

ORACLE

Exadata Cloud Service X8M

Performance, availability and data governance with enterprise scale

Organizations' success is intertwined with technologies employed

2-3x

more revenue growth

for the top 10% of organizations leading technology innovation in their industry than competitors

90%
agree

Business and IT executives believe that to be agile and resilient, they must **fast forward digital transformation with cloud at its core**

77%
of executives

State their **technology architecture** is becoming **critical to organization's overall success.**

89%
of executives

Believe **ability to generate business value** will increasingly be based on **the limitations and opportunities of their technology architecture.**

https://www.accenture.com/us-en/insights/technology/_acnmedia/Thought-Leadership-Assets/PDF-3/Accenture-Tech-Vision-2021-Full-Report.pdf



Oracle Database enables enterprise-wide standardization

A converged multi-model, multi-workload data platform

Any Data

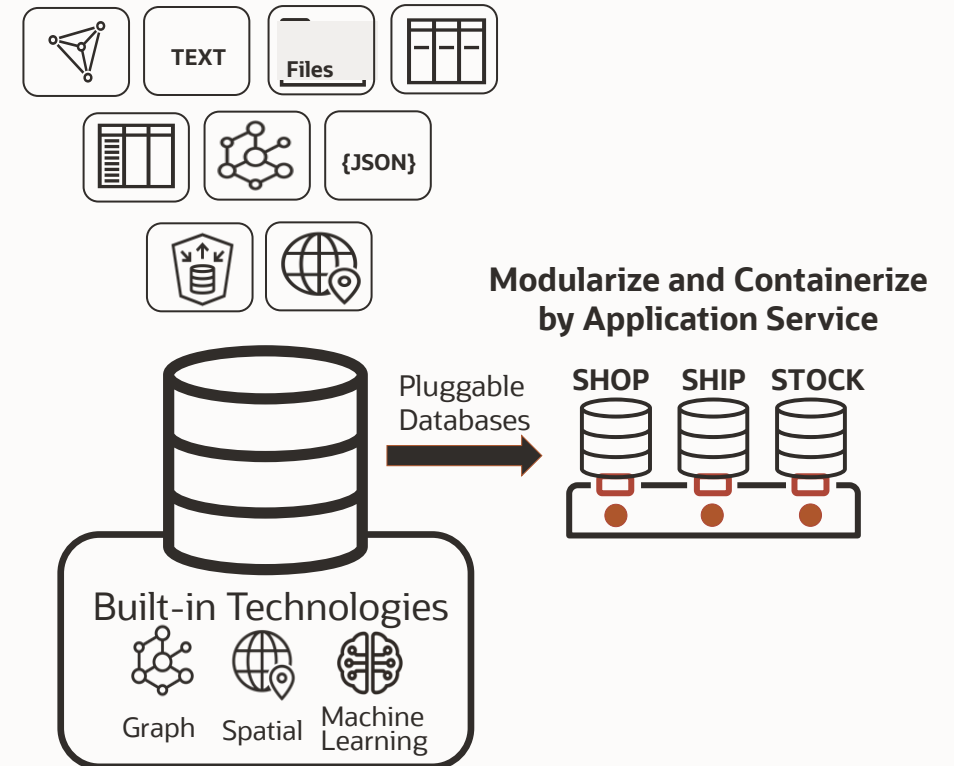
- Relational, JSON, graph, spatial, text, blockchain, XML
- Multimodal data formats, access methods, indexes and programming languages

Any Workload

- Transactions, analytics, ML, IoT, streaming, multitenant
- Integrated microservices, events, REST, ML, CI/CD, low-code

Any Scale

- Transparent scale-up, scale-out, sharding, parallel SQL
- Highest performance, availability and security



Oracle Exadata is the best place to run Oracle Database

A fully automated and optimized platform coengineered with Oracle Database



Autonomous Database and Oracle Database

- Unique capabilities available only with Exadata

Database-Aware System Software

- Smart system software with unique algorithms accelerate OLTP, analytics, and consolidated workloads
- Automatic storage tiering and resource management with I/O prioritization by workload

Scalable, Highly Available Hardware

- Scale-out with optimized compute, networking and storage for best performance at lowest cost
- Fully automated and optimized configuration, performance, fault-tolerance, and updates

Thousands of Ultra-Critical Deployments Since 2008

87% of Fortune Global 100 run Exadata; 44% run Exadata Cloud

Best for Any Workload and Any Scale

- Petabyte Warehouses
- Super Critical Systems
 - Financial trading
 - Manufacturing
 - E-commerce
- Ultra Complex Applications
 - SAP, E-Business Suite, Siebel, PSFT, Fusion Applications
- Database Consolidation



Unique Exadata optimizations lower total cost of ownership

Significant advantages especially in consolidated environments

Database Server



Storage Server

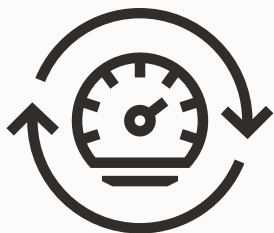
Reduces and controls Oracle Database licensing needs

- Offloads CPU intensive processing to Exadata Storage Servers
- Uses 20-30% less database server CPU resources than generic offerings



Lower consumption costs with higher performance and in-memory capabilities

- PMEM and RoCE reduce IO latency by 50X compared to other cloud databases
- Up to 100X faster analytics from Smart Flash Cache and in-memory columnarization



Eliminates time-consuming, manual tasks

- Automatic storage tiering, indexing, resource management and more
- Patching of various database infrastructure components

