Move to the Cloud

Mike Dietrich Distinguished Product Manager Database Upgrade and Migrations



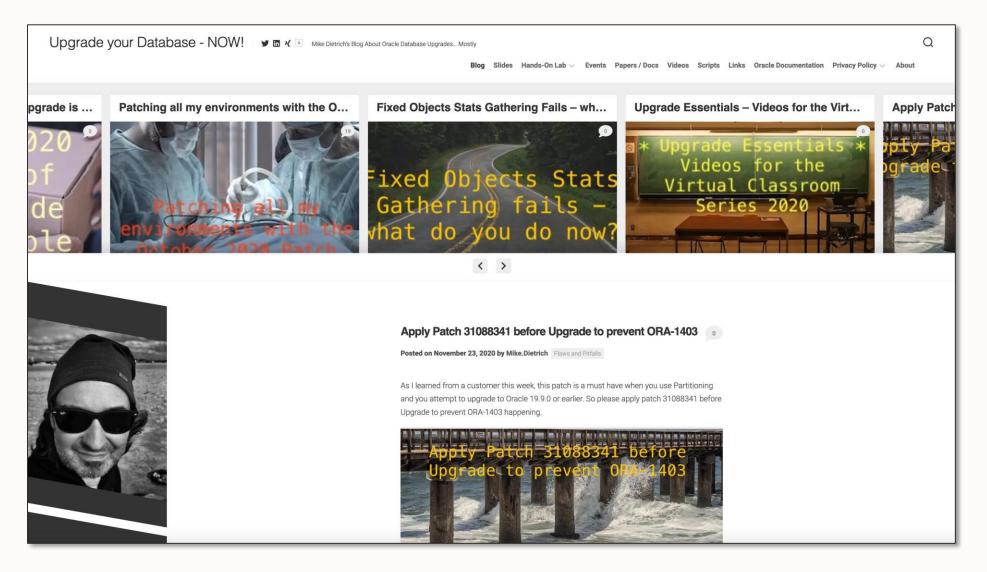
Mike Dietrich

Distinguished Product Manager Database Upgrade and Migrations https://MikeDietrichDE.com

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- in mikedietrich



https://MikeDietrichDE.com



Autonomous Database

ORACLE

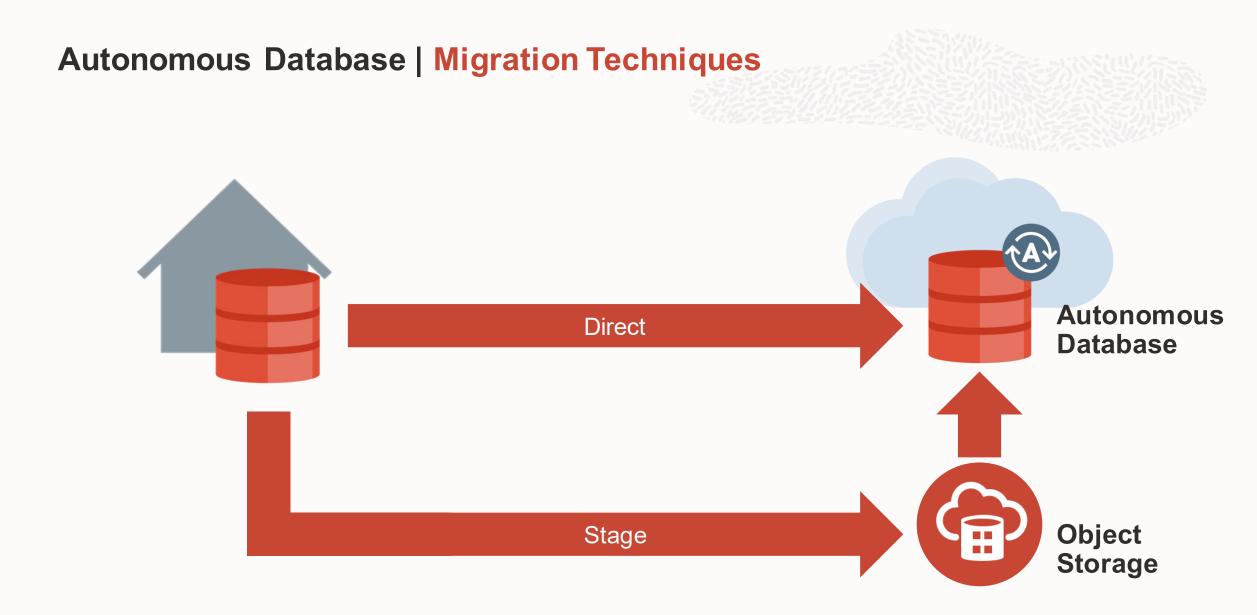
AUTONOMOUS

DATABASE

How to Move Your Data into an Autonomous Database

"

