



Security and Resilience



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Cloud Architect, Oracle Latin America

Threats to Business Continuity



Financial risks due to natural disasters and unforeseen outages



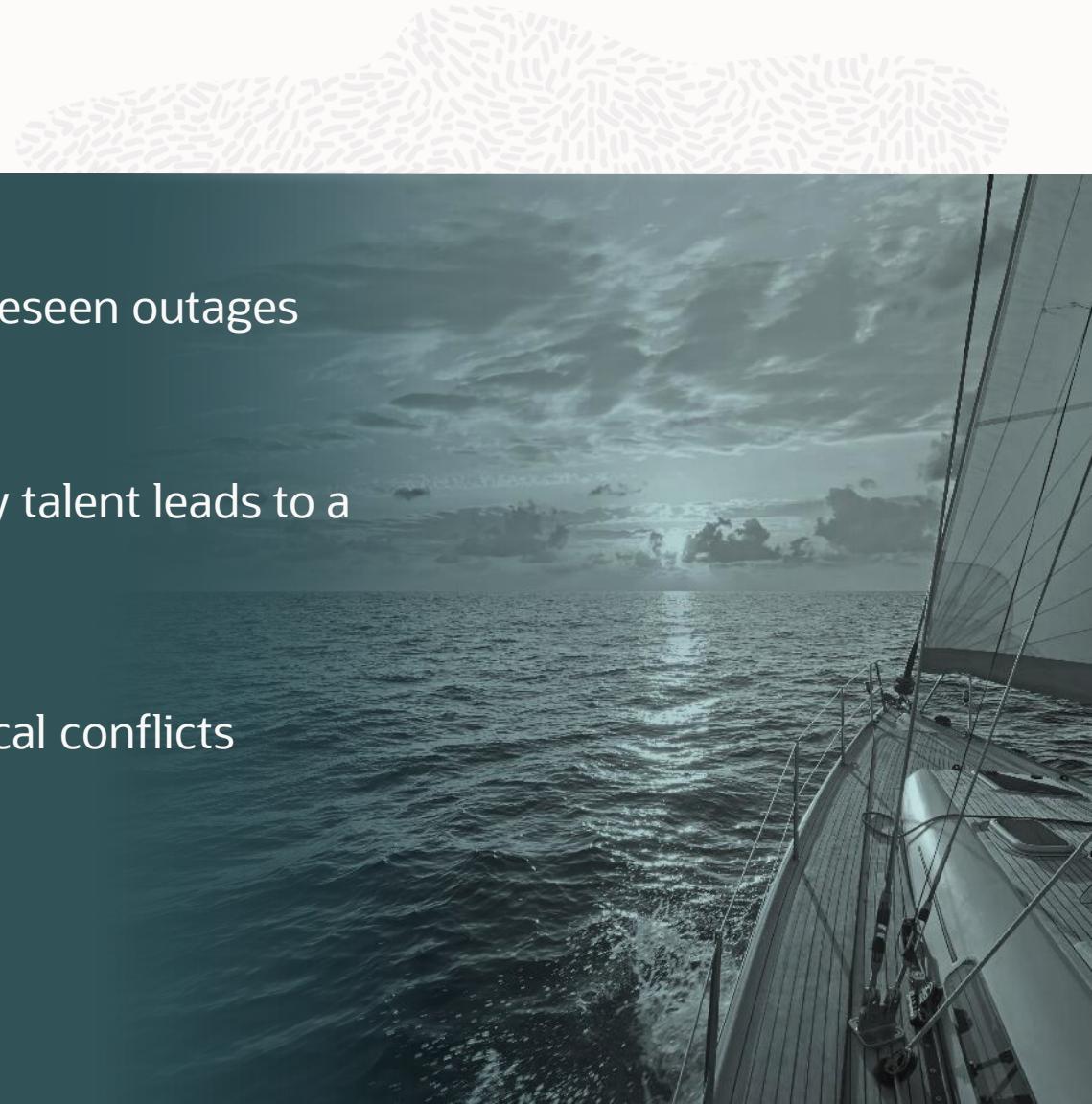
Increase in ransomware and lack of cybersecurity talent leads to a rise in human error and potential for breaches



Sovereignty concerns are growing with geopolitical conflicts



Data access and availability across supply chains



Real life business continuity breakdowns



**Computer outage affects
11,000 US flights**

Source: [Reuters](#)

**West Virginia DMV suffers
outage due to hardware
failure**

Source: [WSAZ West Virginia](#)

**37 million T-Mobile
customers' personal data
stolen in data breach**

Source: [USA Today](#)

**Ransomware at
CommonSpirit Health cost
\$150M to date**

Source: [HIPAA Journal](#)

Impact of downtime on business

Adverse impacts to financial state and customer satisfaction

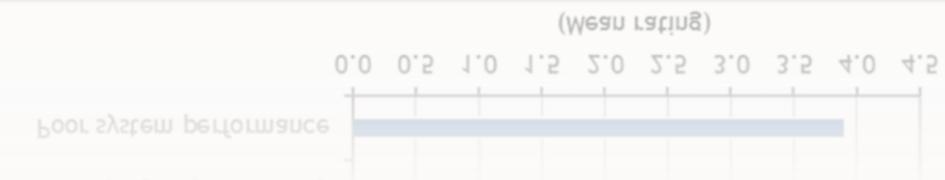


Key challenges for customers:

- End-user satisfaction
- Customer experience
- Financial penalties
- Employee satisfaction

Average Significance of Downtime on the Business

Q. For each of the following areas, please rate how downtime has impacted your business.



Sources: IDC's Cost of Downtime and Importance of Support Survey, November 2022
IDC, The State of Ransomware and Disaster Preparedness: 2022, May 2022



94%

of respondents reported at least one outage

single hour of downtime costs on average

\$250K+

60%

experienced unrecoverable data in the last 12 months

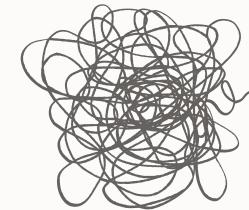
IDC: The State of Ransomware and Disaster Preparedness: 2022

What issues need to be overcome?



Cost

Maintaining redundant—*and often idle*—software and hardware resources from multiple vendors is costly



Complexity

Lack of integration, and administrative complexity, increases the chance of error and failure

