ORACLE

Migration to the Oracle Cloud

In 30 Minutes

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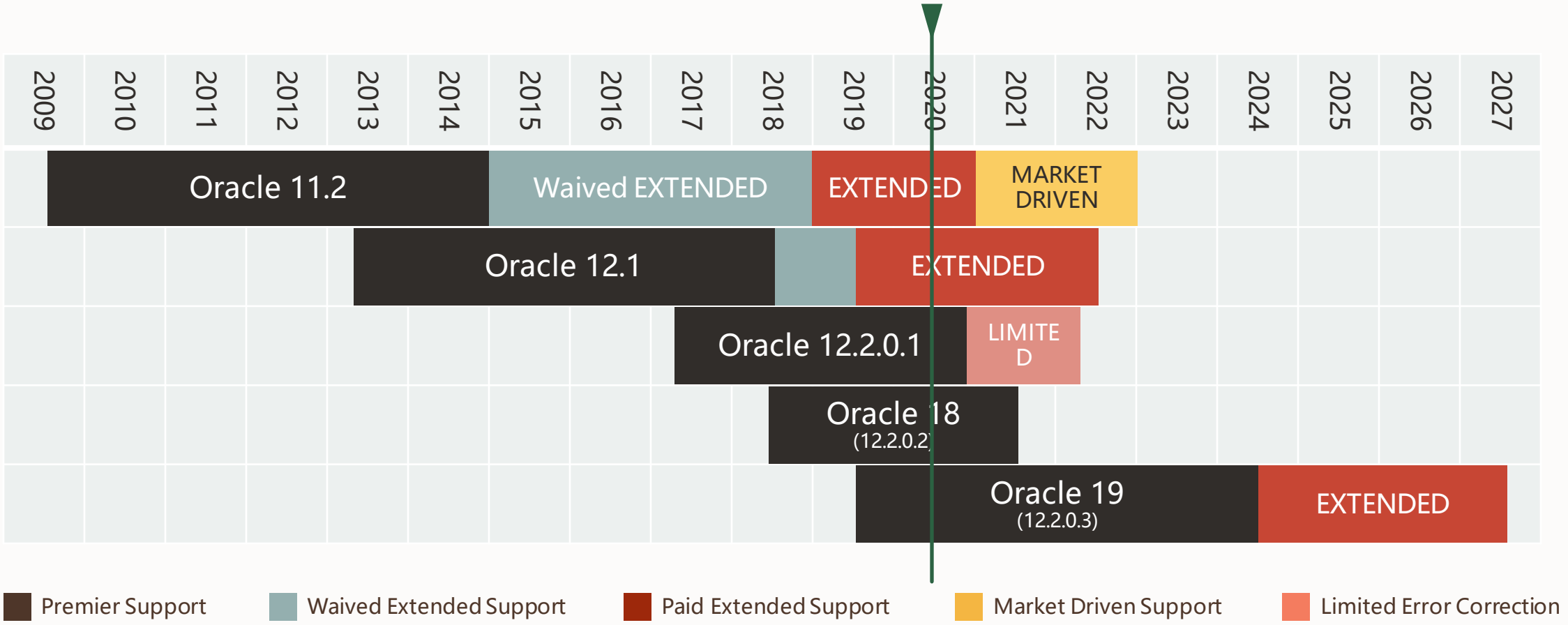
Lifetime Support Policy



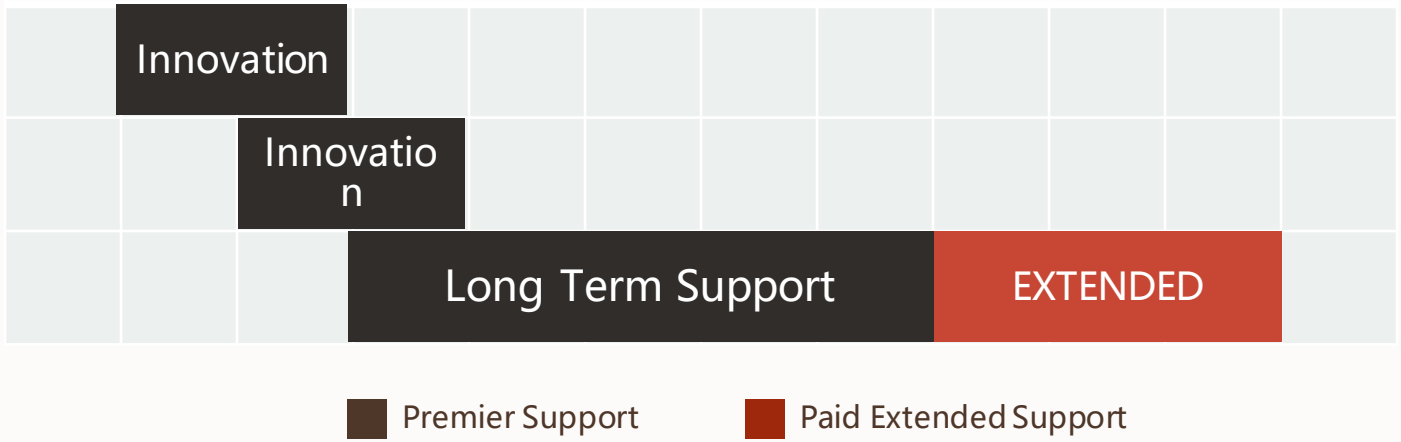
Release Types | Long Term Support vs Innovation Releases

Long Term Support Release

- 5 years of Premier Support followed by 3 years of Extended Support

Innovation Release

- 2 years of Premier Support, but there is no Extended Support



- MOS Note: 742060.1 - Release Schedule of Current Database Releases


Migration to the Oracle Cloud
In 30 minutes …
Bare Metal?
ExaCS?
ExaCC?
ADB?
VM?
?
Photo by Sean Thoman on Unsplash

Cloud Migration Methods | Overview

https://docs.cloud.oracle.com/en-us/iaas/Content/Database/Tasks/migrating.htm

Migration Methods

Many methods exist to migrate Oracle databases to the Oracle Cloud Infrastructure Database service. Which of these methods apply to a given migration scenario depends on several factors, including the version, character set, and platform endian format of the source and target databases.

