



Cloud at Customer Academy 3.0

Exadata Cloud - Backup & Restore

Marcel Lamarca

Licenses and Systems

Alexandre Fagundes

OCI Databases & App's DBA

LAD Partner Enablement Knowledge Team

July, 2023



Nossos Valores

Integridade

Compliance

Trabalho em
Equipe

Satisfação do
Cliente

Qualidade

Ética

Inovação

Respeito
Mútuo

Justiça

Comunicação

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

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

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



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



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



Father, husband, Cooker and son!

Graduated in Business Administration (FMU-SP)

Oracle DBA

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

Oracle Cloud Specialist (OCS)

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

Oracle Certified Professional (OCP)

10g, 11g and 12c.

Oracle Certified Specialist (OCE)

Grid/RAC Database Administrator 11g



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



Father, Son, Husband, Cloud Architect

Bachelor of Information Systems

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

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

Oracle E-Business Suite & Database Consultancy Services
since 2002



Scan here to download
This presentation!



Agenda

ExaC@C Storage Backup Options

OCI Automatic Backups

ExaC@C Backup and Restore Tools

Oracle RAC and Security Backups

ExaC@C Backup Networks

Demo – Enabling Blocking Change Tracking

Demo – Restore Database from OCI Console

Demo – Backup ExaCC via dbaascli

Exadata Academy 3.0 | Register Now



Oracle Exadata Cloud at Customer Academy

Visando capacitar nossos parceiros em OCI Services, criamos a Academia Oracle Exadata Cloud at Customer ou Academia Oracle ExaC@C.

A academia contará com **10 sessões de treinamentos**, a partir de **10 de julho**, que permitirá aos participantes conhecer os principais recursos e funcionalidades do Oracle ExaC@C. Também será uma excelente oportunidade para você esclarecer todas as suas dúvidas para obter a sua certificação!

Participe conosco dessa academia e descubra por que o Oracle ExaC@C é a maneira mais simples de migrar as cargas de trabalho críticas do Oracle Database de uma organização para a nuvem.

Confira a agenda a seguir e inscreva-se. Contamos com a sua participação!

Agenda

Troubleshooting tools – Demo Session

21 de agosto

10h às 11h30h (horário de Brasília)

[Inscreve-se](#)

Monitoring – Demo Session

28 de agosto

10h às 11h (horário de Brasília)

[Inscreve-se](#)

Smart Scan, HCC compression & In-Memory – Demo Session

11 de setembro

10h às 12h (horário de Brasília)

[Inscreve-se](#)

A&Q for Certification

18 de setembro

10h às 12h (horário de Brasília)

[Inscreve-se](#)

New Features - Demo Session

25 de setembro

10h às 12h (horário de Brasília)

[Inscreve-se](#)

PCA - Private Cloud Appliance

17 de julho

10h às 12h (horário de Brasília)

[Inscreve-se](#)

Patching – Demo Session

24 de julho

10h às 12h (horário de Brasília)

[Inscreve-se](#)

Backup & Restore – Demo Session

31 de julho

10h às 11h30h (horário de Brasília)

[Inscreve-se](#)

[Click Here](#)



Why Backup and protect my data?



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

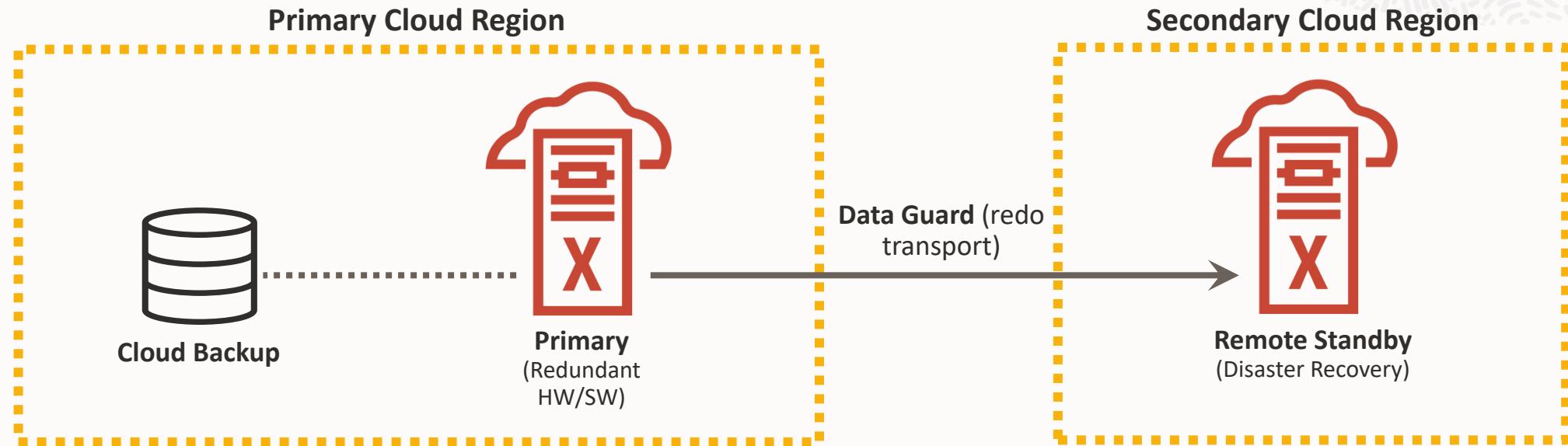
- Consistently apply backup policies across an organization
- Understand backup health and recoverability
- Plan for database backup space utilization

Exadata C@C MAA Overview



Oracle Maximum Availability Architecture (MAA)

