StreamShift by Striim™

Full Striim Ahead!

Challenges

Customers migrating to the cloud face these challenges directly or indirectly at some point in the migration process

Migration

- Zero downtime & zero data loss Database migration
- Non-intrusive role switch/Impact on production app & its users
- Not being able to modernize legacy on-prem apps
- Flexibility to migrate to anywhere between hybrid, private & public clouds
- Pay-as-you-go scalable model

BCDR

- Cannot handle large volume of data from heterogeneous sources
- Lack of Database and Data warehouse agnostic Integration & replication
- Auto validation & data consistency
- Not able to test the DR often

Other Complexities

- Silo efforts in data management
- Customized code, legacy schema objects, PL/SQL or T-SQL code
- Lack of in-house expertise to operate
- Expensive to maintain multiple solutions
- Not being able to provide self-service to end users

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Introduction

Why Striim?

Purpose built real-time data integration, replication and analytics platform that enables users with below benefits

Mission critical

Purpose built for mission critical apps

- Zero downtime & zero data loss Data replication & Migration
- Real-time data analytics & visualization
- High availability platform across zones & Regions

Real-time

Real-time data management

- Data integration
- Migration
- Continuous Replication
- Analytics

Comprehensive

Single solution to manage

- Integrates with legacy & modern apps
- Supports onprem, private, hybrid & public clouds
- Heterogeneous databases, data warehouses & data lakes
- Data analytics as it is being moved

Cloud scale

Cloud native platform

- Infinite scale with microservices architecture on kubernetes
- High performance in-memory processing on distributed cache
- Non disruptive scale out as you go model

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StreamShift by Striim™

StreamShift is a fully managed real-time database migration service. You can securely migrate databases with zero downtime & zero data loss using simple user experience.
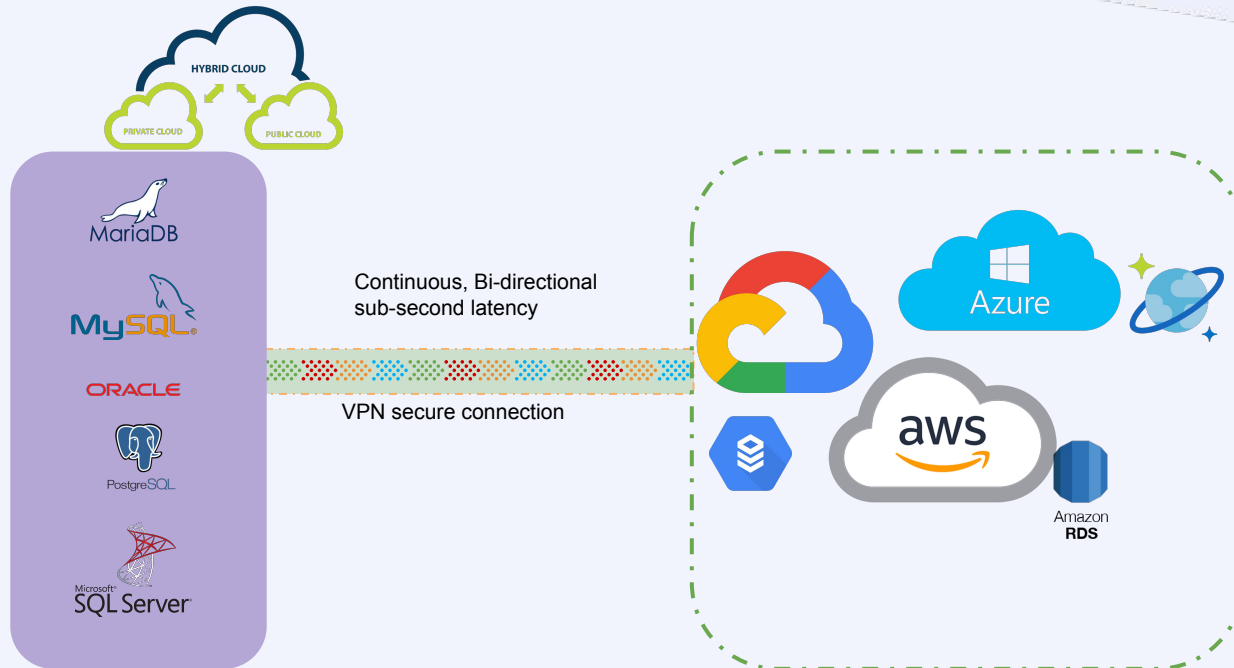While migration is active, source database can be fully operational and target can be used for data insights, security check, Dev tests etc and switch roles seamlessly in DR situation.