- Data Pump Full Transportable
- Data Pump Transportable Tablespace
- Remote Cloning a PDB
- Remote Cloning Non-CDB
- RMAN Cross-Platform Transportable PDB
- RMAN Cross-Platform Transportable Tablespace Backup Sets
- RMAN DUPLICATE from an Active Database
- RMAN CONVERT Transportable Tablespace with Data Pump
- SQL Developer and INSERT Statements to Migrate Selected Objects
- SQL Developer and SQL*Loader to Migrate Selected Objects
- Unplugging/Plugging a PDB
- Unplugging/Plugging Non-CDB

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Cloud Migration Methods | www.oracle.com/goto/move

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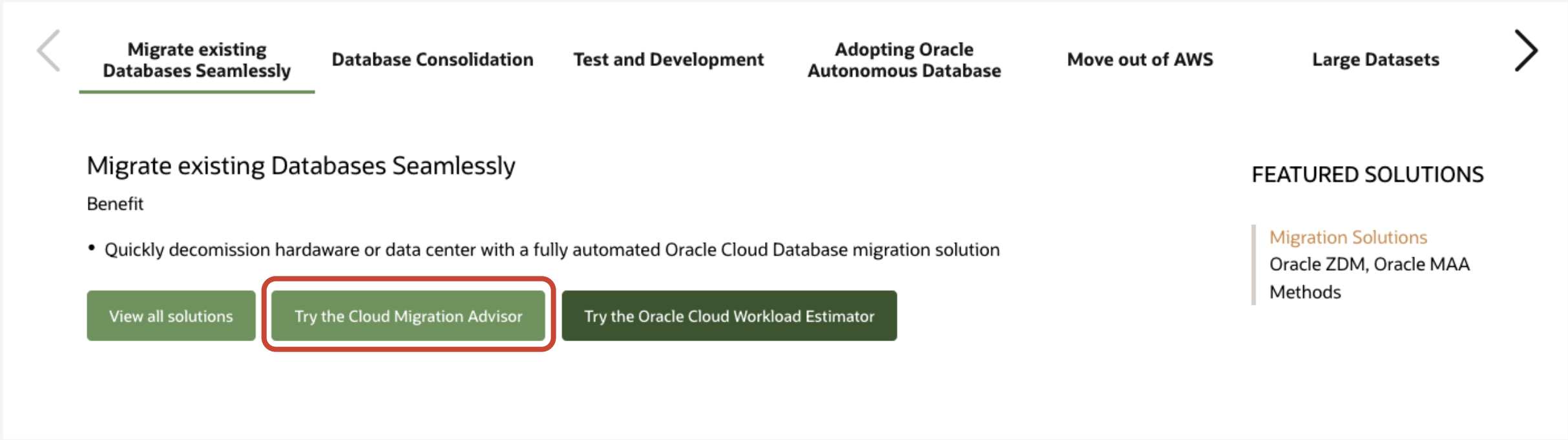
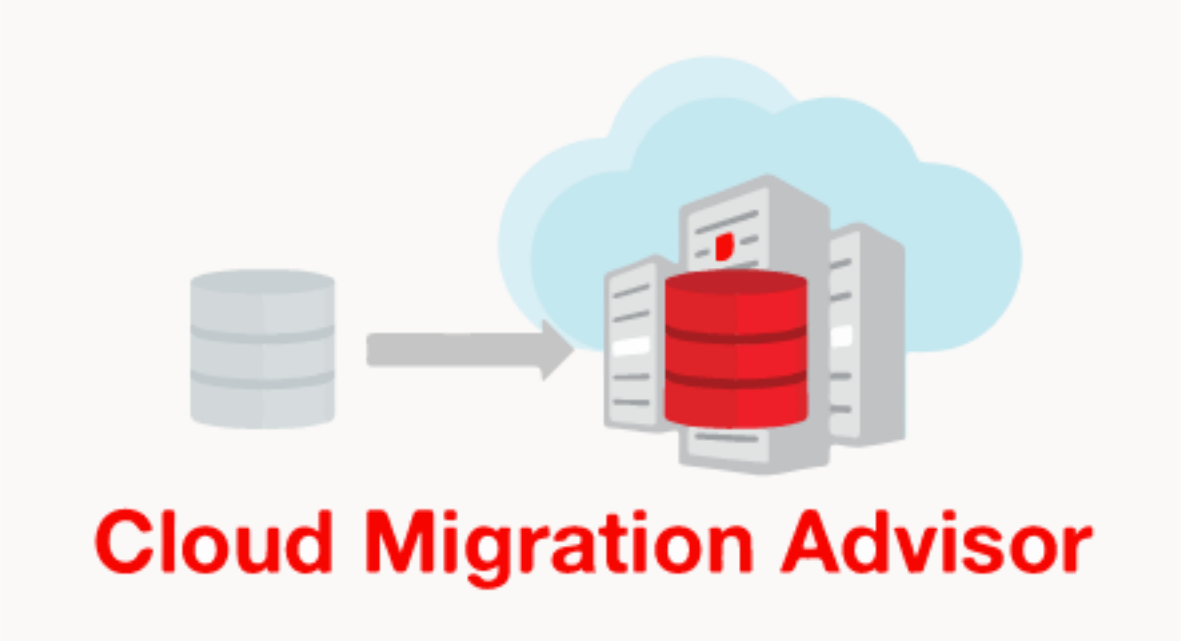
Discover

