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MySQL Database Service with HeatWave
All-in-One Datasheet (Beta) Produced by DBExpert

Overview

MySQL Database Service is the only MySQL cloud service with an integrated, high performance, in-memory query accelerator—HeatWave. It is the only service that enables customers to run OLTP and OLAP workloads directly from their MySQL database. MySQL Database Service with HeatWave is:

5400x	Faster	than	Amazon	RDS
1400x	Faster	than	Amazon	Aurora
6.5x	Faster	than	Amazon	Redshift AQUA
7x	Faster	than		Snowflake

Visit the DB Expert Services Taxonomy page to get the latest version of this data sheet and see data sheets for all of the Oracle Cloud Database services.

Deployment

Database Type	Single Database
Management Model	Fully Managed PaaS
Supported Cloud Environments	Oracle Cloud Infrastructure
SKUs for starting configuration	B92023 node per hour B96625 (DB storage) B92483 (backup storage)
DB Versions Supported	MySQL 8.4.x, MySQL 8.0.x
Hardware Infrastructure	Dedicated General Purpose

Usage Models

Recommended Workloads	Analytics Data Lake Data Science / Machine Learning Data Warehouse / Data Mart Mixed Workload (Transaction + Analytics) Transaction Processing (OLTP) Vector
Recommended Data Models	Document Store (JSON) NoSQL Spatial Text Vector

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Certified Oracle Applications	Oracle APEX

Capacity

Configuration Options	A shape is a template that determines the number of CPUs, amount of memory, and other resources that are allocated to a DB system, a HeatWave cluster node, or a read replica. Both the DB system and the HeatWave cluster have their own shape. Read replicas can have the same or different shape as compared to the DB system. Each shape for the DB system or read replica is associated with a list of default configurations. The configuration contains a collection of variables that define the operations of the MySQL instance. There are two default configurations for most of the shapes: Standalone: Optimized for standalone DB systems and read replicas. HA: Optimized for highly available DB systems.
CPU Range	N/A
Shapes	HeatWave.32GB (One to 16 HeatWave nodes with either one MySQL base node or a 3-node MySQL HA Cluster) ECPUs: 1 to 16 Max DB TB: 128 HeatWave.512GB (One to 64 HeatWave nodes with either one MySQL base node or a 3-node MySQL HA Cluster) ECPUs: 16 to 1024 Max DB TB: 128
CPU scaling	Online
Storage scaling	Online, Auto scale up

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Max IOPs	The Higher Performance Block Volume provides a linear performance scale of 75 IOPS/GB up to a maximum of 50,000 IOPS per volume.
Max Throughput	Throughput scales at the rate 600 KB/s/GB up to a maximum of 680 MB/s per volume.
Max Memory	512 GB (HeatWave node), 1024 GB (DB System and Read Replica)

Availability

Nines of availability (may require configuration)	99.99 SLA with 3-node MySQL HA Cluster in more than one AD. 99.95 SLA if one AD. SLO of 99.9 with Standalone MySQL.
Oracle DB Maximum Availability Architecture medals (for OCI / Cloud@Customer deployments)	Not MAA certified
Automated backups max retention	up to 35 days
Long-term backup retention (up to 10 years)	Yes

Functionality Included

Included Oracle DB Options for license-included service (*)	N/A
Included Oracle EM Packs for license-included service (*)	N/A
Free Add-Ons (no extra licensing required)	Eligible target for loading data using Oracle Data Integrator, available on Cloud Marketplace Oracle GoldenGate 1) Limited Use Term License Promotion and 2) Oracle GoldenGate Database Migration Term (both available on Oracle Cloud Marketplace)

*Check service documentation for feature availability and limitations

Locations

Oracle Cloud Infrastructure

APAC: AU Gov Southeast - WGA, Chuncheon - YNY, Hyderabad - HYD, Melbourne - MEL (G), Mumbai - BOM (G), Osaka - KIX, Seoul - ICN (A), Singapore - SIN (A, G), Singapore West - XSP, Sydney - SYD (G), Tokyo - NRT (A, G)

EMEA: Abu Dhabi - AUH, Amsterdam - AMS (A), Dubai - DBX, EU Sovereign Central - STR, EU Sovereign South - VLL, Frankfurt - FRA (A, G), Jeddah - JED, Jerusalem - MTZ, Johannesburg - JNB (A),

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Jovanovac - BEG, London - LHR (A, G), Madrid - MAD (G), Marseille - MRS, Milan - LIN, Newport - CWL, Paris - CDG, Riyadh - RUH, Stockholm - ARN, UK Gov South - LTN, UK Gov West - BRS, Zurich - ZRH (G)

LAD: Bogota - BOG, Monterrey - MTY, Queretaro - QRO, Santiago - SCL, Sao Paulo - GRU (G), Valparaiso - VAP, Vinhedo - VCP (A)

North America: Ashburn - IAD (A, G), Chicago - ORD, Montreal - YUL (G), Phoenix - PHX (A), San Jose - SJC (A), Toronto - YYZ (A, G)

* New services and hardware generations are rolled out across regions, check your region for current status. (A) = Interconnect to Microsoft Azure available. (G) = Interconnect to Google Cloud available

Azure

None to date. Visit the Multicloud Updates page (link below) to check on potential roadmap items.

Google Cloud

None to date. Visit the Multicloud Updates page (link below) to check on potential roadmap items.

AWS

None to date. Visit the Multicloud Updates page (link below) to check on potential roadmap items.

Multicloud Updates

Operational Controls

Allows installing additional software/agents on the host	No
Allows installing OS packages	No
Allows kernel changes	No
Allows OS runtime changes	No
Allows sysdba access	No
Oracle operator access control	No
Control DB patch level	No
Control DB release update (RU) level	No
Control DB version	Yes
Control maintenance window	Yes
Preview and Validate Patches for Zero-Regression SLO	No

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Additional Information

Open Source DB	Yes
Delta Sharing / Cloud Links	No
Select AI to Generate SQL from Natural Language Prompts	No
Mongo-compatible API	No
Supports non-CDB home	N/A

Reference Links

General

[Oracle PaaS and IaaS Universal Credits Service Descriptions](#)

[Service Level Objectives](#)

[Oracle Cloud Infrastructure Compliance](#)

[BYOL FAQ](#)

[OCI Locations and Status](#)

Service Specific

[MySQL Database Service](#)

[MySQL HeatWave Customer References](#)

[MySQL Overview](#)

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