

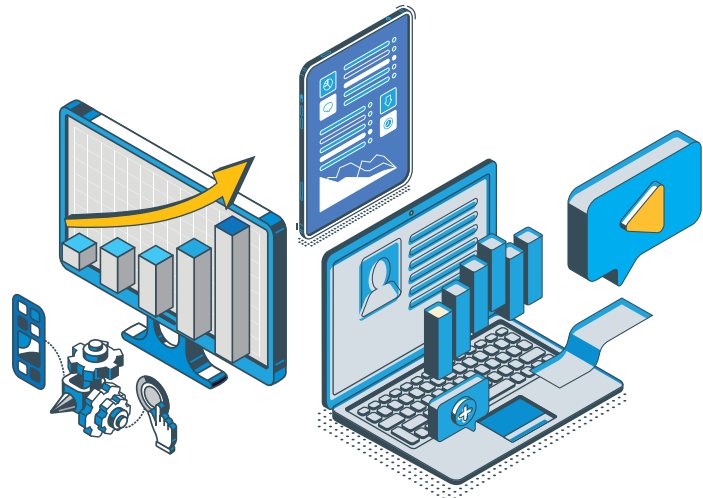
SOLUTION OVERVIEW



Real-time Data Replication

Gain critical business insights with real-time data analysis from different databases. Have a 360-degree view of your business and empower yourself to make swift data-driven decisions. **SILCROAD** helps you overcome data integration challenges. It also offers real-time data synchronization from different databases in a cloud environment, on-premise, or a combination of both, with the best IT cost optimization.

It comprises three major components: a log-based replication engine, a monitoring agent, and a validation agent that enables redo log-based technologies to make real-time data replication.



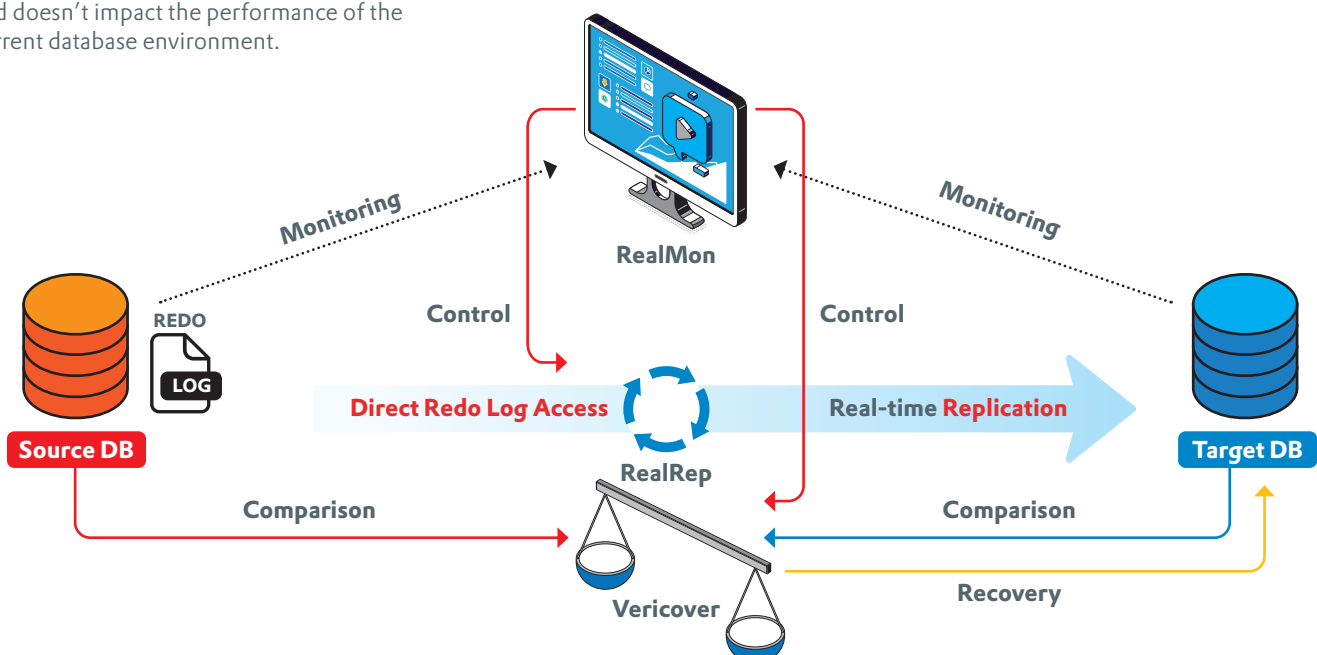
Architecture

SILCROAD provides innovative real-time data synchronization technology that meets customers' needs in their environment with three major components:

RealRep is a data replication engine that accesses directly to redo logs from a source database. The engine provides high-performance data replication in a high volume of the transactional environment and doesn't impact the performance of the current database environment.