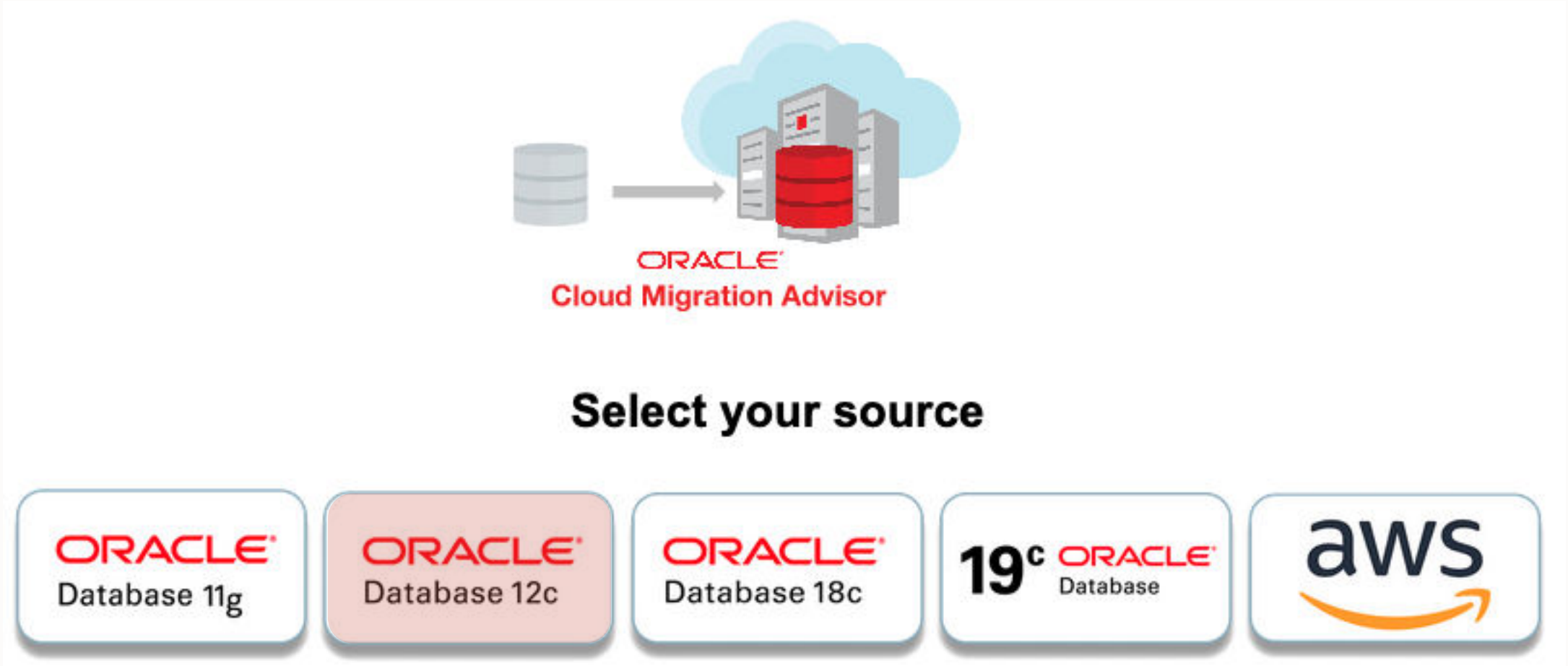
Cloud Migration Use Cases



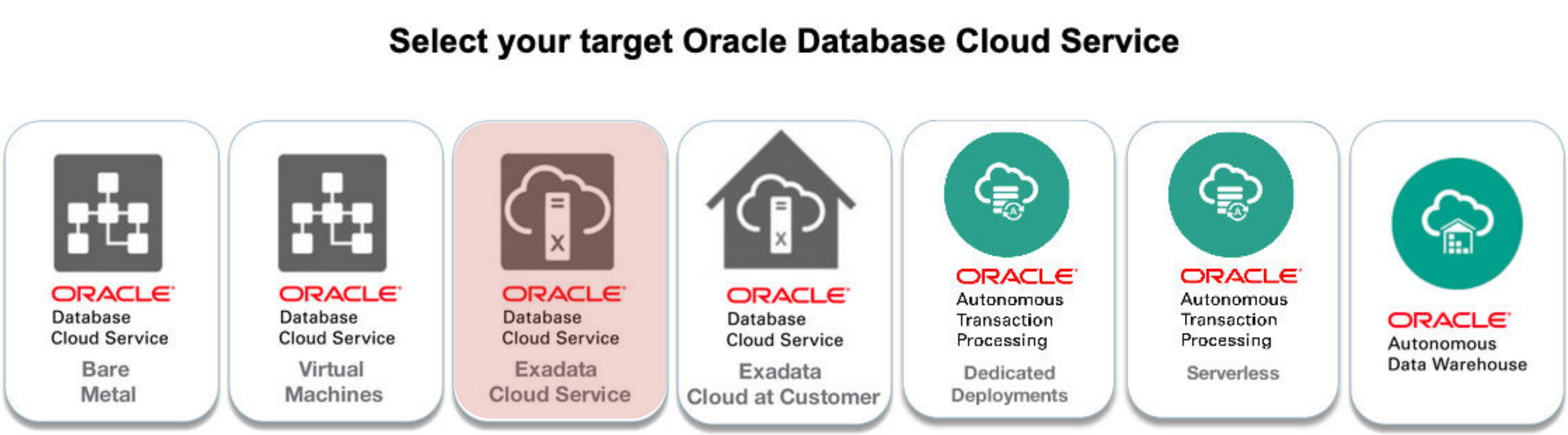
Cloud Migration Methods | www.oracle.com/goto/move



Cloud Migration Methods | www.oracle.com/goto/move



Cloud Migration Methods | www.oracle.com/goto/move

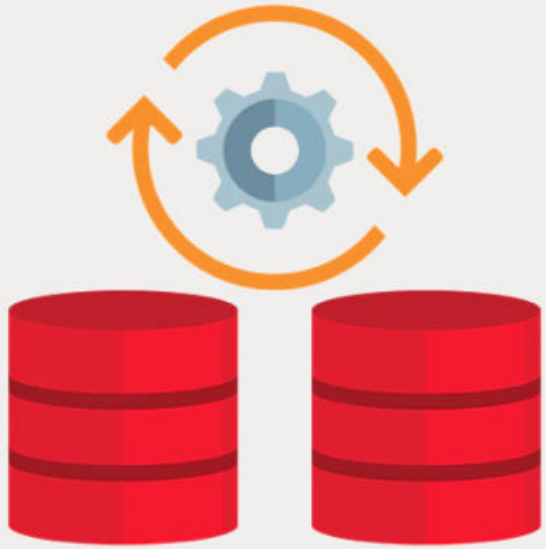


Cloud Migration Methods | www.oracle.com/goto/move

Migration Solutions

The Universal Approach

Data Transfer Appliance | RMAN | **Data Pump** | Plug / Unplug | Remote Cloning



Data Pump

Oracle Data Pump allows customers to move data from one Oracle Database to another on swift and efficient fashion. Data Pump offers four methods for Database Cloud Migration: Transportable Tablespace, Conventional Export/Import and Full Transportable and the MV2ADB utility.

Source Databases	- (CDB/PDB) Databases 12c, 18c, 19c - Non-CDB Databases 11g, 12c, 18c, 19c - Oracle Databases on AWS EC2
Targets	**11g, 12c, 18c, 19c Databases on**: - Oracle Database Cloud Services Bare Metal - Oracle Database Cloud Services VMs - Exadata Cloud Service - Exadata Cloud at Customer **Autonomous Data Warehouse** **Autonomous Transaction Processing**

Learn more about DataPump

Cloud Migration Methods | www.oracle.com/goto/move

Migration Solutions

Zero Downtime Migration - ZDM

Oracle Database Cloud Migration Solutions

Zero Downtime Migration | MV2ADB | MV2OCI | Maximum Availability Architecture | SQL Developer

Oracle Zero Downtime Migration

Zero Downtime Migration - ZDM, enables easy and efficient migration of your on-premises databases to the Oracle Cloud. ZDM leverages Oracle MAA technologies such as Oracle Active Data Guard and Oracle Golden Gate to minimize or eliminate downtime.

Source Databases	- (CDB/PDB) Databases 12c, 18c, 19c - Non-CDB Databases 11g, 12c, 18c, 19c
Targets	**11g, 12c, 18c, 19c Databases on**: - Oracle Database Cloud Services BM/VMs - Exadata Cloud Service - Exadata Cloud at Customer

Learn more about Zero Downtime Migration

”

The concept is actually very simple; ZDM migrates your database by building a standby database in OCI and does the switch-over for you.

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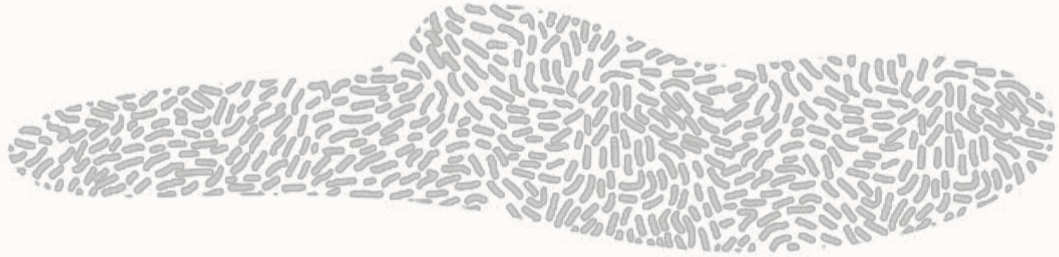
Prerequisites And Features | Location

- Location
- Release
- Platform
- Architecture
- Overview

- Source database can be located
  - On-premises
  - Oracle Cloud Infrastructure Classic (OCI-C)
  - Oracle Cloud Infrastructure (OCI)

