



Oracle Database Editions

Move Standard to Enterprise Edition

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Nossos Valores

Integridade

Compliance

Trabalho em Equipe

Satisfação do Cliente

Qualidade

Ética

Inovação

Respeito Mútuo

Justiça

Comunicação

Como empresa líder em tecnologia, abraçamos a **diversidade** em todas as suas formas. Acreditamos realmente que a **inovação** começa com a **inclusão**. E isso só pode ser alcançado com a cooperação de nossos **parceiros**. Afirmamos nosso **compromisso** em manter um **ambiente respeitoso** e **livre de discriminação** e esperamos isso dos nossos **parceiros de negócios**.

A Oracle espera que seus **parceiros** conduzam os negócios de forma **justa** e **ética**, para cumprir as leis anticorrupção em todo o mundo, para cooperar com os pedidos de informação da Oracle e evitar envolver-se em qualquer atividade que envolva até mesmo a aparência de impropriedade.

É vital que os nossos parceiros sejam aderentes aos valores do **Código de Ética e Conduta Empresarial da Oracle**, que baseia-se e implementa os valores que são essenciais para o nosso sucesso como empresa. Nossos valores são a base de tudo o que fazemos e todos nós devemos viver esses valores todos os dias.



Utilize o QR code para acessar o Código de Ética e Conduta Empresarial da Oracle.

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, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.



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



Father, Son, Husband, Cloud Architect

Bachelor of Information Systems

Oracle Applications & Databases Administrator
Certified Cloud Architect
Autonomous Database Cloud Certified Professional
Oracle Cloud Operations Certified Professional
Oracle Cloud Security Certified Professional
Oracle Database Migration/Integration Certified
Professional

Last book: **“Database Reliability Engineering: Designing and Operating Resilient Database Systems”** Charity Majors

Oracle E-Business Suite & Database Consultancy Services
since 2002



SQL> select * from person where name = 'Marcel Lamarca'



Father, husband, Cooker and son!

Graduated in Business Administration (FMU-SP)

Oracle DBA

19 year dedicated to study and support Oracle Databases.
7 years working with Exadata (On-prem, C@C and Cloud Services) .

Oracle Certified Professional (OCP)

10g, 11g and 12c.

Oracle Certified Specialist (OCE)

Grid/RAC Database Administrator

Oracle Cloud Specialist (OCS)

