



COLLABORATE15

TECHNOLOGY AND APPLICATIONS FORUM  
FOR THE ORACLE COMMUNITY

# 12c Database Upgrade Overview for Oracle Applications R12.1 – Customer Experience

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APRIL 12-16, 2015  
MANDALAY BAY  
RESORT & CASINO

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REMINDER

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# Speaker Introduction

- Oracle DBA Management at Gallup
- Over 16yrs Oracle Experience
- Manage Oracle RAC, Oracle EBS and Oracle OBIEE Environments
- Frequent speaker at COLLABORATE and Regional OAUG's conferences
- EBS Tech Stack SIG Board Member
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# Environment

- Oracle Restart/Oracle GI Standalone 11.2.0.3
- RHEL 6 with 11g Enterprise Edition Database (11.2.0.3.12) s/w
- ASM with EMC/SSD Storage
- Oracle Applications 12.1.3



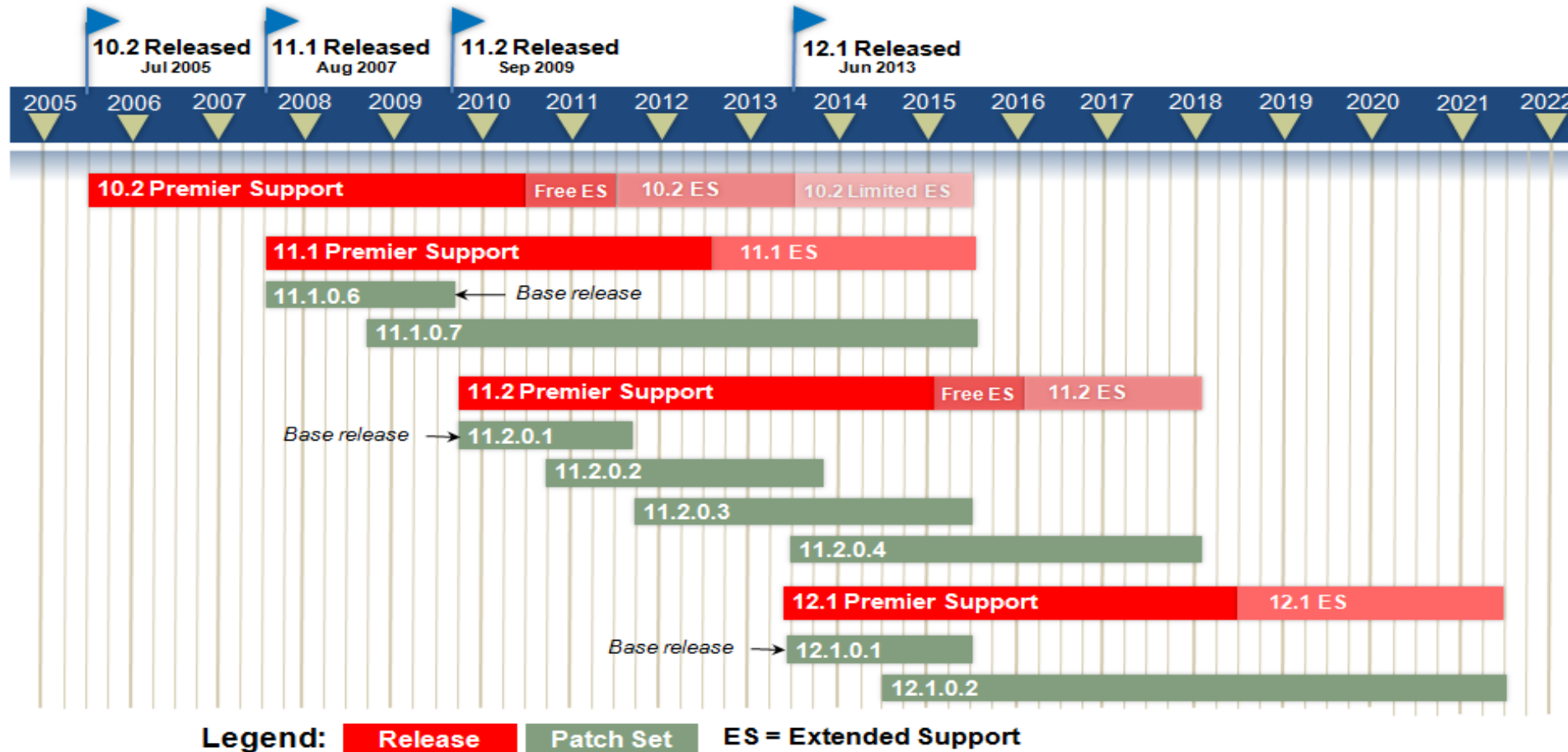
# Upgrade Overview

- Upgrade/Install Oracle Restart/ASM to 12c(12.1.0.2)
- Install 12c Database S/W
- Pre Database Upgrade Steps
- Database Upgrade
- Post Database Upgrade Steps