Oracle gives organizations choices in how they improve resilience

Improve on-prem resiliency

Automate security enforcement

Address regulations

Minimize vulnerabilities

Optimize IT resources

Increase resource flexibility

Add data protection

Meet or exceed SLAs

Reduce compliance costs

Customer Data Centers



Applications and
Oracle Exadata



Cloud@Customer

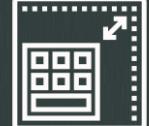


OCI Dedicated
Region

OCI Public Cloud, Government and Sovereign EU Regions



Integrated security
for infrastructure,
database, and SaaS



Scale-up or scale-out
Compute, Storage,
Networking



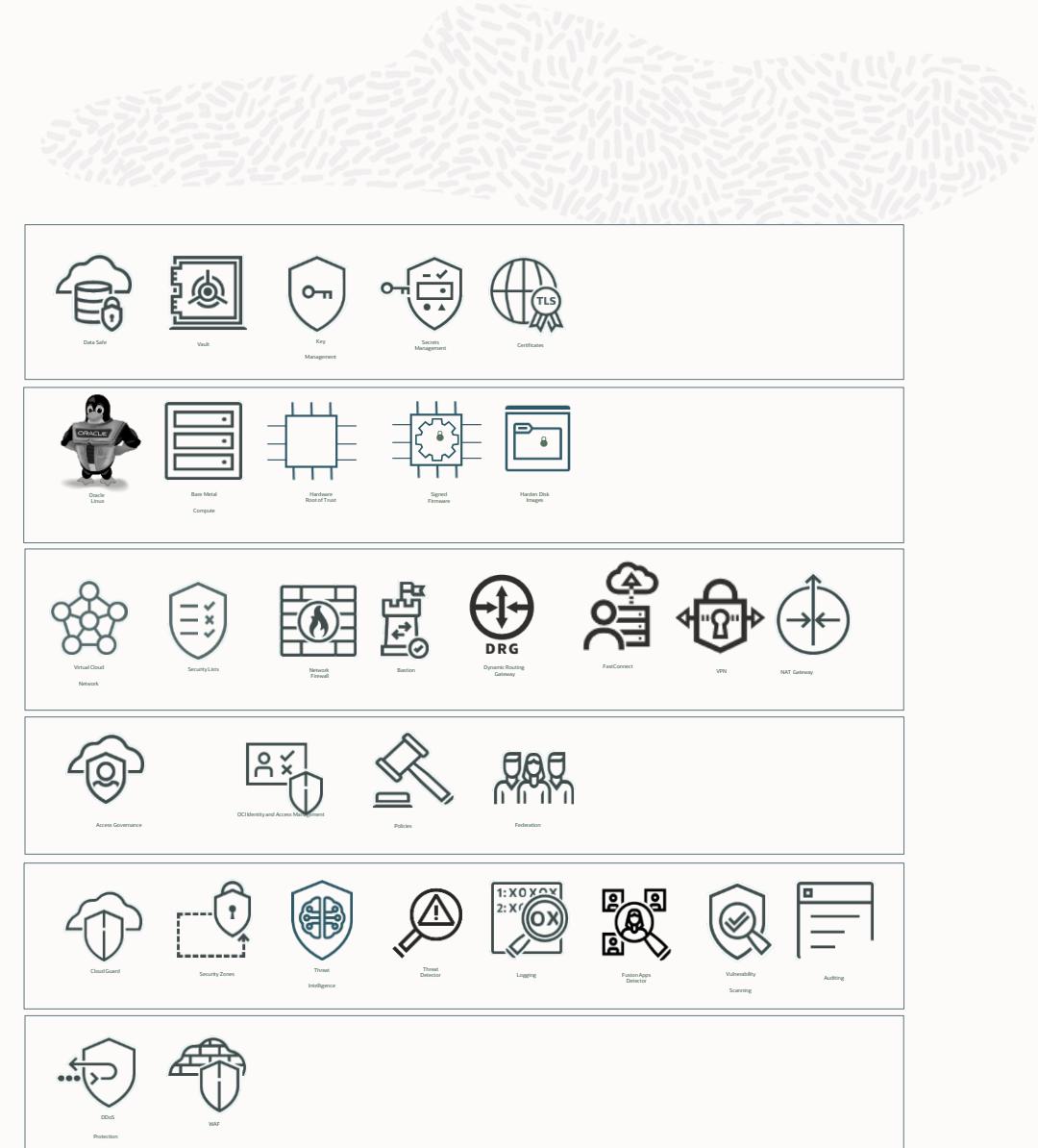
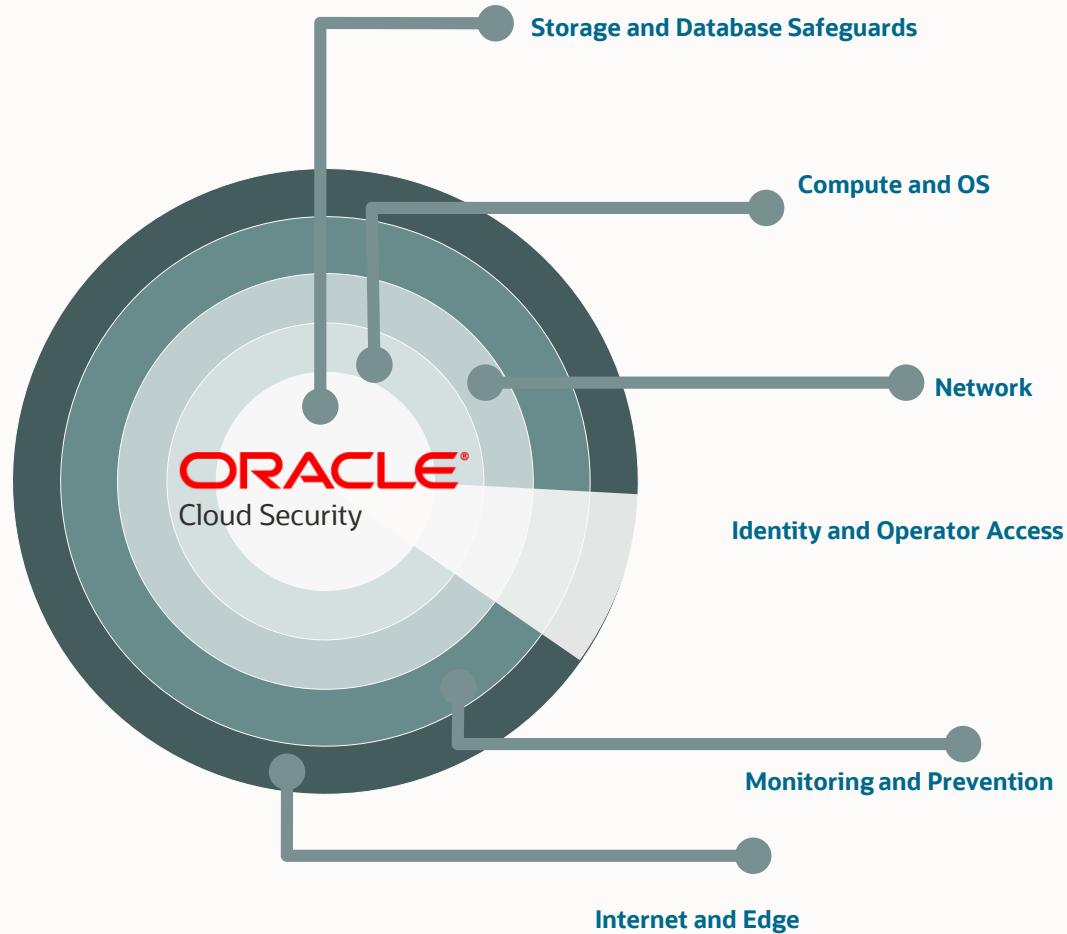
Exadata, Autonomous,
and MySQL HeatWave
Database Services



Multicloud database
and management
services

Reference Architecture

Oracle Security Overview



Oracle helps you navigate security and resilience concerns

1.

Secure

your organization

"

With Oracle Data Safe, the bank was able to more efficiently manage the day-to-day security and compliance requirements for its Oracle databases.

"

WAAFI BANK

2.

Improve

business continuity

"

Bringing our mission-critical financial processes onto Oracle Cloud Infrastructure has provided great benefits. We have seen speedy data recovery, in just 2 hours as compared to 24 hours before.

"

MINOR HOTELS

3.

Maximize

availability

"

Uses Oracle Active Data Guard and Oracle RAC to deliver a Maximum Availability Architecture, guaranteeing 24/7 availability of its in-store services and enterprise applications across 52 retail and wholesale stores

"

MART MINAS

1. Secure your organization

Simple and automated security

Defend against the changing threat landscape with security and identity solutions that are easy to install, include automated updates, and utilizes machine learning to detect behavior attack patterns.

“Managing risk exposures with proactive cybersecurity tools and platforms should be a mindset, not a technology requiring investment.”

IDC

[2023 IDC](#)

Address compliance concerns

Integrated security for on-premises, cloud, and multicloud deployments to help address government and industry compliance and data sovereignty requirements.



Seamless security visibility

Simple-to-use security monitoring and remediation tools across the cloud, databases, and identity to recognize anomalies and allow for continuous compliance.