OCI Foundation

Oracle Autonomous Database Administrator

Oracle Cloud Database Migration and Integration

Exadata Database Machine X9M Certified Implementation Specialist

Agenda

Move Standard To Enterprise Edition

Consolidate Database Platform

Oracle Database Editions

Move Standard Database to Autonomous

HA and Disaster Recover

Oracle Database Versions and Time Line

MOS - Market Driven Support

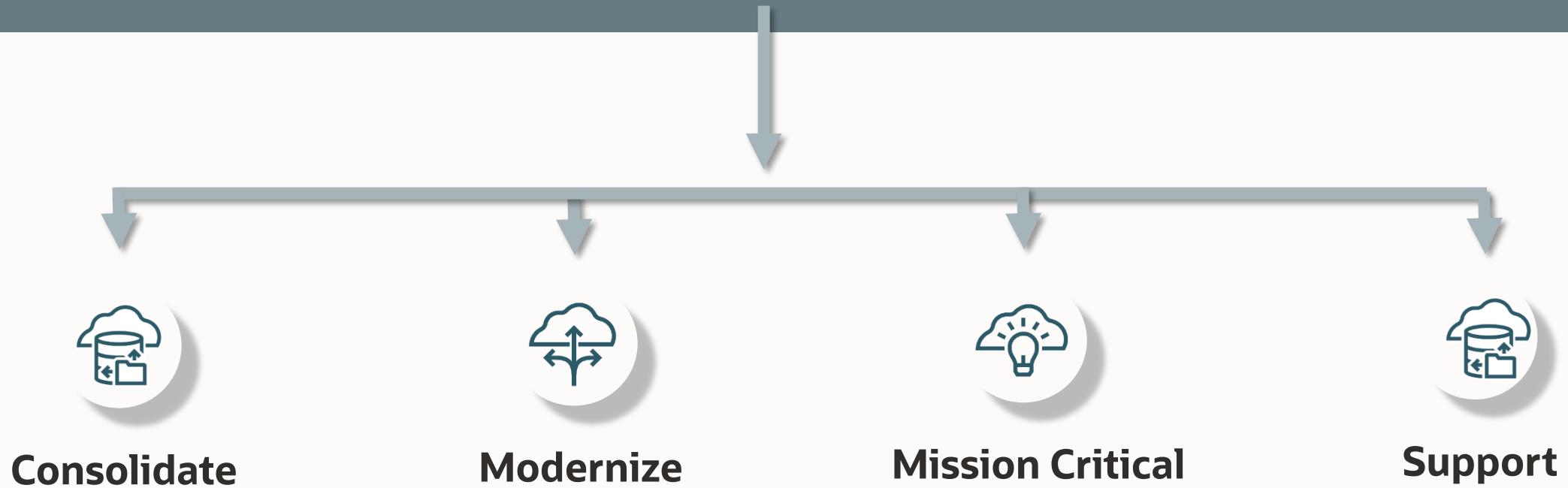
Oracle Database Innovation



FY23

Conversation : Modernizing your Oracle State

Why Migrate from Standard 11g/12c to Enterprise Edition?



Our customers say they are modernizing to support new business models

80%

of businesses are planning strategic moves
that require IT modernization*

Top reasons for modernizing IT estates*

DRIVE COST-REDUCTION PROJECTS	53%
CHANGE HOW PRODUCTS/ SERVICES ARE SOLD	52%
PIVOT TO NEW MARKETS	50%
REALLOCATE RESOURCES	44%

Database is at the core of the IT infrastructure used to achieve strategic goals

* MIT Technology Review Insights: New business models, big opportunity

Why do 2/3 of enterprise workloads remain on-premises ?

Customer concerns and/or regulatory compliance



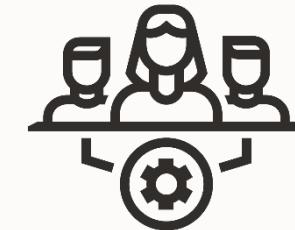
Security



Data Sovereignty



Control



Latency



Performance



Dependencies



Oracle Database Enterprise Edition capabilities enable convergence

Multiple data types

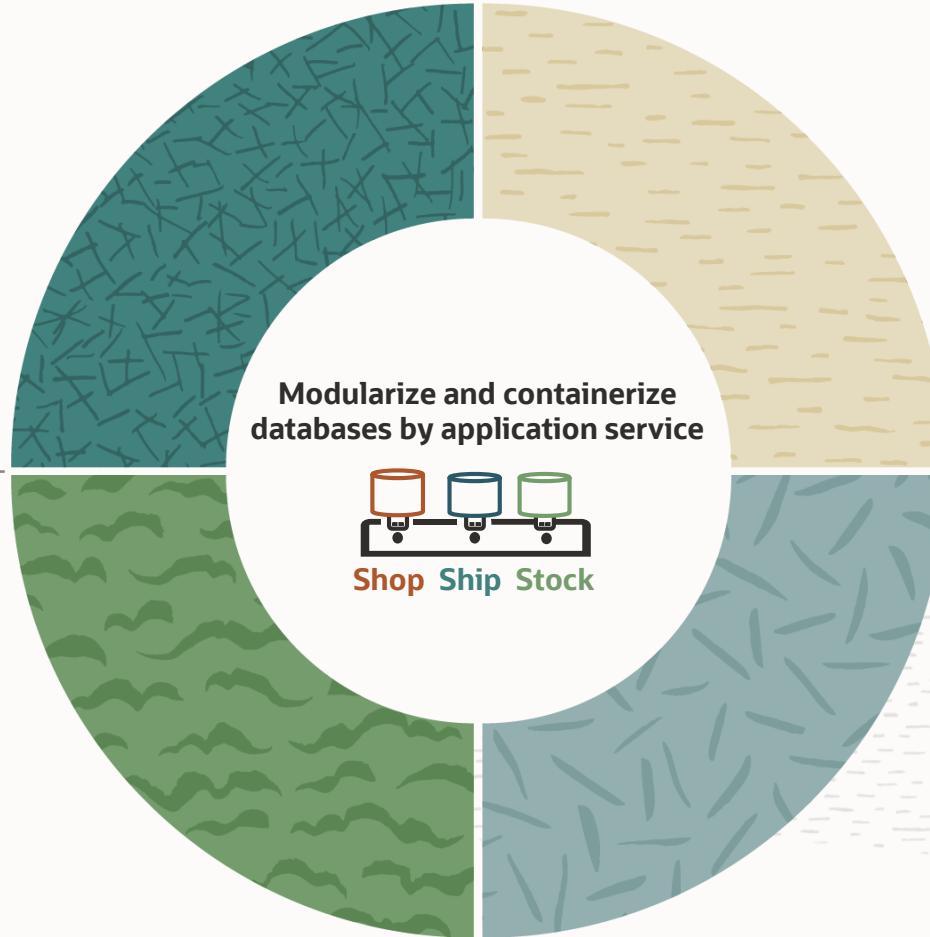
Structured: Relational, Graph, Avro, Parquet, Blockchain

