

Accelerate Outcome

Scenario

- Mission critical OLTP applications
- High performance petabyte scale EDW platforms
- Consolidation of OLTP and DWH platforms

Outcomes

- Better predictable performance
- Higher availability
- Stronger security
- Simplified operations
- Reduced cost

ORACLE

Mission Critical Database platform for Enterprise Applications

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77% of Executives state

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

89% of Executives Believe

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

90% executives Agree

that to be agile and resilient, they must fast forward digital transformation with cloud at its core.

Competitiveness is linked to technology choices and Mission Critical Data Platform on cloud is the critical foundation

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

IDC - Market Analysis Perspective: Worldwide Database Management Systems Software Market, 2021

Mission Critical Use Cases – Across Industries

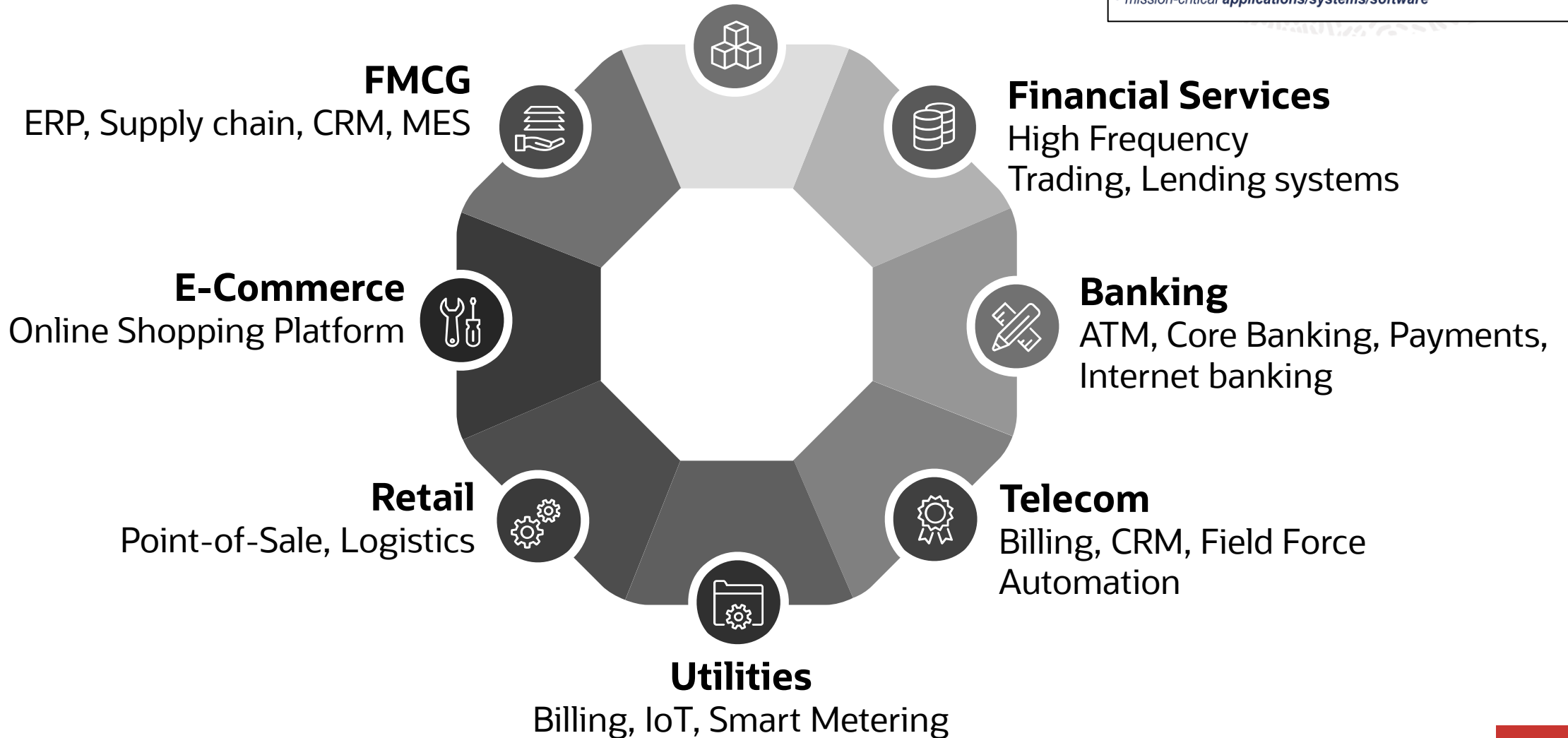
mission-critical

adjective

UK  /,mɪʃ.ən'kɹɪ.t̩.i.kəl/ US  /,mɪʃ.ən'kɹɪ.t̩.i.kəl/

extremely important or necessary for a company, activity, etc. to operate successfully:

- mission-critical applications/systems/software



Database Platform Limitations & Business Impact

Performance, Scalability, and Availability enterprise databases need

Application slowdowns

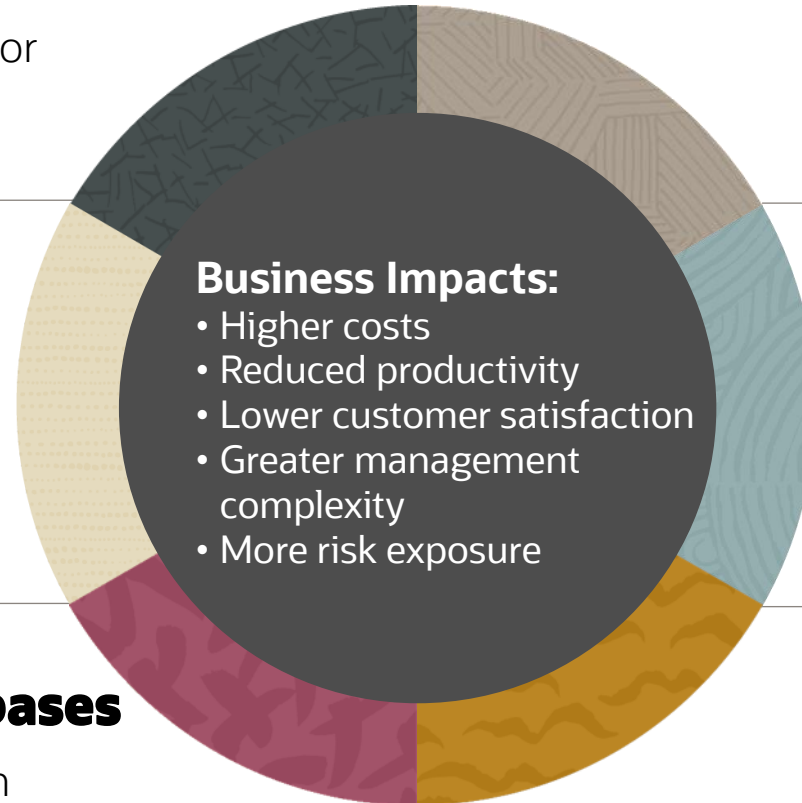
IOPS bottleneck causes slowdown or hang

Lengthy transactions

Latency is too high

Application can't dependably access databases

Low availability impacts application accessibility or causes downtime



Analytics too slow

Throughput is too low causing analytics processing bottlenecks

Database management complexity

No data convergence resulting in database infrastructure sprawl with lots of diverse single purpose databases to manage.

Extensive retooling with change

Lack of compatibility hampers agility to migrate database to cloud or create a hybrid cloud with seamless interoperability

Accelerate Business Outcomes on Mission Critical Database Platforms

Key Characteristics of Database Platform



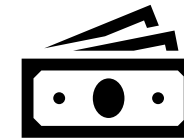
Better Quality of Service

Extreme performance,
Scalability and High
Availability



Lower Risk

Security, Compliance
and Manageability



Lower Cost

Cost to Performance

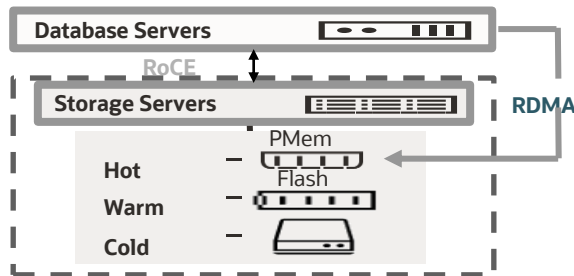
Database Platform Foundation



Accelerate Business Outcomes on Mission Critical Database Platforms

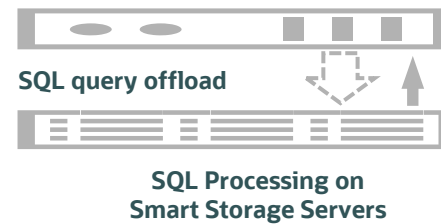
QoS: Extreme Predictable Performance for OLTP and DWH workloads

Extreme OLTP performance



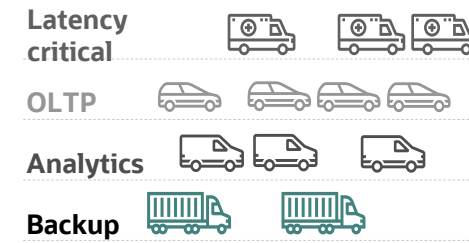
- **Low latency** from direct access to TBs of PMEM from database servers
- **Millions of IOPS and lower license costs** by scaling database consumption
- **Lower infrastructure cost** by right-sizing compute and storage
- **High availability** from fault-tolerant hardware and software