RealMon is a GUI-based monitoring agent that can easily set up, monitor, and service the replication process.

Vericover is the data validation agent that maintains the data consistency between the source and target database. It also executes data recovery if there are any discrepancies.



KEY BENEFITS

SILCROAD provides you with a cost-efficient solution to overcome data integration problems and make data-driven decisions promptly. Here are four key benefits that makes **SILCROAD** a major performance enabler.



DATA CONSISTENCY

- Easy verification and recovery from users' errors
- Support other CDC* environments on validation through Vericover agent



HIGH AVAILABILITY

- Zero-downtime migration and data synchronization
- Automatic process recovery
- Cloud-ready technology
- No impact on the performance of current database system



LOW COST

- Substantial licensing and maintenance savings as compared to other log-based CDC* solutions
- Over 50% savings for 5 years



HIGH PERFORMANCE

- Real-time replication through direct access to redo log of source database
- Automatically reflect changes without interruptions / no load when changing meta data

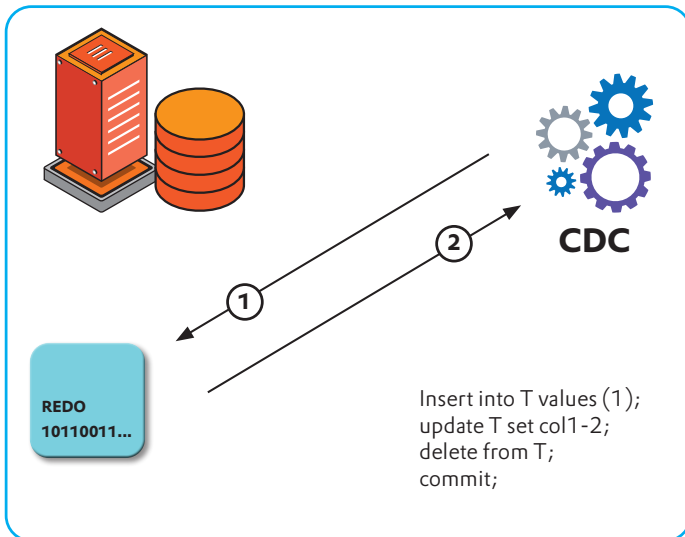
* CDC (Change Data Capture) : A set of design patterns used to determine and track the data that has changed so that action can be taken using the changed data.

KEY FEATURES

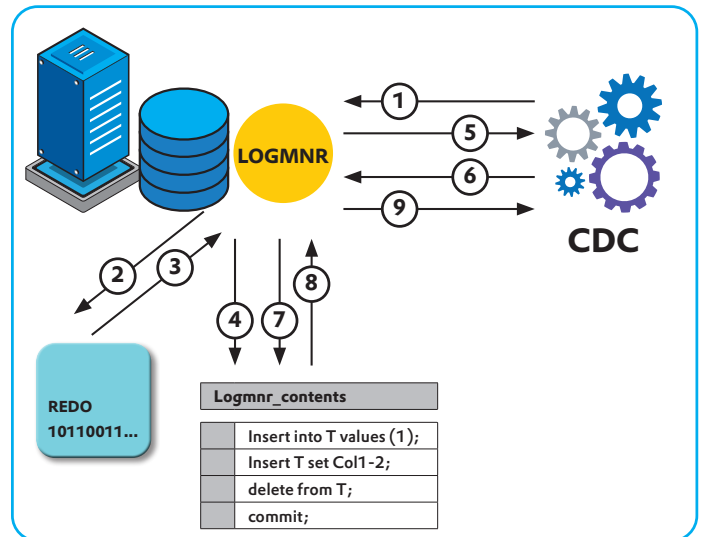
Direct Redo-log Access-based Technology Brings Real-time Replication Performance

SILCROAD provides performance at speeds of 10 times or faster than LogMiner, triggers or other technologies.

