

Configure Log Aggregation Settings on an Sx250 Series Smart Switch

Objective

A Syslog service accepts messages, and stores them in files or prints them according to a simple configuration file. This form of logging is the best available for Cisco devices because it can provide protected long-term storage for logs. This is useful both in routine troubleshooting and in incident handling.

Logging Aggregation means several syslog messages of the same type will not appear on the screen every time an instance occurs. Enabling logging aggregation allows you to filter the system messages that you will receive for a specific period of time. It collects a few syslog messages of the same type so they won't appear when they occur, but would rather appear on a specified interval.

This article provides instructions on how to configure the Log Aggregation Settings on your Sx250 Series Smart Switch.

Applicable Devices

- SG250 Series
- SF250 Series

Software Version

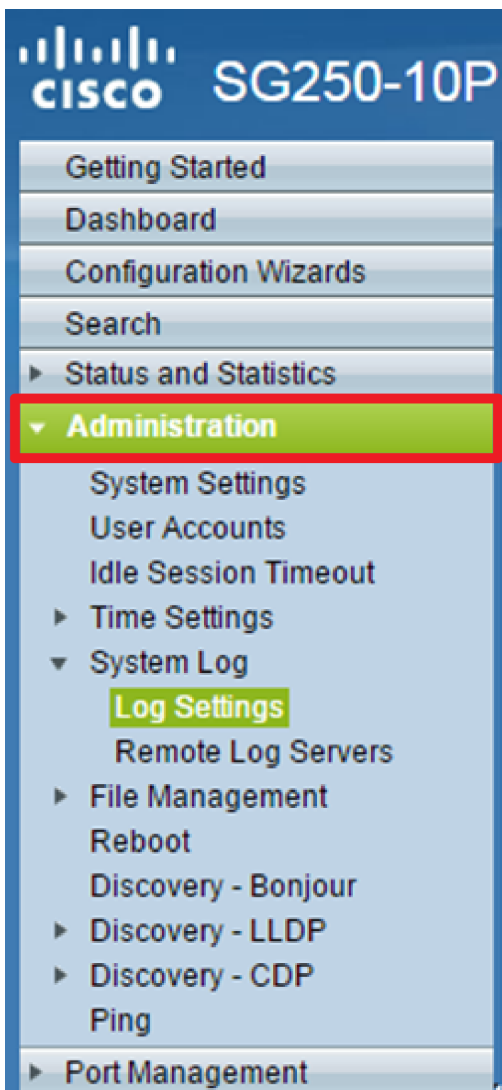
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Configure Log Aggregation Settings

