DBRE: Data Engineering

MySQL Database Service & HeatWave to run Analytics

Alexandre Fagundes

LAD Partner Enablement

Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

SQL> select * from person where name = 'Alexandre Fagundes'

MULTI_TASK = YES Father, Son, Husband, DBA

MULTI_THREAD = YES
Graduated in Information Systems (UniSociesc - SC)
Applications & Database Administrator
Certified OCI Architect Professional
Certified Microsoft Azure Administrator

PARALLEL_READ = YES "SRE Engineering" Google Inc.

SESSION_PERSISTENCE = YES Oracle EBS & Database Consultancy Services since 2002

KEEP_ALIVE = YES Next-Certifications: Oracle Cloud DB Services, MS Azure DBA, AWS

About Our Live Sessions

MySQL and the IT Market

Launch MySQL DB-Systems

Create an Oracle Analytics Cloud instance

Host for MySQL Shell

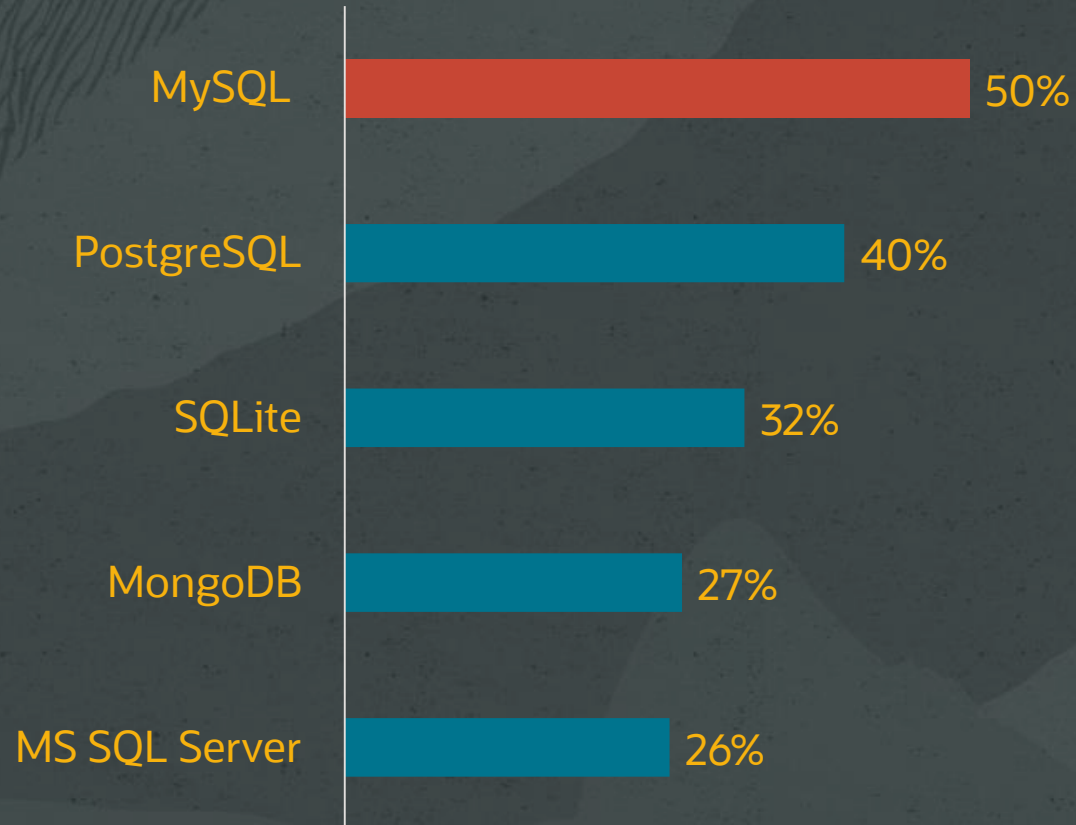**Enable Heatwave Cluster**

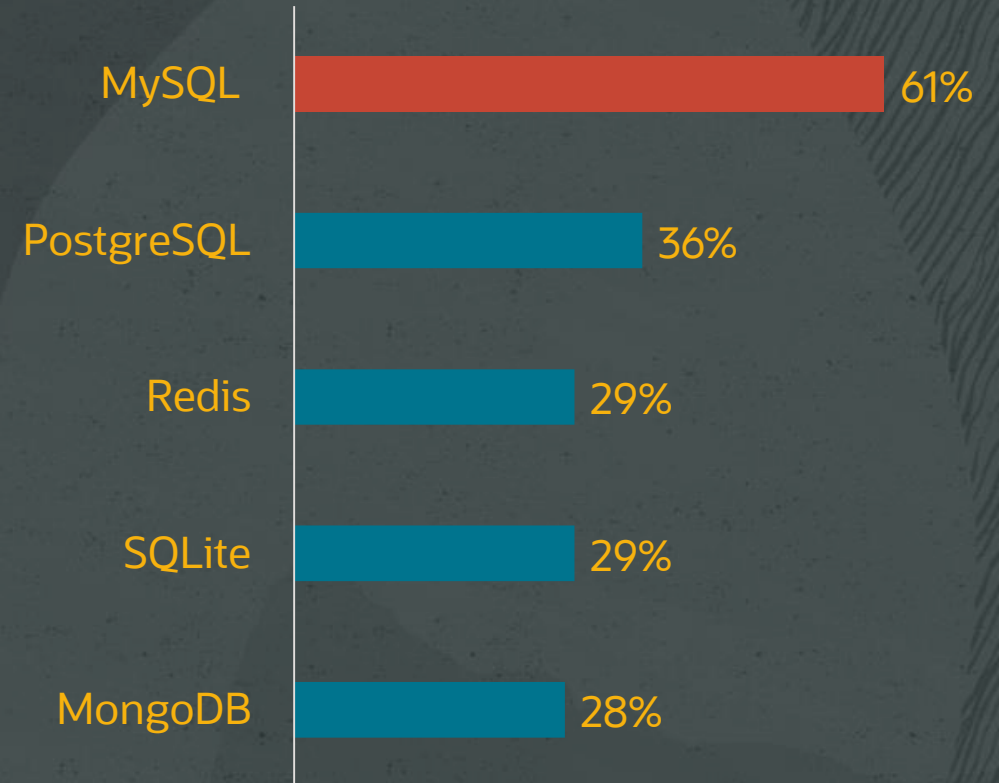**My First OAC Dashboard**

MySQL DB-Systems

MySQL is the most popular database for developers

Most popular databases

MySQL — 50%
PostgreSQL — 40%
SQLite — 32%
MongoDB — 27%
MS SQL Server — 26%

Stackoverflow survey 2021

Which databases have you used in the last 12 months?

MySQL — 61%
PostgreSQL — 36%
Redis — 29%
SQLite — 29%
MongoDB — 28%

Jetbrains survey 2021

Innovative enterprises across many industries run MySQL

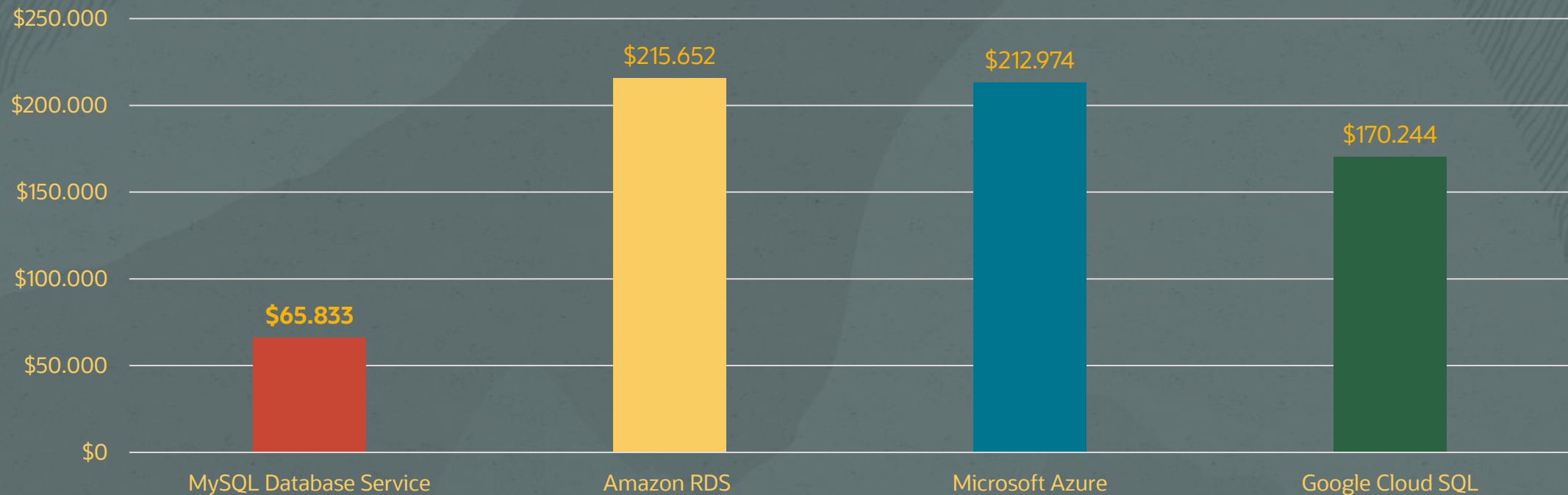| Social	E-Commerce	Tech	Finance	Manufacturing
facebook	Booking.com	APPDYNAMICS part of Cisco	Bank of America	TESLA
twitter	NETFLIX	GitHub	J.P.Morgan	VW
Linked in	UBER	HubSpot	citi	TOYOTA
WeChat	airbnb	zendesk	Fidelity INVESTMENTS	
Pinterest	淘宝网 Taobao.com	intuit mint	VISA	CAT
	阿里巴巴 Alibaba.com	New Relic	CA	

