



Commands

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stats alarm clear

	stats alarm <alarm ID> clear Clears alarm state.	
Syntax Description	alarm ID	Alarms supported by the system, for example: <ul style="list-style-type: none"> • cpu_util_indiv—average CPU utilization too high: percent utilization • disk_io—operating System Disk I/O per second too high: kilobytes per second • fs_mnt—free filesystem space too low: percent of disk space free • intf_util—network utilization too high: bytes per second • memory_pct_used—too much memory in use: percent of physical memory used • paging—paging activity too high: page faults • temperature—temperature is too high: degrees
Default	N/A	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats alarm cpu_util_indiv clear	
Related Commands	show stats alarm	
Notes		

stats alarm enable

	stats alarm <alarm-id> enable no stats alarm <alarm-id> enable Enables the alarm. The no form of the command disables the alarm, notifications will not be received.	
Syntax Description	alarm ID	Alarms supported by the system, for example:

		<ul style="list-style-type: none"> • <code>cpu_util_indiv</code>—average CPU utilization too high: percent utilization • <code>disk_io</code>—operating System Disk I/O per second too high: kilobytes per second • <code>fs_mnt</code>—free filesystem space too low: percent of disk space free • <code>intf_util</code>—network utilization too high: bytes per second • <code>memory_pct_used</code>—too much memory in use: percent of physical memory used • <code>paging</code>—paging activity too high: page faults • <code>temperature</code>—temperature is too high: degrees
Default	The default is different per alarm-id	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats alarm cpu_util_indiv enable	
Related Commands	show stats alarm	
Notes		

stats alarm event-repeat

	<pre>stats alarm <alarm ID> event-repeat {single while-not-cleared} no stats alarm <alarm ID> event-repeat</pre> <p>Configures repetition of events from this alarm. The no form of this command resets this parameter to its default.</p>	
Syntax Description	alarm ID	<p>Alarms supported by the system, for example:</p> <ul style="list-style-type: none"> • <code>cpu_util_indiv</code>—average CPU utilization too high: percent utilization • <code>disk_io</code>—operating System Disk I/O per second too high: kilobytes per second • <code>fs_mnt</code>—free filesystem space too low: percent of disk space free • <code>intf_util</code>—network utilization too high: bytes per second • <code>memory_pct_used</code>—too much memory in use: percent of physical memory used

		<ul style="list-style-type: none"> • paging—paging activity too high: page faults • temperature—temperature is too high: degrees
	single	Does not repeat events: only sends one event whenever the alarm changes state.
	while-not-cleared	Repeats error events until the alarm clears.
Default	single	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats alarm cpu_util_indiv event-repeat single	
Related Commands	show stats alarm	
Notes		

stats alarm {rising | falling}

	<pre>stats alarm <alarm ID> {rising falling} {clear-threshold error-threshold} <threshold-value></pre> Configure alarms thresholds.	
Syntax Description	alarm ID	Alarms supported by the system, for example: <ul style="list-style-type: none"> • cpu_util_indiv—average CPU utilization too high: percent utilization • disk_io—operating System Disk I/O per second too high: kilobytes per second • fs_mnt—free filesystem space too low: percent of disk space free • intf_util—network utilization too high: bytes per second • memory_pct_used—too much memory in use: percent of physical memory used • paging—paging activity too high: page faults • temperature—temperature is too high: degrees
	falling	Configures alarm for when the statistic falls too low

	rising	Configures alarm for when the statistic rises too high
	error-threshold	Sets threshold to trigger falling or rising alarm
	clear-threshold	Sets threshold to clear falling or rising alarm
	threshold-value	The desired threshold value, different per alarm
Default	Default is different per alarm-id	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats alarm cpu_util_indiv falling clear-threshold 10	
Related Commands	show stats alarm	
Notes	Not all alarms support all four thresholds.	

