PostgreSql\_Prod\_Replica\_Rebuilt

**Change Number: CHG0610933**

**Server:** **xrstudbw1p**

xrstudbm1p.aetna.com 🡪Primary

xrstudbw1p.aetna.com 🡪 Standby

**Ticket Description:**

Rebuild replica on xrstudbw1p.aetna.com; No impact to Primary Production database .

**Pre-checks:**

We must take a full backup (instance level) on the master server to make sure your replica can start and add entries in Primary their corresponding secondary server details and in secondary their corresponding Primary server details in pg\_hba file.

**Steps to be executed:**

**Step 1:"**Logon to xrstudbw1p (replica of PROD)

Command:

$cp /u01/postgresql/data/rstpgsp1/recovery.conf /u01/postgresql/data/recovery.OLD

$cp /u01/postgresql/data/rstpgsp1/pg\_hba.conf /u01/postgresql/data/pg\_hba\_old.conf

$cp /u01/postgresql/data/rstpgsp1/postgresql.conf /u01/postgresql/data/postgresql\_old.conf"

**Step 2:** stop db instance on replica

Command:

$pg\_ctl stop -D /postgresql/data/rstpgsp1

**Step 3:** "Remove old datafiles (unusable at this point)

Command:

$cd /postgresql/data/rstpgsp1

$rm -rf \*

**Step 4**:

* Kick off pg\_basebackup with the target directory as the new $PGDATA directory on the replica >>> to set up standby/replica >>>to take a WAL backup.

Command:

$pg\_basebackup -h xrstudbm1p -U repl -p 50001 -D /postgresql/data/rstpgsp1 -Fp -Xs -P -R -c fast

or

$-c fast will do checkpoint or you can run manually.

* If the database id big use this command to run the pg\_basebackup in the background and check the log output.

Command:

$nohup pg\_basebackup -h xrstudbm1p -U repl -p 50001 -D /postgresql/data/rstpgsp1 -Fp -Xs -P -R --verbose >> pg\_basebackup\_07jun24.log 2>&1 &

$tail -f pg\_basebackup\_07jun24.log

$cat pg\_basebackup\_07jun24.log

**Step 5:** Restore recovery config file.

Command:

$cp /u01/postgresql/data/recovery.OLD /u01/postgresql/data/rstpgsp1/recovery.conf

$cp /u01/postgresql/data/pg\_hba\_old.conf /u01/postgresql/data/rstpgsp1/pg\_hba.conf

$cp /u01/postgresql/data/postgresql\_old.conf /u01/postgresql/data/rstpgsp1/postgresql.conf

check if the recovery.conf is correct

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postgres@xrstudbw1p:/postgresql/data/rstpgsp1>cat recovery.conf

standby\_mode = on

primary\_conninfo = 'host=xrstudbm1p.aetna.com port=50001 user=repl password=repg786 application\_name=RSTD-PRD-S1'

#primary\_conninfo = 'host=167.69.178.96 port=50001 user=repl password=repg786 application\_name=PRD-S1'

restore\_command = 'cp /postgresql/data/rstpgsp1/archive/%f /postgresql/data/rstpgsp1'

archive\_cleanup\_command = 'pg\_archivecleanup /postgresql/data/rstpgsp1/archive %r'

**Step 6:** Remove the pg\_log/\* files that were copied from the primary

Command:

$cd /u01/postgresql/data/rstpgsp1/pg\_log

$rm -rf \*

**Step 7:** Start db instance on replica.

Command:

$pg\_ctl start -D /postgresql/data/rstpgsp1

* If it takes longer recovering when you run “ps -ef|grep postgres” on one wal file does not change run checkpointer to switch the wal
* checkpoint; on primary
* get the wal file number and see how many files left recovering from the primary node pg xlog location
* check from the primary wal location
* “ls -lrth 0000000100000117\*|wc -l”

**Step8:** Verify Streaming Replication by using the following commands:

Command:

$select \* from pg\_stat\_replication;

$select client\_hostname, client\_addr, state, sync\_state, application\_name, sent\_location, write\_location, flush\_location, replay\_location from pg\_stat\_replication;

$pgsql=# select pg\_is\_in\_recovery(); if it gives "t"--it is standby server && it gives "F" it is primary server.

$bash$ps -efa|grep walsender 🡪in primary side.

$bash$ps -efa|grep walreceiver 🡪in standby side.

**Step9:**

Command:

$postgres=# select \* from pg\_stat\_replication;

$Run on Replica server.

$postgres=# select \* from pg\_stat\_wal\_receiver;

$postgres=# select pg\_last\_wal\_receive\_lsn(), pg\_last\_wal\_replay\_lsn(), pg\_last\_xact\_replay\_timestamp();

To check the lag:

$select now()-pg\_last\_xact\_replay\_timestamp() as replication\_lag;

**Post-checks:**

Once the activity close the ticket in service now