tcVISION

IBM Mainframe Integration Through Change Data Capture

Fact Sheet

Mainframe data integration has taken on more urgency in recent years as organizations seek to relocate mainframe workloads to lower-cost platforms, modernize mainframe applications and leverage analytics, machine learning and AI, and high availability for customer insight and competitive advantage. These factors are driving adoption of Cloud, Big Data, etc. as strategic components in corporate technology architecture.

tcVISION's support for Cloud and open systems targets are fully integrated alongside traditional Linux/Unix/Windows (LUW) targets such as Oracle Database, IBM DB2 LUW, Software AG Adabas LUW, IBM Informix, Sybase, Microsoft SQL Server, PostgreSQL and ODBC.

tcVISION can deliver replicated data to a wide array of targets through a variety of means: creating files, writing directly, and via streaming, such as using Apache Kafka as the transport layer. Data can be packaged using standard JSON and CSV protocols.
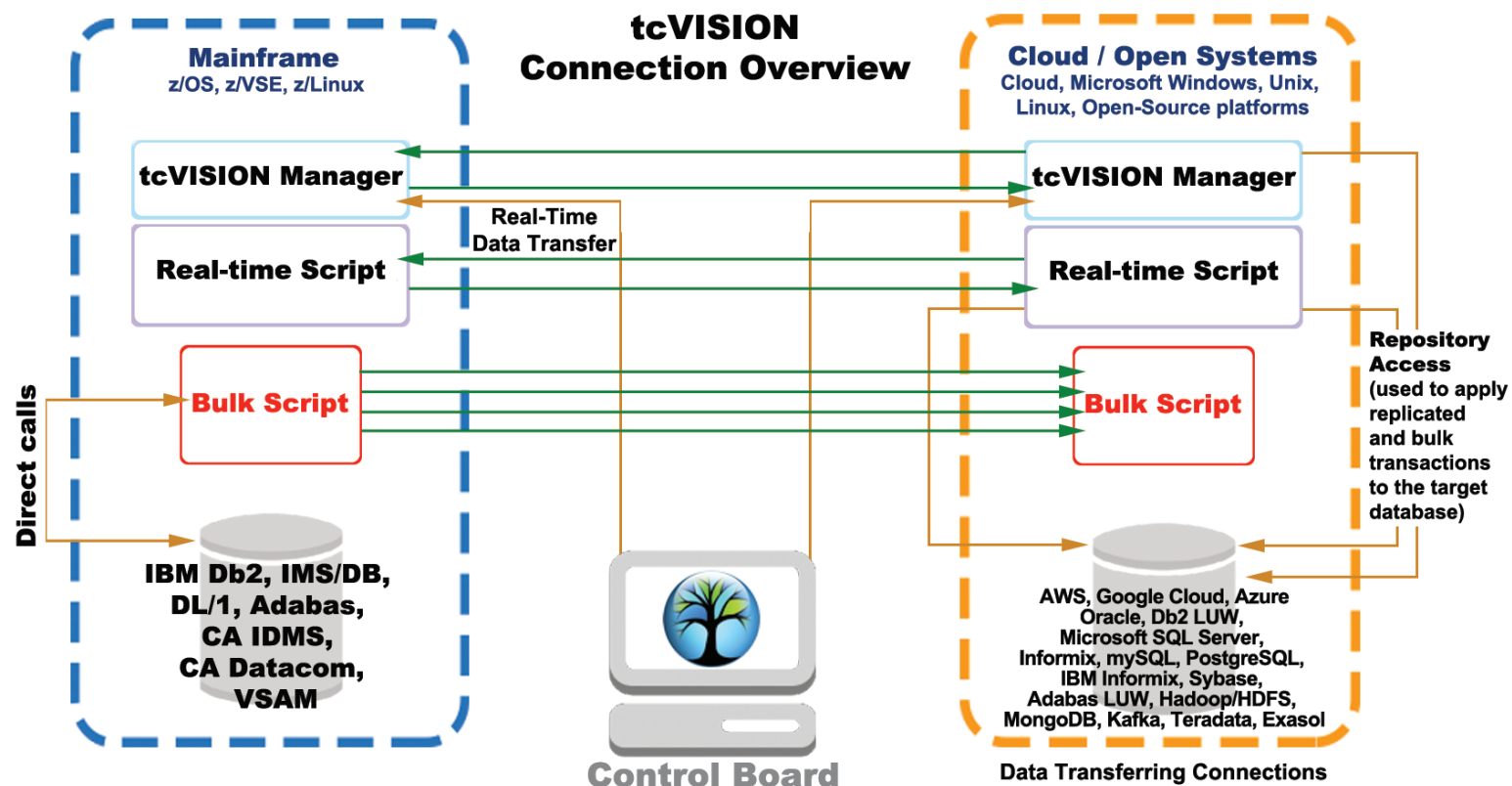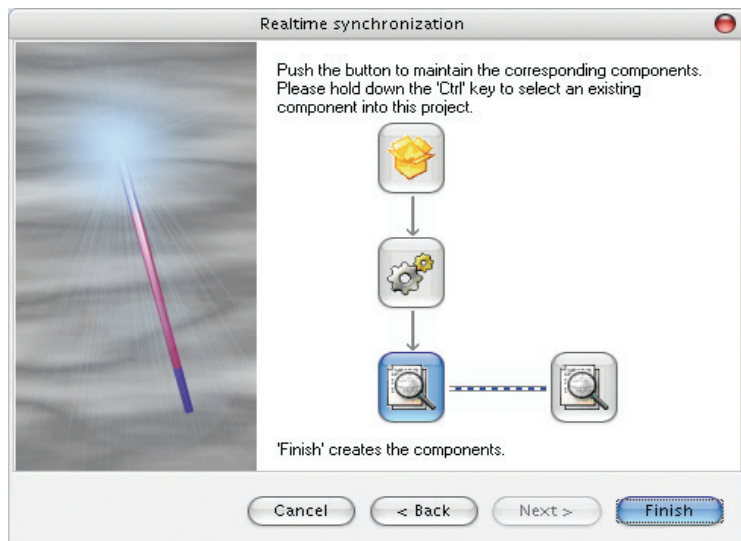
The tcVISION Solution

