Applying Oracle GoldenGate Patch Sets

Practice Overview

In this practice you will apply the Oracle GoldenGate patch set 12.2.0.1.161220.

References

- **Document ID: 2221854.1** To obtain the Oracle GoldenGate Patch Set 12.2.0.1.161220
- **Document ID: 1645495.1** To obtain the latest Oracle GoldenGate Patch Sets
- **Document ID: 1557031.1** To obtain list of the recommended Oracle RDBMS Patches

Pre-requisites

- Download the Oracle GoldenGate Patch Set 12.2.0.1.161220. Follow the instructions in Document ID 2221854.1

This is a screenshot of the patch set download link from Oracle Support site:

Oracle GoldenGate Patch Set 12.2.0.1.161220

For `ggsrv1`, perform the following steps:

A. Pre-installation Steps

Following are the steps that you should perform before installing the patch set.

1. Set ORACLE_HOME to Oracle GoldenGate home. In our practice environment it is set to Oracle database home.

```
echo $ORACLE_HOME
export ORACLE_HOME=/u01/app/oracle/product/ogg
```

2. Set the PATH environment variable to include the location of the <ORACLE_HOME> and the <ORACLE_HOME>/OPatch directories

```
export PATH=$PATH:/u01/app/oracle/product/ogg:/u01/app/oracle/product/ogg/OPatch
```

3. Shutdown all Oracle GoldenGate processes including the Manager process. I would recommend to perform this step in **all** the systems.

B. Installation Procedure

Following are the steps that you should perform to install the patch set.

4. Create patches directory under oracle home directory.

```
mkdir ~/source/patches
```

5. Copy the patch set zip file into the directory using Winscp utility.

6. Unzip the installation file. Delete the zip file after its extraction to save the disk space.

```
cd ~/source/patches
unzip p25187049_12201161220_Linux-x86-64.zip
rm p25187049_12201161220_Linux-x86-64.zip
```

7. Change directory to the patch number directory (25187049)

```
cd ~/source/patches/25187049
```

8. Make sure the following command does not return any error.

```
opatch lsinventory
```

9. Install the patch.

```
opatch apply
```


C. Repeat the Steps in the other system

10. In `ggsrv2`, repeat the steps in the sections A and B.

D. Start up the processes

11. Set ORACLE_HOME back to Oracle database home.

```
source ~/.bash_profile
echo $ORACLE_HOME
```

12. In all systems, start the processes from the Oracle GoldenGate home.

   When you start the `ggsci` command prompt, observe the new release number.

```
cd $GG_HOME
ggsci
```

E. Verify the normal change synchronization is working properly

You will test the change synchronization from `db1` to `db2`, then from the opposite direction.

13. Verify that the SALARY column is the same for EMPLOYEE ID 140 in both `db1` and `db2`.

```
SELECT SALARY FROM EMPLOYEES WHERE EMPLOYEE_ID=140;
```

14. In `db1`, update one record in a replicated table.

```
UPDATE EMPLOYEES SET SALARY=SALARY+1000 WHERE EMPLOYEE_ID=140;
COMMIT;
```

15. In `db2`, verify that the update has been replicated. Wait for a few seconds before you try it.

```
SELECT SALARY FROM EMPLOYEES WHERE EMPLOYEE_ID=140;
```

16. Test the change replication from `db2` to `db1`

```
-- in db2
UPDATE EMPLOYEES SET SALARY=SALARY-1000 WHERE EMPLOYEE_ID=140;
COMMIT;

-- in db1
SELECT SALARY FROM EMPLOYEES WHERE EMPLOYEE_ID=140;
```

Note: I recommend executing the Health Check script after applying any patch set.

Summary

Applying the Oracle GoldenGate path set procedure is systematic and easy. You just need to obtain the right patch set file for your environment from Oracle Support site.

In production, always plan for applying the most recent patch sets. They fix known bugs and may even improve the performance.