Retail Store Synchronization

SymmetricDS is the leading open source solution for Data Replication, Change Data Capture, and Data Transformation for retail store systems. Reliably move data in both directions between central office and stores in near real time.

RETAIL STORE TO CENTRAL OFFICE SYNCHRONIZATION

Data from multiple Point of Sale databases are replicated with a local Store server, which is replicated to the Central Office.

RETAIL STORE TO REGIONAL SYNCHRONIZATION

Data from multiple Point of Sale databases are replicated and combined at Regional databases, removing the need for a Store server.

Each Regional database supports multiple stores and allows the network of nodes to scale. Asynchronous replication uses minimal bandwidth and handles periods of disconnected operation. Replication is configurable for one or both directions and includes conflict detection and resolution.

Key Features

- Multiple tiers configurable for large deployments
- Web protocols for security and easy administration
- Push data from stores or poll from central office
- Periodic or continuous synchronization with data prioritized into channels
- Compressed and encrypted streaming data format for efficiency and security
- Operate in offline mode and recover from network outages
- Initial load of data when opening new registers or stores
- Filter and subset data for each store

Central Management

The web-based console makes it easy to configure, monitor, and troubleshoot all stores from one application.

Business Benefits

- Guarantee replication of critical sales transactions.
- Manage data centrally, such as items, prices, employees, and inventory.
- Protect sensitive data, such as credit card numbers, by filtering operational data and routing to protected data storage.
- Improve integration performance and make efficient use of bandwidth.
- Enhance and transform sales data in real time to make informed decisions more quickly.
Filter, Subset, Transform

With data integration features, you can manipulate the change data with filters, subsets, and transformations. Filter or encrypt sensitive data before it loads into the operational database, or publish it to a protected database instead. Subset data either horizontally, by selecting which rows go to a destination, or vertically, by selecting which columns to sync. Map columns from the source database to different columns on the destination. Data can be transformed, merged, and enriched during both the extraction phase on the source and the load phase on the destination. Use built-in transforms for quick manipulation or plug in a custom Beanshell script for even more power.

Database Independence

With support for most major database platforms and operating systems, compatibility in a heterogeneous enterprise is important to us. Our software was architected from the beginning to handle data integration and replication issues for multiple platforms and to make adding new dialects easy. Our customers benefit by avoiding platform lock and gaining the freedom to choose platforms based on their suitability to the application. Run Oracle at your central office, MySQL at the back office, and SQLite on mobile devices, all seamlessly synchronizing data. There are over a dozen database dialects supported and SymmetricDS will run anywhere Java can go, including Windows, Linux, Unix, MacOS X, and Android.

Enterprise Solutions

SymmetricDS has proven successful in business situations that require fast and reliable database replication across local and wide area networks.

ENTERPRISE APPLICATION INTEGRATION

As data from retail stores trickles into Central Office, it is formatted to XML and published to an enterprise service, making it available to other applications using a service-oriented architecture (SOA).

WORKLOAD DISTRIBUTION

The operational database is replicated to a data warehouse or a reporting database. The main application continues to use the operational database, while the secondary database is used for reporting and analysis. The data can be filtered and transformed to enhance reporting.

BRIDGE BETWEEN DATABASES

Data is transformed during replication between databases with different structure. Each application can model its data differently, so bridging can synchronize a set of data between two different applications, such as a website and call center database. The bridge also adds a protective layer of security between the databases.

About JumpMind

JumpMind, Inc., provides support and development services for SymmetricDS (www.symmetricds.org). Using a commercial open source business model, JumpMind eliminates software license fees while providing support, services, and product enhancements via an annual support subscription. With the popularity of SymmetricDS as a top 500 project on SourceForge, JumpMind has helped with production deployments at companies ranging from small organizations to the Fortune 500.