

Elasticsearch Monitoring

Why doesn't the number of documents I see in SPM match the number of documents in my Elasticsearch index

SPM collects index stats from primary shards only. To see the total number of documents in an index, select all shards in that index and choose "sum". The list of shards and the "sum" function can be found in the "Shard filter" in the Index Stats report.

Can SPM collect metrics even when Elasticsearch HTTP API is disabled

Each SPM agent collects Elasticsearch metrics only from the local node by accessing the Stats API via HTTP. To allow only local access add the following to `elasticsearch.yml`. Don't forget to restart each ES node to whose `elasticsearch.yml` you add this.

```
http.host: "127.0.0.1"
```

Can I point SPM monitor to a non-localhost Elasticsearch node

Yes. Adjust `/opt/spm/spm-monitor/conf/spm-monitor-config-TOKEN_HERE-default.properties` and change the `SPM_MONITOR_ES_NODE_HOSTPORT` property from the default `localhost:9200` value to use an alternative `host-name:port`. After that restart SPM monitor (if you are running a standalone version) or Elasticsearch process(es) with embedded SPM monitor.

My Elasticsearch is protected by basic HTTP authentication, can I use SPM

Yes. You just need to adjust `/opt/spm/spm-monitor/conf/spm-monitor-config-TOKEN_HERE-default.properties` file by adding the following two properties (replace values with your real username and password):

```
SPM_MONITOR_ES_NODE_BASICAUTH_USERNAME=yourUsername  
SPM_MONITOR_ES_NODE_BASICAUTH_PASSWORD=yourPassword
```

Restart your SPM monitor after this change (either with **`sudo service spm-monitor restart`** in case of standalone monitor or by restarting Elasticsearch node if you are using in-process `javaagent`).

I am using SPM for Elasticsearch monitor and I don't see Index (and/or Refresh/Flush/Merge) stats, why is that

SPM for Elasticsearch monitor collects Index stats only from primary shards, so it is possible that you installed SPM monitor on some Elasticsearch node which hosts only replicas. The same is also true for Refresh/Flush and Merge stats. Also note that SPM Elasticsearch monitor should be installed on all your Elasticsearch nodes to get the complete picture of your cluster in SPM Reports UI.

Integration

- Instructions: <https://apps.sematext.com/ui/howto/Elasticsearch/overview>

Metrics

Metric				
Name	Key	Agg	Type	Description
overhead	es.circuit_breaker_data.size.overhead	Double	Agg	Index field Data.size.overhead
maxsize	es.circuit_breaker_data.size.max	Long	Max	Index field Data.size.max
estimate	es.circuit_breaker_request.size.estimate	Long	Agg	Index request.size.estimate
estimate	es.circuit_breaker_data.size.estimate	Long	Agg	Index field Data.size.estimate
overhead	es.circuit_breaker_request.size.overhead	Double	Agg	Index request.size.overhead
maxsize	es.circuit_breaker_request.size.max	Long	Max	Index request.size.max
initializing	es.cluster_health.shards.initializing	Long	Agg	Cluster health shards.initializing
relocating	es.cluster_health.shards.relocating	Long	Agg	Cluster health shards.relocating
nodes	es.cluster_nodes	Long	Agg	Cluster nodes

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Metric				
Name	Key	Agg	Type	Description
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data nodes	es.cluster.name	avg	Long	data nodes
active primary shards	es.cluster.health.primary_shards	avg	Long	active primary shards
unassigned shards	es.cluster.health.unassigned_shards	avg	Long	unassigned shards
active shards	es.cluster.health.active_shards	avg	Long	active shards
filter cache size	es.cache.filter.size	avg	Long	filter cache size
field cache evictions	es.cache.field.evictions	sum	Long	field cache evictions
currentes	es.cache.filter.currentes	avg	Long	currentes
filter cache evictions	es.cache.filter.evictions	sum	Long	filter cache evictions
total	es.cache.filter.total	sum	Long	total
filter cache count	es.cache.filter.count	avg	Long	filter cache count
total time	es.cache.filter.time	sum	Long	total time

