

Elasticsearch

For Developer



logstash

In My Opinion

1. Change cluster/node name

cluster.name: elasticsearch_production

node.name: elasticsearch_005_data

https://www.elastic.co/guide/en/elasticsearch/guide/current/_important_configuration_changes.html

2. Change files path

path.data: /path/to/data1,/path/to/data2

path.logs: /path/to/logs

path.plugins: /path/to/plugins

https://www.elastic.co/guide/en/elasticsearch/guide/current/_important_configuration_changes.html

3. Disable delete all index

action.destructive_requires_name: true

<https://www.elastic.co/guide/en/elasticsearch/reference/1.7/indices-delete-index.html>

4. Use unicast discovery

`discovery.zen.ping.multicast.enabled: false`

`discovery.zen.ping.unicast.hosts: ["host1", "host2:port"]`

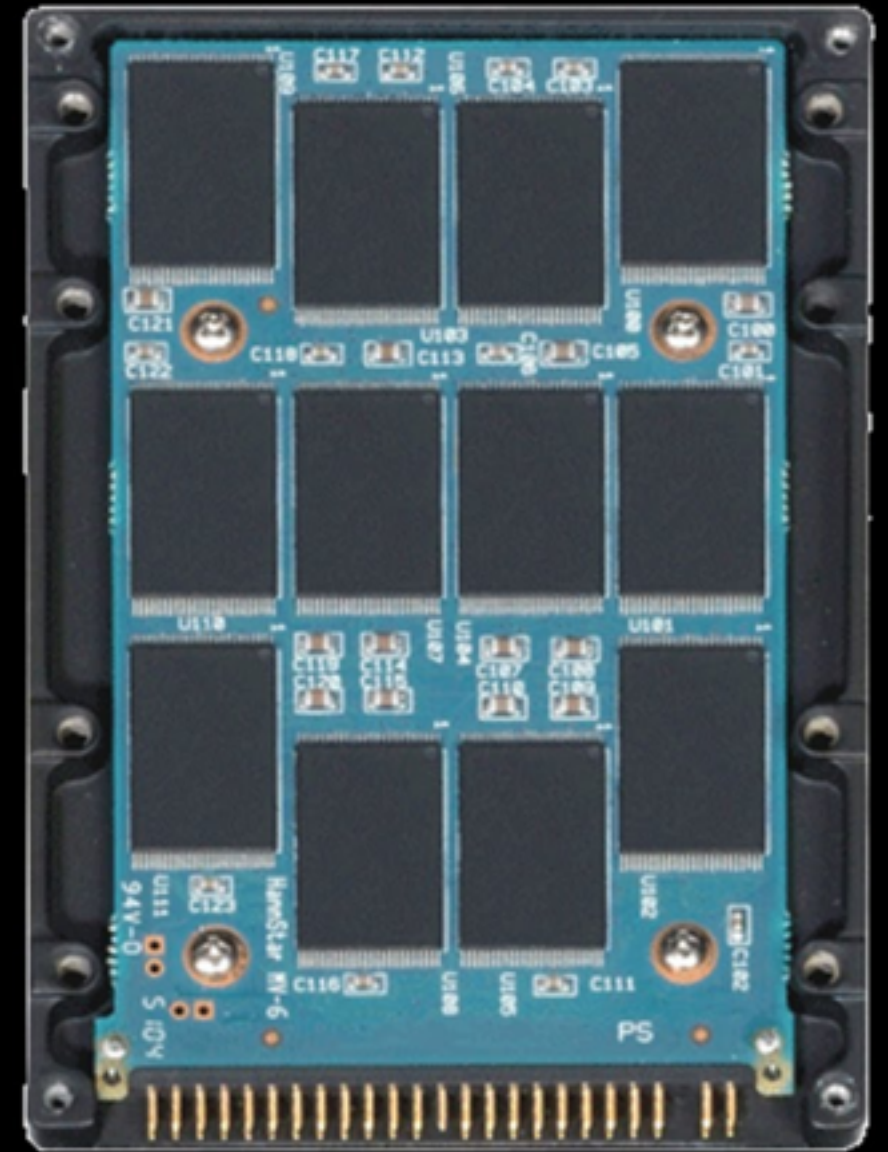
<https://www.elastic.co/guide/en/elasticsearch/reference/current/modules-discovery-zen.html>

5. Use SSD to improve I/O



HDD

VS



SSD

6. Use right JDK

Don't use OpenJDK and other implementation

7. Use dedicate master node

node.master: true

node.data: false

Don't use for query and indexing

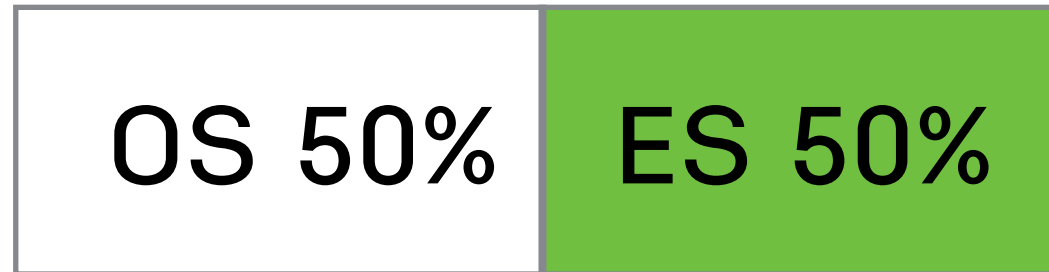
8. Client node

node.master: false

node.data: false

For query data only or Smart Load balance

9. Allocate physical memory



export ES_HEAP_SIZE=10g

OR

./bin/elasticsearch -Xmx10g -Xms10g

https://www.elastic.co/guide/en/elasticsearch/guide/current/_limiting_memory_usage.html

10. Index buffer size

indices.memory.index_buffer_size: 10%

Default = 10%, you can update with #of write data

<https://www.elastic.co/guide/en/elasticsearch/reference/1.7/modules-indices.html>

11. Index management

For time series use **Curator**

<https://github.com/elastic/curator>

12. Avoid memory swapping

`$sudo swapoff -a`

OR

`bootstrap.mlockall: true`

<https://www.elastic.co/guide/en/elasticsearch/guide/current/heap-sizing.html?q=sw>

13. Use circuit breaker

Avoid **OutOfMemoryException**

https://www.elastic.co/guide/en/elasticsearch/guide/current/_limiting_memory_usage.html#circuit-breaker

14. Increase # of open file descriptor

```
$ulimit -n 123456
```

```
$ulimit -l unlimited
```

<https://www.elastic.co/guide/en/elasticsearch/reference/current/setup-configuration.html>

15. Application performance management

Monitoring and Alert