Unstructured: Geospatial, XML, JSON, Text

Mission-critical capabilities

Scaling: Performance, capacity, query parallelism, analytics, multitenant

Risk reduction: Disaster protection, replication, security, zero data loss backup, crypto-security



Multiple workloads

Transactional: OLTP, IoT, distributed, key-value

Analytical: Data warehouse, data lake, operational intelligence, machine learning, multi-dimensional

Multiple development styles

Decentralized: Microservices, events, data mesh, APIs

Accelerated: Low code, data engineering, schema-less, SaaS

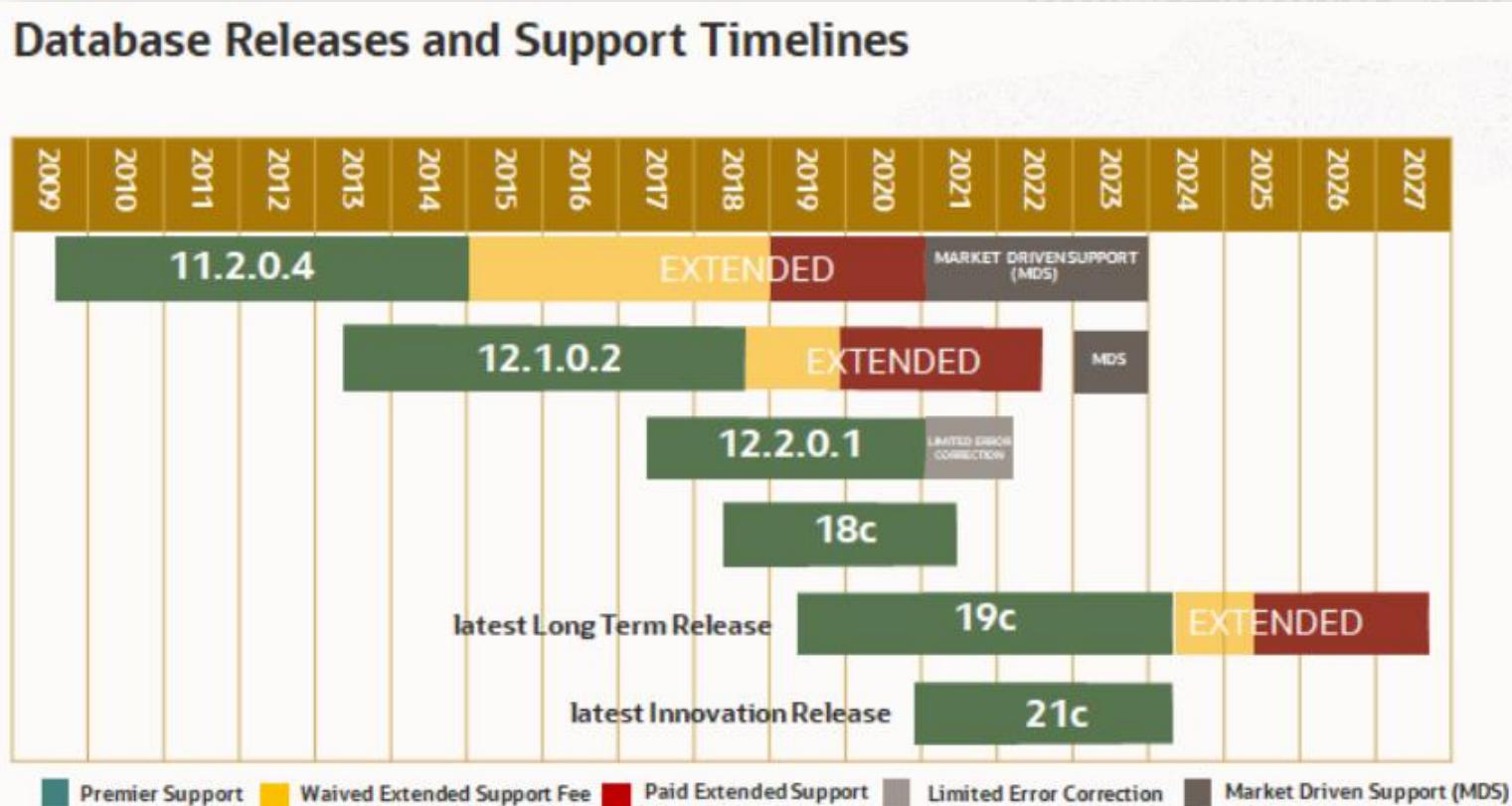


Oracle Database Versions and Time Line



MOS – Database Releases and Support Timelines

Understanding How to Deal with MOS Note (Doc ID 742060.1)



