

Tungsten Replicator Master Class

Advanced: Working with OLTP Targets

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Topics

In this short course, we will:

- Review replicator flow
- Explore Oracle and Postgres specific pre-requisites
- Review configurations
- Postgres demo

Replicator Flow

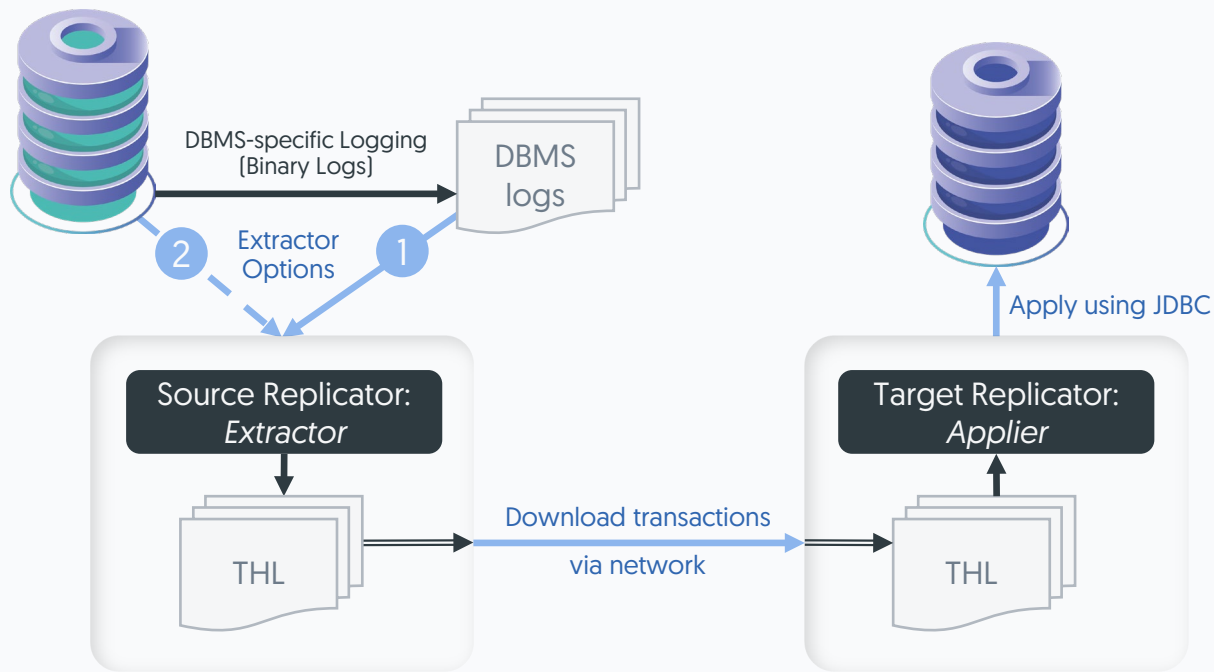
Tungsten Replicator for JDBC Targets

Option 1: Local Install

Extractor reads directly from the logs, even when the DBMS service is down. This is the default.

Option 2: Remote

Extractor gets log data via MySQL Replication protocols [which requires the DBMS service to be online]. This is how we handle Amazon Aurora extraction tasks.



THL = Events + Metadata

Prerequisites

- Review online documentation
 - <https://docs.continuent.com>
 - Download the prerequisite checklist
- Extractor/Applier Hosts
 - OS user
 - /etc/hosts
 - sudoers
 - Ruby
 - Java
- Network
 - Review port requirements
- MySQL
 - my.cnf settings
 - User accounts

Oracle & Postgres

- User Accounts
- Precreate schemas/objects
 - Ddlscan
- Oracle jdbc libraries
- Clients for offboard appliers

Object Mapping

Oracle

- MySQL database → Oracle user/schema

PostgreSQL

- MySQL instance → PostgreSQL database
- MySQL database → PostgreSQL schema

DDLScan

- Reverse engineers MySQL objects
- Creates target specific DDL
- Can be used for single objects or entire databases
- Must be configured prior to starting replicators

```
ddlscan -user tungsten -service alpha -template ddl-mysql-oracle.vm -db test  
>ddl.sql
```

```
ddlscan -user tungsten -service alpha -template ddl-mysql-postgres.vm -db test  
>ddl.sql
```

Extractor Config

```
[defaults]
user=tungsten
install-directory=/opt/continuent
mysql-allow-intensive-checks=true
profile-script=~/.bash_profile
disable-security-controls=true
rest-api-admin-user=tungsten
rest-api-admin-password=secret
replicator-rest-api-authentication=true
replicator-rest-api-ssl=true
replicator-rest-api-port=8097
replicator-rest-api-address=0.0.0.0

[alpha]
master=ext1
members=ext1
replication-user=tungsten
replication-password=secret
replication-port=3306
enable-heterogeneous-service=true
svc-applier-filters=dropstatementdata,replicate
property=replicator.filter.replicate.ignore=mysql
#or
property=replicator.filter.replicate.do=<schemanamehere>
```

Applier Configs

PostgreSQL Applier

```
[defaults]
user=tungsten
install-directory=/opt/continuent
mysql-allow-intensive-checks=true
profile-script=~/.bash_profile
disable-security-controls=true
rest-api-admin-user=tungsten
rest-api-admin-password=secret
replicator-rest-api-authentication=true
replicator-rest-api-ssl=true
replicator-rest-api-port=8097
replicator-rest-api-address=0.0.0.0
```

```
[alpha]
master=tr-ext-2
members=tr-app-1
datasource-type=postgresql
replication-user=tungsten
replication-password=secret
replication-port=5432
postgresql-dbname=demo
```

Oracle Applier

```
[defaults]
user=tungsten
install-directory=/opt/continuent
mysql-allow-intensive-checks=true
profile-script=~/.bash_profile
disable-security-controls=true
skip-validation-check=OracleVersionCheck
rest-api-admin-user=tungsten
rest-api-admin-password=secret
replicator-rest-api-authentication=true
replicator-rest-api-ssl=true
replicator-rest-api-port=8097
replicator-rest-api-address=0.0.0.0

[alpha]
master=ext01
members=ip-10-2-3-223
datasource-type=oracle
replication-user=tungsten_alpha
replication-password=secret
replication-port=1521
datasource-oracle-service=ORCL
svc-applier-filters=casetransform
property=replicator.filter.casetransform.to_upper_case=true
```

Demonstration

Summary

What we have learnt today:

- Review replicator flow
- Explore Oracle and Postgres specific pre-requisites
- Review configurations

Thank you for listening

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