Getting started with Amazon Aurora Serverless v2

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Agenda

Aurora Serverless v2 overview

Key concepts

Demo

Amazon Aurora

MYSQL- AND POSTGRESQL-COMPATIBLE RELATIONAL DATABASE BUILT FOR THE CLOUD

Fully managed: no hardware provisioning, patching, setup, or backups

Performance of commercial databases at 1/10th the price

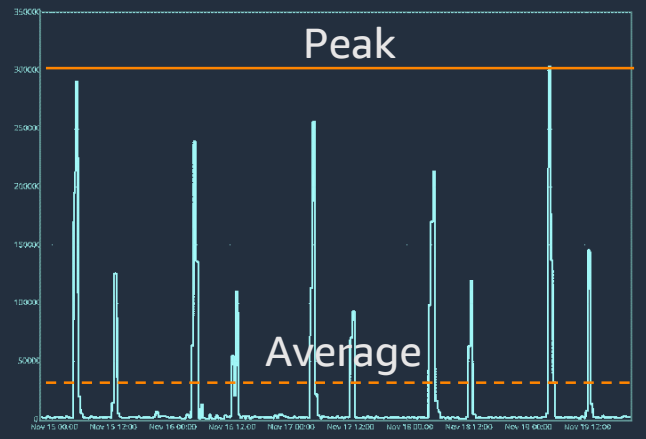
High availability and cross-Region disaster recovery

Autoscaling compute, storage, and IO

The fastest growing service in the history of AWS

Database capacity: Cost vs. management

Variable and unpredictable workloads



Insufficient capacity → Experience degradation

Provision for peak → Expensive

OR

Continuously monitor & scale → Difficult, requires experts, involves downtime

Amazon Aurora Serverless v2

On-demand and autoscaling configuration

Simple **pay-per-use** pricing per second

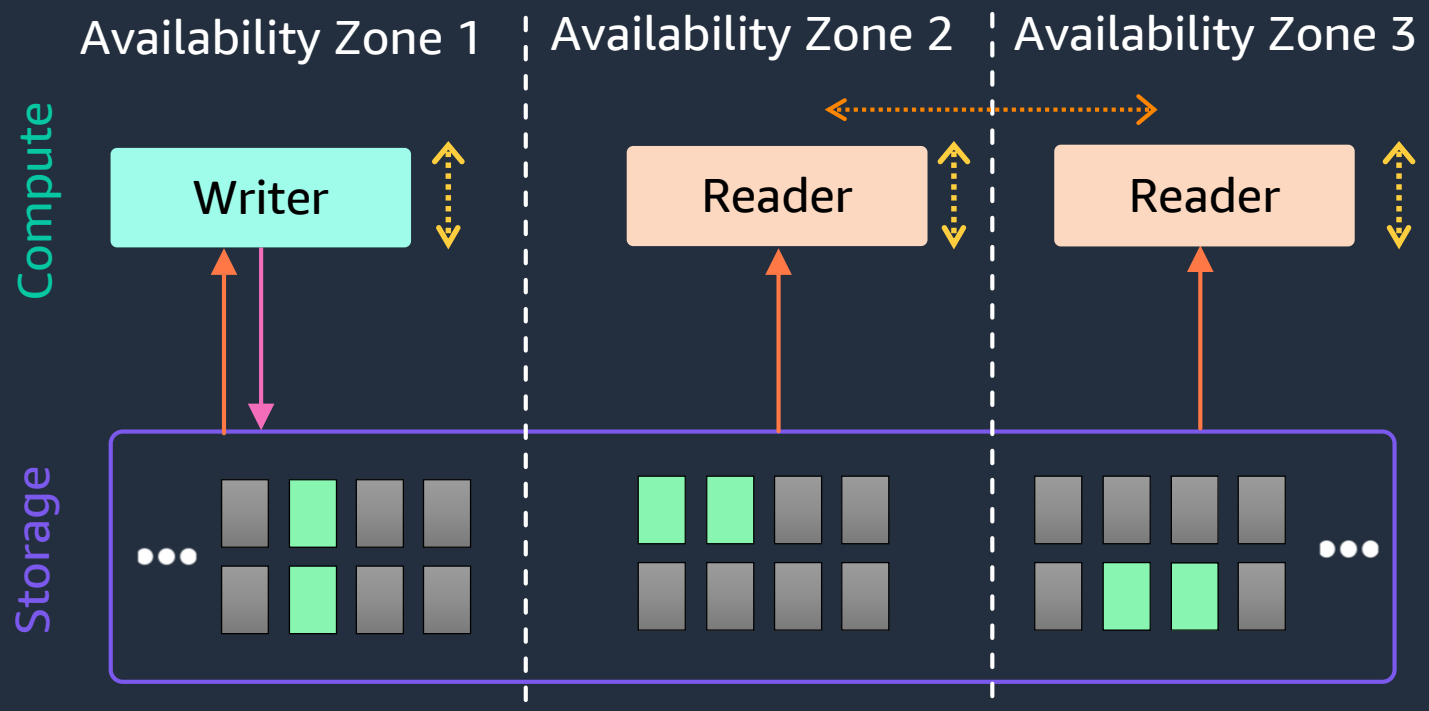
Scales instantly and in finer increments