# Why Upgrade?

Database Patch Set Release Roadmap



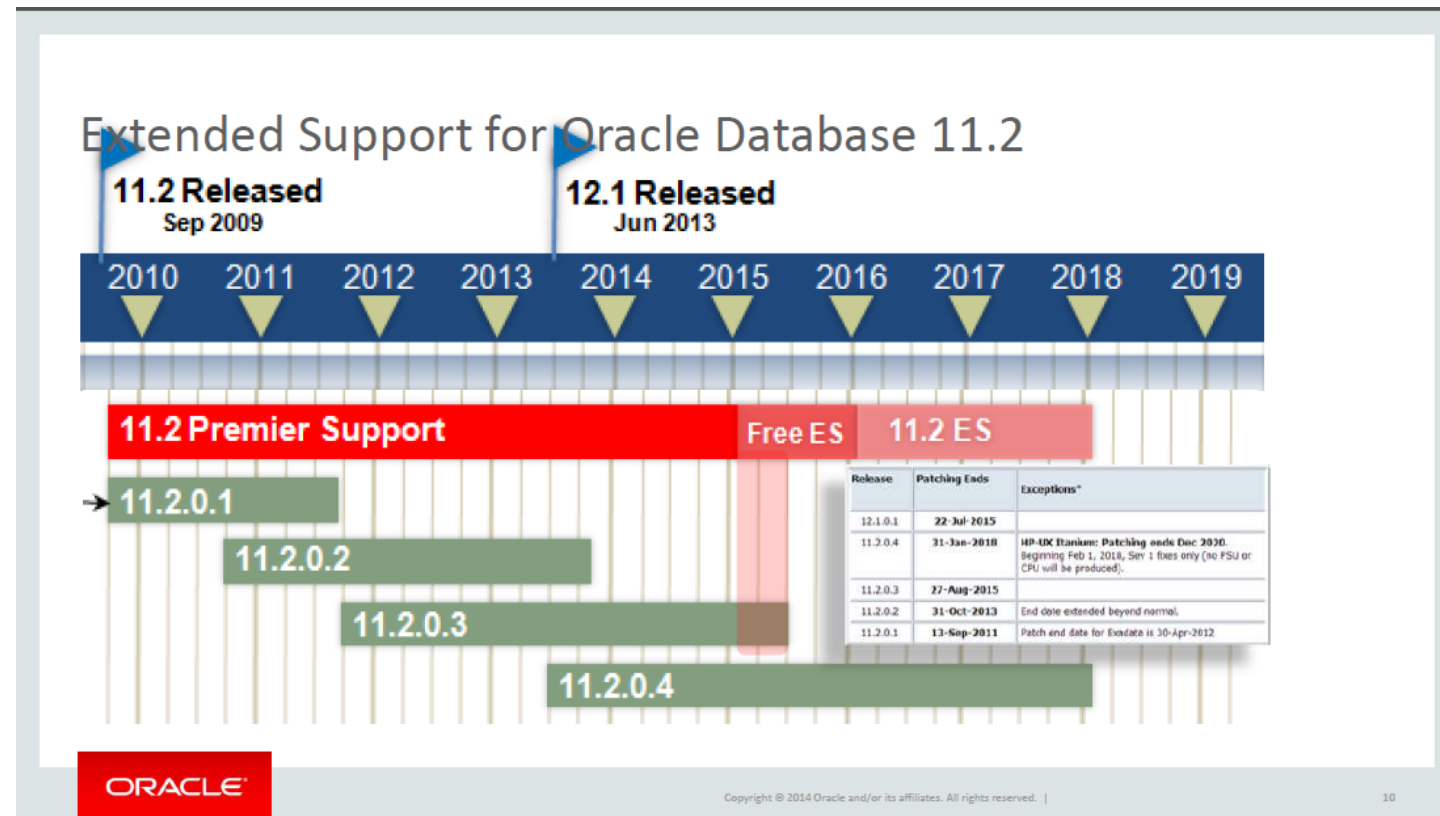
Release Schedule of Current Database Releases (Doc ID 742060.1)