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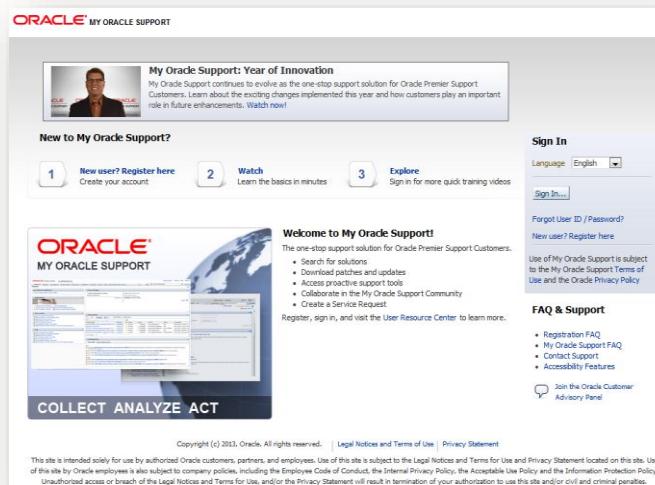
MOS Market Driven Support



Oracle Market Driven Support

Understanding all Extended Support Options for Databases 11g and 12c Database Versions

Oracle has setup Market Driven Support to provide extra assistance to those customers still in the process of moving off 11.2.0.4 and 12.2.0.1. This is an Advanced Customer Support (ACS) offering to assist customers in moving to Oracle Database 19c which is the current long-term release.



This support offering is limited to Oracle Database and coverage does not extend to new certifications, third-party products, or any Java/JDK functionality including Java components embedded in the database. No updates related to cryptography and network encryption will be supported during this timeframe.

Oracle Database 11.2.0.4 Market Driven Support (MDS) (Doc ID 2728619.1)
Oracle Database 12.1.0.2 Market Driven Support (MDS) (Doc ID 2870402.1)

Oracle Database Editions



Oracle Database DBCS Cloud Most Used Editions

Oracle Database Cloud Service Standard Edition (DBCS SE)

- Includes Oracle Database Standard Edition 2 software
- Full Database Instance
- Up to 8 CPU Cores
- Up to 3 PDB's
- (TDE) Encryption



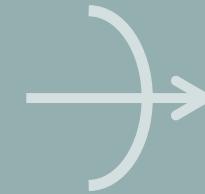
Oracle Database Cloud Service Enterprise Edition (DBCS EE)

- Up to 256 PDB's
- Tuning package
- Manage package
- (TDE) Encryption



Oracle Database Cloud Service Enterprise Edition High Performance (DBCS EE-EP)

- Includes Oracle Database Enterprise Edition software plus many Oracle Database options and Oracle management packs



Oracle Database Cloud Service Enterprise Edition Extreme Performance (DBCS EE-EP)

- Includes Oracle Database Enterprise Edition software plus ALL Oracle Database options and Oracle management packs that are appropriate for use in Oracle Database Cloud Service.



<https://docs.oracle.com/en/database/oracle/oracle-database/19/dblic/Licensing-Information.html>

Oracle Database Exadata Cloud Most Used Editions

Oracle Database Exadata Cloud Service (ExaCS)

These offerings include Oracle Database Enterprise Edition software plus all Oracle Database options and Oracle management packs that are appropriate for use in Oracle **Database Exadata Cloud Service**.

- RAC
- In-Memory
- HCC (Compression)
- Partition
- Tuning and Diag Packs
- Data Guard
- Smart Scan



Oracle Database Exadata Cloud At Customer (CC)

This guide uses CC to describe the licensing policies for both Oracle Database Exadata Cloud Service and Oracle Database Exadata Cloud@Customer **on Customer DataCenter**

- Storage Index
- Advanced Security
- RAT (Real Application Testing)
- I/O Resource Management
- Multitenant
- Smart Flash Cache Log



<https://docs.oracle.com/en/database/oracle/oracle-database/19/dblic/Licensing-Information.html>

Oracle Database On-premises most used editions

Oracle Database Standard Edition 2 (SE2)

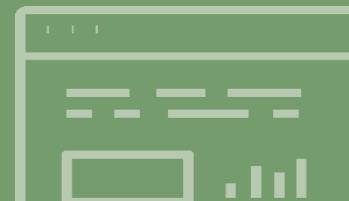
- Includes Oracle Database Standard Edition 2 software
- Full Database Instance
- Up to 8 CPU Cores
- Up 3 PDB's



Oracle Database Enterprise Edition (EE)

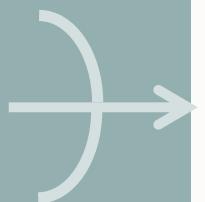
Oracle Database Enterprise Edition provides performance, availability, scalability, and security for developing applications such as high-volume online transaction processing (OLTP) applications, query-intensive data warehouses, and demanding Internet applications.