Benefits

- Simple to use & cloud native migration service. Run first migration job under 10 minutes
- Zero downtime & data loss, keep your application be running during migration
- Continuous ongoing sync & high availability support for DR
- Seamless role switch after migration
- Heterogeneous database migration
- Secure & highly available
- Location agnostic migration
- Low cost pay-as-you-go model service
- Choice to continue with real-time replication

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StreamShift architecture

Continuous, Bi-directional
sub-second latency

VPN secure connection

Design principle

StreamShift service has built on Striim's enterprise SaaS platform designed with principles

Simple & Automated

- Simple user intuitive UI for config, monitor & manage
- Fully automated database discovery, assess, transform & schema creation on targets
- Simple real-time conversion of complex database types to any supported target types

Secure & Reliable

- Striim supports end-end encryption, data inflight and at rest
- Secure SSH tunnel connections
- Automatic DB assessment and scores prior to migration
- Post migration validation
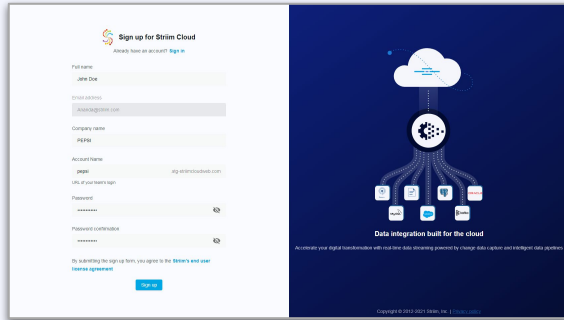- Continuous & highly available targets

Scale & Performance

- Distributed in-memory processing
- Non-intrusive streaming CDC for efficient transaction data
- Simple scaleout architecture
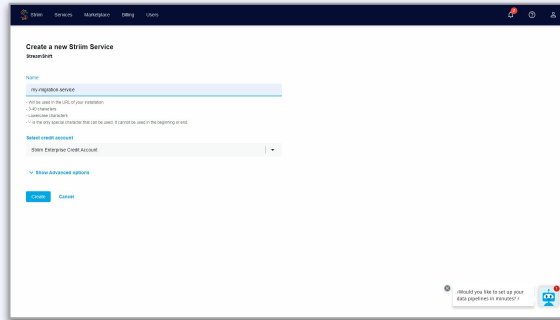- Consistent performance SLA with large data volumes

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Simple & Automated

StreamShift service is a fully automated and simple to use UI & APIs to interact & integrate. Simple 3-step process.
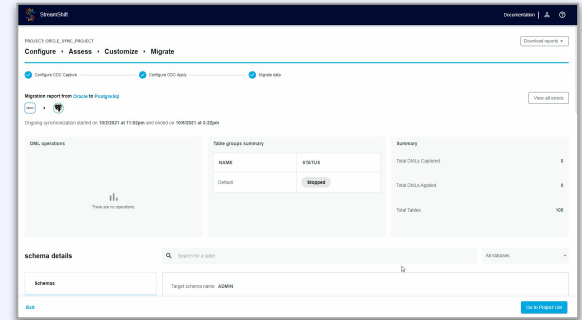Fully automated discover, assess, transform and target creation.

