CARA MENJALANKAN PROGRAM

1. Melihat *member* dari ETCD

```
[root@db01 ~]# etcd-check-member
+-------------------------+------------------+---------+---------+-----------+------------+-----------+
|         ENDPOINT        |        ID        | VERSION | DB SIZE | IS LEADER | IS LEARNER | RAFT TERM |
+-------------------------+------------------+---------+---------+-----------+------------+-----------+
| https://172.16.40.7:2379 |  1a8f752a15512ce |   3.5.0 |  381 kB |      true |      false |         4 |
| https://172.16.40.9:2379 | 6f7c8341bc15ae2b |   3.5.0 |  381 kB |     false |      false |         4 |
| https://172.16.40.8:2379 | bf9464c81e9bfeb5 |   3.5.0 |  381 kB |     false |      false |         4 |
+-------------------------+------------------+---------+---------+-----------+------------+-----------+
```

2. Melihat *member* dari cluster Patroni

```
[root@db01 ~]# patroni-check-cluster
+---------------+-------------+---------+---------+----+-----------+
| Member        | Host        | Role    | State   | TL | Lag in MB |
+ Cluster: postgresql (7158763629596591550) ------+----+-----------+
| db-postgres01 | 172.16.40.7 | Replica | running |  4 |         0 |
| db-postgres02 | 172.16.40.8 | Replica | running |  4 |         0 |
| db-postgres03 | 172.16.40.9 | Leader  | running |  4 |           |
+---------------+-------------+---------+---------+----+-----------+
[root@db01 ~]#
```

3. Memindah server *leader* dengan perintah “patronictl -c patrony.yaml switchover”

```
[root@L3-MRTJ-dev patroni]# patronictl -c patroni.yml switchover
Master [L3-LRT-dev]:
Candidate ['L3-MRTJ-dev', 'L3-TJ-dev'] []: L3-TJ-dev
When should the switchover take place (e.g. 2023-02-20T00:05 )  [now]:
Current cluster topology
+-------------+----------------+---------+---------+----+-----------+
| Member      | Host           | Role    | State   | TL | Lag in MB |
+ Cluster: postgres67 (7119197312204150675) -------+----+-----------+
| L3-LRT-dev  | 192.168.150.93 | Leader  | running | 17 |           |
| L3-MRTJ-dev | 192.168.150.92 | Replica | running | 17 |         0 |
| L3-TJ-dev   | 192.168.150.94 | Replica | running | 17 |         0 |
+-------------+----------------+---------+---------+----+-----------+
Are you sure you want to switchover cluster postgres67, demoting current master L3-LRT-dev? [y/N]: y
2023-02-19 23:06:01.67722 Successfully switched over to "L3-TJ-dev"
+-------------+----------------+---------+---------+----+-----------+
| Member      | Host           | Role    | State   | TL | Lag in MB |
+ Cluster: postgres67 (7119197312204150675) -------+----+-----------+
| L3-LRT-dev  | 192.168.150.93 | Replica | stopped |    |   unknown |
| L3-MRTJ-dev | 192.168.150.92 | Replica | running |    |         0 |
| L3-TJ-dev   | 192.168.150.94 | Leader  | running |    |           |
+-------------+----------------+---------+---------+----+-----------+
[root@L3-MRTJ-dev patroni]# patronictl -c patroni.yml list
+-------------+----------------+---------+---------+----+-----------+
| Member      | Host           | Role    | State   | TL | Lag in MB |
+ Cluster: postgres67 (7119197312204150675) -------+----+-----------+
| L3-LRT-dev  | 192.168.150.93 | Replica | running | 18 |         0 |
| L3-MRTJ-dev | 192.168.150.92 | Replica | running | 18 |         0 |
| L3-TJ-dev   | 192.168.150.94 | Leader  | running | 18 |           |
+-------------+----------------+---------+---------+----+-----------+
[root@L3-MRTJ-dev patroni]#
```

4. Melihat topologi di Patroni

```
[root@L3-MRTJ-dev patroni]# patronictl -c patroni.yml topology
+---------------+----------------+---------+---------+----+-----------+
| Member        | Host           | Role    | State   | TL | Lag in MB |
+ Cluster: postgres67 (7119197312204150675) ---------+----+-----------+
| L3-TJ-dev     | 192.168.150.94 | Leader  | running | 18 |           |
| + L3-LRT-dev  | 192.168.150.93 | Replica | running | 18 |         0 |
| + L3-MRTJ-dev | 192.168.150.92 | Replica | running | 18 |         0 |
+---------------+----------------+---------+---------+----+-----------+
[root@L3-MRTJ-dev patroni]#
```

5. Melihat config yang diterapkan pada cluster Patroni

```
[root@L3-MRTJ-dev patroni]# patronictl -c patroni.yml show-config
loop_wait: 10
master_start_timeout: 300
maximum_lag_on_failover: 1048576
postgresql:
  parameters:
    max_connections: 512
    max_locks_per_transaction: 256
    max_worker_processes: 6
    work_mem: 16MB
  use_pg_rewind: true
retry_timeout: 10
ttl: 30

[root@L3-MRTJ-dev patroni]#
```

