

Migrating to Aurora, Checklist for Success

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Before You Deploy

- <https://www.percona.com/resources/technical-presentations/migrating-aws-aurora-monitoring-aws-aurora-pmm-percona-technical>

Goals

- Complete control of our data.
- We must not be operationally constrained by most common operations.
- Predictable performance.

General AWS Considerations



Costs Considerations

- Instance pricing, upfront vs on demand
- IOPs/million
- Backup storage
- Backtrack
- Cross region replication
- Storage rate \$/GB/mo

#1 Reduce the Unknowns

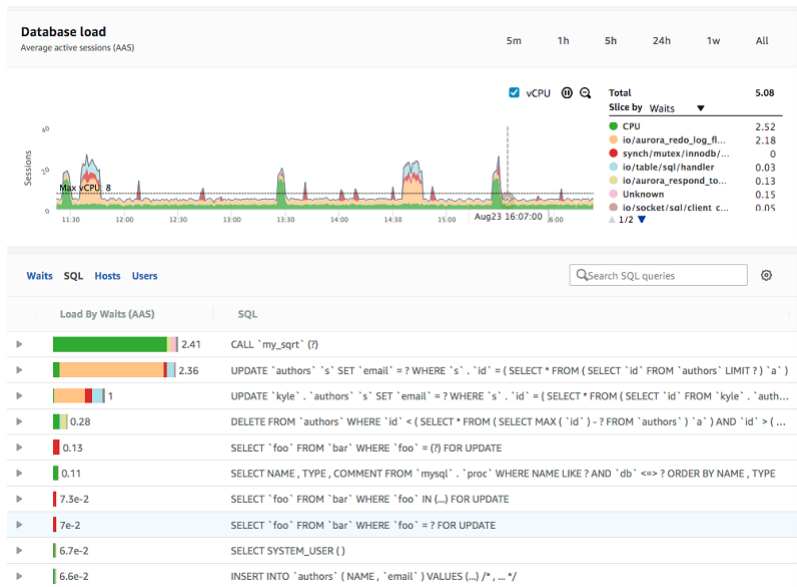


Review Queries Regularly

- Bad queries are one of the top offenders of downtime.
- Before and after code changes.
- Keep historical query performance data.

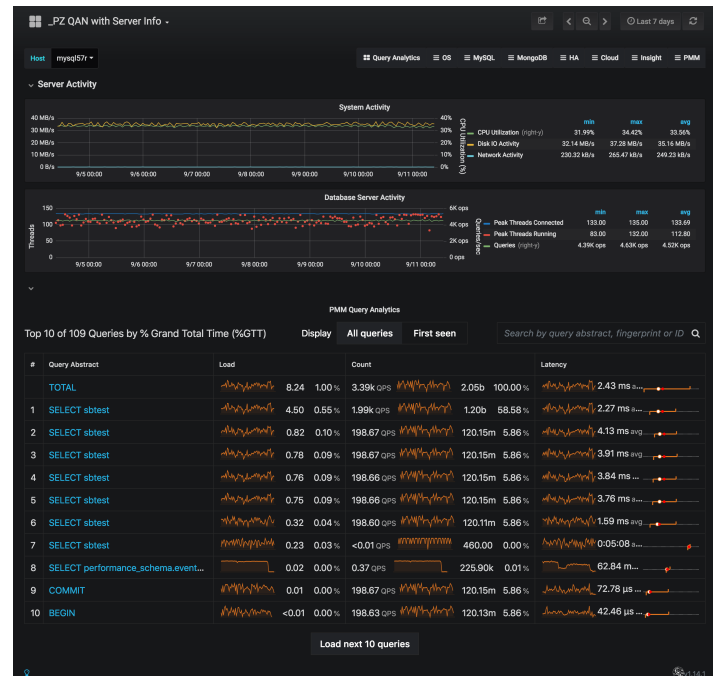
Review Queries Regularly

Performance Insights



- <https://aws.amazon.com/blogs/database/analyze-amazon-aurora-mysql-workloads-with-performance-insights/>

