

Tungsten Replicator Master Class

Advanced: Working with MongoDB and Kafka

Chris Parker, Customer Success Director, EMEA & APAC



The MySQL Availability Company

Topics

In this short course, we will

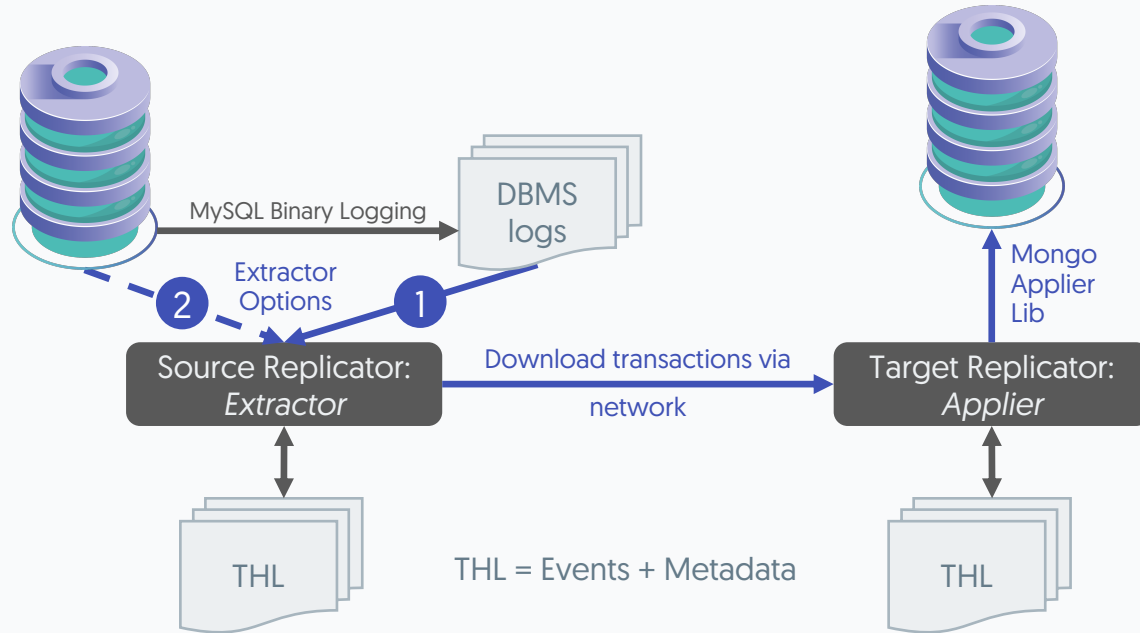
- Review replicator flow
- Explore MongoDB and Kafka specific pre-requisites
- Review configurations
- Demo



