Photo by Zac Durant on Unsplash

Unlock Next Level

Migration to Oracle AI Autonomous Database

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Oracle Database Product Manager

Alex Zaballa

Born | Double Citizenship | Living

CHRISTIAN, HUSBAND, FATHER, PM, DBA, WRITER, SPEAKER AND BLOGGER.

25 years – Oracle Technologies
Oracle Developer: 2000 – 2007
Oracle DBA: 2007 – 2023
Oracle Cloud Architect: 2016 – 2023
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480 Certifications

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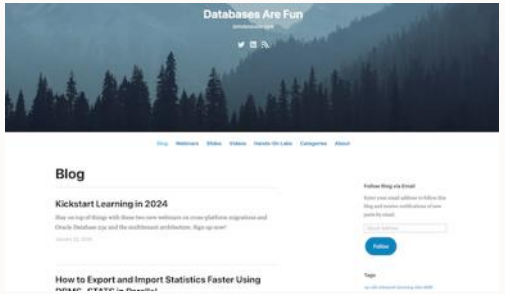

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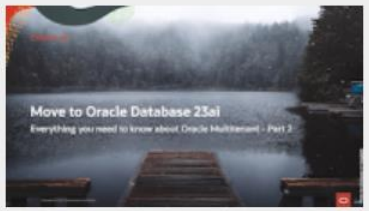
Virtual Classroom Seminars	Slides
Episode 16 (replaces Episode 1 from Feb 2021) Oracle Database Release and Patching Strategy for 19c and 23c *115 minutes – May 10, 2023*	
Episode 17 From SR to Patch – Insights into the Oracle Database Development process *55 minutes – June 22, 2023*	
Episode 18 Cross Platform Migration – Transportable Tablespaces to the Extreme *145 min – February 22, 2024*	
Episode 19 Move to Oracle Database 23ai – Everything you need to know about Multitenant PART 1 *145 min – May 16, 2024*	
Episode 20 Move to Oracle Database 23ai – Everything you need to know about Multitenant PART 2 *100 min – June 28, 2024*	

Recorded Web Seminars

https://MikeDietrichDE.com/videos

More than 40 hours of technical content, on-demand, anytime, anywhere

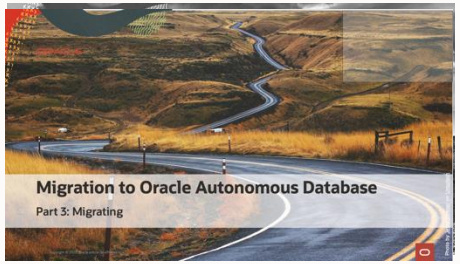
Virtual Classroom Seminar Series #22 – #25

1 PLANNING

Watch recording
Get slides

2 PREPARING

Watch recording
Get slides



3 MIGRATING

Watch **recording**
Get slides

4 OPERATING

Wach recording
Get slides

What's the story?

Flashback to October 2017

The idea?

A mostly self-managed database environment, taking care on many tasks

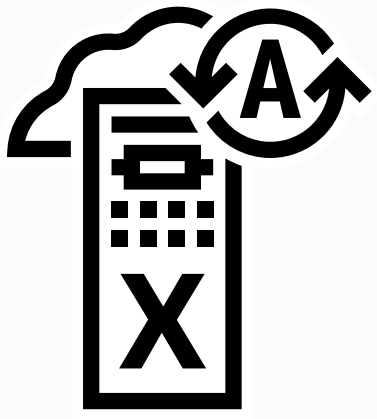
KEYNOTE PRESENTATION

Oracle OpenWorld San Francisco 2017

Autonomous AI Database – Where?

Public cloud

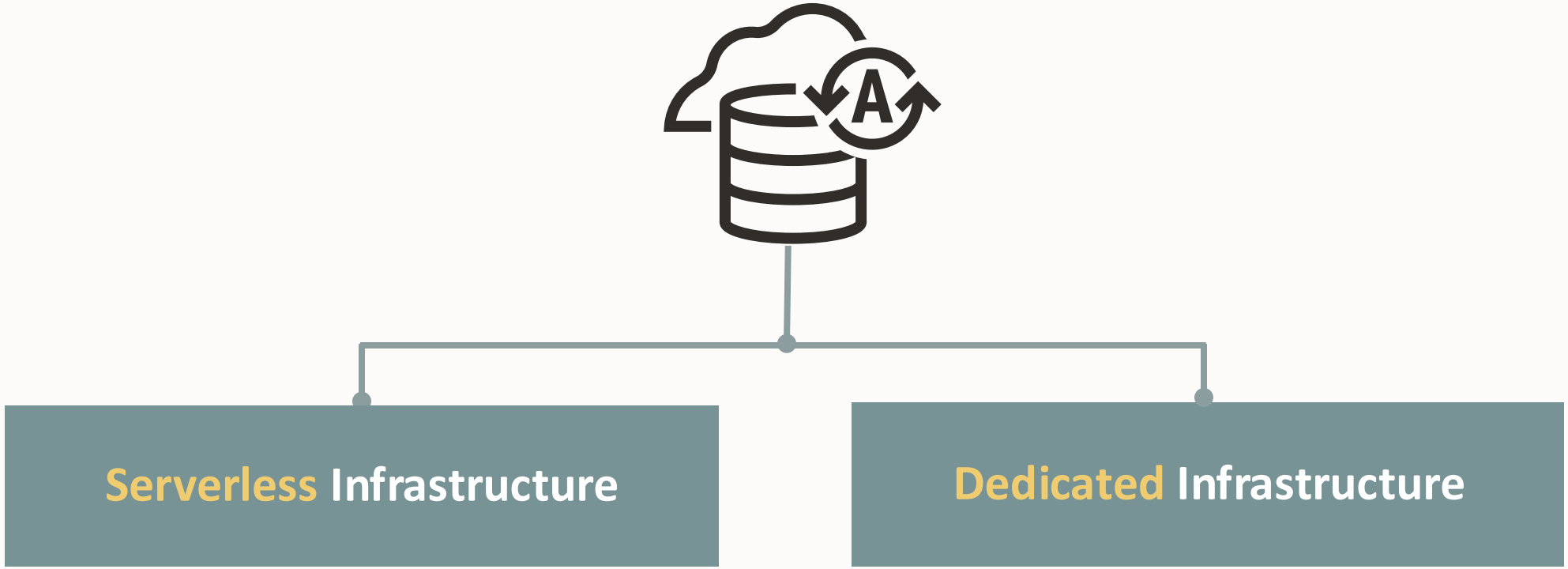
Autonomous AI Database



Cloud@Customer

Autonomous AI Database in a VM environment

One Autonomous AI Database – Two Deployment Choices



One Autonomous AI Database – Workload Choices

~~Autonomous Data Warehouse (ADW)~~ Autonomous AI Lakehouse

- Data Warehouse, Data Mart
- Data Lake, Machine Learning

~~Autonomous Transaction Processing (ATP)~~ Autonomous AI Transaction Processing

- Transactions, Batch, Reporting, IoT
- Application Dev, Machine Learning

Migration Planning

No migration without a proper runbook

Modernization and Migration

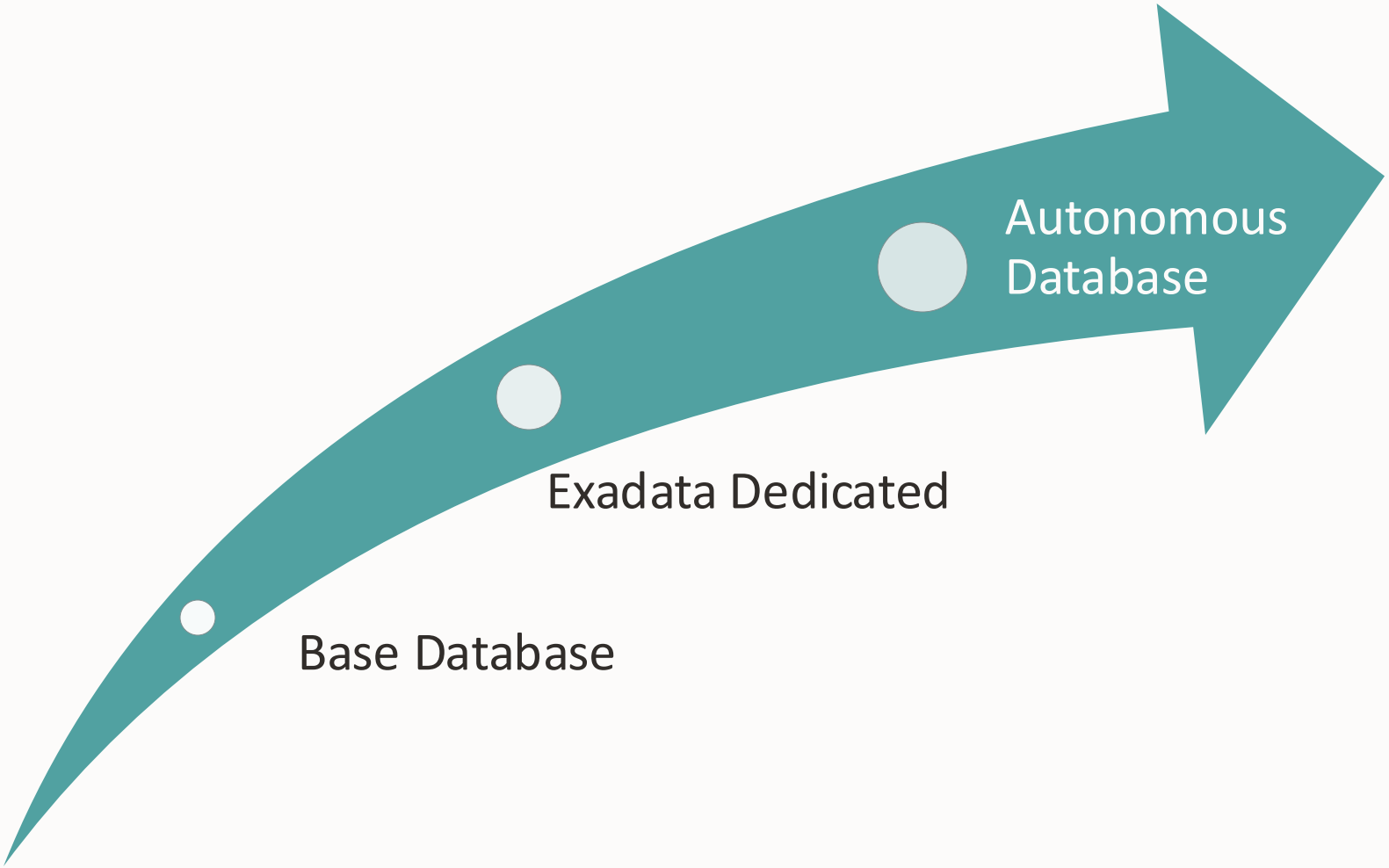


Photo by bert b on Unsplash

Estate Modernization

But not every database is a great candidate for ADB

Migration to Autonomous AI Database is always a logical migration

- Move the data, not the database

Tools out-of-the-box

SQL Developer Web

Web-based Function rich, low code development env

No client software needed

Oracle REST Data Services

Ability to REST enable a schema and autogenerate REST endpoints for tables, views, and procedures