High-Availability Blueprint in the Cloud



Key Cloud MAA Technologies

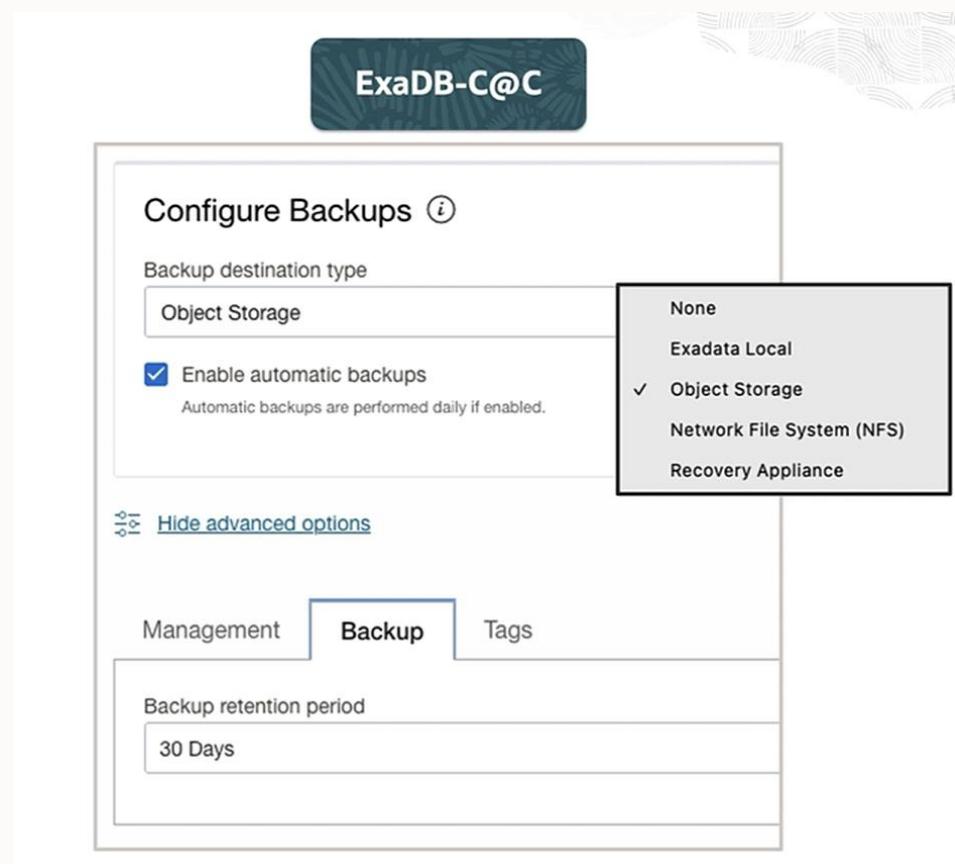


Exadata C@C Backup Destinations



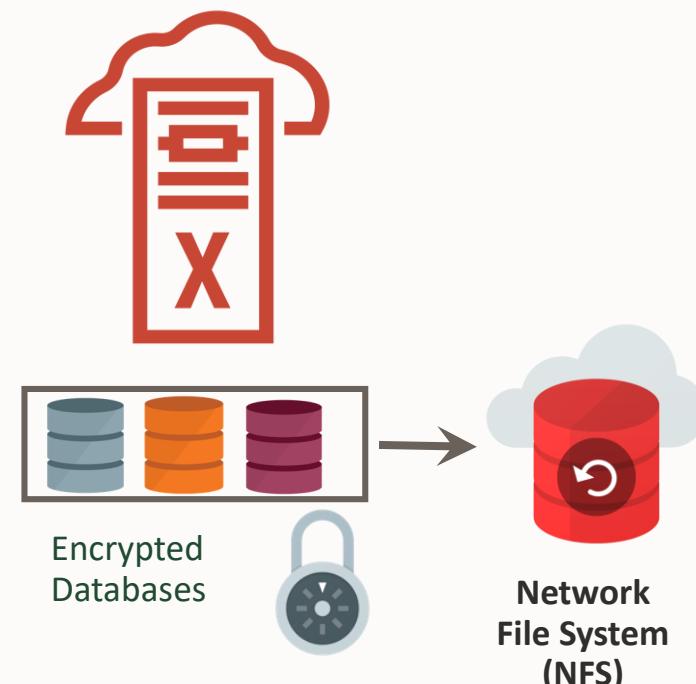
Exadata C@C Database backup available destinations

Chose the best backup destination for your databases



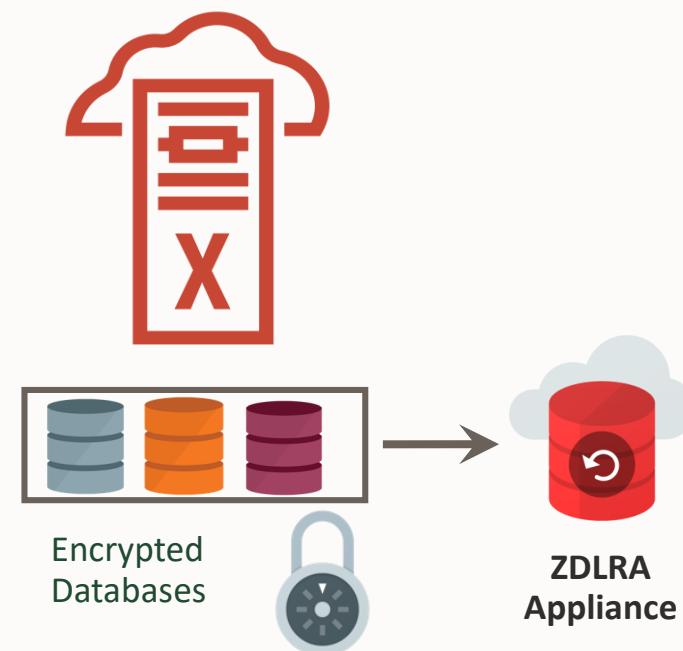
- Zero Data Loss Recovery Appliance (ZDLRA)
- NFS Storage
- Exadata Local Storage
- Object Storage
- None

Prerequisites for Backup Exadata Cloud at Customer : NFS



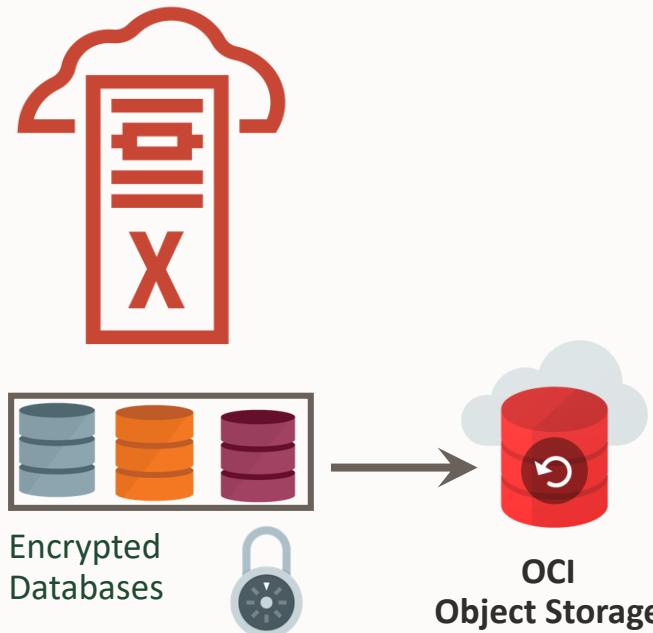
- You must mount the NFS server location to a local mount point directory on each node in the **VM Cluster**
- The local Directory path and the NFS Server location must each be the same across all the **VM Cluster** nodes
- You must ensure that the NFS mount is maintained continuously on all the **VM cluster Nodes**.
- The NFS-Mounted file system must be readable and writable by the **Oracle Operation System** user on all the **VM Cluster Nodes**

Prerequisites for Backup Exadata Cloud at Customer : ZDLRA



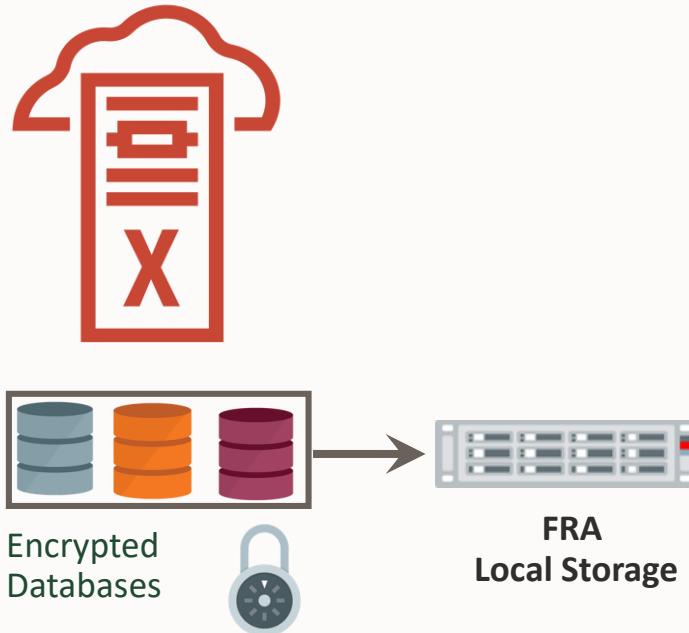
- The appliance must be configured with a virtual private catalog (VPC) user with is used for taking backups.
- The appliance must be configured with the unique database name of the database being backed up, and a mapping to the VPC user.
- The appliance must be accessible from the Cloud@Customer system using the Oracle Net Services connection string with is provided by the Zero Data Loss Recovery Appliance

Prerequisites for Backup Exadata Cloud at Customer : Object Storage



- You must be granted security access in the ***AIM Policy***
- Must have connectivity for the Exadata Cloud to the ***Object Storage Service***
- Oracle recommends using a ***Service Gateway*** with The VCN to enable this Access

Prerequisites for Backup Exadata Cloud at Customer : Local Storage



- You can configure your database to store Rman backups on database FRA area ASM (+RECO Disk Group)
- All Exadata Cloud at Customers uses ASM Triple mirror redundancy policy
- If you chose local backup destinations, you must disable automatic backups on OCI console
- You must use ***dbaascli*** tool to configure manual backups on local storage

