

Export and Import Azure database for PostgreSQL - Hyperscale (Citus)

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This guide will help to export and import Azure database for PostgreSQL - Hyperscale (Citus) from one cluster to another.

Issue:

Customer wants to have a copy of data of his cluster or wants to take a dump file or an export/dump from his data:

Referece : https://docs.citusdata.com/en/stable/develop/migration_data_small.html 

Steps:

In these steps we will use `pg_dump`, `pg_restore` and `psql` to dump and restore tables in `public` schema. If you have other schemas you will need to list them them i.e. if you have schemas `s1` and `s2` you should use arguments `--schema public --schema s1 --schema s2` in command below.

Export:

1. run `pg_dump` for target schema(s):

```
pg_dump --host=pgcitus-c.postgres.database.azure.com --username=citus --format=plain --no-owner --
schema=public --schema-only -d citus -f schema_only.sql
```

2. generate script for shards and reference tables using `psql`:

```
\pset tuples_only
\o shards.txt
select 'SELECT create_distributed_table('' || logicalrelid || ''','' || column_to_column_name(logicalrelid,p
select 'SELECT create_distributed_table('' || logicalrelid || ''','' || column_to_column_name(logicalreli
select 'SELECT SELECT create_reference_table('' || logicalrelid || ''');' as dist_col_name from pg_dist_pa
\o
```

3. export/dump data :

```
pg_dump --host=pgcitus-c.postgres.database.azure.com --username=citus --format=custom --no-owner --data-
only --schema=public -d citus -f data_only.dump
```

Import:

1. executed the schema only exported file:

connect to Azure database for PostgreSQL - Hyperscale

```
psql --host=pgcitus-c.postgres.database.azure.com --dbname=citus --username=citus
\i schema_only.sql
```

2. execute shared and reference tables:

```
\i shards.txt
```

3. Load data:

```
pg_restore --host=pgcitus-c.postgres.database.azure.com --username=citus -d citus data_only.dump
```

Notes:

Trying to dump whole citus database will give error similar to below:

```
pg_dump --host=pgcitus-c.postgres.database.azure.com --username=citus -d citus -f citus.dump pg_dump: [archiver (db)] query failed: ERROR: permission denied for table pg_dist_authinfo pg_dump: [archiver (db)] query was: LOCK TABLE pg_catalog.pg_dist_authinfo IN ACCESS SHARE MODE
```

So please export schemas or tables