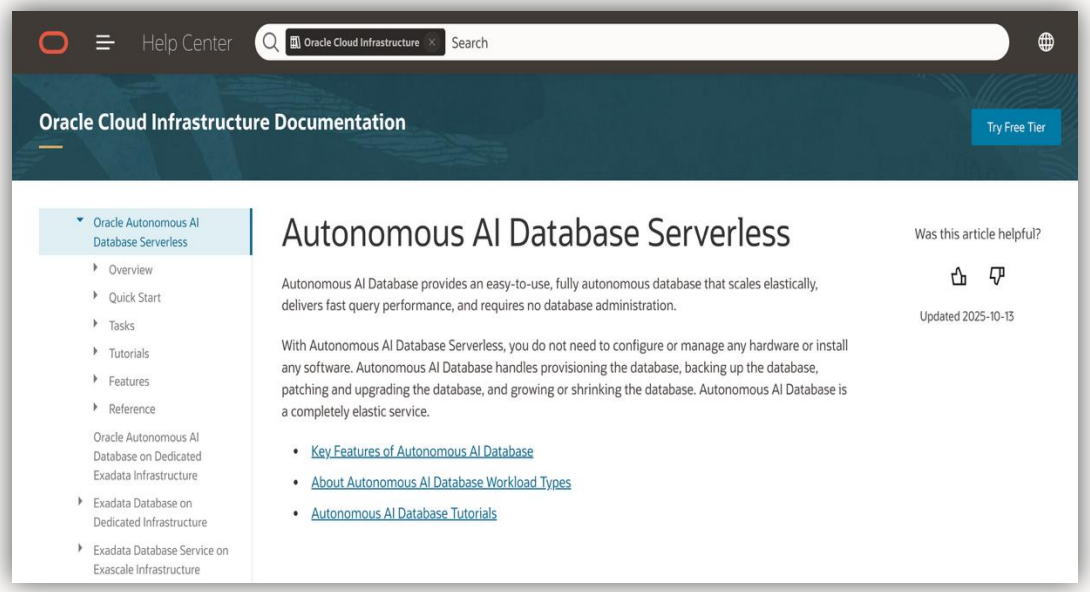
APEX

Execute SQL and PL/SQL

Build Data Models, generate DDL statements

Monitor and manage the DB

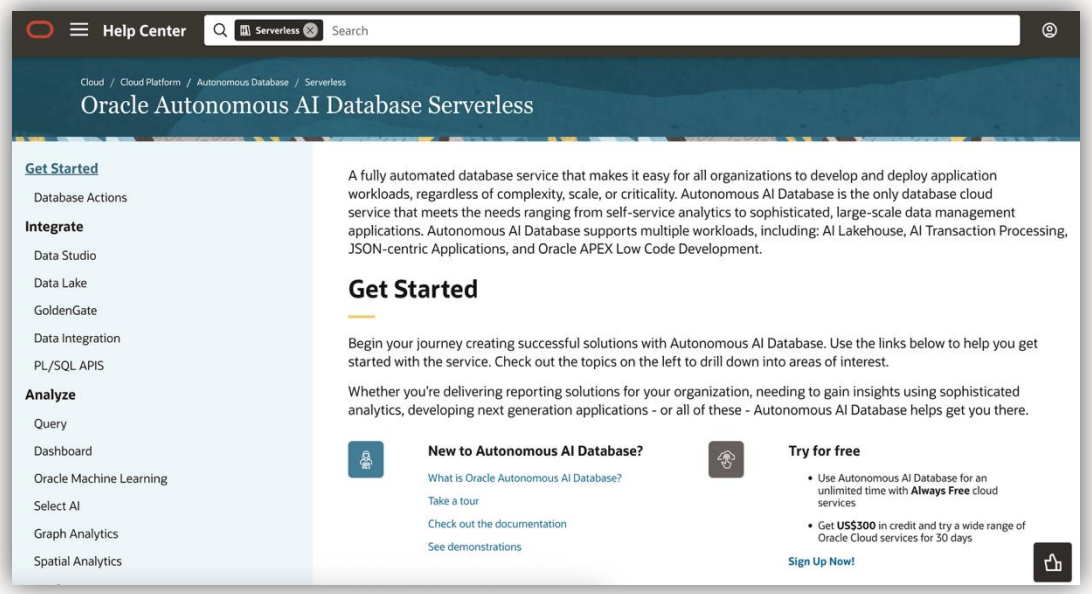
Essentials



Outside the database,
check OCI Documentation

Example: Deploy, start, stop, scale

Essentials



Inside the database,
check Database Documentation

Example: Schema, capabilities, connecting

Planning

How do we migrate our 500 databases to Oracle AI Autonomous Database?

Getting an Overview

1
Estate Explorer

2
Cloud Premigration Advisor Tool

3
Cloud Migration Advisor

Getting an Overview

1

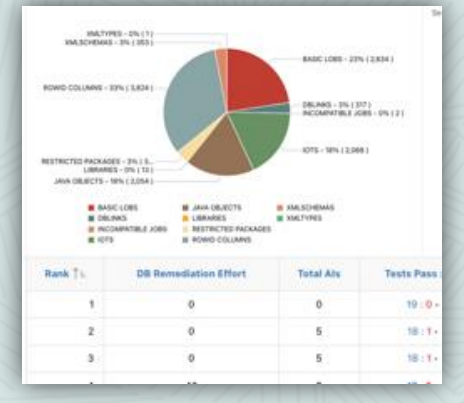
Estate Explorer

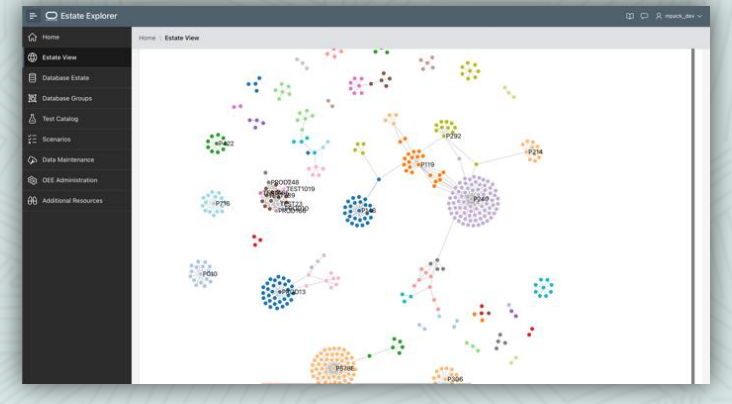
2

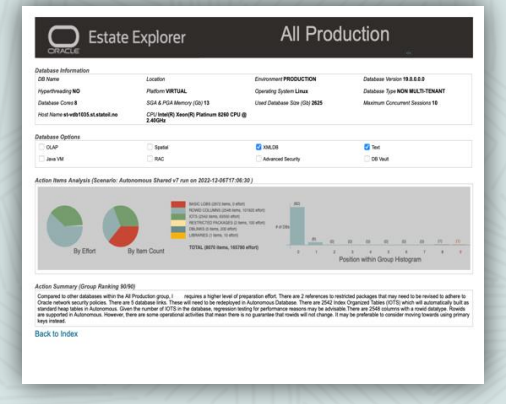
Cloud Premigration Advisor Tool

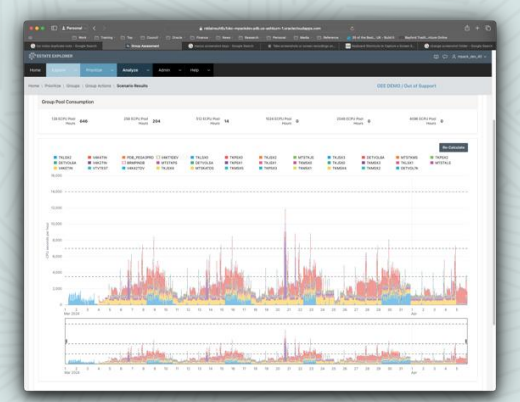
3

Cloud Migration Advisor









Getting an Overview

1 Estate Explorer

2 Cloud Premigration Advisor Tool

3 Cloud Migration Advisor

Analyze 1000’s of databases in just a few hours

Provide a detailed TCO to compare on-premises and cloud

View innovative visualizations and detailed reports

Optimize your Autonomous AI Databases using Elastic Pools

Getting an Overview

1 Estate Explorer

2 Cloud Premigration Advisor Tool

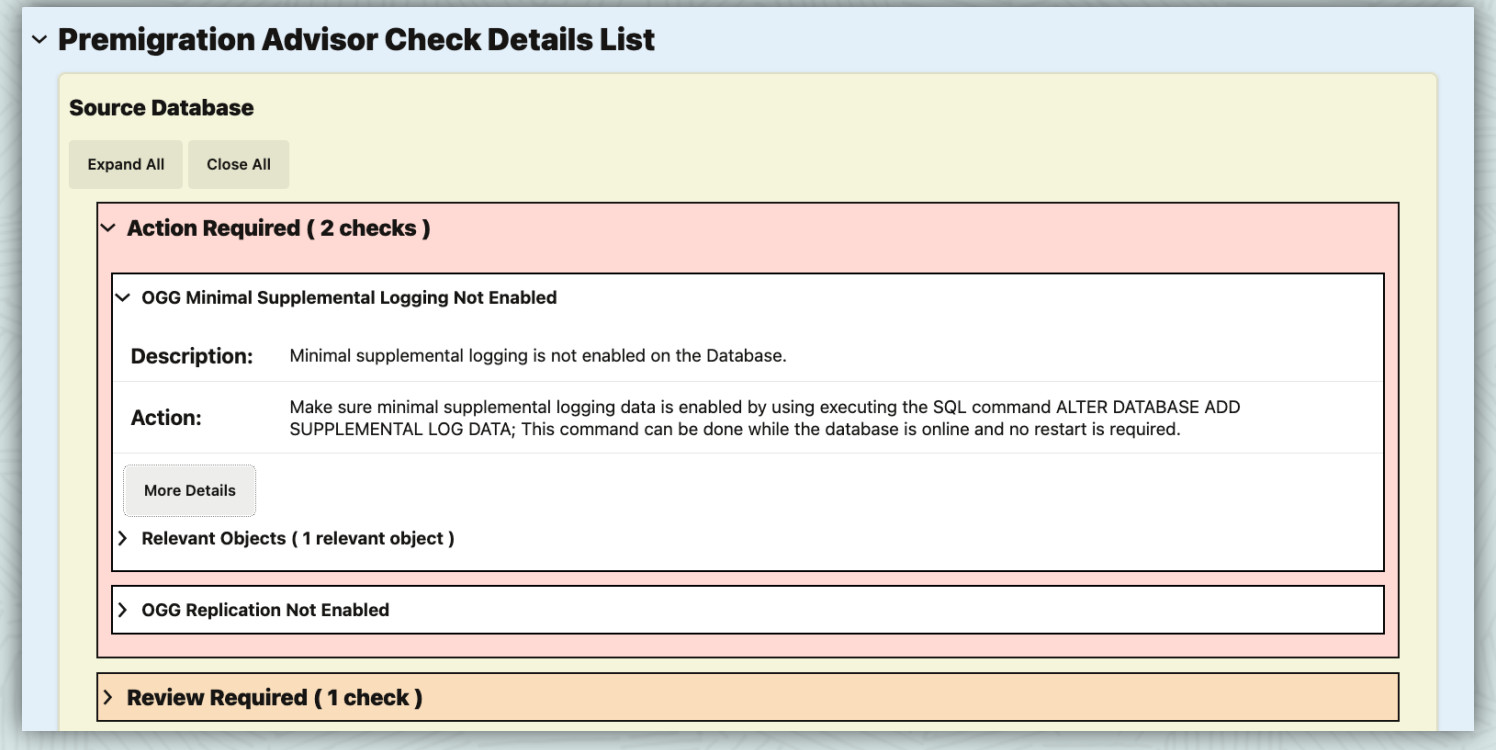
3 Cloud Migration Advisor

Getting an Overview

1 Estate Explorer

2 Cloud Premigration Advisor Tool

3 Cloud Migration Advisor



Getting an Overview

1 Estate Explorer

2 Cloud Premigration Advisor Tool

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Getting an Overview

1 Estate Explorer

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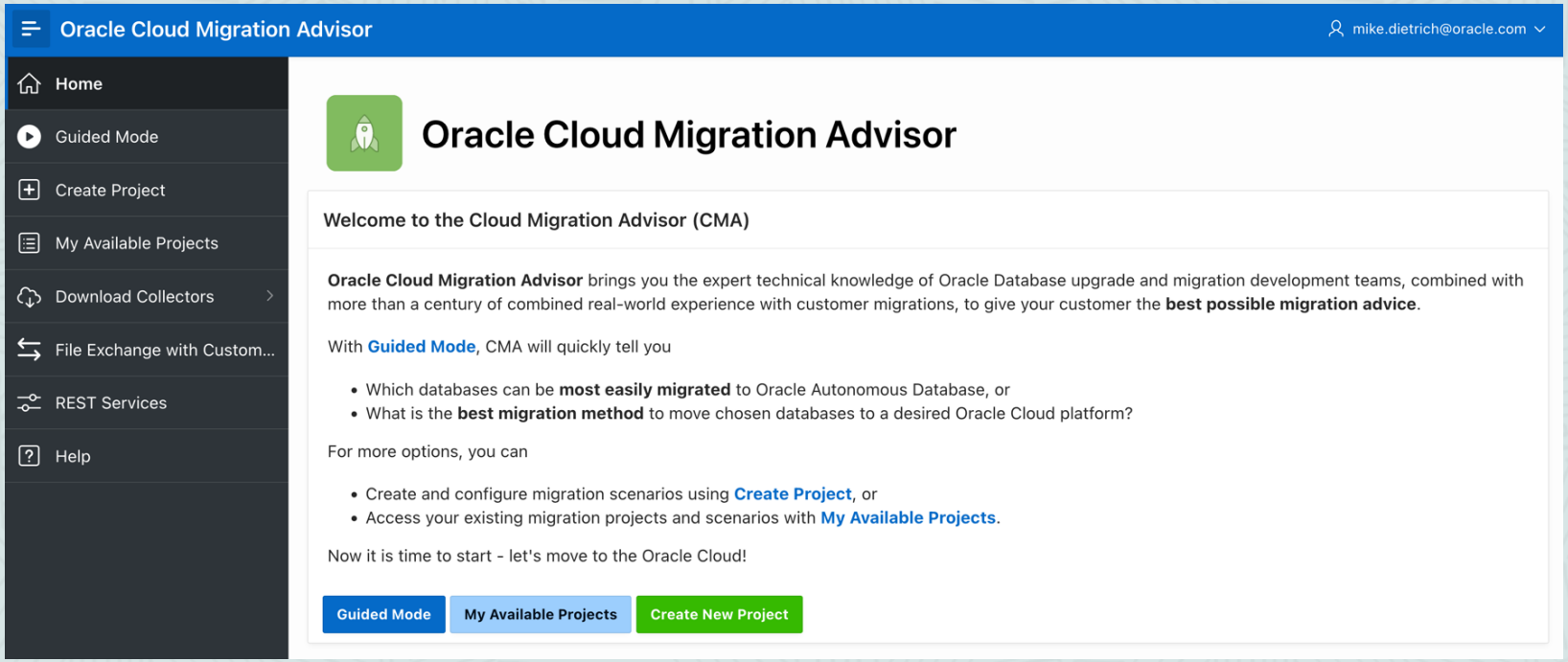
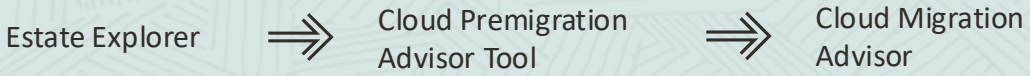


Getting an Overview



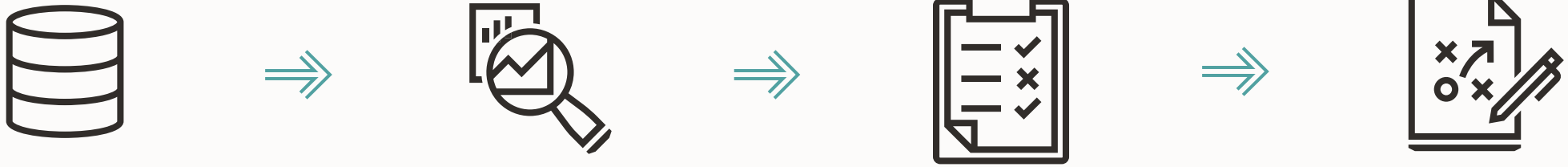
- OCI Database Migration Service
- Zero Downtime Migration
- Autonomous Migration Automation
- Data Pump
- GoldenGate
- O2O / OOO