1. Signup from marketplace

2. Create migration service

3. Discover, Assess, Transform & Migrate
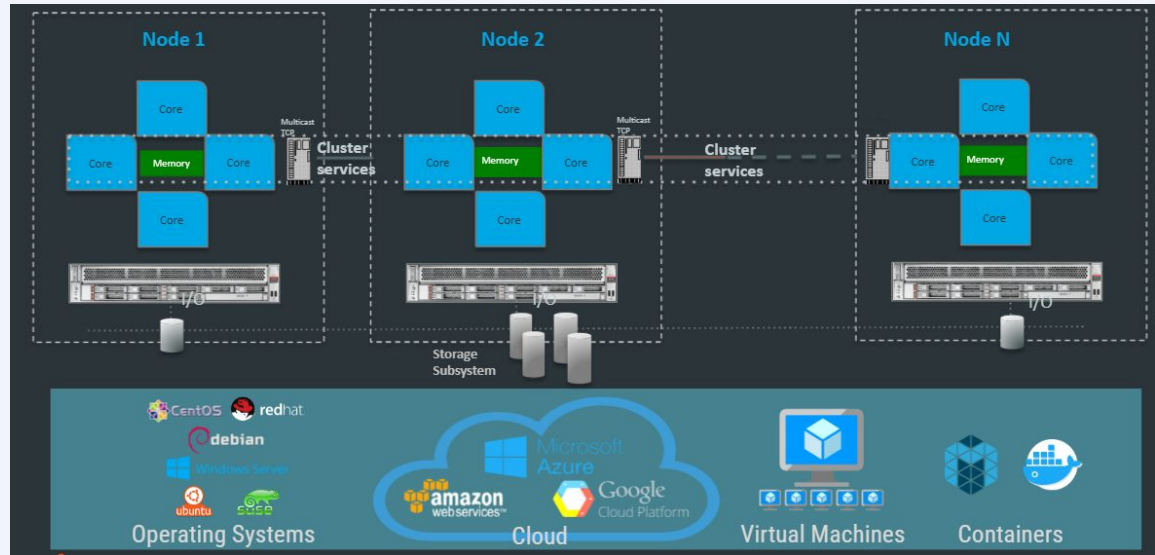
Secure & Reliable

StreamShift service is an end to end encrypted in flight & at rest & compliant with industry security standards'

- Secure connections between on-premise and targets
- User configured retention policy for data retention & purging
- Role based access control
- Automatically discover, assess and convert DBs before migration
- Auto validation to ensure data integrity
- Continuous migration ensures highly available targets

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Distributed scale

StreamShift service is built ground up with scale out architecture

- Continuous collection
- Striim uses distributed cluster with Kafka
- Sharding\Scaling over large streaming data volumes
- Distributed In-memory processing of metadata & context data
- Striim has significant expertise in CDC technology for efficient data transfer & analytics
- Low latency sub-second data migration

Benefits

Database migration is a complex, time consuming and expensive process. Striim makes migration easy with its scalable & high-performant SaaS platform
Here are few benefits offered by Striim migration as a service.

Zero downtime

- Real time & Zero downtime migration
- Zero data loss
- Key requirement for busy high IO intensive DBs
- Continuous collection

App modernization

- Migrate legacy on-premise apps to latest technology
- Fully automated service from discover, assessment to schema conversion
- Seamless on-premise to cloud conversion
- Modernize physical app to micro service on container

Heterogeneous

- Real-time conversion of similar databases to similar targets like Oracle to Oracle
- Migrate heterogeneous databases to any supported targets like Oracle to CloudSQL

Economical

- Save costs by migrating to cloud database
- Fully automated service reduces silo efforts and TCO
- StreamShift offers pay-as-you-go model
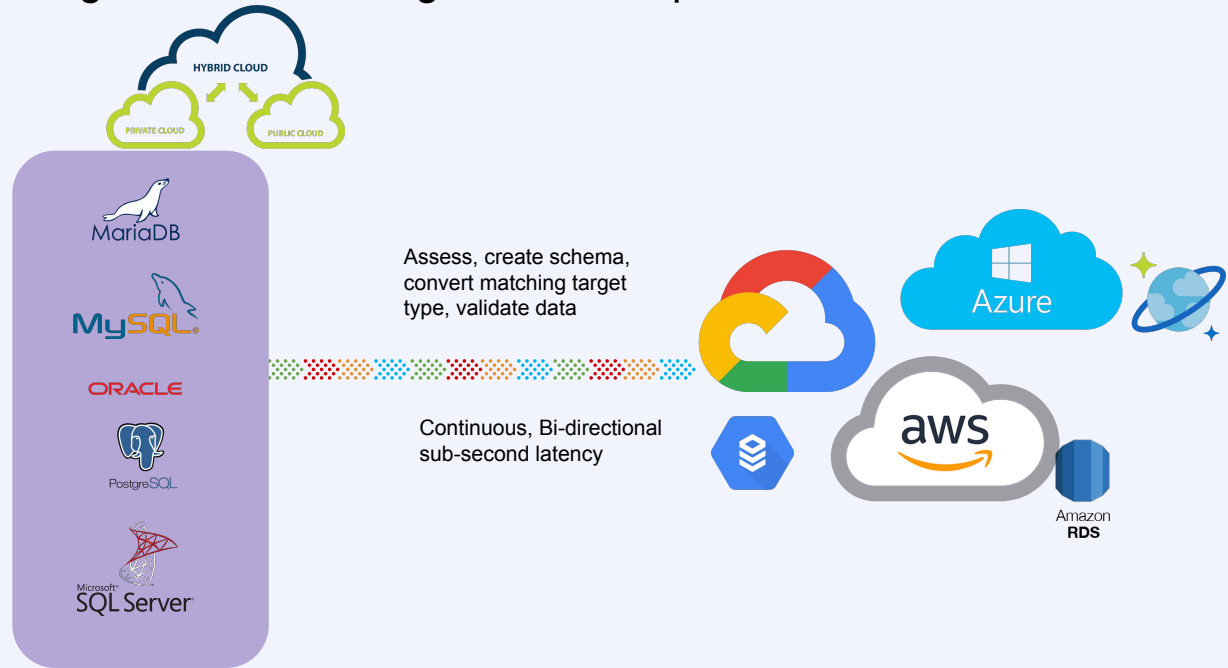- Flexible target DB type to reduce on-premise costs

