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| Corps Grand Ducal  Incendies & Secours  Data Guard Systems Operator’s Guide  **images**  **Revision History**   |  |  |  | | --- | --- | --- | | **Revision date** | **Version** | **Summary of Changes** | | 22/07/2019 | 0.1 | Initial version | |  |  | Reviewed by technical writer | |  |  | Backup changes | |  | 1 | Approved version |   **Approvals:**   |  |  |  |  | | --- | --- | --- | --- | | Creation Date: | 22/07/2019 | Approved by: |  | | Created By: | Philippe Briens | Approval Date: |  | | Official | Dominique Thiry | Project Manager | Christophe Depecker | | Technical leader | Philippe Briens |  |  | |

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# Environment description

CGDIS Oracle Data Guard systems run on 2 physical servers.

* Operating system : Oracle Enterprise Linux 7.5
* Oracle Server : versions 12.2.0.1, 11.1.0.2, 11.2.0.4

Each server hosts databases for COSWARE, COSWARETEST, SIASELAN and SECUR.

COSWARE and SIASELAN are using Data Guard therefore having primary and standby databases. Primary and standby databases may run on Site 1 or 2.

A switchover occurs when a standby becomes a primary. CGDIS Data Guard systems are configured for manual switchovers, typically for Linux updates (yum update) , Oracle patches or any situation involving to shutdown data bases or Linux servers.

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# Operations

Usual tasks are performed thorugh a Korn shell bases menu invoked by “mnu”.

|  |
| --- |
| Select database |
|  |
| Operations menu is displayed |
|  |

# Basic Data Guard system health check

Use options 1, 2 and 6 to quickly check the status of the Dataguard System.

|  |
| --- |
| 1 ) DG System summay  Returns databases unique names and their roles (primary or standby) |
|  |
| 2 ) DG System health  Check “Configuration Staus”, should be “SUCCESS” |
|  |
| 6 ) DG Archive gap  Check “LOG\_GAP”, should be “0” , no archived redo log missiong. |
|  |

# Detailed Data Guard system health check

Options 3, 4, 7, 8 and 16 provide further configuration details and usage counters

|  |
| --- |
| 3 ) DG Configuration details  Lists Data Guard configuration details and status |
|  |
| 4 ) DG Database Health  Provides details for primary of standby databases |
|  |
|  |
| 7 ) DG Last Sequence Applied  Shows how synchronous primary and standby databases are. |
|  |
| 8 ) DG Logs rate  Displays by date and time the number of archived logs created |
|  |
| 16) DG Active services  Useful to checks if expected services are active |
|  |

# Primary database switchover

Use option 15 for a switchover. Switchover is used when patching Oracle . Typically the standby database is used to test patching.

Once patched, the standby database is made become a primary database used for testing. If tests are successful patching can proceed on the new standby database, otherwise a new switchover is performed to go back to original binaries.

Switchover may also be planned to check system high availability.

**Note** : after a switchover perform a full bqckup.

|  |
| --- |
| 15 ) DG switchover |
|  |
|  |
|  |
| .... |
|  |
| Enter your selection: 2  Data Guard System health  Shows Data Guard system health  Check sections <Members:> and <Configuration Status:>  Primary and Standby databases should be active  Configuration status should be Success  DGMGRL for Linux: Release 12.2.0.1.0 - Production on Mon Aug 12 22:20:46 2019  Copyright (c) 1982, 2017, Oracle and/or its affiliates. All rights reserved.  Welcome to DGMGRL, type "help" for information.  DGMGRL> Connected to "COSWAREF1"  Connected as SYSDBA.  DGMGRL>  Configuration - cosware  Protection Mode: MaxPerformance  Members:  coswaref1 - Primary database  coswarec1 - Physical standby database  Fast-Start Failover: DISABLED  Configuration Status:  SUCCESS (status updated 40 seconds ago)  DGMGRL> DGMGRL> |

# Backups

Full backups are performed on the current primary database. Option 19 is used to list existing backups, perform a full backup with option 20.

Option 19 lists which backups are available. Number depends on backup retention.

Option 20 performs a RMAN a full primary database backup. Backups are stored on standby database server.

|  |
| --- |
| Current RMAN configuration |
|  |
| 19) DG RMAN backups summary |
|  |

|  |
| --- |
| 20) DG Primary full RMAN backup |
|  |

” .

# Shutdown and startup of instances

Shutdowns and startups using “mnu” are done locally, i.e., stop a standby databases by running “mnu” on the server hosting the standby instance..

|  |
| --- |
| Local database is shut down. |
|  |
|  |
| Standby database is now down |
|  |

|  |
| --- |
| Standby database is started |
|  |
|  |
| Standby database is up and Data Guard system healthy |
|  |

# Miscellaneous options

|  |
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|  |
|  |
|  |

# Annex

## Environment

Most aliases are definied in .bash\_profile

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| --- |
|  |

## Operations scripts

Scripts used by “mnu”

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| --- |
|  |

## Credentials

Stores credentials necessary to manage databases with “mnu”. Use a text editor to maintain credentials.

|  |
| --- |
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