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1.Introduction

1.1. What is CMA?

Cloud Migration Advisor (CMA) is an Oracle-developed tool that helps organizations plan and optimize their database migration journey to Oracle Cloud Infrastructure (OCI). CMA consolidates metadata from various sources, evaluates migration scenarios, and provides actionable recommendations for selecting the most suitable target environment and migration method.

1.2. Key Features and Use Cases

- Automates the analysis of source database metadata
- Supports data collection via CPAT, CSV Exporter, OEM, and manual spreadsheet
- Provides guided recommendations for Autonomous Database (ADB) targets
- Offers visual and textual migration reports
- Enables scenario modeling with method prioritization and downtime scoring
- Assists in preparing technical reports for internal planning or customer presentation

1.3. Guided Mode vs. Standard Mode

Guided Mode is intended for quick, high-level analysis where either the target is not known, or the user seeks fast migration recommendations:

- *Best Candidate Mode*: Identify which databases are best suited for migration to any type of ADB.
- *Best Method Mode*: Recommend optimal migration methods when the target database type is known.

Standard Mode is a comprehensive planning process involving project setup, database metadata upload, scenario modeling, method scoring, and solution reporting. It allows detailed customization and scenario comparison for complex migrations.

2. CMA Guided Mode HowTo

2.1. Overview of Guided Mode

Cloud Migration Advisor (CMA) Guided Mode is designed for quick and automated migration planning. It supports two main flows depending on whether a target database type is already known:

- **[Best Candidate Mode](#)**: Helps identify which source databases are most compatible with migration to Oracle Autonomous Database (ADB).
- **[Best Migration Method Mode](#)**: Recommends the most effective migration methods based on a specified target database platform.

Both guided modes require source database input. You can supply this data by:

- Uploading output files from the **[Cloud Premigration Advisor Tool \(CPAT\)](#)** or running the **[CMA Exporter](#)** or **[OEM Exporter](#)** to generate the required metadata.

2.2. Identifying the Best Candidates for ADB

To use this mode:

1. From the CMA main screen, select **What are the best candidates to move to ADB?**

Guided Mode

✓

Introduction

●

Step 1

●

Step 2

●

Step 3

Selected Option

☒

What are the best candidates to move to ADB?

☐

I have my target defined. What is the best migration method?

<

Cancel

Next >

2. Upload source database metadata via:

- CPAT JSON files
- CSV exports
- Manual entries (optional)

Guided Mode

✓

Introduction

✓

Step 1

●

Step 2

●

Step 3

Load DBs from:

☒

CPAT JSON files

☐

CSV Exporter

☐

Manual Input

Download CPAT Exporter

Upload JSONs

2

Databases Loaded

<

Cancel

Next >

3. Click **Finish**. CMA will evaluate the uploaded databases and generate a compatibility report indicating which databases are best suited for ADB. The output includes:
 - Target fit score
 - Readiness level
 - Recommended next steps

2.3. Selecting the Best Migration Method

To use this mode:

1. From the CMA main screen, select the migration target from the drop-down list:

Guided Mode

Introduction Step 1 Step 2 Step 3

Selected Option

☐ What are the best candidates to move to ADB?

☒ **I have my target defined. What is the best migration method?**

✓

- ADBD - Autonomous Database Dedicated
- ADBS - Autonomous Database Serverless
- ExaDB C@C - Exadata on Cloud@Customer
- ExaDB Dedicated - Exadata on Dedicated Infrastructure
- ExaDB XS - Exadata on Exascale Infrastructure
- Oracle Autonomous Database@Azure
- Oracle Autonomous Database@GCP
- Oracle Base Database Service
- Oracle Exadata Database@AWS
- Oracle Exadata Database@Azure
- Oracle Exadata Database@GCP

2. Upload source database metadata via:

- CPAT JSON files
- CSV exports
- Manual entries (optional)

Guided Mode

✓

Introduction

✓

Step 1

Step 2

Step 3

Load DBs from:

CPAT JSON files

CSV Exporter

Manual Input

Download CPAT Exporter

Upload JSONs

2

Databases Loaded

< Cancel

Next >

3. (Optional) Provide network throughput and configuration details.

Guided Mode

✓

Introduction

✓

Step 1

✓

Step 2

Step 3

Extra Information:

Network Throughput in Mbit/s

(Not Specified) ▾

Accepted Downtime

(Not Specified) ▾

< Cancel

Finish >

4. Click **Finish** to receive a tailored list of migration methods ranked by:

- Downtime
- Complexity
- Data volume
- Connectivity constraints

3. CMA Workflow HowTo

3.1. Overview of How to Use CMA

CMA enables precise and comprehensive migration planning. This step-by-step workflow outlines how to use CMA effectively:

Step 1: Collect Source Database Metadata

- Use CPAT, CMA CSV Exporter, OEM, or Spreadsheet to gather metadata from your source environments.

Step 2: Create a Project in CMA

- Start a new project and define its scope. Each project may include one or more databases.

