

Greenplum to Greenplum

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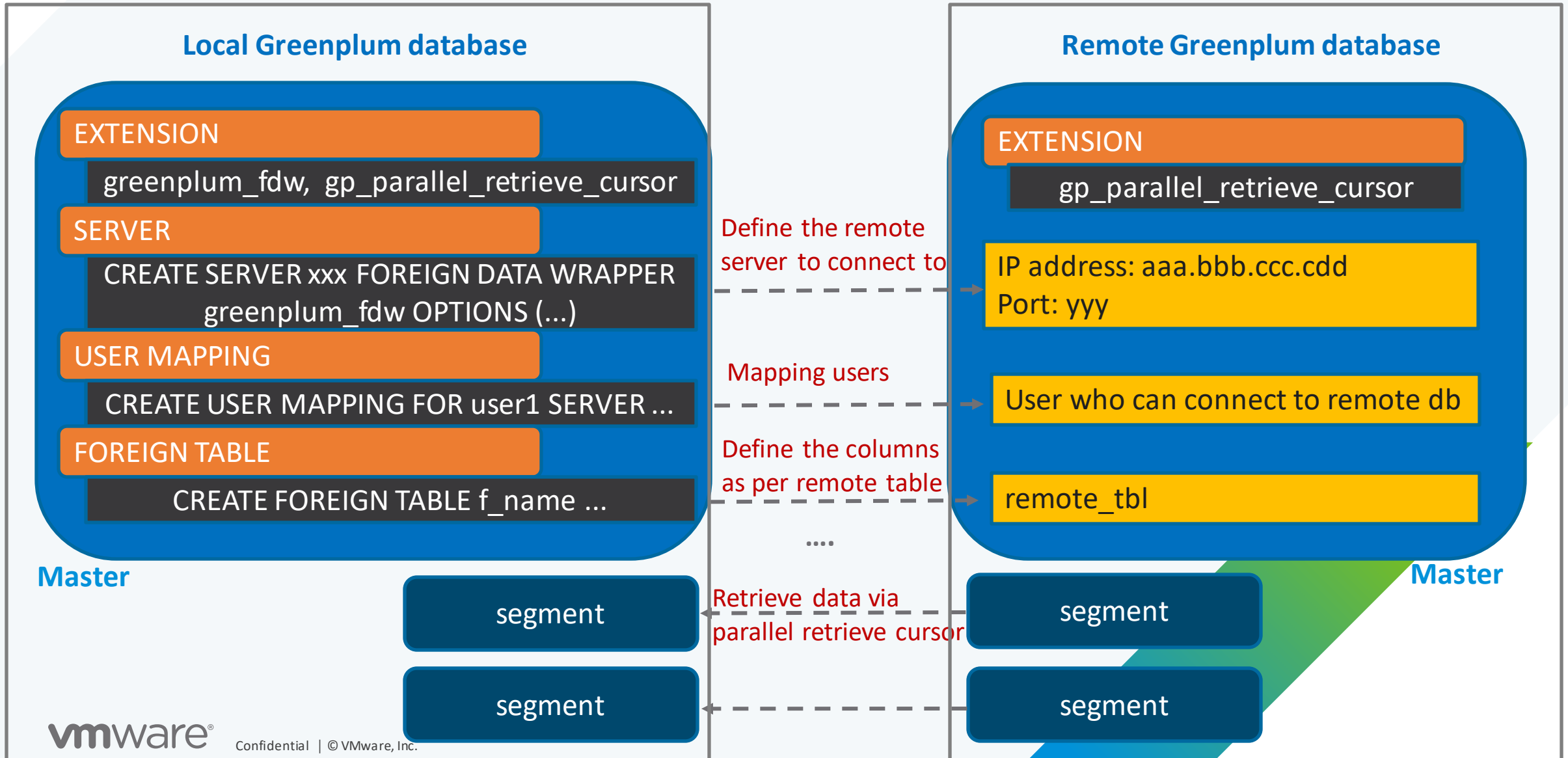
VMware Greenplum Team

2022-06-08

Greenplum to Greenplum modules

- greenplum_fdw extension
- gp_parallel_retrieve_cursor extension

Greenplum to Greenplum usage



Parallel retrieve cursor in Greenplum

Declare

- `DECLARE cursor_name PARALLEL RETRIEVE CURSOR FOR query;`

Retrieve

- `SELECT * FROM gp_endpoints WHERE cursorname = xxx;`
- `$> PGOPTIONS='-c gp_retrieve_conn=true' psql -h gpdb6-remote -p 7000`
- `RETRIEVE ALL FROM ENDPOINT cursor10000003f00000007;`

```
testdb=# select * from gp_endpoints;
gp_segment_id |          auth_token          | cursorname | sessionid | hostname | port | username | state | endpointname
-----+-----+-----+-----+-----+-----+-----+-----+-----
0 | 10544b99bc5b3cf16cf463768e29e39f | cursor1 | 63 | gpdb6-remote | 7000 | gpadmin | READY | cursor10000003f00000007
1 | 8336db5e0e3fdebbs19876d3183badd3 | cursor1 | 63 | gpdb6-remote | 7001 | gpadmin | READY | cursor10000003f00000007
2 | c1e5ce87a68feb57ce286a5c9f09865e | cursor1 | 63 | gpdb6-remote | 7002 | gpadmin | READY | cursor10000003f00000007
3 | 50c4c8eca8768575f54a01a88aa1b398 | cursor1 | 63 | gpdb6-remote | 7003 | gpadmin | READY | cursor10000003f00000007
(4 rows)
```

