tcVISION

Rocket Software

POC Description

12/01/22

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1 Replication Scenario

The Trial should implement the general functionality of tcVISION. The criteria for the installation are defined as setup of a successful, repeatable, automated replication process with documented results from

- z/OS Db2 Vxx

to

- PostgreSQL Vxx

The trial will be held for 60 days.

The trial should show to transfer a small amount of Db2 tables, to the PostgreSQL database.

The data will be transferred to the PostgreSQL using the tcVISION bulk functionality and then replicated to the PostgreSQL using the tcVISION real time function. The throughput and the reliability will be considered in particular.

It is assumed that the test environment has the technical capacity to achieve the latency specifications.

2 Environment

tcVISION Mainframe Agent:	z/OS V2.xx
tcVISION Source Databases:	Db2 on System/z
tcVISION Server Agent:	Windows Server or Linux
tcVISION Target Database:	PostgreSQL
tcVISION Replication Server:	Windows or Linux

3 General

tcVISION can synchronize changes of these data made online or via batch in real time. To keep the impact on the mainframe as low as possible, tcVISION sends the changes directly to the replication server. The whole processing for initial load and real-time capturing can be automated.

4 tcVISION Agent Installation

4.1 tcVISION Agent in z/OS

The tcVISION Agent and its subtasks

- collect the changed data from Db2 via the Db2 Active Logs
- control the running transfer scripts

A detailed description of the mainframe installation under z/OS can be found in chapter 3 of the manual “tcVISION - tcAGENT - Installation and Startup”. The Db2 access will be described in chapter 3.4. Further information can be found in the manual "tcVISION tcSCRIPT" starting in chapter 8.4.

The tcVISION Mainframe Offload Data feature can also be used for the Bulk method, where the bulk is done via Db2 Imagecopy on the tcVISION Replication Server. This functionality does not consume any resources on the mainframe, because the complete processing is done on the platform of the tcVISION replication server.

4.1.1 tcVISION Agent Installation Requirements

The tcVISION Agent z/OS needs its own region.

The tcVISION modules, job samples, and macros require the tcVISION installation library. All required jobs can be found on the installations library.

The tcVISION Agent requires access to all needed resources on the mainframe.

- Db2: CAF or RRSAF on the mainframe

4.2 tcVISION Server Agent

The tcVISION on the server will receive the changed data from z/OS and apply the data to the target system(s). A standard installation procedure will install the components to the server. The installation requires 20 MB disk space. If data is stored and buffered on the server, more disk space might be needed.

The tcVISION Agent can be installed at the database server. However, this is not mandatory. The communication from tcVISION to the databases is established as follows:

- PostgreSQL driver on the server

The tcVISION Repository can either reside on the server with the target database or on any other server of choice outside the host.

4.2.1 PostgreSQL Requirements

If PostgreSQL should be defined as target only, the current PostgreSQL Client must be installed on the computer of the tcVISION agents. A tcVISION installation on the database server is not necessary.

5 TCP/IP

The tcVISION components must be able to connect to each other. Connections must be possible:

- from z/OS Agent and scripts to the server
- from server Agent and scripts to the mainframe
- from Windows / Linux tcVISION Replication Server to the server on which tcVISION is running and to the mainframe

All tcVISION components must be able to connect to each other in both directions. To ensure the connectivity, at least ten ports must be available. The number of ports to reserve depends on the number of parallel tasks desired to run in tcVISION. Please have a look at the firewall definitions!

6 tcVISION Repository

The tcVISION Repository is the source for meta information about input and output objects. All replications performed by tcVISION must be based on the Repository.

The tcVISION Repository consists of tables that are part of a database. These tables may be part of the source or target database or can be stored in a separate database.

All Agents in a tcVISION network access the same database. If it is not possible for an Agent to directly access the database, the Repository access can be redirected to another Agent in the network with direct access. This also applies to scripts.

Currently, support is provided for the mainframe, MS-Windows, UNIX, and Linux platforms on which the tcVISION Agent can run. When choosing the database that should be used for the tcVISION Repository, the main focus should be on platforms on which the DML statements reside.

A small PostgreSQL database is sufficient for this installation.

7 Staff

For the installation we recommend that the following people are available:

- z/OS system administrator
- Database administrators
- Staff who is familiar with the data structure and content of the databases and files
- Network administrator
- Windows / Linux administrator

8 Appendix A: Connections Overview