

Elasticsearch

Operation and Maintenance

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Online operation and maintenance

Elasticsearch cluster provides many statistics, in which the cluster health is the most important index. Cluster health has three statuses: Red, Yellow, and Green.

Cluster health can be checked using the following command:

```
curl -u user name:password http://domain:9200/_cluster/health
```

Cluster health

| Color | Status | Remarks |
|--------|---|---|
| Red | Some major fragments are unavailable | The cluster contains unavailable major fragments, meaning that one or more indexes have major fragments unassigned. |
| Yellow | All major fragments are available, but some replicated fragments cannot be used | One or more replicated indexes have major fragments unassigned. |
| Green | All major and replicated fragments are available | All indexes of the cluster are healthy and all fragments are assigned. |

Note:

To ensure that your Elasticsearch cluster status is Green, all major and replicated fragments must be always available.

Therefore, it is recommended that the `number_of_replicas` be not smaller than `amount_Node - 1`. Alibaba Cloud Elasticsearch ensures that the restarted cluster status is Green when you use dedicated master.

Troubleshooting

Cluster status is yellow

If the cluster is in the Yellow state, the password change or upgrade operation will take a long time.

You are suggested to perform the operation when the cluster health is in the Green state. The reason why the cluster health status is Yellow is that some replicated fragments of indexes are unassigned. You need to check the problematic indexes in the cluster.

Index status query command

```
curl -u user name:password http://domain:9200/_cat/indices
```

```
# Find out the problematic index name. If the reason is that the number_of_replicas is larger than amount_Node - 1,  
# change the number_of_replicas of the problematic index.
```

Index status recovery command

```
curl -XPUT -u user name:password http://domain:9200/problematic index name/_settings -H 'Content-Type: application/json' -d '{"index":{"number_of_replicas":(amount_Node - 1)}}
```

```
# For example, if the number of requested instance nodes is 3 but the number_of_replicas of an index is also 3, the  
cluster health status is yellow.  
# Change the number_of_replicas of the problematic index to 2.
```

Note:

After finishing the operations (restart/scale-up/custom setting) on the instance, set the number_of_replicas according to the number of instance nodes. This improves the reliability and stability of the Elasticsearch service.