

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: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	circumferential	avg	double	Index fieldData.size.overhead
maximal size	circumferential	max	long	Index fieldData.size.max
estimated size	circumferential	avg	long	request.size.estimate
estimated size	circumferential	avg	long	Index fieldData.size.estimate
overhead	circumferential	avg	double	request.size.overhead
maximal size	circumferential	max	long	request.size.max
initializing shards	cluster	avg	long	shards.initializing
relocating shards	cluster	avg	long	shards.relocating

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Metric				
Name	Key	Agg	Type	Description
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nodes	es.cluster	Avg	Long	
data nodes	es.cluster	Avg	Long	
active primary shards	es.cluster	Avg	Long	
unassigned shards	es.cluster	Avg	Long	
active shards	es.cluster	Avg	Long	
filter cache size	es.cache	Avg	Long	
field cache evictions	es.cache	Sum	Long	
currentes	es.cache	Avg	Long	
filter cache evictions	es.cache	Sum	Long	
total	es.cache	Sum	Long	
filter cache count	es.cache	Avg	Long	
total time	es.cache	Sum	Long	

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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	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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transmitted size (tx_size)	trans	sum	Long	es.transport.bytes
failed socket open (at- tempt_fails)	es.conn	sections	Long	attempt.fails
socket re- sets (es- tab_resets)	es.conn	sections	Long	estab.resets
total opened HTTP conns (to- tal_opened)	es.conn	avg	Long	total.opened
inbound seg- ments (in_segs)	es.conn	sections	Long	in_segs
open sock- ets (cur- rent_estab)	es.conn	avg	Long	current.estab
active conn open- ings (ac- tive_opens)	es.conn	sections	Long	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 es.thread	es.thread	Avg	Long	Queue
completed es.thread	es.thread	Sum	Long	Completed
active es.thread	es.thread	Avg	Long	Active
min es.thread	es.thread	Min	Long	
rejected es.thread	es.thread	Sum	Long	Rejected
queue size	es.thread	Avg	Long	Queue.size
size es.thread	es.thread	Avg	Long	Size
max es.thread	es.thread	Max	Long	
largest es.thread	es.thread	Max	Long	Largest
flush count (all)	es.index.flushCount	Sum	Long	flush.count
				on all (pri-ary 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.mergecount (prim)		Sing.merge	count	docs merge count on primary shards
refreshes.index.refreshes.refreshcount (all)		Sing.docrefresh	count	refresh count on all (primary and replica) shards
merge.es.index.mergecount (all)		Sing.merge	count	docs merge 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	deleted on primary shards
delete total (all)	es.indices	Sing. delete	deleted total	deleted on all (primary and replica) shards