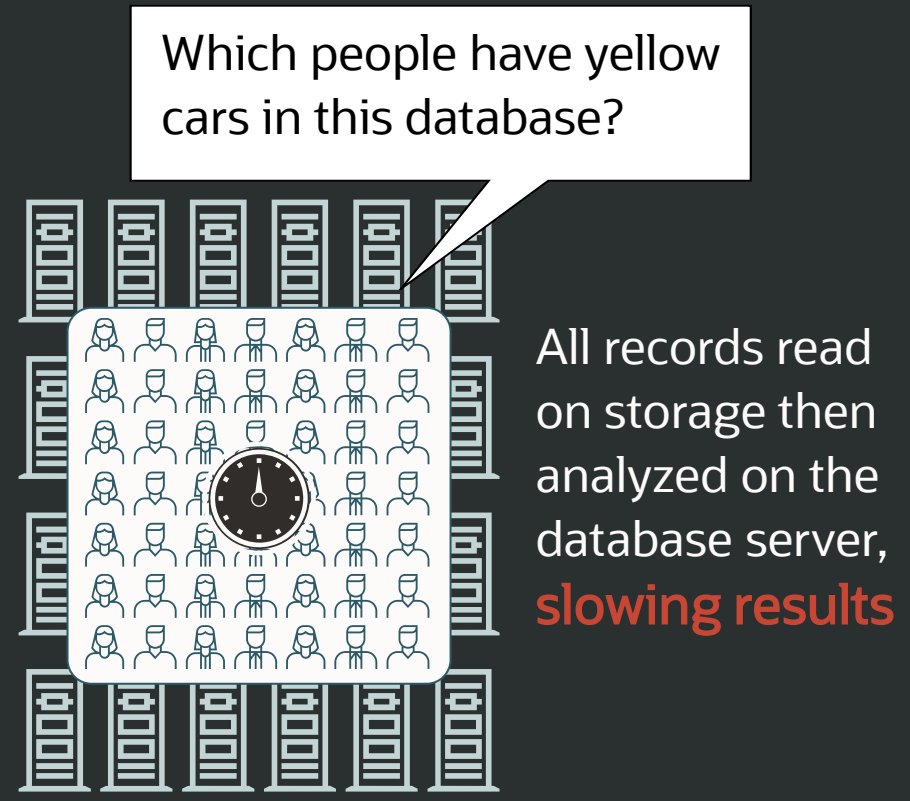


Reduces storage consumption

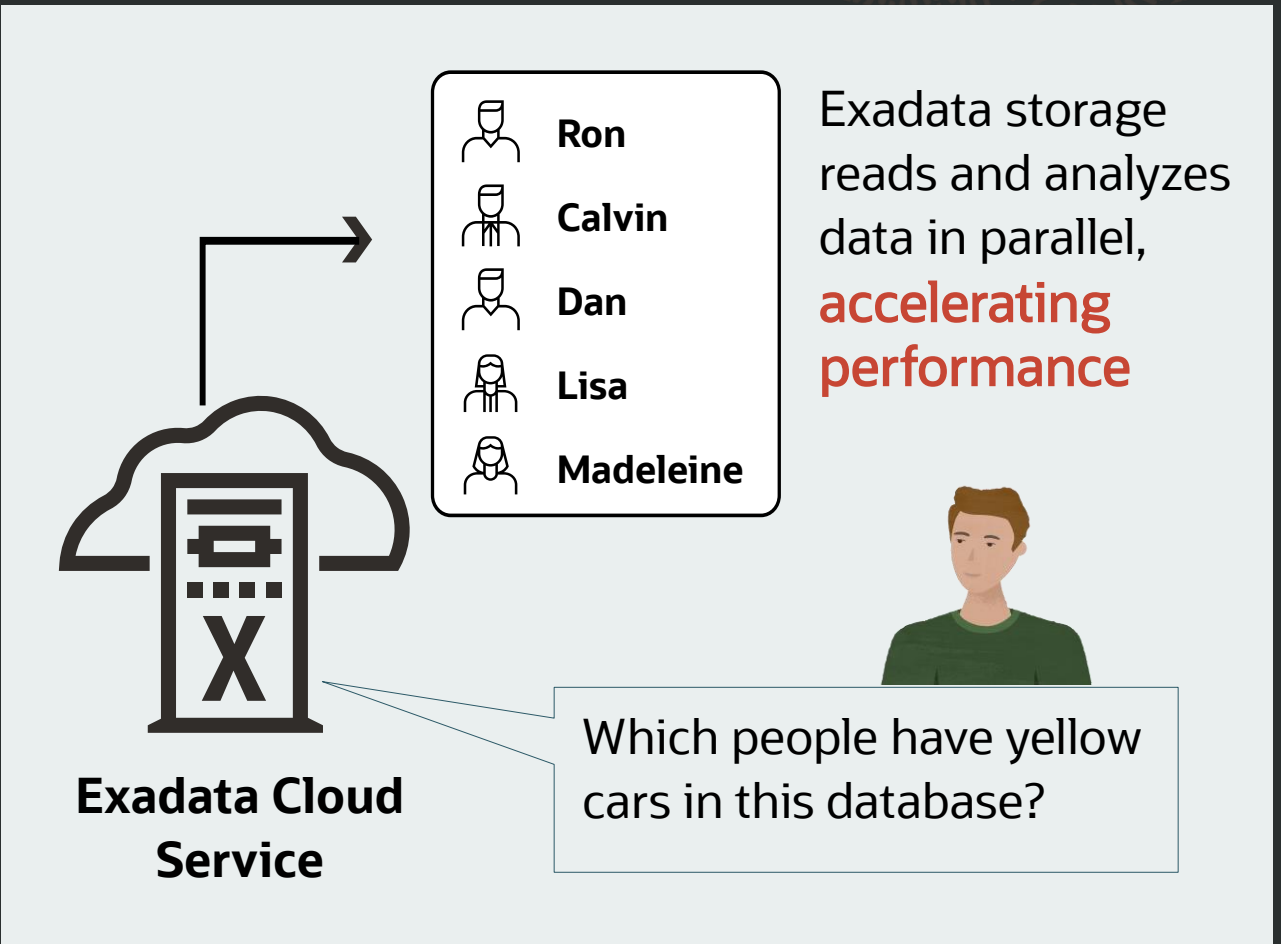
- Achieve 10x compression (HCC), saving production storage as well as in associated backups
- Eliminates storage of unnecessary database indexes