Transaction Log Based CDC



Trigger Based CDC



Comparing SILCROAD

Why SILCROAD is superior

vs. AP Replication

- Excellent inter-database consistency

vs. Trigger + DBLink

- Transaction log based operations that do not interfere with SQL executions on an operating database
- Asynchronous synchronization that is faster than 2-PC and prevents local failures from impacting the entire database

vs. EAI

- Data compatibility is ensured, and inconsistencies caused by user errors are detected and fixed
- Background operations enable speed superior to EAI which relies on batch processing

vs. ETL

- Synchronization possible without shutdown of operational system
- Transaction log based operations enable targeting of incremental data only

vs. Real-time CDC

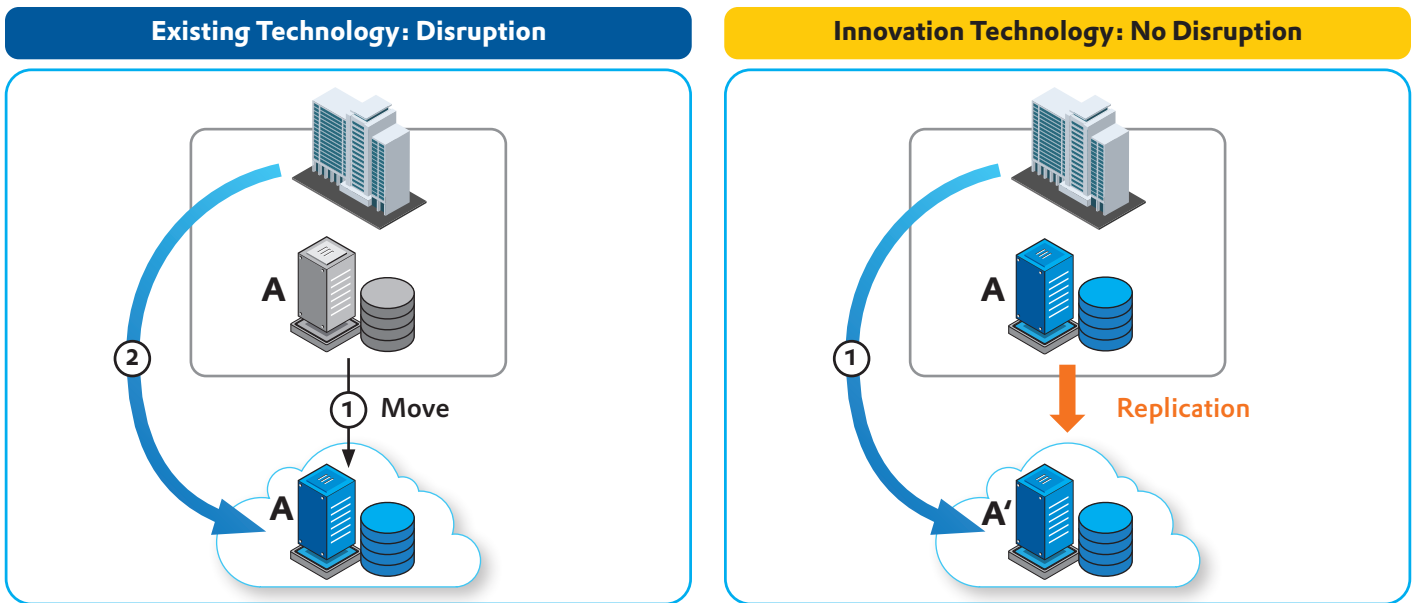
- Lower cost of dual system setup as the target database does not have to be high-cost DBMS

vs. Other CDC Solutions

- LogMiner-free operations facilitate unparalleled performance and minimal server loads

Cloud-ready Technology

SILCROAD supports public cloud environments. It helps clients with their data migration from on-prem to the cloud without system downtime. It replicates all data from the on-prem system to the cloud, supporting users to set up another information or reporting system.



Applications

SILCROAD is available in various environments, including:

- 1. Set up Reporting and Informational System**
Replicate data from the production database to target information system.
- 2. DR Deployment**
Replicate data from the production database to the DR server. It also supports data recovery from the DR to the production server.
- 3. Data Warehousing**
Provide real-time data replication from multiple OLTP databases to target data warehouse system. Users can analyze data in a data warehouse with real-time data.

OS and Hardware Requirements

- **OS:** Windows, Solaris, GNU Linux, IBM AIX, and HP-UX (Itanium)
- **Virtual Environment:** Fully supported, including VMware, KVM, and others
- **Memory:** Varies depending on the size of the processed data
- **Disk:** Varies depending on the configuration

Our local representative's information