DTAG - Bonn Lab - Backup Scripts

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Document Release Notes

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# **INTRODUCTION**

This document is intended to outline the installation and operation process for the 4 (four) backup scripts created for the Amdocs Bonn Lab deployment that cover the following main applications: PCRF, DRA/SLF, SDB and BMS. Each backup script is installed in the crontab of the respective server and is configured to run on a periodic basis. The backup scripts produce a log file detailing the backup process. Backup file retention is handled by the scripts and the retention period is configurable. The BMS server has been designated as the central storage for all backup files. A further script was developed for the BMS server that automates the retrieval of the backup files from all the application servers to the local directory on the BMS server.

# **InstallatioN**

## *PCRF*

* Place the PCRF backup script (Backup\_BMS.sh) in any location with

read/write permissions for the ***BPC*** user (ex. /stage)

* The script should be given read/write permissions for the ***BPC*** user
* The script contains default RMA rules engine credentials that need to be updated accordingly for proper operation. Open the script up for editing and update the following variables with the latest RMA root credentials:

  XPC\_USERNAME="**<username>**"

  XPC\_PASSWORD="**<password>**"

* The retention period needs to be set within the script by updating the following variable accordingly:

# The age variable represent the retention period

age="<**age\_in\_days**>"

* The script will be run periodically within the crontab for the ***BPC*** user and needs to be installed as follows:

**<minute> <hour>** \* \* \* **<absolute path to**

**script>**/Backup\_PCRF.sh 2> /dev/null

Where <minute> and <hour> is the daily time to run the script. Ex 23 15 \* \*

\* would make the script run at 15:23 GMT everyday.

## *DRA*

* Place the DRA backup script (Backup\_DRA.sh) in any location with read/write

permissions for the ***BPC*** user (ex. /stage)

* The script should be given read/write permissions for the ***BPC*** user
* The script contains default credentials for the subscriber partition utility (INSTANCE/bin/rgmgr.sh) that need to be updated accordingly for proper operation. Open the script up for editing and update the following variables with the latest rgmgr root credentials:

  XPC\_USERNAME="**<username>**"

  XPC\_PASSWORD="**<password>**"

* The retention period needs to be set within the script by updating the following variable accordingly:

# The age variable represent the retention period

age="<**age\_in\_days**>"

* The script will be run periodically within the crontab for the ***BPC*** user and needs to be installed as follows:

**<minute> <hour>** \* \* \* **<absolute path to**

**script>**/Backup\_DRA.sh 2> /dev/null

Where <minute> and <hour> is the daily time to run the script. Ex 23 15 \* \*

\* would make the script run at 15:23 GMT everyday.

## *SDB*

* The following instructions will configure the following backup:
* Full, Online Database backup
* Daily
* Retention of 3 days
* Create the following configuration file:

**touch /u01/app/oracle/widespan/backups/database\_backup.cf**

* Insert the following lines into the same file:

                 targetuser=r6

                 targetpass=r6

                 destination=disk

                 directory=/u01/app/oracle/widespan/backups

                 retention=3

                 mailto=oracle

* Add the following lines to the ***ORACLE*** crontab:

# Pre-defined option 1 (daily full backup)  
0 6 \* \* \* /u01/app/oracle/widespan/backups/database\_backup.sh /u01/app/oracle/widespan/backups/database\_backup.cf full > /dev/null 2>&1

#cron entry added for backup\_purge\_07.sh script

0 7 \* \* 0-6 /u01/app/oracle/widespan/backups/backup\_purge\_07.sh /u01/app/oracle/widespan/backups/database\_backup.cf > /dev/null 2>&1

             The considerations here are the following:

    i). Backup directory (***directory*** above) needs to be big enough to store 3 days worth of FULL backups which I estimate would be around 6-8Gb

          ii). Retention period (***retention*** above) directly affects space usage…Recommendation was for 3 days worth of full backups

         iii). ***Targetuser/targetpass*** need to be update according to the schema credentials

## *BMS*

### Backup Script

* Place the BMS backup script (Backup\_BMS.sh) in any location with

read/write permissions for the ***BWC*** user (ex. /stage)

