Release Notes for SF250, SG250, SF350, SG350, SG350X, SG350XG, SF550X, SG550X, and SG550XG Series Switches Software Version 2.2.5.68

August 30, 2016

These Release Notes describe the recommended practices and known issues that apply to software version 2.2.5.68 for the products listed in the following table:

Model	Description	Ports
SF250-48	SF250-48 48-Port 10/100 Smart Switch	fa1-fa48, gi1-gi4
SF250-48HP	SF250-48HP 48-Port 10/100 PoE Smart Switch	fa1-fa48, gi1-gi4
SG250-10P	SG250-10P 10-Port Gigabit PoE Smart Switch	gi1-gi10
SG250-26	SG250-26 26-Port Gigabit Smart Switch	gi1-gi26
SG250-26HP	SG250-26HP 26-Port Gigabit PoE Smart Switch	gi1-gi26
SG250-26P	SG250-26P 26-Port Gigabit PoE Smart Switch	gi1-gi26
SF350-48	SF350-48 48-Port 10/100 Managed Switch	fa1-fa48, gi1-gi4
SF350-48P	SF350-48P 48-Port 10/100 PoE Managed Switch	fa1-fa48, gi1-gi4

Model	Description	Ports
SF350-48MP	SF350-48MP 48-Port 10/100 PoE Managed Switch	fa1-fa48, gi1-gi4
SG350-10	10-Port Gigabit Managed Switch	gi1-gi10
SG350-10P	10-Port Gigabit PoE Managed Switch	gi1-gi10
SG355-10P	10-Port Gigabit PoE Managed Switch	gi1-gi10
SG350-10MP	10-Port Gigabit PoE Managed Switch	gi1-gi10
SG350-28	28-Port Gigabit Managed Switch	gi1-gi28
SG350-28P	28-Port Gigabit PoE Managed Switch	gi1-gi28
SG350-28MP	28-Port Gigabit PoE Managed Switch	gi1-gi28
SG550XG-8F8T	16-Port 10G Stackable Managed Switch	te1-te16
SG550XG-24T	24-Port 10GBase-T Stackable Managed Switch	te1-te24
SG550XG-48T	48-Port 10GBase-T Stackable Managed Switch	te1-te48
SG550XG-24F	24-Port 10G SFP+ Stackable Managed Switch	te1-te24
SG350XG-24F	24-Port 10G SFP+ Stackable Managed Switch	te1-te24
SG350XG-24T	24-Port 10GBase-T Stackable Managed Switch	te1-te24
SG350XG-48T	48-Port 10GBase-T Stackable Managed Switch	te1-te48
SG350XG-2F10	12-Port 10G Stackable Managed Switch	te1-te12

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What's New in this Release

This release includes the following new features and updates:

- Internet Small Computer System Interface (iSCSI) traffic optimization—Applies a specific service profile to iSCSI flows that are received on device interfaces. This functionality provides the ability to prioritize and "mark" this traffic according to a user definition. The switch detects iSCSI flows, as defined by a user, and assigns these flows with defined VPT, DSCP, and queue settings. iSCSI is identified by the TCP port on which iSCSI targets listen-to requests, and optionally by the IPv4 address on which iSCSI targets listen-to requests.

- IP SLA object tracking for VRRP—A mechanism that uses SLA operations to track the connectivity to VRRP master router default route next hop. If connectivity to NH is lost, master router VRRP priority is decremented, which allows backup routers with a priority that is higher than the decremented value to take over and become the master router. This functionality allows connectivity to NH via the new selected master router. This mechanism is needed when using static routing, but not when using RIP or another dynamic routing protocol.

- SSL enhancements—Including upgrade to OpenSSL to version 1.0.1.s, removal of weak ciphers (less than 64 bits and export ciphers), and removal of support for SSLv3 and TLSv1.0.

- Single image support —The same software image file is used for all devices that support this software release. (In previous releases, there were two separate software images, one for the SG550XG and SG350XG devices and one for other SKU types.)

- Hybrid stack mode support—Supports the deployment of Sx350X devices with SG350XG devices in the same stack, and the deployment of Sx550X

devices with SG550XG devices in the same stack. In a hybrid stack, features and tables are supported only if both device models support them. Table sizes are set according to the lowest table size between device types in a stack.

To downgrade a device from version 2.2.5.x to a previous versions (2.2.0.x or lower), the device must be set to native mode.

- PoE power consumption history—Support is provided for tracking and displaying PoE port consumption values (in watts) over time. This functionality allows you to calculate and display average PoE consumption over specified time period (day, week, or month) so that you can detect trends.