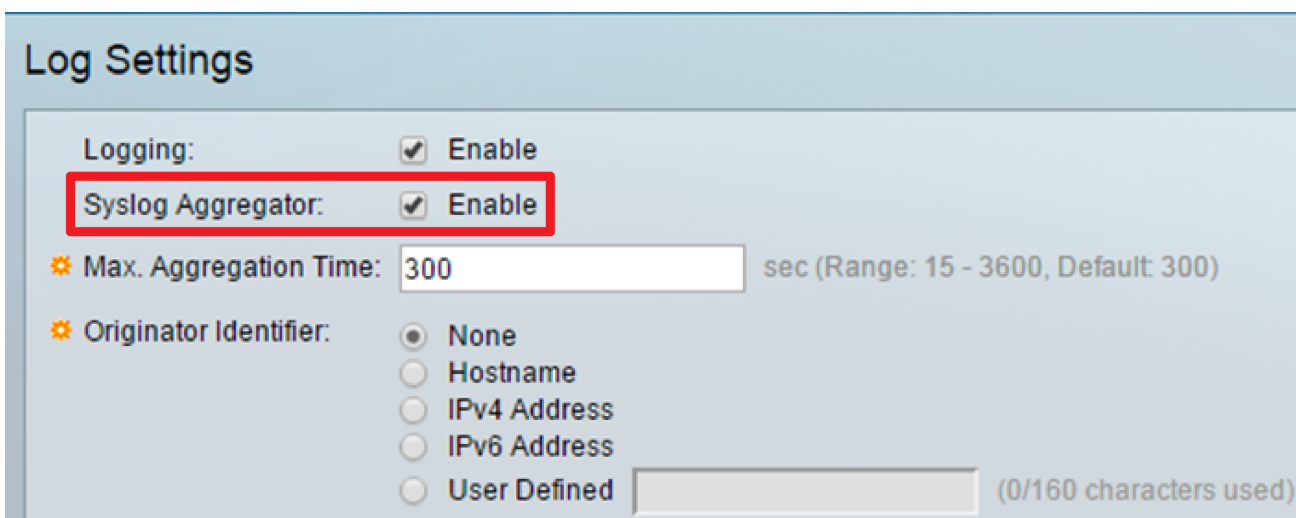
Enable Log Aggregation Settings

Step 1. Log in to the web-based utility of the switch then choose **Administration > System Log > Log Settings**.

Note: In this scenario, the SG250-10P switch is used.



Step 2. Check the **Enable** Syslog Aggregator check box to enable the aggregation of Syslog messages and traps. If enabled, identical and contiguous Syslog messages and traps are aggregated over the specified Max. Aggregation Time and sent in a single message. The aggregated messages are sent in the order of their arrival. Each message states the number of times it was aggregated.



Note: The Syslog Aggregator is disabled by default.

Step 3. (Optional) Enter a value in seconds in the *Max. Aggregation Time* field to specify an interval of when messages would appear. The default value is 300 seconds.

Syslog Aggregator: Enable

Max. Aggregation Time: sec (Range: 15 - 3600, Default: 300)

Step 4. (Optional) To add an origin identifier to Syslog messages, choose an Originator Identifier from the following options:

Originator Identifier:

- None
- Hostname
- IPv4 Address
- IPv6 Address
- User Defined

(0/160 characters used)

- None — Do not include the origin identifier in Syslog messages
- IPv4 Address — Include the IPv4 address of the sending interface in Syslog messages
- IPv6 Address — Include the IPv6 address of the sending interface in Syslog messages
- User Defined — Enter a description to be included in Syslog messages

Note: In this example, IPv4 Address is chosen. The default Originator Identifier is set to **None**.

[Step 5. \(Optional\) In the RAM Memory Logging area, check or uncheck to choose the severity levels of messages to be logged to the Random Access Memory \(RAM\).](#)

RAM Memory Logging		Flash Memory Logging	
Emergency:	<input checked="" type="checkbox"/>	Emergency:	<input checked="" type="checkbox"/>
Alert:	<input checked="" type="checkbox"/>	Alert:	<input checked="" type="checkbox"/>
Critical:	<input checked="" type="checkbox"/>	Critical:	<input checked="" type="checkbox"/>
Error:	<input checked="" type="checkbox"/>	Error:	<input checked="" type="checkbox"/>
Warning:	<input checked="" type="checkbox"/>	Warning:	<input checked="" type="checkbox"/>
Notice:	<input checked="" type="checkbox"/>	Notice:	<input checked="" type="checkbox"/>
Informational:	<input checked="" type="checkbox"/>	Informational:	<input type="checkbox"/>
Debug:	<input type="checkbox"/>	Debug:	<input type="checkbox"/>

Apply Cancel

The values for the severity level are as follows:

- 0 — Emergency
- 1 — Alert
- 2 — Critical
- 3 — Error
- 4 — Warning
- 5 — Notice
- 6 — Informational
- 7 — Debug

Step 6. (Optional) In the Flash Memory Logging area, check or uncheck to choose the severity

levels of messages to be logged to the Flash memory. Refer to the same values defined in [Step 5](#) above.

Step 7. Click **Apply** to save changes to the running configuration file.

Step 8. Click **Save** to update the startup configuration file.