tcVISION is ready to meet new Cloud and open systems requirements, technologies, and challenges. Thanks to tcVISION's flexible architecture, support for a variety of targets is continually being developed, including AWS, Google Cloud, Azure, Oracle Cloud, Kafka, PostgreSQL, etc..

tcVISION focuses on changed data capture (CDC) when transferring information between mainframe data sources and Cloud, LUW, Open System databases and applications. Through an innovative technology, changes occurring in any mainframe application data are tracked and captured, and then published to the targets.

Why tcVISION?

- Increasing number of enterprise applications that utilize their own databases.

- Requirement for up-to-date information demands real-time, bi-directional data synchronization between mainframe and open systems.

- Business globalization cannot tolerate interruptions in online systems – data exchange with batch-window limitations is no longer acceptable.
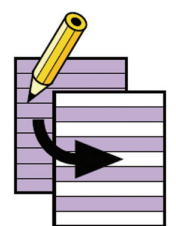

tcVISION Connection Overview

tcVISION Change Publishing

tcVISION converts the captured changes to a format compatible with the target system. A target database can reside on a workstation or on open systems or Windows server (e.g., Oracle, SQL Server, DB2 LUW, etc.)--or another mainframe database (e.g., DL/1 -> DB2).

The transfer to the target system can be in various formats: SQL, Flat File, XML or any user-specific format that can be accessed by an API. It is also possible to insert the data into a message queue or to pass it to any ODBC target. tcVISION provides the user with enormous flexibility and guarantees openness for future technologies.

A powerful script language is available to implement automated data-exchange processes. Wizards and Drag & Drop technology enable usage of the script language with no need for training.
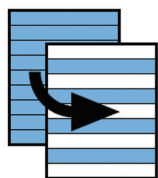
tcVISION – Technology

tcVISION considerably simplifies mainframe data exchange processes. The structure of the existing mainframe data is analyzed by tcVISION processors, then automatically mapped to a target data mapping. The data mapping information is presented in a user-friendly and transparent format – even for users with no mainframe knowledge.

The mapping information is saved in a meta data repository hosted on a relational database, and can easily be made available to other applications. The Windows-based Control Board of tcVISION provides an easy-to-use facility to administer the data flow. tcVISION provides a variety of interfaces to allow seamless integration with ETL or EAI solutions.

tcVISION – Benefits

With tcVISION, data synchronization between mainframe and Cloud and open systems pays off:

- Real-time replication of mainframe data enables real-time analytics and offloading mainframe application functionality (e.g., online banking queries, e-Government, etc.) to Cloud and open systems with data synchronized between the platforms.

- Replication costs are minimized as only changes are exchanged.

- Mainframe resource usage and costs are minimized.

- Data exchange processes can be designed, deployed and maintained with tcVISION without mainframe knowledge, providing cost savings, quicker delivery and project autonomy in modernization initiatives.

- Reporting and analytics applications are more comprehensive and valuable when mainframe data can be included in the Cloud platform.
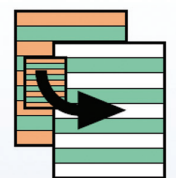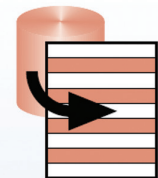
Change Data Capture Methods

Logfile Analysis

Bulk Transfer

Batch Compare

DBMS Extension

tcVISION offers different CDC methods to identify mainframe and relational data. The change capture method deployed depends on the source database (CA-IDMS, DB2, VSAM, DL/1, IMS/DB, ADABAS, IDMS/DB, DATACOM/DB, SQL Server, Oracle), the data volume, the volume of changed data and the required currency of the information. Changes are automatically transferred to the targets in time intervals or in real time by tcVISION data change publishing facilities.

Supported Environments

IBM-Mainframe:	Cloud and Open Systems:
IBM z/OS, z/VSE, z/Linux	AWS, Google Cloud, Azure, LUW, Open-Source

Target database can reside on a workstation or on a Cloud, open systems, or Windows server (e.g., Oracle, SQL Server, Sybase, DB2 LUW, etc.)--or another mainframe database (e.g., DL/1 -> DB2).

Transfer to the target system: SQL, MQ Series, Flat File, XML ,or any user-specific format that can be accessed by an API.

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