Location agnostic

- StreamShift supports database migration from and to On-premise, Hybrid and Public clouds
- True multi-cloud migration service

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Use cases

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Heterogeneous source & targets

StreamShift supports wide range of databases and intelligently converts the target database types between homogeneous & heterogeneous setup

- Discover, Assessment score, & correction
- Schema conversion
- Auto-data type conversion
- Validation
- IL & ongoing sync with smart CDC
- Switch roles

HYBRID CLOUD

PRIVATE CLOUD   PUBLIC CLOUD

MariaDB

MySQL®

ORACLE

PostgreSQL

Microsoft®
SQL Server™

Assess, create schema, convert matching target type, validate data

Continuous, Bi-directional sub-second latency

Azure

aws

Amazon
RDS

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Cloud adoption

There are various reasons for business to adopt the cloud and the application migration to cloud is inevitable. Some of the cloud adoption challenges are addressed below

Expensive

- High on-premise infra management costs
- Expensive silo data management efforts
- Latest technology needs
- Resources needed

StreamShift

- Fully managed SaaS runs on selected cloud
- Pay for what you use
- Convert to cloud native service
- Fully automated & orchestrated migration

Scale limits

- Large volumes of data
- Busy databases with high volume transactions
- Scaling out as needed
- Low latency business needs

StreamShift

- StreamShift utilizes CDC Distributed in-memory processing
- Supports sub-second latency
- Infinite scale on cloud SQL

Complex

- Downtime
- Complex databases & customizations
- Complex planning & testing process
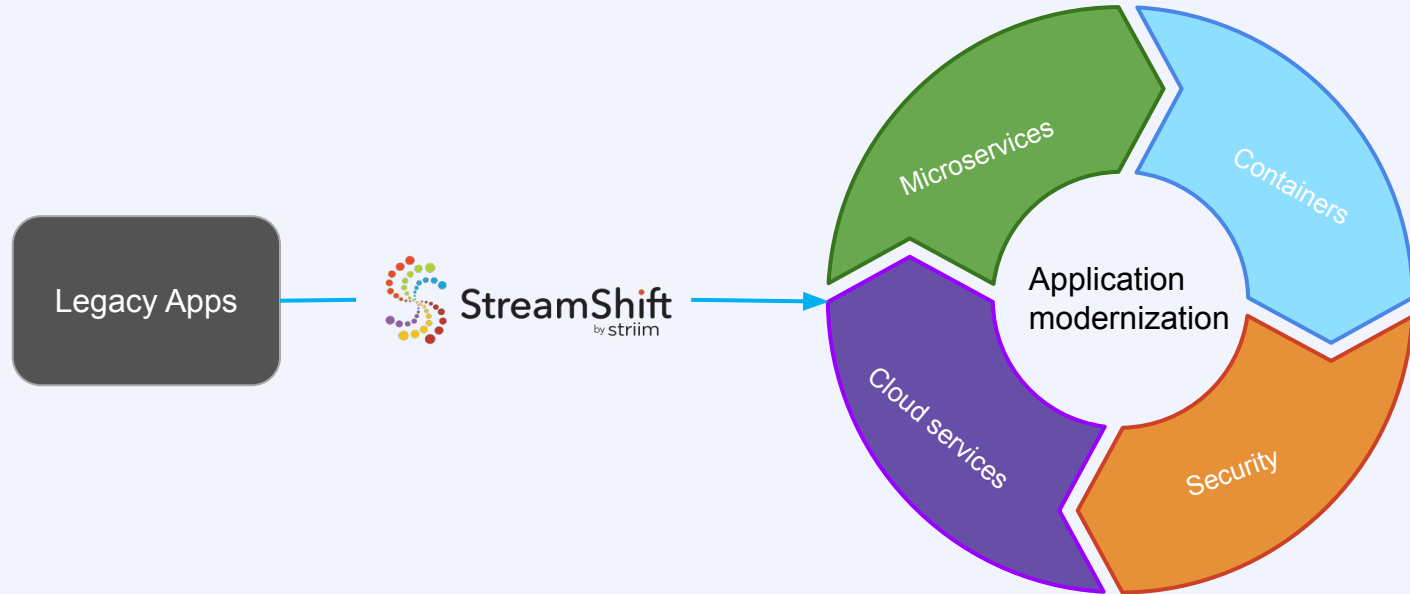- Ease of switching roles

