

TiCl on GKE

Images:

PD	gcr.io/pingcap-public/tidbcloud/pd:v8.5.4-nextgen.202510.4
TiKV	gcr.io/pingcap-public/tidbcloud/tikv:v8.5.4-nextgen.202510.10
TiDB	gcr.io/pingcap-public/tidbcloud/tidb:feature-fts-dc593c5-next-gen
Operator	gcr.io/pingcap-public/tidbcloud/serverless/tidb-operator:ce1637cc2fc5434c41ee1a6094a93d45e10af502
TiFlash CN	gcr.io/pingcap-public/tidbcloud/tiflash:feature-fts-613d48e-next-gen
TiCl Meta	gcr.io/pingcap-public/tidbcloud/tici:master
TiCl Worker	gcr.io/pingcap-public/tidbcloud/tici:master
TiCDC	gcr.io/pingcap-public/tidbcloud/ticdc:v8.5.4-nextgen.202510.3

Steps

1. Create a Autopilot GKE Cluster
2. Install gcloud-cli
3. Create tidb-fts namespace

代码块

```
1 kubectl create namespace tidb-fts
```

4. Create operator, service account, role, role binding, cluster role, cluster role binding

代码块

```
1 kubectl apply -f crd.yaml --server-side
2 kubectl -n tidb-fts apply -f role.yaml
3 kubectl -n tidb-fts apply -f rolebinding.yaml
4 kubectl -n tidb-fts apply -f clusterrole.yaml
5 kubectl -n tidb-fts apply -f clusterrolebinding.yaml
6
```

5. Create tidb-operator deployment

代码块

```
1 kubectl -n tidb-fts apply -f operator.yaml
```

6. Deploy minio

代码块

```
1 kubectl -n tidb-fts apply -f minio.yaml
2 kubectl -n tidb-fts apply -f minio-svc.yaml
3 kubectl -n tidb-fts exec -ti minio-0 -- bash
4 mc alias set local http://localhost:9000 A492E42C0AE5 7DE292ACB59F
5 mc mb tidb-fts-demo
```

7. Deploy PD/TiKV/TiKV Worker/TiDB Worker

代码块

```
1 kubectl -n tidb-fts apply -f pd.yaml
2 kubectl -n tidb-fts apply -f tikv.yaml
3 kubectl -n tidb-fts apply -f tikv-worker.yaml
4 kubectl -n tidb-fts apply -f tidb-worker.yaml
```

8. Create keyspace fts

代码块

```
1 kubectl -n tidb-fts exec -ti pd-pd-0 -- bash
2 /pd-ctl keyspace create fts
```

9. Deploy TiDB/TiCDC

代码块

```
1 kubectl -n tidb-fts apply -f tidb.yaml
2 kubectl -n tidb-fts apply -f ticdc.yaml
3 kubectl -n tidb-fts exec -ti ticdc-0 -- bash
4 /cdc cli changefeed create "--sink-uri=s3://tidb-fts-demo/tici/cdc?
protocol=canal-json&enable-tidb-extension=true&output-row-key=true&flush-
interval=0.5s&access-key=A492E42C0AE5&secret-access-
key=7DE292ACB59F&endpoint=http://minio.tidb-fts.svc.cluster.local:9000" --
pd=http://pd-pd:2379 -k fts
5 /cdc cli changefeed list --pd=http://pd-pd:2379 -k fts
```

10. Deploy TiCI/TiFlash CN

代码块

```
1 kubectl -n tidb-fts apply -f tici-meta.yaml
2 kubectl -n tidb-fts apply -f tici-worker.yaml
3 kubectl -n tidb-fts apply -f tiflash-cn.yaml
```

11. Create tables and fulltext indexes

代码块

```
1 ---
2 CREATE TABLE IF NOT EXISTS t9(id BIGINT AUTO_INCREMENT,body TEXT,PRIMARY KEY
  (id));
3 ALTER TABLE t9 ADD FULLTEXT INDEX ft_index (body) WITH PARSER standard;
4 INSERT INTO t9 (body) VALUES
5     ('This is the first test pdata, used to demonstrate the insert operation'),
6     ('The second record contains some sample text for testing'),
7     ('Third entry: verifying the TEXT field's ability to store longer
  content'),
8     ('Fourth data row, which can be used for subsequent query or analysis
  tests'),
9     ('Fifth sample entry to complete the basic insertion example');
10
11 select * from t9 where fts_match_word('first', body);
12
13 ---
14 CREATE TABLE IF NOT EXISTS t8(id BIGINT AUTO_INCREMENT,body TEXT,PRIMARY KEY
  (id));
15 ALTER TABLE t8 ADD FULLTEXT INDEX ft_index (body) WITH PARSER standard;
16 INSERT INTO t8 (body) VALUES
17     ('This is the first test data, used to demonstrate the insert operation'),
18     ('The second record contains some sample text for testing'),
19     ('Third entry: verifying the TEXT field's ability to store longer
  content'),
20     ('Fourth data row, which can be used for subsequent query or analysis
  tests'),
21     ('Fifth sample entry to complete the basic insertion example');
22
23 select * from t8 where fts_match_word('first', body);
24
25 ---
26 CREATE TABLE IF NOT EXISTS t7(id BIGINT AUTO_INCREMENT,content TEXT,PRIMARY
  KEY (id));
27 ALTER TABLE t7 ADD FULLTEXT INDEX ft_index (content) WITH PARSER standard;
28 INSERT INTO t7 (content) VALUES
29     ('This is the first test data, used to demonstrate the insert operation'),
30     ('The second record contains some sample text for testing'),
```

```
31      ('Third entry: verifying the TEXT field's ability to store longer
32      content'),
33      ('Fourth data row, which can be used for subsequent query or analysis
34      tests'),
35      ('Fifth sample entry to complete the basic insertion example');
36
37 select * from t7 where fts_match_word('first', content);
```