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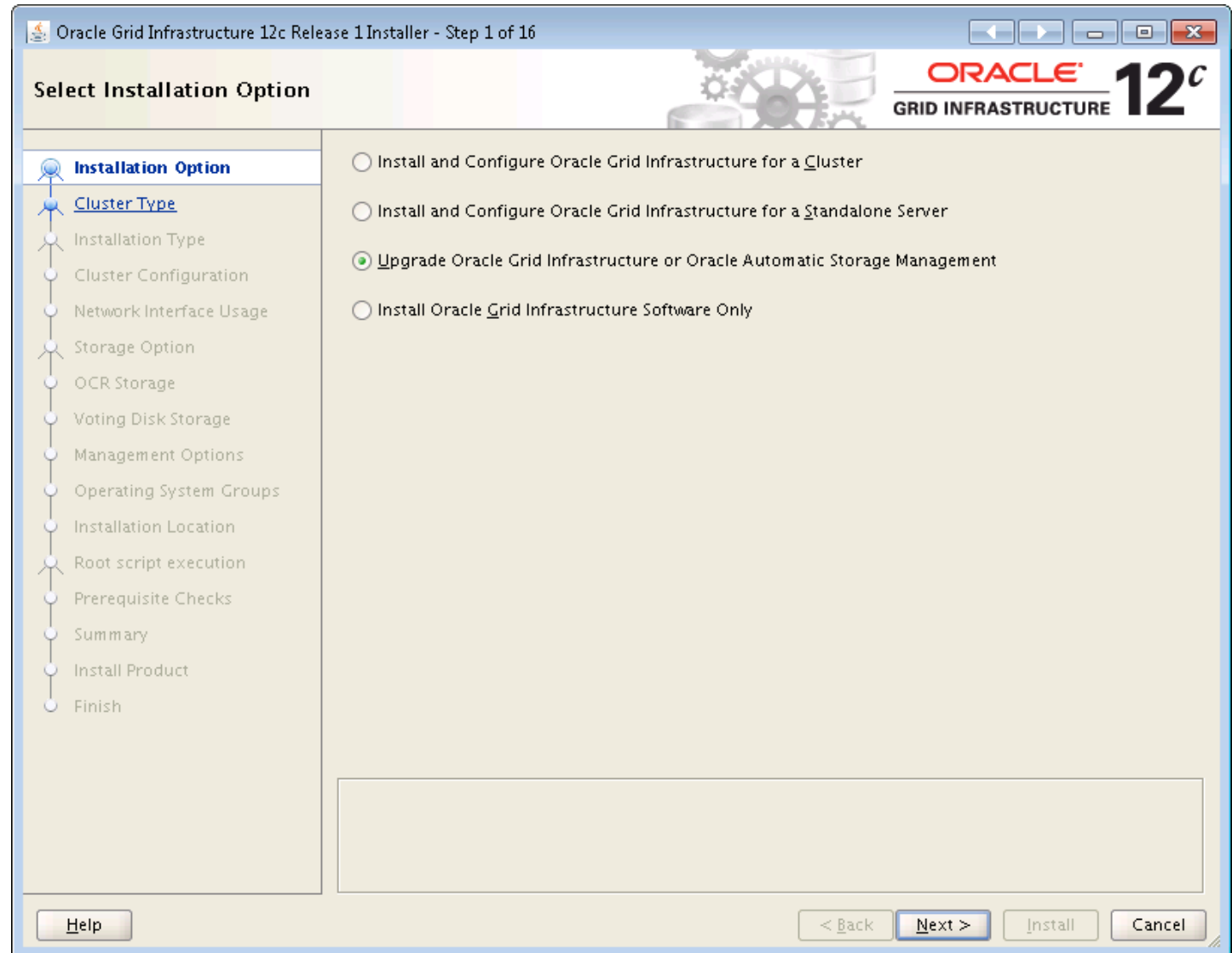
# 11gR2 Patching/ Support Schedule