stats alarm rate-limit

	<pre>stats alarm <alarm ID> rate-limit {count <count-type> <count> reset window <window-type> <duration>} Configures alarms rate limit.</pre>	
Syntax Description	alarm ID	<p>Alarms supported by the system, for example:</p> <ul style="list-style-type: none"> • cpu_util_indiv—average CPU utilization too high: percent utilization • disk_io—operating System Disk I/O per second too high: kilobytes per second • fs_mnt—free filesystem space too low: percent of disk space free • intf_util—network utilization too high: bytes per second • memory_pct_used—too much memory in use: percent of physical memory used • paging—paging activity too high: page faults • temperature—temperature is too high: degrees

	count-type	Long medium, or short count (number of alarms)
	reset	Set the count and window durations to default values for this alarm
	window-type	Long medium, or short count, in seconds
Default	Short window: 5 alarms in 1 hour Medium window: 20 alarms in 1 day Long window: 50 alarms in 7 days	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats alarm paging rate-limit window long 2000	
Related Commands	show stats alarm	
Notes		

stats chd clear

	stats chd <CHD ID> clear Clears CHD counters.	
Syntax Description	CHD ID	<p>CHD supported by the system, for example:</p> <ul style="list-style-type: none"> • cpu_util—CPU utilization: percentage of time spent • cpu_util_ave—CPU utilization average: percentage of time spent • cpu_util_day—CPU utilization average: percentage of time spent • disk_device_io_hour—storage device I/O read/write statistics for the last hour: bytes • disk_io—operating system aggregate disk I/O average (KB/sec) • fs_mnt_day—filesystem system usage average: bytes • fs_mnt_month—filesystem system usage average: bytes • fs_mnt_week—filesystem system usage average: bytes • intf_day—network interface statistics aggregation: bytes • intf_hour—network interface statistics (same as “interface” sample)

		<ul style="list-style-type: none"> • intf_util—aggregate network utilization across all interfaces • memory_day—average physical memory usage: bytes • memory_pct—average physical memory usage • paging—paging activity: page faults • paging_day—paging activity: page faults • ib_day • ib_hour
Default	N/A	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats chd memory_day clear	
Related Commands	show stats chd	
Notes		

stats chd enable

	<pre>stats chd <chd-id> enable</pre> <pre>no stats chd <chd-id> enable</pre> <p>Enables the CHD. The no form of the command disables the CHD.</p>	
Syntax Description	chd-id	<p>CHD supported by the system, for example:</p> <ul style="list-style-type: none"> • cpu_util—CPU utilization: percentage of time spent • cpu_util_ave—CPU utilization average: percentage of time spent • cpu_util_day—CPU utilization average: percentage of time spent • disk_device_io_hour—storage device I/O read/write statistics for the last hour: bytes • disk_io—operating system aggregate disk I/O average: KB/sec • fs_mnt_day—filesystem system usage average: bytes

		<ul style="list-style-type: none"> • fs_mnt_month—filesystem system usage average: bytes • fs_mnt_week—filesystem system usage average: bytes • intf_day—network interface statistics aggregation: bytes • intf_hour—network interface statistics (same as “interface” sample) • intf_util—aggregate network utilization across all interfaces • memory_day—average physical memory usage: bytes • memory_pct—average physical memory usage • paging—paging activity: page faults • paging_day—paging activity: page faults • ib_day • ib_hour
Default	Enabled	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats chd memory_day enable	
Related Commands	show stats chd	
Notes		

stats chd compute time

	<pre>stats chd <CHD ID> compute time {interval range} <number of seconds></pre> <p>Sets parameters for when this CHD is computed.</p>	
Syntax Description	CHD ID	<p>Possible IDs:</p> <ul style="list-style-type: none"> • cpu_util—CPU utilization: percentage of time spent • cpu_util_ave—CPU utilization average: percentage of time spent

		<ul style="list-style-type: none"> • <code>cpu_util_day</code>—CPU utilization average: percentage of time spent • <code>disk_device_io_hour</code>—storage device I/O read/write statistics for the last hour: bytes • <code>disk_io</code>—operating system aggregate disk I/O average: KB/sec • <code>fs_mnt_day</code>—filesystem system usage average: bytes • <code>fs_mnt_month</code>—filesystem system usage average: bytes • <code>fs_mnt_week</code>—filesystem system usage average: bytes • <code>intf_day</code>—network interface statistics aggregation: bytes • <code>intf_hour</code>—network interface statistics (same as “interface” sample) • <code>intf_util</code>—aggregate network utilization across all interfaces • <code>memory_day</code>—average physical memory usage: bytes • <code>memory_pct</code>—average physical memory usage • <code>paging</code>—paging activity: page faults • <code>paging_day</code>—paging activity: page faults • <code>ib_day</code> • <code>ib_hour</code>
	<code>interval</code>	Specifies calculation interval (how often to do a new calculation) in number of seconds
	<code>range</code>	Specifies calculation range, in number of seconds
	<code>number of seconds</code>	Number of seconds
Default	Different per CHD	
Configuration Mode	<code>config</code>	
History	3.1.0000	
Example	<code>switch (config) # stats chd memory_day compute time interval 120</code>	
Related Commands	<code>show stats chd</code>	
Notes		