Oracle Database Enterprise Edition can be enhanced with the purchase of Oracle Database options and Oracle management packs.



Oracle Database Enterprise Edition on Engineered Systems (EE-ES)

- RAC
- In-Memory
- HCC (Compression)
- Partition
- Tuning and Diag Packs
- Data Guard
- Smart Scan
- Storage Index
- Advanced Security
- RAT (Real Application Testing)
- I/O Resource Management
- Multitenant
- Smart Flash Cache Log

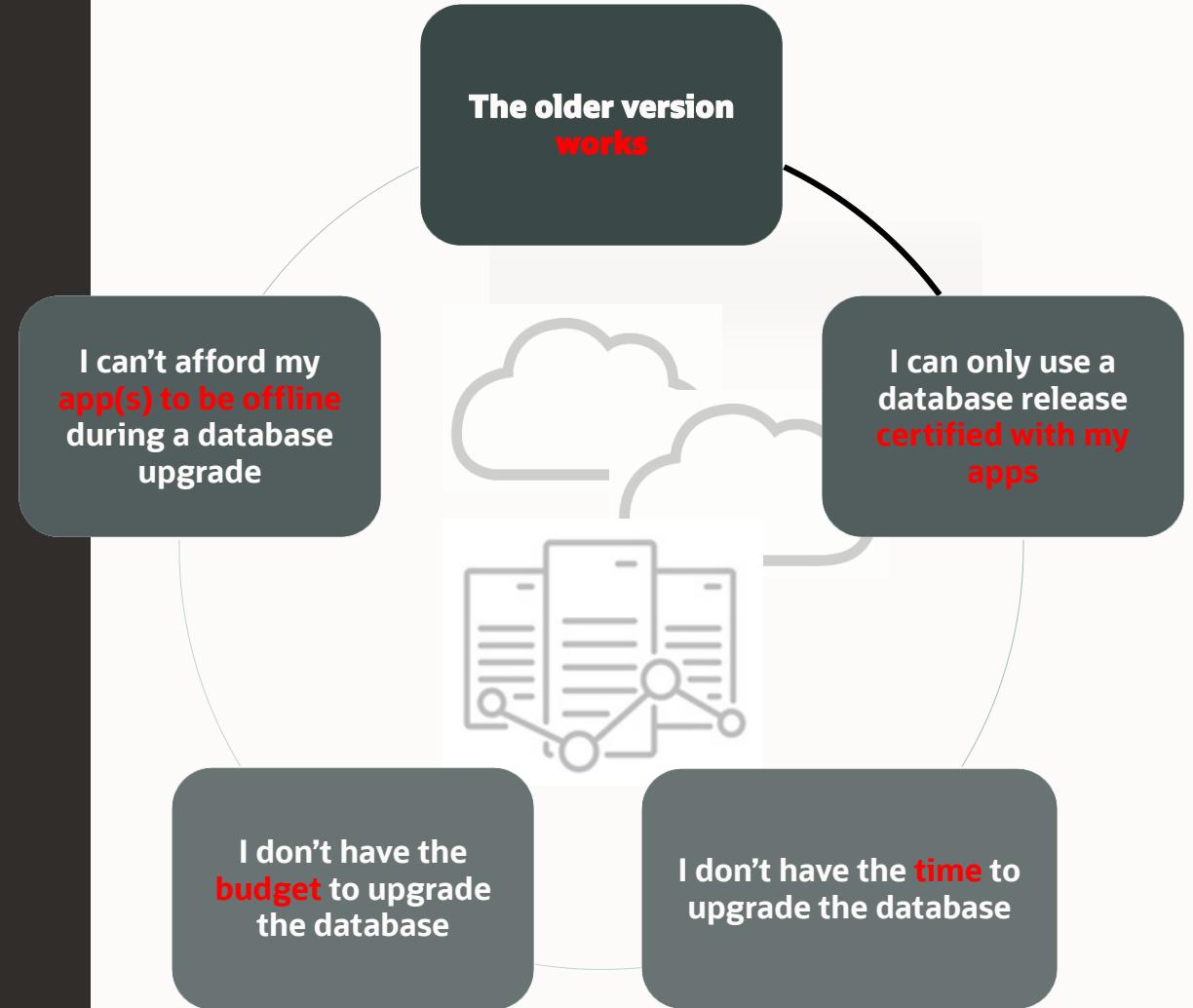


<https://docs.oracle.com/en/database/oracle/oracle-database/19/dblic/Licensing-Information.html>