- **11gR2 Premier Support  
Already Ended**
- **Oracle Database 11.2.0.4 -  
ES until Dec 2015**
- **Oracle Database 11.2.0.3 –  
ES until Aug 27<sup>th</sup> 2015**
- **Oracle Database 11.2.0.3 –  
Patching Ends Aug 27<sup>th</sup> 2015.  
No bug fixes will be available  
(including PSUs, SPUUs and  
BPs) after that date.**



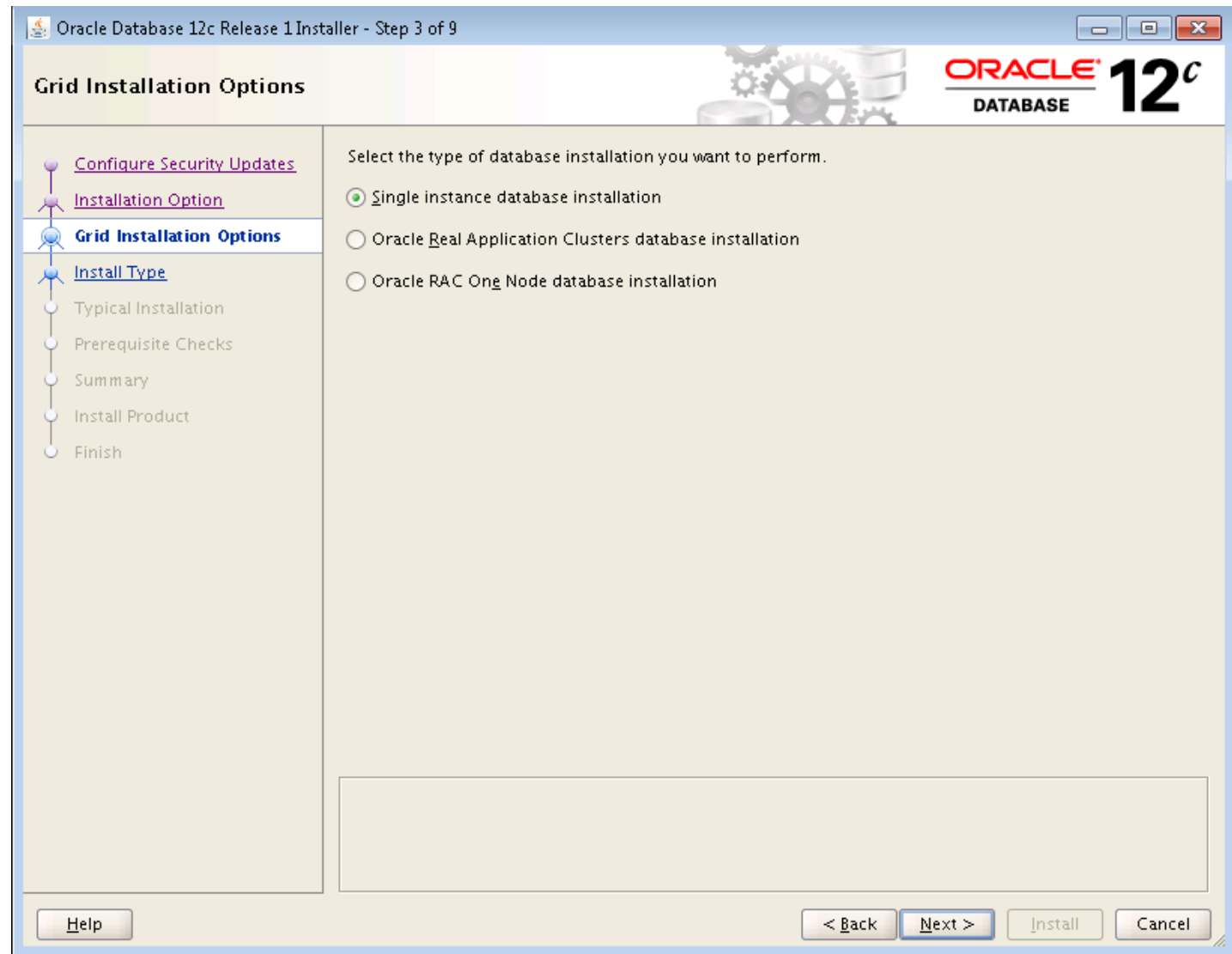
# Oracle Restart 12c Upgrade

- Run the Cluster Pre Verification Utility
  - `runcluvfy.sh stage -pre hacfg – verbose`
- Verify the upgrade
  - `crsctl query has releaseversion`
- Oracle High Availability Services release version on the local node is [12.1.0.2.0]
- `crsctl query has softwareversion`
- Oracle High Availability Services version on the local node is [12.1.0.2.0]