OCI Database Automatic backups



Automatic Database backup Using the OCI Console



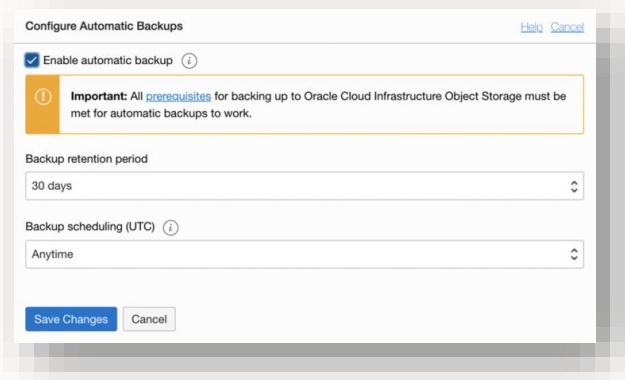
- Enable Automatic Incremental backups
- View the list of managed backups for a database
- Create full backups on demand is not allowed on Exadata @Customer
- Backup data is always automatically encrypted using Transparent Data Encryption
- Do not delete any necessary encryption keys from the wallet or vault because this causes database and backup protected by the key to become unavailable

The screenshot shows the 'Configure Automatic Backups' dialog box. It includes:

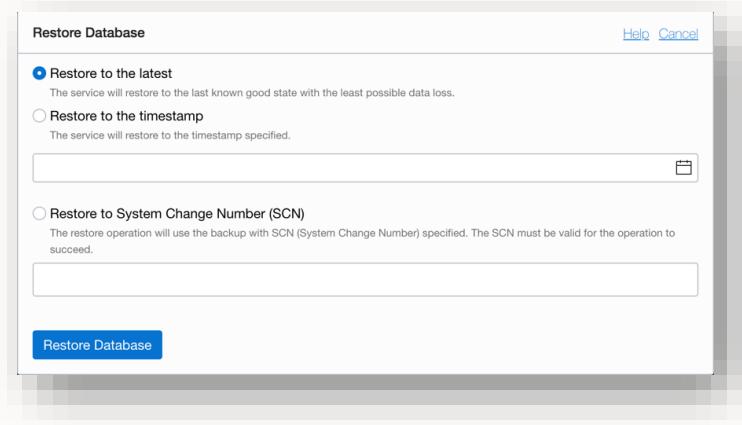
- A checked checkbox for 'Enable automatic backup'.
- A yellow warning box stating: 'Important: All [prerequisites](#) for backing up to Oracle Cloud Infrastructure Object Storage must be met for automatic backups to work.'
- A dropdown for 'Backup retention period' set to '30 days'.
- A dropdown for 'Backup scheduling (UTC)' set to 'Anytime'.
- Buttons for 'Save Changes' and 'Cancel' at the bottom.

Automatic Backups for Exadata Database Service Characteristics

- Database Backup occur daily
- Archived redo log files are backed up every 30 minutes for ExaDB-C@C
- There is a 7-day backup cycle:
 - With one full backup
 - And daily incremental backups
- The default retention period is :
 - 30 days for backups to cloud object storage or NFS
 - 7 days for backup to local Exadata storage
 - Assigned ZDLRA Backup Policy will determine the retention period
- For database deployments with Oracle Data Guard, automatic backups are always executed on the original primary site



Restoring Database from OCI Automatic Backup



- You can recover your database up to 3 options
 - Lasted point of fail or database unavailability
 - To a specific timestamp
 - Up to a specific System Change Number (SCN)

Cloud Backup and Restore Tools



Exadata Cloud Compute Node Backup and Restore Operations MOS Note: [2809393.1](#)

SOLUTION

This note describes:

- i. How a customer can request a restore from an Oracle Cloud Managed Backup
- ii. How to perform a customer managed virtual machine backup

Oracle Cloud managed virtual machine backups

Every Exadata virtual machine is backed up automatically and stored in the Exadata infrastructure if space exists.

The Oracle Cloud Operations team monitors and manages these backups. These backups can be used to resurrect a virtual machine that may have been completely damaged to the extent that it may not boot.

Oracle Cloud managed virtual machine backups frequency and retention:

1. The backup runs once a week
2. One backup copy is retained.

Oracle cloud operations, via SR, can help with any post actions to restore availability of the entire RAC cluster with Control Plane.

Customer managed virtual machine backups

A backup can be performed from inside the virtual machine, which can then be used to restore one or more files of the virtual machine.

Oracle recommends a backup before and after virtual machine software, or hardware maintenance, or any frequency to preserve critical configuration or application data. For example, a backup should be made before and after the following procedures:

- Application of operating system patches
- Application of Oracle patches
- Reconfiguration of operating parameters
- Installation or reconfiguration of non-Oracle software
- Periodically to protect from complete loss of critical application or configuration files

Don't Forget to Backup your OCR Register and Voting Files

Database / Oracle / Oracle Database / Release 19

Clusterware Administration and Deployment Guide



6 Managing Oracle Cluster Registry and Voting Files

Oracle Clusterware includes two important components that manage configuration and node membership: Oracle Cluster Registry (OCR), which also includes the local component Oracle Local Registry (OLR), and voting files.

- OCR stores Oracle Clusterware and Oracle RAC database configuration information
- OLR resides on every node in the cluster and manages Oracle Clusterware configuration information for each particular node
- Voting files store information about node membership. Each voting file must be accessible by all nodes in the cluster for nodes to be members of the cluster

Notes:



6 Managing Oracle Cluster Registry and Voting Files

Managing Oracle Cluster Registry and Oracle Local Registry

Managing Voting Files



OCI ZDL Autonomous Recovery Services



Zero Data Loss as a Service on OCI



A screenshot of a web page titled "Maximum Availability Architecture". The main heading on the page is "Maximum Availability Architecture". In the top right corner of the page, there is a "Follow:" button with a social media icon and a "SCAN ME" QR code.

Backup & Recovery

Introducing the Oracle Database Zero Data Loss Autonomous Recovery Service

October 17, 2022 | 5 minute read



Kelly Smith

Senior Principal Product Manager

[Click Here](#)



