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DATABASE CLOUD SERVICE



# Oracle Database Exadata Cloud Service

Exadata Performance, Cloud Simplicity

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## Introducing Exadata Cloud Service

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Safe and Easy Migration

Scalable Options

Exadata and OLTP

Exadata, Analytics, and Warehousing

Summary

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# Introducing Exadata Cloud Service

Oracle Database Exadata Cloud Service combines the best database with the best cloud platform. Exadata Cloud Service is the culmination of more than 35 years of database innovation, proven worldwide at thousands of mission-critical deployments in leading banks, airlines, telecommunications companies, stock exchanges, government agencies and e-commerce sites. With Exadata Cloud Service you get:

## Full Oracle Database with all advanced options:

- Including Oracle Multitenant, Oracle Database In-Memory and Oracle Real Application Clusters (RAC).
- The number one database for mission-critical online transaction processing and data warehousing.

## On the fastest and most available cloud database platform:

- Scale-out database servers and scale-out intelligent storage connected with a fully redundant high-performance InfiniBand fabric.
- Featuring SQL offload, Smart Flash Cache, Columnar Flash Cache, Hybrid Columnar Compression.

## Oracle Public Cloud adds:

- Oracle experts to deploy and manage the infrastructure.
- No capital expenditure; just a simple monthly subscription.
- Fast, elastic, web-driven service provisioning.
- Complete service isolation with no over-provisioning.



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# Use Cases



You can use Exadata Cloud Service as your primary data management platform, or think of it as an extension of your existing data center. Either way, Exadata Cloud Service is ideally suited for:

### **Mission-critical production databases:**

- Large individual databases
- Consolidate many smaller databases

### **Disaster recovery and reporting in the cloud:**

- With Oracle Active Data Guard

### **Non-production uses:**

- Testing and certification
- Development
- Evaluation and trials



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# Safe and Easy Migration, Hybrid Cloud Ready

Exadata Cloud Service is 100% compatible with your existing on-premises Oracle databases because it uses exactly the same Oracle Database software and exactly the same Exadata Database Machine technology that is used globally at thousands of customer sites. This ensures no application changes as customers embark on their cloud journey with Exadata Cloud Service, and enables full portability across hybrid clouds.



**On-Premises**

**Same Architecture  
Same Software  
Same Skills**

**Oracle Cloud**



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# Scalable Options

## Exadata Cloud Service Configurations\*

You can choose between three configurations:

	Quarter Rack	Half Rack	Full Rack
Number of Database Servers	2	4	8
<b>Number of CPU Cores</b>	<b>28 - 68</b>	<b>56 - 136</b>	<b>112 - 272</b>
Total RAM Capacity	496 GB	992 GB	1984 GB
Number of Exadata Storage Servers	3	6	12
Total Flash Capacity	19.2TB	38.4TB	76.8TB
Total Usable Disk Capacity	42TB	84TB	168TB
Maximum SQL Flash Bandwidth	30 GB/sec	60 GB/sec	120 GB/sec
Maximum SQL Flash Read IOPs	900,000	1,800,000	3,600,000
Maximum SQL Flash Write IOPs	500,000	1,000,000	2,000,000
Maximum SQL Disk Bandwidth	4.5 GB/sec	9 GB/sec	20 GB/sec
Maximum SQL Disk IOPs	7,000	14,000	28,000
Maximum Data Load Rate	5TB/hr	10TB/hr	20TB/hr

### Capacity on Demand

Pay only for the CPU cores that you enable

## Oracle Database Software

Choose Oracle Database 11g or Oracle Database 12c (or both). Either way you get Enterprise Edition - Extreme Performance, which provides all the features of Oracle Database Enterprise Edition, plus all the database enterprise management packs, and all the Enterprise Edition options, such as Oracle Database In-Memory and Oracle Real Application Clusters (RAC).

\* See Oracle's [data sheet](#) for further details.