StreamShift

- Zero downtime & zero data loss
- Assess & transform to match the target DB
- Test target DB without interrupting the production
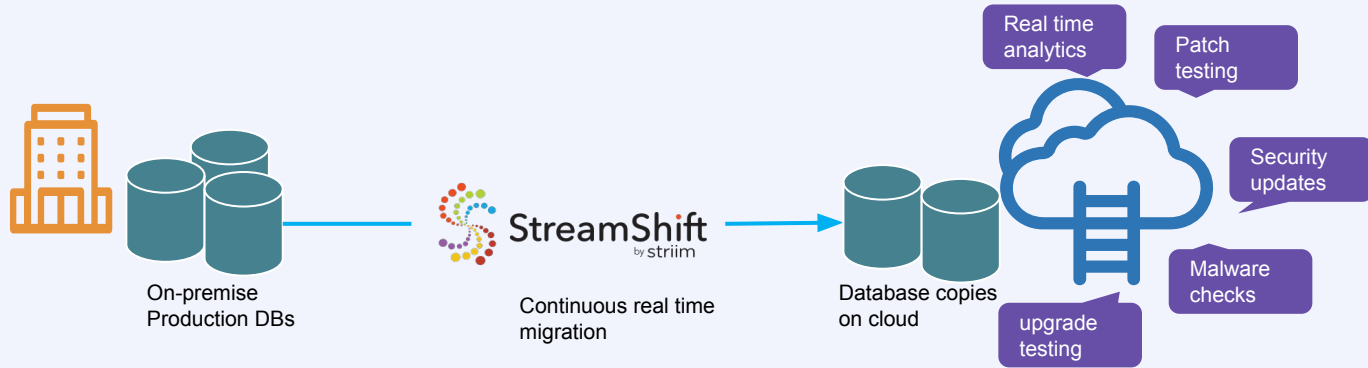
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Application modernization

Technology debt is one of the biggest challenges faced by the organizations. StreamShift enables organizations to modernize their legacy apps by simply migrating the complex databases to native cloud RDS.

- Migrate DB running on physical server to container
- Create cloud microservices by migrating on-premise to cloud database
- Extend other cloud services as per your business needs