stats export

	stats export <format> <sample-id> Exports collected information to a file.	
Syntax Description	memory	Memory utilization
	paging	Paging I/O
	telemetry	Telemetry histogram
	cpu_util	CPU utilization
	power	Power
Default	N/A	
Configuration Mode	config	
History	3.7.1102 3.10.1000: Updated syntax description options	
Example	switch (config) # stats export csv memory	
Related Commands	show stats sample	
Notes		

stats sample clear

	stats sample <sample ID> clear Clears sample history.	
Syntax Description	sample ID	Possible sample IDs are: <ul style="list-style-type: none"> • congested • cpu_util—CPU utilization: milliseconds of time spent • disk_device_io—storage device I/O statistics • disk_io—operating system aggregate disk I/O: KB/sec • fan - Fan speed • fs_mnt_bytes—filesystem usage: bytes • fs_mnt_inodes—filesystem usage: inodes • interface—network interface statistics • intf_util—network interface utilization: bytes

		<ul style="list-style-type: none"> • memory—system memory utilization: bytes • paging—paging activity: page faults • power—power supply usage • power-consumption • temperature—modules temperature • ib
Default	N/A	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats sample temperature clear	
Related Commands	show stats sample	
Notes		

stats sample enable

	<pre>stats sample <sample-id> enable no states sample <sample-id> enable</pre> <p>Enables the sample. The no form of the command disables the sample.</p>	
Syntax Description	sample-id	<p>Possible sample IDs are:</p> <ul style="list-style-type: none"> • congested • cpu_util—CPU utilization: milliseconds of time spent • disk_device_io—storage device I/O statistics • disk_io—operating system aggregate disk I/O: KB/sec • fan—fan speed • fs_mnt_bytes—filesystem usage: bytes • fs_mnt_inodes—filesystem usage: inodes • interface—network interface statistics • intf_util—network interface utilization: bytes • memory—system memory utilization: bytes • paging—paging activity: page faults • power—power supply usage • power-consumption

		<ul style="list-style-type: none"> • temperature—modules temperature • ib
Default	Enabled	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats sample temperature enable	
Related Commands	show stats sample	
Notes		

stats sample interval

	<pre>stats sample <sample-id> interval [<interval>]</pre> <pre>no stats sample <sample-id> interval [<interval>]</pre> <p>Sets the sampling interval between taking of sample records. The no form of the command sets interval to default value.</p>	
Syntax Description	sample-id	<p>Sample name for which report file should be generated.</p> <ul style="list-style-type: none"> • congested • cpu_util—CPU utilization: milliseconds of time spent • disk_device_io—storage device I/O statistics • disk_io—operating system aggregate disk I/O: KB/sec • fan—fan speed • fs_mnt_bytes—filesystem usage: bytes • fs_mnt_inodes—filesystem usage: inodes • interface—network interface statistics • intf_util—network interface utilization: bytes • memory—system memory utilization: bytes • paging—paging activity: page faults • power—power supply usage • power-consumption • temperature—modules temperature • ib

	interval	Measured in seconds. Range: 1 - 86400 (24 hours)
Default	Default for “interface” samples is 60 seconds	
Configuration Mode	config	
History	3.7.1102	
Example	switch (config) # stats sample interface-ethernet interval 1	
Related Commands	show stats sample	
Notes		

stats sample max-entries

	<pre>stats sample <sample-id> max-entries [<max-entries>]</pre> <pre>no stats sample <sample-id> max-entries [<max-entries>]</pre> <p>Sets number of records to be kept in memory for the counter. The no form of the command resets the value to its default.</p>	
Syntax Description	sample-id	<p>Sample name for which report file should be generated.</p> <ul style="list-style-type: none"> • congested • cpu_util—CPU utilization: milliseconds of time spent • disk_device_io—storage device I/O statistics • disk_io—operating system aggregate disk I/O: KB/sec • fan—fan speed • fs_mnt_bytes—filesystem usage: bytes • fs_mnt_inodes—filesystem usage: inodes • interface—network interface statistics • intf_util—network interface utilization: bytes • memory—system memory utilization: bytes • paging—paging activity: page faults • power—power supply usage • power-consumption • temperature—modules temperature • ib

	max-entries	Number of records Range: 1-1000
Default	Default “interface” samples is 100 records	
Configuration Mode	config	
History	3.7.1102	
Example	switch (config) # stats sample interface-ethernet max-entries 1000	
Related Commands	show stats sample	
Notes	<ul style="list-style-type: none"> • Setting a new value will delete all sample history. • History does not persist after reboot. 	

