNI port in L2VSN of a Gen-2 IO module may not be forwarded out of NNI port in the same L2VSN, if the egress NNI port is on a different slot.
VSP9000-554	If ingress traffic on port 3/1 of a Gen-2 IO module has to be forwarded out on NNI uplinks, the traffic is incorrectly dropped by datapath.
VSP9000-515	The system may reset due to buffer exhaustion caused by stale entries in the ARP request list.
VSP9000-555	A CPU switchover may cause stale default routes to be added to the Standby CPU. In the next switchover, the new master will fail to install all the hardware records to the IO modules due to the stale entries. This may result in IST not coming up.
VSP9000-527	<p>The following error messages have been removed since they were not function impacting.</p> <p>IO5 [02/11/16 01:38:14.689] 0x0017057d 00000000 GlobalRouter COP-SW ERROR K2-2 Zag-0 I/F Status Error Addr = 0x38, Data = 0x10000000</p> <p>A new MIB and CLI counter has been added in the output of the “show khi forwarding zagros” to keep track of these errors.</p>
VSP9000-553	Traffic loss may occur after CPU switchover due to the missing routes which were added by ARP across the SPB cloud in a L2VSN.

VSP9000-575	When a subset of ECMP paths for a route are deleted from a GEN2 card, traffic ingressing the GEN2 card may not be forwarded via the remaining ECMP paths.
VSP9000-562	After software system reset, the ports of Gen-2 IO modules may continue to be operationally down. IO card reset or hardware system reset will recover the ports.
VSP9000-586	When L3 VSN is configured in a SPBM network, addition and deletion of VRF routes on L3 VSN caused memory depletion.
VSP9000-565	When ARP broadcast requests are forwarded to IST peer continuously, the Gen-2 IO cards on the IST peer experience high CPU and memory utilization. This may cause the IO modules to eventually reset.
VSP9000-572	On systems running with scaled SPB configurations, reset may occur while executing "show fulltech".
VSP9000-589	System may reset when BGP is enabled in a VRF with VRF-ID greater than 400.

9. Outstanding Issues

Please see "Virtual Services Platform 9000, Release Notes" for software release 4.1.0.0 (NN46250-401) available at <http://www.avaya.com/support> for details regarding Known Issues.

10. Known Limitations

The following issues have not been introduced in the 4.1.2.0 software version. These are pre-existing and may be seen in prior software versions.

Issue Number	Issue Description	Work Around
VSP9000-512	Users may experience issues with SSH/telnet/ftp, when continuously running advanced and PCI DSS scans.	With rlogin disabled (command – no boot config flag rlogind) the issue will not be seen.
VSP9000-551	Incoming broadcast traffic on a RSMLT Gen-2(only) NNI interface to be Inter ISID routed gets sent to the CP for forwarding instead of being forwarded in the datapath. This would result in high CPU utilization and some traffic loss.	

VSP9000-560	ARP packets which arrive via SMLT port are modified before they are sent across to the IST peer. These special ARPs arrive on the IST peer on a best effort queue unlike the regular ARPs. Congestion on IST links may cause dropping of these special ARP packets along with other best effort traffic.	Work around: Increase IST MLT bandwidth if IST links are under high load.
VSP9000-563	When the switch is acting as BCB, it changes the ether type for CFM from 0x88a8 to 0x8100.	
VSP9000-564	When PCAP is disabled globally but not at the port level, CPU utilization goes high on the Standby.	Customer is recommended to disable PCAP at the port level whenever it is disabled globally. CLI displays a warning message to remind the user of this.
VSP9000-568	In a HA enabled chassis, during HA failover, the following error message may be seen on the new standby CPU. CP2 [04/12/16 14:54:43.638:UTC] 0x000b45ba 00000000 GlobalRouter SW ERROR rtmChangeListSyncCallback: vrfid: 0 received entry can't be located dst 172.55.121.0/ 255.255.255.0 owner 5 num_hops = 1 cl_type type=2 cl mask =512 No traffic loss is observed and the records on software and hardware tables were correct.	
VSP9000-581	Constant stream of ARP broadcast traffic over NNI coming into one of the nodes of an IST cluster causes high CPU utilization on all the Gen-2 IO modules of its peer. This may result in protocol instability and network connectivity issues.	
VSP9000-596	When an ARP request is received over Gen-2 NNI on an IST cluster, the node may incorrectly forward the ARP, not intended for it, to the CPU.	
VSP9000-597	Datapath forwarding entries of static routes with next-hop as VRRP IP might get corrupted when we toggle VRRP backup master.	

VSP9000-598	<p>Removing a port from the IST MLT increases the MGID usage. When this usage reaches 100, the following log message is generated.</p> <p>"CP1 [05/02/16 18:01:48.400:UTC] 0x001f45ef 00000000 GlobalRouter SPBM ERROR Exceeded NNI MGID scaling number"</p>	<p>This does not have any functional impact. The ERROR message will be changed to INFO message in future releases.</p>
VSP9000-599	<p>When ECMP is enabled on ISIS routes and the route preference is changed, the ECMP routes are not getting re-installed.</p>	<p>Changing the route preference to the previous value re-installs the routes. The system can also be rebooted to fix this.</p>
VSP9000-536	<p>When many data packets are sent to the CPU for heavy processing, a high CPU utilization condition may occur which results in the system transmitting 9x as many VRRP PDUs than the expected rate.</p>	
VSP9000-600	<p>On a scaled system, learning a large number of OSPF/BGP/RIP routes re-distributed to ISIS routes may cause high CPU utilization on Gen-2 IO modules. This may lead to protocol instability and network connectivity issues.</p>	

Please see "Virtual Services Platform 9000, Release Notes" for software release 4.1.0.0 (NN46250-401) available at <http://www.avaya.com/support> for more details regarding Known Limitations.

Non Issues:

Issue Number	Issue Description	Work Around
VSP9000-521	<p>In order to support square mesh topology for PIM-SM, "multicast smlt-square" configuration setting must be enabled on all four switches.</p>	<p>This is working as designed.</p>

VSP9000-529	Default route does not get redistributed over ISIS when the route preference is configured to value 4	This is working as designed. Workaround : When route preference is set to any value <0-255> other than 4, the issue will not be seen.
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11. 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> .

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