

# TUNGSTEN CLUSTERING<sup>™</sup> vs Amazon RDS (MySQL and Aurora)

Comparison

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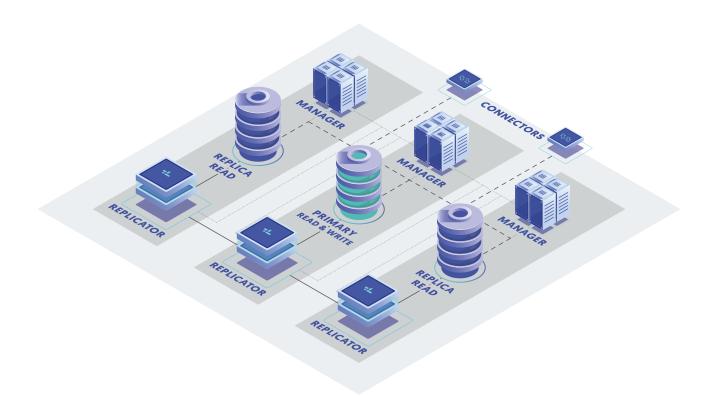
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#### Overview

Enterprises require high availability for their business-critical applications. Even the smallest unplanned outage or even a planned maintenance operation can cause lost sales, productivity, and erode customer confidence. Additionally, updating and retrieving data needs to be robust to keep up with user demand.

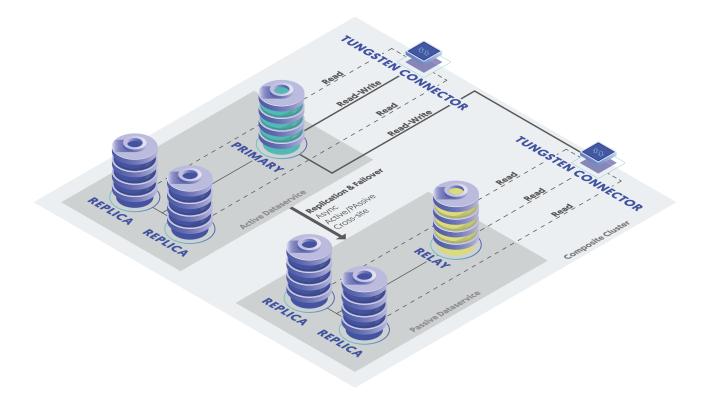


## Replicas and Failover

Both Continuent Clustering and RDS (when enabled) maintain multiple copies of your database. However, when using MySQL on RDS, there is a maximum of ONE candidate for failover, while Continuent can provide 2 or more (Aurora does provide additional failover candidates, each priced the same as the primary instance). More failover candidates translates to higher availability – your cluster is online even if you lose 2 (or more) of your database instances.

The failover process for RDS, both MySQL and Aurora, happens automatically and takes between 1 - 2 minutes. It also updates the DNS record for the database to point to the failover replica. As a result, the application will be offline for 1-2 minutes during a failover. In addition, there must be a process in place to bring the application back online. Your customers may experience errors or blank pages during this time.

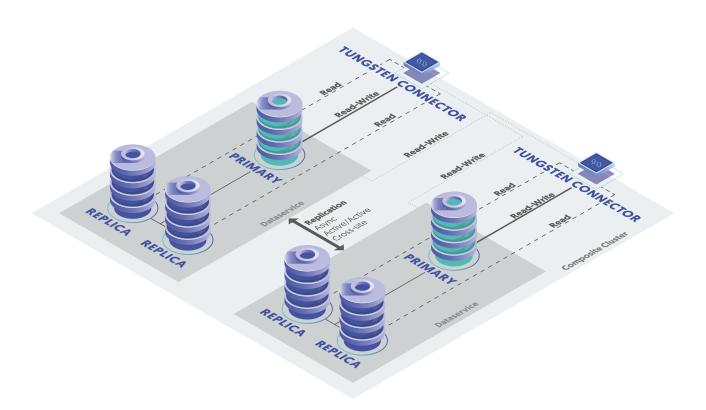
Continuent Clustering handles failover transparently to the application. Your applications stay connected, and failover is handled often within seconds in the background, with NO CHANGES required to your application, and without error pages to the end-user. After failover, there will still be additional candidates for failover available.