Step 3: Upload Metadata to CMA

- Load your collected data into CMA using the appropriate method: JSON (CPAT), CSV (Exporter or OEM), or manual entry.

Step 4: Build a Scenario

- Group databases, configure migration preferences, prioritize criteria like downtime or complexity, and define solution constraints.

Step 5: Generate a Solution

- Run the scenario to evaluate migration paths. CMA calculates the best target environments and methods.

Step 6: Review Reports

- Analyze solution reports (graphical, textual, or CPAT check summaries) to validate your migration plan or share with stakeholders.

3.2. Collecting Source Database Metadata

Before you can start using CMA you need to collect metadata information about the source database(s) you want to migrate.

There are currently four ways in CMA to collect details about a source database:

- [CPAT's JSON output](#)
- [CSV using a collector script](#)
- [CSV generated from OEM repository & emcli](#)
- [an Excel Spreadsheet](#)

All files available for download and a PDF with the instructions how to use it can be found also on oracle.com/goto/upgrade

Side Note: We strongly recommend using the CPAT or CSV collector scripts rather than the Excel spreadsheet as the first two methods automatically collect metadata from the source database and the generated output files and you can upload the generated output directly into CMA.

A common way to exchange large files is either by uploading it to a service request or to use the Oracle sftp server. A note how Oracle employees can access the sftp server is [Primary Document for Oracle SFTP \(Doc ID 2671535.1\)](#). Although this note contains also information how customers can access the sft site we prefer to share this note with customers: [External Access to Oracle SFTP \(Doc ID 2813938.1\)](#)

3.2.1. Using CPAT (Cloud Premigration Advisor Tool)

1. Download CPAT from Oracle Support (Patch 32613591).
2. Run `cma.sh` with the parameters `-targetcloud ALL --migrationmethod ALL` to generate a JSON report:

```
$ cd <folder-where-premigration-zip-file-was-expanded>
$ ./bin/cma.sh --outfileprefix EDU12_JSON -targetcloud ALL --
migrationmethod ALL --outdir . --connectstring
'jdbc:oracle:thin:@localhost:1521:EDU12' --sysdba --username sys
Enter password for sys user:
Cloud Premigration Advisor Tool Version 24.9.0
Cloud Premigration Advisor Tool completed with overall result: Action
Required
Cloud Premigration Advisor Tool generated report
location: ./EDU12_JSON_premigration_advisor_report.json
```

3. Upload the generated JSON file to CMA.

3.2.2. Using the CSV Exporter

1. Download the `cma_csv_exporter.zip` file from <https://www.oracle.com/goto/upgrade>.
2. Upload the ZIP file to the host(s) containing the database(s) you want to migrate and unzip the file: `unzip cma_csv_exporter.zip`
3. You have two choices to collect source database metadata depending on how many databases you want to migrate on this host and whether an `oratab` file exists in your environment.
 - a. **If you want to migrate all databases on this host and an `oratab` file exists:**
Execute the shell script `sh ./cma_<platform>.sh` located in the `cma_csv_exporter` directory that matches your platform. The script will step through the `oratab` file and collect metadata from all databases mentioned in it.

```
[ORACLE@LOCALHOST CMA/CSV_EXPORTER]$ cat /ETC/ORATAB
EBSDB:/U01/INSTALL/APPS/12.1.0:N
[ORACLE@LOCALHOST CMA/CSV_EXPORTER]$
[ORACLE@LOCALHOST CMA/CSV_EXPORTER]$ sh ./CMA_LINUX.sh
START CMA CSV EXPORTER.
EBSDB: INSTANCE NAME = DB_UNIQUE_NAME (SINGLE INSTANCE DATABASE)
THE ORACLE BASE HAS BEEN SET TO /U01/INSTALL/APPS/12.1.0
EXECUTING CMA_COLLECTOR
PLEASE WAIT ...
...
```

b. **If you want to migrate one database on this host or no oratab file exists:**

Go to the environment of the database from which you want to collect metadata information, go to the `cma_csv_exporter/sql` directory and execute the SQL script.

```
[ORACLE@LOCALHOST CMA/CSV_EXPORTER/SQL]$ sqlplus SYSTEM/MANAGER
@CMA_COLLECT.sql

SQL*PLUS: RELEASE 12.1.0.2.0 PRODUCTION ON FRI FEB 10 08:09:53 2023
COPYRIGHT (C) 1982, 2014, ORACLE. ALL RIGHTS RESERVED.

LAST SUCCESSFUL LOGIN TIME: WED FEB 08 2023 10:15:35 +00:00

CONNECTED TO:
ORACLE DATABASE 12C ENTERPRISE EDITION RELEASE 12.1.0.2.0 - 64BIT
PRODUCTION
WITH THE PARTITIONING, OLAP, ADVANCED ANALYTICS AND REAL APPLICATION
TESTING OPTIONS

EXECUTING CMA_COLLECTOR
PLEASE WAIT ...

...
```