6. Mengubah config pada cluster Patroni, nantinya akan berdampak pada seluruh cluster

```
[root@L3-MRTJ-dev patroni]# patronictl -c patroni.yml edit-config
```

```
File  Edit  View  Bookmarks  Settings  Help
  GNU nano 5.8                                  /tmp/postgres67-config-jrboyem8.yaml
loop_wait: 10
master_start_timeout: 300
maximum_lag_on_failover: 1048576
postgresql:
  parameters:
    max_connections: 512
    max_locks_per_transaction: 256
    max_worker_processes: 6
    work_mem: 16MB
  use_pg_rewind: true
retry_timeout: 10
ttl: 30
```

7. Melihat Namespace pada Kubernetes

```
ridho-lab@ridho:~$ kubectl get ns
NAME                STATUS    AGE
default             Active    10d
external-secrets    Active    10d
kube-node-lease     Active    10d
kube-public         Active    10d
kube-system         Active    10d
ridho-lab@ridho:~$
```

8. Melihat seluruh resource pada salah satu namespace

```
ridho-lab@ridho:~$ kubectl get all -n external-secrets
NAME                                                     READY     STATUS    RESTARTS   AGE
pod/external-secrets-779f64bb86-9qh2s                    1/1       Running   0          46h
pod/external-secrets-cert-controller-6d5c56d7cd-tskq2    1/1       Running   0          46h
pod/external-secrets-webhook-74f897d757-whbkt            1/1       Running   0          46h

NAME                               TYPE        CLUSTER-IP    EXTERNAL-IP   PORT(S)   AGE
service/external-secrets-webhook   ClusterIP   10.52.1.193   <none>        443/TCP   10d

NAME                                               READY     UP-TO-DATE   AVAILABLE   AGE
deployment.apps/external-secrets                   1/1       1            1           10d
deployment.apps/external-secrets-cert-controller   1/1       1            1           10d
deployment.apps/external-secrets-webhook           1/1       1            1           10d

NAME                                                          DESIRED   CURRENT   READY     AGE
replicaset.apps/external-secrets-779f64bb86                   1         1         1         10d
replicaset.apps/external-secrets-cert-controller-6d5c56d7cd   1         1         1         10d
replicaset.apps/external-secrets-webhook-74f897d757           1         1         1         10d
ridho-lab@ridho:~$
```

9. Melihat pods yang berjalan di salah satu namespace

```
ridho-lab@ridho:~$ kubectl get po -n external-secrets
NAME                                                     READY     STATUS    RESTARTS   AGE
external-secrets-779f64bb86-9qh2s                        1/1       Running   0          46h
external-secrets-cert-controller-6d5c56d7cd-tskq2        1/1       Running   0          46h
external-secrets-webhook-74f897d757-whbkt                1/1       Running   0          46h
ridho-lab@ridho:~$
```

10. Melihat deployment yang ada di namespace

```
ridho-lab@ridho:~$ kubectl get deployment -n external-secrets
NAME                                 READY     UP-TO-DATE   AVAILABLE   AGE
external-secrets                     1/1       1            1           10d
external-secrets-cert-controller     1/1       1            1           10d
external-secrets-webhook             1/1       1            1           10d
ridho-lab@ridho:~$
```

11. Melihat service yang ada di namespace

```
ridho-lab@ridho:~$ kubectl get svc -n external-secrets
NAME                      TYPE        CLUSTER-IP    EXTERNAL-IP   PORT(S)   AGE
external-secrets-webhook  ClusterIP   10.52.1.193   <none>        443/TCP   10d
ridho-lab@ridho:~$
```

12. Melihat nodes yang ada pada Cluster Kubernetes

```
ridho-lab@ridho:~$ kubectl get nodes
NAME                                                STATUS   ROLES    AGE   VERSION
gke-explore-ext-secrets-default-pool-25893cee-fdra  Ready    <none>   46h   v1.24.9-gke.2000
gke-explore-ext-secrets-default-pool-25893cee-ymfd  Ready    <none>   46h   v1.24.9-gke.2000
ridho-lab@ridho:~$
```

13. Melihat informasi pada cluster Kubernetes

```
ridho-lab@ridho:~$ kubectl cluster-info
Kubernetes master is running at https://35.240.156.24
GLBCDefaultBackend is running at https://35.240.156.24/api/v1/namespaces/kube-system/services/default-http-backend:http/proxy
KubeDNS is running at https://35.240.156.24/api/v1/namespaces/kube-system/services/kube-dns:dns/proxy
Metrics-server is running at https://35.240.156.24/api/v1/namespaces/kube-system/services/https:metrics-server:/proxy

To further debug and diagnose cluster problems, use 'kubectl cluster-info dump'.
ridho-lab@ridho:~$
```