Query Analytics from Percona Monitoring and Management



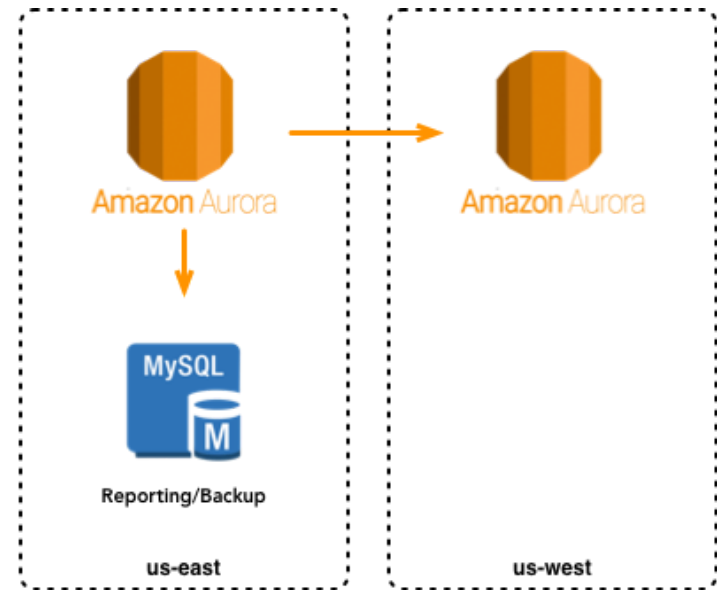
- Dashboard shown is custom dashboard.*
- <https://pmmdemo.percona.com/>

#2 Optimize for Binary Log Replication



Optimize for Binary Log Replication

- Independent backup node.
- Reporting or analytics.
- Cross region redundancy.



Optimize for Binary Log Replication

- `binlog_format = ROW`
- Multi-threaded replication.
- Performance metrics from PMM/Performance Insights helps a lot.

#3 Design for Flexibility

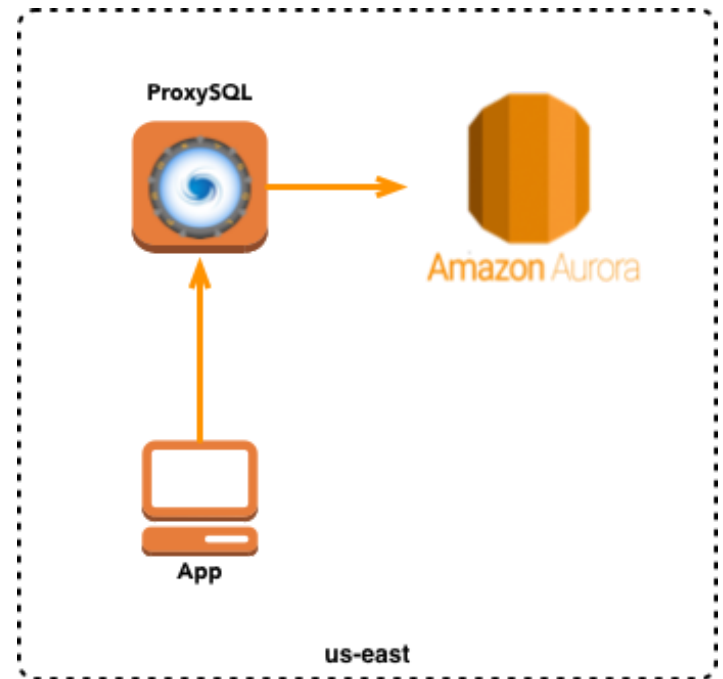


Design for Flexibility

- Disable lab mode.
- Separate parameter groups per cluster.
- Keep your dataset size in check.
- Disable auto minor version upgrade
- Use the right tools.

Use the right tools.

- Aurora cannot remove a misbehaving read-replica from the load balanced reader-endpoint.
- A bad query is a bad query, it can spoil your day.
- Sometimes, Aurora failover is not fast enough - or a cluster restart is not acceptable.



Wrapping Up



To Recap

- Reduce the Unknowns
- Optimize for Binary Log Replication
- Design for Flexibility

Questions!





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