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

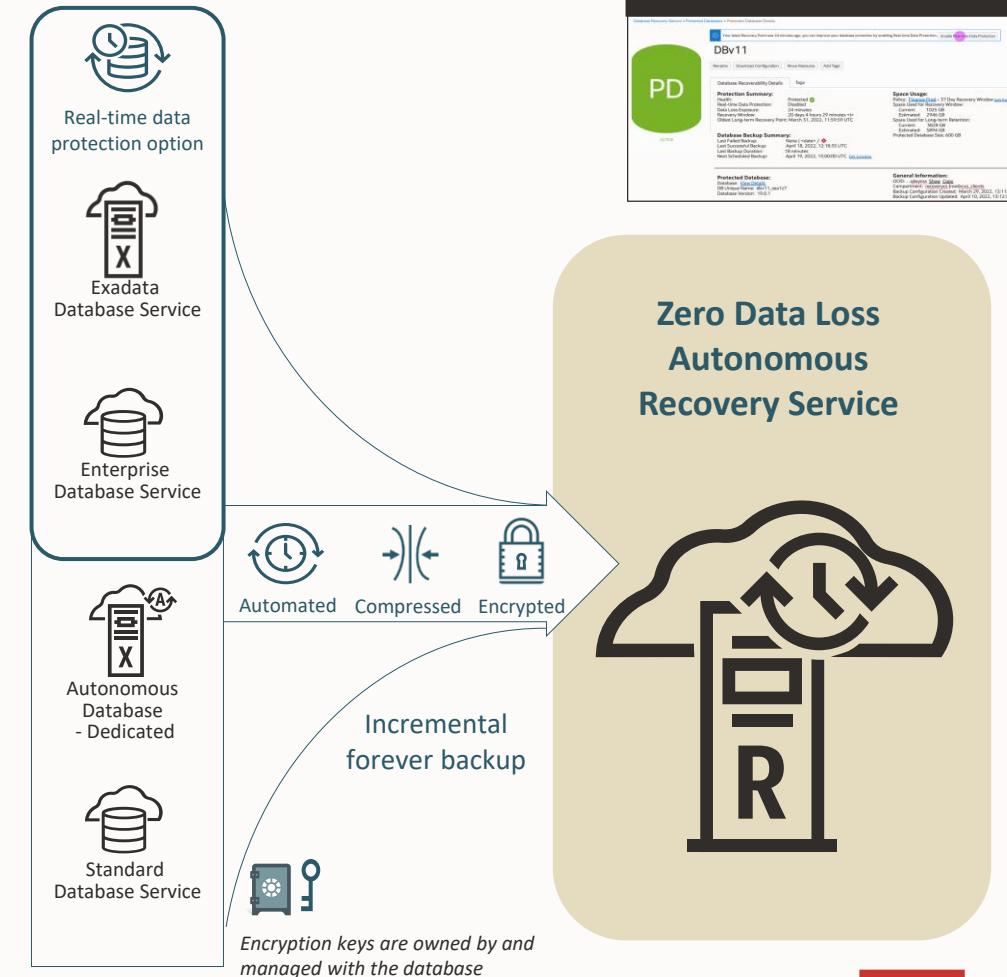
Operational efficiency

- 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

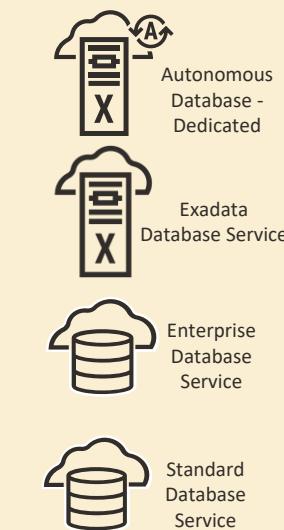


Recovery Service eliminates weekly full backups

Incremental-forever backups reduce backup overhead on production database services



Time
Machine

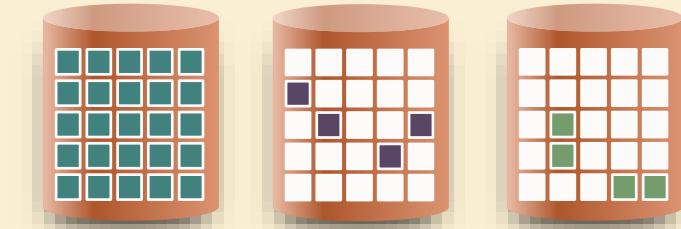


01001010110
10010101101
01001010110
01001010010
10010101100



Incremental forever backups
of protected databases

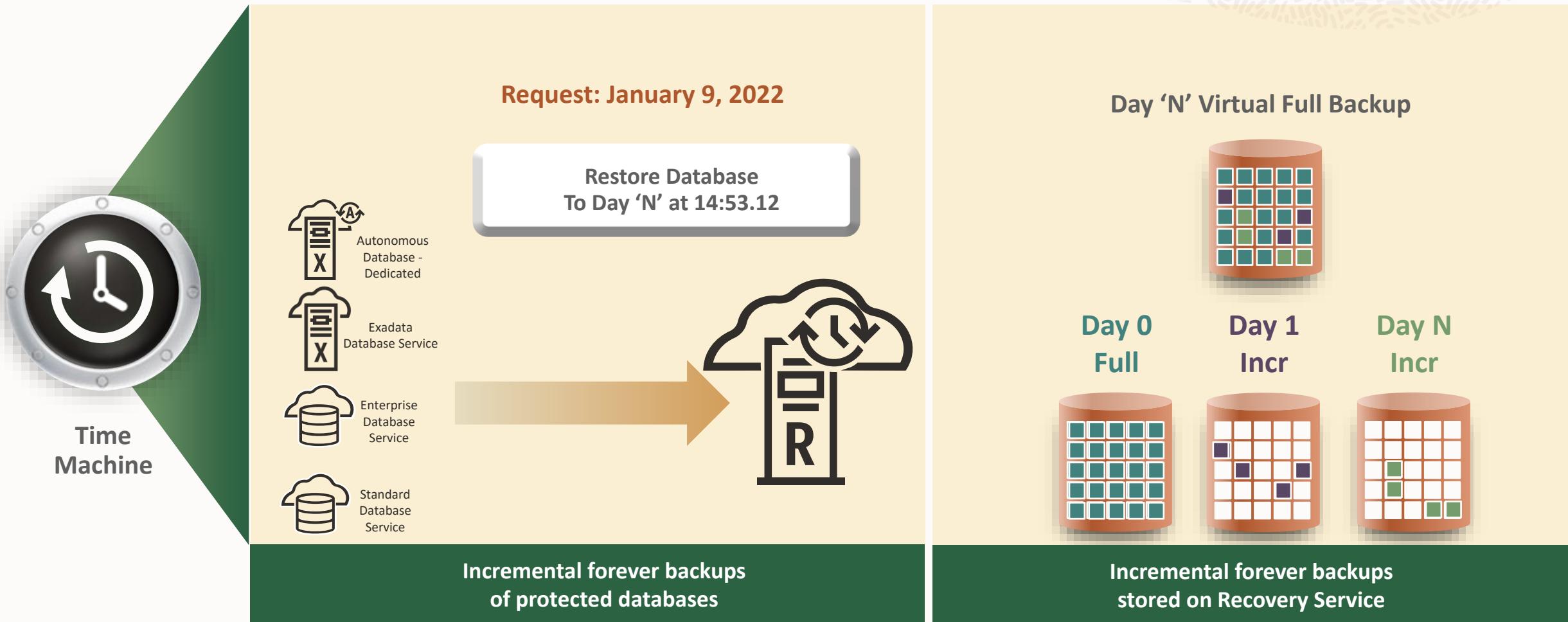
Day 0
Full
Day 1
Incr
Day N
Incr



Incremental forever backups
stored on Recovery Service

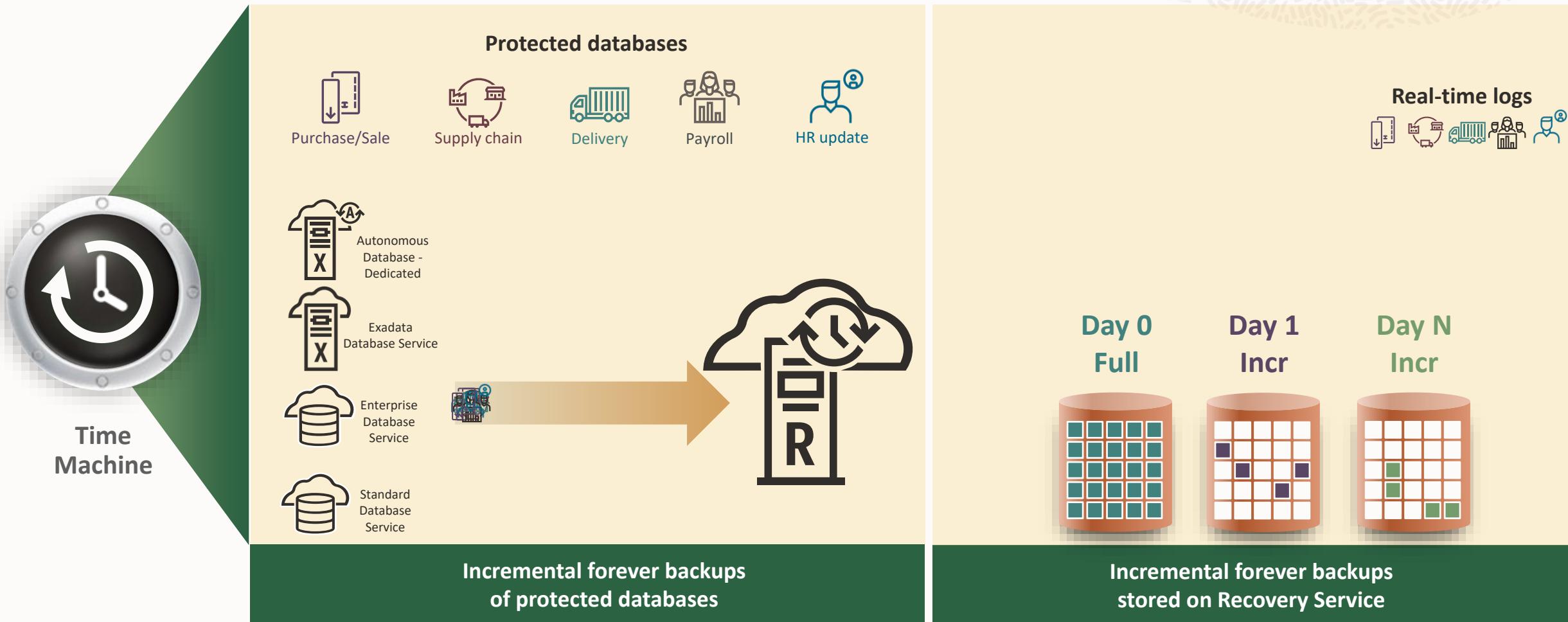
Recovery Service simplifies database restores