CPAT

Evaluate an Oracle Database for compatibility with Autonomous AI Database

- Use Cloud Premigration Advisor Tool (CPAT)

Overview



Connects

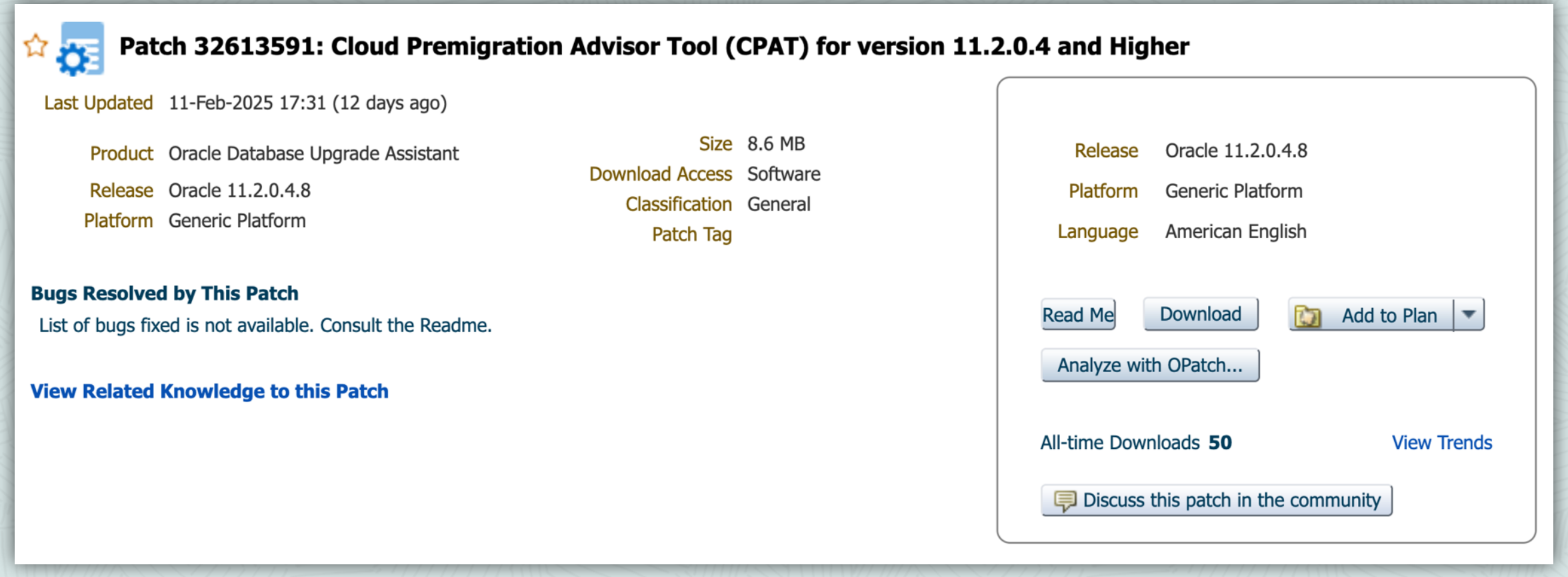
Checks

Reports

Fixes

(optional)

Download CPAT from MOS Note: 2758371.1



Patch 32613591: Cloud Premigration Advisor Tool (CPAT) for version 11.2.0.4 and Higher

Last Updated 11-Feb-2025 17:31 (12 days ago)

Product Oracle Database Upgrade Assistant
Release Oracle 11.2.0.4.8
Platform Generic Platform

Size 8.6 MB
Download Access Software
Classification General
Patch Tag

Bugs Resolved by This Patch

List of bugs fixed is not available. Consult the Readme.

View Related Knowledge to this Patch

Release Oracle 11.2.0.4.8
Platform Generic Platform
Language American English

Read Me | Download | Add to Plan | Analyze with OPatch...

All-time Downloads **50** View Trends

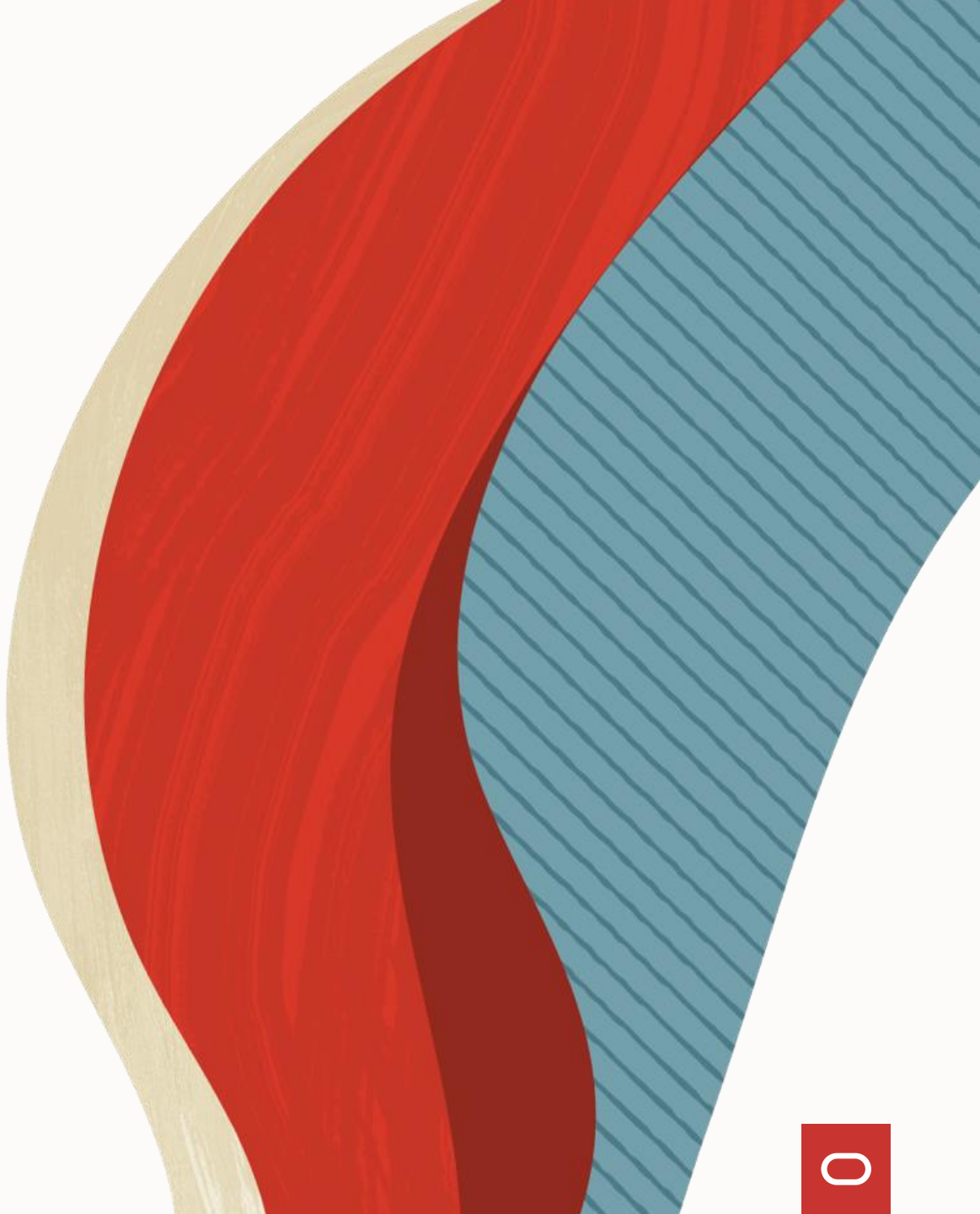
Discuss this patch in the community

```
# One or more report formats separated by spaces
# json html text

./premigration.sh \
    --connectstring jdbc:oracle:thin:@<host>:<port>/<service> \
    --username CPAT_CHECK           \
    --pdbname PDB_COMPLEX           \
    --schemas appuser,reportuser    \
    --outdir /home/oracle/cpat-db   \
    --targetcloud atps              \
    --migrationmethod goldengate    \
    --reportformat html
```

Demo

- Install CPAT
- Run CPAT
- View report




alex.zaballa@alex ~ % ssh opc@150.136.178.248

That's a lot of options.
Help me out, please!

CPAT COMPOSER

https://macsdata.com/oracle/cpat-composer

- Free to use
- Available online
- Not an official Oracle tool
- Created by Marcus Doeringer
  Migration Specialist @Oracle

CLOUD PREMIGRATION ADVISOR TOOL (CPAT) COMPOSER

Version: 25.2.0 (Default) | Template: SA: Recommended Settings

Reset | Search | About | Valid

Input Form

Recommended | Default

Operating System

Select the operating system to run CPAT

Linux
Use for Linux operating system

Windows
Use for Windows operating system

CPAT Mode

Select the mode you want to run CPAT

Source Analysis
Run CPAT on the source database for analysis

Target Properties
Generate a properties file from the target database

Output

Set Recommended | Use Placeholder

Status Info

All required options set

Recommended Options have been applied

Recommended Options

Analysis Mode: SCHEMA | File Prefix

Command | Parameter File

Command Line

```
./premigration.sh --connectstring 'jdbc:oracle:thin:@myhost:1521:ORCL' --
username sys --targetcloud ATPS --migrationmethod DATAPUMP --reportformat HTML
JSON TEXT --full --zip
```

ORACLE

Sat Feb 22 20:59:55 UTC 2025

Cloud Premigration Advisor Tool (CPAT) Report

CPAT Version: 25.2.1-1
Version Date: Feb 17, 2025
Days Since Last CPAT Update: 38 days

Table of Contents

Expand All | Close All

Premigration Advisor Report Summary

Report Result	Action Required
Number of schemas analyzed:	4
List of schemas analyzed:	[PDBUSER, CO, HR, MYAPP]

Expand All | Close All

Premigration Advisor Report Summary

Report Result	Action Required
Number of schemas analyzed:	4
List of schemas analyzed:	[PDBUSER, CO, HR, MYAPP]

Report Results Overview

Source Database		Target Database		Migration Method		Additional Tasks	
Action Required	2	Action Required	10	Action Required	1	Action Required	0
Review Required	1	Review Required	7	Review Required	2	Review Required	0
Review Suggested	2	Review Suggested	4	Review Suggested	1	Review Suggested	4
Passed	16	Passed	17	Passed	4	Passed	16

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Report Details

Return to Table of Contents

Report Details

CPAT Application Version:	25.2.1-1
Report Generated On:	Sat Feb 22 20:59:44 UTC 2025
Analysis Property File:	premigration_advisor_analysis.properties
Analysis Mode:	FULL
Target Cloud Type:	ALL
Migration Method(s):	[DATAPUMP, DATAPUMP_DBLINK, GOLDENGATE]
Command Line Options:	--connectstring jdbc:oracle:thin:@dbsystemaz:1521/pdb_complex.sub07021512520.upgradeteam.oraclevcn.com --targetcloud ALL --username SYS --sysdba --analysisprops premigration_advisor_analysis.properties --outdir /home/oracle/cpat_22_feb_2025 --logginglevel FINE --migrationmethod ALL --reportformat JSON HTML TEXT --resultlevel R0 --zip --gatherdetails ALL

More Details

Return to Table of Contents

Report Analysis Notes

More Details

Return to Table of Contents

Report Analysis Notes

Source Database Details

Source Database Version Information

Source Database Patch Information

Source Database Redo Information

Source Database Supplemental Information

Source Database Schema Summary Information

Premigration Advisor Check Details List

Source Database

Source Database Details

Source Cloud Vendor:	Oracle Cloud Infrastructure (Database)
Source Database Host Name:	dbsystemaz
Source Oracle SID:	ORCL
Source Database Created Date:	Fri Jan 24 22:23:51 UTC 2025
Source Database DBID:	1719058167
Source Database Unique Name:	ORCL_5tr_iad
Source Instance Name:	ORCL
Source Database Name:	ORCL
Source Database Username:	SYS
Source Database Port String:	x86_64/Linux 2.4.xx
Source Database Platform ID:	13
Source Database Container Name:	PDB_COMPLEX
Source DB Block Size in KB:	8
Source DB Combined Size of DATA, TEMP, LOG, and CONTROL File Usage in GB:	5.044
Source DB Size of DATA File Usage in GB:	1.856
Source DB Size of TEMP File Usage in GB:	0.17

More Details

Return to Table of Contents

Report Analysis Notes

Source Database Details

Source Database Version Information

Source Database Patch Information

Source Database Redo Information

Source Database Supplemental Information

Source Database Schema Summary Information

Premigration Advisor Check Details List

Source Database

Action Required (2 checks)

OGG Minimal Supplemental Logging Not Enabled

Description:	Minimal supplemental logging is not enabled on the Database.
Action:	Make sure minimal supplemental logging data is enabled by using executing the SQL command ALTER DATABASE ADD SUPPLEMENTAL LOG DATA; This command can be done while the database is online and no restart is required.