When it comes to migration, Autonomous Database differs because you will be migrating data, not databases



Options | Overview





Options | SQL Developer

Local installation

Quick and simple

Workson:

- CSV
- XML
- JSON
- XLS/XLSX
- Avro

Loads from:

- Local file
- OCI object stage

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Options | Overview





Options | SQL*Loader



Highly configurable

Can transform data

Loads from:

• Local file

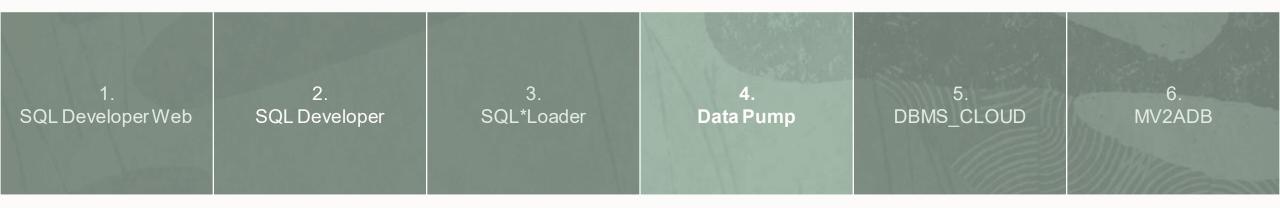
Works on:

- CSV
- Text

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Expr Path Comm Comm Comm	ress Mode Load, Table: ALBUMS n used: Conventional nit point reached - logical record count 123 nit point reached - logical record count 246 nit point reached - logical record count 369

Options | Overview





Options | Data Pump

Fast unload and load

All or selected data

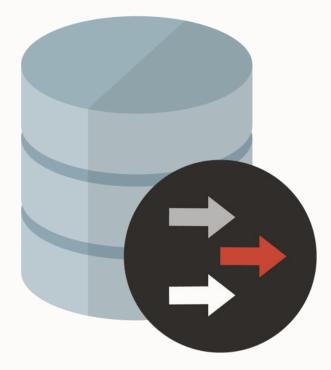
Best option for big data

Can transform metadata

Loads from:

- Oracle Database (database link)
- OCI Object Storage

Pro tip: Use <u>SQL Developer</u>



Options | Overview





Options | MV2ADB



"One button approach"

Uses Data Pump

Loads from:

Oracle Database

Documentation: Doc ID 2463574.1

Runs on Linux / Solaris

[oracle@hol ~]\$ Processing object type SCHEMA_EXPORT/TABLESPACE_QUOTA	ICHOME=/u01/app/oracle/product/19 # ADB Properties # ADB_NAME=METAL ADB_TARGET=ADW ADB_PASSWORD= ADB_CFILE=/home/oracle/Wallet_METAL/Wa # Object Store Properties # 	<pre>INF0: 2020-10-02 12:19:33: Reading the configuration fi INF0: 2020-10-02 12:19:34: Checking schemas on source D INF0: 2020-10-02 12:19:35: Performing schema expdp for INF0: 2020-10-02 12:19:35: Step 1getting ADB para INF0: 2020-10-02 12:19:36: Step 2getting source D INF0: 2020-10-02 12:19:37: Step 3creating expdp c INF0: 2020-10-02 12:19:38: Step 4getting latest 5 INF0: 2020-10-02 12:19:39: Step 5checking Cloud 5 INF0: 2020-10-02 12:19:41: Step 6executing export INF0: 2020-10-02 12:19:41: Expdp log location available expdp_5444.log'</pre> Starting "SYSTEM"."MV2ADB_JOB": system/*******@//loca CHEMAS=METAL VERSION=19.0.0 DIRECTORY=MV2ADB_EXPDP_DIR E=index,cluster,indextype,materialized_view,materialized dp_5444.log FLASHBACK_SCN=4010150 FILESIZE=5GB Processing object type SCHEMA_EXPORT/DEFAULT_ROLE Processing object type SCHEMA_EXPORT/BELAUT_ROLE Processing object type SCHEMA_EXPORT/ROLE_GRANT Processing object type SCHEMA_EXPORT/ROLE_GRANT Processing object type SCHEMA_EXPORT/ROLE_GRANT	DB	n source DB /2ADB_EXPDP_D s jobname 'MV of the proce Localdomain S tal_%u.dmp PA
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Database Cloud Service