Get answers faster, more cost-effectively using fewer database OCPUs

Exadata consumes 20-30% less CPU servicing an equivalent workload on generic offerings

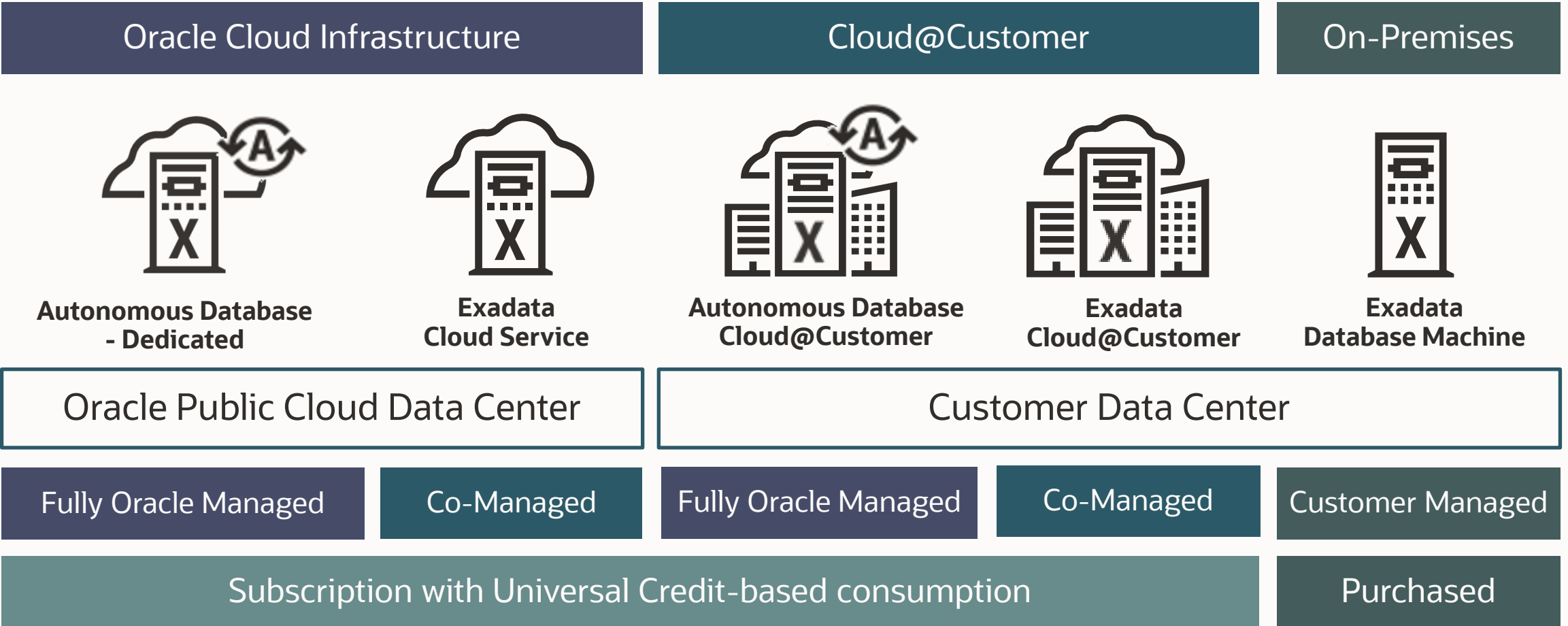


Traditional Cloud Databases



Delivering the power of choice to meet diverse enterprise requirements

100% compatibility wherever your data resides



Exadata Cloud Service delivers results across the board

No database workload is too big or too demanding

Up to

50x

Faster than other clouds

25x

More compute capacity than other clouds

Exceptional Outcomes for all database workloads

- OLTP
- In-database ML
- Analytics
- Consolidation



Lower TCO

- Consolidated resources
- Fewer vCPUs needed
- Pay-per-use pricing

Secure

- Always-on encryption
- Dedicated infrastructure

Automated

- Resource allocation
- Database tuning
- Data tiering

Highly Available

- Built-in redundancy
- One-click provisioning

1 Converged Database

not 15 fragmented ones

Elastic Online Scaling

- Independently add compute & storage
- Online vCPU scaling up & down, no downtime
- Online maintenance, management, and patching



Oracle Cloud Infrastructure Global Footprint: 44 Regions

October 2021: 31 Regions Live, 13 planned, 8 Azure Interconnect Regions



100% renewable energy by 2025





“Oracle Cloud Infrastructure was undeniably the clear choice. **There is no better solution for databases than Exadata and Oracle is the only cloud that offers it.**”

Sanjay Date

Senior Program Manager,
Enterprise Infrastructure Group,
7-Eleven

<https://www.oracle.com/customers/7-eleven/>

What Analysts are saying about Exadata Cloud Service....



“Overall, compared with its competitors, Oracle has the largest functional scope available on-premises, including its SaaS, platform-as-a-service (PaaS) and infrastructure-as-a-service (IaaS) capabilities running on Oracle Exadata and OCI Cloud Infrastructure. “
- [Holger Mueller, Constellation Research](#)

“Exadata Cloud Service X8M offers a multitude of advantages over its principal competitors in the areas of elasticity, scalability, latency, non-disruptive online patching, operational ease, and performance.”
- [Mark Peters and Bob Laliberte, ESG](#)



“Oracle Exadata Cloud Service X8M is one of those rare offerings that succeeds in nearly every metric it’s measured against.”
- [Patrick Moorhead, Moor Insights and Strategy](#).