## Clustering Style

In a Continuent Cluster, a replica is not only a failover candidate, but can be used for reads as well. That 3-node cluster mentioned above already has 3 nodes available for reading, and once again, using the power of the Connector, reads can be automatically directed to replicas without modifying our application! If your application is already read/write aware, we can leverage your existing logic. If not, the Connector offers read/write algorithms for you to use.

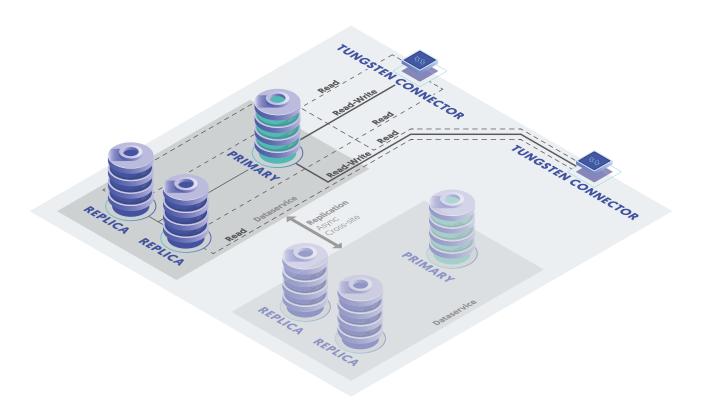
Also note that by adding more replicas in a Continuent Cluster, you are scaling the number of nodes available for reads without making changes your application.



## Maintenance

With maintenance tasks, you are in control with Continuent Clustering. Plan your maintenance when you want, and perform many maintenance tasks, like OS patches and MySQL upgrades, with no downtime. For instance, you can upgrade from MySQL 5.6 to MySQL 5.7 with NO downtime.

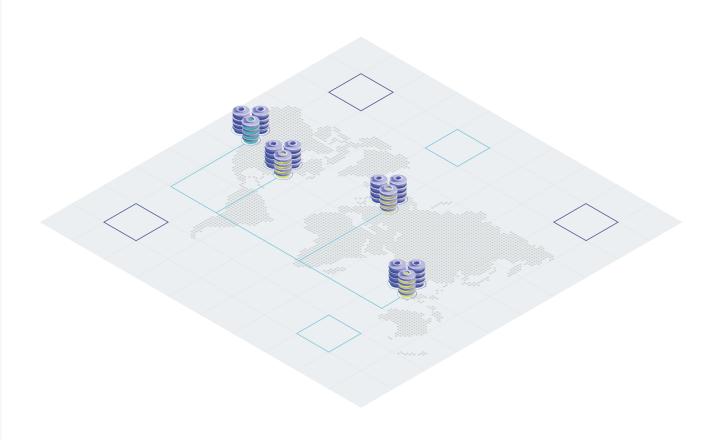
RDS for both MySQL and Aurora requires a maintenance window, and during that window, your instances may be restarted. This of course translates to application downtime.



## Benefits of a True Cluster

Beyond providing high availability and performance scaling in a local cluster, Continuent clusters can be extended across regions, sites, clouds, and local infrastructure. For instance, you can have a primary cluster in AWS, but have a DR site in Google Cloud, and a second DR site on local infrastructure. Or have true active/active, where two or more sites are active, replicating between each other and serving all of your customers locally.

The replication engine can easily be extended to replicate into data warehouse targets such as AWS RedShift, AWS Aurora, Hadoop, Kafka, MongoDB, and Vertica, all supported by Continuent.



#### About Continuent



Continuent, the MySQL High Availability Company, provides solutions for continuous operations enabling business-critical MySQL & MariaDB database applications to run on a global scale with zero downtime.

Established in 2004, we provide geo-distributed high availability on-premises, hybrid-cloud, and multi-cloud environments with our Tungsten Clustering and Tungsten Replicator products. We also offer industry-leading, 24/7 MySQL & MariaDB support services to ensure continuous client operations.

Our customers are leading SaaS, e-commerce, financial services, gaming and telco companies who rely on us to cost-effectively safeguard billions of dollars in annual revenue, including Adobe, Carfax, F-Secure, Garmin, Marketo, Modernizing Medicine, Samsung, Riot Games, Stitcher, VMware and Vonage.

For more information on our products and services, please visit <u>www.continuent.com</u>, email us at <u>sales@continuent.com</u> or call us at (800) 270-9035, and follow us on Twitter <u>@Continuent</u>.