4. The script generates a ZIP file containing a `.csv` file.
5. Upload CSV file to CMA.

3.2.3.Using OEM and EMCLI

1. Download the `cma-oem-collector.zip` file from www.oracle.com/goto/upgrade.
2. Unzip the zip file into your working directory. You will find a SQL script named `cma_oem_repo_exporter.sql`.
3. Connect to your OEM repository database with SQL*Plus and execute this script, for example:

```
sqlplus sysman/<OEM password>@<OEM repo>:<listener port of the
OEM repository listener>/<service name of your OEM repository
database> @cma_oem_repo_exporter.sql
```

4. Generates an CSV output file `csv` in your working directory that lists all available databases in the OEM repository.

```
[ORACLE@LOCALHOST CMA/COLLECT_REPOSITORY]$ sqlplus sysman/<OEM
password>@LOCALHOST/EMREP @OEM_REPO_EXPORTER.SQL
SQL*PLUS: RELEASE 19.0.0.0.0 - PRODUCTION ON FRI FEB 10 09:11:04 2023
VERSION 19.3.0.0.0
COPYRIGHT (C) 1982, 2019, ORACLE. ALL RIGHTS RESERVED.
LAST SUCCESSFUL LOGIN TIME: FRI FEB 10 2023 09:04:57 +00:00
CONNECTED TO:
ORACLE DATABASE 19C ENTERPRISE EDITION RELEASE 19.0.0.0.0 -
```

```

PRODUCTION
VERSION 19.3.0.0.0
HOST_NAME,TARGET_NAME,TARGET_TYPE,TARGET_GUID,DATABASE_NAME,GLOBAL_NAME,
BANNER,INSTANCE_NAME,RELEASE,EDITION,DBVERSION
HOL3T.CMAAPP.CMAVCN.ORACLEVCN.COM,CDB1.CMAAPP.CMAVCN.ORACLEVCN.COM,ORACLE_
DATABASE,FDE759B85FEEB951E7A3F8783E782230,CDB1,CDB1.CMAAPP.CMAVCN.
ORACLEVCN.COM,ORACLE DATABASE 21C ENTERPRISE EDITION RELEASE
21.0.0.0.0 - PRODUCTION,CDB1,ORACLE DATABASE 21C,ENTERPRISE
EDITION,21.0.0.0.0
...
HOL1S.CMAAPP.CMAVCN.ORACLEVCN.COM,EDU12,ORACLE_DATABASE,EE4971CCE5DE6
924E0531000000AB958,EDU12,EDU12,ORACLE DATABASE 12C ENTERPRISE
EDITION RELEASE 12.1.0.2.0 - 64BIT PRODUCTION,EDU12,ORACLE DATABASE
12C,ENTERPRISE EDITION,12.1.0.2.0
HOL2S.CMAAPP.CMAVCN.ORACLEVCN.COM,EDU121,ORACLE_DATABASE,A9E7B7730E53
482557B0A62B98DC7F75,EDU12,EDU12,ORACLE DATABASE 12C ENTERPRISE
EDITION RELEASE 12.1.0.2.0 - 64BIT PRODUCTION,EDU12,ORACLE DATABASE
12C,ENTERPRISE EDITION,12.1.0.2.0
...
[ORACLE@LOCALHOST CMA/COLLECT_REPOSITORY]$

```

5. **Optionally, edit this CSV file** and remove databases that aren't migration candidates before uploading into CMA.
6. Upload this CSV output file into the Cloud Migration Advisor using **Generate OEM collector csv** to generate an emcli script `oem_emcli_control.csv`.

Collect migration details

Use the `oem_emcli_control.csv` script with OEM emcli to collect database metadata from your migration candidates.

1. Download the csv and together with an `emcli_collector.zip` file from CMA.
2. Store csv and unzip `emcli_collector.zip` into the same working directory on the host that has emcli installed. Please ensure those files are in the same directory or emcli will not execute properly.
3. Ensure your `PATH` variable contains the emcli directory
4. Set and export the `EMCLI_HOME` environment variable to the emcli directory – for example:

```
export EMCLI_HOME=/u01/app/oracle/emcli/bin
```

5. Run emcli using the driver script and the CSV file containing the list of databases from which to collect, for example:

```
sh ./oem_emcli_control.sh <OMS username> <OEM SQL Credentials
for db snmp>
```

where

<OMS username>: is the owner of the OEM repository, e.g. sysman

<OEM SQL Credentials for db snmp>: Valid OEM SQL credentials for db snmp usually are DBCredsNormal or DBCredsSYSDBA. If you require assistance setting up these credentials, please consult:

[MOS Note 1639266.1: Emcli Execute_sql Fails With Error 'Preferred Credentials Do Not Exist For Some Targets' in EM](#)

```
[ORACLE@LOCALHOST CMA/EMCLI_COLLECTOR> EXPORT
EMCLI_HOME=/ORACLE/SOFTWARE/APP/MIDDLEWARE/BIN
[ORACLE@LOCALHOST CMA/EMCLI_COLLECTOR> SH ./OEM_EMCLI_CONTROL.SH
SYSMAN DBCREDSNORMAL
PASSWORD FOR USER SYSMAN:
WORKING ON:  EDU12:ORACLE_DATABASE:EE4971CCE5DE6924E0531000000AB958
USING DBCREDSNORMAL CREDENTIALS
SUCCESSFULLY LOGGED IN
GATHERING SYSDATE
WRITING OUTPUT TO
FILE:./CMA_EE4971CCE5DE6924E0531000000AB958_20230210_0913.OUT
RUNNING CMA COLLECTOR SCRIPT
WORKING ON:  EDU121:ORACLE_DATABASE:A9E7B7730E53482557B0A62B98DC7F75
USING DBCREDSNORMAL CREDENTIALS
...
```

6. emcli generates a separate output file for each database containing the metadata needed by Cloud Migration Advisor to give migration advice for that database. Collecting the metadata with emcli may take several minutes depending on the number of databases being processed. The files will be named: cma_<ID>_<DATE>.out
7. Upload the output into CMA.

3.2.4. Using a Spreadsheet

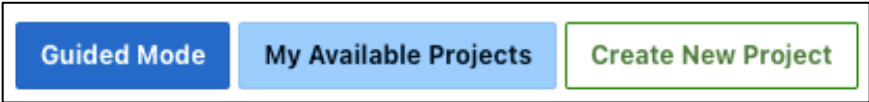
1. Download the template from <https://www.oracle.com/goto/upgrade>.
2. Fill out row per source database with required attributes.
3. Generate a CSV file and manually input into CMA under the **Database** tab.

Note: Oracle recommends using CPAT or the CMA CSV exporter for automation and accuracy.

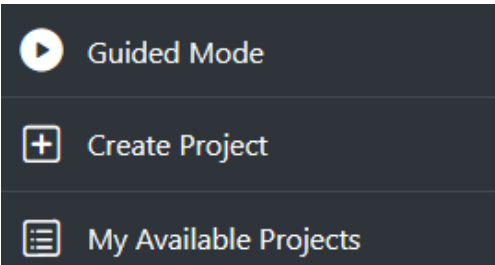
3.3. Creating and Managing Projects

3.3.1. Project Creation and Options

1. From the CMA homepage, click **Create New Project**.



Alternatively, you can use the menu bar on the left:



2. Enter a project name and optional description.

Project

Project Name

CMA Migration 10

Owner

@ORACLE.COM

Cancel

Create

3. From the CMA homepage, click **My Available Projects**.
4. Use the pencil icon to:
- Rename the project
 - Add or remove users
 - Transfer ownership
 - Delete or extend project duration

Create Sample Project

Create New Project

(Open)	Project Name	Role Name	Created On	Expires On	Databases	Hosts	Scenarios	Solutions	(Edit)
	CMA Migration 10	Owner	19-MAY-2025	17-AUG-2025	0	0	0	0	
	Guided Tour 2	Owner	18-MAY-2025	16-AUG-2025	2	1	0	0	
	Guided Tour	Owner	18-MAY-2025	16-AUG-2025	1	1	0	0	
	Migration Project 3	Owner	06-MAY-2025	04-AUG-2025	5	3	5	11	
	Migration Project 1	Owner	05-MAY-2025	03-AUG-2025	9	6	3	7	
	Migration Project 2	Owner	02-MAY-2025	31-JUL-2025	5	3	5	8	

3.3.2.Uploading Metadata to CMA

1. Open your project and navigate to the **Load Source Database section**.

Load Source Databases

Use this section to load source database details from CSV, CPAT or OEM.

Load databases from CSV

Load databases from JSON

Generate OEM emcli Driving File

2. Choose one of the following options.
- Load database from CVS
 - Load database from JSON
 - Generate OEM emcli Driving File
3. Browse the file location and click **Upload**.

Upload CPAT File

Select file(s)^{*}

Browse...

No files selected.

Upload

3.3.3.Managing Databases and Hosts

1. Use the **Databases** section to view imported databases.

Databases

Here you have the source databases for this project. Click on "Manage Databases" button to add, modify or edit databases in this list.

The *Upgrade* and *Accepted Downtime* columns can be used to add information about business requirements for each database.

Q

Search: All Text Columns

Go

Actions

Edit

Save

Delete Selected

Reset Layout

Manage Databases

Manage CPATs

	Database Display	Database Name	CDB Name	Database Version	Platform Name	First Hostname	Instances	CPAT loaded?	Upgrade	Accepted Downtime
☐	AIPDB1 (ORCL...	AIPDB1	ORCLCDB	23.6.0	Linux x86 64-bit	host01	1	Yes		
☐	AIPDB2 (ORCL...	AIPDB2	ORCLCDB	23.6.0	Linux x86 64-bit	host01	1	Yes		

2. Click **Manage Databases** to manually add or edit entries.

Containers

Database Version

11.2.0.4.0

Platform

Linux x86 64-bit

Block Size

8192

Is Multitenant

No

VSDATABASE DBID

72245725666

VSDATABASE NAME

KGR

VSDATABASE CREATED

02/08/2017 14:29

VSDATABASE DB_UNIQUE_NAME

KGR

Cancel

Delete

Apply Changes

3. Source hosts are auto-created when database is loaded.

Source Hosts

This is the list of source hosts for this project. A host is automatically created when you load a database from CSV/CPAT files. You can manually add or remove any entry in this list.