“The first offering in the industry to achieve True Cloud Database status. Wikibon’s current conclusion is the cost of running workloads on Exadata Cloud Service X8M will be significantly lower than other cloud alternatives and significantly lower than traditional on-premises environments.”
- [David Floyer, Wikibon](#)



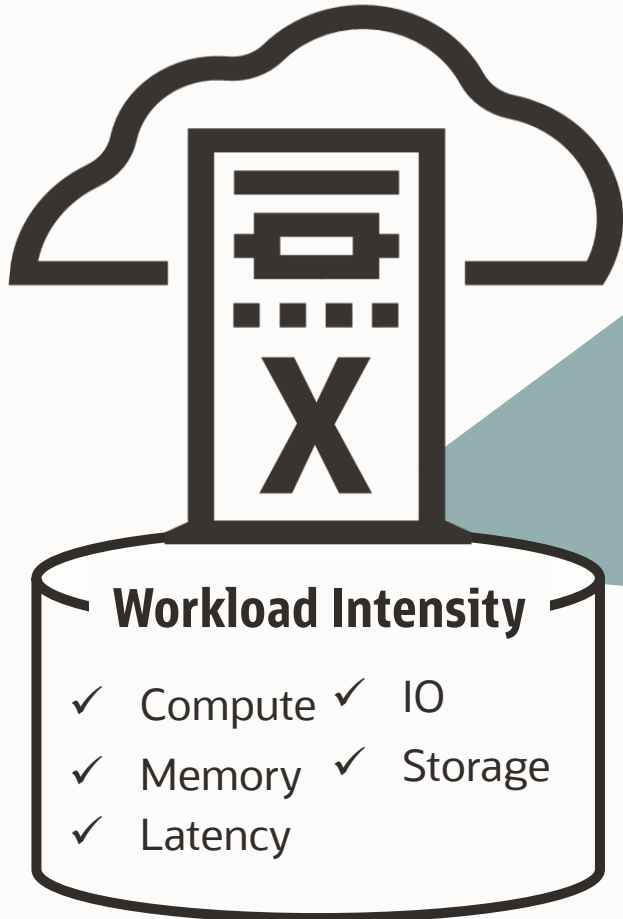
“With Exadata X8M, as a highly performant foundation for the database cloud service, customers should be able to reduce costs compared to competitive offerings as they complete jobs faster, use fewer OCPUs, and scale up or down incrementally without downtime.”
- [Bradley Shimmin, OMDIA](#)

“The performance of Exadata Cloud Service X8M makes it practical not only for OLTP or data warehousing but for other workloads, including key value document databases, XML object databases, time series databases, AI and machine learning, graph/spatial databases, and in-memory analytics, as well as consolidation of mixed workloads.”
- [Carl W. Olofson, IDC](#)



Exadata Cloud Service delivers massive performance and scale

No database too demanding or workload is too large !



As low as 19 μ s latency



Scale up to:

- 44 TB memory, 3,200 vCPUs
- 96 TB PMEM, 1,638 TB flash, 3.19 PB disk



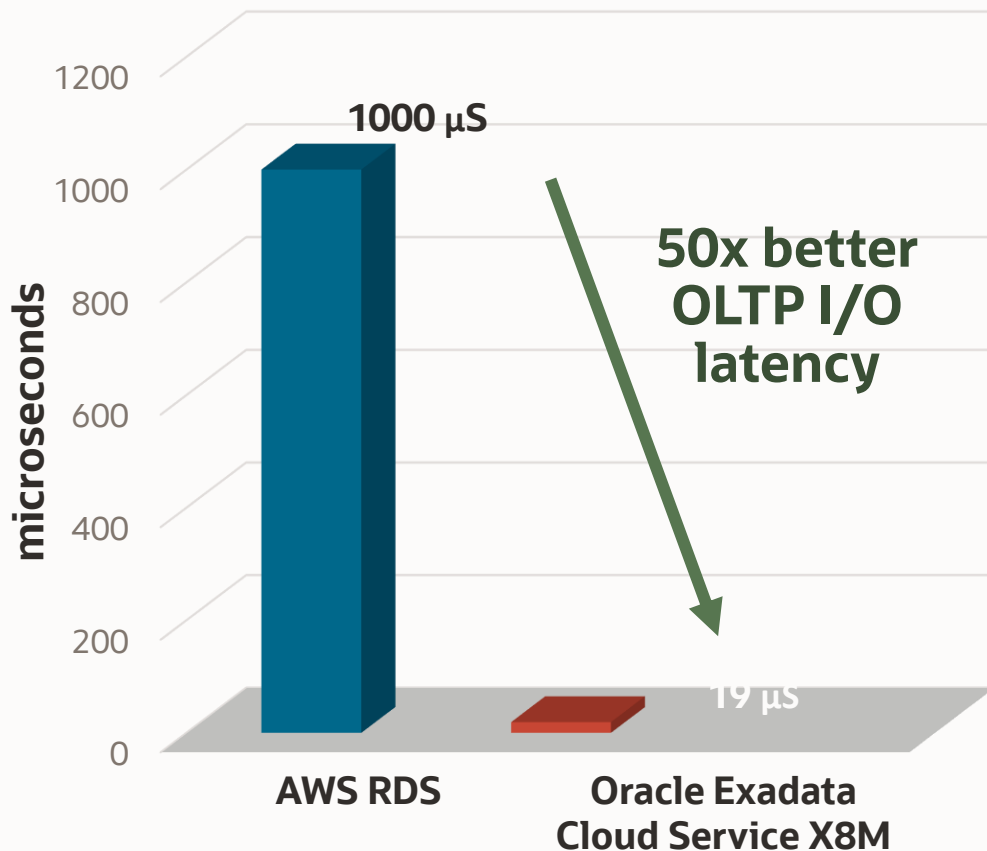
Grow databases up to 25 PB*

* Assumes 10:1 HCC compression

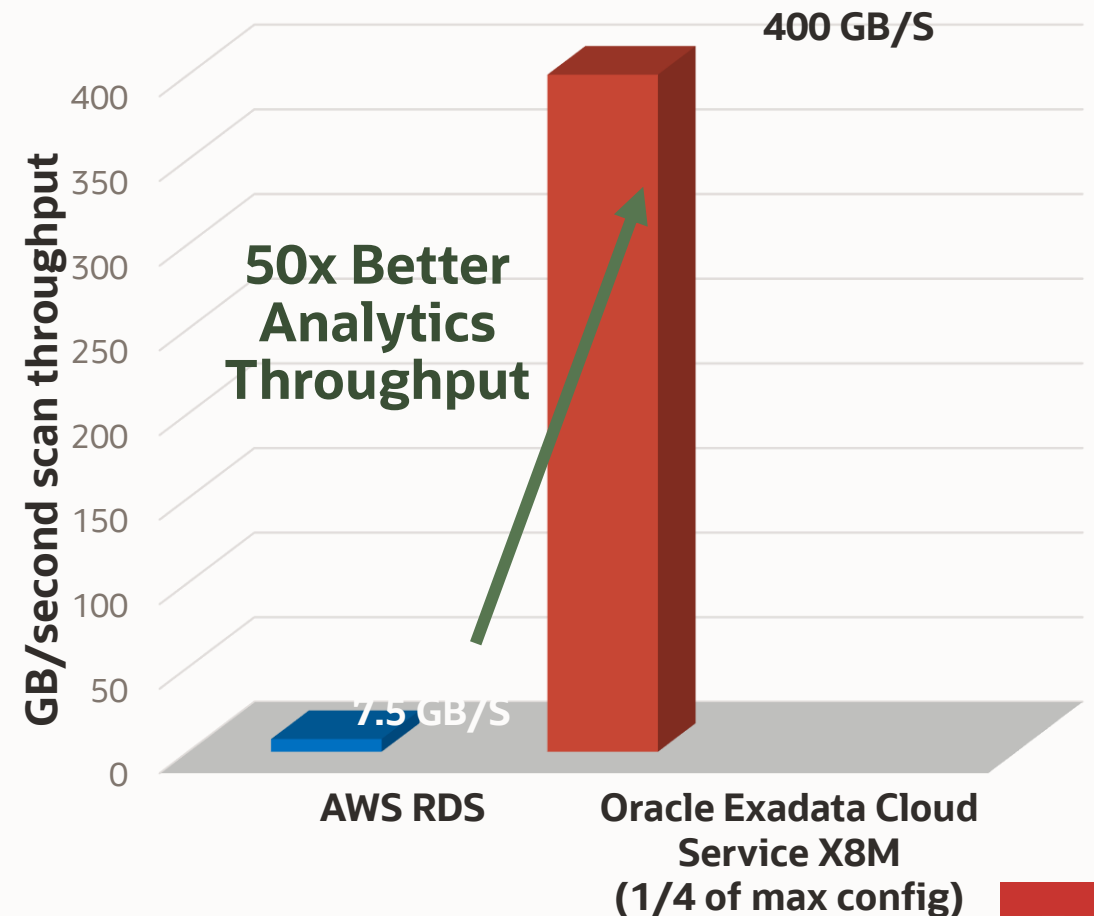
Exadata Cloud Service X8M

50x better for critical OLTP and Analytics capabilities than AWS Relational Database Service