Modernize With Oracle Database 19c Enterprise Edition



Some organizations are naturally cautious about upgrading their Oracle Database



How Oracle Database 19c Enterprise Edition helps address key business concerns



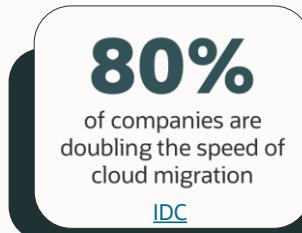
Security

- Multi-layered security that protects both your data and establishes trust for infrastructure, applications and users



Innovate with new technology

- Oracle's converged database enables multi-data, multi-workload apps to allow you to get the most from your data, and provide the best experience for your customers



Journey to the cloud

- Automation and guidance to ensure you can take advantage of the cloud with minimal disruption
- Transition to Exadata/Exadata Cloud for performance when database fine-tuning still needed – and Autonomous Database when ready for the benefits of full automation

Move Your Standard Database to ADB



Move Standard Database Workload Autonomous Database



Autonomous Database

Autonomous Operation

- Reduce intensive and manual DBA Tasks
- Auto Database Tuning, Pathing and Securing Capabilities

Lowest cost to adopt Autonomous Database (ADB)

- No additional infrastructure costs, pay only for ADB OCPUs
- Leverage features that drive a true pay-per-use consumption
- Use BYOL to reduce your costs and TCO

Simplest transformation for new and existing workloads

- Autonomous automation and optimized end-to-end
- Developer self-service for new database application development

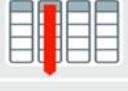
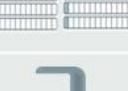
<https://blogs.oracle.com/database/post/migrate-dbse-to-atp>

Oracle Exadata Cloud Features

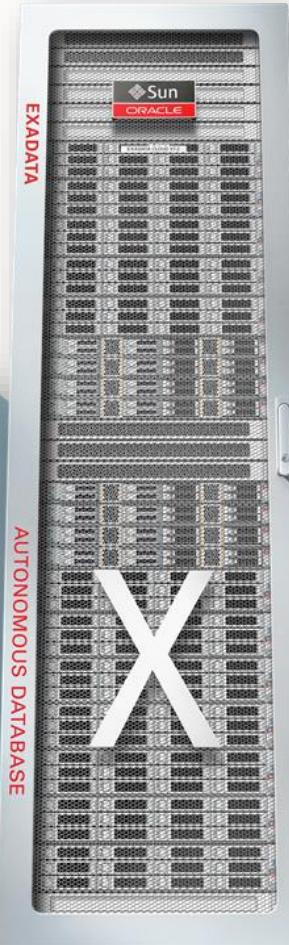


Exadata Cloud Most Powerful Database + Platform

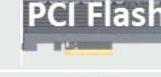
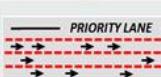
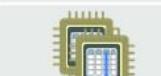
Understanding Exadata Cloud Database Editions and Features

	Multitenant
	In-Memory DB
	Real Application Clusters
	Active Data Guard
	Partitioning
	Advanced Compression
	Advanced Security, Label Security, DB Vault
	Real Application Testing
	Advanced Analytics, Spatial and Graph
	Management Packs for Oracle Database

All Oracle Database Innovations



All Exadata DB Machine Innovations

	Offload SQL to Storage
	InfiniBand Fabric
	Smart Flash Cache, Log
	Storage Indexes
	Columnar Flash Cache
	Hybrid Columnar Compression
	I/O Resource Management
	Network Resource Management
	In-Memory Fault Tolerance
	Exafusion Direct-to-Wire Protocol

High Availability and Disaster Recovery



Enterprise Edition enables Disaster Recovery (DR)



DR = Disaster Recovery

Also known as business continuity

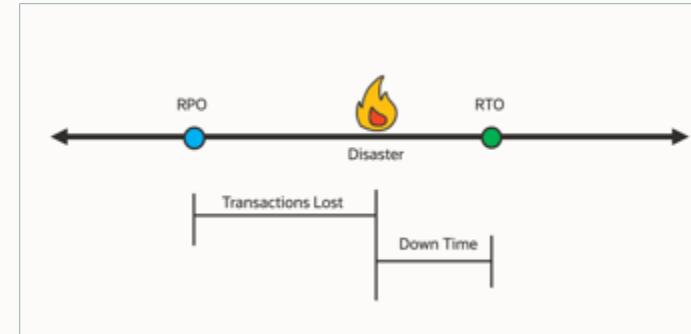
A redundant application environment that can withstand a disaster

Not the same as High Availability (HA)

Value of DR / Business Continuity

For businesses that transact business through their applications, seconds of downtime can mean millions of dollars.