Prerequisites And Features | Release



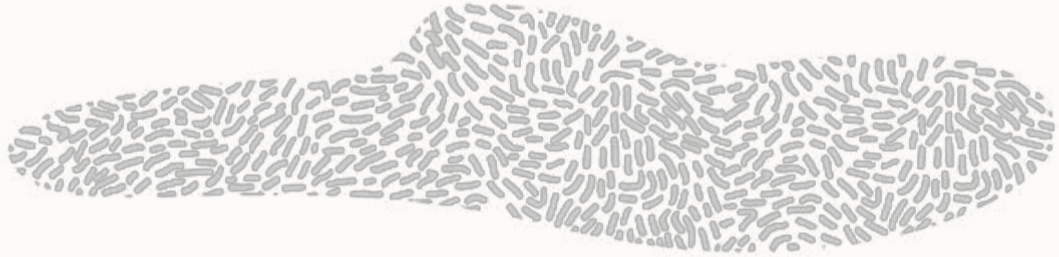
- Location
- Release
- Platform
- Architecture
- Overview

- Supported database releases:
  - 11.2.0.4
  - 12.1.0.2
  - 12.2.0.1
  - 18
  - 19
  - And anything newer

- Target database release must be the same

Pro Tip:
It is possible to migrate to a higher patch level but you must invoke `datapatch` manually

Prerequisites And Features | Platform



Location
Release
Platform
Architecture
Overview

- Supported source platform
  - Linux
- Supported target platforms
  - Virtual Machine DB System
  - Bare Metal DB System
  - Exadata DB System
  - Exadata Cloud at Customer
- ZDM platform
  - Oracle Linux 7 or newer

Pro Tip:
It is recommended to use a dedicated host to run the ZDM software

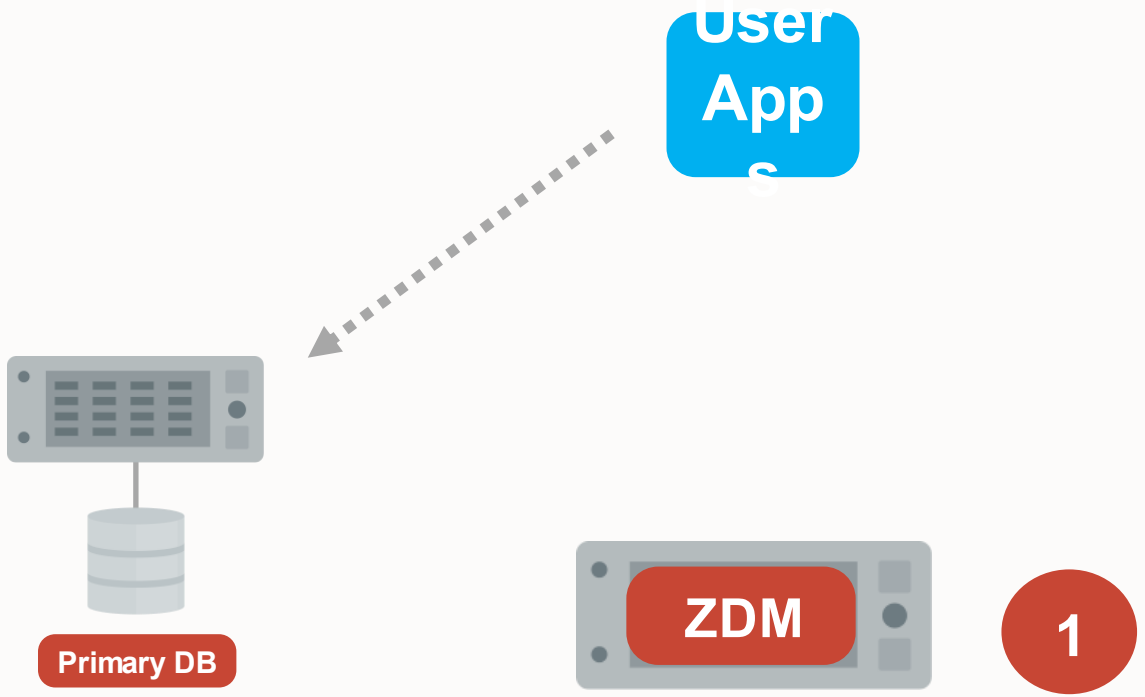
Prerequisites And Features | Architecture

- Location
- Release
- Platform
- Architecture
- Overview

- Any architecture supported (non-CDB and CDB)
  - Migrated “as-is”
  - No PDB conversion
  - All PDBs included

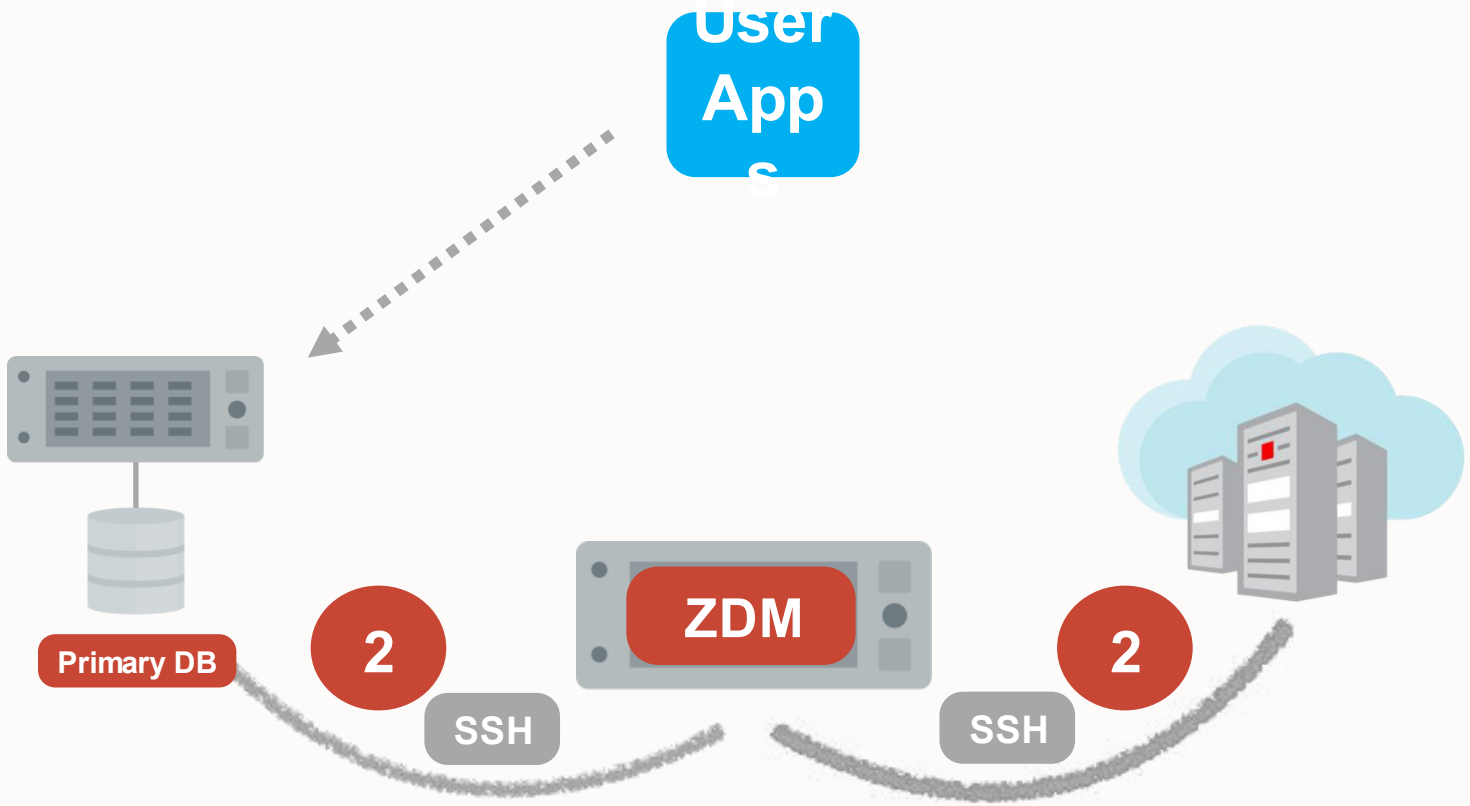
Prerequisites And Features | Download and Configuration

