

## 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.

### **Metrics**

#### **Report: Cache**

##### **Chart: Request**

Metric Name | Metric Description — | — maximum size | estimated size | overhead |

##### **Chart: Fielddata**

Metric Name | Metric Description — | — maximum size | estimated size | overhead |

#### **Report: Cluster Health**

##### **Chart: ES Shards**

Metric Name | Metric Description — | — active primary shards | active shards | relocating shards | initializing shards | unassigned shards |

##### **Chart: ES Nodes**

Metric Name | Metric Description — | — nodes | data nodes |

#### **Report: Cache**

##### **Chart: Warmer**

Metric Name | Metric Description — | — current | total | total time |

##### **Chart: Field Cache**

Metric Name | Metric Description — | — field cache evictions | field cache size |

### Chart: Query/Filter Cache

Metric Name | Metric Description — | — filter cache count | filter cache evictions  
| filter cache size |

### Report: Connections

#### Chart: Connections/Sockets

Metric Name | Metric Description — | — open TCP sockets (current\_estab)  
| open TCP conns (server\_open) | open HTTP conns (current\_open) | total  
opened HTTP conns (total\_opened) |

#### Chart: TCP Traffic

Metric Name | Metric Description — | — inbound segments (in\_segs) | out-  
bound segments (out\_segs) | retransmitted segments (retrans\_segs) |

#### Chart: Transport (Node-to-Node)

Metric Name | Metric Description — | — received count (rx\_count) | trans-  
mitted count (tx\_count) | received size (rx\_size) | transmitted size (tx\_size)  
|

#### Chart: TCP Socket Stats

Metric Name | Metric Description — | — active conn openings (active\_opens)  
| passive conn openings (passive\_opens) | failed socket open (attempt\_fails)  
| socket resets sent (out\_rsts) | open sockets (current\_estab) | socket resets  
(estab\_resets) |

### Report: Cluster Topology

#### Chart: Shards

Metric Name | Metric Description — | — active primary shards | active shards  
| relocating shards | initializing shards | unassigned shards |

### Report: Thread Pool

#### Chart: Thread Pool

Metric Name | Metric Description — | — active | size | queue | queue size |  
rejected | largest | completed | min | max |

## Report: Index Stats

### Chart: Documents

Metric Name	Metric Description
docs count (prim)	docs count on primary shards
docs count (all)	docs count on all (primary and replica) shards
docs deleted (prim)	docs deleted on primary shards
docs deleted (all)	docs deleted on all (primary and replica) shards
size on disk (prim)	size on the disk of primary shards
size on disk (all)	size on the disk of all (primary and replica) shards

### Chart: Merged Documents

Metric Name	Metric Description
docs count (prim)	merge docs count on primary shards
docs count (all)	merge docs count on all (primary and replica) shards
docs size (prim)	merged docs size on primary shards
docs size (all)	merge docs size on all (primary and replica) shards

### Chart: Indexing

Metric Name	Metric Description
indexed docs (prim)	docs indexed on primary shards
indexed docs (all)	docs indexed on all (primary and replica) shards
delete total (prim)	docs deleted on primary shards
delete total (all)	docs deleted on all (primary and replica) shards
indexing rate (prim)	indexing rate on primary shards
indexing rate (all)	indexing rate on all (primary and replica) shards
deleting rate (prim)	deleting rate on primary shards
deleting rate (all)	deleting rate on all (primary and replica) shards