ORACLE

Estate Modernization

Any application, technology stack, and location—however you choose

Marcel Lamarca

Exadata Cloud Specialist
Oracle, Alliances and Channels - LAD
March, 2023



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





MARCEL LAMARCA

Exadata Cloud Specialist Upgrade, Utilities, Patching, Performance & Migrations





About My Career

- 22 Years dedicated to study and support Oracle Databases.
- 12 Years working with Exadata (On-prem, C@C and Cloud Services).
- 5 Year working for Oracle do Brasil
- 2 Year on Alliances LAD knowledge Team

Certifications

Oracle Cloud Specialist (OCS)

- Exadata Database Machine X9M Certified Specialist
- OCI Foundation 2020 / 2023
- Oracle Autonomous Database Administrator Professional 2019 / 2023
- Oracle Cloud Database Migration and Integration 2021
- OCI Cloud Certified Architect Associate 2022
- OCI Cloud Certified Architect Professional 2022
- OCI Multi-Cloud Architect Professional 2023
- Oracle Database Services Certified Professional 2023

Oracle Certified Professional (OCP)

- Oracle Database certified professional 10g, 11g, 12c and 19c.
- Mysql 8.0 Database Administrator Certified Professional

Oracle Certified Specialist (OCE)

- Grid/RAC Database Administrator 11g
- Oracle Golden Gate 12c Certified Implementation Specialist



95%

of global executives agree new data architectures and strategies are required to manage the dramatic changes to their organizations' data landscapes.

50%

of in-house applications are still on-premises.

86%

of respondents report that more than half of their applications are being modernized.

- IDC

\$873B

of potential yearly IT savings, operational savings, and digital risk reduction in 2030 by Global Fortune 2000 companies.

McKinsey



¹ Rationalizing Applications and Infrastructure for Cloud Delivery, Gartner, Sept 2022

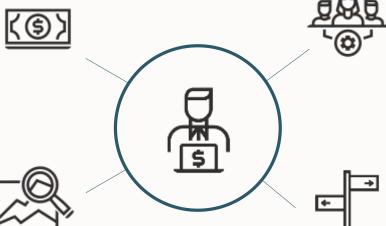
² PaaSView and the Developer Survey, IDC, May 2021

Fundamental Challenges with Cloud Governance today

Mission-critical applications face governance issues that prevent them from moving to the cloud

All-you-can-eat culture

Accessing infinite resources can make your cost spiral out



Tension between productivity and control

Traditional approach harms productivity and leads to circumvention

Lack of visibility without effort

Inability to view the services and the regions used can lead to potential non-compliance issue



Hard to use

No real instructions so starting is hard Numerous experts required

Oracle believes there is a better way



A few of the modernization goals we're hearing about from customers

Lower costs



Simplify and automate IT to free up personnel and budget

Faster time to value



Create dynamic engagements with customers and employees

Activate and monetize data



Develop new value streams using enterprise data

Reduce cybersecurity risks

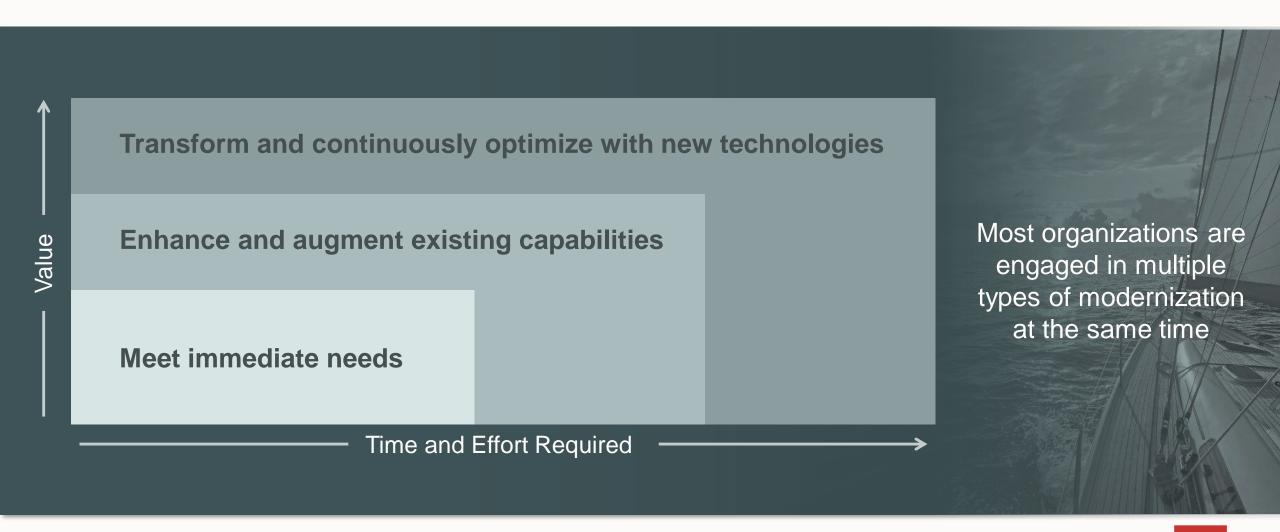


Enhance enterprise security posture by updating obsolete resource-based cybersecurity



