

MongoDB 운영 관련 팁

- Backup/Restore
- Monitoring
- Indexing
- Query
- Logrotate
- Migration
- Automated Deployment

1. Backup/Restore

- a. Logical Backup
 - i. mongodump / mongorestore
 - ii. Percona Backup for MongoDB
 1. Percona Server for MongoDB Only
- b. physical Backup
 - i. MongoDB manual
 1. <https://www.mongodb.com/docs/manual/tutorial/backup-sharded-cluster-with-filesystem-snapshots/>
 - ii. Percona Backup for MongoDB
 1. Percona Server for MongoDB Only
- c. Point In Time Restore
 - i. using oplog
 1. mongodump using "--oplog" option
 2. physical Backup with oplog
 3. Percona Backup for MongoDB

2. Monitoring

- a. Resource Monitoring
 - i. prometheus
 1. mongodb_exporter (MongoDB Resource)
 2. node_exporter (Service Resource)
 - ii. telegraf / influxDB
 1. using telegraf MongoDB plugin
 - iii. Packetbeat for MongoDB (ElasticSearch stack)
- b. Log Monitoring
 - i. ElasticSearch (ElasticSearch stack)
 1. using Filebeat
 2. using Logstash
- c. Monitoring Visualization
 - i. Grafana
 - ii. Kibana (ElasticSearch stack)

3. Indexing

- a. ESR Rule
 - i. <https://www.mongodb.com/docs/manual/tutorial/equality-sort-range-rule/>
- b. index maintain
 - i. indexStats
 1. `db.collection.aggregate([{ $indexStats: { } }])`
 - ii. pt-mongodb-index-check
 1. check duplicated index
 2. check unused index

4. Query

- a. Query plan
 - i. <https://www.mongodb.com/docs/manual/core/query-plans/>
 - ii. query plan : `db.collection.find().explain()`
 - iii. planCache : `db.collection.aggregate([{ $planCacheStats: { } }])`
- b. Slow Query
 - i. profile
 - ii. find slow query in "log file"
 - iii. slow query fix case
 1. "write concern" option check
 - a. if w=majority, change to w=1
 2. "ordered" option check
 - a. if ordered : true, change to ordered : false
- c. check In-Progress operations
 - i. `db.currentOp()`

5. Logrotate

- a. MongoDB manual (make script)
- b. Using Linux logrotate

6. Migration

- a. kafka Connector
 - i. <https://www.mongodb.com/docs/kafka-connector/current/>

- ii. developed by MongoDB
- b. MongoShake
 - i. <https://github.com/alibaba/MongoShake>
 - ii. developed by alibaba

7. **Automated Deployment**

- a. Ansible
 - i. using MongoDB module
 - ii. <https://docs.ansible.com/ansible/latest/collections/community/mongodb/index.html#>
- b. kubernetes