Optimized OLAP performance



- **High throughput** for analytics and machine learning by offloading SQL queries to storage servers
- **Optimized data access** with automatic location of data between multiple storage tiers
- **Rapid analysis of diverse data** with built-in business, graph, and spatial analytics along and in-database ML

Predictable, high performance



- **Crucial applications run at top speed** using automatic IO prioritization and resource management
- **Maximum predictability** for super-critical databases with resource isolation



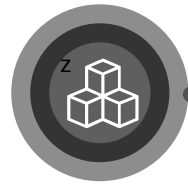
Accelerate Business Outcomes on Mission Critical Database Platforms

QoS: Maximum Availability



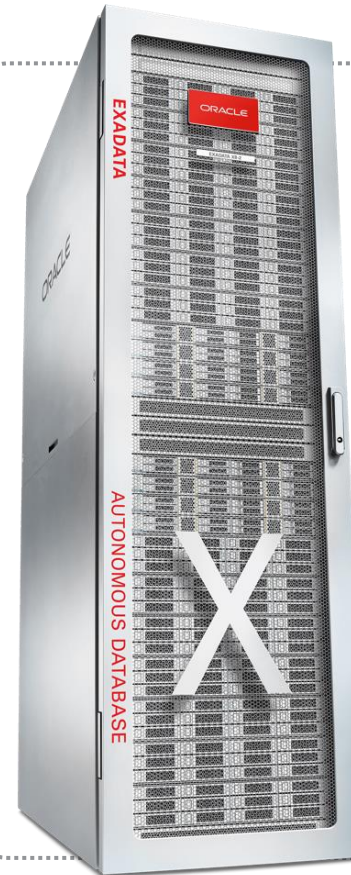
Internally Redundant & Fault Tolerant

- Protect against coincident/simultaneous failures
- Redundant Compute, Storage & Networks



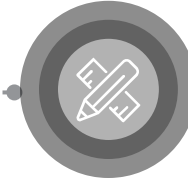
Layers of Isolation

- Physical
- Virtual
- Grid Infrastructure
- Software Stack
- Container Database Isolation
- Resource Isolation



Secret Sauce: Exadata Software

- Instant detection of node or cell failure
- Sub-second failover of I/O on disk or flash
- Automatic resource monitoring using ML
- Auto rebalance on disks predicted to fail
- Online patching



Scalable

- Single Database or Consolidated Databases
- From 48 cores to hundreds of processor cores
- Petabytes of Storage



Fault Tolerant, Highly Available and Scalable Architecture by Design



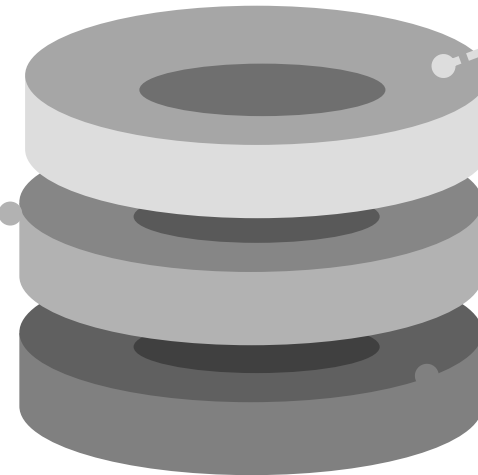
Accelerate Business Outcomes on Mission Critical Database Platforms

Lower Risk : Stronger Security and Compliance posture

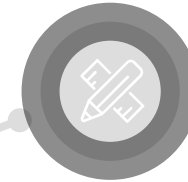


Security & Controls

- Fast, hardware based (AES) encryption/decryption
- Full-stack security scanning
- Integrated Lights Out Management (ILOM) of database and storage servers
- Comprehensive monitoring & auditing
- Isolation policies to secure network traffic, databases and storage

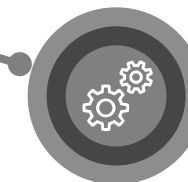


Lower Risk



Data Sovereignty

- Regulation and data privacy requirements
- Sensitive data/IP cannot leave premises



Compliance & certification

- FIPS 140-2, PCI-DSS and other industry/regional certifications – SOC, NIST, ISO/IEC