“To address cybersecurity risks and sustain an effective cybersecurity program, security and risk management leaders focus on...technical security capabilities that provide greater visibility and responsiveness across the organization’s digital ecosystem”

Gartner

[2023 Gartner](#)

Oracle helps enforce security and identity in a simple and automated way

Differentiated Oracle capabilities for cybersecurity



Prevent vulnerabilities and breaches with automatic security updates

- [Autonomous Database](#)
- [Autonomous Linux](#)
- [Maximum Security Architecture \(MSA\)](#) and [Data Safe](#)



Centrally manage your encryption keys

- [OCI Key Management](#)
- [Oracle Advanced Security](#)
- [Oracle Key Vault](#)



Enforce prescriptive best practices and meet strict global standards

- [Oracle Security Zones](#)
- [Oracle Cloud Guard](#)



Monitor for anomalies, misconfigurations, attacks, and rogue users

- [Oracle Cloud Guard](#)
- [Oracle Data Safe](#)
- [Oracle Access Governance](#)

Oracle Database protects data, minimizes risk, and enables compliance



Assess configuration and users for security risk, and monitor for configuration drift

- [Oracle Data Safe](#)
- [Oracle Audit Vault and Database Firewall](#)



Encrypt data- at rest and in-motion with Transparent Layer Security (TLS) or Oracle Native Network Encryption

- [Oracle Advanced Security](#)
- [Oracle Key Vault](#)



Control access to data by locking down access to data and enforcing a trusted path for legitimate access

- [Oracle Database Vault](#)



Detect anomalies and identify suspicious or inappropriate user behavior

- [Oracle Data Safe](#)
- [Oracle Audit Vault and Database Firewall](#)

Oracle Identity and Access Management secures access to apps and data



Manage identity access and monitor for anomalies

- [Oracle Access Governance](#)
- [Oracle Identity Governance](#)



Support enterprise-level scalability for on-premises and cloud deployments

- [Oracle Unified Directory](#)



Integrate your identities and systems to secure access

- [Oracle Cloud Infrastructure Identity and Access Management](#)
- [Oracle Access Management](#)

Reference architectures



Oracle Security

- [Deploy a secure landing zone that meets the CIS Foundations Benchmark for Oracle Cloud](#)
- [Deploy network security partner solutions to a secure CIS landing zone on Oracle Cloud](#)

Oracle Cloud Infrastructure Security

- [Protect your workloads in the cloud using security zones](#)
- [Secure your workloads using Oracle Cloud Infrastructure Network Firewall Service](#)
- [Use OCI Security Services for Data Protection with Oracle Cloud VMware Solution](#)

Database Security

- [Implement Oracle Data Safe for your on-premises and OCI deployed databases](#)
- [Connect Oracle Data Safe to Exadata and Autonomous Databases](#)
- [Connect Oracle Data Safe to Oracle Databases on multicloud and hybrid cloud environments](#)

Identity and Access Management

- [Design an Identity Governance Solution leveraging identity insights](#)
- [Secure and Monitor Oracle Identity Cloud Service](#)

Customers securing their organizations with Oracle



**Central
Intelligence
Agency**

FOUNDATIONAL SERVICES:

Providing security-first cloud services to 17 intelligence agencies

Support Commercial Cloud Enterprise (C2E) contract, Oracle will provide highly-secured foundational cloud services including IaaS, PaaS, SaaS to the CIA itself and 16 other agencies within the intelligence community.



MODERNIZE AND SECURE :

Transformed and modernized their custom financial application architecture

Reduced risk and improved security with Oracle Data Safe to manage their day-to-day data security and easily expanded their business and maintained uptime.



HIGHLY AVAILABLE, SECURE PORTAL:

Reduced the time to integrate new applications with a true single sign-on portal

Gained a highly secure platform with multi-factor authentication across all applications with OCI Identity and Access Management at up to 6X less than competitive solutions.

[CIA](#)

[LOLC Group](#)

[City and County of San Francisco](#)

2. Improve business continuity

Improve on-premises resiliency

Reduce and repurpose on-premises infrastructure and eliminate maintenance overhead. Consolidate databases to lower costs and improve data governance.

"72% of organizations are poorly positioned in terms of disaster recovery capabilities, with 63% likely suffering from "mirages of overconfidence."

GARTNER

Use business continuity resources to increase flexibility

Using failover sites for analytics, testing, and new initiatives, reduces pressure on the primary site



Move all operations to the cloud for better resilience & security

Lower costs, dynamic HA and DR capabilities, and the provider's 24/7 security posture make it easier to protect the entire enterprise



[Specialized Bicycle Components story](#)

[2022 Gartner](#)

[RaiaDrogasil story](#)



We help you run mission-critical operations without disruption

Differentiated Oracle capabilities for business continuity



Help protect and recover from ransomware

- Oracle's [Maximum Security Architecture](#)
- Oracle's [Zero Data Loss](#) technology



Adopt high availability and secure policies

- [Fault Domains, Availability Domains](#)
- [Security Zones](#)



Deliver up to 99.995% availability SLA in OCI

- [Oracle's Maximum Availability Architecture](#)
- [Autonomous Data Guard](#)

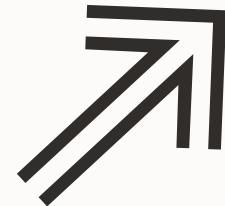


Automates the discovery, plan creation, testing, and execution of DR for application stacks

- OCI [Full Stack Disaster Recovery](#) service

Ransomware is a major concern

Resilient recovery with no data loss is a foundational requirement



62%

More ransomware attacks in the US in 2021 to more than **3,500** on an annual basis
(source: US Treasury)



37%

Of global organizations were attacked with ransomware in 2021
(source: IDC)



\$1.85M

Average total cost of remediating a ransomware attack
(source: Sophos)



180%

More annualized losses from ransomware attacks in the US during 2021 to **\$1.18B** on an annual basis
(source: US Treasury)

One minute of data loss due to ransomware attack could impact 100s to 1000s of business transactions in enterprise databases

Data protection goals in the cloud



Minimize ransomware risk

- Reduce data loss exposure and downtime after an attack
- Protect against backup deletion or alteration during an attack
- Secure backups against unauthorized access and information disclosure



Optimize operations

- Get rid of time-consuming and resource-intensive weekly full backups on production database services
- Eliminate backup validation resource consumption on production database services
- Simplify multistep recovery processes and make recovery times predictable
- Minimize backup-driven costs



Reduce administration

- Consistently apply backup policies across an organization
- Understand backup health and recoverability
- Plan for database backup space utilization

Oracle Database Zero Data Loss Autonomous Recovery Service

A fully managed, automated service for continuously protecting Oracle databases in OCI

Ransomware resiliency

- Automatic and mandatory encryption to help prevent data theft
- Safeguards backups with enforced 14-day retention
- Optimizes backups in the background for fast recovery with zero data loss