IT modernization is a continuous process

Balancing available resources, immediate business goals and longer-term vision





Oracle makes modernizing easier than you think

Broad choices based on your needs, skills, and timelines

Meet immediate needs	Enhance and	Transform and optimize	
Add AI services to existing apps	Lift & shift application stacks to the cloud	Integrate custom AI and ML models	Migrate to SaaS
Upgrade software to use new features	Deploy self-service and app- integrated analytics	Implement Maximum Availability and Maximum Security Architectures	Implement multicloud architectures
Run workloads on faster systems	Automate and consolidate database operations	Upgrade data centers with hybrid cloud platforms	Replace existing apps with cloud-native ones



Modernization topics for today's discussion—there are many more

Lower costs



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IT to free up personnel
and budget

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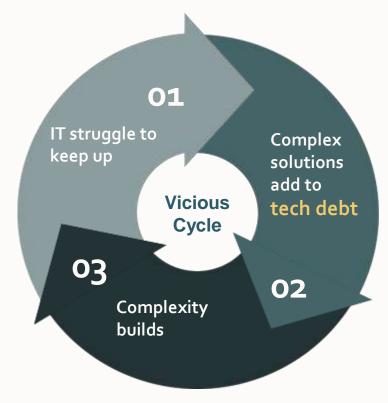


Lower costs

Simplify and automate IT to free up personnel and budget

Challenges:

- Too much time, personnel, and budget spent "keeping the lights on" due to a lack of automation
- Many copies of data on scattered deployments increases the cost of database infrastructure
- Can't achieve cloud scaling and management benefits for onpremises application stacks using VMware and Oracle Database
- Oracle E-Business Suite and other packaged applications don't run fast enough to meet growing business demands and require too much manual administration
- Need high Oracle Database performance and availability in a multicloud environment



Tech debt accounts for ~40% of IT balance sheets

McKinsey & Company - Breaking technical debt's vicious cycle to modernize your business



Lowering costs with Oracle Distributed Cloud



Multicloud

Our products work with your other providers, including Oracle Database Service for Azure, Oracle Interconnect for Azure, and Oracle MySQL Heatwave on AWS



Public cloud

Access cloud services in 42+ global locations including Commercial, US Government, UK Government, US National Security Regions, and European Sovereign (2023)





Hybrid cloud

We bring cloud services to you, including Oracle Exadata Cloud@Customer, Oracle Cloud VMware Solution, Oracle Roving Edge Infrastructure, OCI Observability and Management, and Oracle Database



Dedicated cloud

We build a cloud just for you, with all 100+ OCI services running in customer data centers, including OCI Dedicated Region and Oracle Alloy

Meet immediate needs

- Run workloads faster
- Use new software features
- Reduce consumption costs
- · Automate administration

Enhance and augment

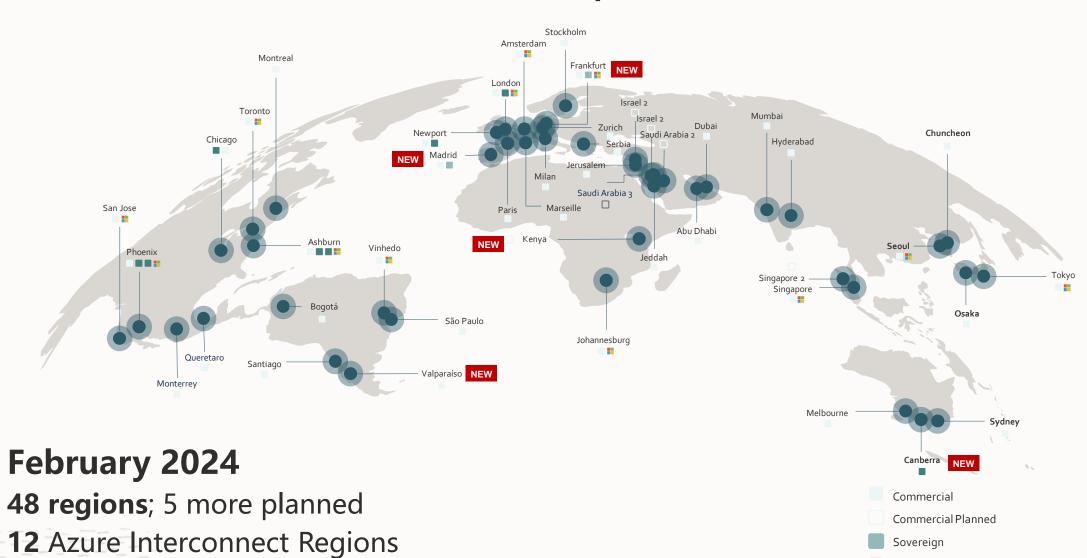
- · Lift-and-shift application stacks to OCI
- Reduce app dev costs with low-code
- · Consolidate database infrastructure
- Run existing apps on container platforms

Transform and optimize

- · Implement a multicloud architecture
- Automate workflows
- Gain insights with an analytics platform and Al services
- Continually enhance cloud-native applications



Oracle Cloud Infrastructure Global Footprint





Government

Microsoft Interconnect Azure

Helping customers lower their costs

Improved EBS reporting, client experiences and cuts costs

Increased automation and efficiency reduces total costs

Created a cost-effective, easily deployable SaaS model on OCI



Clough eliminated day-long lags in reporting, cut costs by 85%, and generated multi-source reports 7x faster with Oracle Autonomous Data Warehouse and Analytics Cloud. Enhanced Oracle E-Business Suite reporting enables new approaches to address supply chain hurdles and provide better service to their clients.

Deutsche Bank



Deutsche Bank is using Oracle Exadata Cloud@Customer to modernize its banking databases and while retaining control over the location of their data. Cloud consumption benefits and automated management are expected to provide more than 100 M€ of savings over 5 years.

