

Sentry metrics (WIP)

Sentry uses [Codahale](#) to present the metrics.

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Enabling metrics and configuration parameters

You need to enable the sentry web server in order to view the sentry metrics.

Make the below changes in sentry-site.xml to enable sentry web server and restart the sentry service.

Config Property	Value	Default	Required
sentry.service.web.enable	true	false	Yes
sentry.service.web.port	51000	51000	No
sentry.service.web.authentication.type	KERBEROS or NONE	NONE	Yes

To view the metrics go to <Sentry-Role-Host>:51000/metrics?pretty=true.

Additional JMX/Console output:

Apart from viewing the metrics on the web page, you can enable a reporter to show the current metrics.

Config Property	Value	Default	Comment
sentry.service.reporter	Console		No
	JMX		
	LOG	YES	Log metrics to LOG4j
	JSON		Log metrics to json file (/tmp/sentry-metrics.json by default)
<code>sentry.service.reporter.interval.sec</code>		300	Interval between metric updates in seconds
<code>sentry.service.reporter.file</code>		<code>/tmp/sentry-metrics.json</code>	Destination for JSON metrics

HDFS Sync related metrics

(Defined in [SentryHdfsMetricsUtil.java](#))

API end point metrics

Metric type	Metric name	Details
Histogram	org.apache.sentry.hdfs.SentryHDFSProcessor.handle-hms-notification	Time taken for Sentry end point to process path updates from HMS
Histogram	org.apache.sentry.hdfs.SentryHDFSProcessor.get-all-authz-updates-from	Time taken for Sentry to serve NN requests for updates

Scale metrics - HMS

Metric type	Metric name	Details
Histogram	org.apache.sentry.hdfs.SentryHDFSProcessor.paths-updates-size	The size of path updates for each get_all_authz_updates_from
Histogram	org.apache.sentry.hdfs.SentryHDFSProcessor.perm-updates-size	The size of perm updates for each get_all_authz_updates_from
Histogram	org.apache.sentry.hdfs.SentryHDFSProcessor.handle-hms-notification.path-changes-size	The size of path changes for each handle_hms_notification
Histogram	org.apache.sentry.hdfs.MetastorePlugin.apply-local-update.path-change-size	The size of path changes for each apply local

Scale metrics - Sentry

Metric type	Metric name	Details
Histogram	org.apache.sentry.hdfs.SentryPlugin\$PermlImageRetriever.retrieve-full-image.privilege-changes-size	The size of privilege changes for each retrieveFullImage
Histogram	org.apache.sentry.hdfs.SentryPlugin\$PermlImageRetriever.retrieve-full-image.role-changes-size	The size of role changes for each retrieveFullImage call

Internal routine metrics - HMS

Metric type	Metric name	Details
Timer	org.apache.sentry.hdfs.MetastorePlugin.notify-sentry-HMS-update	Time taken for HMS to send an update to Sentry
Timer	org.apache.sentry.hdfs.MetastorePlugin.apply-local-update	Time taken for HMS to apply the path update locally

Error and special case counters

Metric type	Metric name	Details
Counter	"org.apache.sentry.hdfs.MetastorePlugin.notify-sentry-HMS-update.failed-num"	Number of failed attempts of notifying Sentry
Counter	"org.apache.sentry.hdfs.SentryHDFSProcessor.handle-hms-notification.failed-num"	The number of failed handle_hms_notification
Counter	"org.apache.sentry.hdfs.SentryHDFSProcessor.handle-hms-notification.has-full-image-num"	The number of handle_hms_notification calls with full image update

Sentry Service related metrics

(See [SentryMetrics.java](#))

Sentry Service Gauges

Gauge	Type	Comment
org.apache.sentry.service.thrift.SentryService.is_active	boolean	Sentry service is processing HMS notifications
org.apache.sentry.service.thrift.SentryService.activated	Long	Number of times the Sentry Service became active

Sentry Store Gauges

Gauge	Type	Comment
org.apache.sentry.provider.db.service.persistent.SentryStore.group_count	Long	Number of Sentry groups
org.apache.sentry.provider.db.service.persistent.SentryStore.privilege_count	Long	Number of Sentry Privileges

org.apache.sentry.provider.db.service.persistent.SentryStore.role_count	Long	Number of Sentry roles
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Gauges for HMS notifications processing

Gauge	Type	Comment
org.apache.sentry.provider.db.service.persistent.SentryStore.hms.notification.id	Long	Current HMS notification ID

[Sample metrics page](#)

Legend

Gauges - A gauge is an instantaneous measurement of a value