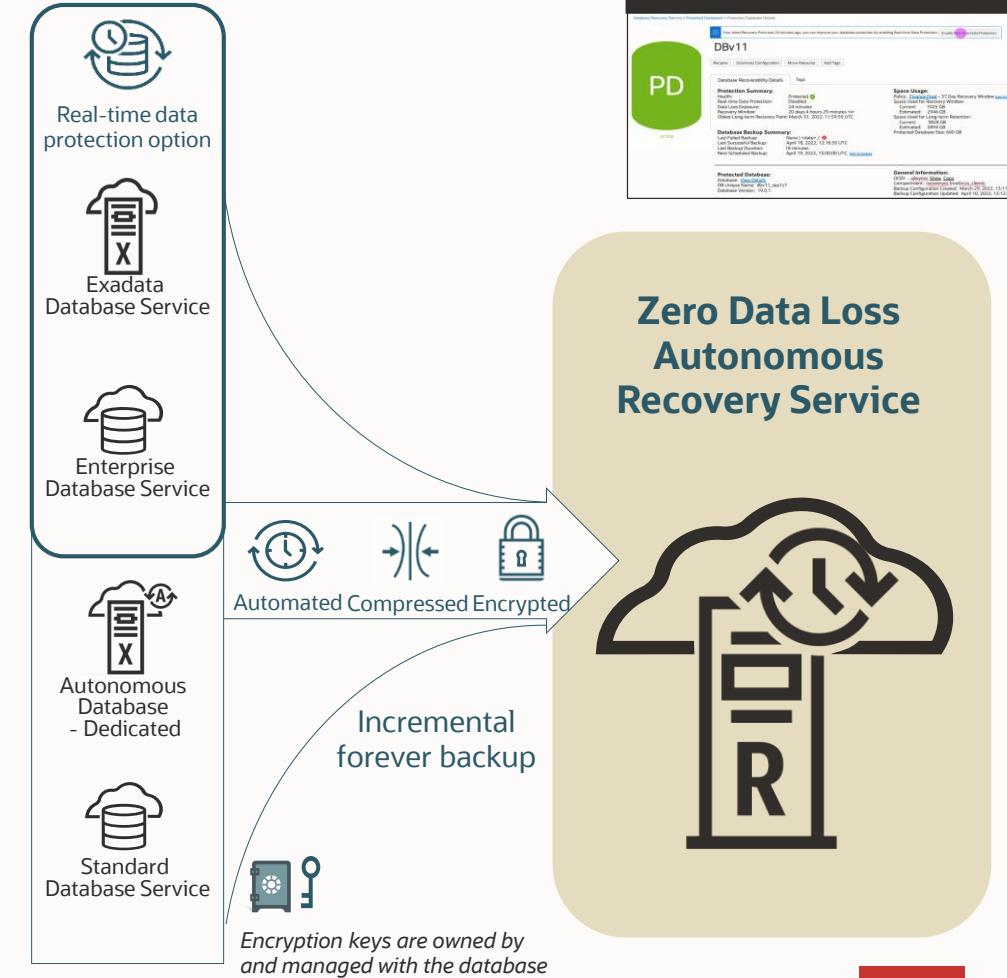
Operational efficiency

- No more weekly full backups – eliminates production database overhead
- Shorter backup windows with incremental forever strategy
- Zero-impact database recovery validation for every backup

Cloud simplicity

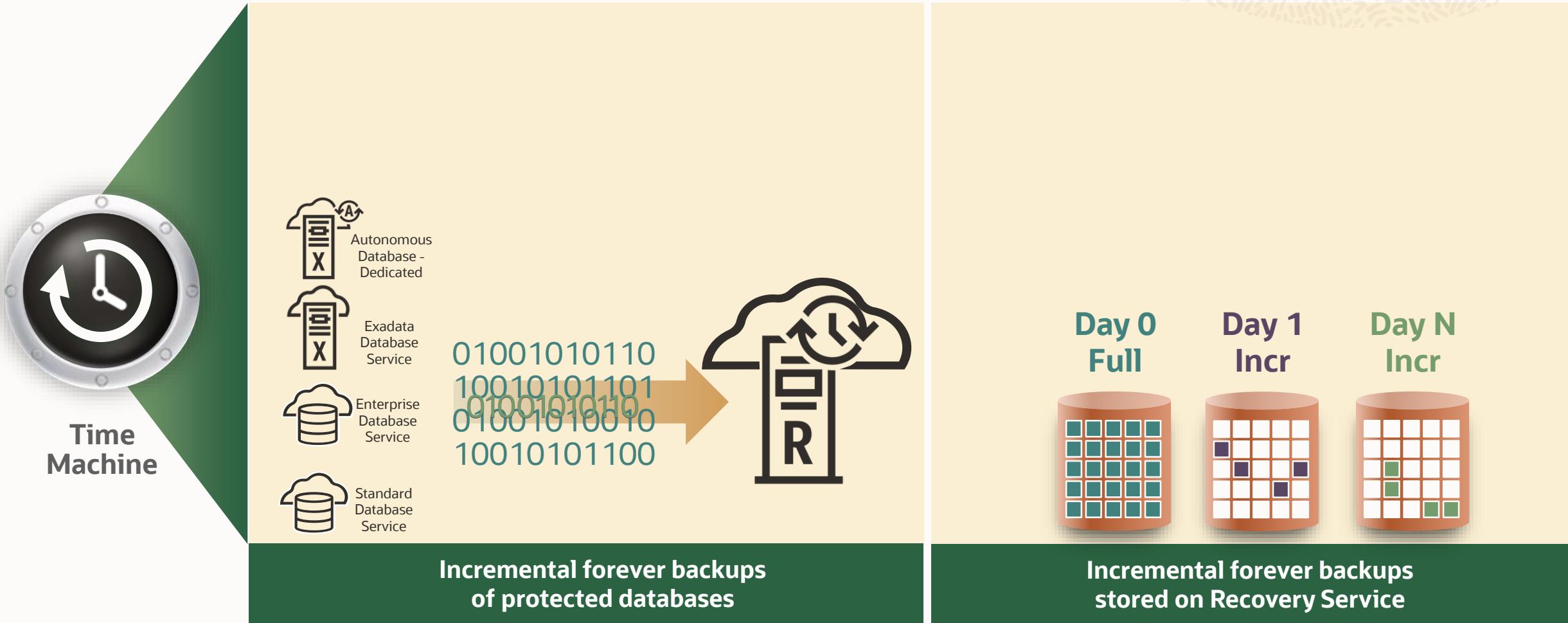
- Quickly configure database protection at scale with zero data loss
- Control costs with database-specific backup consumption metrics
- Gain deep data protection insights with granular recovery health dashboard

Using proven Recovery Appliance technology



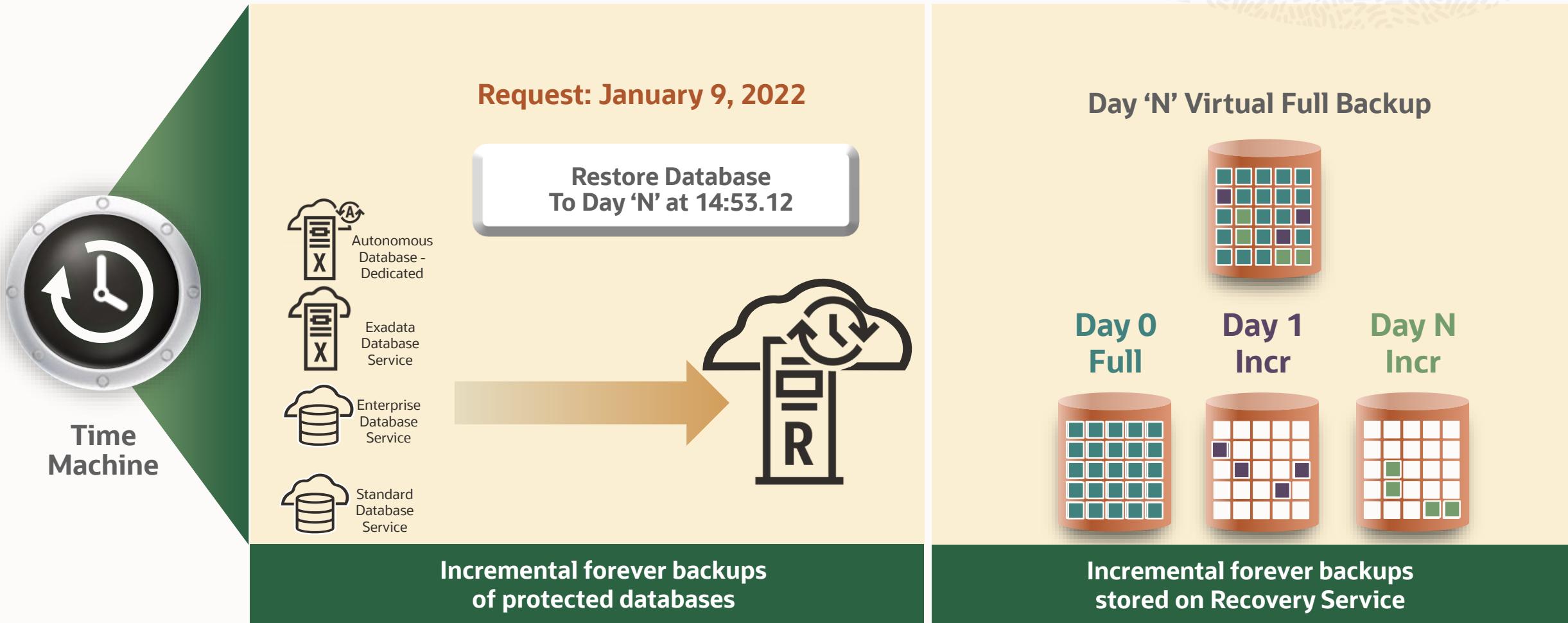
Recovery Service eliminates weekly full backups