# Oracle 12c database s/w install

- Out of place database s/w install
- Install 12c Examples CD
- ASM Diskstring needs to be set before upgrade of ASM
- alter system set  
asm\_diskstring='/dev/mapper/  
VOL\*';





# Pre upgrade application patches

<u>Software</u>	<u>Minimum Version</u>	<u>Details</u>
Applications Technology	12.1.3	R12.ATG_PF.B.3
Application DBA Patch	12.1.3	R12.AD.B.4
WMS SUPPORT FOR THE NEW RFID MODEL (REQUIRED WHEN UPGRADING TO RDBMS 12c)	12.1.3	PATCH 8796558
ORACLE E-BUSINESS SUITE	12.1.3	PATCH 9239090
1OFF:12399649:12.1.3:12.1.3:11886062 BACKPORT: TST122: TRANSACTION MANAGERS NOT	12.1.3	PATCH 12923944
1OFF:13252575:12.1.3:12.1.3:INT122.15.EBR.IBE:ISTORE SEARCH INSERT COMPLETES WIT	12.1.3	PATCH 13473483
INTEROPERABILITY PATCH FOR EBS 12.1.3 ON RDBMS 12C (12.1.0.1)	12.1.3	PATCH 16289505
TST1224: ERROR PAGE DISPLAYED WHILE TRYING TO PERFORM SEARCH PARTS	12.1.3	PATCH 18843706
AUTOINVOICE IMPORT REJECT INVOICE RECORD THOUGH PERIODS ARE OPEN	12.1.3	PATCH 19558309



## 12.1.0.2.0 RDBMS ADDITIONAL PATCHES

PATCH#	DESCRIPTION	
6880880	Latest Opatch	
19382851	ORA-1031 DURING MVIEW CREATION/REFRESH	
19393542	TIMESTAMP MISMATCHES ON RULE SET & EVALUATION CONTEXT	
19627012	APPSST12102 : ORA-7445 [KD9IR2TCOMPUTETREESERCS()+160] DURING IMPDP	
19649152	ORA-600 [KTURRUR_0] RUNNING OPM LOT COST PROCESSOR IN FDPSTP	
20204035	MERGE REQUEST ON TOP OF 12.1.0.2.0 FOR BUGS 15894842 20123899	