The screenshot shows the Cisco configuration interface for a 10-Port Gigabit PoE Smart Switch. The page title is "10-Port Gigabit PoE Smart Switch" and the Cisco logo is in the top right. A red box highlights the "Save" button in the top right corner. The main heading is "Log Settings". Below the heading, there is a green checkmark icon and a success message: "Success. To permanently save the configuration, go to the [Copy/Save Configuration](#)". The configuration options are as follows:

- Logging: Enable
- Syslog Aggregator: Enable
- Max. Aggregation Time: sec (Range: 15 - 3600, Default: 300)

Below these options, there are two columns of logging levels: "RAM Memory Logging" and "Flash Memory Logging". Each column has a list of severity levels with checkboxes:

RAM Memory Logging	Flash Memory Logging
Emergency: <input checked="" type="checkbox"/>	Emergency: <input checked="" type="checkbox"/>
Alert: <input checked="" type="checkbox"/>	Alert: <input checked="" type="checkbox"/>
Critical: <input checked="" type="checkbox"/>	Critical: <input checked="" type="checkbox"/>
Error: <input checked="" type="checkbox"/>	Error: <input checked="" type="checkbox"/>
Warning: <input checked="" type="checkbox"/>	Warning: <input checked="" type="checkbox"/>
Notice: <input checked="" type="checkbox"/>	Notice: <input checked="" type="checkbox"/>
Informational: <input checked="" type="checkbox"/>	Informational: <input checked="" type="checkbox"/>
Debug: <input type="checkbox"/>	Debug: <input type="checkbox"/>

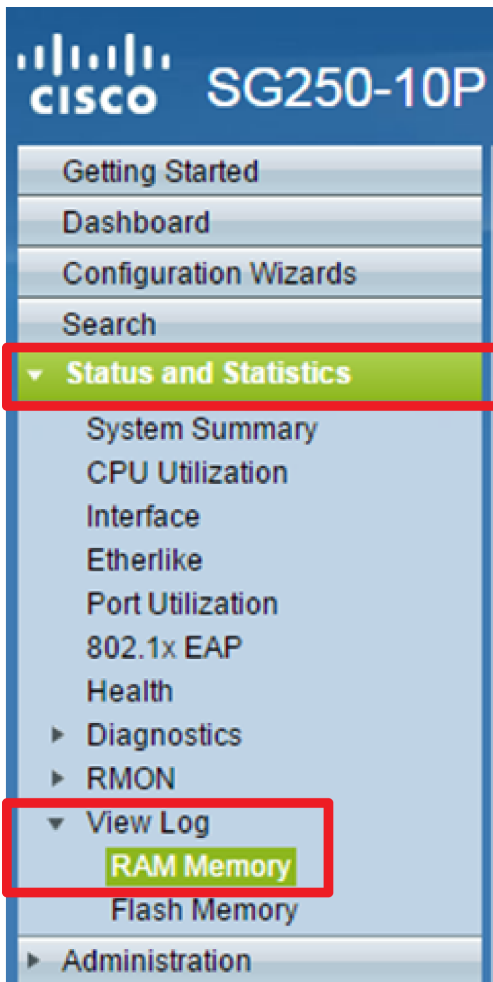
At the bottom of the page, there are two buttons: "Apply" and "Cancel".

You should now have configured the Log Aggregation Settings on your Sx250 Series Smart Switch.

View or Clear Logs from RAM

The RAM Memory page displays all messages that were saved in the RAM (cache) in chronological order. Entries are stored in the RAM log according to the configuration in the Log Settings page.

Step 1. To view logs from RAM Memory, choose **Status and Statistics > View Log > RAM Memory**.



Step 2. (Optional) To enable or disable the blinking of the alert icon, click the **Alert Icon Blinking** button. The default setting is Enabled and the button displays Disable Alert Icon Blinking.

Note: In the image below, Alert Icon Blinking is enabled.