Zero Downtime Migration

Zero Downtime Migration

"

ZDM is a **free** tool that you can use to migrate Linux databases into OCI with **zero downtime**

Prerequisites And Features | Location



Location

Release

Platform

Architecture

- 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

- Supported database releases:
 - 11.2.0.4
 - And anything newer
- Target database release must be the same

Prerequisites And Features | Platform



Location

Release

Platform

Architecture

- Supported source platform
 - Linux

Prerequisites And Features | Architecture

Location

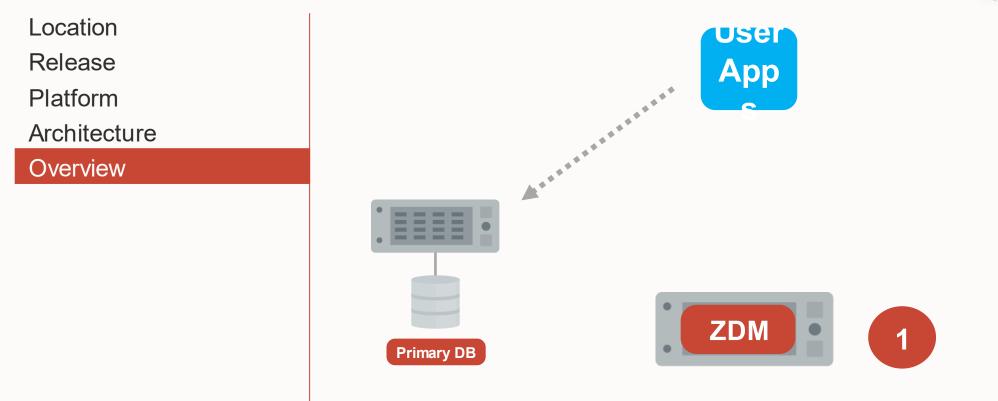
Release

Platform