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 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

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 managing protected databases. At the top, there's a navigation bar with the Oracle Cloud logo, 'Cloud Classic', a search bar, and a dropdown for 'US East (Ashburn)'. Below the navigation is a breadcrumb trail: 'Database Backups > Protected Databases > Protected database details'. The main content area has a large green circular icon containing the letters 'PD' and the word 'ACTIVE' below it. To the right of this icon, the word 'FINANCE' is displayed. The page is divided into several sections: 'Protected database information' (which is currently selected), 'Tags', 'Protection summary' (showing Health: Protected, Real-time data protection: Disabled, Data loss exposure: 0 seconds, Protection policy: Bronze 14-day recovery window, Current recovery window: 14 d 11 h 45 m), 'Space usage' (Space used for recovery window: Current: 16,231.27 GB, Projected for policy: 16,216.83 GB, Protected database size: 5,790.931 GB), 'Database backup summary' (Last failed backup: —, Last completed backup: Mon, Oct 10, 2022, 02:56:02 UTC, Last backup duration: 4 m 53 s), 'Protected database' (Database details: FINANCE, OCID: ...4w7dxa, Show, Copy), and 'General information' (OCID: ...4w7dxa, Show, Copy). A small blue square icon with a white question mark is located in the bottom right corner of the main content area.

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. The top navigation bar includes the Oracle Cloud logo, Cloud Classic, a search bar, and account information for US East (Ashburn). The left sidebar has a 'Monitoring' section with links for Service Metrics (selected), Metrics Explorer, Alarm Status, Alarm Definitions, and Health Checks. The main area is titled 'Service Metrics' and displays two line charts. The first chart, 'Space used for recovery window', shows usage in GB over time (Sep 18 to Oct 09) with a red line peaking around 15GB. The second chart, 'Protected Database Size', shows size in GB over the same period with a red line fluctuating between 4,000 and 6,000 GB. Both charts have dropdowns for 'Interval' (1 day), 'Statistic' (Max), and 'Metric namespace' (oci_recovery_service). A 'Dimensions' link is also present. The bottom of the page includes terms like 'Terms of Use and Privacy' and copyright information.

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

The screenshot shows the Oracle Cloud Create Alarm interface. The top navigation bar is identical to the Metrics Explorer screenshot. The left sidebar has a 'Monitoring' section with links for Service Metrics, Metrics Explorer, Alarm Status, Alarm Definitions (selected), and Health Checks. The main area is titled 'Create Alarm' and has two main sections: 'Define alarm' and 'Metric description'. In 'Define alarm', fields include 'Alarm name' (Production Data Loss Exposure Alarm), 'Alarm severity' (Critical), and 'Alarm body' (optional notification content). In 'Metric description', fields include 'Compartment' (ZDLRA), 'Metric namespace' (oci_recovery_service), 'Resource group' (None), 'Metric name' (DataLossExposure), 'Interval' (1h), and 'Statistic' (Mean). A 'Tags (optional)' section is also present.

Exadata Cloud backup and restore tools





SCAN ME

Rman Database Backup and Recover 19c User's Guide

Database / Oracle / Oracle Database / Release 19

Backup and Recovery User's Guide



Expand



Title and Copyright Information



Preface



Changes in This Release for Backup and Recovery User's Guide

Changes in Oracle Database Release 19c

Changes in Oracle Database Release 18c, Version 18.1



Part I Overview of Backup and Recovery



Part II Starting and Configuring RMAN and Flashback Database



Part III Backing Up and Archiving Data



Part IV Managing RMAN Backups



Part V Diagnosing and Responding to Failures



Part VI Tuning and Troubleshooting



Part VII Transferring Data with RMAN



Part VIII Performing User-Managed

Changes in This Release for Backup and Recovery User's Guide

This preface contains:

- [Changes in Oracle Database Release 19c](#)
- [Changes in Oracle Database Release 18c, Version 18.1](#)

Changes in Oracle Database Release 19c

The following are changes in the *Oracle Database Backup and Recovery User's Guide* for Oracle Database Release 19c.

- Recovery catalog support for PDBs

You can connect to a recovery catalog when the target database is a pluggable database (PDB).

See "[Connecting as Target to a PDB](#)".

- Automatic deletion of flashback logs

Flashback logs that are beyond the retention period are automatically deleted. Automatically deleting flashback logs simplifies the management of the fast recovery area and improves the performance of flashback database.