CODEGEN

CodeGen simplified and automated development lifecycles migrating to OCI's DevOps Service, cut costs by 25% with Autonomous Database autoscaling, and reduced time to market by 45% deploying its solutions with Oracle Container Engine for Kubernetes.

Read Clough's story

Read Deutsche Bank's story

Read CodeGen's story



Modernization topics for today's discussion—there are many more

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Faster time to value



Create dynamic engagements with customers and employees

Activate and monetize data



Develop new value streams using enterprise data

Reduce cybersecurity risks

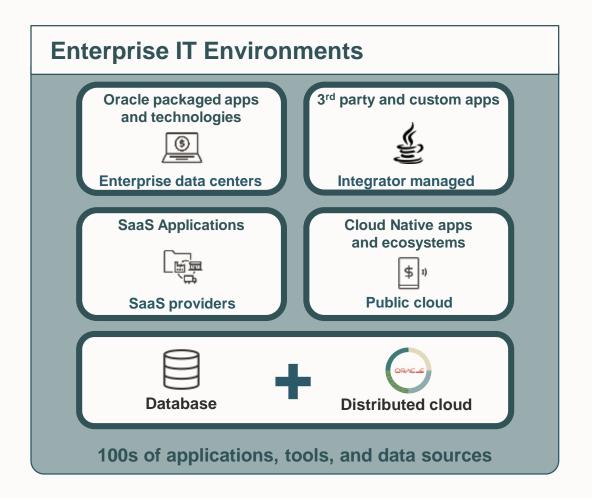


Enhance enterprise security posture by updating obsolete resource-based cybersecurity



Faster time to value

Create dynamic engagements with customers and employees



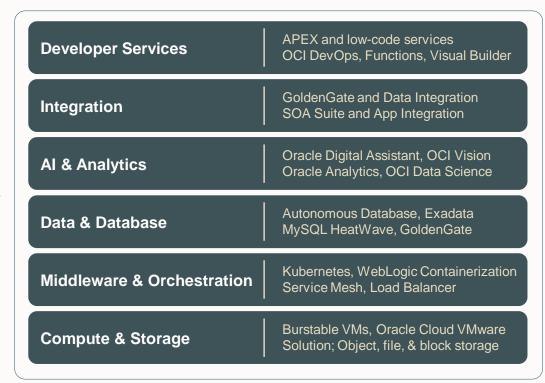
Challenges:

- Replacing all existing enterprise applications at once creates too much risk of operational disruption
- Need to quickly increment capabilities of existing application stacks
- Different functionality across on-premises and cloud fragments user and developer experiences
- Fragmentation of data on specialized databases complicates application development and deployment
- Complex software release cycle for applications and databases slowing down business



Oracle application modernization: Any app, any stack, anywhere







Meet immediate needs

- Add chatbots to on-premises apps
- Containerize apps and middleware in place
- Migrate DB licenses to cloud services
- Simplify app dev with a converged database

Enhance and augment

- Move apps and SOA to OCI as is
- Connect apps with prebuilt integrations
- Extend SaaS with low code automation
- Automate performance tuning

Transform and optimize

- · Refactor existing apps to microservices
- Use Serverless Functions, Containers, Kubernetes
- Build new event-driven apps and services
- Scale microservices with in-database containers



Helping customers deliver modern experiences

Easily add prebuilt Al services to existing applications



In just 6 weeks, Loyola extended their onpremises PeopleSoft environment to improve student services with a chatbot powered by Oracle Digital Assistant. Role-based, multilingual responses to over 430 questions helped Loyola achieve an 86% success rate. Boost business agility with lowcode application development



Nomura Research Institute (NRI) offers services to about 70% of Japan's capital market firms, and selected Oracle APEX over more than 20 low-code platforms. They reduced application development efforts by 65% and application update time from days to seconds

Create differentiated services with low-code and automation



Vertiv reduced Engineer-To-Order turnaround time by **30%**, cut rework by **10%**, and created new revenue streams with real-time automation across E-Business Suite, other on-premises applications, Oracle CX, and ERP Cloud with Oracle Integration services.

Read Loyola's story Read Vertiv's story Read Vertiv's story



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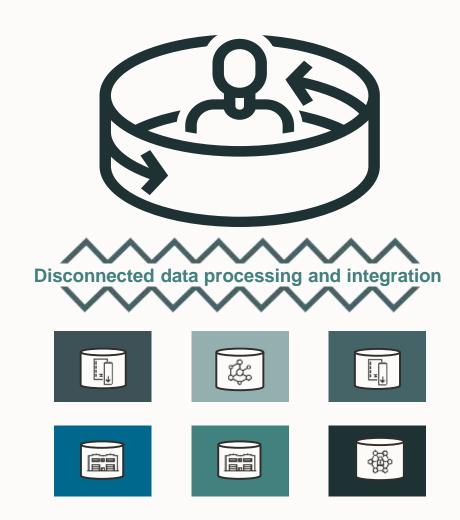