stats clear-all

	stats clear-all Clears data for all samples, CHDs, and status for all alarms.	
Syntax Description	N/A	
Default	N/A	
Configuration Mode	config	
History	3.1.0000	
Example	switch (config) # stats clear-all	
Related Commands	show stats sample	
Notes		

show stats alarm

	show stats alarm [<alarm-id> [rate-limit]] Displays status of all alarms or the specified alarm.	
Syntax Description	alarm-id	Available values: <ul style="list-style-type: none"> • cpu_util_indiv—average CPU utilization too high: percent utilization

		<ul style="list-style-type: none"> • disk_io—operating System Disk I/O per second too high: kilobytes per second • fs_mnt—free filesystem space too low: percent of disk space free • intf_util—network utilization too high: bytes per second • memory_pct_used—too much memory in use: percent of physical memory used • paging—paging activity too high: page faults • temperature—temperature is too high: degrees
	rate-limit	Displays rate limit parameters.
Default	N/A	
Configuration Mode	Any command mode	
History	3.1.0000	
Example	<pre>switch (config) # show stats alarm Alarm cpu_util_indiv (Average CPU utilization too high): ok Alarm disk_io (Operating System Disk I/O per second too high): (disabled) Alarm fs_mnt (Free filesystem space too low): ok Alarm intf_util (Network utilization too high): (disabled) Alarm memory_pct_used (Too much memory in use): (disabled) Alarm paging (Paging activity too high): ok Alarm temperature (Temperature is too high): ok</pre>	
Related Commands	stats alarm	
Notes		

show stats chd

	<pre>show stats chd [<chd-id>]</pre> Displays configuration of all statistics CHDs.	
Syntax Description	chd-id	Available values: <ul style="list-style-type: none"> • cpu_util_indiv—average CPU utilization too high: percent utilization • disk_io—operating System Disk I/O per second too high: kilobytes per second • fs_mnt—free filesystem space too low: percent of disk space free

		<ul style="list-style-type: none"> • intf_util—network utilization too high: bytes per second • memory_pct_used—too much memory in use: percent of physical memory used • paging—paging activity too high: page faults • temperature—temperature is too high: degrees
Default	N/A	
Configuration Mode	Any command mode	
History	3.1.0000	
Example	<pre>switch (config) # show stats chd disk_device_io_hour CHD "disk_device_io_hour" (Storage device I/O read/write statistics for the last hour: bytes): Enabled: yes Source dataset: sample "disk_device_io" Computation basis: data points Interval: 1 data point(s) Range: 1 data point(s)</pre>	
Related Commands	stats chd	
Notes		

show stats cpu

	<pre>show stats cpu</pre> <p>Displays some basic stats about CPU utilization:</p> <ul style="list-style-type: none"> • the current level • the peak over the past hour • the average over the past hour
Syntax Description	N/A
Default	N/A
Configuration Mode	Any command mode
History	3.1.0000
Example	<pre>switch (config) # show stats cpu CPU 0</pre>

	Utilization: 6% Peak Utilization Last Hour: 16% at 2012/02/28 08:47:32 Avg. Utilization Last Hour: 8%
Related Commands	
Notes	

show stats sample

	show stats sample [<sample-id>] Displays sampling interval for all samples, or the specified one.	
Syntax Description	sample-id	<p>Sample name for which report file should be generated.</p> <ul style="list-style-type: none"> • congested • cpu_util—CPU utilization: milliseconds of time spent • disk_device_io—storage device I/O statistics • disk_io—operating system aggregate disk I/O: KB/sec • fan—fan speed • fs_mnt_bytes—filesystem usage: bytes • fs_mnt_inodes—filesystem usage: inodes • interface—network interface statistics • intf_util—network interface utilization: bytes • memory—system memory utilization: bytes • paging—paging activity: page faults • power—power supply usage • power-consumption • temperature—modules temperature • ib
Default	N/A	
Configuration Mode	Any command mode	
History	3.1.0000	
Example	<pre>switch (config) # show stats sample fan Sample "fan" (Fan speed): Enabled: yes Sampling interval: 1 minute 11 seconds</pre>	