- Green Ethernet and PoE energy savings—Provides information about energy saved by a switch due to green Ethernet, LED disable, inactive ports (including ports down during off time based on time range), and shutdown of PoE to ports during off time (based on time range)

- Smart Network Application (SNA)—An application that assists you with management tasks for you network. The application shows you an overview of the network topology, including detailed monitoring information for devices and traffic. SNA also lets you globally view and modify configurations on all supported devices in the network.

- Display of unknown NAS authentication failure on RADIUS server—Added the **show radius server unknown nas** command, which displays RADIUS requests that are received from unknown NAS devices.

Issues Resolved

Software version 2.2.5.68 resolves the following bugs:

- CSCux77654—Egress ACL cannot be applied to an interface if ACE includes TCP/UDP Port range as a parameter.

- CSCux77675—Aggregate policer QoS statistic always display value of 0 for both in and out of profile counters.

- CSCuy97777—After reload, the actual spanning tree cost of port-channel is different than running-config

- CSCuy97791—When STP cost path is equal, port channel is always selected as root port even if it has a higher priority value

- CSCuy97837—On dashboard, the port RX Traffic Error indication shows red color even though interface counter and rmon statistics of proper ports were cleared.

- CSCuy97943—In some cases, master unit reloads if stack unit type is changed from fixed to auto.

Known Issues

Open Bugs in Software Version 2.2.5.68

This section lists that bugs that are acknowledged in software version 2.2.5.68:

Table 1   Open Bugs in Software Version 2.2.5.68

Bug ID	Description
CSCva97565	**Symptom:** The command "delete sna storage file-name" is missing from the system management chapter of the CLI guide.This command allows the deletion of SNA settings that are saved for a specific user (specified in "file-name" parameter). **Workaround:** There is no workaround.
CSCva97578	**Symptom:** SNA—In rare situations if SNA display is not touched for many hours, the SNA topology display is out of sync. **Workaround:** Refresh the SNA display.
CSCva97583	**Symptom:** SNA—In some cases, if a device is preconfigured (via CLI or web) with 802.1x/RADIUS configurations, display/ configuration via DAC may fail. **Workaround:** Remove all manual DAC related settings (802.1x/RADIUS) from the device before using the DAC feature.

Table 1   Open Bugs in Software Version 2.2.5.68 (Continued)

Bug ID	Description
CSCva97586	**Symptom:** RSPAN—If traffic is simultaneously forwarded to a destination port due to a mirror operation and another operation (such as regular forwarding), not all traffic is mirrored to the RSPAN destination port **Workaround:** There is no workaround.
CSCva97588	**Symptom:** SNA—When logging in to a device with an IPv6 address using Win10 Edge, cannot view network topology. **Workaround:** Use an IPv4 address or other browsers to connect.
CSCva97591	**Symptom:** SNA—If devices have different times, selecting any statistics in "Connection Explorer" with interfaces selected for devices with different clock times shows incorrect graphs. **Workaround:** Make sure that all devices have synchronized clocks (for example, via SNTP).
CSCva97601	**Symptom:** Cannot upgrade firmware and configuration file from an SNA device to devices with version V2.1 or lower. **Workaround:** Download of firmware to versions earlier than 2.2 is not supported.
CSCva97603	**Symptom:** If the last physical interface in a VLAN is set to L3 mode and then back to L2 mode, the VLAN status stays down. **Workaround:** Perform a shutdown/no shutdown on the physical interface.
CSCva97605	**Symptom:** Upgrading boards running version 2.2.0.x to version 2.2.5.x is not possible via XMODEM. **Workaround:** Use TFTP for upgrading from version 2.2.0.x to version 2.2.5.x.

Open Bugs in Software Version 2.2.0.66

This section lists that bugs that are acknowledged in software version 2.2.0.66:

Table 2   Open Bugs in Software Version 2.2.0.66

Bug ID	Description
CSCuz88563	**Symptom:** When connecting Sx550x, Sx350x or Sx250 POE switch to 3750 POE switch, SG250/350x/550x provides power to 3750 through POE. **Workaround:** Issue "power inline never" on PSE port.