Incremental-forever backups reduce backup overhead on production database services



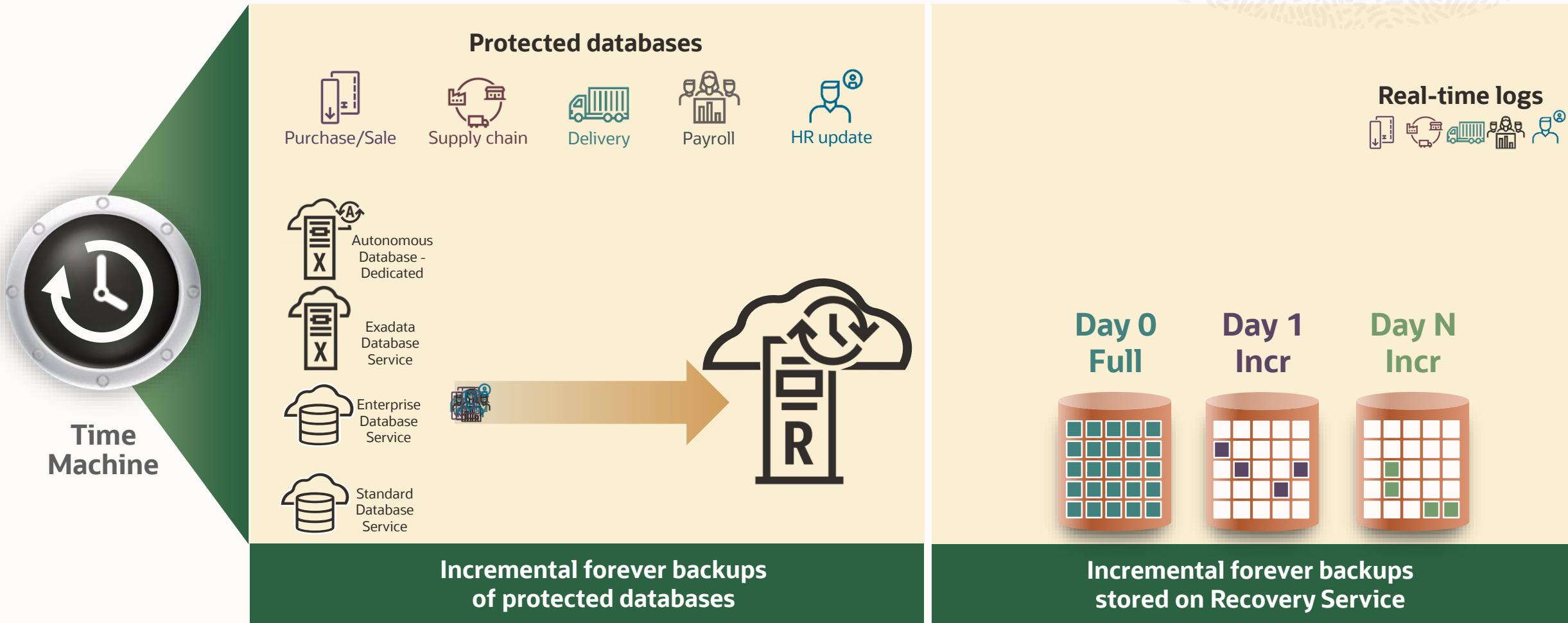
Recovery Service simplifies database restores

Creation of virtual full backups eliminates multiple incremental restore & apply cycles



Recovery Service continuously protects Oracle databases

Real-time protection of database changes increases resiliency with point-in-time recovery

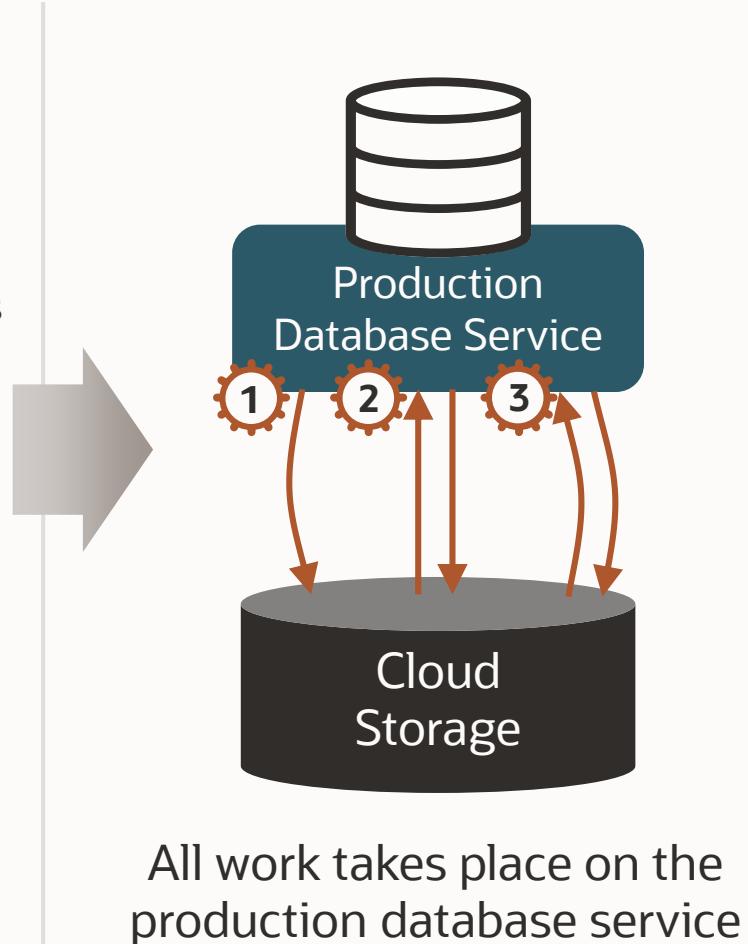


Recovery Service offloads backup validation

All backups are checked for recoverability, reducing database service overhead

Traditional cloud backup

1. Backup (full or incremental) is created on the production database service and stored in object storage
2. Production service reads the backup from object store, validates it, and fixes issues **doubling the impact on production database services**
3. Periodic revalidation **increases production database consumption**
4. Resulting in:
 - a. Lower production performance if resource constrained, or
 - b. Higher consumption costs if resources are unconstrained, or
 - c. Decision to not validate backups or revalidate them, increasing risk

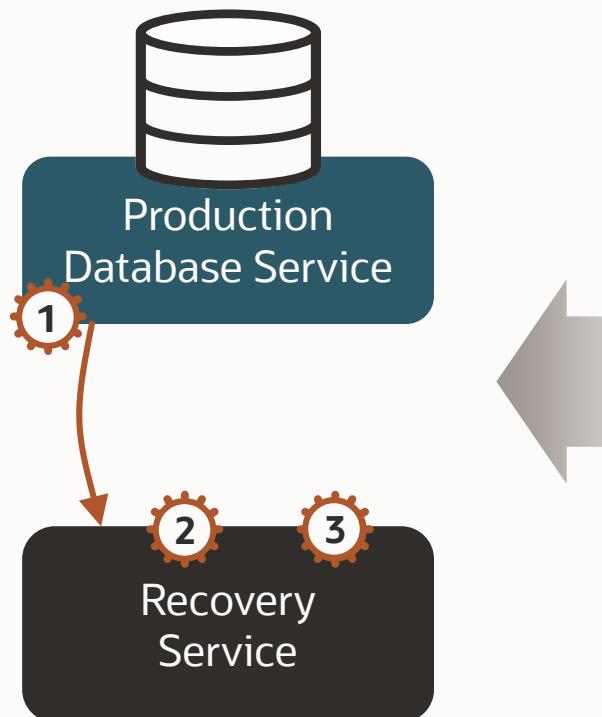


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Most work takes place on the Recovery Service

Recovery Service backup

1. Incremental forever backup is created on the production database service and stored in the Recovery Service
2. The Recovery Service uses **internal Oracle Database knowledge** to check examine and fix backups when ingested, with **no impact on production databases**
3. The Recovery Service periodically revalidates backups with **no production database consumption**
4. Resulting in:
 - a. **Minimal backup impact on production databases**
 - b. **No additional production database service costs**
 - c. **Higher recoverability & lower risk**

Recovery Service is easy to set up and use

Protect Oracle databases with less than 5 clicks in the OCI console

A fully managed OCI service with a simple UI

1. Enable automatic backups
2. Schedule daily incremental backups to meet your business schedule
3. Select Autonomous Recovery Service
4. Select protection window of 14 to 95 days
5. Enable real-time protection

Configure automatic backups [Help](#)

Enable automatic backups [i](#)

Important: For automatic backups to function, all [prerequisites](#) must be met.

