**PostgreSQL Logical Replication**

**Step:1** Make following changes in configuration file of MASTER Server.

vim /var/lib/pgsql/10/data/postgresql.auto.conf

wal\_level= 'logical'

Uncomment following Prameters :-

(1) max\_wal\_senders

(2) wal\_keep\_segments

**Step:2** ADD SLAVE IP(Logical Server IP) in Authentication file of MASTER server.

vim /var/lib/pgsql/10/data/pg\_hba.conf

host all eoffice slaveip/32 trust

**Step:3** Provide replication role to the eoffice in master server

(i) su - postgres

(ii) /var/lib/pgsql/10/bin/psql

(iii) alter role eoffice with replication ;

**Step:4** Restart MASTER server

/etc/init.d/postgresql-10 restart

**Step:5** Restore Production Database backup in Logical server

1. su – postgres
2. (ii) /var/lib/pgsql/10/bin/psql
3. create database "database\_name" owner eoffice;
4. /var/lib/pgsql/10/bin/pg\_restore -v -d "database\_name" -U eoffice backup\_file\_path

**Step:6** copy given Logical\_clean.sql file to Logical database server and execute.

(i) su - postgres

(ii) /var/lib/pgsql/10/bin/psql

(iii) \c "database\_name";

(iv) \i complete\_file\_path

**Step:7** Run below query in Master database server

(i) su - postgres

(ii) /var/lib/pgsql/10/bin/psql

(iii) \c "database\_name";

(iv) set role eoffice;

(v) CREATE PUBLICATION publication\_name for table FL\_audit\_trail,FL\_email\_attachment,FL\_file\_closed\_history,FL\_correspondence\_signed\_movement,FL\_dispatch\_search\_history,FL\_dispatch\_reminder,FL\_draft\_code\_number,FL\_exclude\_classified

,FL\_exclude\_basic\_head,FL\_exclude\_main\_category,FL\_exclude\_section,FL\_note\_template,FL\_followup\_section,FL\_receipt\_followup\_type,FL\_receipt\_search\_history,FL\_receipt\_followup\_action\_type,FL\_release\_note,FL\_user\_directory

,FL\_sequence\_number,FL\_note\_attachment,FL\_file\_search\_history,FL\_file\_followup\_action\_type,FL\_file\_dealing\_rights,FL\_temp\_migrated\_components,FL\_file\_ext

,FL\_file\_attachment\_ext,FL\_file\_max\_movement,FL\_correspondence\_ext,FL\_file\_ext\_sender\_details,FL\_file\_movement\_ext,FL\_draft\_conversion,FL\_receipt\_conversion,FL\_note\_conversion,FL\_file\_closing\_approval,FL\_kms\_references,FL\_file\_record\_action

,FL\_yellownote\_log,FL\_note\_ext,FL\_note,FL\_file\_transfer,FL\_file\_number,FL\_draft\_nature\_code,FL\_email,FL\_receipt\_metadata,FL\_dms\_reference,FL\_file\_followup\_comments,FL\_file\_movement\_rr

,FL\_dispatch\_delivery\_ext,FL\_draft\_reminder\_notification,FL\_draft\_attachment\_ext,FL\_dispatch\_ext,FL\_noting\_trail,FL\_file\_followup\_type,FL\_file\_followup\_action,FL\_file\_conversion,FL\_file\_extract,FL\_draft\_attachment

,FL\_draft\_recipient,FL\_file\_merge\_draft,FL\_file\_parts,FL\_file\_reminder,FL\_file\_to\_file\_attachment,FL\_followup,FL\_receipt\_reminder,FL\_file\_metadata,FL\_receipt\_followup\_comments,FL\_dfa\_reminder,FL\_draft\_version,FL\_address\_group\_map,FL\_call\_book

,FL\_draft\_recipient\_ext,FL\_due\_date\_file,FL\_due\_date\_change\_history\_file,FL\_draft\_ext,FL\_dispatch\_cru,FL\_dispatch\_delivery,FL\_draft,FL\_file\_merge\_linked,FL\_reminder\_status,FL\_file\_attachment