Changes in This Release for Backup and Recovery User's Guide

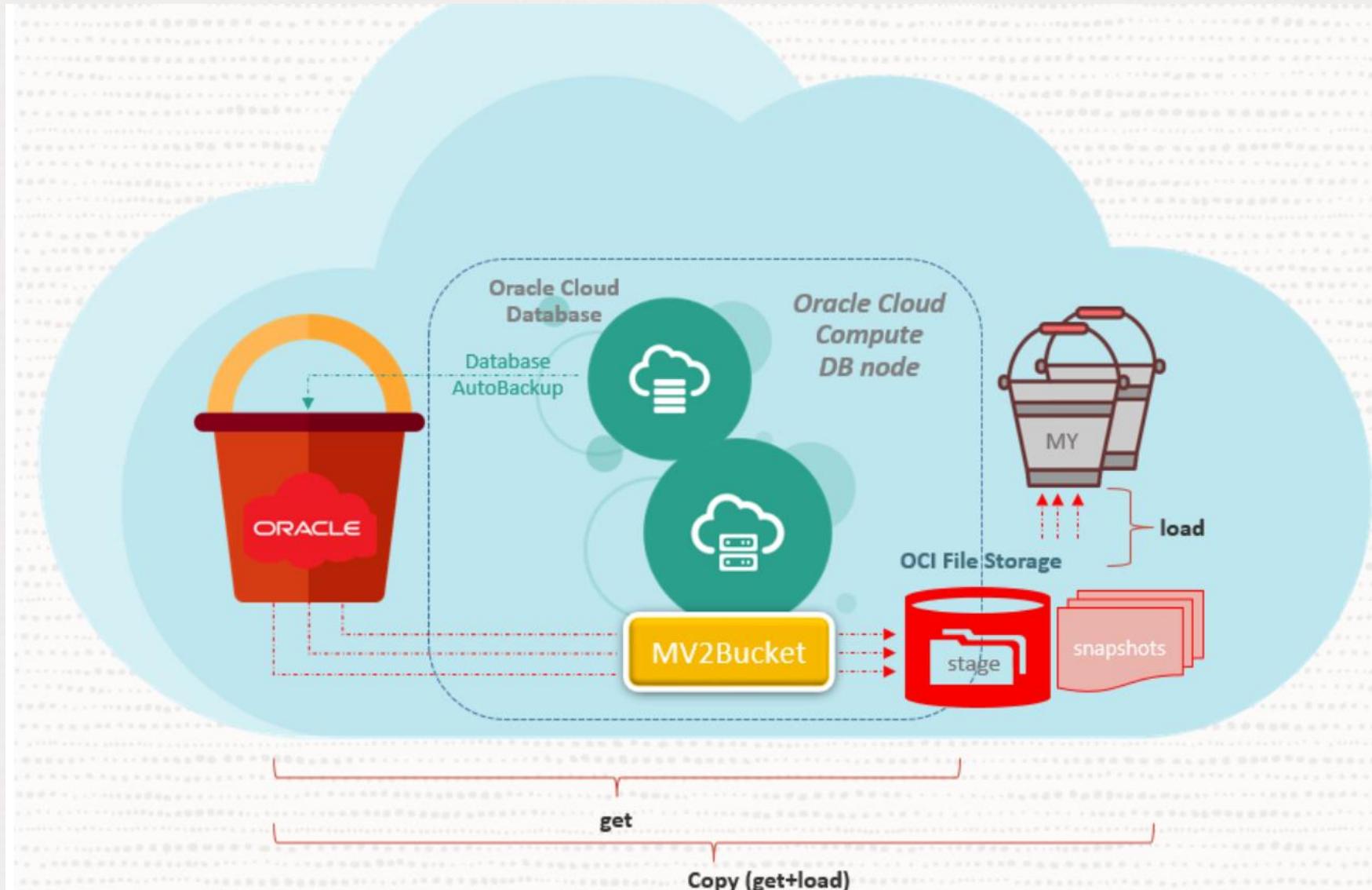
Changes in Oracle Database Release 19c

Changes in Oracle Database Release 18c, Version 18.1



[Click Here](#)

(OCI) mv2bucket - Oracle Managed Bucket Content Manager MOS Note: [2723911.1](#)



Exadata Cloud Services: User Configured Backups



RMAN

RMAN backup via dbaascli and bkup_api

	SCHEDULING	<ul style="list-style-type: none">No Control Plane (Cloud Console) backup schedulingScheduled by cron job, runs from first nodeAutomatic archivelog backup every 30 minutesAbility to change default backup time and LO backup day
	DESTINATION	<ul style="list-style-type: none">Customer-created bucket (fully controlled by the customer, including replication)No support for archive storage
	REPLICAS	<ul style="list-style-type: none">Option to set up cross-region backup replication
	CREDENTIALS	<ul style="list-style-type: none">Customer responsible for password rotation
	WALLET	<ul style="list-style-type: none">TDE wallet backed up, but not its password or the autologin wallet
	RESTORE	<ul style="list-style-type: none">Restore CDB and PDB capabilitiesNo duplicate on the same host via bkup_api
	FAILOVER	<ul style="list-style-type: none">Backup initiated on a specific node.Failure of the node will fail the current backup api call.
	STANDBY	<ul style="list-style-type: none">No backup for standby database but can be configured to backup once role is primary
	CHARGING	<ul style="list-style-type: none">For object storage space and number of requests (not for the backup module)



Dbaascli Creating initial configuration file



```
[root@exacc06- [REDACTED] ~]# dbaascli database backup --configure --dbName Demo19c --configFile /root/demo19c.cfg
DBAAS CLI version 23.1.2.0.0
Executing command database backup --configure --dbName Demo19c --configFile /root/demo19c.cfg
[root@exacc06- [REDACTED] ~]# dbaascli database backup --getConfig --dbName Demo19c --configFile demo19c.cfg
DBAAS CLI version 23.1.2.0.0
Executing command database backup --getConfig --dbName Demo19c --configFile demo19c.cfg
Session log: /var/opt/oracle/log/Demo19c/database/backup/dbaastools_2023-07-29_07-38-59-PM_112477.log
DBaaS Backup API V1.5 @2023 Multi-Oracle home
-> Action : get_config
-> logfile: /var/opt/oracle/log/Demo19c/bkup_api_log/bkup_api_3f37b009_20230729193902.659225.log
File /root/demo19c.cfg created
dbaascli execution completed
-----
dbaascli execution completed
```



SCAN ME

Dbaascli most used Database Backup commands

```
# dbaascli database backup --dbname      --list  [--backupType <value>]
                                         --start [--level0]  [--level1]
                                         [--archival --tag <value>]
                                         [--archivelog]
                                         --delete --backupTag <value>
                                         --status --uuid <value>
                                         --getBackupReport
                                         [--tag <value>]
                                         [--latest]
                                         --showHistory
                                         --configure
                                         --validate [--untilTime <value>]
                                         --getConfig [--configFile <value>]
```

[Click Here](#)



Dbaascli most used pdb backup commands



```
# dbaascli pdb backup --pdbName <value> --dbname <value> --start  
                           [--level1]  
                           [--archival --tag <value>]  
                           --delete --backupTag <value>  
                           --status --uuid <value>  
                           --getBackupReport  
                           --list [--json <value>]
```

[Click Here](#)





SCAN ME

Dbaascli most used Databases recovery commands

```
# dbaascli database recover --dbname <value> --start [--untilTime <value>]  
[--untilSCN <value>]  
[--latest]  
[--tag <value>]  
--status --uuid <value>
```

[Click Here](#)



Dbaascli most used Databases recovery commands



```
# dbaascli pdb recover --pdbName <value> --dbname <value> --start [--untilTime <value>]  
[--untilSCN <value>]  
[--latest]  
[--tag <value>]  
--status --uuid <value>
```

[Click Here](#)

Exadata C@C Network





SCAN ME

Exadata Cloud at Customer | VM Cluster Network

Resources

VM Cluster Networks

VM Cluster Networks

Exadata VM Clusters

DB Servers

Autonomous Exadata VM Clusters

Work Requests (3)

Create VM Cluster Network

Display name	State	Created	⋮
[REDACTED]	Allocated	Fri, Aug 12, 2022, 15:42:12 UTC	⋮
[REDACTED]	Allocated	Wed, Mar 16, 2022, 20:37:30 UTC	⋮
[REDACTED]	Requires Validation	Fri, Jan 21, 2022, 14:33:07 UTC	⋮
[REDACTED]	Allocated	Sat, Jun 26, 2021, 00:40:53 UTC	⋮
[REDACTED]	Allocated	Fri, Jun 25, 2021, 20:34:28 UTC	⋮

Displaying 5 VM Cluster Networks < 1 of 1 >

[Click Here](#)