- Location
- Release
- Platform
- Architecture
- Overview



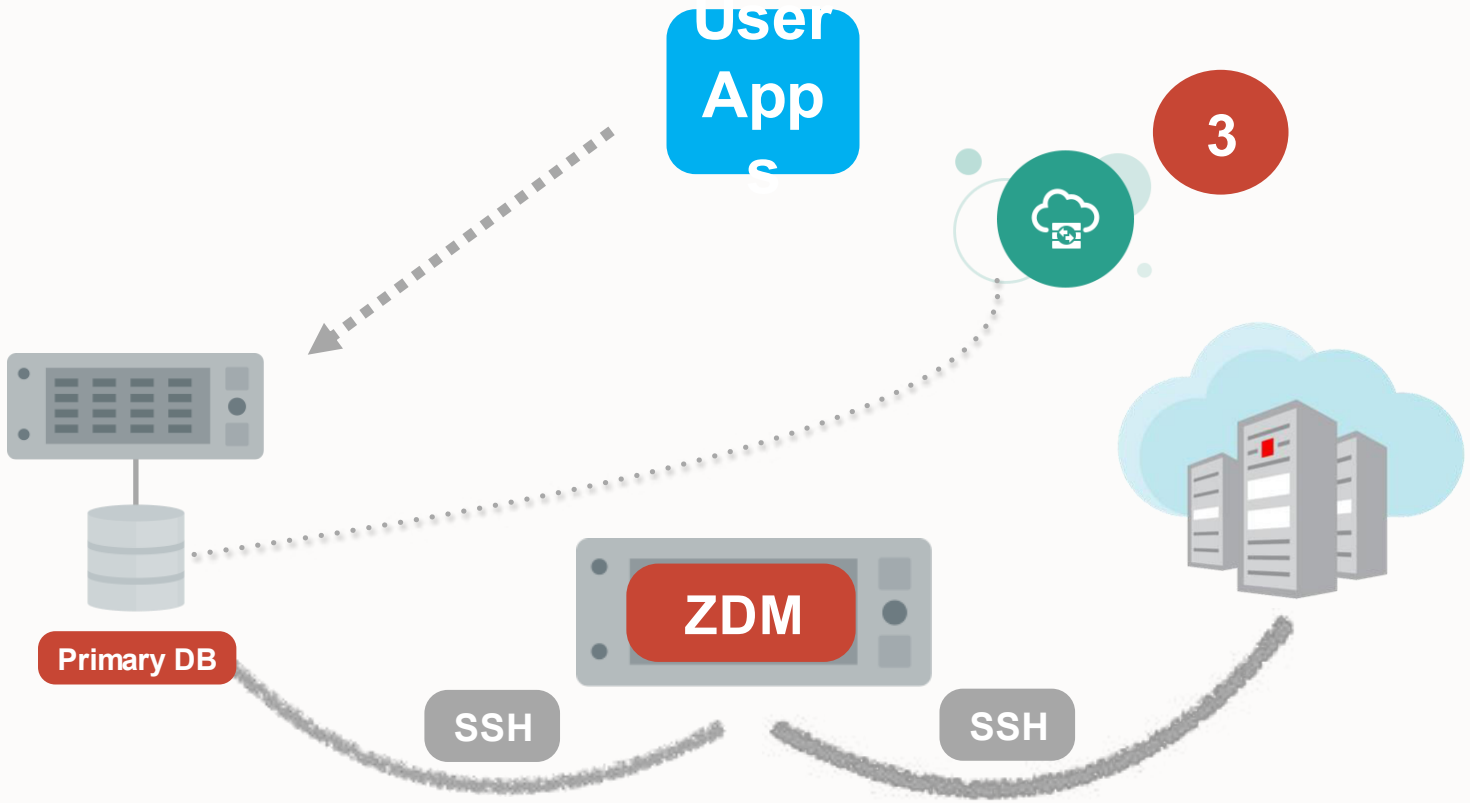
Prerequisites And Features | Start Database Migration

- Location
- Release
- Platform
- Architecture
- Overview



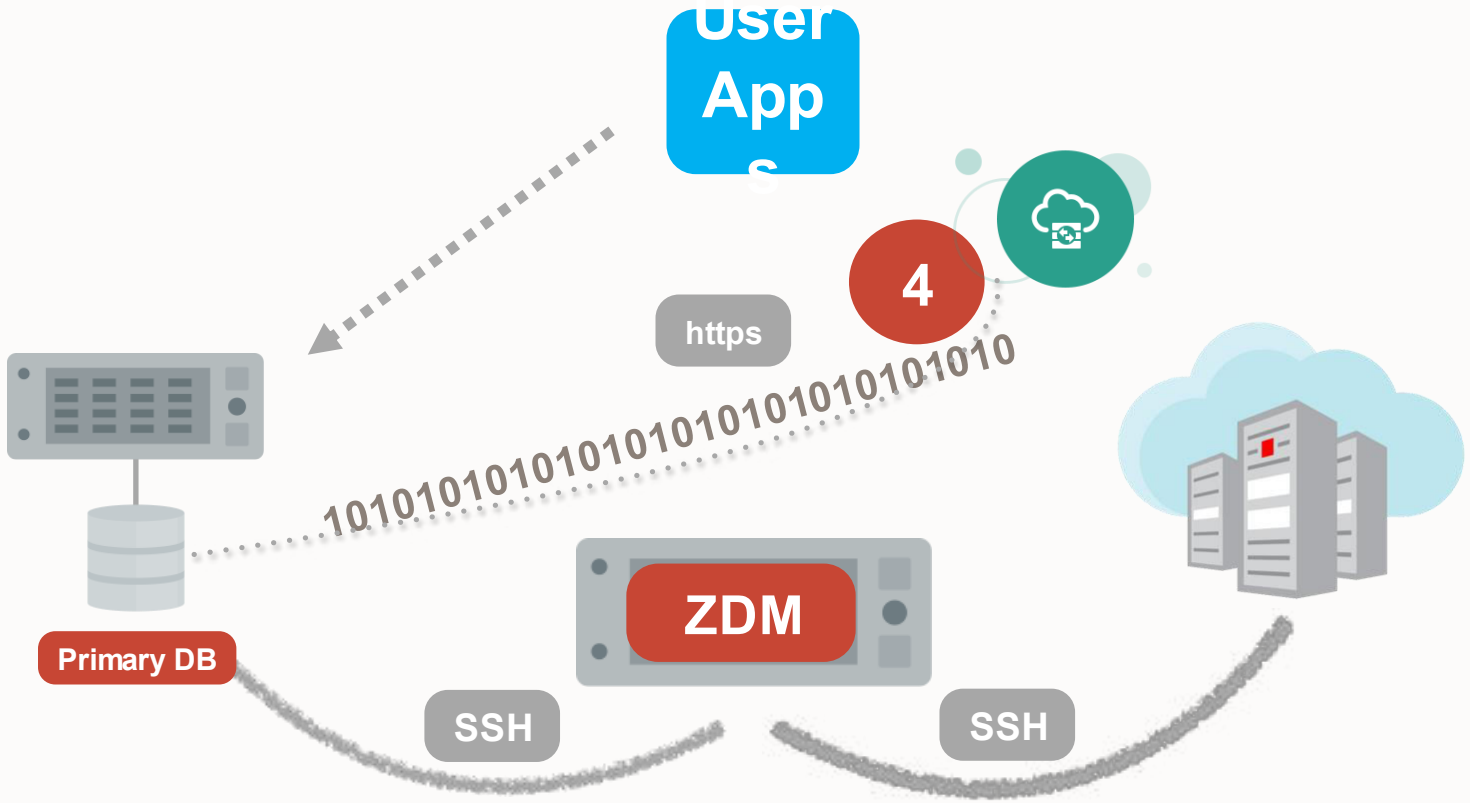
Prerequisites And Features | ZDM connects to object storage