Q

Search: All Text Columns

Go

Actions

Save

Delete Selected

Reset Layout

Add Host

	Hostname	Server Type	Platform	Has OS Access	Total Instances	Database Versions
☐	☐ host01		Linux x86 64-bit	Yes	1	23ai

4. To remove a host, select it and click **Save** to confirm deletion.

3.3.4.Target Environments and Network Details

1. Navigate to **Target Environments** to define available targets (e.g. ADB, ExaCC).

Target Environments

In this section, you can create custom target environments where you want to move the source databases to. This step is optional; you can instead select Generic cloud target environments on the scenario page if desired. However, migration advice will be more specific and accurate if target environment information is included.

Q

Search: All Text Columns

Go

Actions

Save

Delete Selected

Reset Layout

Import from Source Hosts

Add Target Server

	Display Name	Host Name	Operating System	Database Edition	In Source Env?	Has OS A
--	--------------	-----------	------------------	------------------	----------------	----------

2. Use the **Network Details** section to input:

- Bandwidth
- Latency
- Network efficiency

Network Details

Use this option to specify what is the bandwidth between the source and target environments. If provided, this will be used as a factor to determine whether a given migration method fits the downtime window requirement.

Q

Search: All Text Columns

Go

Actions

Edit

Save

Reset Layout

Show network mappings

Add network details

Delete Selected

	Source Host Name	Network Throughput	Network Efficiency in %	Target
--	------------------	--------------------	-------------------------	--------

3. Existing mappings can be updated or removed.

3.3.5.Validating Source Environments

1. Click **Check Inconsistencies** on the project page.

Validating Source Environments

Check Inconsistencies

Before moving forward, please check for any inconsistencies in this project.

2. This checks for missing data or invalid entries before proceeding to scenario creation.

3.3.6.Scenarios

1. To create a migration plan, we need to define a scenario. This can be done using the **Create Scenario**, the **1-Click Solution** or the **1-Click Solution ADB** button.

Scenarios

1-Click Solution1-Click Solution ADB

To build a migration plan, the next step is to create a scenario where you will define the migration settings. You can optionally use the "1-Click Solution" or the "1-Click Solution ADB" buttons to let CMA automatically create one for you.

Q

Search: All Text Columns

Go

Edit

Save

Delete Selected

Reset Layout

Create Scenario

- To open an existing scenario, click on the arrow button on the left. To delete or to duplicate a scenario, click on the row selector.

2. **1-Click Solution**

- This option automatically creates a migration solution for all source databases in this project using all available target types and all available migration methods.

3. **1-Click Solution ADB**

- This option automatically creates for all source databases in the current project a migration plan to all available ADB targets.

4. **Create Scenario**

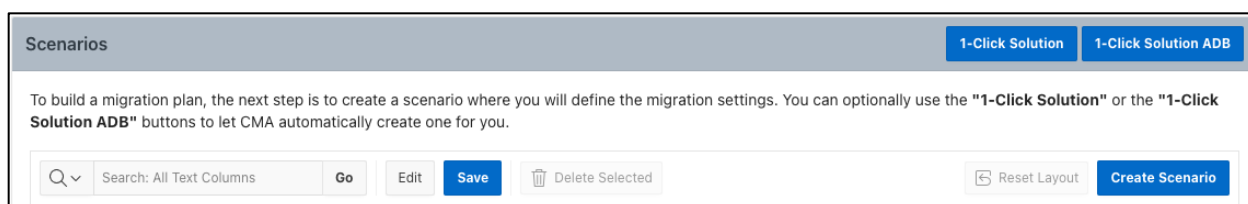
- The **Create Scenario** button is just adding an empty scenario with a name you can choose on your own. Once added you need to open the scenario (by clicking on the arrow icon on the left) and assign the source databases, choose possible migration targets, if wanted to change the solution priorities and create a solution on your own based on those criteria.

3.4 Building Scenarios

Once databases are uploaded and validated, you can begin building scenarios to evaluate migration options.

3.4.1. Adding Databases

5. Navigate to the **Scenarios** section and click **Create Scenario**.



Scenarios 1-Click Solution 1-Click Solution ADB

To build a migration plan, the next step is to create a scenario where you will define the migration settings. You can optionally use the "1-Click Solution" or the "1-Click Solution ADB" buttons to let CMA automatically create one for you.