,FL\_external\_file\_link\_delink,FL\_file\_link\_delink,FL\_file\_merge,FL\_note\_temp,FL\_post\_delegation,FL\_yellownote,FL\_file\_status\_change\_history,FL\_reminder\_notification,FL\_dispatch,FL\_delegation\_file\_head\_group,FL\_delegation\_file\_classified

,FL\_file\_park\_history,FL\_receipt\_closed\_history,FL\_ext\_revert\_history,FL\_review\_calendar,FL\_delegation\_file\_subject\_category,FL\_delegation\_receipt\_classified,FL\_delegation\_receipt\_subject\_category

,FL\_delegation\_receipt\_vip,FL\_delegation\_external\_file,FL\_acknowledgement\_details,FL\_handover,FL\_address\_book,FL\_address\_group,FL\_receipt\_acknowledgement,FL\_file\_merge\_correspondence,FL\_correspondence\_attachment,FL\_correspondence\_attach,FL\_correspondence\_file\_references

,FL\_correspondence\_attach\_correspondence,FL\_acknowledgement,FL\_correspondence\_receipt\_movement,FL\_due\_date\_receipt,FL\_receipt\_followup\_action,FL\_receipt\_to\_file\_attachment,FL\_receipt\_transfer,FL\_receipt\_pdf,FL\_correspondence\_receipt\_max\_movement

,FL\_recepient\_list,FL\_correspondence\_receipt,FL\_reminder,FL\_file\_movement,FL\_file,FL\_transfer,FL\_sender\_detail,FL\_folder,FL\_note\_user\_template,FL\_kms\_publish,FL\_correspondence\_action,FL\_configuration

,FL\_dispatch\_action,FL\_department,FL\_esign\_content\_log,FL\_draft\_state,FL\_draft\_version\_ext,FL\_esign\_log,FL\_file\_action,FL\_file\_code,FL\_preferred\_list,FL\_preferences,FL\_session\_info

,FL\_report\_role\_mapping,FL\_search\_scope\_hierarchy,FL\_search\_restricted\_section,FL\_search\_privileges,FL\_template,FL\_reports,FL\_report\_group,FL\_user\_certificates,FL\_reviewed\_officer,vw\_employee\_details\_with\_department

,ref\_vip,ref\_city,ref\_confidentiality,ref\_correspondence\_mode,ref\_state\_master,ref\_country\_master,ref\_delivery\_person,ref\_department\_record\_room,ref\_desired\_action,ref\_district\_master

,ref\_employee\_status,ref\_file\_active,ref\_file\_category,ref\_file\_retention\_period,ref\_file\_state,ref\_go\_prefix,ref\_month,ref\_page\_size,ref\_priority

,ref\_record\_room\_master,ref\_dispatch\_type,ref\_reply\_type,ref\_rr\_retention\_category,ref\_sender\_type,ref\_subject\_sub\_category,ref\_region\_master,ref\_head\_group,ref\_subject\_category,ref\_correspondence\_type

,ref\_country\_master,ref\_sender\_category,ref\_sender\_sub\_category,ref\_final\_action,ref\_head\_primary,ref\_head\_secondary,ref\_head\_tertiary,reference\_group,ref\_group\_head\_mapping,ref\_scope

,ref\_language,ref\_department\_master,ref\_ministry\_master,ref\_location,ref\_relation,ref\_ou\_department\_master,ref\_ou\_head\_tertiary

,ref\_ou\_head\_secondary,ref\_ou\_head\_primary,ref\_ou\_subject\_category,ref\_head\_basic,ref\_ou\_subject\_sub\_category,ref\_ou\_headbasic,ref\_organization,ref\_group\_type