All Flash Storage on AWS vs. ExaCS X8M

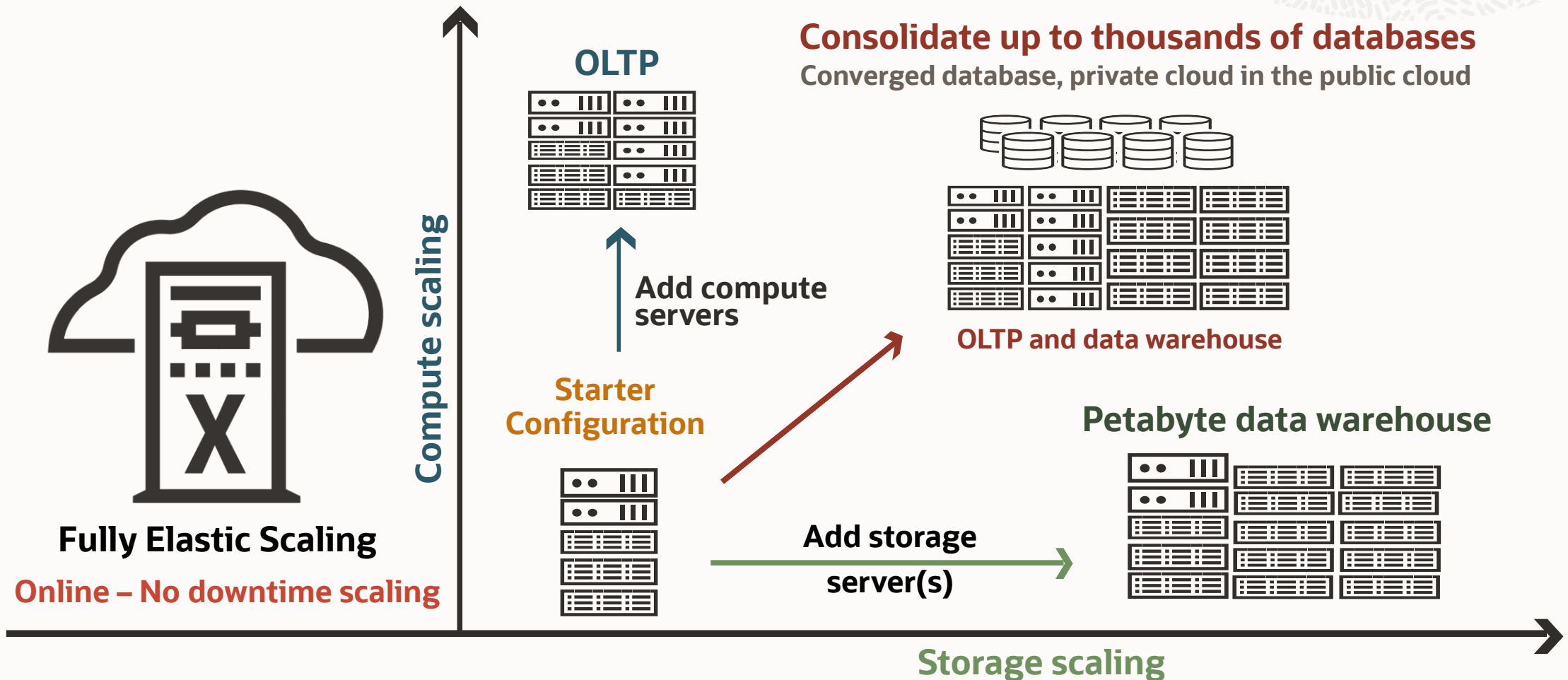


All Flash Storage on AWS vs ExaCS X8M



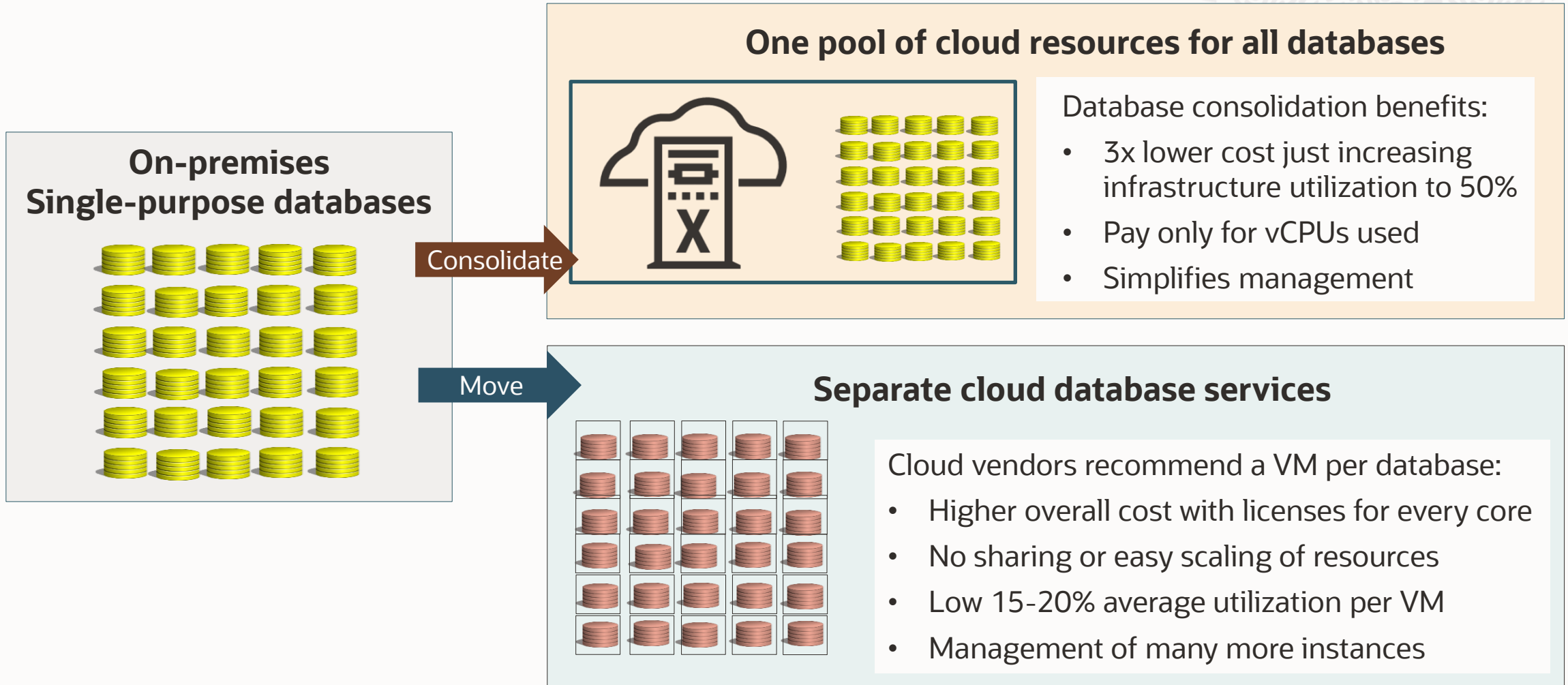
Easily right-size your service to meet requirements at lowest cost

Up to 3200 vCPUs in a single Exadata Cloud Service deployment



Database consolidation on Exadata Cloud Service

Lowers cost and improves Quality of Service across database ecosystem



Consolidating databases on Exadata Cloud Service advantages

Databases run faster plus consume less infrastructure and personnel resources

Reduces Database Licenses



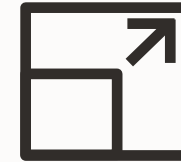
Offloads CPU processing to Exadata intelligent storage servers

Higher Density Consolidation



Reduces infrastructure footprint and eliminates over-provisioning

Extreme Performance at Scale



Fastest performance and lowest latency – All workloads

Improves Data Governance



Reduces surface area of attack and enables standardization of security policies across database ecosystem

Simplifies Management



Provides consistent quality of service based on user-defined resource service level requirements