Related Commands	
Notes	

show stats sample data

	<pre>show stats sample <sample-id> data [interface {ethernet port-channel mlag-port-channel} <device/port> [counter <counter-name>]] [group name <group-name> [counter <counter-name>]] [max-samples {<max-samples> all}]</pre> <p>Displays history of counter values (i.e., collected information for a sample).</p>	
Syntax Description	sample-id	<p>Sample name for which report file should be generated.</p> <ul style="list-style-type: none"> • congested • cpu_util—CPU utilization: milliseconds of time spent • disk_device_io—storage device I/O statistics • disk_io—operating system aggregate disk I/O: KB/sec • fan—fan speed • fs_mnt_bytes—filesystem usage: bytes • fs_mnt_inodes—filesystem usage: inodes • interface—network interface statistics • intf_util—network interface utilization: bytes • memory—system memory utilization: bytes • paging—paging activity: page faults • power—power supply usage • power-consumption • temperature—modules temperature • ib
	interface	Allows limiting output to a particular interface's counters
	group	Allows limiting output to a particular group of counters
	counter	Allows limiting output to a particular counter. This option is available only if the option interface or group is chosen.

	max-samples	Allows choosing a number of counter records to display. Range: 1-1000 records. The “all” option is meant for all available records. By default, 20 counter records are displayed.
Default	N/A	
Configuration Mode	Any command mode	
History	3.7.1102 3.8.1000: Modified configuration mode & example 3.9.2000: Modified note and example	

Example

```
switch (config) # show stats sample interface-ethernet data interface ethernet 1/1 max-samples 1
```

Sampling data for Interface ethernet counters:

Eth1/1:

```
-----
Name                Timestamp           Value
-----
Rx_packets          2000/12/25 10:27:53  0
Rx_unicast_packets  2000/12/25 10:27:53  0
Rx_multicast_packets 2000/12/25 10:27:53  0
Rx_broadcast_packets 2000/12/25 10:27:53  0
Rx_bytes            2000/12/25 10:27:53  0
Rx_discard_packets  2000/12/25 10:27:53  0
Rx_error_packets    2000/12/25 10:27:53  0
Rx_fcs_errors       2000/12/25 10:27:53  0
Rx_undersize_packets 2000/12/25 10:27:53  0
Rx_oversize_packets 2000/12/25 10:27:53  0
Rx_pause_packets    2000/12/25 10:27:53  0
Rx_unknown_control_opcode 2000/12/25 10:27:53  0
Rx_symbol_errors    2000/12/25 10:27:53  0
Rx_packets_of_64_bytes 2000/12/25 10:27:53  0
Rx_packets_of_65-127_bytes 2000/12/25 10:27:53  0
Rx_packets_of_128-255_bytes 2000/12/25 10:27:53  0
Rx_packets_of_256-511_bytes 2000/12/25 10:27:53  0
Rx_packets_of_512-1023_bytes 2000/12/25 10:27:53  0
Rx_packets_of_1024-1518_bytes 2000/12/25 10:27:53  0
Rx_packets_Jumbo    2000/12/25 10:27:53  0
Tx_packets          2000/12/25 10:27:53  0
Tx_unicast_packets  2000/12/25 10:27:53  0
Tx_multicast_packets 2000/12/25 10:27:53  0
Tx_broadcast_packets 2000/12/25 10:27:53  0
Tx_bytes            2000/12/25 10:27:53  0
Tx_discard_packets  2000/12/25 10:27:53  0
Tx_error_packets    2000/12/25 10:27:53  0
Tx_hoq_discard_packets 2000/12/25 10:27:53  0
```

Tx_pause_packets Tx_pause_duration	2000/12/25 10:27:53 0 2000/12/25 10:27:53 0
Related Commands	
Notes	<ul style="list-style-type: none"> • Filtering keyword depends on chosen <sample-id>. • Notice that this is a history of counters. Autocompletion and output can contain information for groups (interfaces) that is not present anymore in the system, and vice versa. If counters are not sampled, they will not appear in the output. • Output of collected information is implemented only for the following samples: <ul style="list-style-type: none"> ◦ memory ◦ paging ◦ power

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