MySQL Database Service costs less

Annual cost for a 100 OCPUs, 1TB Storage configuration

MySQL Database Service: Standard E3 AMD 16GB/Core, all regions have the same price.
Amazon RDS: Intel R5 16GB/Core, AWS US East.
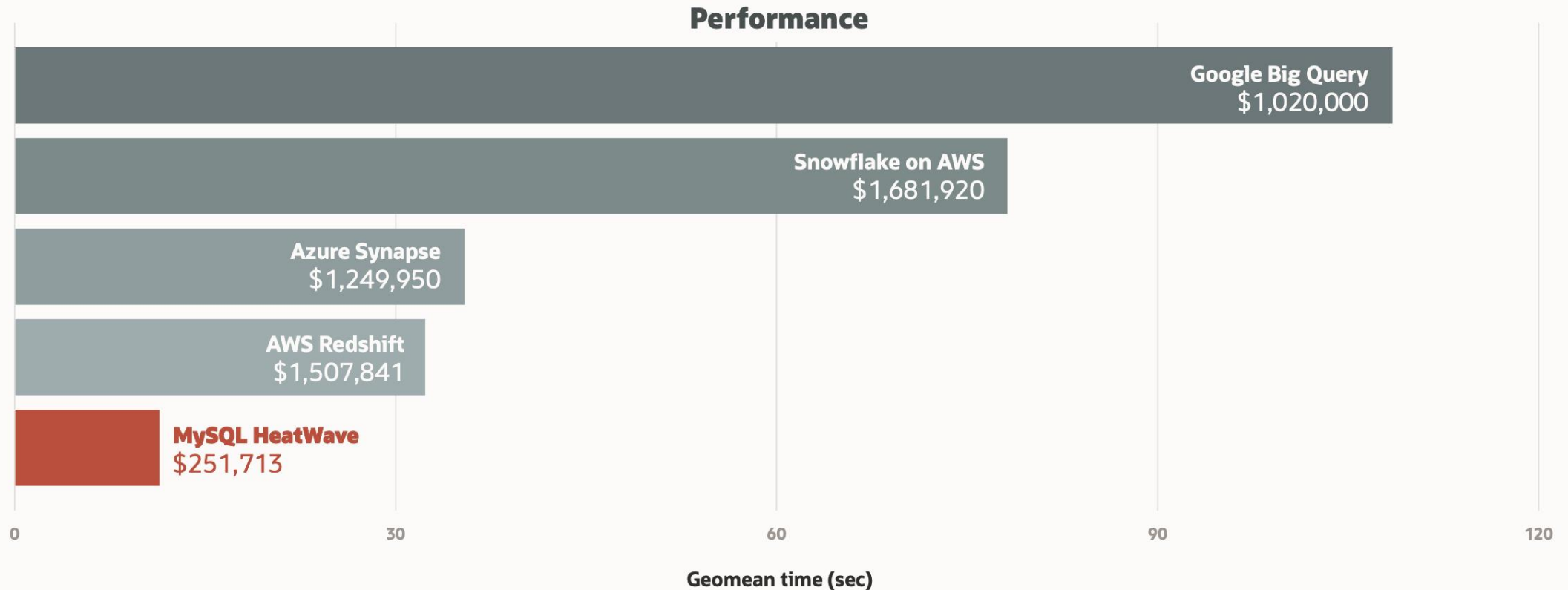Azure: Memory Optimized Intel 20GB/Core, MS Azure US-East.
Google: High Memory N1 Standard Intel 13GB/Core, GCP Northern Virginia.
Configuration: 100 OCPUs, 1 TB Storage.