Activate and monetize data

Develop new value streams using enterprise data

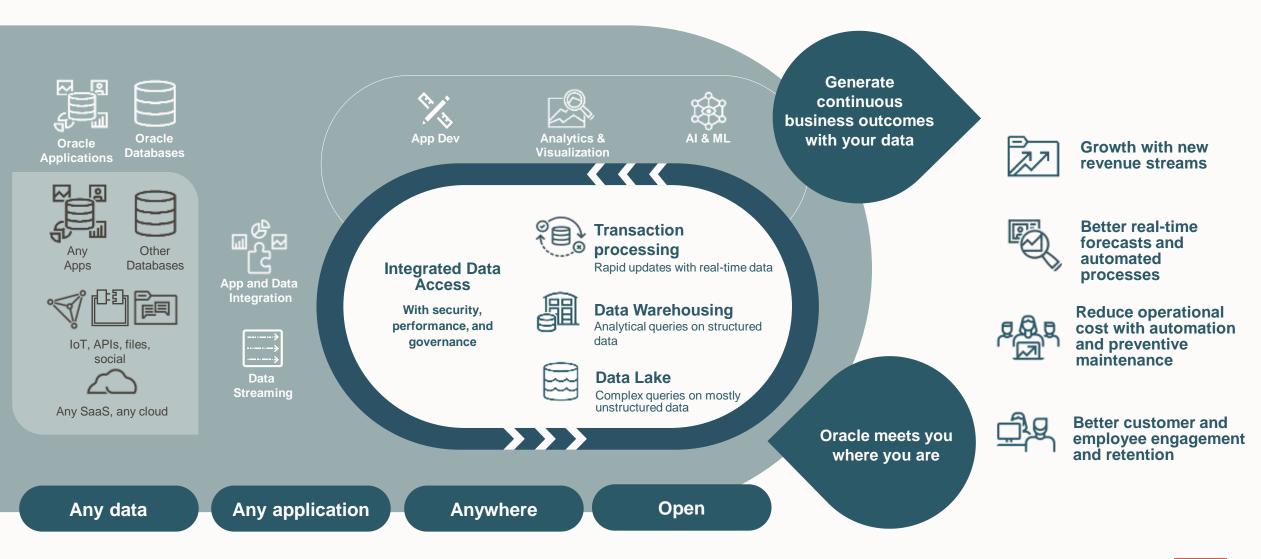
Challenges:

- It's difficult to activate and monetize data because it's in so many places, in different formats, and managed in different ways
- Data and insights aren't trusted due to uncertain data timeliness, lineage, and provenance
- Generating new revenue streams from diverse data requires creating new applications that can be quickly adapted to changing business needs
- Sharing the right data with the right people is complex due to security and privilege requirements
- It's difficult to uncover insights form vast amounts of data using traditional analytics methods





Oracle's Modern Data Platform: The Power of Any





Helping businesses get more value from data

Increase customer engagement with a build-once, deploy everywhere approach



Vodafone are modernizing thousands of onpremises database workloads and applications using Oracle Autonomous Database with middleware running in OCI Container Engine for Kubernetes. They are support innovation and lower costs by using a secure, fully featured onpremises cloud region in their data centers. Accelerated digital innovation by 2X with automation and a unified data strategy

HEARST

Hearst automated application connectivity and data flows from multiple sources using OCI integration services. Autonomous Data Warehouse made their "single source of truth" readily accessible to data analysts resulting in faster project delivery times and reduced operational costs by 80%.

Improved availability and resilience



VLI provides logistics vital to Brazilian economy, making time-to-market critical. They modernized core systems by migrating databases to Exadata Database Service and their Oracle WebLogic Server environment to OCI improved availability, productivity, and profitability.

Read Vodafone's story

Read Hearst's story

Read VLI's story



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Reduce cybersecurity risks

Requirements continue to evolve across the enterprise



Challenges:

- Risks from ransomware and data theft are increasing due to an expanding attack surface
- Outdated software and patches anywhere in the application stack can increase security risks
- Data and applications are spread across multiple on-premises and cloud locations without a global view of security
- Lack of consistent security enforcement
- It's difficult to keep up with continually evolving regulation and compliance requirements



Oracle offers layers of security with integrated visibility

Simple and automated security

Built-in security across databases, infrastructure, and applications

Automated security updates across databases and Linux

Always-available security and identity enforcement

Integrated security across the distributed cloud



Seamless visibility of security posture helps address

aamulianaa

Continuously monitor cloud environment for posture changes

Protect data privacy and sensitivity

Centralized visibility to govern digital identities and access rights

Helps customers address 70+ government and industry compliance programs



Helping customers reduce cybersecurity risks

Streamlined identity management across the distributed cloud



Securely provides IT services for 50 City and County of San Francisco departments. Adopted a highly available identity platform to create a centralized, secure experience for their citizens across PeopleSoft, Office 365, ServiceNow, and Salesforce.

Improved security posture remediation



Provides roadside assistance and other services to 2.6 million members in Australia. Shortened lag time from discovery to remediation of vulnerabilities to protect member data to free the team to better serve their business and members.

Created a cost-effective, easily deployable SaaS model on OCI



Improved data processing, security, and quality for increasing data volumes and concurrent users with Oracle Autonomous Data Warehouse and Data Safe. Reduced budget planning cycle in half while reducing IT overhead.