- Location
- Release
- Platform
- Architecture
- Overview



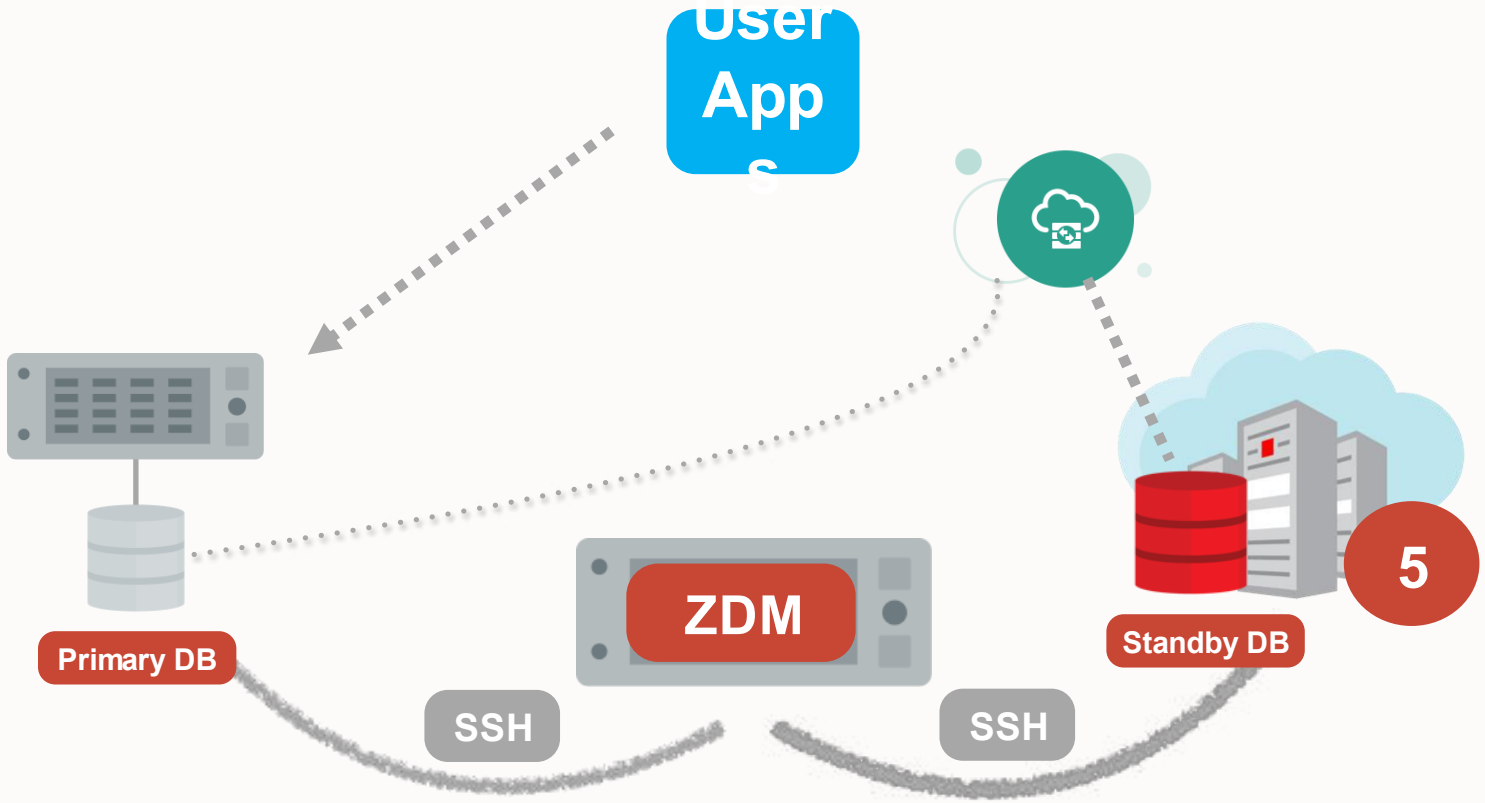
Prerequisites And Features | ZDM backups database to object storage