Accelerate Business Outcomes on Mission Critical Database Platforms

Lower Risk: Simpler Management, Migration and Comprehensive Support



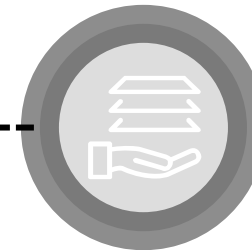
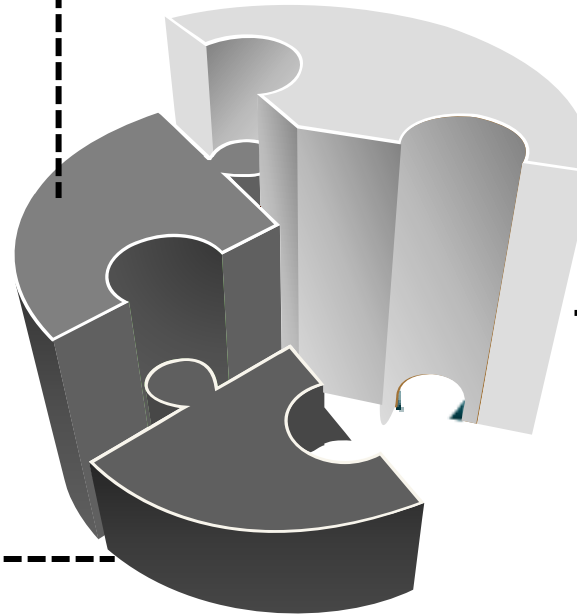
Enterprise Management

- Unified Monitoring & cloud automation
- Assessment, Config check, consistency checks
- Advanced Lifecycle Management Services



Enterprise Support Process

- Strong Community, Knowledge base, Service Requests (SRs) process to support in smooth ops



Migration to Exadata Cloud

- ZDM, plug-unplug, RMAN, Data pump reduce risk of migration
- Oracle Database Migration Service (DMS) - Fully managed Migrations, Schema/Metadata Migration
- Oracle Application migrations: Siebel cloud Manager, EBS cloud Manager

Simpler Management, Migration and Comprehensive support

Accelerate Business Outcomes on Mission Critical Database Platforms

Reduce Cost



Traditional DIY Architecture

- CapEx, large upfront purchase
- Limited Scalability
- Customer owns/manages
- Software purchased separately
- Hardware ages with time
- No Support rewards
- No DB CPU Reqmt optimizations

Exadata Cloud

- OpEx, pay-per-use subscription
- Scale out Architecture
- Oracle owns/manages infrastructure
- BYOL or License Included (incl. all options)
- No cost upgrade to latest hardware
- Support Rewards based on cloud spend
- Upto 20-30% **less DB server CPU resources**

Accelerating Outcome: Agro Tech Foods

Running Critical Business Applications

- India's leading food company engaged in the business of manufacturing, marketing and selling of a wide range of Food Products and Edible Oils.
- Affiliated to ConAgra Brands, Inc. of USA, which is one of the world's largest food companies.
- Core business applications – Siebel, EBS and ASCP migrated to Oracle Exadata Cloud service
- Applications deployed across OCI Mumbai and Hyderabad Cloud Regions
 - Maximize availability
 - Fast migration with minimal downtime

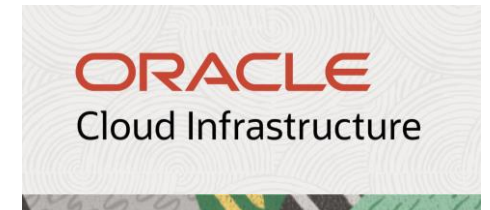


Infolob & Oracle

Delivering Mission Critical database platform for Agro Tech Foods

About Infolob

- Oracle Managed partner with ISO 9001-2015, founded in 2009
- Customers across India, Middle East, Europe, and the US
- Domain expertise across Finance, Healthcare & Insurance, Manufacturing, Logistics, Retail, Telecom, and public sector.
- Oracle Managed Platinum Partner with over 60 Oracle certified OCI experts, besides having a seat in the Oracle Exadata Advisory Board.



Agro Tech Foods - Outcomes

Delivered by Infolob & Oracle

Technology Outcomes

- Upgraded to newer Oracle application versions
- Maintain Integrations for their mission critical applications – EBS, Siebel and ASCP
- Make disaster recovery Quick and Predictable

Business Outcomes

- Scale up and down resources basis the business requirements
- Shift from CAPEX to OPEX model
- Eliminate expensive hardware refresh cycles

Agro Tech Foods Ltd. an affiliate of



Run Mission Critical Databases on Oracle Exadata

Fully automated & optimized platform co-engineered with Oracle Database



Oracle Database Capabilities

- 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

Hardware Platform

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



Next Step – Engage with us

Contact

cloudbyte_ww@oracle.com to:

1. Organize free technical / business value workshop with your team.
Discuss specific DR on OCI use case in your context
2. Explore OCI solution details in our reference architecture pages.
3. Experience OCI first-hand with live Lab

Reference Architecture



[Deploy Oracle E-Business Suite with Palo Alto Networks Firewall and Exadata Cloud Services](#)



[Migrate an on-premises Oracle Database deployment to an Exadata DB system](#)

Live Labs Resources



[ExaCS for Modern Data Warehouse](#)



[Get Started with Oracle Exadata Database Service on Dedicated Infrastructure](#)

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