More Details

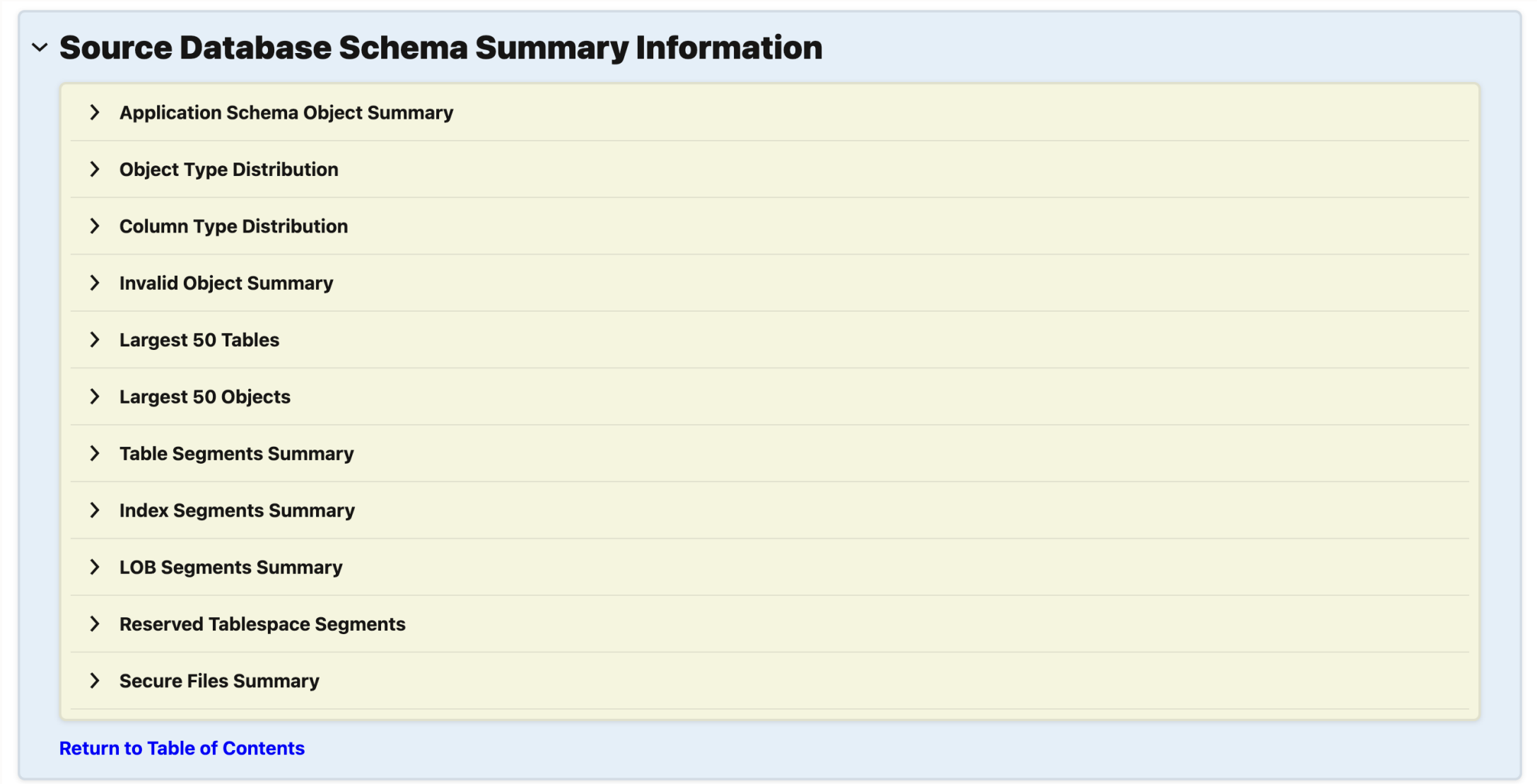
Relevant Objects (1 relevant object)

OGG Replication Not Enabled

Description:	ENABLE_GOLDENGATE_REPLICATION init.ora parameter is not set.
Action:	Make sure ENABLE_GOLDENGATE_REPLICATION is set to TRUE by using executing the SQL command: ALTER SYSTEM SET ENABLE_GOLDENGATE_REPLICATION=TRUE SCOPE=BOTH; This command can be done while the database is online and no restart is required.

More Details

Relevant Objects (1 relevant object)



--gatherdetails ALL

The documentation has additional information on each CPAT check

Utilities Guide, Oracle AI Database

```
--Generates fixup scripts whenever possible
--Stores the scripts on disk for review

./premigration.sh ... --genfixups
```

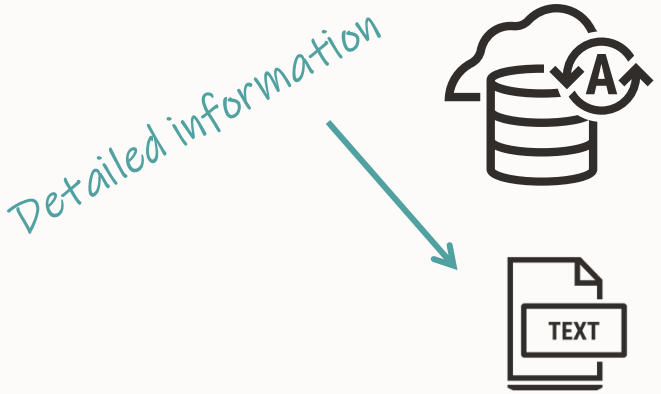
```
$ cat enable_javavm.sql

-- Check Name: has_java_source
-- Check Result: Action Required
--
-- Action:
--    Enable the JAVAVM feature on the target system by executing this SQL
--    and then restart your instance
--

BEGIN
DBMS_CLOUD_ADMIN.ENABLE_FEATURE( feature_name => 'JAVAVM' );
END;
/
```


Target Properties File

We don't have all the details

```
./premigration.sh ... --targetcloud ATPD
```

Target Properties File




```
./premigration.sh ... --analysisprops <file>
```

```
./premigration.sh ... --gettargetprops
```

You can run CPAT on any live database.

It is completely non-intrusive.

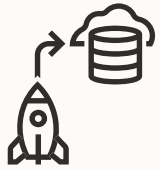
```
grant select any dictionary to cpat_check identified by ... ;
grant create session to cpat_check;

--Only if character set conversions are needed
--grant select on SYSTEM.DUM$COLUMNS to cpat_check;
--grant select on SYSTEM.DUM$DATABASE to cpat_check;
```


CPAT does not connect to the Internet

- Except for update check

```
--Always use the latest version of CPAT
--Verify that you are using the latest version
--Download latest version from Doc ID 2758371.1

./premigration.sh --updatecheck


There is no newer version available of the Cloud Premigration Advisor Tool.
The version you are running, 24.11.1, is the latest available version.
```


CPAT integration



Generate CPAT report

ZERO DOWNTIME MIGRATION

Run as part of its migration assessment

OCI DATABASE MIGRATION SERVICE

Run as part of its migration assessment

ENTERPRISE MANAGER MIGRATION WORKBENCH

Run as part of its migration assessment

SQL DEVELOPER / SQLcl

Through the MIGRATEADVISOR command

But we're on Oracle Database 10.2.0.1

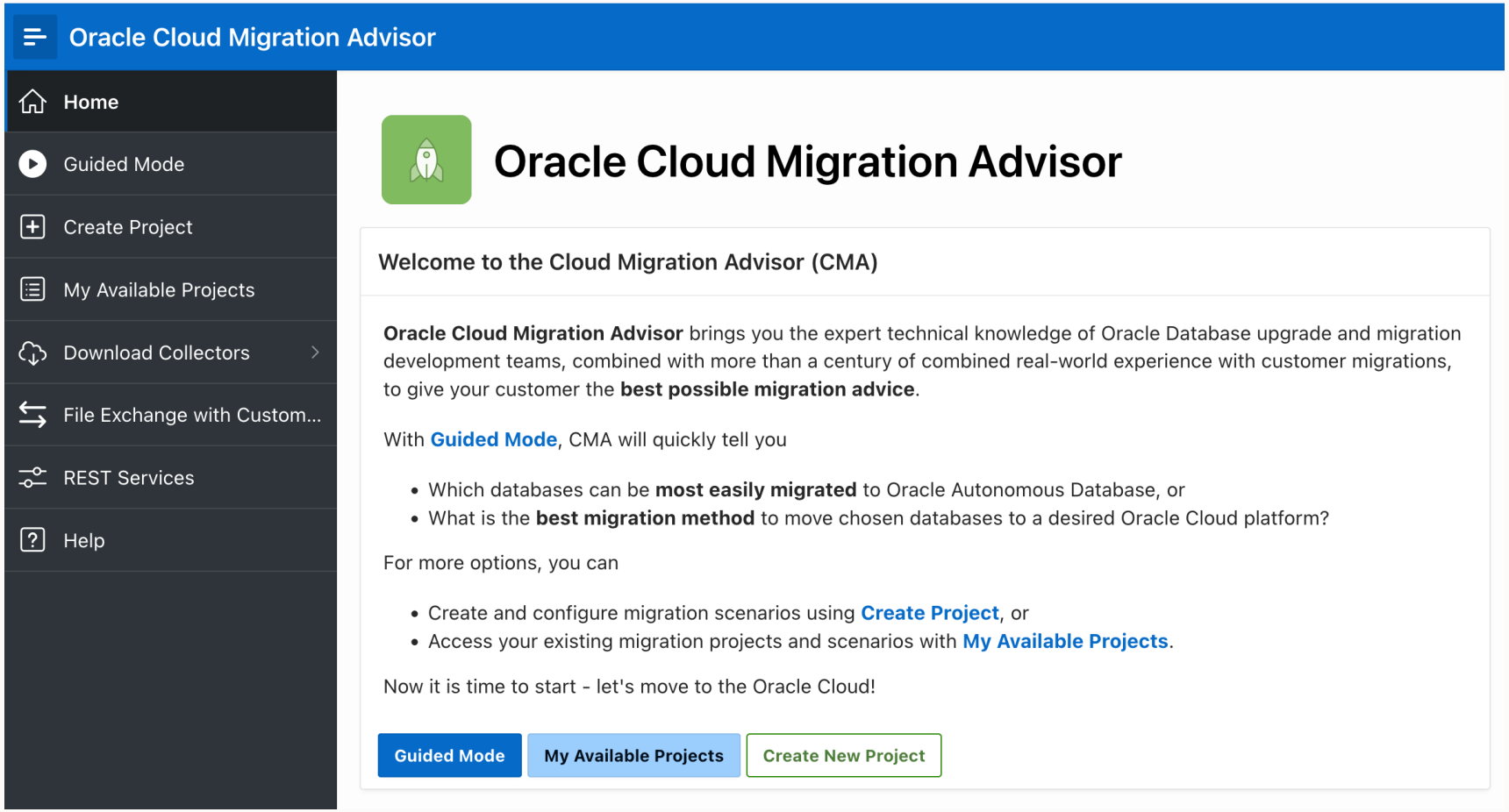
- CPAT fully supports Oracle Database 11.2.0.4 and later
- Supports earlier releases on a *best-effort* basis

Cloud Migration Advisor

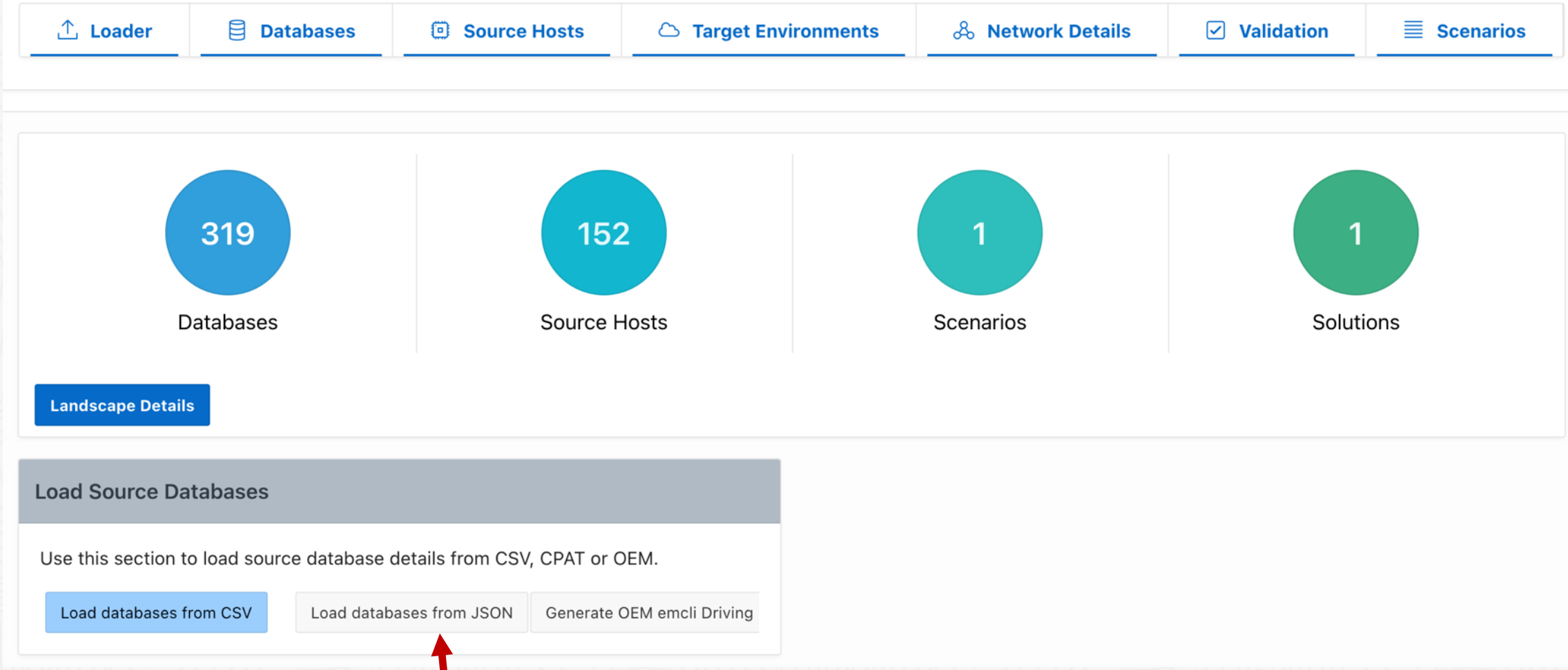
42 different migration methods

But which one is the best?