Open Bugs in Software Version 2.2.0.63

This section lists that bugs that are acknowledged in software version 2.2.0.63:

Table 3   Open Bugs in Software Version 2.2.0.63

Bug ID	Description
CSCuz01765	**Symptom:** Some revisions of the Cisco IP Phone 7960 cannot be powered up on switch 60W ports. **Workaround:** This issue occurs due to a short between phone pins. Connect phone to af/at ports or use Cat 3 cable (2 pairs) to connect a phone to a 60W port.
CSCuy97915	**Symptom:** Cannot change XG port setting to "disable negotiation" and set speed at the same time via the GUI. **Workaround:** First disable negotiation and click **Apply**, then change speed and click **Apply.**
CSCuy97946	**Symptom:** DHCPv6 relay does not work if destination is set to tunnel interface. **Workaround:** Use IPv6 Global destination address as DHCPv6 destination.
CSCuy97999	**Symptom:** When using web based authentication and device DHCP server, unauthenticated station IP address is not expired after station is sent DHCP release. **Workaround:** Wait until the IP address expires after full lease expiration.

Table 3   Open Bugs in Software Version 2.2.0.63 (Continued)

Bug ID	Description
CSCuz45730	**Symptom:** When negotiating 60W PoE with Cisco PD switches, Cisco PoE-PSE switches sometimes are not able to provide 60W and provide 30W only. **Workaround:** Connect PD switch to PSE switch before PSE switch boot up. Or disconnect then connect PD switch when issue happens. Or use static 60 watt.

Open Bugs in Software Version 2.1.0

This section lists that bugs that are acknowledged in software version 2.2.5.68:

Table 4   Open Bugs in Software Version 2.1.0

Bug ID	Description
CSCux77651	**Symptom:** When applying policer on ingress interface and sending traffic with multiple priority may result in dropping of higher priority traffic on lower speed egress ports. **Workaround:** There is no workaround.
CSCux89413	**Symptom:** Auto SmartMacro—In some cases, the interface is set to BPDU guard erri-disable state after replacing the device connected to the interface from a phone/desktop to switch. **Workaround:** Either disable persistent setting on the interface, or, after the issue occurs, remove the desktop/phone macro from the interface, reactivate the port, and then connect the switch to the interface.
CSCux89418	**Symptom:** When connecting Sx350P as PD to Sx300P/Sx500P as PSE, Sx350P reboots when disconnecting AC power. After rebooting, Sx350P powers up and functions as expected. **Workaround:** There is no workaround.

Table 4   Open Bugs in Software Version 2.1.0 (Continued)

Bug ID	Description
CSCux89582	**Symptom:** Interface is suspended (down) when connecting a copper SFP (MGBT1/GLC-T SFP) with no cable. This issue happens when inserting uplink GE ports (for example, gi3 or gi4) of Sx350/Sx250 or to XG network ports. **Workaround:** To prevent interface suspension, insert the cable to SFP before inserting SFP to port. If port is already in suspended state, insert the cable into SFP and then activate the suspended port, and the port moves to up state.
CSCux89585	**Symptom:** If CDP and LLDP are both enabled on a port, disabling one of them may cause the remaining protocol PoE negotiation to fail. **Workaround:** Do not enable both CDP and LLDP power negotiation at the same time. If the issue occurs, disconnect and then reconnect cable to PD.
CSCux89597	**Symptom:** In port limit mode, the default admin power limit value for all types of ports (AF, AT, and 60W PoE) is 30 watts. **Workaround:** Manually set a limit of 60 watts if needed.
CSCux89611	**Symptom:** Power negotiation for 60W PoE via LLDP may take up to 1 minute to complete. **Symptom:** There is no workaround.
CSCux89626	**Symptom:** When connecting 60W PD to switch, in some cases power indication on switch is higher than 60W. This bug is a display issue. Actual PD consumption is 60W **Workaround:** There is no workaround.

Open Bugs in Software Version 2.0.0

This section lists that bugs that are acknowledged in software version 2.0.0.

Table 5 Open Bugs in Software Version 2.0.0

Bug ID	Description
CSCuq03628	**Symptom:** An ISATAP client sends RS packets only when the tunnel interface is disabled and then enabled. **Workaround:** As long as the tunnel endpoints are both SG350XG/ SG550XG, the tunnel works. In mixed devices applications, manually disable and enable the tunnel interface.
CSCur86883	**Symptom:** When using the web-based configuration interface to set up queue scheduling, you may have a lengthy response time if the system includes a stack of four or more units. **Workaround:** After about one minute, the web-based configuration interface becomes responsive again, and the setting takes effect. Use the command line interface (CLI) commands for a quicker response time
CSCuu60952	**Symptom:** When changing an ACE action using the configuration interface, (for example, from deny to shutdown) ACE may be removed from the ACL. **Workaround:** Reconfigure the ACE, or use the CLI to remove the ACE and then configure it with the new action.
CSCuu60958	**Symptom:** When configuring a MAC ACE using the web-based configuration interface, creation of new ACE may fail with an error message of "Entry Already Exists," even though it does not exist. **Workaround:** Configure the ACE again and it will be accepted, or use the CLI to configure the ACE.
CSCuu60983	**Symptom:** If VRRP is enabled on a device, DCHP relay using Option 82 fails. **Workaround:** If VRRP is enabled on device, use DHCP relay without activating Option 82.

