

# SYNCLITE DATABASE REPLICATION/MIGRATION TOOL

SyncLite Database Replication Tool: Unleash the power of flexible, scalable, and schema-aware many-to-many database replication/migration. Effortlessly orchestrate incremental replication pipelines, manage data with precision, and redefine your data replication/migration experience – all with zero configuration changes required on the source database. With SyncLite DB Reader application configured to extract data from source DB into SyncLite telemetry devices which are shared with SyncLite Consolidator via a configurable staging storage, the SyncLite consolidator performs replication into one or more destination databases.

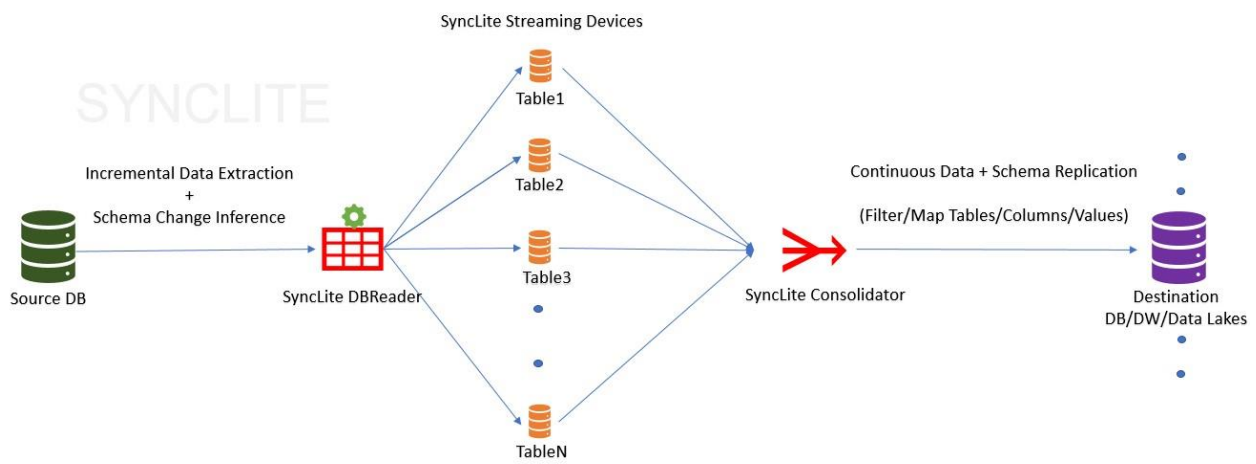


## Key Features

- **Decoupled Architecture:** SyncLite DBReader and SyncLite Consolidator function independently.
- **Flexible Deployment:** Deploy them separately, closer to the source and destination databases respectively.
- **Adaptable to Impedance Mismatch:** Unique decoupled architecture effortlessly adapts to any impedance mismatch for efficient and scalable data extraction and ingestion.
- **Many-to-Many Pipelines:** Orchestrates many-to-many database replication/migration pipelines.

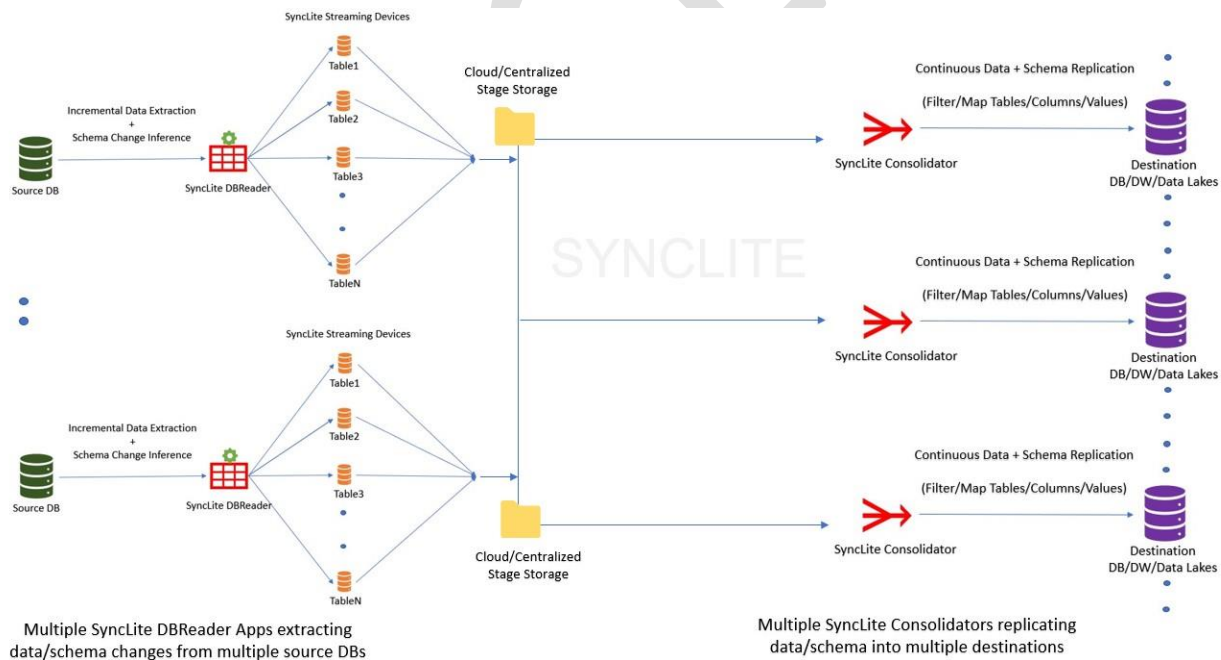
- **Secure Data Delivery:** Multiple DBReaders securely deliver data from various tables to centralized staging areas with an option to encrypt the data/log files on the stage.
  