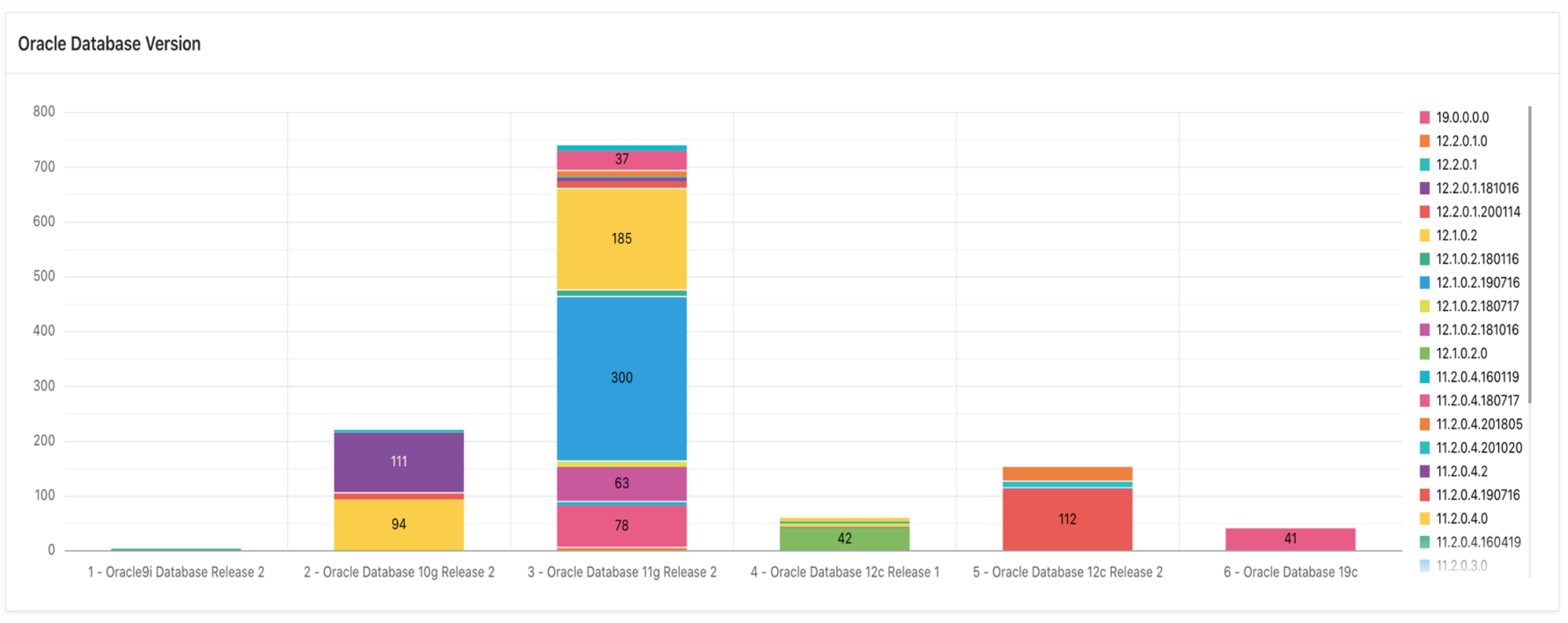
CMA knows the answer



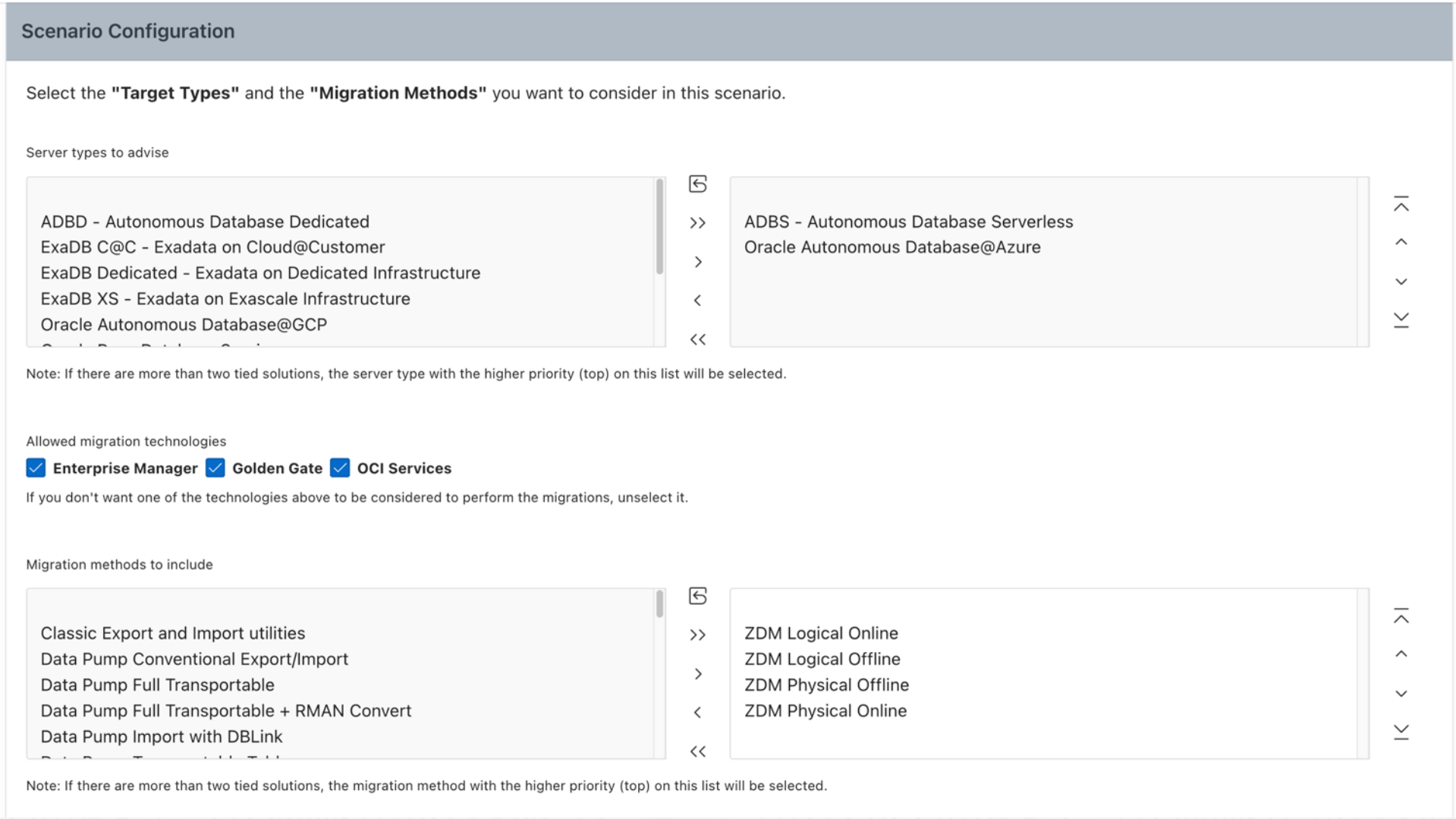
Project Overview



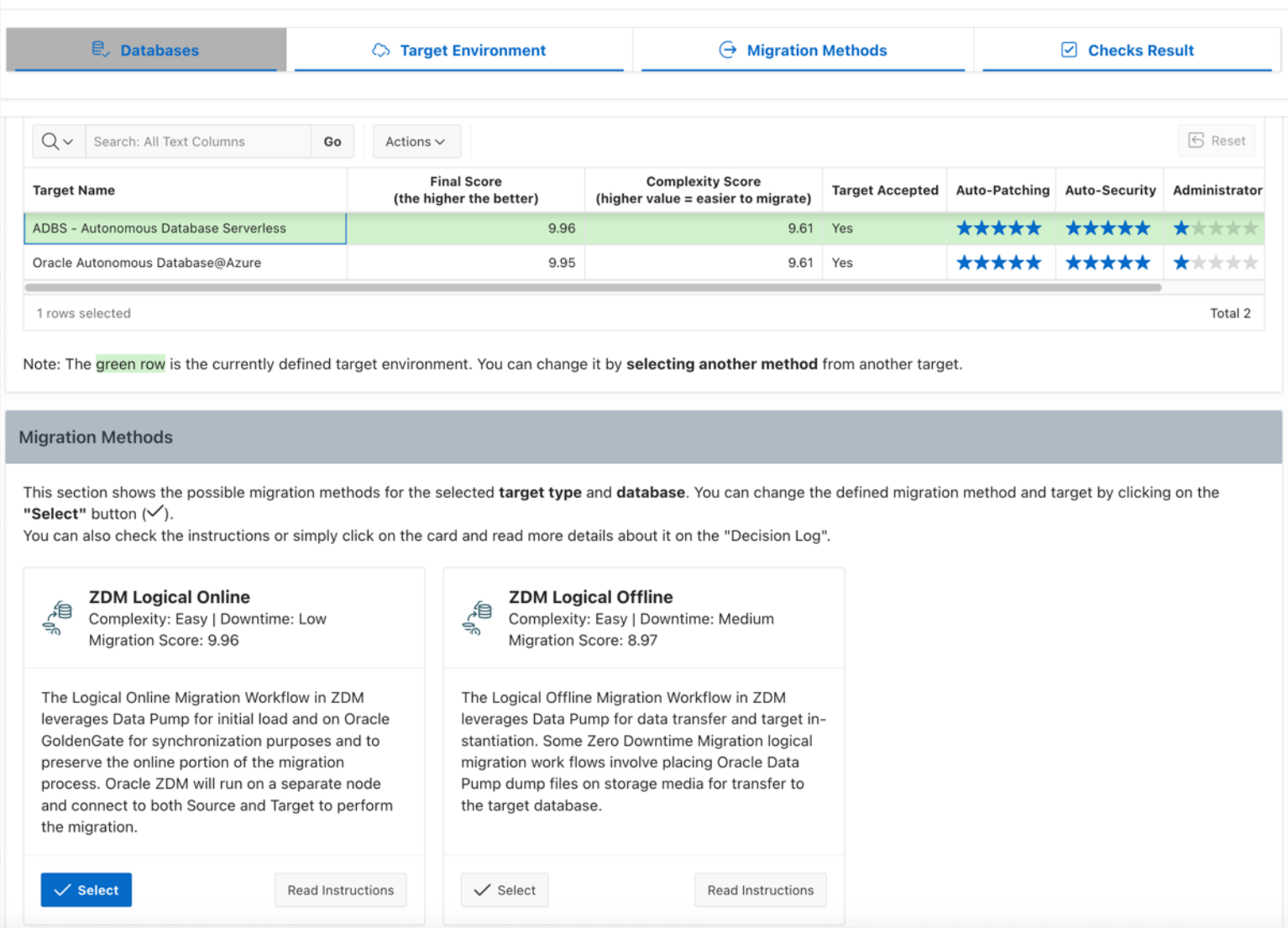
Cloud Migration Advisor | Landscape Example



Project Overview



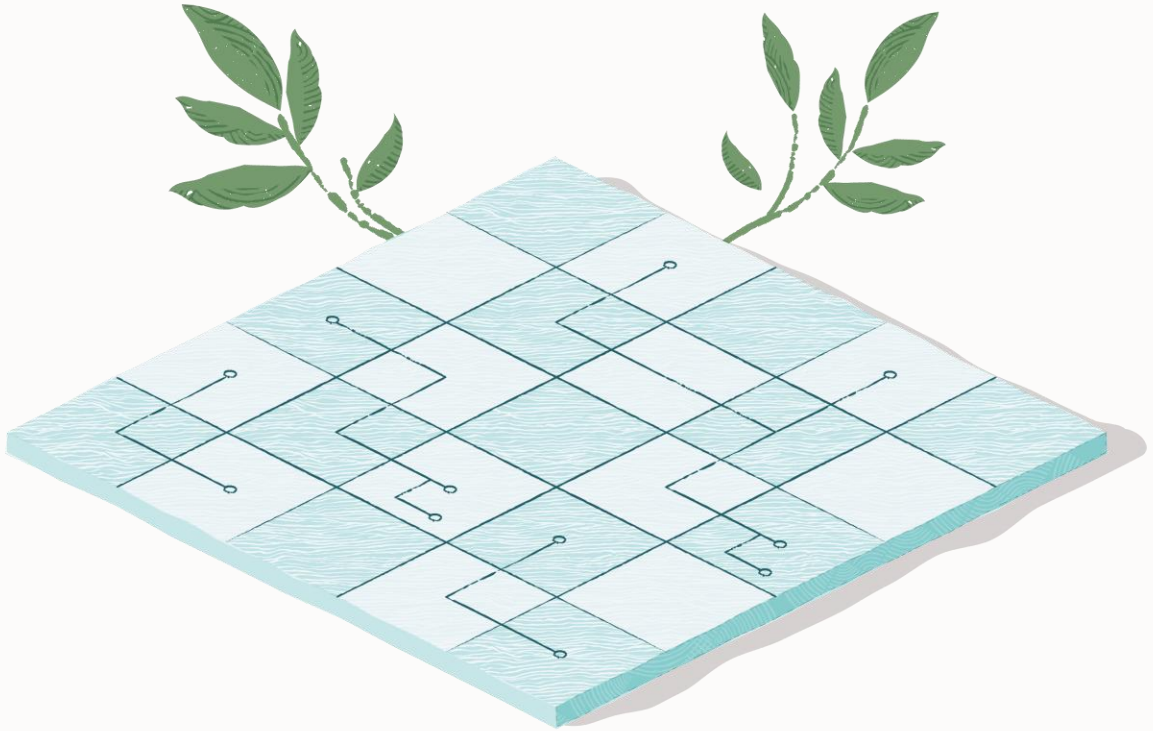
Project Overview



CMA – How to get the tool?