Backup scheduling (UTC) [i](#)
2:00AM - 4:00AM

Backup destination [i](#)
Autonomous Recovery Service

Protection policy in **ZDLRA** [i](#) ([Change Compartment](#))
Bronze (14-days recovery window)

Enable real-time data protection [i](#)

Deletion options after database termination [i](#)
 Retain backups according to the protection policy retention period
 Retain backups for 72 hours, then delete

[Save changes](#) [Cancel](#)



Recovery Service protects against unauthorized access

Built-in security and resiliency help safeguard mission-critical data

Encryption is mandatory

- Non-encrypted databases are rejected
- Keys are never stored in the Recovery Service

Access and management controls

- No direct user access to storage – backup only
- Access granted per protected database
- 14-day minimum retention enables recovery from human error or malicious internal actors

Resilient operations

- Fault-tolerant across all infrastructure components
- Highly available across Availability Domains and Fault Domain
- Load balanced within a region

The screenshot shows the Oracle Cloud interface for 'Protected Databases'. The main title is 'FINANCE'. On the left is a large green button with 'PD' and 'ACTIVE' below it. The right side has two tabs: 'Protected database information' (selected) and 'Tags'. Under 'Protected database information', there are sections for 'Protection summary' (Health: Protected), 'Space usage' (Current: 16,231.27 GB, Projected for policy: 16,216.83 GB, Protected database size: 5,790.931 GB), and 'Database backup summary' (Last failed backup: —, Last completed backup: Mon, Oct 10, 2022, 02:56:02 UTC, Last backup duration: 4 m 53 s). At the bottom are 'Protected database' (Database details: FINANCE) and 'General information' (OCID: ...4w7dxa, Show, Copy).

Recovery Service provides insights into backup health and operations

Built-in dashboards and tools simplify reporting and planning

Continuous monitoring of potential business risks

- Data loss exposure
- Recovery window

Critical data for operational planning

- Capacity usage
- Protection policy

Protected databases in ZDLRA Compartment

Protected databases offer an RMAN integrated 'incremental-forever' backup strategy to transfer Oracle Database backups to Oracle Cloud. Built to reduce network consumption and storage utilization, protected databases enable real-time data protection, backup validation and policy driven backup administration for all databases. [Learn more](#).

Name	State	Health	Source database	Real-time data protection	Data loss exposure	Current recovery window	Recovery window space used	Protection policy	Database size	⋮
FINANCE	● Active	Protected ⓘ	FINANCE	Enabled	0	7 d 7 h 54 m	8,121.12 GB	Bronze	5,778 GB	⋮
SALES	● Active	Protected ⓘ	SALES	Disabled	29 m 47 s	7 d 8 h 12 m	9,022.26 GB	Silver	3,944 GB	⋮
HRMS	● Active	Protected ⓘ	HRMS	Disabled	29 m 49 s	7 d 8 h 15 m	5,427.58 GB	Bronze	3,909 GB	⋮

Real-time protection and data loss exposure

Recovery window and capacity used

Protection policy

Recovery Service integrates with OCI observability and management

Comprehensive visibility across the full cloud stack

Integration with OCI Metrics Explorer provides common access to critical information

The screenshot shows the Oracle Cloud Metrics Explorer interface. On the left, a sidebar lists 'Monitoring', 'Service Metrics' (selected), 'Metrics Explorer', 'Alarm Status', 'Alarm Definitions', and 'Health Checks'. The main area is titled 'Service Metrics' and shows two charts. The top chart is for 'Space used for recovery window' (GB) from Sep 18 to Oct 09, showing a peak around 25GB on Sep 25. The bottom chart is for 'Protected Database Size' (GB) from Sep 18 to Oct 09, showing a steady increase from 10,000 to 20,000 GB.

Alarms and notifications are created within OCI for consistent monitoring and management

The screenshot shows the 'Create Alarm' page in Oracle Cloud. The left sidebar includes 'Monitoring', 'Service Metrics', 'Metrics Explorer', 'Alarm Status', 'Alarm Definitions' (selected), and 'Health Checks'. The main area is titled 'Create Alarm'. It has sections for 'Define alarm' (with fields for 'Alarm name' and 'Alarm severity'), 'Tags (optional)', and 'Metric description'. Under 'Metric description', the 'Compartment' is set to 'ZDLRA', 'Metric namespace' to 'oci_recovery_service', and 'Metric name' to 'DataLossExposure'. The 'Interval' is set to '1h' and 'Statistic' to 'Mean'.



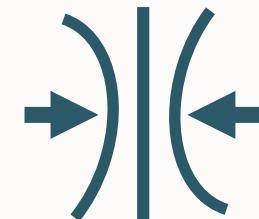
Recovery Service lowers the cost of database protection

Unique Oracle Database capabilities that other cloud providers can't match



Less database service overhead

Most backup and recovery processing is offloaded from database services, lowering database service consumption and costs



Less storage consumption

Backups are compressed to reduce storage consumption and costs



Less administration

Simplified backup management with standardized processes and automated operations



Low Recovery Service pricing

Low per-GB pricing and no charge for validation offload lowers total cloud costs

Zero Data Loss Autonomous Recovery Service



1

Ransomware resiliency

- Sub-second RPO with predictable recovery
- Safeguards backups with 14-day minimum retention
- Mandatory end-to-end encryption with external keys

2

Operational efficiency

- Eliminates weekly full backups
- Offloads recovery validation for every database backup
- Simplifies and speeds recovery with automation

3

Cloud simplicity

- Set up in less than 5 clicks
- Recovery health dashboard for protected databases
- Current and future backup space consumption statistics

Links for more information



Oracle MAA

- [MAA Home](#)
- [MAA Best Practices](#)
- [MAA Best Practices Exadata](#)
- [MAA Best PracticesCloud](#)

Database High Availability

- [High Availability Customer Case Studies](#)
- [Oracle Database High Availability](#)

Full Stack Disaster Recovery

- [Full Stack Disaster Recovery](#)
- [Documentation](#)

Internal only

- [Product Management Home](#)
- [Database Features and Licensing](#)

Customers improving business continuity with Oracle



SPEED UP DISASTER RECOVERY:

Improved performance by up to 30X and decommission 60 on-premises services

Established a disaster recovery environment in Oracle Cloud Infrastructure (OCI) using Exadata Database Service, Active Data Guard and Real Application Clusters (RAC) for the same design as their on-premise Maximum Availability Architecture (MAA).



IMPROVED DATABASE PROTECTION:

Protects Oracle databases against ransomware and other threats to meet regulatory requirements.

Uses Oracle's Zero Data Loss Recovery Appliance to protect 500+ Oracle databases while being able to recover to any point in time and achieving up to 50x faster backups. Automation helps improve DBA productivity.



IMPROVE RTO & RPO:

Deployed mission-critical financials in Tokyo and secondary site in Seoul.

