SOLUTION BRIEF

# Protect Open-Source Databases with Zero Downtime

Achieve your availability goals with Pure Storage® Purity ActiveCluster™.

Open source databases like MySQL, MongoDB, Cassandra, MariaDB, PostgreSQL, and others are gaining wide adoption in mission-critical production environments.[1] Given their popularity, it's not surprising that the enterprises using these databases need continuous data availability and to keep critical and operational data workloads protected.

## The Challenge of Zero Downtime

Achieving business continuity with zero downtime is easier said than done. Disasters can wipe out entire sites, not just individual arrays. For critical databases, you need redundancy stretched across multiple storage racks and sites.

### Pure Storage Purity ActiveCluster

Pure Storage Purity ActiveCluster provides a simple business-continuity solution for open-source database management systems. ActiveCluster is a fully symmetric, active/active, bidirectional replication feature of Pure Storage FlashArray™ that provides synchronous replication for RPO zero and automatic transparent failover for RTO zero. ActiveCluster serves input/output (i/O) on the same volume from all sites simultaneously. With ActiveCluster, you can easily cluster arrays and hosts in multiple sites with flexible active-active data center configurations. And Pure Storage provides all-inclusive licensing, enabling you to adopt new services innovations without disruption, downtime, or the requirement of re-buying capacity.

## Simple and Effective High Availability

Managing an ActiveCluster stretch cluster is as simple as managing a single array: snapshot and clone operations can be performed from either array and volumes and snapshots are synchronously maintained on both arrays. Failovers are transparent, and the arrays automatically resynchronize.

**ActiveCluster**

Enables synchronous replication for RPO near zero and automatic transparent failover.

**Flexible**

Use clustered arrays and hosts in multiple sites within active-active bidirectional synchronous replication between data center configurations.

**Simplicity**

Managing an ActiveCluster stretch cluster is as simple as a single array and can be deployed with ethernet, or Fibre Channel.

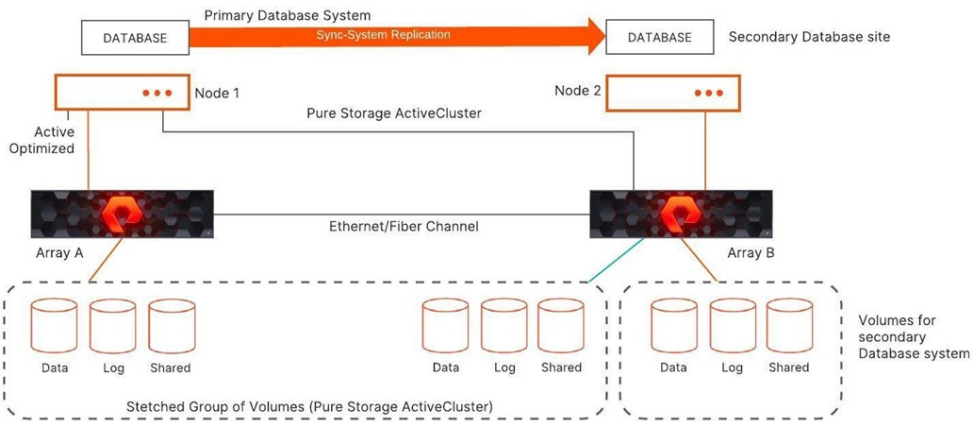


**Figure 1.** The Purity ActiveCluster feature of FlashArray enables active/active multi-site HA for open-source databases.

ActiveCluster offers both uniform and non-uniform configuration options to give you the flexibility to design your solution to suit your environment in a uniform configuration. Both hosts connect to local and remote FlashArray storage, and you don't have to worry about the complexity of deploying the underlying failover cluster instance to provide automatic failover. Data protection is provided at the storage level, not the database level, which simplifies configuration.

Finally, Purity ActiveCluster uses the same simple and easy storage-management model as the rest of FlashArray. In fact, you can set it up in only four short steps: connect the arrays, create a stretched pod (a type of management object), make a volume, and connect the hosts.

All projects, including HA/DR projects for open-source databases, can be complex. Pure's Professional Services offer consulting, workshops and migration services to help you plan and execute your projects. Our Professional Services provide proven and cost-effective methods, processes and tools.

## Additional Resources

- Learn how you can modernize storage for open source databases.
- Read why open-source databases need modern storage.
- See more about how Pure Professional Services can help with your projects.
- Discover Pure's solutions for open-source databases.

[1] DB-Engines. "DB-Engines Ranking – Trend Popularity." Feb 2021. https://db-engines.com/en/ranking_trend.





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