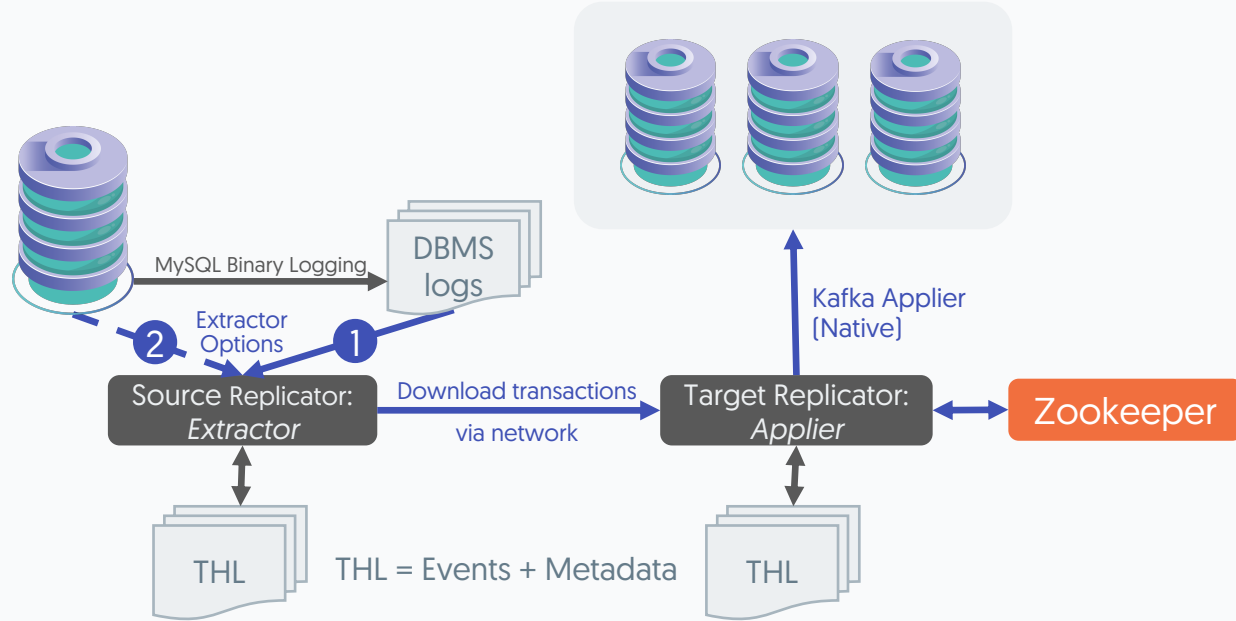
Replicator Flow



How MongoDB Replication Works



How Kafka Replication Works



What Tungsten Replicator Does to Apply into Kafka

- Takes an incoming row and converts it to a message
- Message consists of metadata:
 - Schema name, table name
 - Sequence number
 - Commit timestamp
 - Operation Type
 - Embedded Message Content



Object Mapping

- Mongo
 - MySQL Database → Database
 - Table → Collection
 - Row → Document
- Kafka
 - MySQL Schema & Table → Topic (schemaname_tablename)
 - Row → Message



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
- MongoDB
 - User Account
 - If using Atlas, export certificates
 - Add replicator to Atlas Whitelist
- Kafka
 - Configure zookeeper



Extractor Config

```
[defaults]
user=tungsten
install-directory=/opt/continuent
mysql-allow-intensive-checks=true
profile-script=~/.bash_profile
disable-security-controls=true
```

```
[alpha]
master=tr-ext-2
members=tr-ext-2
replication-user=tungsten
replication-password=secret
replication-port=3306
enable-heterogeneous-service=true
```



Applier Configs

MongoDB

```
[defaults]
user=tungsten
install-directory=/opt/continuent
profile-script=~/.bash_profile
disable-security-controls=true

[alpha]
master=tr-ext-2
members=tr-app-1
datasource-type=mongodb
replication-user=dbadmin
replication-password=Secret123
replication-port=27017
svc-applier-filters=dropstatementdata
```

MongoDB Atlas

```
[defaults]
user=tungsten
install-directory=/opt/continuent
profile-script=~/.bash_profile
disable-security-controls=false
rmi-ssl=false
thl-ssl=false
rmi-authentication=false

[alpha]
master=tr-ext-2
members=tr-app-1
datasource-type=mongodb
replication-user=dbadmin
replication-password=Secret123
replication-port=27017
svc-applier-filters=dropstatementdata
replication-host=atlasendpoint.mongodb.net
property=replicator.applier.dbms.connectString=mongodb+srv://$
{replicator.global.db.user}:${replicator.global.db.password}@${
{replicator.global.db.host}/?retryWrites=true&w=majority
```



Applier Configs

Kafka

```
[defaults]
user=tungsten
install-directory=/opt/continuent
profile-script=~/.bash_profile
disable-security-controls=true

[alpha]
master=tr-ext-2
members=tr-app-1
datasource-type=kafka
replication-user=root
replication-password=null
replication-port=9092
property=replicator.applier.dbms.zookeeperString=localhost:2181
property=replicator.applier.dbms.requireacks=1
```



Demonstration



Summary

What we have learnt today

- Reviewed replicator flow
- Explored Kafka and Mongo specific pre-requisites
- Reviewed configurations



Congratulations!

- Thank you for following the Tungsten Replicator Master Class!
- Make sure you complete all the tests to receive your digital certificate!
- Re-watch all the training videos as many times as you want!
- How did we do?
 - We'd love to hear your feedback (The good and the bad!)
 - Email: customer.success@continuent.com
 - Any topics we didn't cover? Let us know!



THANK YOU FOR LISTENING

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