RAM Memory

Alert Icon Blinking: Enabled

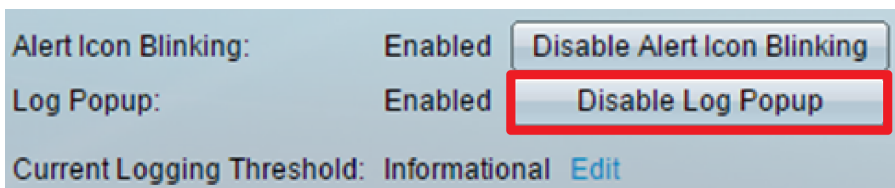
Log Popup: Enabled

Current Logging Threshold: Informational [Edit](#)

RAM Memory Log Table

Log Index	Log Time	Severity	Description
2147483593	2016-May-02 05:52:50	Informational	%AAA-I-CONNECT: New http connection f
2147483594	2016-May-02 05:48:24	Informational	%AAA-I-DISCONNECT: http connection fo
2147483595	2016-May-02 05:37:11	Informational	%AAA-I-CONNECT: New http connection f
2147483596	2016-May-02 05:37:06	Warning	%AAA-W-REJECT: New http connection fo
2147483597	2016-May-02 04:07:34	Informational	%AAA-I-DISCONNECT: http connection fo
2147483598	2015-Dec-07 03:02:06	Informational	%AAA-I-CONNECT: New http connection f
2147483599	2015-Dec-07 02:53:56	Informational	%BOOTP_DHCP_CL-I-DHCPCONFIGUR
2147483600	2015-Dec-07 02:53:53	Warning	%BOOTP_DHCP_CL-W-DHCPIPCANDID
2147483601	2015-Dec-07 02:53:49	Informational	%LINK-I-Up: Vlan 1
2147483602	2015-Dec-07 02:53:49	Warning	%LINK-W-Down: Vlan 1
2147483603	2015-Dec-07 02:53:44	Warning	%NT_GREEN-W-EeeLidpMultiNeighbour
2147483604	2015-Dec-07 02:53:44	Warning	%STP-W-PORTSTATUS: gi24: STP status
2147483605	2015-Dec-07 02:53:42	Informational	%LINK-I-Up: Vlan 1
2147483606	2015-Dec-07 02:53:42	Informational	%LINK-I-Up: gi24
2147483607	2015-Dec-07 02:51:03	Informational	%INIT-I-Startup: Cold Startup
2147483608	2015-Dec-07 02:49:28	Notice	%SYSLOG-N-LOGGING: Logging started.

Step 3. (Optional) To enable or disable the Log Popup, click the **Log Popup** button. The default setting is Enabled and the button displays Disable Log Popup.



Note: The Current Logging Threshold displays the current RAM Logging settings. Clicking the Edit link will bring you to the Log Settings page.

The RAM Memory page contains the following fields:

- Log Index — Log entry number
- Log Time — Time when message was generated
- Severity — Event severity
- Description — Message text describing the event

Step 4. (Optional) To clear the log messages, scroll down the page then click **Clear Logs**. The messages are cleared.

2147483627	2015-Dec-07 02:49:04	Warning	%LINK-W-Down: gi11
2147483628	2015-Dec-07 02:49:03	Warning	%LINK-W-Down: gi10
2147483629	2015-Dec-07 02:49:03	Warning	%LINK-W-Down: gi9
2147483630	2015-Dec-07 02:49:01	Warning	%LINK-W-Down: gi8
2147483631	2015-Dec-07 02:49:01	Warning	%LINK-W-Down: gi7
2147483632	2015-Dec-07 02:48:59	Warning	%LINK-W-Down: gi6
2147483633	2015-Dec-07 02:48:59	Warning	%LINK-W-Down: gi5
2147483634	2015-Dec-07 02:48:58	Warning	%LINK-W-Down: gi4
2147483635	2015-Dec-07 02:48:58	Warning	%LINK-W-Down: gi3
2147483636	2015-Dec-07 02:48:55	Warning	%LINK-W-Down: gi2
2147483637	2015-Dec-07 02:48:55	Warning	%LINK-W-Down: gi1
2147483638	2015-Dec-07 02:48:50	Informational	%SSL-I-SSLCTASK: Aut
2147483639	2015-Dec-07 02:48:49	Informational	%SSL-I-SSLCTASK: Sta
2147483640	2015-Dec-07 02:48:47	Informational	%Entity-I-SEND-ENT-CC
2147483641	2015-Dec-07 02:48:46	Informational	%Environment-I-FAN-ST
2147483642	2015-Dec-07 02:48:36	Informational	%SNMP-I-CDBITEMSNI