Send us an email – it is an APEX app

- Vagrant build
- Zip file ready to be installed into ADB-free
- Oracle internal: cma.oraclecorp.com



Tablespaces

CPAT checks for tablespaces

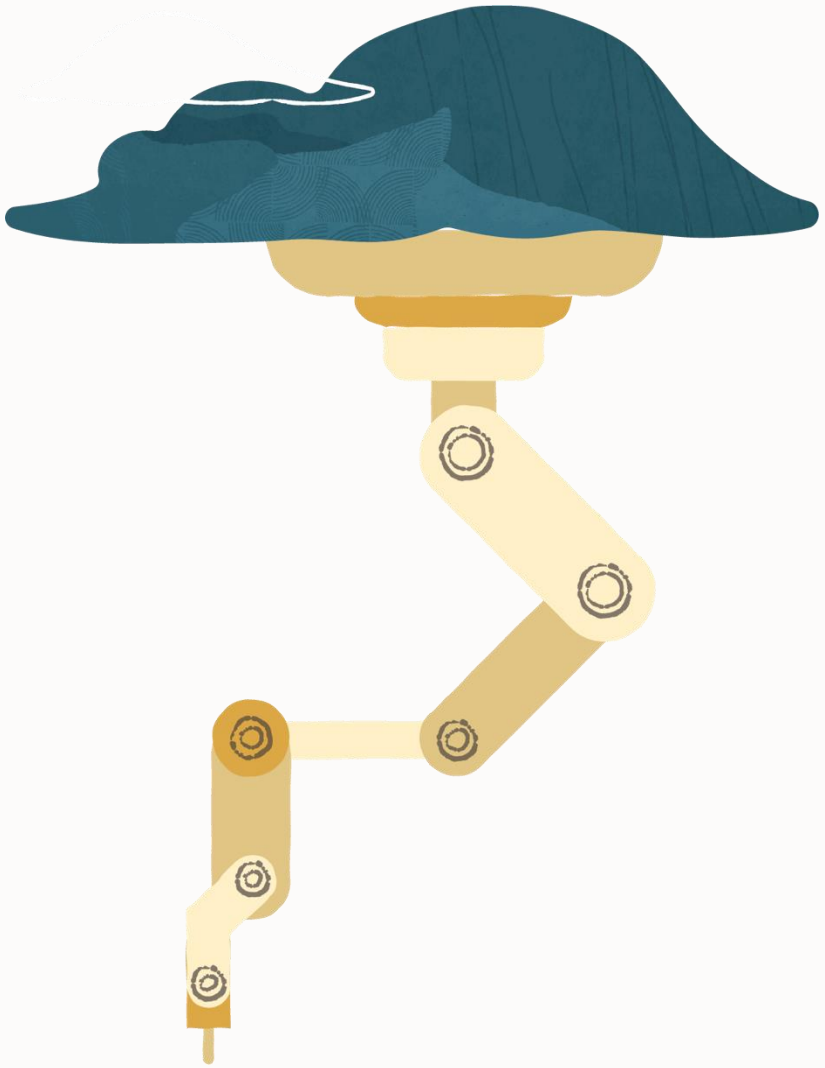
ADB-S vs ADB-D

ADB Serverless

```
SQL> set role PDB_DBA;

Role set.

SQL> create tablespace users;
create tablespace users
*
ERROR at line 1:
ORA-01031: insufficient privileges
```

ADB Dedicated

```
SQL> set role PDB_DBA;

Role set.

SQL> create tablespace users;

Tablespace USERS created.
```



Java and more

Do you use Java or Libraries?

CPAT | Java Sources and Objects

Java sources and objects are relatively easy to migrate

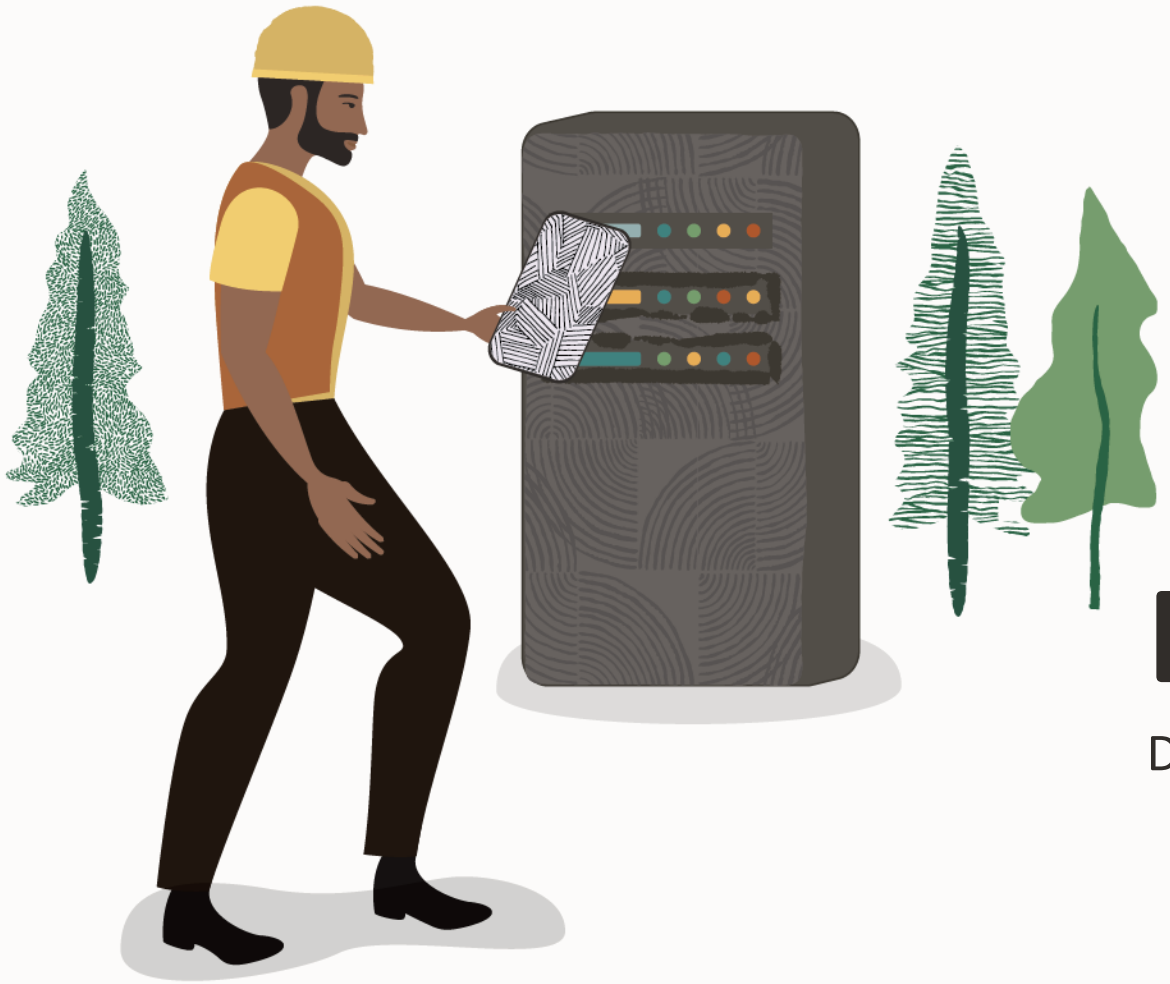
- You need to enable Java in ADB before migration

```
BEGIN
  DBMS_CLOUD_ADMIN.ENABLE_FEATURE( feature_name => 'JAVAVM' );
END;
/
```

CPAT | Libraries

Libraries can't be migrated to Oracle Autonomous Database

- Applications require update
- Dependencies on libraries must be removed
- Consider replacing library functionality with functions
  - https://docs.oracle.com/en-us/iaas/Content/Functions/
- Alternative would be EXTRPROC into an OCI Marketplace Image
  - https://docs.oracle.com/en/cloud/paas/autonomous-database/serverless/adbsb/user-defined-functions-external.html#GUID-FB998DB9-82DC-455E-ACFA-CE06BAB6FC2B



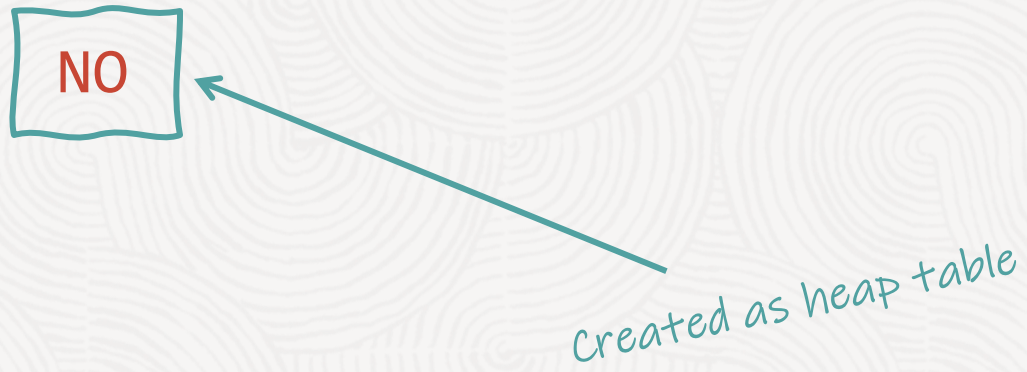
External Tables

Different handling for ADB-D and ADB-S

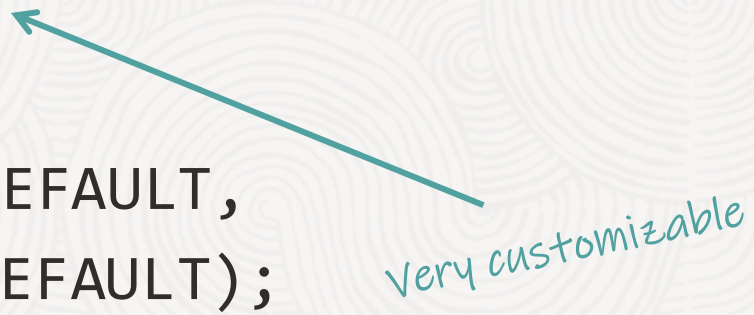
```
SQL> CREATE TABLE ext_min (id NUMBER)
       ORGANIZATION EXTERNAL (
          TYPE ORACLE_LOADER
          DEFAULT DIRECTORY ext_dir
          ACCESS PARAMETERS ( FIELDS TERMINATED BY ',' (id) )
          LOCATION ('data.csv')
       );

Table created.
```


```
SQL> CREATE TABLE ext_min (id NUMBER)
        ORGANIZATION EXTERNAL (
            TYPE ORACLE_LOADER
            DEFAULT DIRECTORY ext_dir
            ACCESS PARAMETERS ( FIELDS TERMINATED BY ',' (id) )
            LOCATION ('data.csv')
        );

Table created.
```

```
SQL> select table_name, external from user_tables;

TABLE_NAME    EXT
------------- ---
EXT_MIN       NO
```



```
DBMS_CLOUD.CREATE_EXTERNAL_TABLE (
    table_name          IN VARCHAR2,
    credential_name     IN VARCHAR2 DEFAULT NULL,
    file_uri_list       IN CLOB,
    column_list         IN CLOB,
    field_list          IN CLOB DEFAULT,
    format              IN CLOB DEFAULT);
```



In ADB-D, the “`external`” clause is fully respected

- Created as External Tables

```
SQL> CREATE TABLE ext_min (id NUMBER)
        ORGANIZATION EXTERNAL (
            TYPE ORACLE_LOADER
             DEFAULT DIRECTORY ext_dir
             ACCESS PARAMETERS ( FIELDS TERMINATED BY ',' (id) )
             LOCATION ('data.csv')
      );

Table created.
```


```
SQL> select table_name, external from user_tables;

TABLE_NAME    EXT
------------- ---
EXT_MIN       YES
```


Database Links

How do you migrate them to ADB-D and ADB-S?

```
--You can't create database links in ADB-S using
--CREATE DATABASE LINK statement

SQL> create database link ... ;

ORA-01031: insufficient privileges
```


```
exec dbms_cloud_admin.create_database_link(
    db_link_name => 'SALESLINK',
    hostname => 'my-host',
    port => '1521',
    service_name => 'my-service',
    ssl_server_cert_dn => NULL,
    credential_name => 'DB_LINK_CRED',
    directory_name => NULL,
    private_target => TRUE);
```

Simple connect string

Safely store username/password in a credential

```
--Autonomous Database Dedicated allows the use of
--CREATE DATABASE LINK syntax

SQL> create database link saleslink
     using 'host:port/service';

Database link SALESLINK created.
```

Data Pump

The simple approach

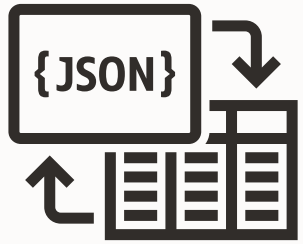
Predefined Database Service Names

Autonomous DWH

dbname_high
dbname_medium
dbname_low

Autonomous TP

dbname_tpurgent
dbname_tp
dbname_high
dbname_medium
dbname_low



Autonomous JSON

dbname_tpurgent
dbname_tp
dbname_high
dbname_medium
dbname_low

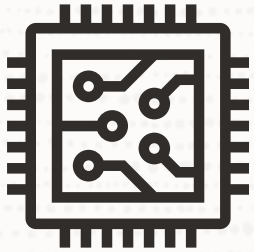
Connections

For migrations, clearly **TPURGENT** usually provides best results

- For Autonomous AI Lakehouse, you can request this service by creating a Service Request (SR)

Data Pump Bundle Patch aren't yet applied in ADB Serverless *(November 2025)*

- You may request one-off fixes via an SR



Allocate a sufficient number of ECPUs

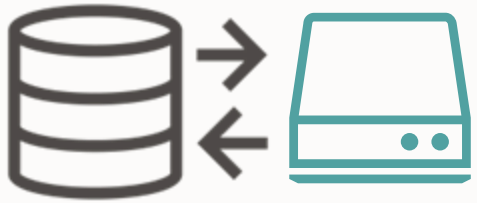
- 32 should be the minimum when you import

Export: PARALLEL 2x of physical cores

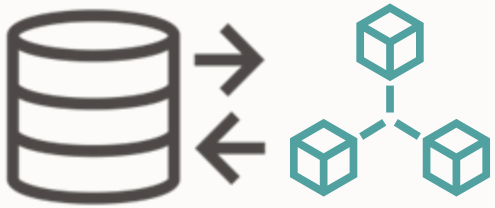
Import: PARALLEL=ECPU/4, or higher

- Scale up to the maximum for migrations

Most simple method: Data Pump



Datapump with Files



Datapump with DB Links

Datapump with Dump Files

- More control over parallelism
- Storage Overhead
- No source-target connection interoperability requirement
- Requires Object Storage / File Storage setup

Datapump with DB Links

- Network throughput and latency dependency
- Faster for smaller databases
- Requires DB Link setup
- And there is more ...

