



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
 7x Faster than Amazon AQUA
 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 |

| | |
|-------------------------------|-------------|
| Certified Oracle Applications | Oracle APEX |
|-------------------------------|-------------|

Capacity

| | |
|------------------------------|--|
| Configuration Options | <p>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.</p> <p>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.</p> <p>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:</p> <p>Standalone: Optimized for standalone DB systems and read replicas.</p> <p>HA: Optimized for highly available DB systems.</p> |
| CPU Range | N/A |
| Shapes | <p>HeatWave.32GB (One to 16 HeatWave nodes with either one MySQL base node or a 3-node MySQL HA Cluster)</p> <p>ECPU: 1 to 16</p> <p>Max DB TB: 128</p> <p>HeatWave.512GB (One to 64 HeatWave nodes with either one MySQL base node or a 3-node MySQL HA Cluster)</p> <p>ECPU: 16 to 1024</p> <p>Max DB TB: 128</p> |
| CPU scaling | Online |
| Storage scaling | Online, Auto scale up |

| | |
|-----------------------|--|
| 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

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|--|---|
| 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),

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

| | |
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| 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 |

Additional Information

| | |
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| 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](#)