Exadata Cloud at Customer | Backup Network

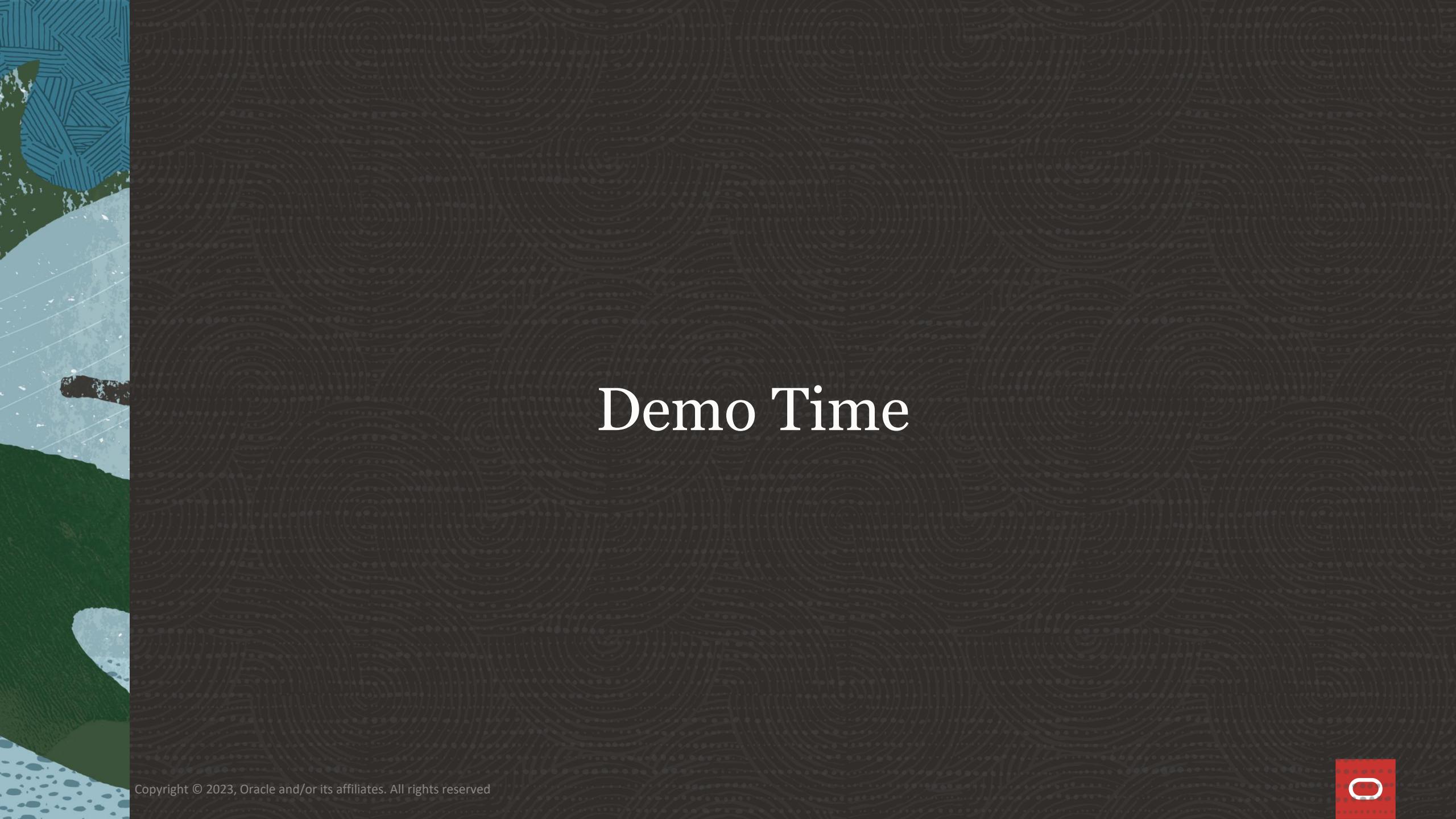
Backup Network

VLAN ID: 16

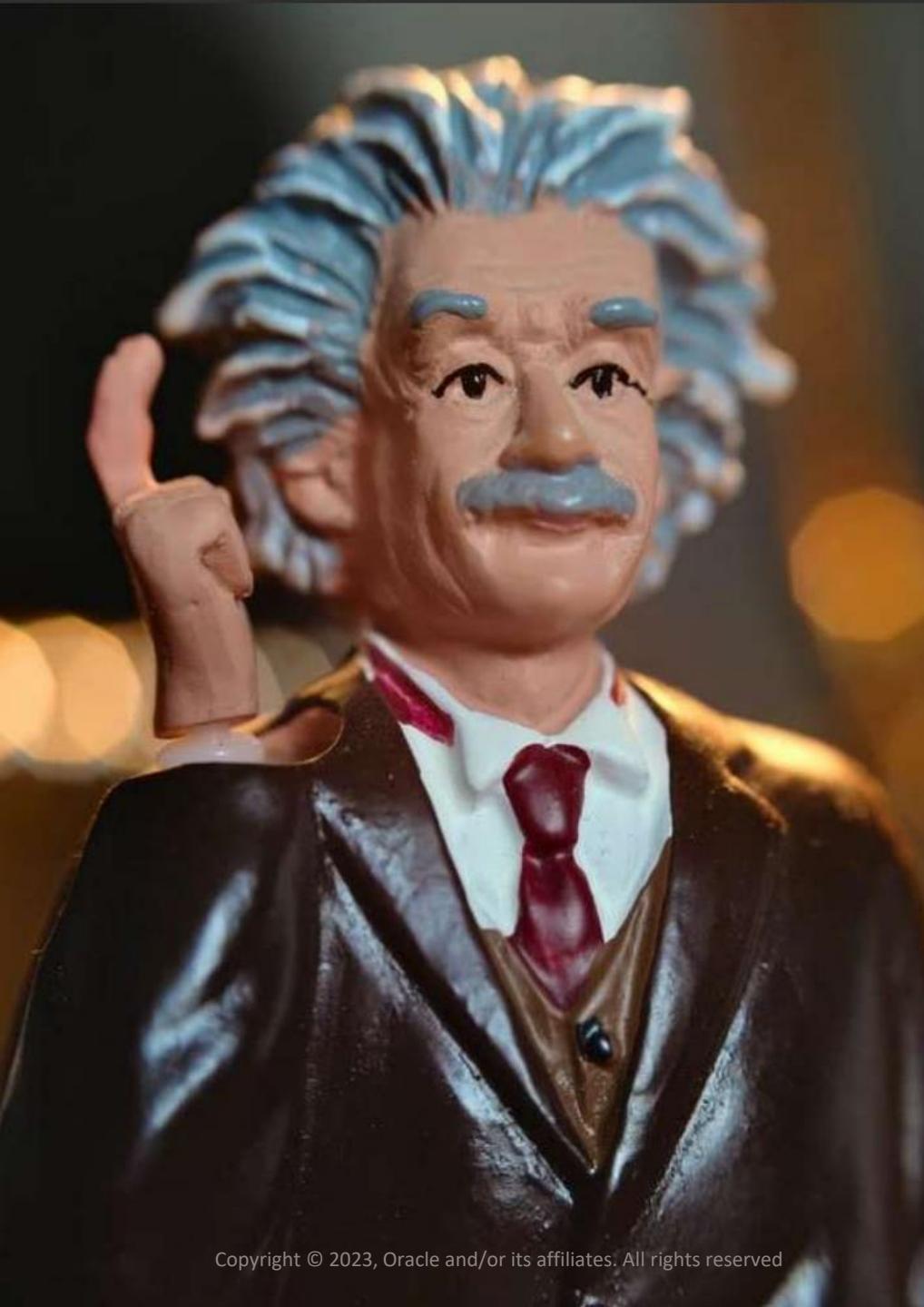
Netmask: 255.255.255.0

Gateway: 10.0.0.1

Database servers	State	Address Type	Hostname	Fully Qualified Domain Name	IP Address	
dbServer-1	Allocated	Backup network interface	exacc6-01-00-11-00-00-00	bkp.br.osc.oracle.com	10.0.0.100	⋮
dbServer-2	Allocated	Backup network interface	exacc6-02-00-11-00-00-00	bkp.br.osc.oracle.com	10.0.0.101	⋮
Showing 2 Items						



Demo Time



Demo 1 – OCI backup provisioning

- Configuring Automatic backup Via OCI Console
- Restore Database Using OCI Console



Demo 2 – Backing up via *dbaascli*

- Backing up Database and PDB's using *dbaascli*
- Backing up *TDE encryption* key using *dbaascli*
- Checking Database and PDB's backup history using *dbaascli*