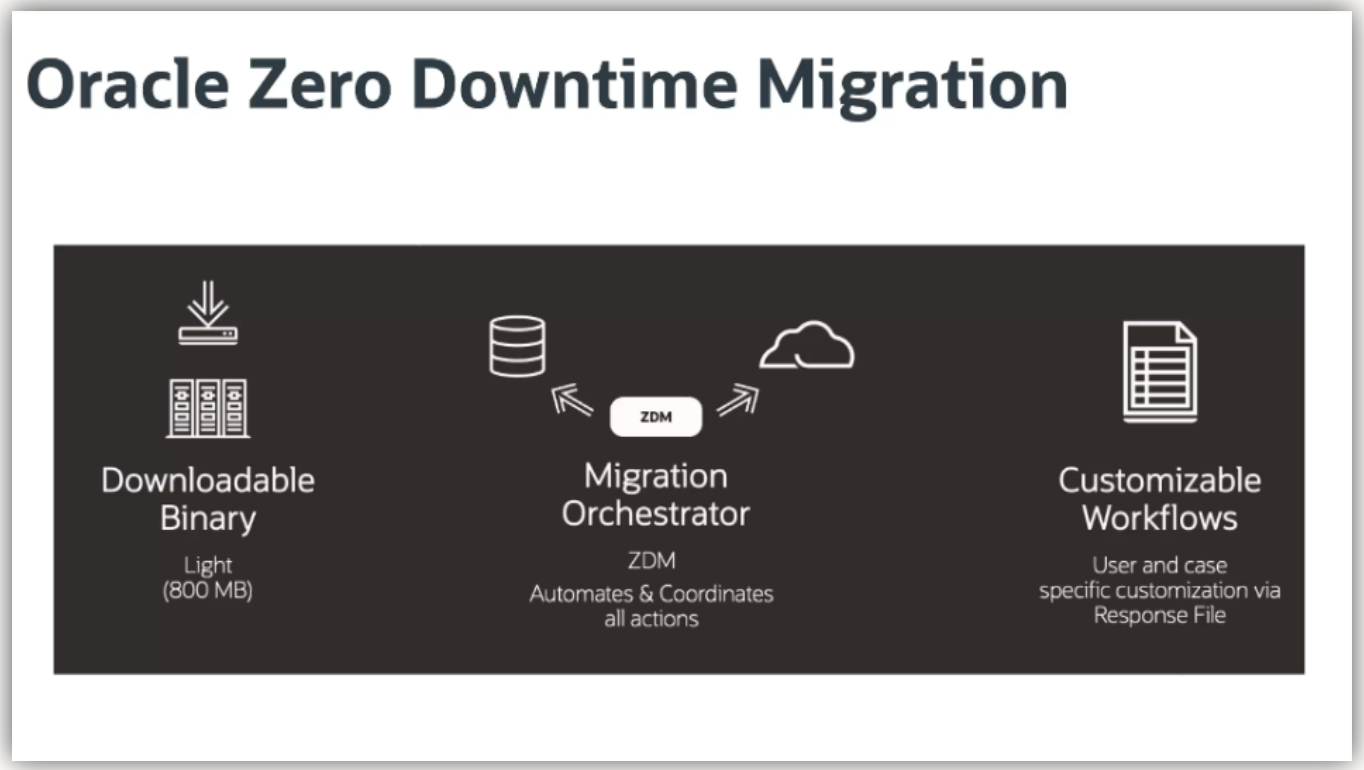
Be aware of network link import limitations

- May have a significant impact on performance

ZDM

Zero Downtime Migration

Oracle Zero Downtime Migration



Watch on YouTube

DMS

Data Migration Service

Automation

How AMA scripts ease migrations

What is AMA?

Autonomous AI Database Migration Automation (AMA)

- Simple migration solution for ADB Serverless
- Script based
- Single configuration file
- Migrates in phases
- Can act fully automated

- Not a new product, just a solution to ease migrations

An ADB-S migration is a bit like making a movie

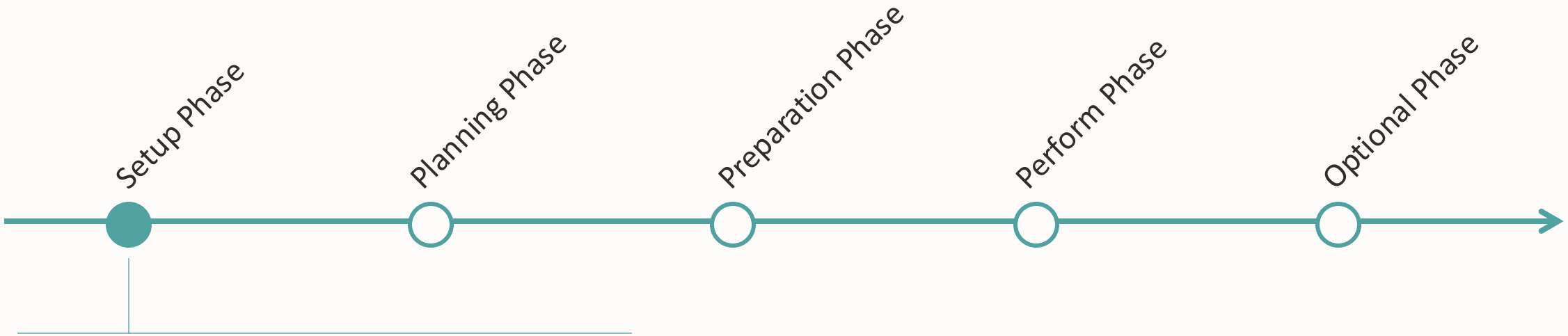
You won't start with filming right away

You need a script book
You need to cast actors
You need a film set
You need ...

Now you can start filming your scenes

And then there's plenty of work
on editing and cutting the movie

AMA Workflow



- Examination of source database (CPAT)
- Create migration directories
- Configure AMA parameter file

Parameter File

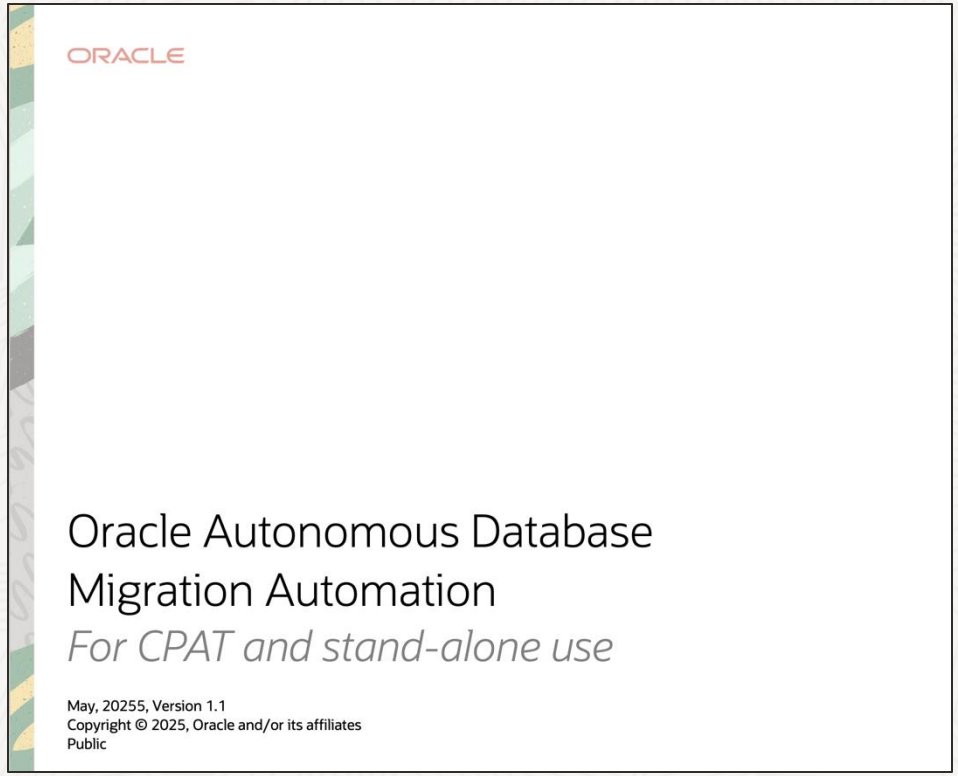
Adjust;

- Connect strings source and target
- Data Pump encryption
- Storage (FSS or Object Store)
- Format: TAB or SCRIPT

Documentation

AMA Documentation is available at request

- Documents the entire flow and all options and parameters



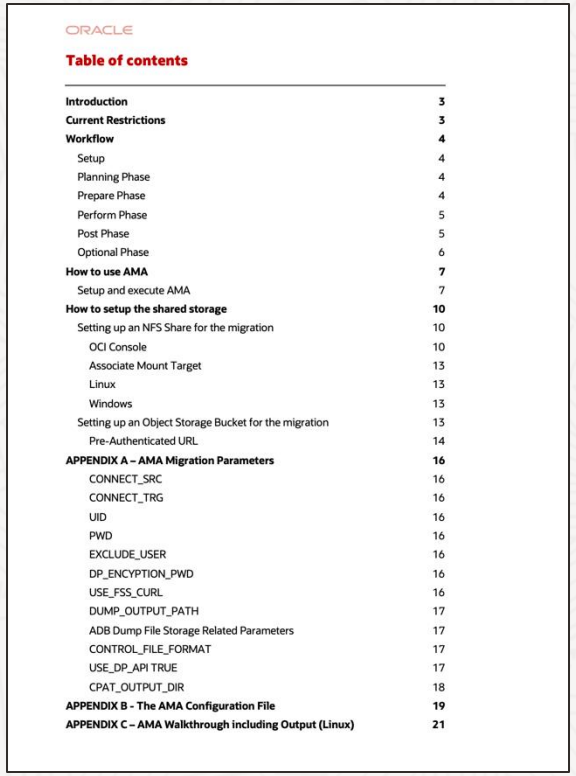
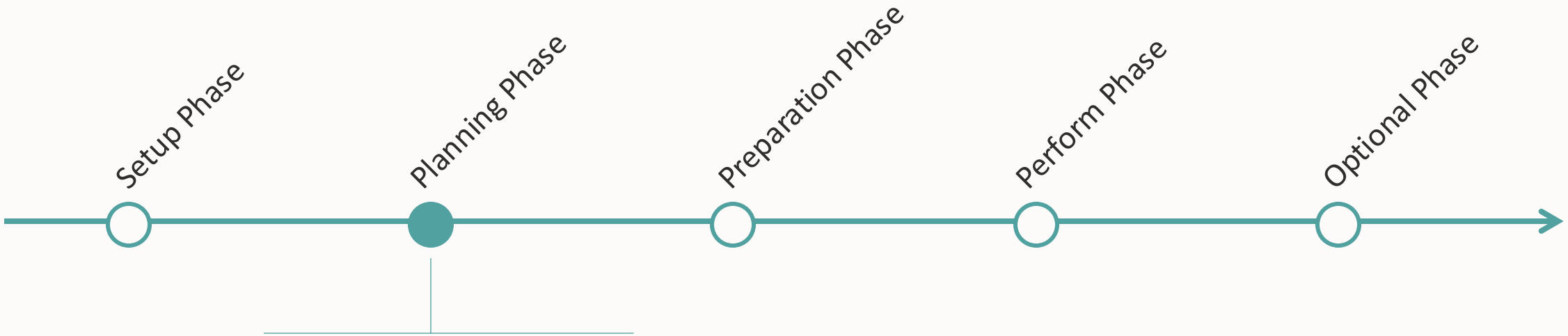