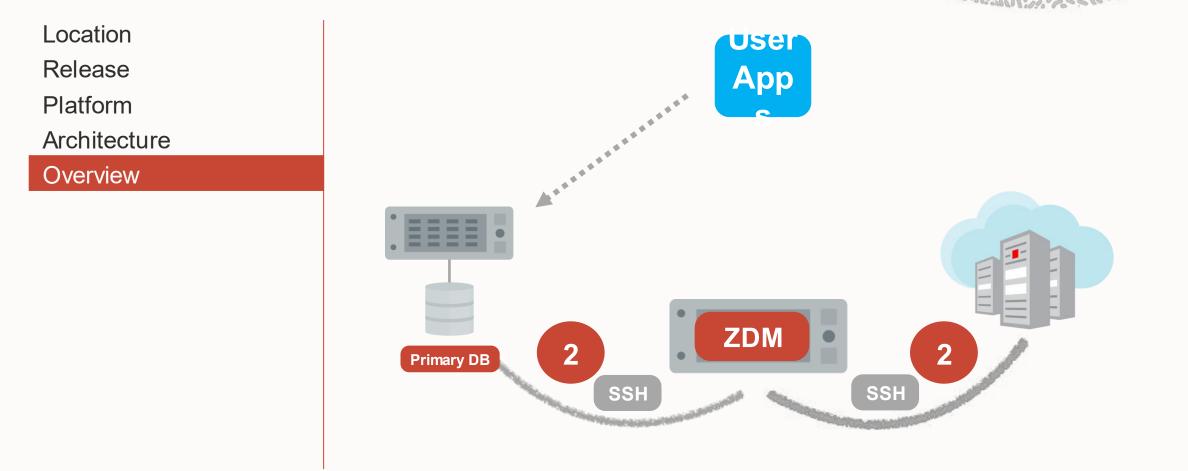
Architecture

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

Prerequisites And Features | Download and Configuration



Prerequisites And Features | Start Database Migration



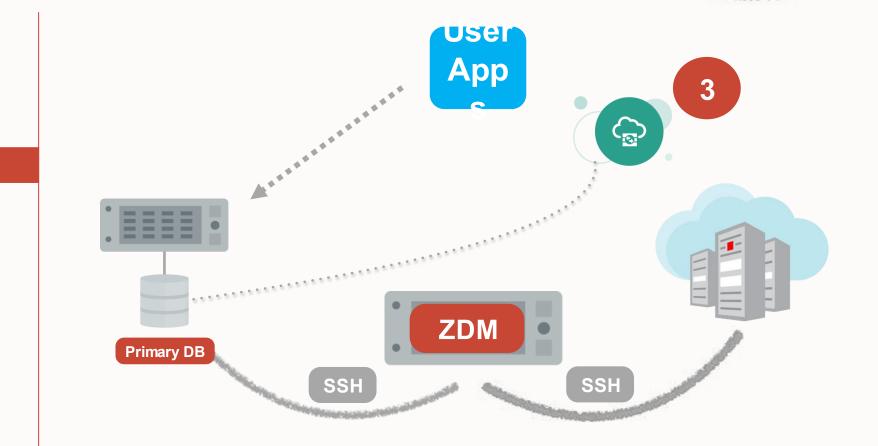
Prerequisites And Features | ZDM connects to object storage

Location

Release

Platform

Architecture



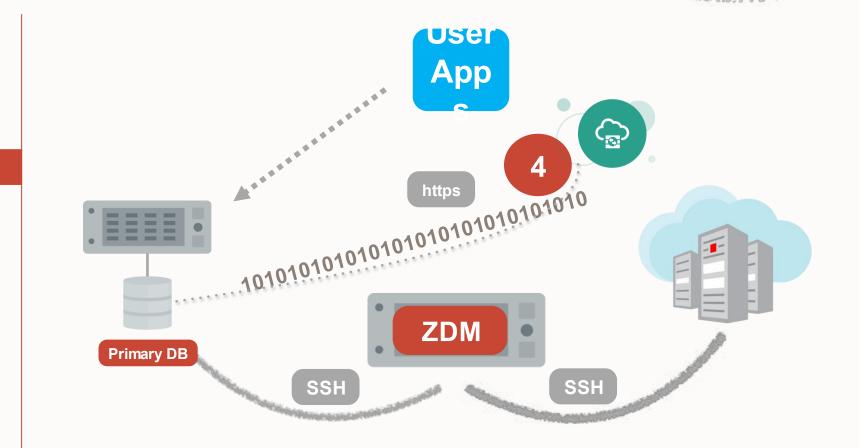
Prerequisites And Features | ZDM backups database to object storage

Location

Release

Platform

Architecture



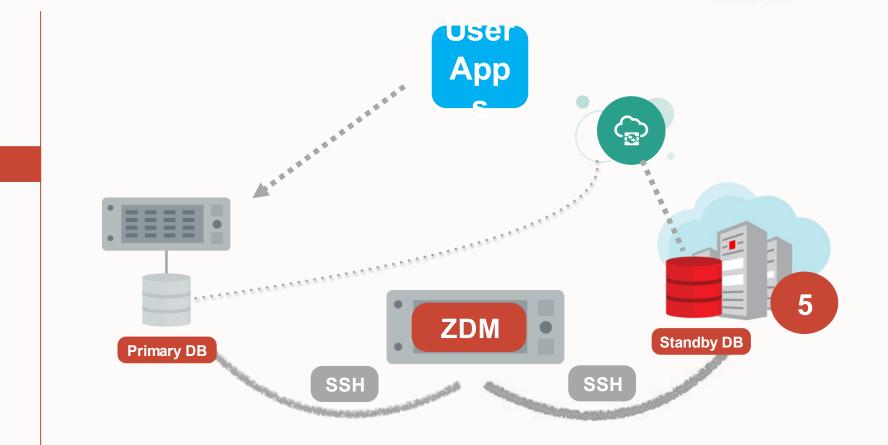
Prerequisites And Features | ZDM instantiates standby database