Table 5   Open Bugs in Software Version 2.0.0 (Continued)

Bug ID	Description
CSCuu60986	**Symptom:** When enabling flow control on the LAG using the user interface, the port LEDs will not light even if link is up. **Workaround:** This bug is a LED display issue. The functions work as expected. If needed, enable flow control using the command line interface.
CSCuu60989 CSCuu61046	**Symptom:** Enabling an 802.1X guest VLAN or a Voice VLAN on a port is forbidden, if the port is a static member of the VLAN and it is in switchport mode (including inactive modes). **Workaround:** Change the port VLAN membership that use switchport modes so that the port is not a static member in the desired VLAN. **NOTE** In switchport mode Trunk, the port is a member of all the VLANs by default. Remove the membership in the desired VLANs, or in all VLANs, prior to configuring the 802.1X guest VLAN or the Voice VLAN.
CSCuu61008	**Symptom:** Agreed Auto Voice VLAN cannot be defined as a primary VLAN, even after the voice VLAN is disabled. **Workaround:** There is no workaround.
CSCuu61061	**Symptom:** If short reach is enabled on a port, the cable length test using a Cat6a cable fails. **Workaround:** Disable short reach when running the cable length test on an interface.
CSCuu61080	**Symptom:** DHCP router option (Option 3) is sent by the switch DHCP server, even if the option is not configured for this pool. **Workaround:** There is no workaround.
CSCuu61084	**Symptom:** IPv6 Routes always display a metric value of "0. **Workaround:** This bug is a display issue. The correct metric is used for IPv6 L3 forwarding decisions.

Table 5   Open Bugs in Software Version 2.0.0 (Continued)

Bug ID	Description
CSCuu61088	**Symptom:** The **show qos interface** command displays info for interfaces that are not present. **Workaround:** This bug is a display issue only.
CSCuu61100	**Symptom:** Link partner shows that the link is up, even if the device interface is administratively shut down. **Workaround:** This bug is a display issue. The link is actually down and does not forward traffic.
CSCuu61125	**Symptom:** The **show** VLAN command, for VLAN 1, shows non-present interfaces (port and stack units). **Workaround:** This bug is a display issue only.
CSCuu65516	**Symptom:** If a language file fails to download (for example, due to a network problem), your Internet browser may display "incomplete/error information." **Workaround:** Delete your browser cookies and try again. The device can still be managed using Telnet.
CSCuu65557	**Symptom:** If the management session is using the device's IPv6 address, and this is a secure session (HTTPS), the device cannot be managed using the Safari browser. **Workaround:** Either use a different browser (such as Internet Explorer) or set up an insecure session (HTTP).
CSCuu65577	**Symptom:** When using the web-based configuration interface to set a new keychain for RIP, include an accept-lifetime. If you don't include an accept-lifetime, the configuration doesn't take effect. **Workaround:** Use a CLI to enter the keychain, or on the user interface, enter both an accept lifetime and a send lifetime.

Table 5   Open Bugs in Software Version 2.0.0 (Continued)

Bug ID	Description
CSCuu65593	**Symptom:** On fiber-only ports, negotiation is always enabled; however, the show command displays negotiation as disabled. If the link partner's negotiation is disabled, the link might not come up. **Workaround:** Verify that the link partner's negotiation is enabled.
CSCuu65595	**Symptom:** MLD Snooping mode on IP v6 inter faces is always (*, G), even if you set the mode to (S, G). **Workaround:** There is no workaround

Where to Find Support

For current support information, visit the following URLs:

www.cisco.com/c/en/us/support/switches/550x-series-stackable-managed-switches/tsd-products-support-series-home.html

www.cisco.com/c/en/us/support/switches/350x-series-stackable-managed-switches/tsd-products-support-series-home.html

www.cisco.com/c/en/us/support/switches/350-series-managed-switches/tsd-products-support-series-home.html

www.cisco.com/c/en/us/support/switches/250-series-smart-switches/tsd-products-support-series-home.html

www.cisco.com/go/smallbizsupport