Automates Patching

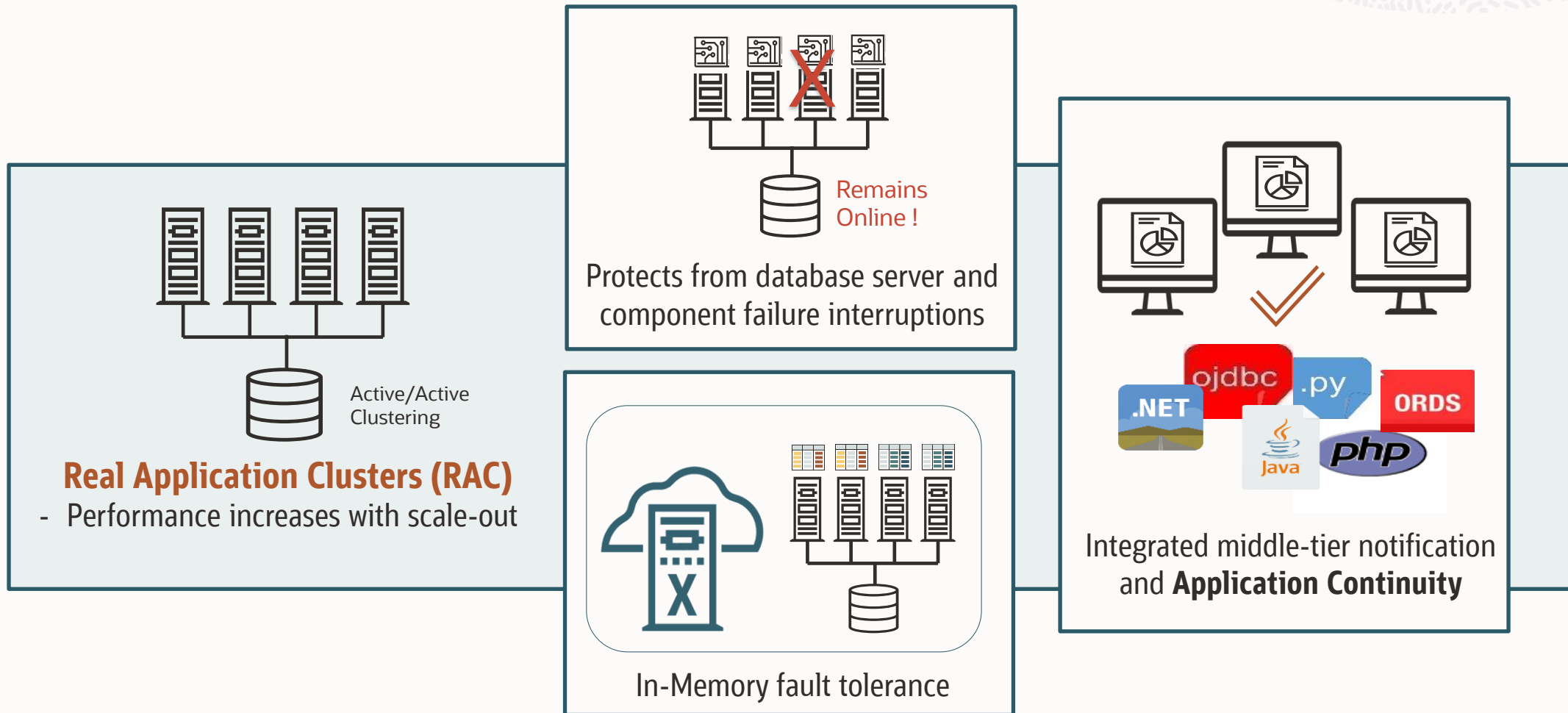


Uses integrated rolling patches for automated zero downtime updates

Time is money in the cloud and Exadata saves on both !

Exadata Cloud Service delivers enterprise business continuity

Zero downtime maintenance, active/active clustering and Application Continuity





FedEx moves accounts receivable system to Oracle Cloud

“We had to make the decision: Either replace the on-prem hardware or move the application to OCI. I’m glad we made the decision to move the Oracle E-Business Suite instance to OCI. It’s one of the best decisions I have been part of in my 23 years at FedEx.”

Rajesh Singh

Vice President of IT, FedEx

Business Challenge:

FedEx long-term technology strategy is to minimize the company’s data center footprint through cloud-based solutions. Crucial database workloads that handle the billing and accounts receivable for more than 15.5 million packages per day were involved.

Results:

FedEx migrated Oracle E-Business Suite applications to OCI in 8 months, including more than 500 terabytes of production data that was moved to Exadata Cloud Service.

- ✓ Greater agility and reliability by scaling resources to align with peak demand – without causing system outages
- ✓ For the first time, the revenue team can run daily worldwide collections analyses
- ✓ The accounting team can run E-Business Suite month-end and quarter-end closes more efficiently
- ✓ The IT team can spend more time on new customer-facing features and less on hardware support and maintenance.
- ✓ Lower cost for database-heavy workloads

Products Used:

