Basics: Simple Replicator Installation
Extract from MySQL
Topics

In this short course we will:

• Review the Replicator
• Review prerequisites required
• Discuss installation Methods
  – Staging vs INI
• Walkthrough an Installation (Full end to end demo)
• Recap Key Resources and Tools

Course Prerequisite Learning
  – Basics: Introduction to Tungsten Replicator
  – Visit Continuent website or Tungsten University on YouTube to watch these recordings
Tungsten Replicator Architecture
Tungsten Replicator

MySQL/Oracle

Master Replicator: Extractor

THL

MySQL/Oracle

Slave Replicator:

THL

DBMS Logs
Key Decisions and Prerequisites
Pre Installation Environment Decisions

• Which release of MySQL?
  – MySQL Community
  – Percona
  – MariaDB
  – Oracle MySQL Enterprise

• Which version?
  – 5.0 to 5.7

• What monitoring tools do you have?
• Full or Partial Replication
• What backup tools do you have?
Prerequisites

• Review docs

• Host Prerequisites
  – OS user
  – /etc/hosts
  – sudoers and ssh
  – Ruby
  – Java

• Network Prerequisites
  – Review port requirements

• MySQL Prerequisites
  – my.cnf settings
  – tungsten user accounts
Pre Installation Tungsten Decisions

• TAR file or RPM?
• INI-based install or staging install?
• SSL Enabled?
Installation Methods: ini vs staging

• INI-based Install
  – Install managed via /etc/tungsten/tungsten.ini on EACH host
  – PROS
    • Control over each node individually
    • Easy integration to automation software such as puppet and chef
    • Remove dependency on single host for install
  – CONS
    • Configuration changes must be performed individually
    • Risk of misconfiguration between nodes
Installation Methods: ini vs staging

• Staging Install
  – Install managed from one host
  – Could be a source/target node or a separate host outside of replication.
  – PROS
    • One single place for configuration
    • Easy to install/update entire topology in one go
    • Configuration applied to all nodes, less risk of misconfiguration
  – CONS
    • No easy integration to automation software
    • Staging host become single point of failure for configuration management
      – Especially important if Staging host is a DB Node
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 Slave protocols (which requires the DBMS service to be online). This is how we handle RDS extraction tasks.

THL = Events + Metadata
Command Line Tools & Resources
Tools: trepctl

- “trepctl status” can be run from any node to view the status of the local replicator
- “trepctl status –r 3” will show status output refreshed every 3 second until CTRL+C
- “trepctl qs” provides a quick summary overview of the local replicator
- “trepctl perf” provides deeper diagnostics of the different stages in the replicators

```
$ trepctl qs
State: east Online for 21.069s, running for 45.654s
Latency: 0.837s from DB commit time on db1 into THL
21.839s since last database commit
Sequence: 1 last applied, 0 transactions behind (0-1 stored) estimate 0.00s before synchronization
```
Log Files

- The `/opt/continuent/service_logs/` directory contains both text files and symbolic links.
- Links in the `service_logs` directory go to following subdirectory:
  - `/opt/continuent/tungsten/tungsten-replicator/log/`
Next Steps

• If you are interested in knowing more about the software and would like to try it out for yourself, please contact our sales team who will be able to take you through the details and setup a POC – sales@continuent.com

• Read the documentation at http://docs.continuent.com/tungsten-replicator-5.3/index.html

• Subscribe to our Tungsten University YouTube channel! http://tinyurl.com/TungstenUni

• Visit the events calendar on our website for upcoming Webinars and Training Sessions
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