DR and BC are often part of compliance regulations (e.g. SOX)

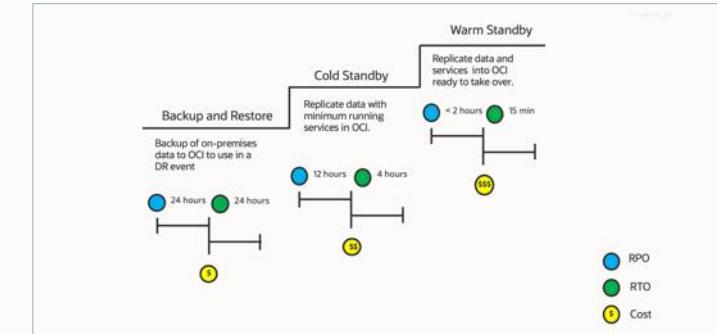


RTO = Recovery Time Objective

How quickly can my application be running again?

RPO = Recovery Point Objective

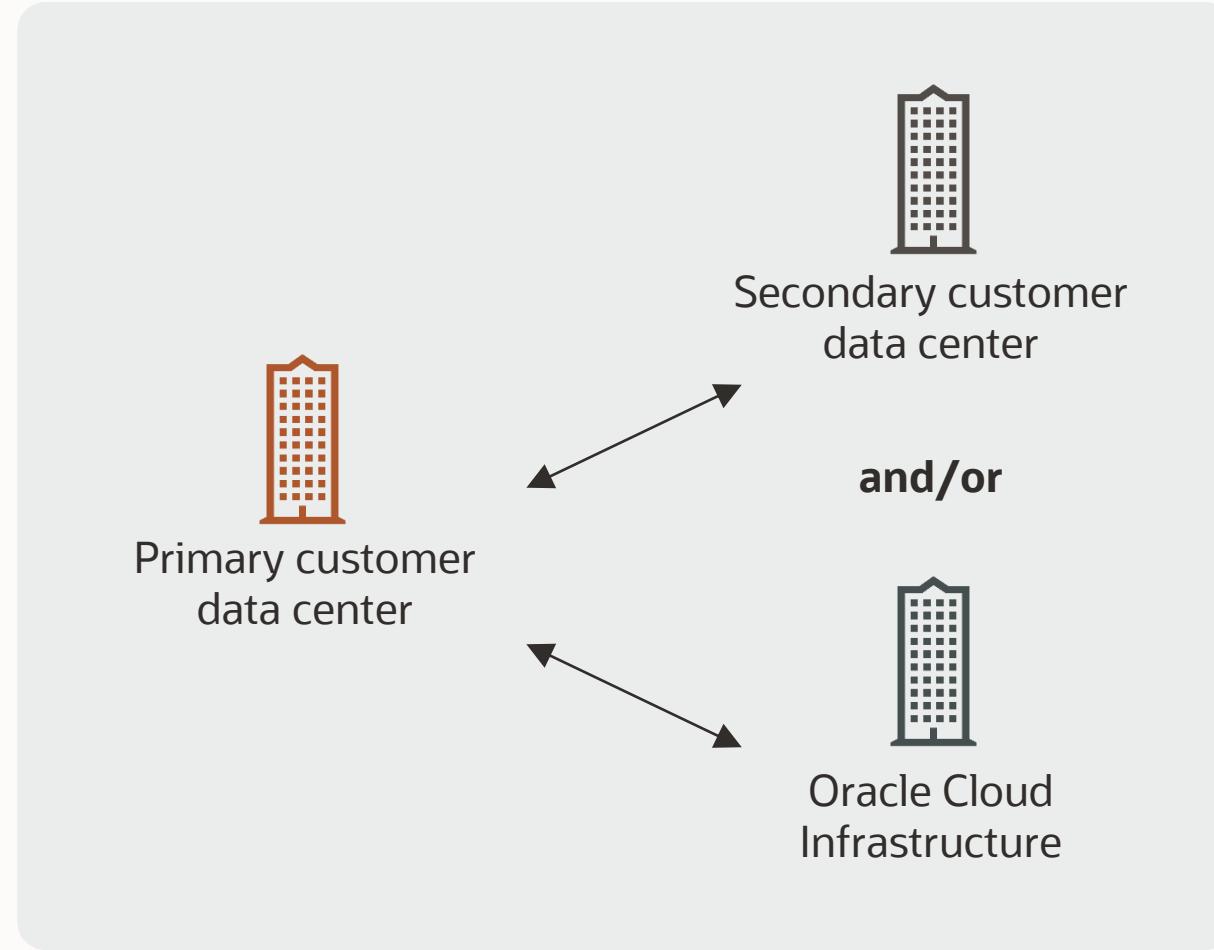
How many transactions can I stand to lose?