Read San Francisco DoT's story

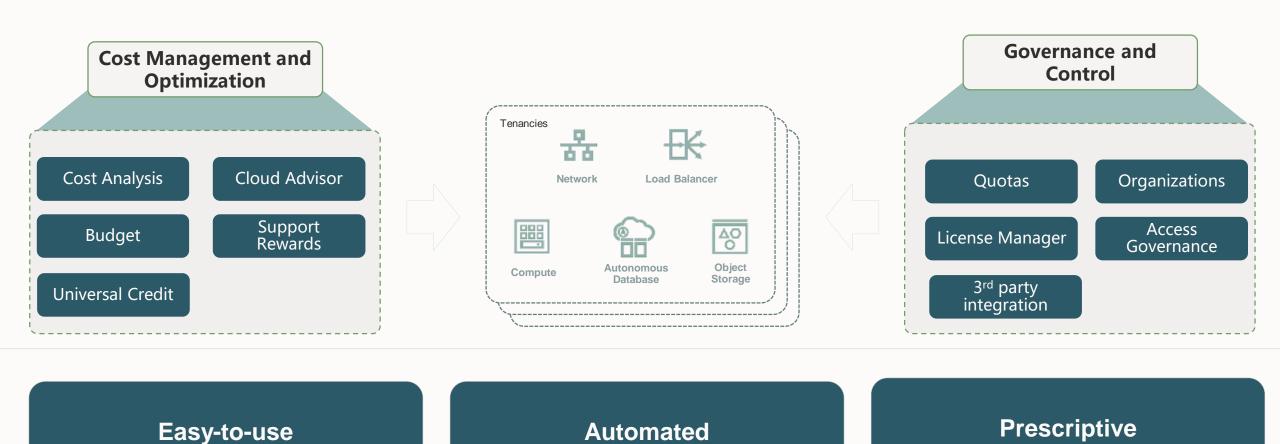
Read NRMA's story

Read Adventist Health's story



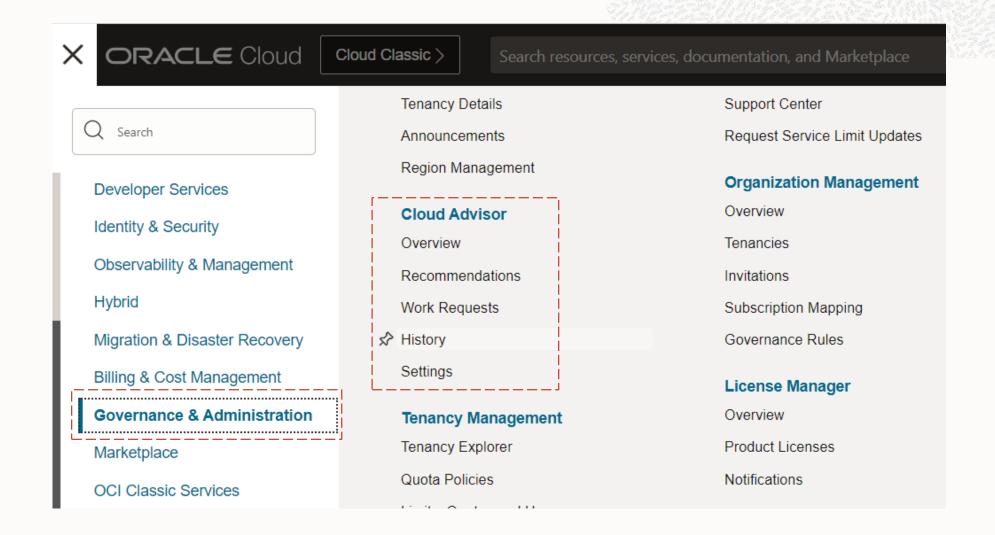
Oracle's Cost Management and Governance Strategy