Performance and price comparison

30TB TPCH, HeatWave is **faster and cheaper** than all the competitive database services
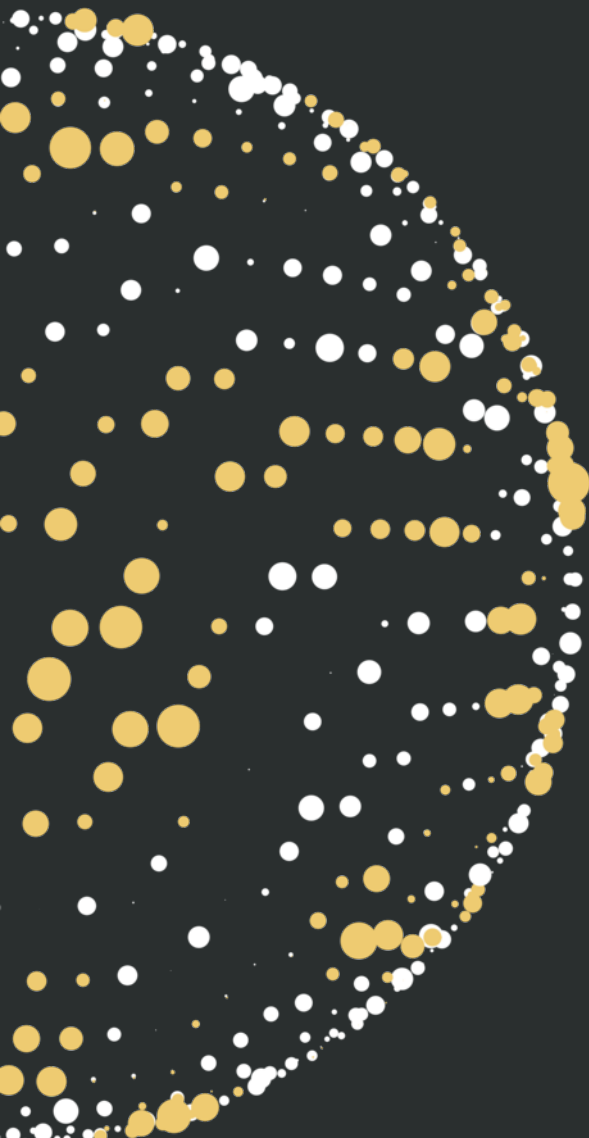
Performance

Google Big Query $1,020,000	
Snowflake on AWS $1,681,920	
Azure Synapse $1,249,950	
AWS Redshift $1,507,841	
MySQL HeatWave $251,713	

0   30   60   90   120

Geomean time (sec)

