Active-Active Replication with **Assure** MIMIX

Balance Workloads and Virtually Eliminate Downtime

Customers and staff expect—or even demand—absolutely continuous application availability, without exception. Achieving that service level is challenging for any IT organization. Even when using real-time replication, recovery to normal production is rarely instantaneous. Recovery servers are effectively passive receivers, containing all the necessary current data and configured to run production, but are not actively doing so. To get your business running again during a production system outage, the recovery systems and applications must be switched over into production mode and restarted. Depending upon the DR technology you have in place and the complexity of your systems and application environments, that can potentially take anywhere from minutes to hours.

In contrast, by using Assure MIMIX for Active-Active Replication between two or more live production systems, you can achieve a near-zero or even true zero Recovery Time Objective (RTO).

Assure MIMIX replicates data between two or more active servers, all of which are running production workloads simultaneously. Consequently, with Active-Active Replication, "recovery" is never necessary to restore business operations—whether a server crashes or needs to be taken offline for maintenance. Instead, just redirect users to another active server that is fully in sync with the downed server, by simply switching IP addresses.

Additionally, using Active-Active replication, you can share and balance production workloads between always-duplicate, mutually backed up servers, for efficient, optimal use of all your computing capacity, even as resource availability varies between servers or across multiple sites

.

Key Benefits

Provides Near-Zero Recovery Time

- Replicates data in near real time between active production servers
- Allows operations to continue transparently and without interruption by simply switching IP addresses
- Delivers switching and failover times measured in seconds, virtually eliminating operational downtime
- Replicates across any distance, across geographies and between on-premises and cloud-hosted environments, ensuring application and data access even during wide-area events and utility disruptions

Optimizes Server Productivity

- Balance workloads between servers for more efficient use of resources
- Share workloads between servers to improve application performance
- Improve application response times by running always current instances on local servers near geographically dispersed users
- Optionally replicate between three or more active, geographically dispersed servers to further share workloads and maximize HA protection

How It Works

When configured for Active-Active replication between two or more live production servers, Assure MIMIX utilizes keyed replication rather than traditional positional replication

Simply put, instead of managing the update or deletion of data on a target table solely based upon row numbers, keyed replication directs changes precisely, based on each row's unique key. The key is comprised of one or more fields in each row that uniquely identify each record. The use of keyed replication ensures that the data on all active servers is identical, even if the row numbers differ due to concurrent distributed insertions and deletions.

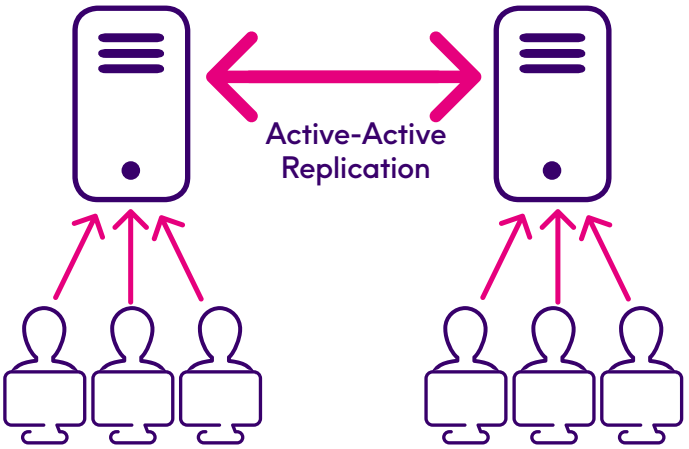
Though rare, replication conflicts, called "collisions" can potentially occur in an active-active topology. Collisions happen when the same data in a particular record is changed and replicated simultaneously on two or more Active-Active systems. To avoid potential data corruption, Assure MIMIX offers robust collision detection and resolution mechanisms (e.g. ignoring a deletion if another server has already deleted the record, or merging changes for non-overlapping fields).

Professional services are also available to assist with optimizing your applications to reduce the likelihood of collisions, to configure order of Assure MIMIX collision resolution methods to be used, and to define any custom exit programs required to resolve collisions in your unique application.

Supported Systems and Environments

- IBM Power Systems running IBM i OS
- On-premises, hosted or cloud configurations, including hybrid environments
- Replication between any IBM i storage types and OS versions
- Replication of both *SYSBAS and IASP data
- Verify Assure MIMIX licensing options with your Precisely representative

Assure MIMIX Active-Active



Assure MIMIX Active-Active Replication supports mutual, simultaneous replication between two or more active production servers for workload balancing and switching in seconds or less