Core principle to guide cloud leaders into best practices





Oracle Cloud Advisor on OCI Console

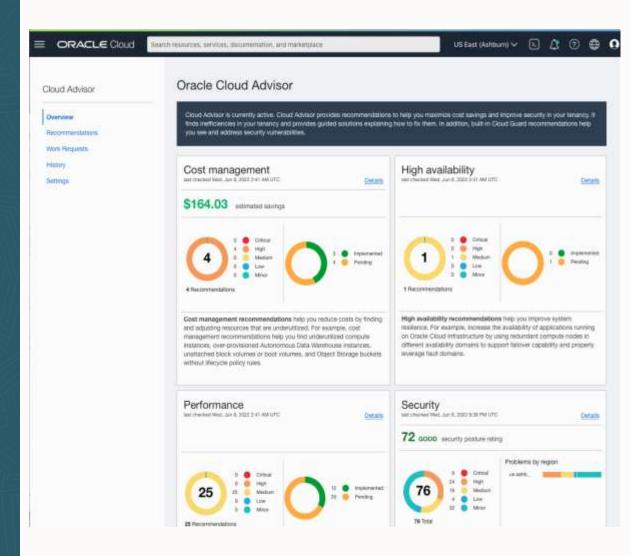




Oracle Cloud Advisor

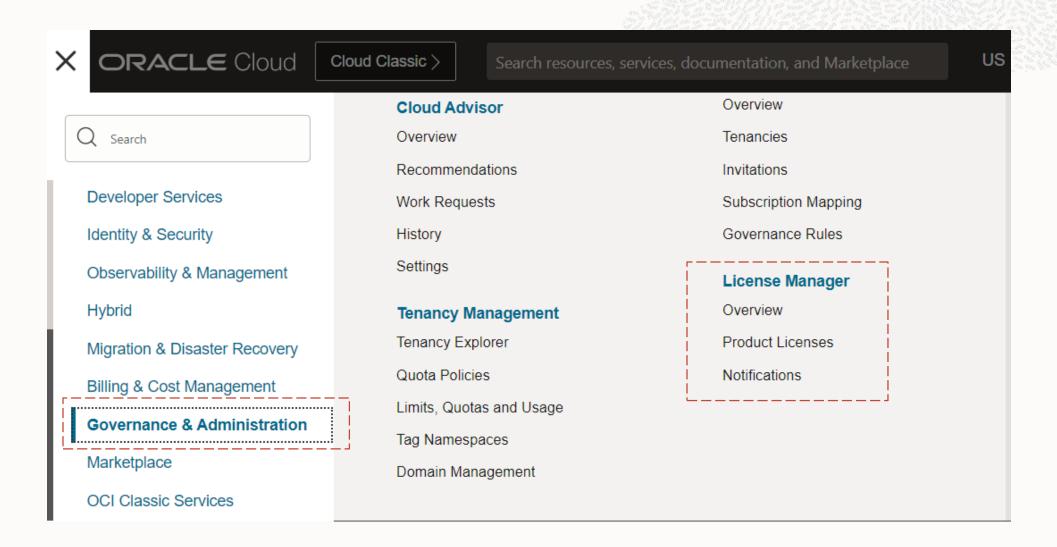
Advisor is a recommendation engine that will guide you to implement best practices and optimize spending in OCI

- Continuously evaluates your resources, searching for improvement opportunities
- Provides cost management, performance, high availability, and security recommendations.
- Provides guidance for how to act on recommendation. When you're ready to downsize specific compute instances, Cloud Advisor provides a UI workflow for doing so





Oracle License Manager on OCI Console

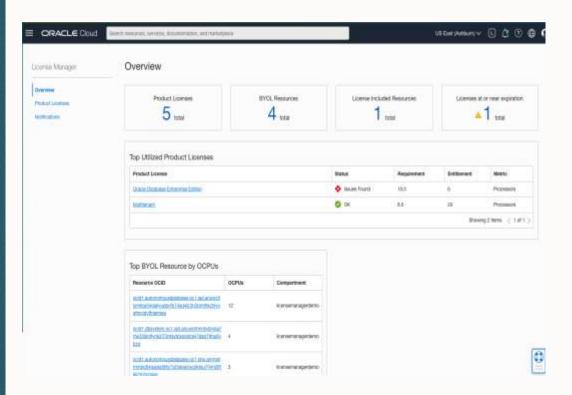




License Manager

License Manager is a free, opt-in service that makes it easier for you to Bring Your Own License (BYOL) on OCI with the following capabilities:

- Automating the license portability rules for Oracle Database products to OCI Database service
- Single pane of glass to track licensing needs on both laaS and PaaS resources. Use the same tool to track Oracle and Third-party license utilization
- Pro-active email notification on over-subscription and license expiration scenarios.





License Manager e-mail notification



Dear Customer,

Re: License Manager Summary.

The following is a summary of License Manager items that require your attention for licensemanagerdemo as of date 05/09/2022.

Sincerely, License Manager

Product Licenses Over Subscribed

Product Name	Metric	Requirement	Entitlement	License Records
Oracle Database Enterprise Edition	Processors	9	6	2

License Records near or past expiration date for License or Support Contract

Product Name	Metric	License Record	License Record Product Id	License Expiration Support Contract	
		Name		Date	End Date
Oracle Database Enterprise Edition	Processors	323213	231231231	05/03/2122	05/04/2022 - Expired

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IT modernization is a journey not a destination

Oracle can help you navigate, pivot and succeed more gracefully



High Operational Efficiency



End-to-end automation of database operations, analytics, and workload management

CompleteCapabilities

All services available where needed



Faster cloud migrations



With cloud native and VMware environments that minimize migration time and complexity

Best for Oracle apps and databases

Purpose-built database hardware, exclusive capabilities, efficient consolidation, licensing flexibility, automated administration



Innovative App Dev

With Autonomous Database, Al Cloud Services, and Oracle APEX





Security-first, always

on by default

Zero trust architecture provides defense in depth, at every layer

Which project do you want to start with?

- 1. Modernizing applications
- 2. Consolidating Oracle databases
- 3. Upgrading software and systems
- 4. Migrating applications to OCI
- 5. Improving security and resilience



Loyola improves CX and staff productivity by extending on-prem PeopleSoft with

- chatbot and multi-language support
- Loyola University Chicago (LUC) sought to improve student services and focus on providing support for inquiries - regardless of office hours or student's location
- LUC used Oracle Digital Assistant to create "LUie" a chatbot that is available 24/7, supports multiple languages, and reduces service wait time. LUie securely handles operations like student registration requests – with full authentication to campus systems like PeopleSoft

"LUie currently provides hundreds of answers to common questions. Early results were impressive with initial accuracy rates of 86% that improved to 91% after the Oracle Digital Assistant upgrade."

Susan M. Malisch, Vice President and CIO, Loyola University of Chicago









Vodafone Partners with Oracle to Accelerate Technology Modernization

- The largest pan-European and African technology communications company. Their goal is to transform operations, customer engagement, and service development/deployment.
- Needs to meet certain data-residency regulations and application performance standards.
- OCI Dedicated Region will enable Vodafone to flexibly modernize, manage, and automate its critical systems using new technologies such as autonomous services, and more easily meet the latency and performance requirements of their applications.

40 to 6

Consolidate forty data centers into six OCI dedicated regions

2,500+

2,500+ database migrations and 350+ application migrations









Voiter frees up resources to focus on strategic initiatives

- IT for Voiter a Brazilian financial institution based in São Paulo was focused on resolving on-premises system issues, instead of supporting Voiter's customer experience
- System failures were eliminated with OCI. Voiter saved between R\$5 million and R\$14 million by reducing its usage of a physical data center.
- IT can now focus on transformative initiatives, like creating a digital channel for customers that circumvents the need for in-person transactions

"In terms of statistics, only 20% of banks worldwide are operating in the cloud, and now with OCI, Banco Voiter is among them."