Search: All Text Columns Go Edit Save Delete Selected Reset Layout Create Scenario

6. Provide a scenario name.



Scenario ×

Scenario Name

Cancel Create

7. Assign source databases by selecting from the list and clicking **Add Selected** or **Add All**.

Scenario Databases

Select the databases you want to add to this scenario. To assign databases, check them on the left list and move them using the buttons below.
After including, you can optionally also set some restrictions on the assigned databases, like the desired target version or the target type.

Available Databases

Assigned Databases

Expand

☐	Database Display Name ↑%	Database Version	Platform Name	Storage Assigned GiB
☐	ADEPDB (ADEOCIPR)	19.17.0.0.0	Linux x86 64-bit	
☐	EBSD8	12.1.0.2.0	Linux x86 64-bit	172
☐	EDU12	12.1.0.2.0	Linux x86 64-bit	119
☐	EDU12 (EDU12)	12.1.0.2.0	Linux x86 64-bit	
☐	EMCLI12	12.1.0.2.0	Linux x86 64-bit	123001
☐	TST122	12.2.0.1.0	Linux x86 64-bit	394751
☐	UPGR	11.2.0.4.0	Linux x86 64-bit	3
☐	repos (REPOS)	19.17.0.0.0	Linux x86 64-bit	

1

1 - 8 of 8

Add AllAdd Selected

☐	Database Display Name ↑%	Database Version	Upgrade DB?	Platform Name
☐	EDU12_2	12.1.0.2.0		Linux x86 64-bit
☐	KGR	11.2.0.4.0		AIX-Based Systems (64-bit)

1

1 - 2 of 2

Remove AllRemove Selected

3.4.2. Scenario Configuration

1. Select the **Target Type** you want to consider.
2. Select the **Migration Methods** you want to consider.

Scenario Configuration

Select the "**Target Types**" and the "**Migration Methods**" you want to consider in this scenario.

Server types to advise

AADB - Autonomous Database Dedicated
ADBS - Autonomous Database Serverless
ExaDB C@C - Exadata on Cloud@Customer
Oracle Autonomous Database@Azure
Oracle Autonomous Database@GCP
Oracle Base Database Service

>>><<<

ExaDB Dedicated - Exadata on Dedicated Infrastructure
ExaDB XS - Exadata on Exascale Infrastructure

<<<>>>

Note: If there are more than two tied solutions, the server type with the higher priority (top) on this list will be selected.

Allowed migration technologies

☐ Enterprise Manager☐ Golden Gate☐ OCI Services

If you don't want one of the technologies above to be considered to perform the migrations, unselect it.

Migration methods to include

Dataguard Physical Standby + AutoUpgrade
Remote Cloning a PDB + Upgrade
Unplugging/Plugging Non-CDB + Upgrade + Convert
Unplugging/Plugging a PDB + Upgrade with AutoUpgrade
Upgrade + Plugging Non-CDB + Convert with AutoUpgrade
Upgrade with AutoUpgrade

>>><<<

Data Pump Conventional Export/Import
Data Pump Import with DBLink
Dataguard Physical Standby
Unplugging/Plugging a PDB
Unplugging/Plugging Non-CDB + Convert
Remote Cloning Non-CDB + Convert

<<<>>>

Confidential - Oracle Restricted

3.4.3. Prioritizing Migration Methods

- 3. Navigate to **Method Priority**.
- 4. Adjust ranks for attributes such as Downtime, Migration complexity, Management preferences. **Note:** These weighting influences CMA’s solution ranking.

Method Priority

When more than one method is possible to migrate a database, the **weight attribution** below will be used to decide which one will be automatically selected.

Scenario Attributes

>>

>

<

<<

Migration Complexity
Fully-managed DB
Downtime

Edit

Save

Reset

Attribute	Importance Degree
Migration Complexity	1
Fully-managed DB	1
Downtime	2
	1 - 3

Importance

Migration Complexity

Fully-managed DB

Downtime

Migration Complexity - 25% (1)

Downtime - 50% (2)

Fully-managed DB - 25% (1)

3.4.4. Using Complexity Scores

- 1. If CPAT data was uploaded, navigate to **Scores**.
- 2. Review and adjust the default scores assigned to technical findings (e.g., presence of database links or unsupported features). **Note:** Modifying a score will affect all databases sharing that CPAT issue

Checks Scores

The findings from CPAT output appear in this table with a default score (=complexity level to fix an issue found by CPAT). You can adopt the default score here and decrease/increase the value depending on your environment where it might be easier or more difficult to implement a change. Click "**Reload Checks**" if the table is empty.