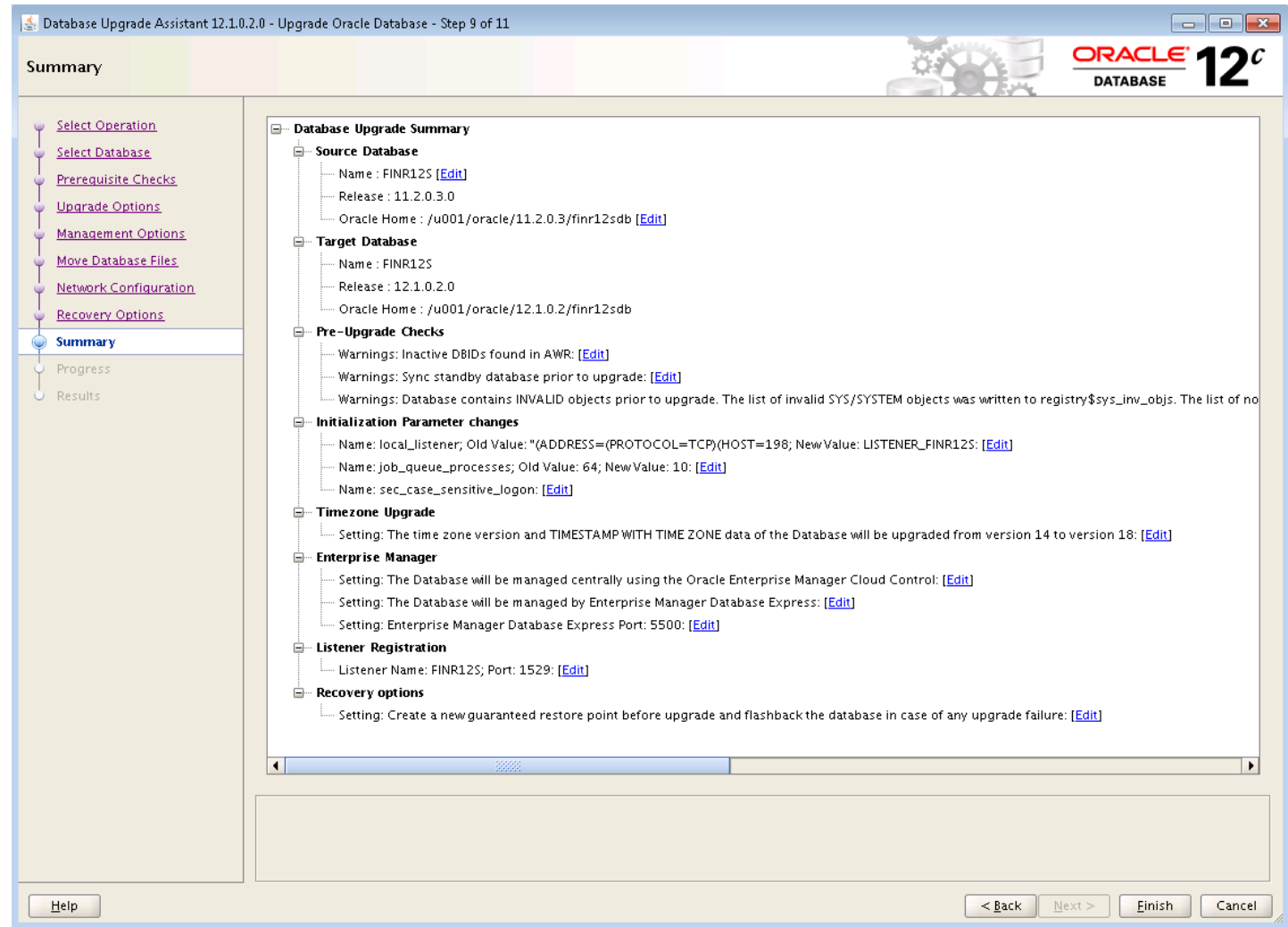
# Pre Upgrade steps

- Run the Pre-Upgrade database script on 11g database
  - @preupgrd.sql
- Create the nl/sdata/9idata dir
  - perl \$ORACLE\_HOME/nls/data/old/cr9idata.pl
- Remove MGDSYS schema
  - @\$ORACLE\_HOME/md/admin/catnomgdidcode.sql
- Remove OLAP Catalog
  - @\$ORACLE\_HOME/olap/admin/catnoamd.sql
- Gather Dictionary Statistics
- Enable Flashback
- Change job\_queue\_processes to be 64 or more
- Purge Recyclebin
- Disable Database Vault



# USING DBUA for UPGRADE

- Upgrade Parallelism => 4
- Recompile Invalid Objects Parallelism => 7
- Upgrade Timezone Data
- Register with EM Cloud Control
- Create a new Listener
- Create a Restore Point



# Post upgrade steps

- Export TNS\_ADMIN to point to 12c \$OH and start the new 12c Listener
- Add the below in sqlnet.ora
  - SQLNET.ALLOWED\_LOGON\_VERSION\_SERVER = 8(if SEC\_CASE\_SENSITIVE\_LOGON is set to FALSE)
  - SQLNET.ALLOWED\_LOGON\_VERSION\_SERVER = 10(if SEC\_CASE\_SENSITIVE\_LOGON is set to TRUE)
- Run adgrants.sql
- Gather SYS Schema Stats => @adstats.sql
- Grant create procedure privs in CTXSYS => @adctxpriv.sql
- Recreate Grants and Synonyms
- Synchronize Workflow Views
- Enable and run AutoConfig on 12c Database Home



- Interoperability Notes EBS 12.0 or 12.1 with RDBMS 12cR1 (Doc ID 1524398.1)
- Bug 19620557 - DATABASE CREATION FAILED WITH KFODERROR RETRIEVING DISKGROUP
  - set DIAG\_ADR\_ENABLED=OFF in the 12c sqlnet.ora file
  - export ORA\_CLIENTTRACE\_DIR=/home/oracle



**THANKS FOR ATTENDING!**



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