Carlos Netto, CIO, Banco Voiter

Read Banco Voiter's story

voiter





CodeGen creates costeffective, easily deployable SaaS model on OCI

- CodeGen offers a global travel technology platform that helps to maximize sales, conversion, distribution, and product optimization for clients
- IT staff struggled to bring product innovation to market quickly and to deploy the company's solutions at client locations at the desired speed.
- CodeGen simplified and automated development lifecycles migrating to OCI's DevOps Service

25%

Savings with Autonomous Database autoscaling

45%

Reduction in time to market 45% with Oracle Container Engine for Kubernetes









Elsewedy improves forecasting and strategy with Oracle

- Elsewedy, a \$2.5 billion global energy leader, needed to support its KPIs for sustainable sourcing, achieve a single informational ecosystem, and reduce TCO
- Boosted performance and cut costs by 30% running EBS in OCI. Oracle Autonomous Data Warehouse and Oracle Analytics enabled them to better track performance indicators and improve sustainable supply chain sourcing by harnessing the power of IoT.

30%

30% increase in E-Business Suite application performance 30%

Reduction in total cost of ownership





Read Elsewedy Electric's story

Hearst accelerates digital innovation with OCI and Oracle Data Platform

- Hearst one of the nation's largest global, diversified information, services, and media companies – sought an easy-to-use cloud integration and data platform solution to increase operational efficiency.
- Hearst automated application connectivity and data flows from multiple sources using OCI integration services and Autonomous Data Warehouse as the single source of truth readily accessible to data analysts resulting in faster project delivery times

80%

Savings with OCI application and data Integration

2x faster

Delivery of unified financial and human resource insights

HEARST





San Francisco selects Oracle for better security, user experience

- The City and County of San Francisco's (CCSF) was limited in expanding IAM protection to applications beyond its core financial and people management application.
- Adopted Oracle Identity and Access Management to create a centralized, secure experience for staff and citizens across PeopleSoft, Office 365, ServiceNow, and Salesforce.

"We are seeing a lot of value with Oracle Identity and Access Management. It is more secure, cost effective, and resilient, allowing us to provide a highly available identity platform with improved user experience."

Chinna Subramaniam, IAM and Directory Services Technical Director





Read The City and County of San Francisco's story

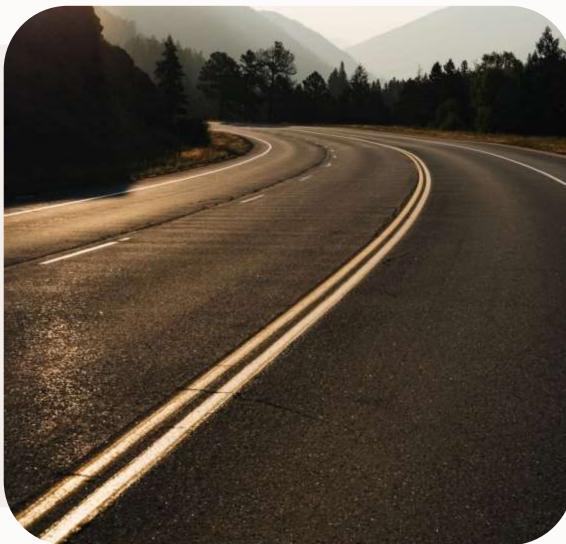
NRMA finds improved performance, security, and TCO with Oracle Cloud

- The NRMA (National Roads and Motorists' Association) sought a more cost-efficient, secure, and scalable alternative to its legacy on-premises infrastructure
- Migrated Oracle E-Business Suite, Siebel applications, Oracle Identity and Access Management, Oracle SOA Suite, and consolidated six Oracle Database Appliances to Oracle Exadata Cloud Service on OCI
- NRMA can now innovate more quickly with a flexible and secure infrastructure.

"Migrating Oracle ERP, CRM applications, and other business-critical applications to OCI have improved the performance and stability of the applications."

Maroun Azzi, General Manager, Technology, Membership and Motoring





Read NRMA's story

Adventist Health creates a costeffective, easily deployable SaaS model with Oracle Cloud

- Adventist Health's finance and HR teams used Excel spreadsheets and a legacy IBM platform. Its operation was fragmented, labor-intensive, and prone to human error.
- Oracle Cloud, including Oracle Analytics, enabled Adventist Health to focus on its mission to provide holistic healthcare to patients.
- Improved data processing, security, and quality for increasing data volumes and concurrent users with Oracle Autonomous Data Warehouse and Data Safe.

"Choosing to work with Oracle Analytics was a great decision. We can scale up and scale down with no hardware investment. It's flexible and very low risk."

Matt Savar, Director of Analytics, Adventist Health

Read Adventist Health's story









- A pioneer in the engineering and construction industry, Clough sought meaningful reporting capabilities to strengthen its procurement strategy
- Chose to migrate E-Business Suite, data warehousing, and reporting to Oracle Cloud Infrastructure
- Eliminated day-long lags in reporting, cut costs by 85%, and developed a wide range of KPIs to monitor performance with Oracle Autonomous Data Warehouse and Analytics Cloud.