Supports even the most demanding applications

Supports the full breadth of Aurora features

Worry-free database capacity management

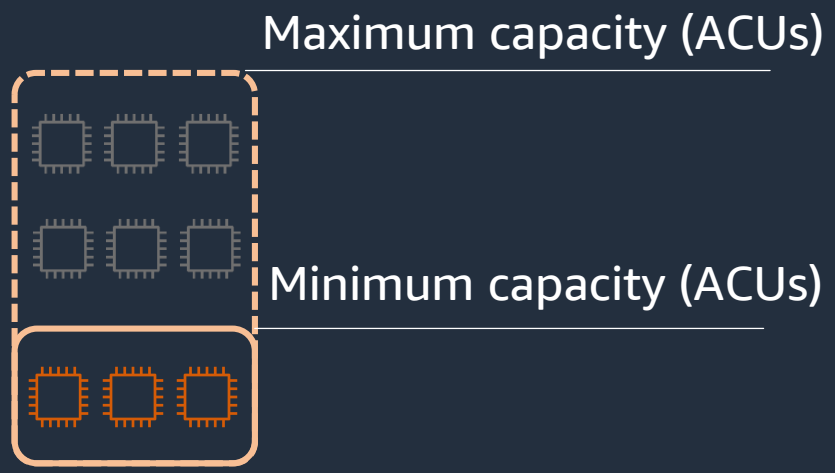
Architecture



Purpose-built, log-structured, distributed storage designed for cloud databases

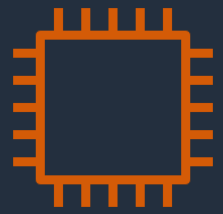
- Separation of storage and compute
- Storage grows or shrinks based on data size
- 6 copies across 3 AZs for high availability, durability, and performance
- Compute scales independently
- 15 low-latency readers to scale reads

Database capacity



- Database scales in-place within the min/max range based on the application workload
- Capacity is measured in Aurora Capacity Unit (ACU)
- 1 ACU comes with 2 GiB of memory; CPU and networking similar to provisioned Aurora instances
- Fine-grained non-disruptively scaling with as little as 0.5 ACU (1 GiB) increments

Scaling factors



CPU utilization

Memory utilization

Network throughput

Predictable scaling rate

Bigger the instance, faster the scaling rate

Demo: Aurora Serverless v2

RDS Management Console

us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#

Services | Search [Alt+S] | Oregon | Admin/anujangs-Isengard @ 3927-3072-9894

Resource Groups & Tag Editor

Amazon RDS

- Dashboard
- Databases
- Query Editor
- Performance insights
- Snapshots
- Exports in Amazon S3
- Automated backups
- Reserved instances
- Proxies

- Subnet groups
- Parameter groups
- Option groups
- Custom engine versions

- Events
- Event subscriptions

- Recommendations 0
- Certificate update

Try the new Amazon RDS Multi-AZ deployment option for MySQL and PostgreSQL
For your Amazon RDS for MySQL and PostgreSQL workloads, improve transactional commit latencies by 2x, experience faster failover typically less than 35 seconds and, get read scalability with two readable standby DB instances by deploying the Multi-AZ DB cluster Learn more

Create database

Or, Restore Multi-AZ DB Cluster from Snapshot

Resources

Refresh

You are using the following Amazon RDS resources in the US West (Oregon) region (used/quota)

DB Instances (0/40)
- Allocated storage (0 TB/100 TB)
- Increase DB instances limit

DB Clusters (0/40)
Reserved instances (0/40)
Snapshots (0)
- Manual
  - DB Cluster (0/100)
  - DB Instance (0/100)
- Automated
  - DB Cluster (0)
  - DB Instance (0)

Recent events (0)
Event subscriptions (0/20)

Parameter groups (0)
- Default (0)
- Custom (0/100)

Option groups (0)
- Default (0)
- Custom (0/20)

Subnet groups (0/50)
Supported platforms VPC
Default network vpc-00fe7dd7e1976287e

Create database

Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale a relational database in the cloud.

Restore from S3 | Create database

Note: your DB instances will launch in the US West (Oregon) region

Recommended for you

Implementing Cross-Region DR
Learn how to set up Cross-Region disaster recovery (DR) for Aurora PostgreSQL using an Aurora global database spanning multiple Regions. Learn more

Amazon RDS Backup and Restore using AWS Backup
Learn how to backup and restore Amazon RDS databases using AWS Backup in just 10 minutes. Learn more

Test Your DR Strategy in Minutes
Amazon Aurora Global Database now supports planned managed failover, making disaster recovery drills a breeze. Learn more

Migrate SSRS to RDS for SQL Server
Learn how you can migrate existing SSRS content to an Amazon RDS for SQL Server instance using a PowerShell module. Learn more

Additional information

Getting started with RDS
Overview and features
Documentation
Articles and tutorials

Thank you!

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