Q v Search: All Text Columns Go Actions v Edit Save

Reset Reload Checks Reset to Default

	Check Name ↑	More Info	Possible Result	Result Score	Default Value	Is Default
	dp_has_low_streams_pool_size		Review Required	30	30	Yes
	dp_has_low_streams_pool_size		Action Required	50	50	Yes
	dp_has_low_streams_pool_size		Review Suggested	10	10	Yes
	gg_enabled_replication		Action Required	1	1	Yes
	gg_force_logging		Review Required	1	1	Yes
	gg_has_low_streams_pool_size		Action Required	50	50	Yes
	gg_has_low_streams_pool_size		Review Suggested	10	10	Yes

3.4.5. Generating Solutions

- 1. Once configuration is complete, go to the **Solutions** tab.
- 2. Click **Generate Solution** to let CMA evaluate all target and method combinations.
Note: The solution is processed in the background; check status as **Running** or **Processed**.
You may generate multiple solutions to compare different settings or priorities

Solutions				
After the scenario is ready, generate a solution using the "Generate Solution" button. You can always regenerate a solution after changing the scenario by repeating this process.				
To open the proposed solution, click on the first column.				
Save Refresh Delete Selected Reset Generate Solution				
☐	(Open)	Solution ID ↓	Created Date	Status
☐		3874	07-MAY-2025	Processed
☐		3853	06-MAY-2025	Processed
☐		3837	06-MAY-2025	Processed
☐		3836	06-MAY-2025	Processed
☐		3816	05-MAY-2025	Processed

3.5. Reviewing Solution

After generating a solution, CMA presents a detailed view of recommended target environments and migration methods.

3.5.1. Databases

- 1. Go to the **Solutions** tab and select a solution by clicking the arrow icon.

Solutions				
After the scenario is ready, generate a solution using the "Generate Solution" button. You can always regenerate a solution after changing the scenario by repeating this process.				
To open the proposed solution, click on the first column.				
Save Refresh Delete Selected Reset Generate Solution				
☐	(Open)	Solution ID ↓	Created Date	Status
☐		3933	08-MAY-2025	Processed
☐		3916	08-MAY-2025	Processed

- 2. In the Database section you get a list of all the source databases part of this migration scenario. Clicking on one of the listed databases will automatically change the rest of the page showing only the results for this selected database.

Databases		
Q Search: All Text Columns Go Actions Reset		
Database Display Name ↑	Platform Name	Database Version
AIPDB1 (ORCLCDB)	Linux x86 64-bit	23.6.0
AIPDB2 (ORCLCDB)	Linux x86 64-bit	23.6.0

3.5.2.Target Environment Evaluation

1. View the **Target Environment** tab within the solution.

Target Environment							
Q Search: All Text Columns Go Actions Reset							
Target Accepted equals Y							
Target Name	Overall Score	Migration Score	Target Accepted	Auto-Patching	Auto-Security	Administrator Access	Infrastruct
ATPS - Autonomous Transaction Processing Shared Infrastructure	7.50		Y	★★★★★	★★★★★	★★★★★	Shared
ADWS - Autonomous Data Warehouse Shared Infrastructure	7.50		Y	★★★★★	★★★★★	★★★★★	Shared
ATPD - Autonomous Transaction Processing Dedicated Infrastructure	7.50		Y	★★★★★	★★★★★	★★★★★	Dedicat...
ADWD - Autonomous Data Warehouse Dedicated Infrastructure	7.50		Y	★★★★★	★★★★★	★★★★★	Dedicat...
1 rows selected							Total 4

2. Compare different targets (e.g., ADB, ExaCC) based on:
- Supported versions
 - SLA or performance tiers
 - Estimated cost and management level

3.5.3.Evaluation Migration Methods

1. Access the **Migration Methods** tab.

Migration Methods

This section shows the possible migration methods for the selected **target type** and **database**. You can change the defined migration method and target by clicking on the **"Select"** button (✓).

You can also check the instructions or simply click on the card and read more details about it on the "Decision Log".



Data Pump Conventional Export/Import

Complexity: Easy | Downtime: Medium

Migration Score: 9.33

You can use this method regardless of the endian format and database character set of the source database. You can also use Data Pump to migrate data between different versions of Oracle Database. This method is simple to implement, provides the broadest cross-platform support and enables you to physically re-organize your target database.

✓ Select

Read Instructions



GoldenGate

Complexity: Easy | Downtime: Low

Migration Score: 9.16

Oracle GoldenGate provides real-time, log-based change data capture and delivery between homogenous and heterogeneous systems. This technology enables you to construct a cost-effective and low-impact real-time data integration and continuous availability solution. Side note: We recommend using DataPump, RMAN etc. for initial load rather than Oracle GoldenGate's initial load mechanism.

✓ Select

Read Instructions



Data Pump Import with DBLink

Complexity: Easy | Downtime: Medium

Migration Score: 8.33

The Oracle Data Pump Import command-line mode NETWORK_LINK parameter enables an import from a source database identified by a valid database link. The data from the source database instance is written directly back to the connected database instance.

