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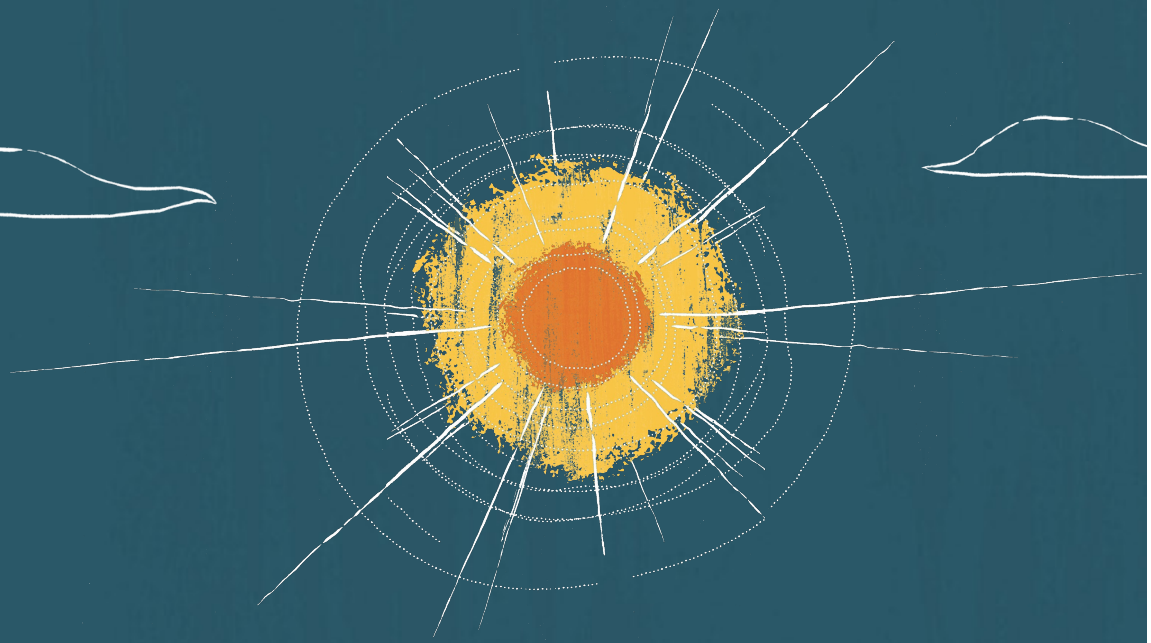
E-Business Suite Database Migration using XTTS



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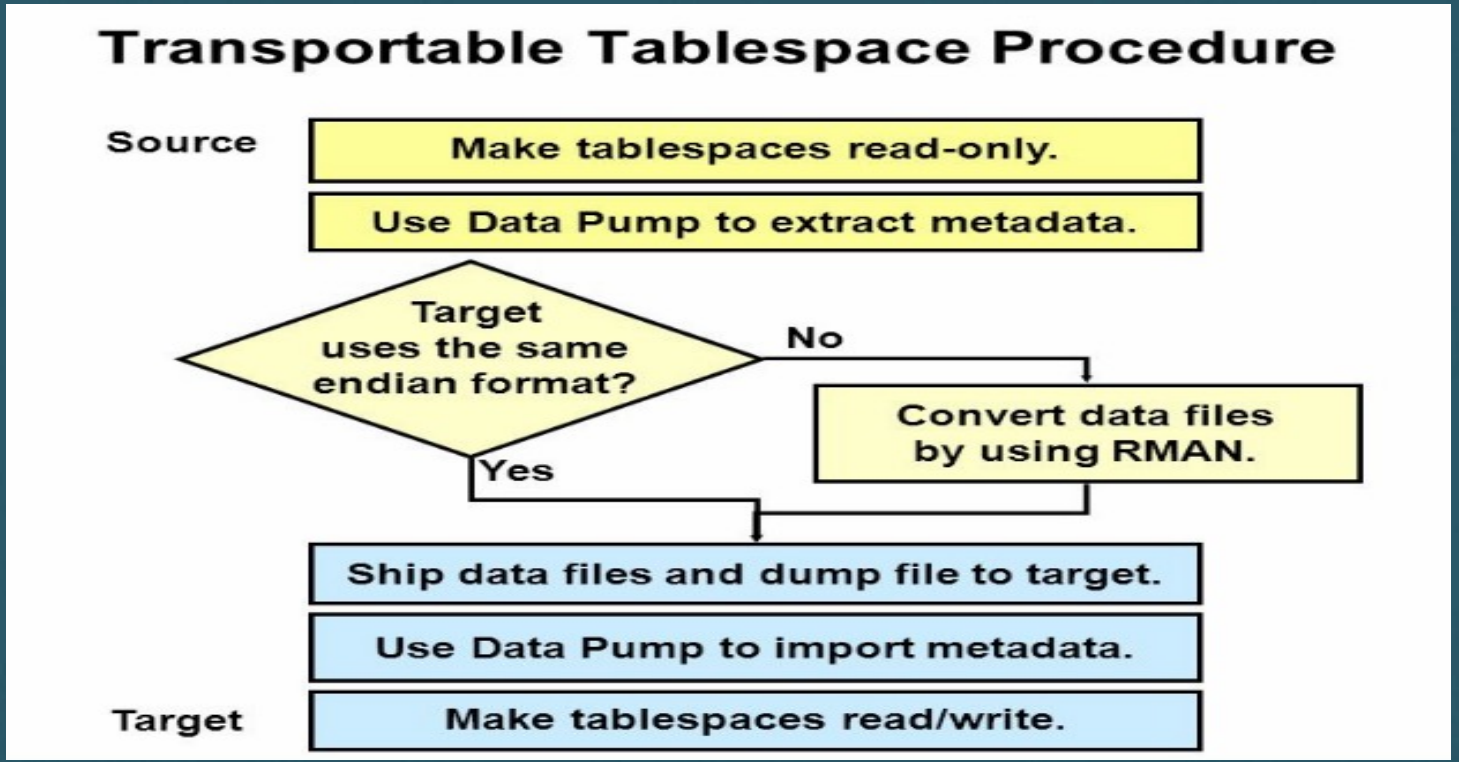
Architecture