* The script should be given read/write permissions for the ***BWC*** user
* The script contains the default password for the postgres database user that needs to be updated accordingly for proper operation. Open the script up for editing and update the following variable with the latest postgres credentials:

#Update the following variable with the latest postgres user password

export PGPASSWORD=”<**postgres\_user\_password>**”

* The retention period needs to be set within the script by updating the following variable accordingly:

# The age variable represent the retention period

age="<**age\_in\_days**>"

* The script will be run periodically within the crontab for the ***ROOT*** user and needs to be installed as follows:

**<minute> <hour>** \* \* \* **<absolute path to script>**/Backup\_BMS.sh 2> /dev/null

Where <minute> and <hour> is the daily time to run the script. Ex 23 15 \* \* \*

would make the script run at 15:23 GMT everyday.

### Backup file retrieval script

* Install the expect package on the BMS server

# Yum install expect

* Place the Backup file retrieval script (Fetch\_Backups.sh) in any location with read/write permissions (eg. /stage)
* Create local directories for each application type (BMS, PCRF, DRA, SDB) in which all the transferred backups will be stored
* Open the script for editing and update the following variables accordingly:

set local\_backup\_dir\_BMS "/stage/BMS/"

set local\_backup\_dir\_PCRF "/stage/PCRF/"

set local\_backup\_dir\_DRA "/stage/DRA/"

set local\_backup\_dir\_SDB "/stage/SDB/"

set local\_backup\_dir\_SWITCH "/stage/SWITCH/"

set PCRF\_PASS "labbws"

set PCRF\_PATH "/opt/bpc/backup/TARFILE"

set PCRF\_HOST "kll5029"

set DRA\_PASS "labbws"

set DRA\_PATH "/opt/bpc/backup/TARFILE"

set DRA\_HOST "kll0057"

set BMS\_PASS "labbws"

set BMS\_PATH "/opt/bwc/backup/TARFILE"

set BMS\_HOST "kll5033"

set SDB\_PASS "labbws"

set SDB\_PATH "/u01/app/oracle/widespan/backups/daily"

set SDB\_HOST "kll5030"

set SWITCH\_PASS "admin"

set SWITCH\_HOST "192.168.155.48"

* Install the script into the ***ROOT*** crontab in the following manner:

**<minute> <hour>** \* \* \* **<absolute path to script>**/Fetch\_Backups.sh > /tmp/Fetch\_Log.txt 2> /dev/null

**\*\* IT IS MANDATORY THAT THE TIME SETTING SELECTED FOR THE CRONJOB TO RUN TO BE AT LEAST 1 HR LATER THEN THE CRONJOB TIME FOR THE BACKUP SCRIPTS TO ALLOW THE FETCH\_BACKUPS SCRIPT TO TRANSFER OVER THE LATEST BACKUP\*\***

OPERATION

* During the initial run of every backup script, on the respective nodes, the backup directory structure is created. The location of the backup directory varies according to application/user. Please see Appendix A for details.
* A backup log is generated after every run. This backup log called *backup.log* is located in the backup directory
* The backup script will perform a number of backup functions dependent on the application. Please see Appendix A for details.
* The backup script will output logs indicating which backup process it is currently attempting in the backup log and it will also output any errors encountered, if any.
* The backup script will perform a cleanup of any backup files based on the retention period configured in the script.
* All backup file names follow the following convention:

**BACKUP\_<HOSTNAME>\_<APPLICATION>\_<ddmmyy>.tar**

* Once the backup is complete the result will be displayed in the backup log file together with the absolute path to the backup file

Example:

*Complete. The archive can be found at /opt/bwc/backup/TARFILE/BACKUP\_kll5033.bridgewatersys.com\_BMS.01.02.12.tar*

* The Fetch\_Backups.sh script, when executed, will attempt to reach out to all the application servers it has configured
* The output log for the Fetch\_Backups.sh script is called Fetch\_Log.txt is located in /tmp. This log will show the logs resulting from the each of the scripts attempt at transferring over the backup files
* If any issues or concerns arise please contact Steven Sciriha (email: Steven.Sciriha@amdocs.com)

APPENDIX A