- Location
- Release
- Platform
- Architecture
- Overview



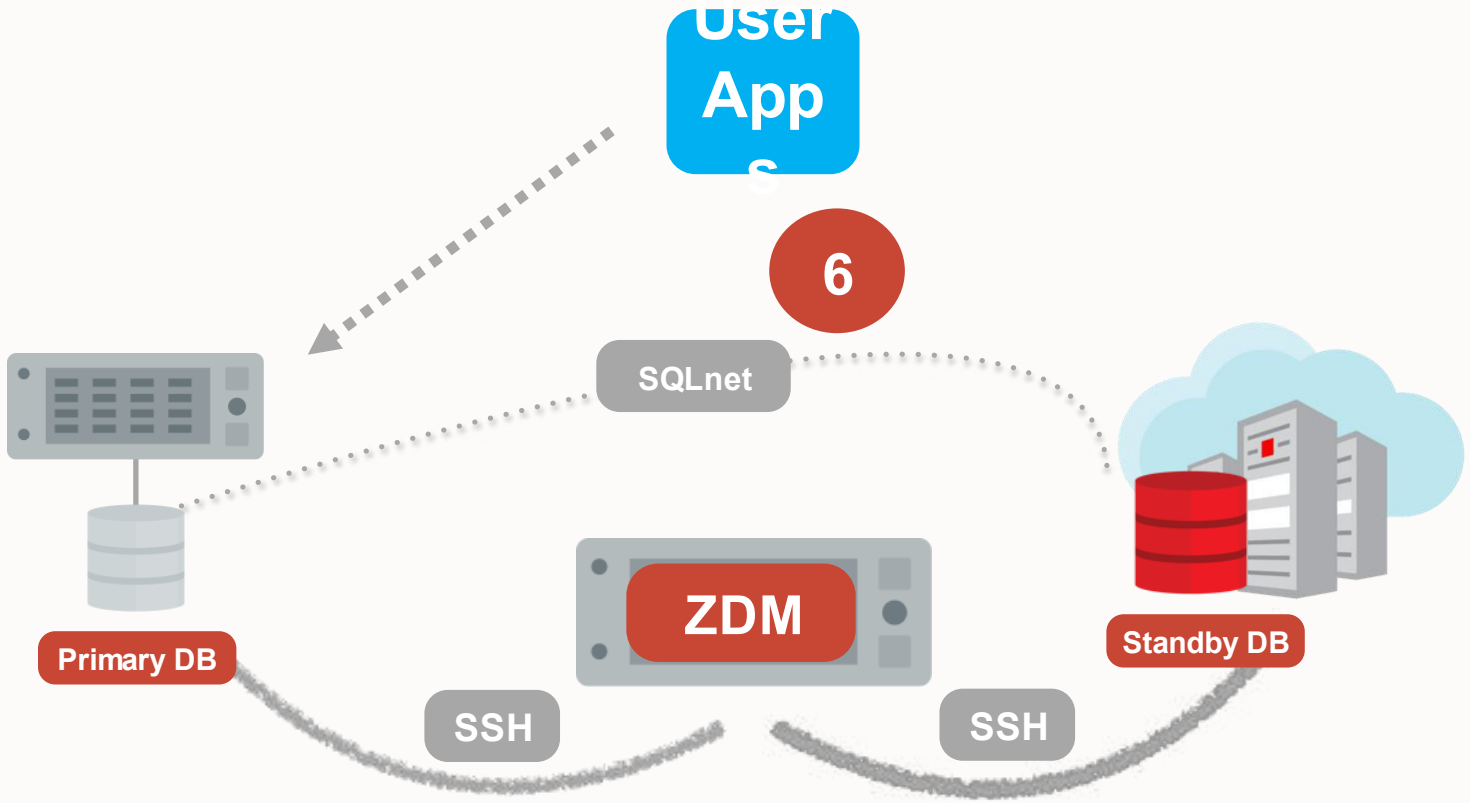
Prerequisites And Features | ZDM instantiates standby database

- Location
- Release
- Platform
- Architecture
- Overview



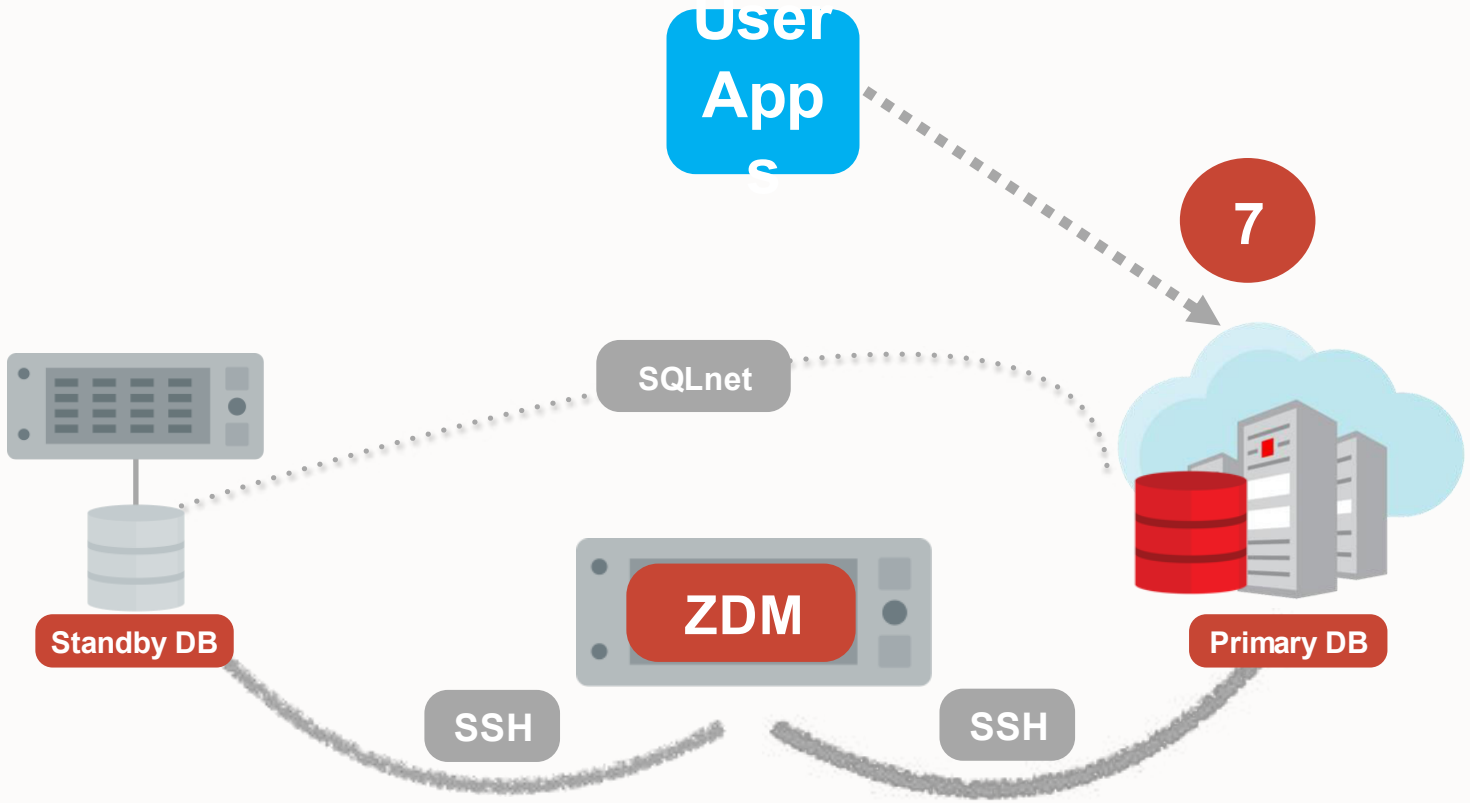
Prerequisites And Features | Synchronization Primary - Standby