High level steps for Full XTTS



Introduction

- ❑ XTTS stands for cross platform transportable tablespace.
- ✓ This presentation covers the steps needed to use Cross Platform Transportable Tablespaces using XTTS scripts with RMAN incremental backups to migrate data between systems that have different endian formats.
- ✓ We can use XTTS in 2 ways:
  - a. Full XTTS
  - b. Incremental XTTS
- ✓ Full XTTS
  - Copy all datafiles from the source to the destination in downtime mode.
  - Export metadata in source instance.
  - Convert the endian formats in target instance.
  - Import the metadata in target instance.
- ✓ Incremental XTTS
  - Take Level0 (L0)backup and copy to the destination.
  - Keep series of incremental backups.
  - Take final backups during downtime.
  - Export metadata in source instance with same final backup downtime.
  - Restore L0, apply incremental backups including final backup.
  - Import the metadata in target instance.

Pre-requisites

- ✓ The source database must be in ARCHIVELOG mode.
- ✓ Minimum version for source and destination is 11.2.0.4.
- ✓ The Oracle version of source must be lower or equal to destination.
- ✓ This method does NOT support Windows as either source or destination.
- ✓ The source database's COMPATIBLE parameter must not be greater than the destination database’s COMPATIBLE parameter.
- ✓ RMAN on the source system must not have default channel configured to type SBT.
- ✓ RMAN on the source system must not have DEVICE TYPE DISK configured with COMPRESSED.
- ✓ RMAN on the source system must not have BACKUP TYPE TO COPY. The source must have BACKUP TYPE TO BACKUPSET.

Incremental XTTS Steps

1. Initial setup
    a. Provision the target database.
    b. In source Identify tablespaces to be transported and check, fix the violations.
    c. Install xttconvert scripts on the source system.
    d. Create necessary directories and configure xtt.properties on the source system.

2. Prepare phase (source data remains online)
    a. Run the backup on the source system.
    b. Transfer the backup and xtts script files to the destination system.
    c. Restore the datafiles on the destination system

3. Roll Forward phase (source data remains online)
    a. Create an incremental backup.
    b. Transfer incremental backups and res.txt to the destination system.
    c. Apply the incremental backup to the datafile copies on the destination system.
    d. Repeat this phase as many times as necessary.

Incremental XTTS Steps

4. Transport phase (source data is READ ONLY)

    a. Alter source tablespace(s) to READ ONLY in the source database.

    b. Create the final incremental backup of the tablespaces being transported on the source system.

    c. Transfer incremental backups and res.txt to the destination system.

    d. Apply last incremental backup to destination datafiles.

5. Run metadata export

    a. Run datapump export on source database.

    b. Transfer the export files to destination server.

    c. Run datapump import on destination server.

References

- V4 Reduce Transportable Tablespace Downtime using Cross Platform Incremental Backup (Doc ID 2471245.1).
- Oracle E-Business Suite 12.2 Platform Migration from On-Premises to Oracle Cloud Using Transportable Tablespaces with Oracle Database 19c (Doc ID 2725558.1) .
- Oracle E-Business Suite 12.1 Platform Migration from On-Premises to Oracle Cloud Using Transportable Tablespaces with Oracle Database 19c (Doc ID 2725557.1).

Thank You