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Metric				
Name	Key	Agg	Type	Description
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field_cache_size	es.cache.field_cache_size	avg	Long	Cache size
open_http_conns (current_open)	es.connections.http	action	Long	Current open HTTP conns
socket_re_sets_sent (out_rsts)	es.connections.socket_re_sets_sent	sections	Long	Outgoing rsts
received_trans_count (rx_count)	es.transmitted_rx_count	sum	Long	Received trans count
passive_conn_openings (passive_opens)	es.connections.passive_conn_openings	sections	Long	Passive opens
outbound_conn_seg-ments (out_segs)	es.connections.outbound_conn_seg-ments	sections	Long	Outbound conn segs
received_trans_size (rx_size)	es.transmitted_rx_size	sum	Long	Received trans size
open_tcp_conns (server_open)	es.connections.tcp	action	Long	Server open TCP conns

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Metric				
Name	Key	Agg	Type	Description
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transmission_size	tx_size	sum	Long	transmission_size (tx_size)
failed_socket_open	es.connections	sum	Long	failed_socket_open (attempt_fails)
socket_resets	es.connections	sum	Long	socket_resets (es_estab_resets)
total_http_conns	es.connections	avg	Long	total_http_conns (total_opened)
inbound_conn_segs	es.connections	sum	Long	inbound_conn_segs (in_segs)
open_sockets	es.connections	avg	Long	open_sockets (current_estab)
active_conn_opens	es.connections	sum	Long	active_conn_opens (active_opens)

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Metric				
Name	Key	Agg	Type	Description
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retransmitted seg-ments (re-trans_segs)	es.index.transmittedSegs	Sum	Long	retrans.segs
transmitted count (tx_count)	es.index.transmittedCount	Sum	Long	tx.packets
queue size	es.threadpool.queue	Avg	Long	queue
completed	es.threadpool.completed	Sum	Long	completed
active	es.threadpool.active	Avg	Long	active
min	es.threadpool.min	Min	Long	min
rejected	es.threadpool.rejected	Sum	Long	rejected
queue size	es.threadpool.queue.size	Avg	Long	queue.size
size	es.threadpool.size	Avg	Long	size
max	es.threadpool.max	Max	Long	max
largest	es.threadpool.largest	Max	Long	largest
flush count (all)	es.indices.flush.count(all)	Sum	Long	flush.count on all (pri- mary and replica) shards

Metric				
Name	Key	Agg	Type	Description
refreshes.index.refreshes.refreshcount (prim)		Sing.ref	count	refresh count on primary shards
docs.es.index.merge.docsmergecount (prim)		Sing.merge	count	docs count on primary shards
refreshes.index.refreshes.refreshcount (all)		Sing.docsmerge	count	refresh count on all (primary and replica) shards
merge.es.index.merge.docsmergecount (all)		Sing.merge	count	docs count on all (primary and replica) shards

Metric				
Name	Key	Agg	Type	Description
flush time (all)	es.indices	Sing.flush	Time	flush time on all (primary and replica) shards
flush count (prim)	es.indices	Sing.flush	Count	flush count on primary shards
indexed docs (prim)	es.indices	Sing.doc	Count	docs indexed on primary shards
merge time (all)	es.indices	Sing.merge	Time	merge time on all (primary and replica) shards

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Metric				
Name	Key	Agg	Type	Description
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indexed.docs (all)	es.indexed.docs	Sing.doc	Total	docs indexed on all (primary and replica) shards
flush time (prim)	es.index.flush.time	Sing.flush	Flush time	on primary shards
refreshes.time (prim)	es.index.refresh.time	Sing.refresh	Refresh time	on primary shards
merge time (prim)	es.index.merge.time	Sing.merge	Merge time	on primary shards

Metric				
Name	Key	Agg	Type	Description
docs count (all)	es.indices	Sing.merge	docs	docs total count on all (primary and replica) shards
merge count (prim)	es.indices	Sing.merge	merge	merge count on primary shards
refreshes time (all)	es.indices	Sing.refresh	refresh	refresh time on all (primary and replica) shards
docs size (all)	es.indices	Sing.merge	docs size	docs size total on all (primary and replica) shards

Metric				
Name	Key	Agg	Type	Description
docs size (prim)	es.indices	Sing. merge	docs size	docs size on primary shards
delete total (prim)	es.indices	Sing. delete	deleted on primary shards	deleted on primary shards
delete total (all)	es.indices	Sing. delete	deleted on all (primary and replica) shards	deleted on all (primary and replica) shards