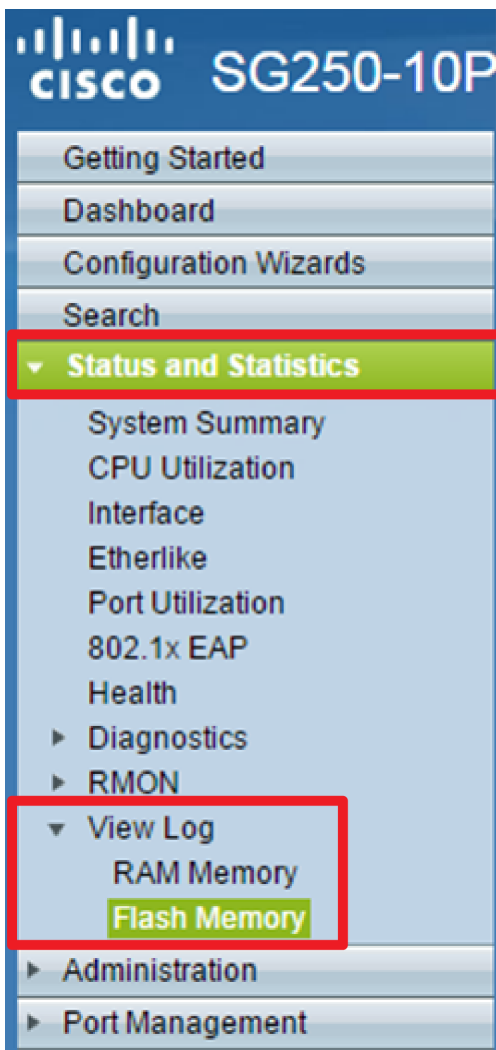
Clear Logs

You should now have viewed or cleared the log messages on the RAM Memory of your Sx250 Series Smart Switch.

View or Clear Logs from Flash Memory

The Flash Memory page displays the messages that were stored in the Flash memory, in chronological order. The minimum severity for logging is configured in the Log Settings page. Flash logs remain when the device is rebooted. You can clear the logs manually.

Step 1. To view logs from Flash Memory, choose **Status and Statistics > View Log > Flash Memory**.



Note: The Current Logging Threshold displays the current Flash Memory Logging settings. Clicking the **Edit** link will bring you to the Log Settings page.

Flash Memory

Current Logging Threshold: Informational [Edit](#)

Flash Memory Log Table			
Log Index	Log Time	Severity	Description
2147483603	2016-May-03 02:16:25	Notice	%COPY-N-TRAP: The copy
2147483604	2016-May-03 02:16:23	Informational	%COPY-I-FILECPY: Files C
2147483605	2016-May-03 02:15:14	Notice	%SYSLOG-N-LOGGINGFIL

[Clear Logs](#)

This page contains the following fields:

- Log Index — Log entry number
- Log Time — Time when message was generated
- Severity — Event severity
- Description — Message text describing the event

Step 2. (Optional) To clear the log messages, scroll down the page then click **Clear Logs**. The messages are cleared.

You should now have viewed or cleared the log messages on the Flash Memory of your Sx250 Series Smart Switch.