Improved business continuity RTO and RPO from 24 hours to 2 hours with Oracle Data Guard. Reduced recovery time from 24 hours to 2 hours. Reduced costs and increased flexibility through Oracle Universal Credits and license mobility.

[7-eleven customer story](#)

[Evergy customer story](#)

[Minor Hotels customer story](#)

3. Maximize availability

Reduce planned downtime

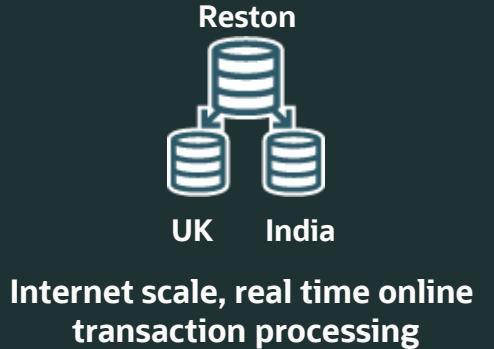
Eliminate planned, maintenance related downtime to implement rolling upgrades and patching on a server-by-server basis

“Enable planned maintenance at all levels including hardware, OS, and database software without disrupting the application”

[PayPal Case Study](#)

Achieve horizontal scalability and data sovereignty

Enable globally distributed, linearly scalable, multi-model databases which meet data sovereignty requirements and support applications that require low latency and high availability.



Internet scale, real time online transaction processing

[Blue Kai story](#)

Reduce downtime while migrating databases to OCI

Migrate Oracle databases from a variety of on-premises and cloud sources to Oracle Database Cloud managed, co-managed and user-managed databases.



Migrate to OCI with near zero to no downtime

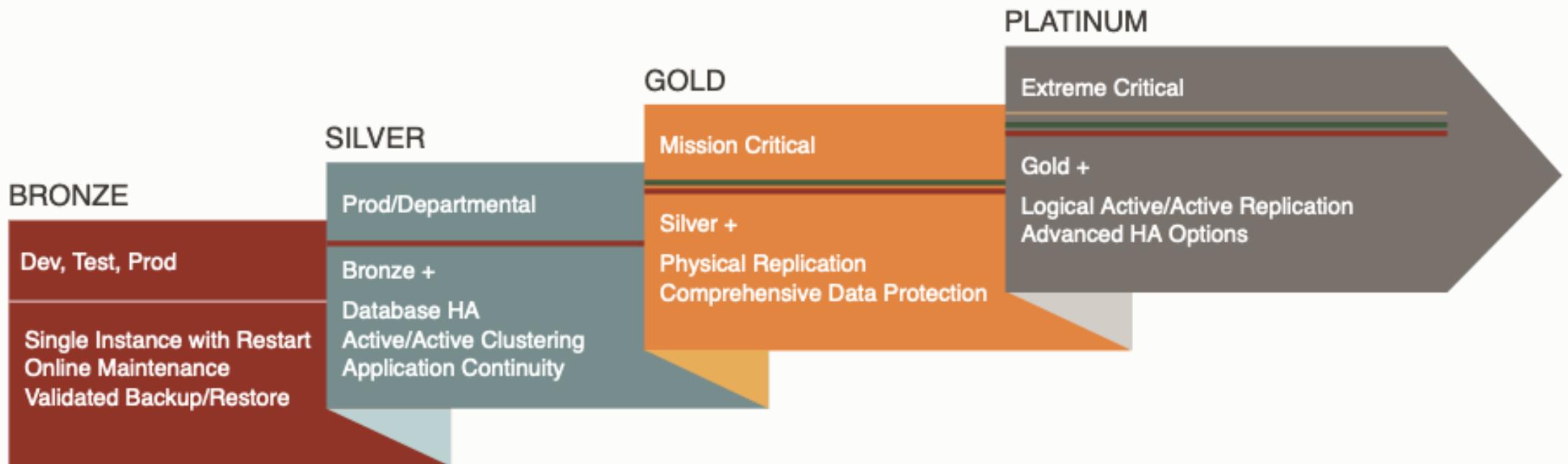
[NEC Story](#)

Reference Architecture



Oracle Maximum Availability Architecture

MAA Reference Architectures



We help you maximize availability

Differentiated Oracle capabilities for high availability



Gain unlimited scalability for applications and recover in-flight work for impacted database sessions following outages

- [Oracle RAC](#)
- [Oracle Application Continuity](#)
- [Oracle's Maximum Availability Architecture](#)



Uninterrupted availability and flexibility to support lifecycle operations, application upgrades

- [Oracle Fleet Patching & Provisioning](#)
- [Edition-Based Redefinition](#)
- [Online Data Reorganization](#)



Support data sovereignty and enable globally distributed, linearly scalable, multi-model databases.

- [Oracle Sharding](#)



Get direct and seamless migration of Oracle Databases to any Oracle-owned infrastructure, including Exadata Database Machine on-premises, Exadata C@C, and OCI

- [Oracle Zero Downtime Migration](#)

Reference architectures



Oracle Data Guard

- [Deploy Exadata Database Service with Data Guard in multiple regions](#)
- [Deploy Oracle Exadata Database Service with Data Guard in a single region](#)
- [Enable multicloud high availability and data protection across OCI and AWS with Megaport](#)
- [Enable multicloud high availability and data protection across OCI and AWS with Colt](#)
- [Deploy a highly available bare metal database](#)
- [Configure a standby database for disaster recovery](#)

Oracle Real Application Clusters (RAC)

- [Deploy Oracle Real Application Clusters on Private Cloud Appliance](#)
- [Deploy IBM Sterling Order Management Software on Oracle Cloud and Microsoft Azure](#)

Customers maximizing availability with Oracle



IMPROVED AVAILABILITY

Address data residency rules while reducing global data replication and reducing downtime for analytics .

Stores segments of data in the OCI Cloud Region in the country of their choice, helping Munich Re improve data access and control by allowing a single logical database to be distributed over multiple geographies while keeping the application in one region..



Virginia Alcoholic Beverage Control Authority

ZERO DOWNTIME MIGRATION:

Migrated more than 7TB data to OCI in a single project with no downtime.

Reduced cost and time effort needed to migrate databases to OCI. The migration to OCI and the database upgrade were completed in a single weekend with no system downtime.



Kanpur Electricity Supply Company Limited
A GOVERNMENT OF U.P. UNDERTAKING

IMPROVED BILLING EFFECIENCY:

Boosts application performance by 2X with Oracle Maximum Availability Architecture

Runs Oracle Databases across multiple servers dispersed geographically within India to maximize availability and enable horizontal scalability. Provides 24/7 access to billing system and improved customer experience.

[Munich Re customer story](#)

[Virginia ABC customer story](#)

[Kesco customer story](#)

Business resilience: succeeding in uncertain times

*We are here to help you navigate **security** and **resilience** concerns*

1.
Secure
your
organization

2.
Improve
business
continuity

3.
Maximize
availability

How can we be of further assistance?