Location

Release

Platform

Architecture



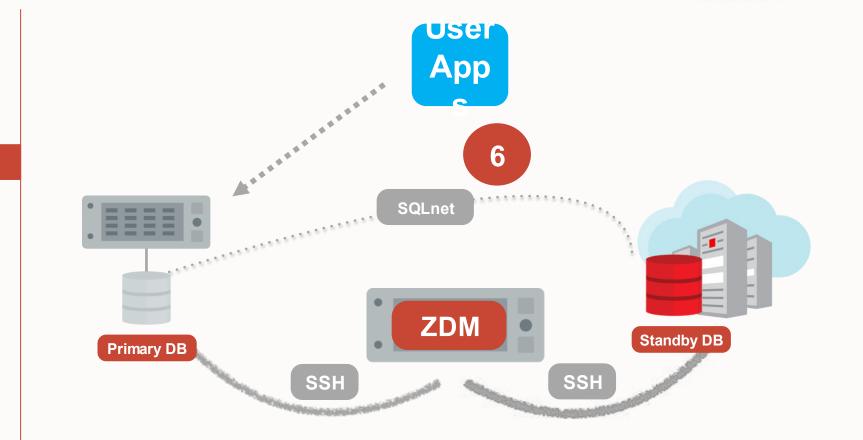
Prerequisites And Features | Synchronization Primary - Standby

Location

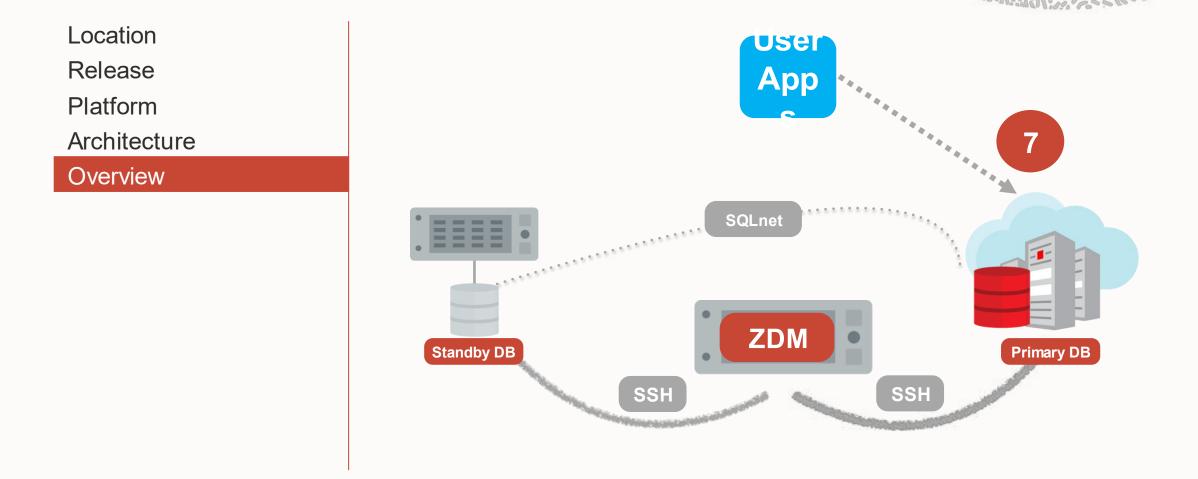
Release

Platform

Architecture



Prerequisites And Features | Switchover and Role Exchange



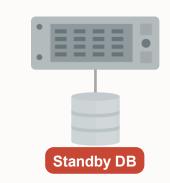
Prerequisites And Features | Finalize the migration

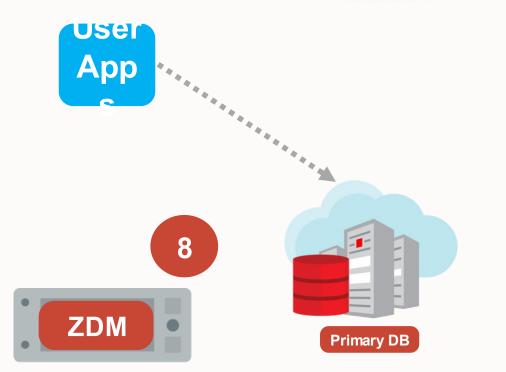
Location

Release

Platform

Architecture





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

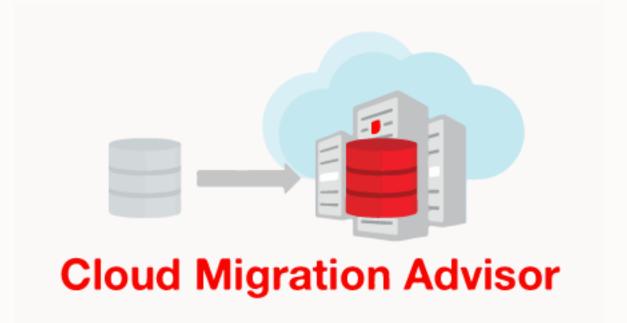




Photo by <u>Carolina Pimenta</u> on <u>Unsplash</u>

Thank you!

It is time to wrap up