3 DR OPTIONS :

- Backup – Tolerate 24 hours of downtime and data loss
- Cold standby – 15 minutes data loss and 24 hours downtime
- Warm standby – Less than 15 minutes data loss and less than 15 minutes downtime

Flexible HA/DR options: On-premises and Oracle Cloud Infrastructure



Enterprise Edition Maximum value from your Oracle HA and DR investments

HA/DR technology and licenses are portable between on-premises and OCI configurations



Capability	Benefits	On-premises	BYOL to Oracle Cloud Platform
MAA	Best practices for protecting Oracle databases	✓	✓
Real Application Clusters (RAC)	Maximize availability, add horizontal scalability, and uniquely ensure transaction integrity	✓	✓
Active Data Guard (ADG)	Create, maintain, manage, and monitor one or more standby databases to enable production Oracle databases to survive disasters and data corruptions	✓	✓
GoldenGate	Maintain continuous uptime for critical applications during planned and unplanned outages	✓	✓
Multitenant	Manages many databases as one, providing centralized control of HA and disaster recovery.	✓	✓

“Organizations are left potentially exposed when their heritage disaster recovery plans designed for traditional systems have not been reviewed with new hybrid infrastructures in mind.”

Gartner Identifies the Top 10 Trends Impacting Infrastructure and Operations for 2021

Oracle Database 19c Standard Edition



Oracle Database Standard 19c Edition Limits

Parameter	Value
MAA (Data Guard / Active Data Guard)	NO
MAA (Oracle Real Application Cluster RAC)	NO
MAA (Oracle Real Application Cluster RAC One-Node)	NO
Diagnostic and Tuning Packages	NO
Transparent Data Encryption (TDE) for Columns on-prem	NO
Transparent Data Encryption (TDE) for Tablespaces on-prem	NO
Backup RMAN Block change Tracking	NO
Automatic Block Repair	NO
Rolling Upgrade Using Active Data Guard	NO

Oracle Database 19c Enterprise Edition



Oracle Database Enterprise 19c Edition

Parameter	Value
MAA (Data Guard / Active Data Guard)	YES
MAA (Oracle Real Application Cluster RAC)	YES
MAA (Oracle Real Application Cluster RAC One-Node)	YES
Diagnostic and Tuning Packages	YES
Transparent Data Encryption (TDE) for Columns on-prem	YES
Transparent Data Encryption (TDE) for Tablespaces on-prem	YES
Backup RMAN Block change Tracking	YES
Automatic Block Repair	YES
Rolling Upgrade Using Active Data Guard	YES

MOS Useful links and Documents



My Oracle Support Useful Documents

Portal Features

- **Oracle Database 11.2 Market Driven Support (MDS) (Doc ID 2728619.1)**
- **Oracle Database 12.1.0.2 Market Driven Support (MDS) (Doc ID 2870402.1)**
- **Release Schedule of Current Database Releases (Doc ID 742060.1)**
- <https://www.oracle.com/br/database/standard> **[Oracle Database Standard Edition Customer References]**
- <https://blogs.oracle.com/database/post/migrate-dbse-to-atp> **[Move Database Standard Edition to ADP]**
- <https://docs.oracle.com/en/database/oracle/oracle-database/19/dblic/Licensing-Information.html>
- <https://docs.oracle.com/en/database/oracle/oracle-database/21/dblic/Licensing-Information.html>

My Oracle Support Useful Documents

Oracle Database 19c and 21c References

- **Oracle Database Technologies**

<https://www.oracle.com/database/technologies>

- **Oracle Database**

<https://www.oracle.com/database>

- **Oracle Database 19c**

<https://docs.oracle.com/en/database/oracle/oracle-database/19/index.html>

- **Oracle Database 21c**

<https://docs.oracle.com/en/database/oracle/oracle-database/21/index.html>

- **Introducing Oracle Database 21c**

<https://blogs.oracle.com/database/introducing-oracle-database-21c>

- **Oracle Lift Services**

<https://www.oracle.com/cloud/cloud-lift>





Thank You 😊

Questions / Feedback / Training Suggestions

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Ask for help 😊

ORACLE