,ref\_audit\_trail,ref\_post,ref\_postal\_mode,ref\_rr\_room,ref\_rr\_rack,ref\_rr\_block,ref\_rr\_shelve,ref\_type\_of\_id\_card,mis.mis\_configuration,mis.preference,mis.release\_note,mis.report\_group,mis.report\_group\_mapping,mis.report\_role\_mapping,mis.report\_scope,mis.report\_section\_scope\_privilege,mis.report\_view\_restriction,mis.reports,mis.section\_privilege,mis.user\_preferences\_reports,admin.adm\_application,admin.adm\_configuration,admin.adm\_module,admin.adm\_permission,admin.adm\_portal\_authentication,admin.adm\_portal\_session,admin.adm\_post\_role,admin.adm\_post\_role\_permission,admin.adm\_reference\_application,admin.adm\_reference\_role\_mapping,admin.adm\_role,admin.adm\_role\_sub\_module,admin.adm\_sub\_module,admin.application\_workflow,admin.application\_workflow\_desc,admin.application\_workflow\_forward\_level,emd.emd\_org\_unit,emd.emd\_audit\_detail,emd.emd\_calendar\_detail,emd.emd\_calendar\_global\_org,emd.emd\_designation,emd.emd\_employee\_office\_location,emd.emd\_designation\_global\_org,emd.emd\_designation\_rank,emd.emd\_employee,emd.emd\_employee\_address,emd.emd\_employee\_link\_officer,emd.emd\_employee\_paydata,emd.emd\_employee\_photo,emd.emd\_employee\_reporting\_hierarchy,emd.emd\_employee\_work\_status,emd.emd\_entity\_type,emd.emd\_gradepay,emd.emd\_known\_language,emd.emd\_location\_label\_description,emd.emd\_location\_level1\_master,emd.emd\_location\_level2\_master,emd.emd\_location\_level3\_master,emd.emd\_location\_level4\_master,emd.emd\_location\_level5\_master,emd.emd\_location\_level6\_master,emd.emd\_location\_level7\_master,emd.emd\_logging\_information,emd.emd\_org\_unit\_address,emd.emd\_payband,emd.emd\_post,emd.emd\_post\_delegation\_level,emd.emd\_post\_detail,emd.emd\_post\_global\_org,emd.emd\_post\_hierarchy,emd.emd\_upload\_document,emd.ref\_appellation,emd.emd\_version,emd.emd\_weekly\_off,emd.emd\_year,emd.global\_org\_withcode,emd.orgunit\_office\_mapping,emd.ref\_adminuser\_designation,emd.ref\_country,emd.ref\_district,emd.ref\_employee\_status,emd.ref\_gender,emd.ref\_global\_org\_hierarchy,emd.ref\_holiday\_type,emd.ref\_language,emd.ref\_location,emd.ref\_nature\_of\_post,emd.ref\_office,emd.ref\_religion,emd.ref\_state,emd.ref\_type\_of\_appointment,emd.ref\_type\_of\_upload,emd.ref\_work\_status,emd.emd\_employee\_contact\_detail,emd.emd\_employee\_designation,emd.emd\_org\_post\_sancationed,emd.emd\_org\_unit\_heirarchy,emd.emd\_upload\_document\_history,emd.ref\_global\_org,emd.emd\_calendar,emd.emd\_org\_unit\_detail,emd.global\_code\_mapping,emd.transfer\_notification,emd.emd\_holiday,emd.emd\_entity\_type\_global\_org,emd.emd\_entity\_type\_heirarchy,emd.emd\_post\_delegation,emd.user\_modify\_employee,emd.emd\_user ;

**Step:8** Run below query in Logical database server

(i) su - postgres

(ii) /var/lib/pgsql/10/bin/psql

(iii) \c "database\_name";

(iv) CREATE SUBSCRIPTION subscription\_name CONNECTION 'host=master\_ip dbname=database\_name user=eoffice' PUBLICATION publication\_name;

**Step:9** Check for Logical Replicaton status in master Server

(i) su - postgres

(ii) /var/lib/pgsql/10/bin/psql

(iii) select \* from pg\_stat\_replication;

-----------------------------------------------------END--------------------------------------------------------