- Location
- Release
- Platform
- Architecture
- Overview



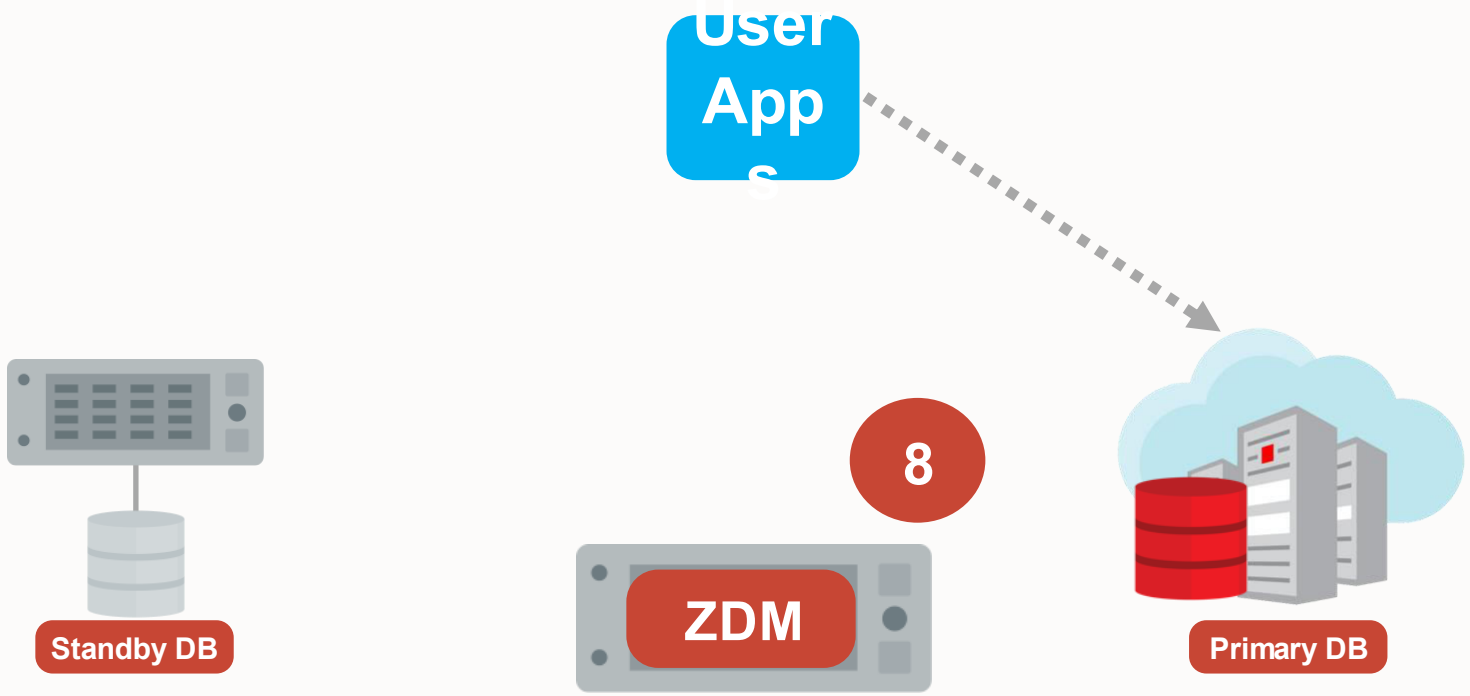
Prerequisites And Features | Switchover and Role Exchange

- Location
- Release
- Platform
- Architecture
- Overview



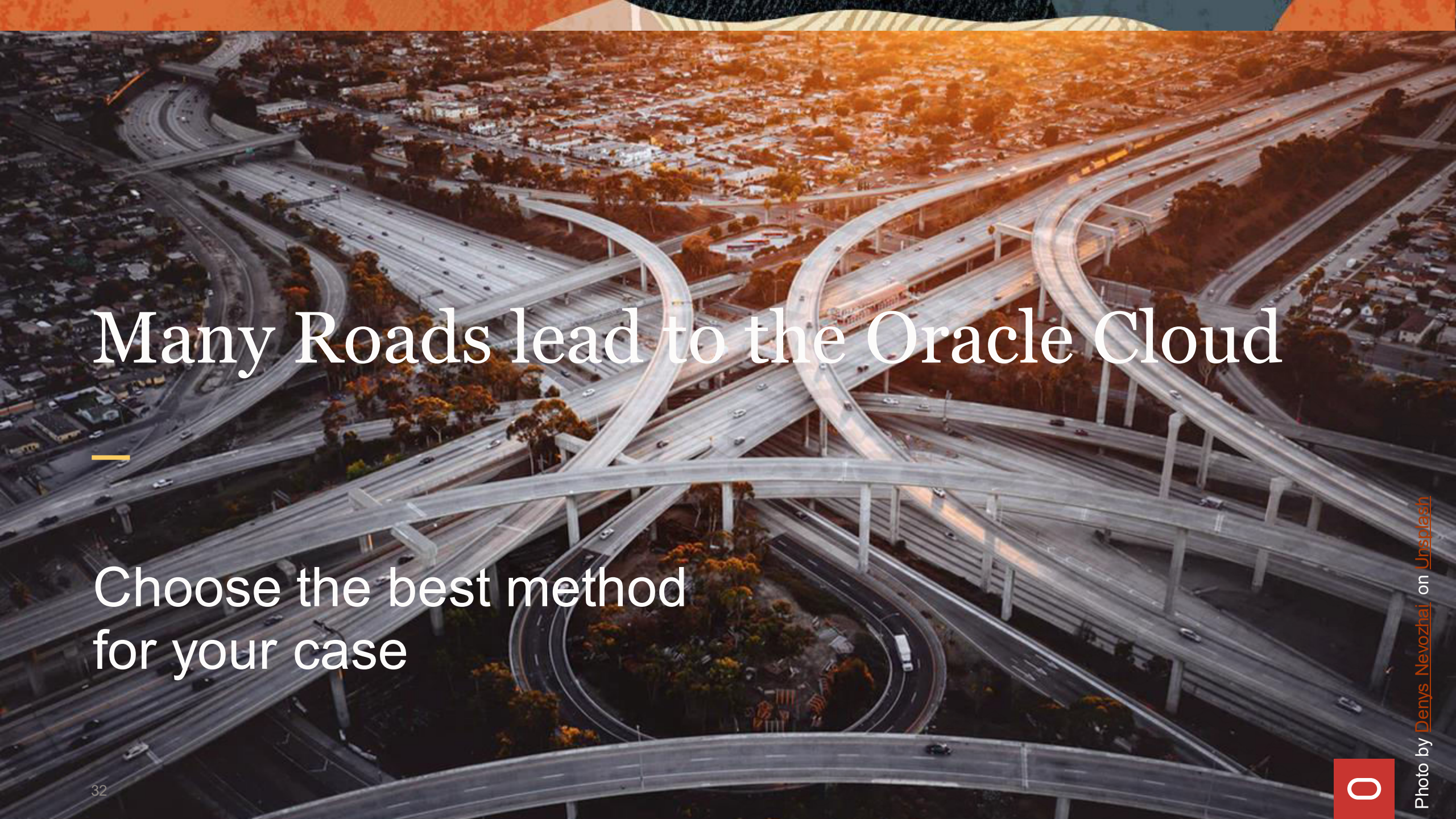
Prerequisites And Features | Finalize the migration

- Location
- Release
- Platform
- Architecture
- Overview



Resources | Further Information

- Oracle Zero Downtime Migration Product Page
- Oracle Zero Downtime Migration Documentation
- Oracle Zero Downtime Migration Whitepaper
- MAA Practices for Cloud Migration Using ZDM (Doc ID 2562063.1)
- Hybrid Data Guard to Oracle Cloud Infrastructure



Many Roads lead to the Oracle Cloud

Choose the best method for your case

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Questions

Thank you