Implementing Coordinated Replicat

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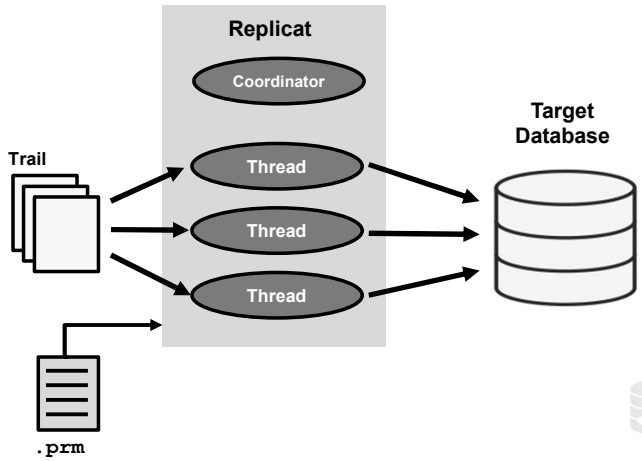
Introduction to Oracle Data Guard
In this lecture, we are going to talk about the basic concepts of Oracle Data Guard

Objectives

By the end of this lecture, you should be able to:

- Understand the advantages of implementing coordinated Replicat
- Implement a coordinated Replicat
- Manage a coordinated Replicat
- Synchronize coordinated Replicat threads after unclean stop

Coordinated Apply Architecture



About Coordinated Replicat

- Coordinated Replicat is multithreaded
- Each thread functions like a Replicat process
- It allows to apply high volume transactions concurrently
- Extract can be Classic or Integrated
- Unlike Integrated mode, coordinated mode is not specific to Oracle database

Creating an Integrated Apply

- Use `COORDINATED` and `MAXTHREADS` options:

```
ADD REPLICAT rhr, COORDINATED, exttrail /..,
MAXTHREADS 5
```

- In the parameter file, use `THREADRANGE` of the `MAP` statement:

```
MAP sales.ord, TARGET wrh.orders,
   THREADRANGE (1-5, ORDER_ID));
```

```
THREADRANGE (lowID-highID, [column[, column][,
...]])
```

Obtain Information about the Integrated Apply

- To view basic information about the Replicat:

```
info replicat RHR
```

- To view information about the threads:

```
info replicat RHR detail
```

- To view information about specific thread:

```
info replicat RHR001
```

Administering a Coordinated Replicat

- A coordinated Replicat should be stopped cleanly
- Startup fails after unclean stop
- Unclean stops could be caused by:
  - `STOP REPLICAT` with the ! Option
  - `KILL REPLICAT` command
  - Errors caused by external source

Synchronizing Threads After an Unclean Stop

- **Issue**: threads unsynchronized after unclean stop
- **Solution**: start from a synchronized state (*high watermark*) the last record processed by the fastest thread before the unclean stop

```
SYNCHRONIZE REPLICAT rhr
START REPLICAT rhr
```

Summary

In this lecture, you should have learnt how to:

- Understand the advantages of implementing coordinated Replicat
- Implement a coordinated Replicat
- Manage a coordinated Replicat
- Synchronize coordinated Replicat threads after unclean stop