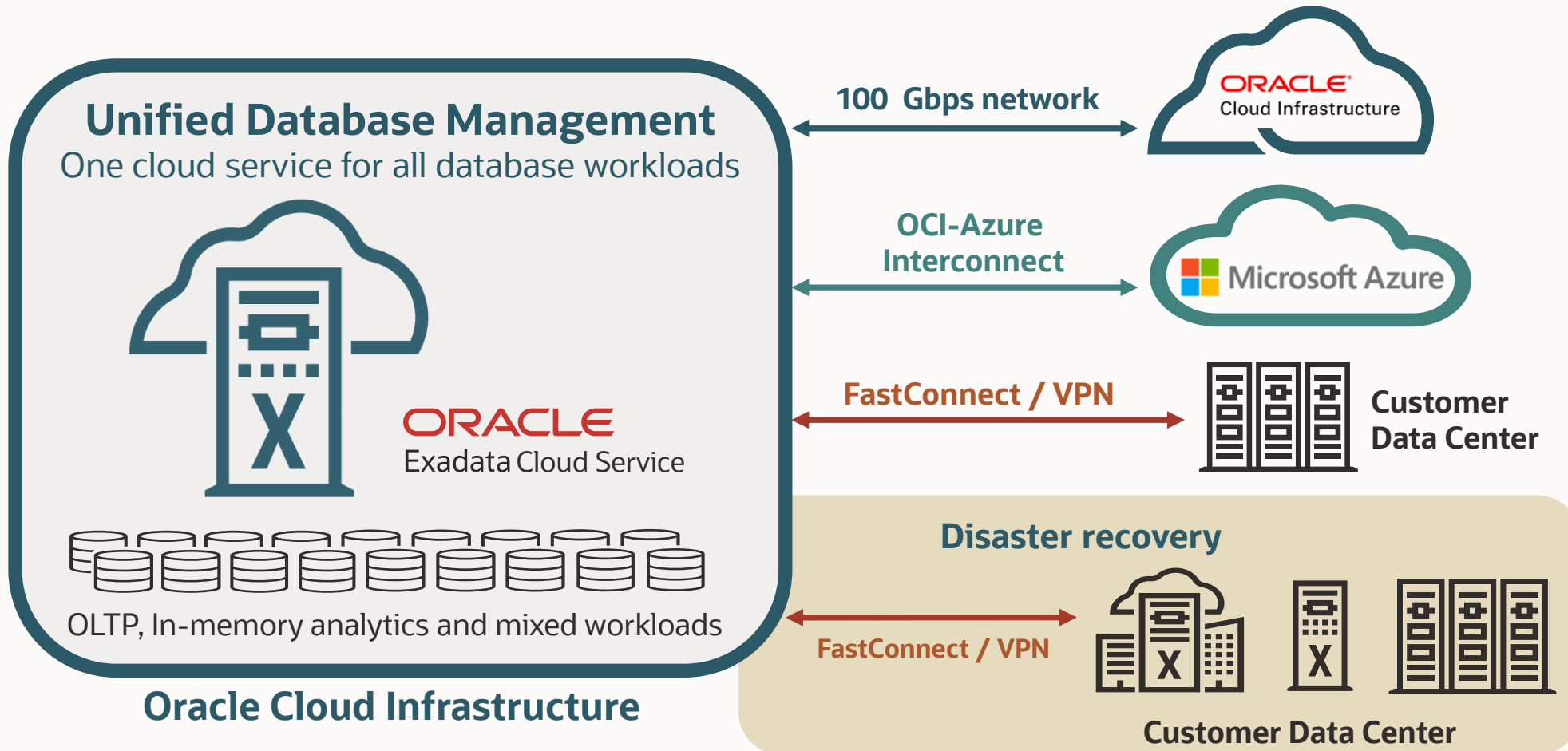
Oracle Exadata Cloud Service

Oracle Cloud Infrastructure



Exadata Cloud Service for Multicloud and Hybrid Cloud Environments

The optimum Oracle Database platform regardless of where the applications run





Consolidated Oracle Databases in a Multicloud Architecture

“Our proposal is to take the customer’s experience to a new level with more efficiency and agility, and always with the highest levels of security. We are the first carrier to promote a change with this dimension, also anticipating initiatives related to governance and sustainability, within a larger project related to an ESG agenda across all of TIM’s operation.”

Pietro Labriola
CEO, TIM Brasil

Business Challenge:

TIM Brasil needed to modernize their infrastructure in order to improve customer experiences while taking efficiency, agility, and security to the next level. They wanted to simplify management, reduce energy use, and cut carbon emissions.

Results:

The Brazilian telecommunications provider is moving critical workloads to a multicloud environment with databases running on Oracle Exadata Cloud Service and Oracle Database service, VMware in OCI, and other workloads and VDI environments on Azure.

- ✓ Run customer billing, Siebel, and Oracle SaaS apps in Oracle Cloud
- ✓ Migrate 1,200 databases, 15 petabytes of storage, 7,000 servers
- ✓ Run up to 4,000 VMware servers on OCI
- ✓ Use a 40 Gbps link to Azure with < 2 mS latency for distributed apps
- ✓ Federated identity services with Azure to reduce management

Products Used:

Oracle Exadata Cloud Service
OCI Compute and Storage
OCI – Azure Interconnect

Oracle Database Service
VMware services



Key Takeaways

Exadata Cloud Service is the best place to run Oracle Database in the Cloud

Run all applications with peak speed and availability

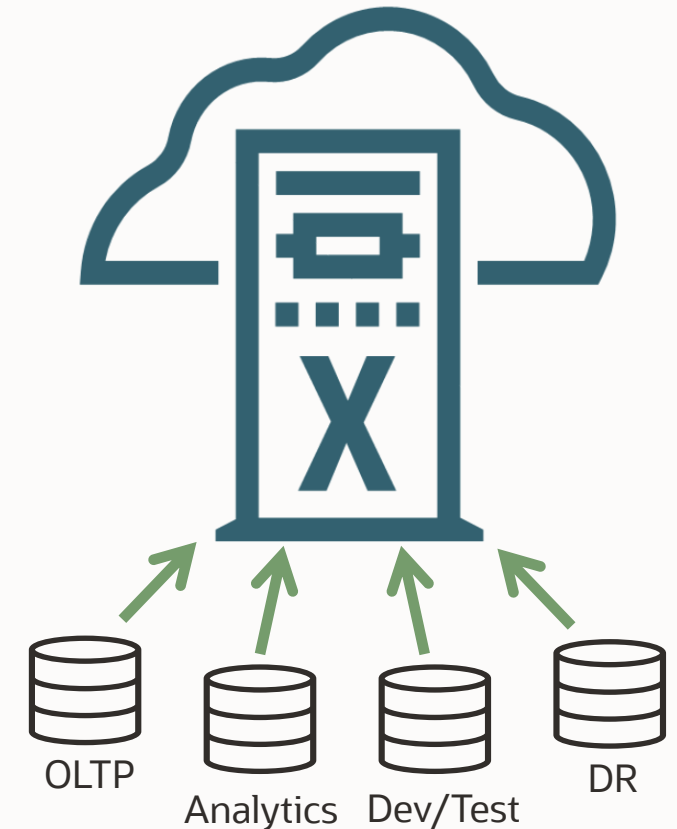
- OLTP, Analytics, Machine Learning, and mixed workloads
- Oracle and 3rd Party Applications
- Custom Applications

Maximize availability and lower costs

- Redundant architecture with built-in HA
- Online database scaling without application downtime
- Higher per-vCPU performance and pay-per-use consumption
- Efficient consolidation

Easy to adopt and use

- Same capabilities as on-premises Exadata
- No long-term commitments
- Lifecycle automation reduces administrative burdens



Thank you



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