ORACLE

Table of contents

AMA Workflow



- Java and OLAP (ADB)
- Migration user
- Statistics scripts
- Quiesce scripts

AMA | Planning Phase

On-Prem - Source

Gather stats for SYS / SYSTEM

Create Migration user

Enable restricted session

Set JOB_QUEUE_PROCESSES=0

ADB-S - Target

Enable OLAP / JAVA in ADB-S

AMA Workflow

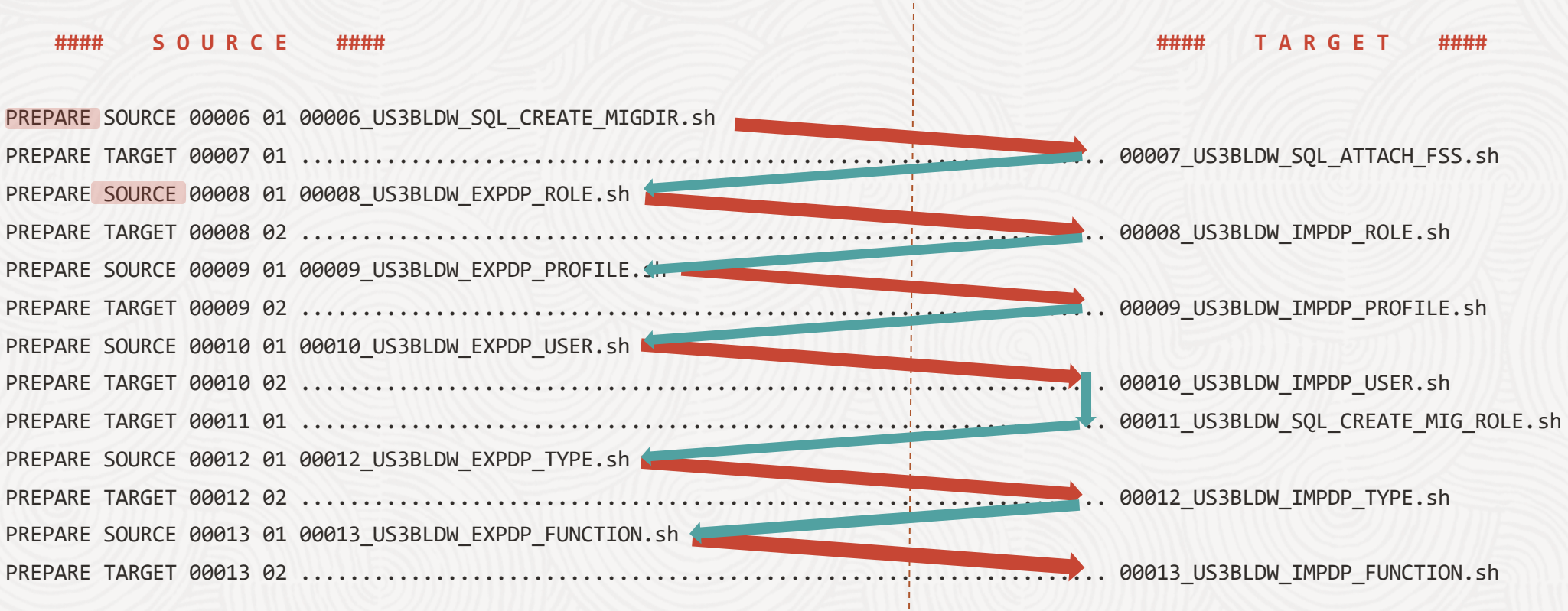
- Roles, profiles, schema definitions
- Functions, types, packages
- SQL Profiles, SQL Plans, SQL Patches

Downtime starts

AMA | Preparation Phase

On-Prem - Source	ADB-S - Target
Collect allowed ROLES	
	Create ROLES
Collect PROFILES	
	Create PROFILES
	Create storage credential (NFS, Object Store)
Export schema definition	
	Import schema definition
Export FUNCTIONS, TYPES, PACKAGES	
	Import FUNCTIONS, TYPES, PACKAGES
	Granting migration privileges
	Alter user profiles
Collect SQL Profiles, SQL Plans, SQL Patches	
	Create SQL Profiles, SQL Plans, SQL Patches

```
---
--- PREPARATION PHASE ---
--- All steps in this phase will prepare the source and target database ---
--- The scripts depend on each other, so execute in this phase one script after the other ---
---
---
```




```
---
```

AMA Workflow

- Export schemas and audit trail
- Copy files (if necessary)
- Import schemas and audit trail

AMA | Perform Phase

On-Prem - Source

Export all schemas

Export audit trail

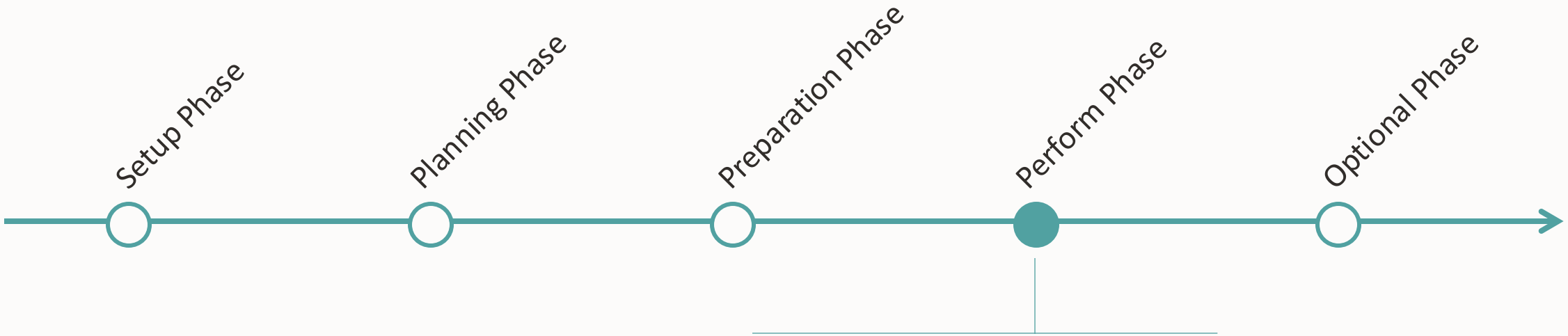
Copy files (if necessary)

ADB-S - Target

Import all schemas

Import audit trail

AMA Workflow



- Cross-schema objects
- Privileges
- Profile adjustments
- Advanced queues
- Recompilation

```
---
--- PERFORM PHASE ---
--- Commonly in this phase nothing depends on each other (except you for example have objects that depend on objects stored in other schema) ---
--- So export jobs can be started in parallel and imports once the export finished ---
---
---
```

#### S O U R C E ####	#### T A R G E T ####
PERFORM SOURCE 00014 01 00014_US3BLDW_EXPDP_AUDIT_TRAILS.sh	
PERFORM TARGET 00014 02	00014_US3BLDW_IMPDP_AUDIT_TRAILS.sh
PERFORM SOURCE 00015 01 00015_US3BLDW_SQL_GEN_SQL_PROFILE_STAGE_TAB.sh	
PERFORM SOURCE 00015 02 00015_US3BLDW_EXPDP_SQL_PROFILES.sh	
PERFORM TARGET 00015 03	00015_US3BLDW_IMPDP_SQL_PROFILES.sh
PERFORM TARGET 00015 04	00015_US3BLDW_SQL_APPL_SQL_PROFILE_STAGE_TAB.sh
PERFORM SOURCE 00016 01 00016_US3BLDW_SQL_GEN_SQL_PATCHES_STAGE_TAB.sh	
PERFORM SOURCE 00016 02 00016_US3BLDW_EXPDP_SQL_PATCHES.sh	
PERFORM TARGET 00016 03	00016_US3BLDW_IMPDP_SQL_PATCHES.sh
PERFORM TARGET 00016 04	00016_US3BLDW_SQL_APPL_SQL_PATCHES_STAGE_TAB.sh
PERFORM SOURCE 00017 01 00017_US3BLDW_EXPDP_SCHEMA_FUSION.sh	
PERFORM TARGET 00017 02	00017_US3BLDW_IMPDP_SCHEMA_FUSION.sh
PERFORM SOURCE 00018 01 00018_US3BLDW_EXPDP_SCHEMA_FUSION_OCSERVER11G.sh	
PERFORM TARGET 00018 02	00018_US3BLDW_IMPDP_SCHEMA_FUSION_OCSERVER11G.sh

```
...
```

AMA | Perform Phase

On-Prem - Source

Export network ACLs

ADB-S - Target

- FOREIGN KEYS cross-schemas
- INDEXES cross-schemas
- FUNCTIONAL INDEXES enableing
- REVOKE transition privileges
- GRANT privs SYS, SYSTEM, CTXSYS, objects
- Restore final profiles
- Set tablespace quotas

- Import network ACLS
- Enable Advanced Queues
- Recompilation

```
---
--- POST PHASE ---
--- Here execute again all scripts one after the other as they might have dependencies again ---
---
---
```

#### S O U R C E ####	#### T A R G E T ####
POST TARGET 00082 01	00082_US3BLDW_SQL_REMOVE_MIG_ROLE.sh
POST TARGET 00083 01	00083_US3BLDW_SQL_SYS_PRIVS.sh
POST TARGET 00084 01	00084_US3BLDW_SQL_CTXSYS_PRIVS.sh
POST TARGET 00085 01	00085_US3BLDW_SQL_DATAMINING_PRIVS.sh
POST TARGET 00086 01	00086_US3BLDW_SQL_OBJECT_PRIVS.sh
POST TARGET 00087 01	00087_US3BLDW_SQL_ROLE_PRIVS.sh
POST TARGET 00088 01	00088_US3BLDW_SQL_TBS_QUOTES.sh
POST TARGET 00089 01	00089_US3BLDW_SQL_DETACH_FSS.sh
POST SOURCE 00090 01 00090_US3BLDW_EXPDP_NETWORK_ACL.sh	
POST TARGET 00090 02	00090_US3BLDW_IMPDP_NETWORK_ACL.sh
POST TARGET 00091 01	00091_US3BLDW_SQL_SET_AQ_STATUS.sh
POST TARGET 00092 01	00092_US3BLDW_SQL_RECOMPILE.sh

```
---
---
--- END OF MIGRATION ---
```

AMA Workflow

- Object comparison
- Row export/import comparison
- OLAP Analytic Workspace

Done!!

AMA can run a migration fully automated and completely unattended

Works with MS Windows as source database

Wrapping Up

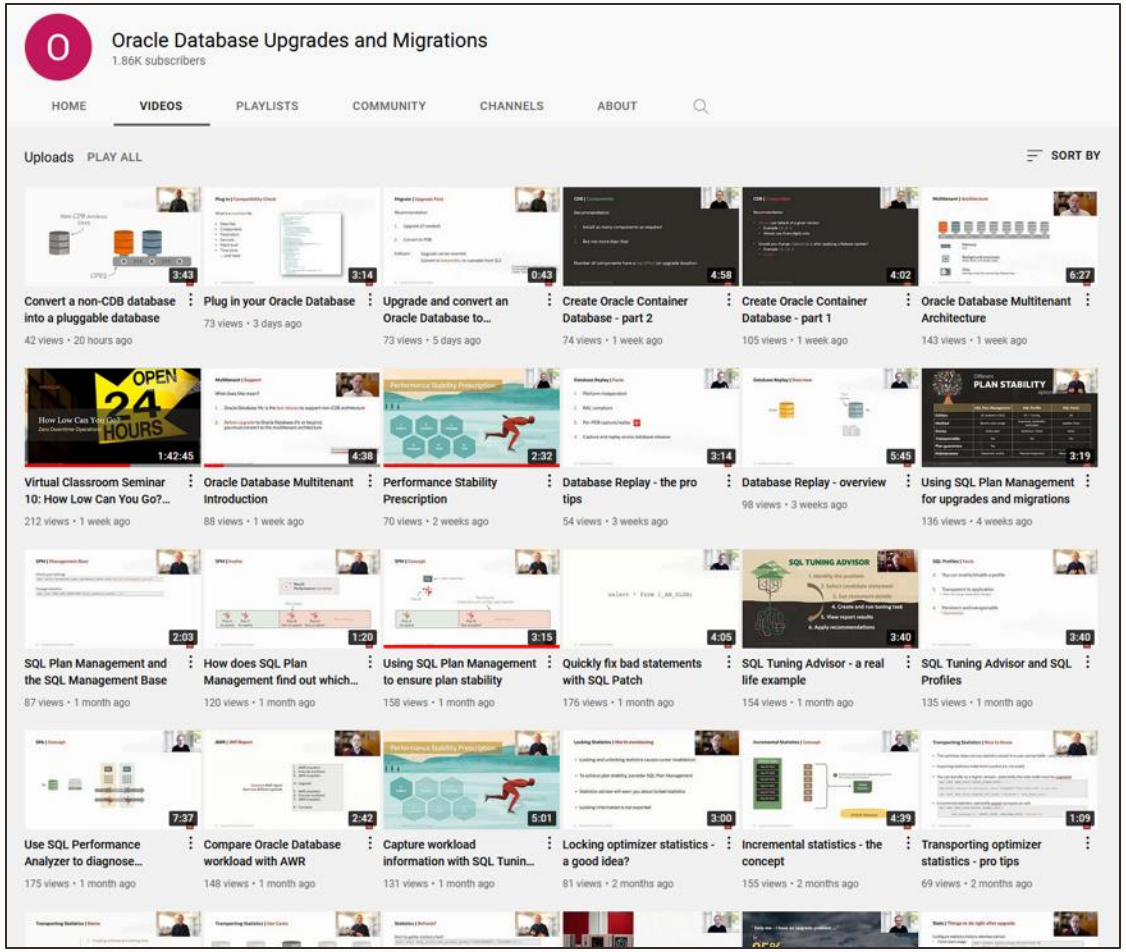
Key Learnings

1. Find the right candidates for ADB
2. Follow our migration approach
3. Ask us about your ADB migration project

Try it out, please!!

- We are looking for reference customers
- Get in touch with us when you tested it

YouTube | @UpgradeNow



Link

- 300+ videos
- New videos every week
- No marketing
- No buzzwords
- All tech

SCAN ME

Thank You