85%

Reduction in reporting costs

7x faster

To generate reports from multiple sources







Hapvida improves patient outcomes and saves lives with Oracle Cloud

- Hapvida Saúde Brazil's largest verticalized healthcare solutions provider – sought to modernize its data and analytics platforms to improve service levels and enhance patient care
- Hapvida turned to Oracle Autonomous Database and Oracle Analytics Cloud to boost operational decisionmaking and improve healthcare efficiency – delivering accurate, real-time data to physicians across their network of facilities

8x faster

Medical reporting speeds with Oracle Autonomous Database and Oracle Analytics Cloud







Vertiv connects and automates processes using Oracle CPQ

- Vertiv a provider of critical infrastructure equipment and services for data centers, communications networks, and commercial and industrial facilities – relied on a multitude of highly customized and disconnected CRM applications.
- After implementing Oracle CPQ and Sales, Vertiv now has a single global view of all customization requests, for better revenue reporting, faster response times, and a 30% reduction in Engineer to Order turnaround time.

"The end-to-end integrated landscape from Oracle Sales to CPQ, with CPQ connecting to Oracle E-Business Suite and several on-premises custom tools, enables seamless automation of various key business processes."

Praveen Mutyam, Director CPQ, Vertiv

Read Vertiv's story



Fibabanka improves time to market and customer satisfaction with Oracle Cloud

- Fibabanka one of the fastest-growing banks in Turkey maintained complex on-premises infrastructure that spanned multiple databases and host environments, the maintenance for which consumed much of IT's time
- The Oracle managed services team now oversees all database management, including periodic patching, on one consolidated Exadata Cloud@Customer instance. Fibabanka's technical team can now focus on how to optimize IT spend and improve customer experience.

40%

Reduction in IT infrastructure and database license costs

50%

Of time returned to Fibabanka's IT team, enabling them to focus on more strategic initiatives







MetrôRio gains performance and cost savings with Oracle

- MetrôRio a rapid transit network that serves the city of Rio de Janeiro, Brazil – needed to modernize their entire back office due to a divesture
- Coupling its data-intensive ticketing app to the lower processor requirements of Oracle Exadata Database Service and the granular scalability of OCI gave MetrôRio more command over cash flow through predictable operating expenses and judicious use of Oracle Universal Credits

35%

Savings over 5 years with predictable, consumption-based billing

18x

Reduced disaster recovery window by 18x – from 72 to 4 hours









VLI improves cargo management efficiency and reliability with Oracle

- Brazilian logistics operator VLI's aging on-premises systems—which issue bills of lading and manage train movement—were becoming increasingly unreliable, with frequent system errors and outages.
- VLI migrated core applications to OCI and their database to Exadata Database Service, resulting in a 30% reduction in system errors. This improved their ability to load and dispatch trains correctly and on time, enhancing customer service, productivity, and profitability.

30%

Reduction in system errors following migration to OCI

10x faster

Core business processes for train operations and billing are running up to 10 times faster









Resources



OCI Licensing Manager Documentation

https://docs.oracle.com/en-us/iaas/Content/LicenseManager/Concepts/licensemanageroverview.htm

OCI PaaS and laaS Universal Credits Services Descritpion

https://www.oracle.com/a/ocom/docs/paas-iaas-universal-credits-3940775.pdf

OCI Cost Estimator

https://www.oracle.com/cloud/costestimator.html

Oracle Database Licensing Information User Manual

https://docs.oracle.com/en/database/oracle/oracle-database/19/dblic/database-licensing-information-user-manual.pdf

Oracle Support Rewards Program

https://www.oracle.com/br/cloud/rewards/

Software Investment Advisor

https://www.oracle.com/br/cloud/rewards/

· Check your expense and usage

https://docs.oracle.com/en-us/iaas/Content/Billing/Concepts/costs.htm

Check your expense and usage

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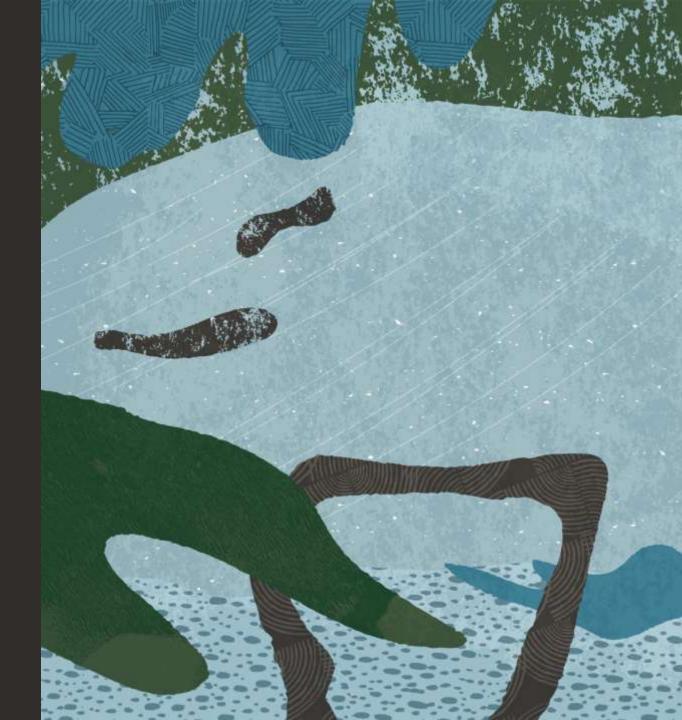
OCI Cloud Advisor

https://www.oracle.com/br/cloud/cost-management-and-governance/cloud-advisor/



Thank you

Marcel Lamarca @oracle.com



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