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# Best Cloud Platform for OLTP

Exadata Cloud Service delivers the best cloud platform for OLTP by harnessing:

## Super-fast database servers:

- With the fastest 64-bit x86 processors; 36 cores per node
- Scale-out to a maximum of eight servers using RAC
- Using Oracle Database In-Memory for the fastest analytics directly on OLTP data

## Fastest storage:

- Ultra-fast PCIe flash
- Up to 3.6 million IOs/sec
- 0.25ms response time

## Fastest network:

- 40 GB/sec InfiniBand network
- Exafusion direct-to-wire protocol; minimizes OLTP messaging latency

## Flexible database consolidation:

- Multitenant Database Option included
- End-to-end workload prioritization that manages CPU, network, and storage

## Mission-critical availability:

- Fully redundant servers and network
- High Redundancy ASM storage
- Extensive online DDL operations
- In-memory fault tolerance



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# Best Cloud Platform for Analytics and Warehousing

Exadata Cloud Service delivers the best cloud platform for data warehousing and analytics by harnessing:

## **Automatic parallel queries:**

- Across hundreds of processor cores

## **Columnar in-memory processing:**

- Scan billions of rows per second per core

## **Fastest storage:**

- Offload analytic scans to storage servers; up to 120 GB/sec throughput from storage
- Eliminate unnecessary IO with Storage Indexes, Zone Maps and Attribute Clustering

## **Fastest network:**

- 40 GB/sec InfiniBand network
- Exafusion direct-to-wire protocol; minimizes messaging latency

## **Fast data loading:**

- Load up to 20TB of data per hour

## **Hybrid Columnar Compression:**

- Compresses data up to ten-fold, and more
- Manage petabytes of data

## **Rich Oracle Database warehousing capabilities:**

- Sophisticated analytical SQL operators
- Built-in data mining and R processing
- Built-in OLAP processing
- Query re-write
- Materialized views
- Star transformation
- Dynamic optimizer
- Flexible table partitioning
- Comprehensive resource management
- Scale-out and scale-up



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Oracle Database Exadata Cloud Service is the **best database on the best cloud platform**, delivering public cloud database in a league of its own:

- **Extreme performance** for OLTP, In-Memory Analytics, Data Warehousing
- **100% compatible** with all Oracle Database features and options
- **Proven** Exadata technologies
- **Mission-critical** availability and security
- **Easy, no risk migration:** On-premise, cloud, hybrid
- **Zero** infrastructure management
- **No capital expenditure:** monthly subscription







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## Watch

[Getting Started with Oracle Database Exadata Cloud Service](#)

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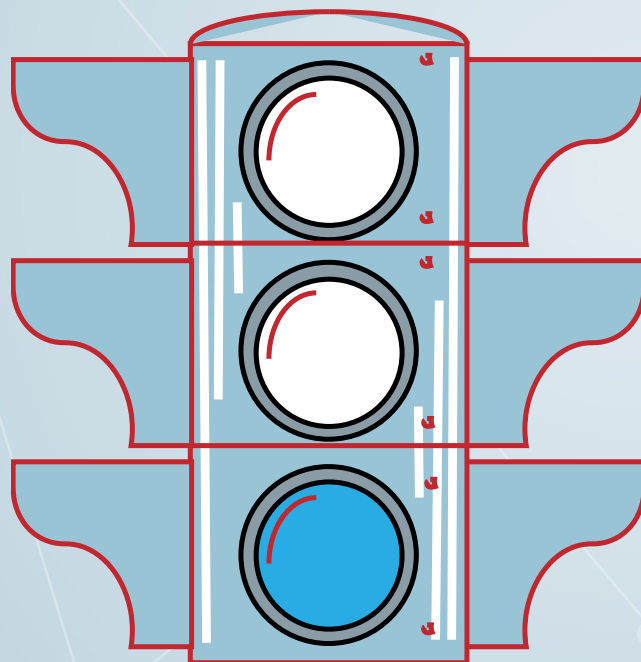
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