Greenplum FDW queries (1/2)



```
START TRANSACTION ISOLATION LEVEL REPEATABLE READ
```

```
SELECT count(DISTINCT content) FROM  
pg_catalog.gp_segment_configuration WHERE content >= 0
```

```
DECLARE c1 PARALLEL RETRIEVE CURSOR FOR SELECT a  
FROM test.tb1
```

```
SHOW gp_session_id
```

```
SELECT hostname, port, dbid, auth_token,  
pg_get_userbyid(userid), endpointname FROM gp_endpoints()  
WHERE sessionid=187 AND cursorname = 'c1'
```

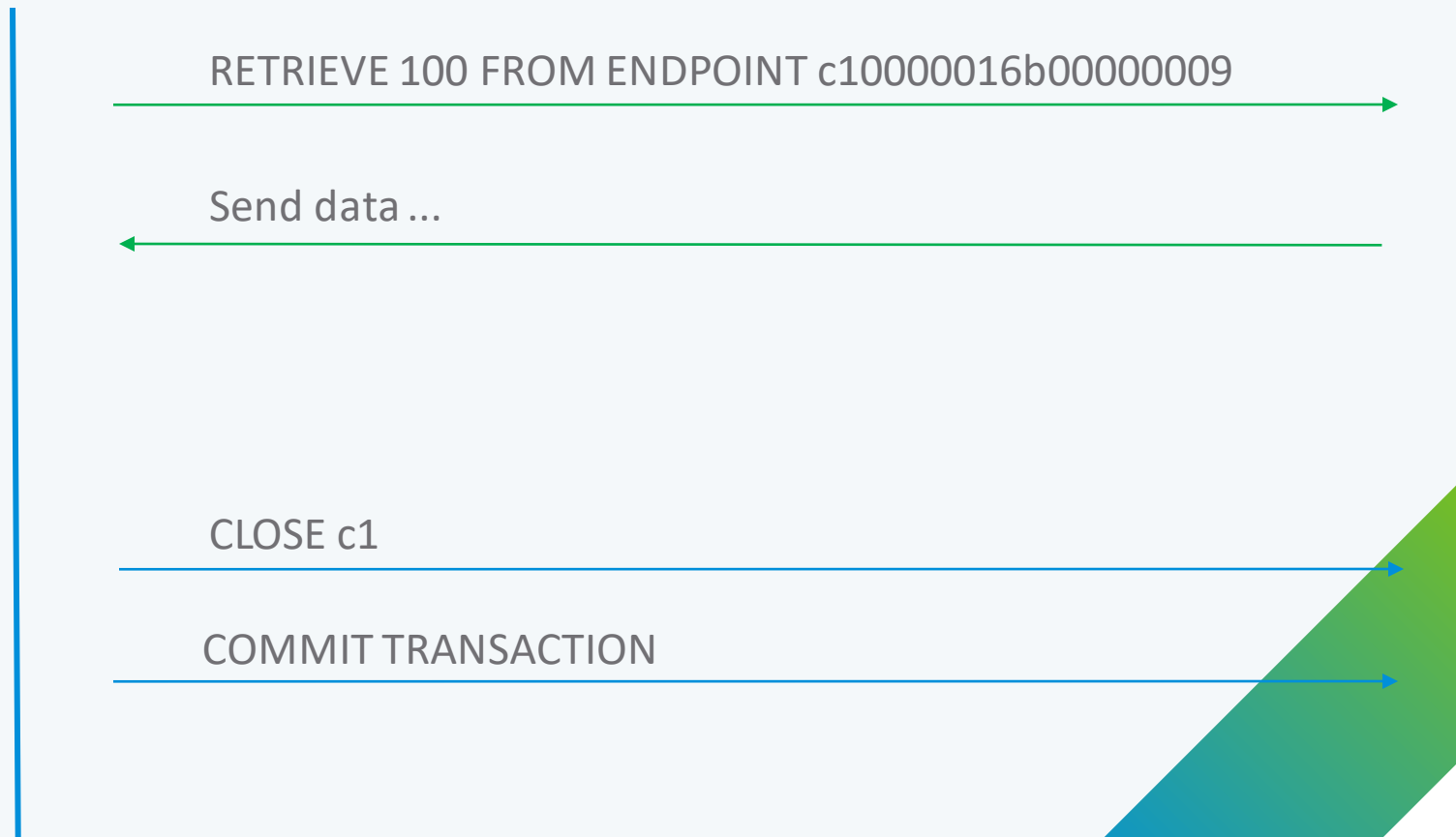
Greenplum FDW queries (2/2)



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Psql commands about FDW

- **Show foreign server**
 - `\des(+)`
 - `select * from pg_foreign_server;`
- **Show user mapping**
 - `\deu(+)`
 - `select * from pg_user_mappings;`
- **Show foreign table**
 - `\det(+)`
 - `select * from pg_foreign_table;`

Demo

Known issues and limitations

- The GPORCA optimizer does not support queries on foreign tables
- Greenplum_fdw does not support UPDATE and DELETE operations on foreign tables

Thank You

- <https://github.com/greenplum-db/gpdb/wiki/Greenplum-to-Greenplum>
- <https://github.com/greenplum-db/gpdb/wiki/Parallel-Retrieve-Cursor>