3rd party numbers derived from Gigaom report of Oct 2020
Using PAYG pricing for Snowflake. Other prices are based on 1 year pricing
*Benchmark queries are derived from TPC-H benchmark, but results are not comparable to published TPC-H benchmark results since they do not comply with TPC-H specification.
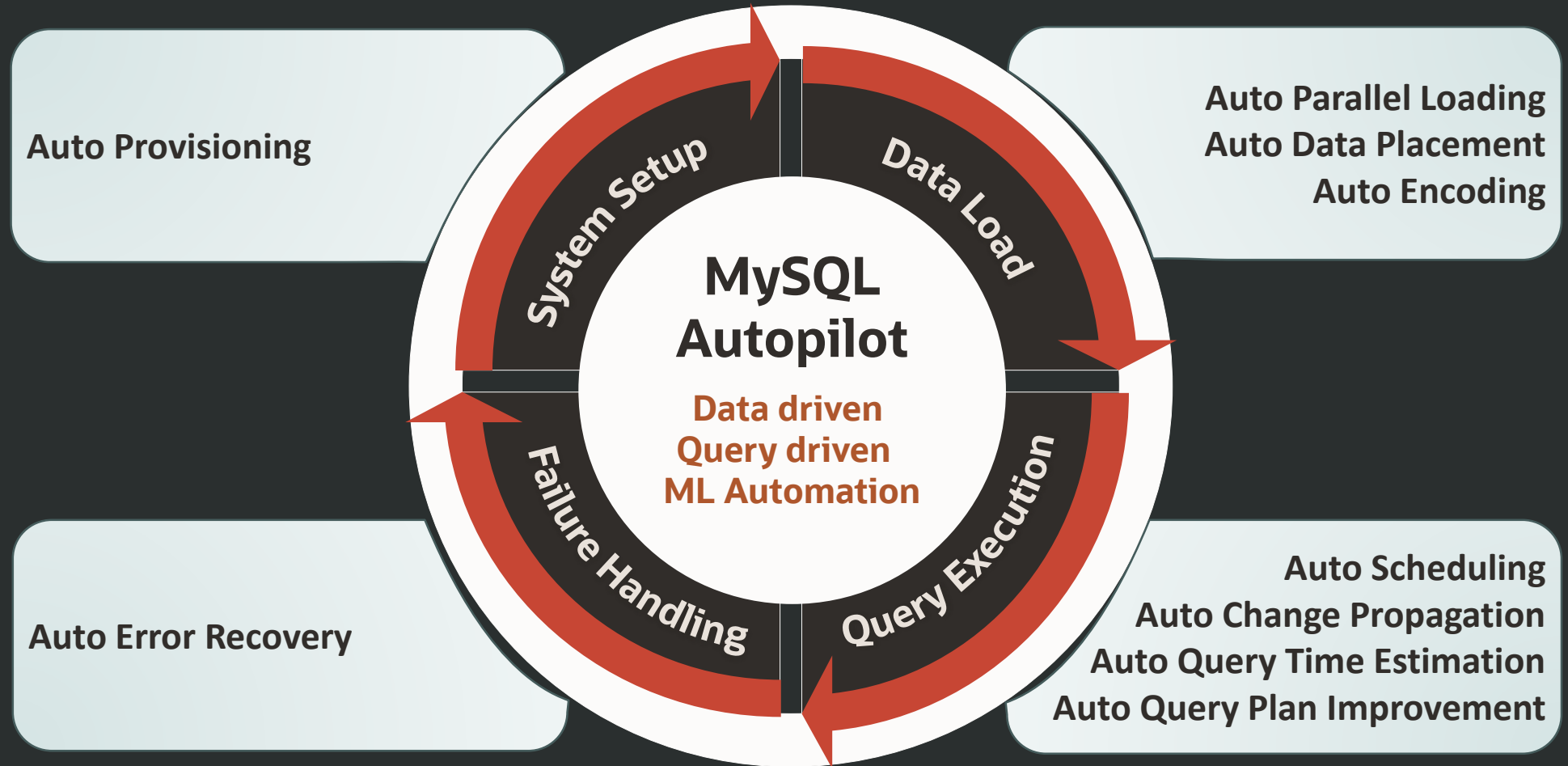
Benchmarks & TCO Savings

5400x Faster than RDS

1400x Faster than Aurora

6.5x Faster than Redshift AQUA

7x Faster than Snowflake

MySQL Autopilot Features
Machine learning based automation

Auto Provisioning

Auto Error Recovery

System Setup

Data Load

Failure Handling

Query Execution

MySQL Autopilot

Data driven
Query driven
ML Automation

Auto Parallel Loading
Auto Data Placement
Auto Encoding

Auto Scheduling
Auto Change Propagation
Auto Query Time Estimation
Auto Query Plan Improvement

MySQL Database Service: High Availability

Fault-tolerant system with automatic failover and zero data loss

- Single Click High Availability
- Automatic Failover
- Increased Uptime
- Zero Data Loss

- Recover Time Objective (RTO): Minutes
- Recovery Point Objective (RPO): Zero

Create MySQL DB System

Standalone

Single-instance MySQL DB System

High Availability

Run 3-node MySQL DB System providing automatic failover and zero data loss

✓

PRACTICE

Launch MySQL DB-Systems

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My First OAC Dashboard

Test Drive MySQL Database Service For Free Today

Get **$300** in **credits** and try

MySQL Database Service

free for 30 days.

https://www.oracle.com/mysql/free/

Feedback/Comments/Ask for help

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Thank you