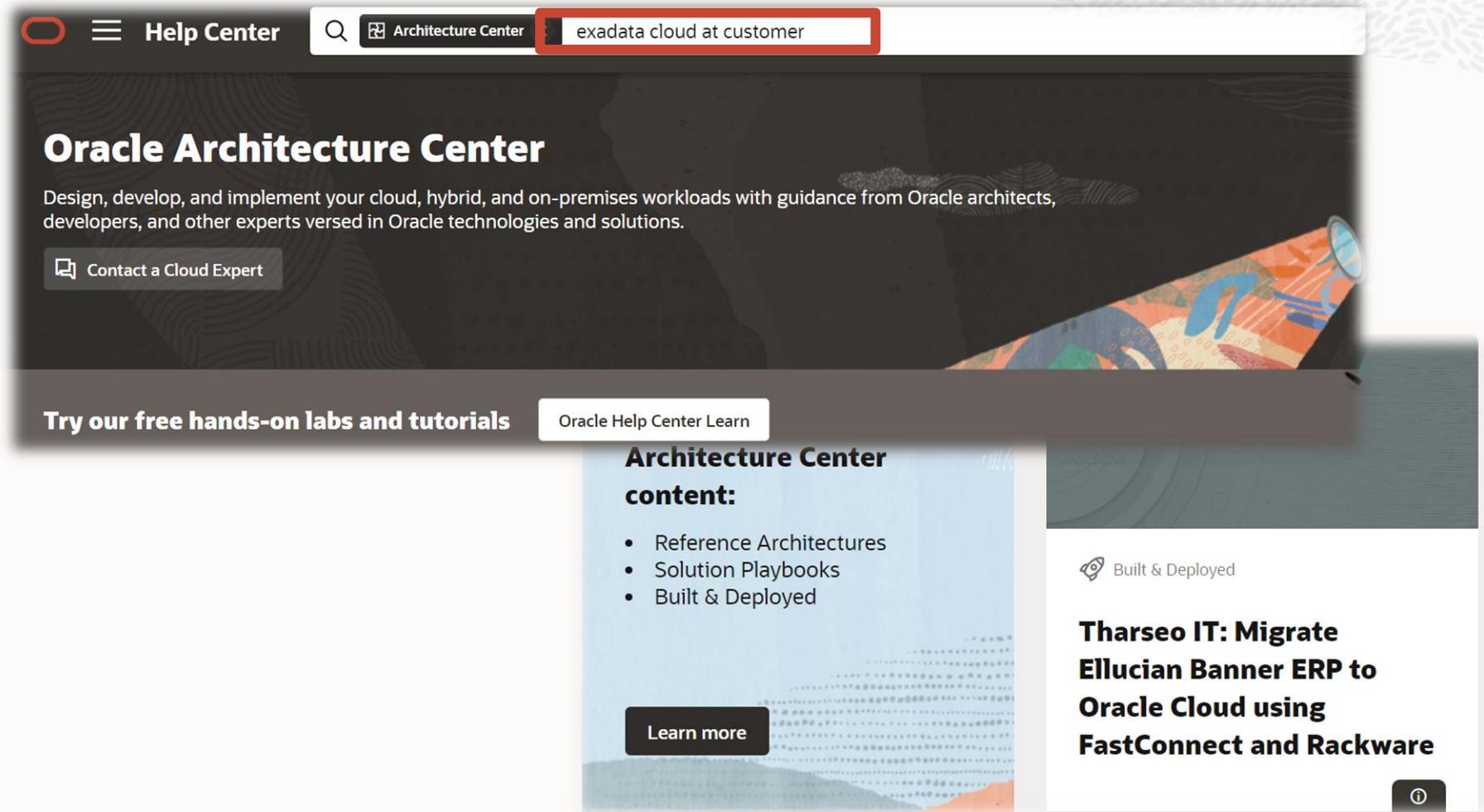
Demo 3 – Tuning Rman Backup

- Enabling Oracle *Rman Block Change Tracking*
- Run *incremental backup level 1*
- Run the same *incremental level 1* again
- Compare both times

Resources



Exadata Cloud Oracle on Architecture Center



The screenshot shows the Oracle Architecture Center homepage with a search bar containing the query "exadata cloud at customer". Below the search bar, there's a large banner for "Oracle Architecture Center" with a subtext: "Design, develop, and implement your cloud, hybrid, and on-premises workloads with guidance from Oracle architects, developers, and other experts versed in Oracle technologies and solutions." A "Contact a Cloud Expert" button is visible. On the left, a callout box says "Try our free hands-on labs and tutorials" and "Oracle Help Center Learn". It lists "Architecture Center content:" which includes "Reference Architectures", "Solution Playbooks", and "Built & Deployed". A "Learn more" button is present. To the right, there are two cards: one for "Tharseo IT: Migrate Ellucian Banner ERP to Oracle Cloud using FastConnect and Rackware" (status: "Built & Deployed") and another for "Deploy a containerized Jenkins CI/CD pipeline by using Terraform on Oracle Cloud Infrastructure" (status: "Automation Available"). Both cards have a "Reference Architecture" link.

[Click here](#)



Exadata Cloud on Oracle Live Labs



SCAN ME

Oracle Autonomous Database Dedicated for Fleet Administrators



As fleet administrator, set up your dedicated ADB platform in the OCI and on Exadata Cloud@Customer.

⌚ 7 hrs

5463 Views

Oracle Exadata Platform Performance Features



Get hands-on with Oracle Exadata, Exadata Database Service on Cloud@Customer, and Exadata Database (...)

⌚ 1 hr, 20 mins

717 Views

Get Started with Oracle Exadata Database Service on Cloud@Customer



Explore getting started with Oracle Exadata Database Service on Cloud@Customer.

⌚ 1 hr

[Click Here](#)

OPN Web Page

Oracle PartnerNetwork (OPN) Members

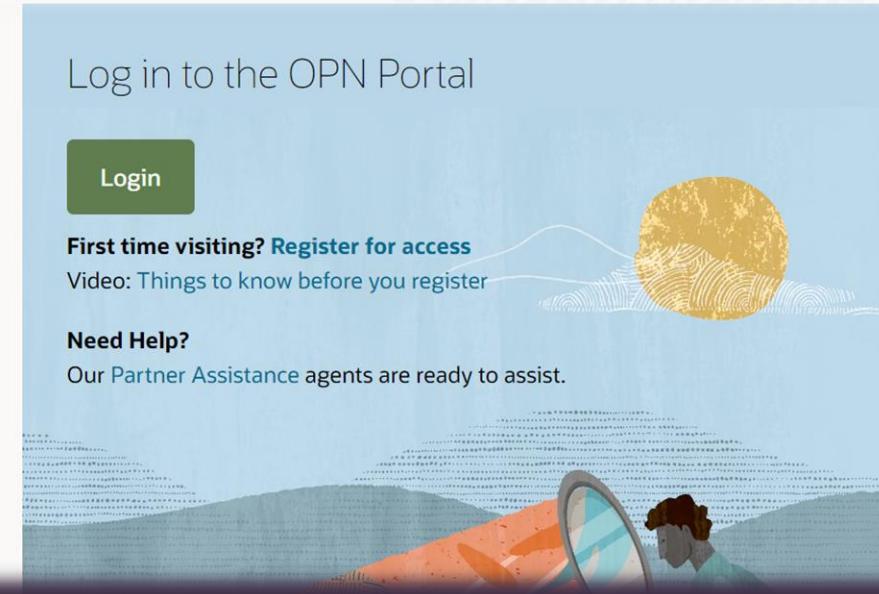
Welcome to the OPN Portal!

Expertise is the cornerstone of OPN - customer success is the reward.

The OPN Portal provides guidance to enable your journey to customer success and make partnering with Oracle as simple as possible.

- **Build Expertise** leveraging skills transfer, environments and technical assistance
- **Go-to-Market** using tools and guidance on how to take your solutions and services to market
- **Stay Connected** with the latest OPN has to offer and ask questions in our Partner Community Forums
- **Manage Your Membership** by monitoring your Expertise achievements, executing agreements, updating your Partner Finder profile, and more

We are stronger together. Log in today and let's get started!



Have you heard?



4 Steps to Marketing Success

Take a quick tour now of the marketing resources available to you from Oracle. This Partner's Guide to Oracle Marketing Resources infographic will help you explore and discover valuable steps to boost your business.

[Get Started](#)

[Click here](#)



Stay Connected with the Latin America Partner Community!

Information, collaboration and training all in a single spot.

The [**LAD Partner Community**](#) is a space dedicated to our partners in Latin America, where you can find information and stay up to date on what OPN has to offer.

In the Community, you will find all the information that we communicate to our ecosystem by email.

- Explore [**Categories**](#): organized by grouping publications on a same topic;
- Access the [**Recent Discussions**](#) tab to check the latest posts published;
- Take part in [**Groups**](#) and interact with Oracle Experts and other partners;
- Recordings.

Important: An Oracle SSO account is required to access the Community and other OPN resources. If you don't have this account yet, access [this link](#) or the QR code below.

Access the Community:



Create your SSO account:





Thank You 😊

Questions / Feedback / Training Suggestions

alexandre.af.fagundes@oracle.com

marcel.lamarca@oracle.com

Ask for help 😊

ORACLE