✓ Select

Read Instructions

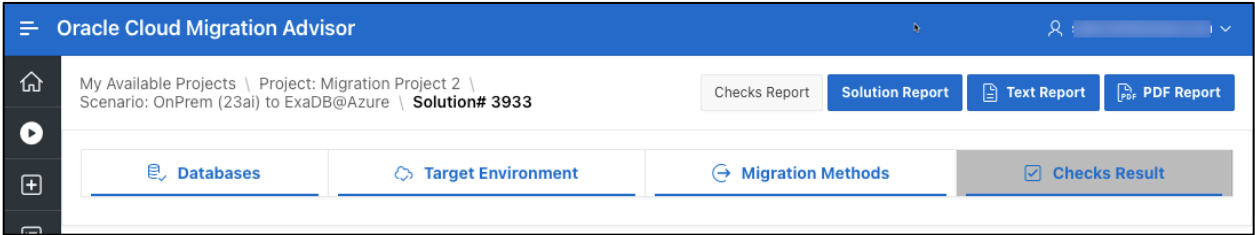
2. Each method includes:

- Description and compatibility notes
- Links to Oracle documentation or MOS notes
- System-based scores for downtime, complexity, and fit

3. You can override the suggested method if needed

3.5.4.Review of CPAT Checks (if available)

1. If CPAT was used, a **Checks Report** will be available.

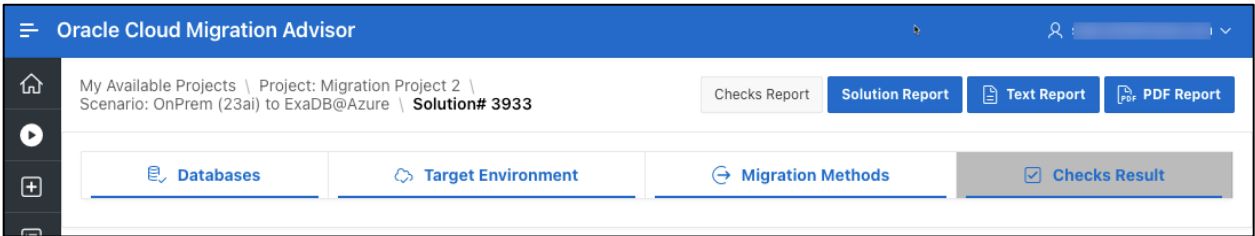


2. This includes:
- Detected blockers or manual steps
 - Score impact per issue (editable in earlier step)
 - Justification for recommendation or exclusions

Checks							
Q Search: All Text Columns Go		Actions Reset					
Check Name	Check Scope	Check Action	Check Description	Total Passed	Total Review Suggest	Total Review Requirec	Total Action Required..
has_user_defined_...	INSTANCE	Recreate required u...	User-defined objec...	0	0	0	2
has_xmltype_tables	SCHEMA	XMLType Tables wit...	XMLType Tables wil...	0	0	0	2
has_tables_with_x...	SCHEMA	Tables with XMLTy...	Tables with XMLTy...	0	0	0	2
has_xmlschema_ob...	UNIVERSAL	Modify your applica...	XML Schema Objec...	0	0	0	2
has_role_privileges	SCHEMA	Replace prohibited ...	Some role privilege...	0	0	0	2
has_unstructured_...	SCHEMA	Unstructured XML l...	Unstructured XML l...	2	0	0	0
nls_national_chara...	UNIVERSAL	If possible, provisio...	Check for issues ca...	2	0	0	0
has_active_data_g...	INSTANCE	Consider using Aut...	Source database h...	2	0	0	0
has_data_in_other_...	SCHEMA	ADB-S will ignore t...	Look for data subje...	2	0	0	0
has_directories	INSTANCE	Recreate the direct...	Directory objects m...	0	0	2	0

3.6. Reports

Once a solution is generated, CMA provides multiple report formats to help communicate findings and guide execution.



3.6.1. Solution Report

- A visual summary of the generated solution
- Displays:
 - Source databases
 - Target environment mapping
 - Chosen migration methods
 - Color-coded indicators for suitability and complexity
- Best used for executive or non-technical review

Migration Complexity Table									
Migration Complexity Chart									
Migration Complexity									
All									
Q Go Actions									
Database Display Name	Database Version	Target Name	Method Title	Complexity Score (higher value = easier to migrate)	Final Score (the higher the better)	Solution Defined	Checks (Action Required)	Checks (Review Required)	Checks (Review Suggested)
AIPDB1 (ORCLCDB)	23.6.0	Oracle Autonomous Database@Azure	Data Pump Conventional Export/Import	8.79	9.33	System Defined	5	3	8
AIPDB2 (ORCLCDB)	23.6.0	Oracle Autonomous Database@Azure	Data Pump Conventional Export/Import	8.79	9.33	System Defined	5	3	8
1 - 2									
Offered Migration Methods									
Select a Migration entry for further explanation.									

3.6.2. Text Report

- A detailed, printable report for all databases in a scenario
- Includes:
 - Source-to-target compatibility
 - Preselected migration method and rationale
 - Downtime estimates
 - Excluded options and their reasons
- Ideal for migration planning meetings or handoffs to implementation teams

1 - Introduction This report provides recommended migration methods and target types for the databases of the Project "Mi This report was generated at 21-MAY-2025 14:21 UTC by "sean.kim@oracle.com" 2 - Scope