Legacy Apps

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Application modernization

Microservices

Containers
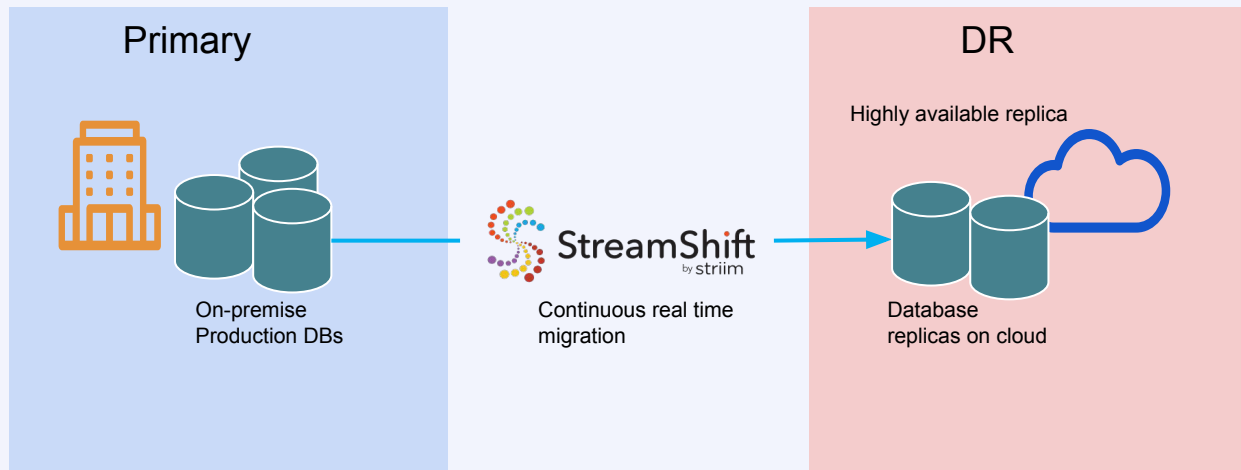
Security

Cloud services

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Devtest

StreamShift lets you make use of the target DB which is real-time updated. So you don't need to access the production database server for Development\test and other operations.

High Availability

With StreamShift low latency and continuous migration, user can achieve the database high availability on-premise, co-location and across clouds

- Continuous migration
- Low latency data transfer
- Zero data loss & eventual consistency
- Easy & seamless switch on DR

Primary

On-premise Production DBs

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Continuous real time migration

DR

Highly available replica
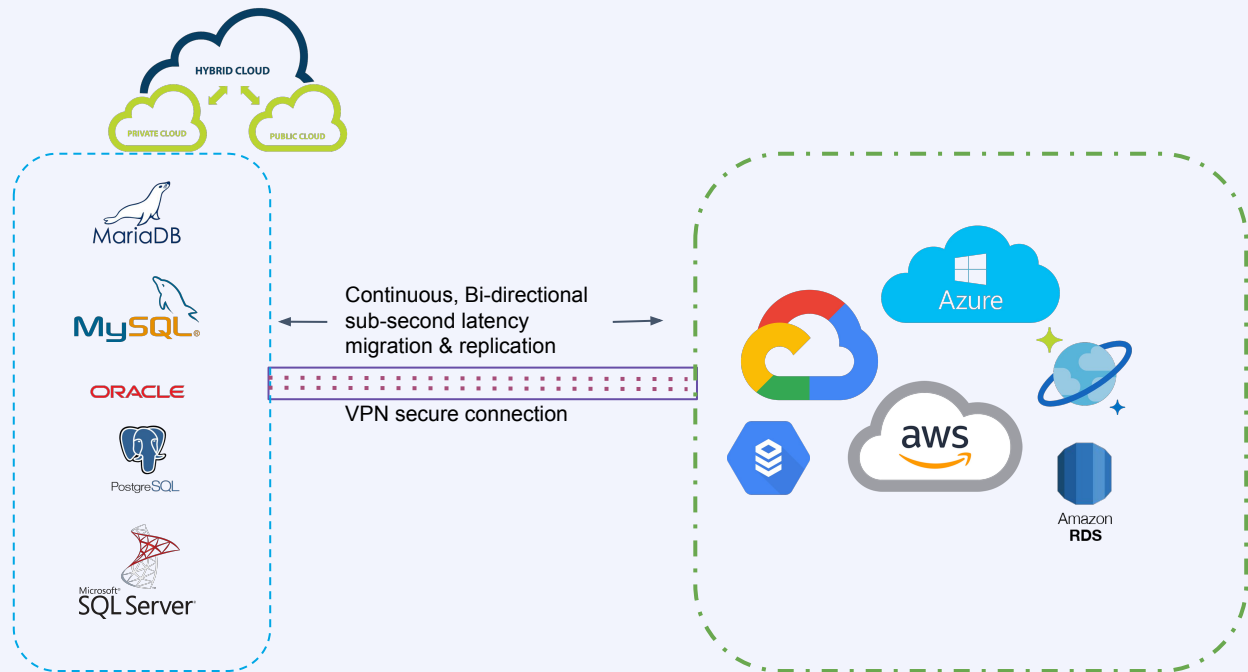
Database replicas on cloud

Migration as a Service

Most users worry about moving the complex, busy and, large databases to cloud considering downtime, app consistency and recovery requirements

StreamShift by Striim™ offers

- Zero downtime
- Zero data loss
- Continuous migration/replication

HYBRID CLOUD
PRIVATE CLOUD
PUBLIC CLOUD

MariaDB
MySQL
ORACLE
PostgreSQL
Microsoft SQL Server

Continuous, Bi-directional sub-second latency migration & replication

VPN secure connection

Azure
aws
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Thank you!

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