- **Diverse Replication:** Multiple Consolidators replicate data into one or more databases/data warehouses/data lakes as per user preference.
  
- **Parallelism and Distribution Capabilities:** DBReader and Consolidator offer inter-table and intra-table parallelism for data extraction and ingestion with both scale-up and scale-out options.
  
- **Schema Change Detection:** DBReader is capable of identifying structural schema changes including column addition/deletion in source table schemas and replicate them.
  
- **Delete Synchronization Mode:** DBReader and Consolidator provide a dedicated delete synchronization mode to synchronize deletes from source database to destination database. This is over and above the soft delete based delete replication mechanism.
  
- **Incremental Key Column:** DBReader allows specifying an incremental key column for identifying changes in source DB tables.
  
- **Selective Replication:** DBReader enables picking and choosing tables/columns for replication, specifying predicates, and defining parallelism strategy.
  
- **Sensitive Data Handling:** DBReader provides an ability to mask data in sensitive columns before replication.
  
- **Data Type Mapping:** Consolidator provides the ability to map data types from source to destination database.
  
- **Table and Column Filtering:** Consolidator allows filtering and mapping of tables/columns.

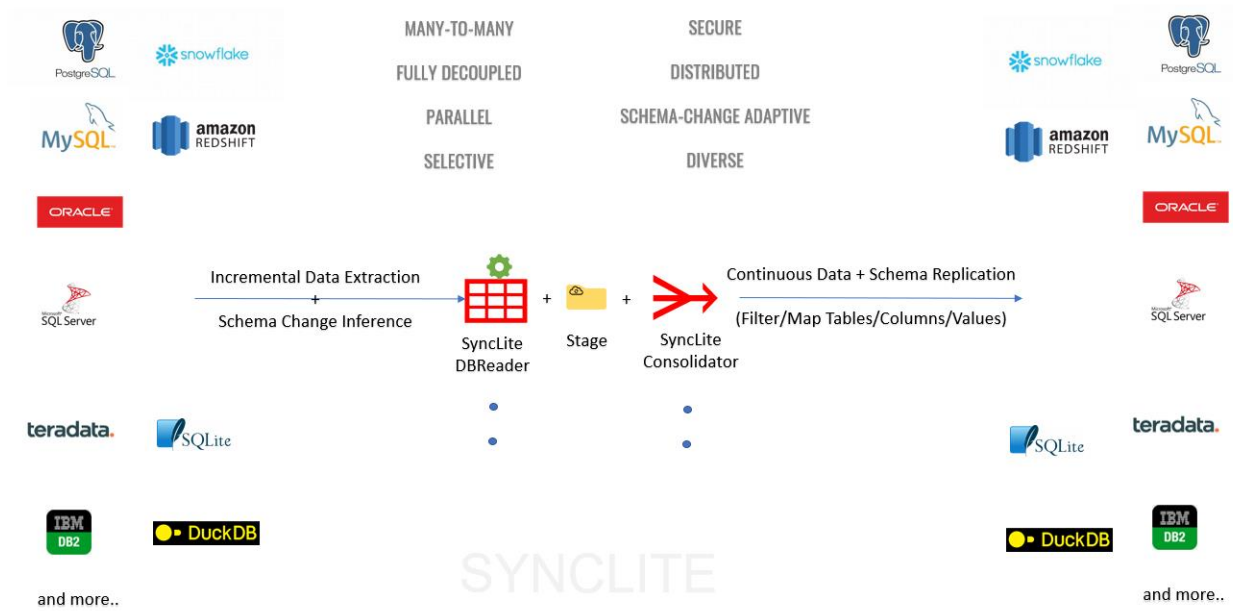
- **Value Mapping:** Consolidator can map column values to different values for flexible data replication.
- **Fine-Tuning Options:** Consolidator offers fine-tuning options for optimal writing on the destination database.
- **Zero Configuration Changes:** Requires zero configuration changes on the source DB.
- **Statistical Reporting:** Ability to maintain and publish data replication/consolidation statistics for transparent and insightful monitoring.
- **Broad Connector Support:** Supports a wide range of connectors, including industry-leading databases, ensuring compatibility and seamless integration with diverse data ecosystems.
- **Scheduled Execution:** Both SyncLite DBReader and Consolidator provide an ability configure daily job schedules for periodically starting/stopping the job during specified intervals and running it for a specified duration.
- **Additional Features:** Many more features to enhance data replication and migration capabilities.



Enhancing the 1-to-1 database pipeline model, you can elevate your data infrastructure as shown above by incorporating multiple DB reader applications, each extracting data from distinct source databases. Concurrently, multiple SyncLite consolidators can be employed, each directing data to a wide range of databases, data warehouses, or data lakes based on your preferences. This setup offers many-to-many data replication pipelines.

Within this fully decoupled architectural framework, you have the flexibility to orchestrate highly customizable, scalable, and efficient database migration and replication pipelines. This adaptable approach empowers you to meet the specific demands of your data integration projects, while ensuring seamless and optimized operations.





## References:

Website: [Real-Time Data Consolidation Platform - Database Replication \(synclite.io\)](https://synclite.io)

Demo video: <https://youtu.be/hLpV4XEDXx0>

Docker Hub: [syncliteio/synclite-consolidator - Docker Image | Docker Hub](https://hub.docker.com/r/syncliteio/synclite-consolidator)

Contact: [support@synclite.io](mailto:support@synclite.io)