ORACLE

Feature overview videos



[Oracle Real Application Clusters](#)



[Oracle Active Data Guard](#)



[Oracle Fleet Patching & Provisioning](#)



[Oracle Application Continuity](#)



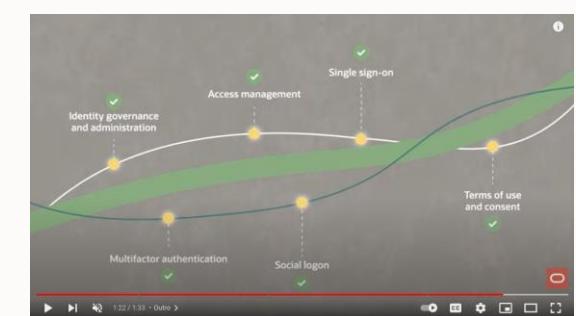
[Oracle Database Security](#)



[Ask the Architects: How to aggregate OCI service logs into third-party security management platforms](#)



[Ransomware: A database survival guide](#)



[Modernizing Identity and Access Management with Oracle](#)

Technical Videos and Demos



Cheat Sheet

- [The Ultimate Oracle Cloud Disaster Recovery Cheat Sheet](#)

Oracle Zero Downtime Migration

- [Migrate Oracle Database to OCI using Zero Downtime Migration](#)

Oracle Application Continuity

- [How to survive an Oracle Database failure without your users ever noticing](#)
- [Transparent Application Continuity with Active Data Guard](#)

Full Stack Disaster Recovery

- [Getting started](#)
- [Full Stack DR in action](#)
- [Learn from the experts](#)
- [Implementing and configuring](#)

Oracle Fleet Patching and Provisioning

- [Oracle Fleet Patching and Provisioning \(FPP\) - Quick Start](#)

Zero Data Loss Autonomous Recovery Service

- [Configuring Automatic Backup](#)
- [Monitoring Backups](#)
- [Restoring a Database](#)

Oracle Cloud Security

- [Cloud Security: preparing for the new normal](#)
- [Demonstration of Oracle Cloud Infrastructure Security Services](#)
- [Getting started with Oracle Cloud Infrastructure Security services](#)

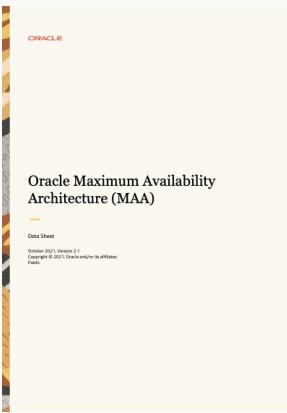
Oracle Database Security

- [Complete database security in 4 simple steps | Oracle Database World](#)
- [Oracle Database Security Webinar – Safeguarding Eswatini with Oracle Security](#)
- [Oracle Database Vault Deployment Strategies](#)

Oracle Identity and Access Management

- [Introducing Oracle Access Governance](#)
- [Oracle Identity and Access Management demonstration](#)

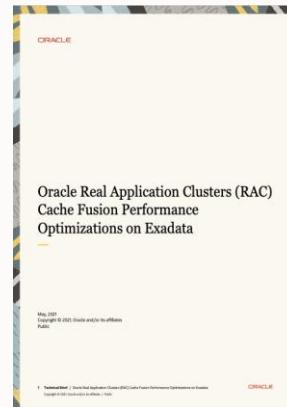
Technical briefs



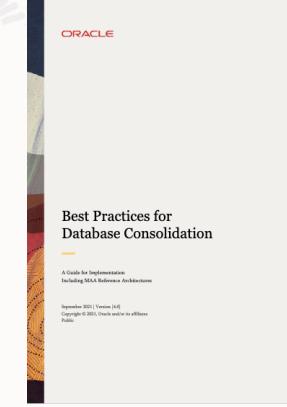
[Oracle MAA](#)



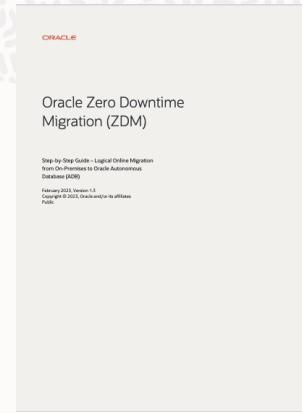
[Active Data Guard vs Storage Remote Mirroring](#)



[Oracle RAC](#)



[Oracle Database Consolidation and MAA](#)



[Oracle ZDM Step by Step Guide](#)



[OCI Security Architecture](#)



[Approaching Zero Trust Security with OCI](#)



[Securing the Oracle Database: A technical primer](#)



[Introducing OCI IAM Identity Domains: What customers need to know](#)



[Oracle Access Governance](#)

Live Labs and Hands on Labs



Oracle Zero Downtime Migration

- [Oracle ZDM: Logical Online Migration to Autonomous Database](#)
- [Oracle ZDM: Physical Online Migration with Backup Location to Co-Managed Databases in OCI](#)
- [Oracle ZDM: Physical Offline Migration to Co-Managed Databases in OCI](#)

Data Guard

- [Protect Your Data with Oracle Active Data Guard](#)
- [Oracle Database Hybrid Active Data Guard](#)
- [Setting Up Active Data Guard For On-Premises](#)
- [Setting Up Data Guard Across Cloud Regions](#)

Oracle RAC

- [Oracle RAC: HA and Scalability for Your Applications](#)

Oracle Application Continuity

- [Application Continuity made simple with Universal Connection Pool](#)

Sharding

- [Oracle Sharding Workshop](#)
- [Oracle Sharding – Hyperscale Globally Distributed Database Workshop](#)
- [Oracle Sharding Quick Start Workshop](#)

Oracle Security

- [Deploy a Secure Landing Zone in OCI](#)

OCI Security

- [Unique Security Experience Workshop](#)
- [Deploy OCI Network Firewall and Secure your workloads on OCI](#)
- [How do I enable Oracle Cloud Guard?](#)

Database Security

- [Get Started with Oracle Data Safe Fundamentals](#)
- [DB Security Basics](#)
- [DB Security - Database Security Assessment Tool \(DBSAT\)](#)

Identity and Access Management

- [OCI Identity and Access Management](#)
- [Get Started with Oracle Identity and Access Management \(IAM\) Suite on Kubernetes Containers](#)
- [Oracle Access Governance - Complete Experience](#)

Customer Stories



Acute Informatics
increases banking market
share by 15% with OCI

Oracle Cloud Infrastructure
Oracle Standard Database Service
Oracle Data Guard

INDUSTRY: HIGH TECHNOLOGY
LOCATION: INDIA

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Mart Minas
ATACADO & VAREJO

**Mart Minas gains 40% in
performance with
maximum availability
architecture**

Oracle Cloud Infrastructure
Oracle Exadata Database Service
Oracle Active Data Guard

INDUSTRY: RETAIL
LOCATION: BRAZIL

[Read more](#)



Virginia ABC
Virginia Alcoholic Beverage
Control Authority

**Virginia ABC speeds data
migration to OCI with
Oracle Zero Downtime
Migration**

Oracle Cloud Infrastructure
Oracle Enterprise Database
Service
Oracle Zero Downtime Migration

INDUSTRY: GOVERNMENT AND ED...
LOCATION: UNITED STATES

[Read more](#)



**Tractor Supply scales
growth with Oracle
Exadata**

Oracle Exadata Database Machine
Oracle Real Application Clusters
(RAC)

INDUSTRY: RETAIL
LOCATION: UNITED STATES

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Note: We have numerous business win stories on oracle.com/customers and in customer success decks on Sales Accelerator

Technical Customer Stories



This blog post was authored by Kelley Rappo, principal product marketing director at OCI and Rameen Ahmadi, cloud engineer at OCI. The authors want to thank Almon Wei, CTO, and Albert Zhihuan Li, VP of Engineering, at Stellar Cyber for their contributions.

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SailGP processes 240K data points per second on OCI

SAIL GP

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[Waafi Bank launches their digital-only operations on OCI](#)

[BIAS Corporation: migration of a global customer to Oracle Cloud](#)

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Links for more information



Oracle Security

- External: <https://www.oracle.com/security/>
- Blogs: <https://blogs.oracle.com/cloudsecurity>
- LinkedIn: <https://www.linkedin.com/showcase/oracle-security>
- Internal: [EMEA Database Security and Protection page](#)

OCI Security

- External: <https://www.oracle.com/security/cloud-security/>

Database Security

- External: <https://www.oracle.com/security/database-security/>
- Internal: [Database Security Product Management page](#)
- Internal videos (now hosted in Oradocs):
[https://oradocs.oracle.com/documents/folder/F07D326BCA43657119C00393DE07E8DB93C024E9EBFB/ DBSec Videos and PPT](https://oradocs.oracle.com/documents/folder/F07D326BCA43657119C00393DE07E8DB93C024E9EBFB/)

Identity and Access Management

- External: <https://www.oracle.com/security/identity-management/>
- Internal: [Oracle Identity and Access Management MySites](#)