PostgreSQL Upgrade Guide for Clustering Gateway (Same Server)

1. Preparation

1. Please prepare about 2 hours for the upgrade maintenance window.
2. Snapshots (all instances) backup if running on VMs.
3. Stop *Splashtop® Gateway Clustering Service* from **all** clustering instances using the following steps.
   a. Stop *Splashtop® Gateway Clustering Service* from the Load Balancer.
   b. Stop *Splashtop® Gateway Clustering Service* from **all** the Main Nodes.
   c. Stop *Splashtop® Gateway Clustering Service* from the Database.

2. Backup on DB Node

1. **Database Backup:** Go to *{InstallDir}\Splashtop Gateway Clustering*, and open Backup.exe to do a backup. Follow the steps to back up your clustering Gateway.
   a. IMPORTANT Manually copy the backup file to a secure place to prevent it from being deleted during uninstallation.
2. **Archive Configurations:** Manually copy all modified/added files in the installation directory to prevent them from being deleted during uninstallation.

> **Tips**
>
> - Including but not limited to:
>   - *{InstallDir}\Splashtop Gateway Clustering\Data\example.crt*
>   - *{InstallDir}\Splashtop Gateway Clustering\Data\example.key*
>   - *{InstallDir}\Splashtop Gateway Clustering\Backup Schedule\...*
>   - *{InstallDir}\Splashtop Gateway Clustering\sessionrecording\...*
> - Skip if no customized configurations or artifacts.

3. **Uninstall Database:** Uninstall the Splashtop® Gateway Clustering Service on the DB node.

3. Update Configurations

1. **Fresh Install Database:** Run the new *SplashtopGatewayClustering_x64.exe* on the DB node.

   Note: PostgreSQL upgrade supported from Gateway v3.36.0.

2. **Restore Configurations on DB Node:** Paste archived configuration files and artifacts into the same locations under the new installation directory.

   NOTE Skip if no customized configurations.

3. **Update Configurations on DB Node:** Go to *{InstallDir}\Splashtop Gateway Clustering\Data* on the DB node, and update the following 2 configuration files:

```
# This is pg_hba.conf
...
# IPv4 local connections:
host    all             all             apiserver1_ip/32       @authmethodhost@
host    all             all             apiserver2_ip/32       @authmethodhost@
...
```

Pro Tips

- Replace apiserver_ip with your actual IP address/FQDN.

```
# This is postgresql.conf
      listen_addresses = '*'
      max_connections = 200
      ssl = on
      ssl_cert_file = 'example.crt'
      ssl_key_file = 'example.key'
      shared_buffers = 4GB
      work_mem = 32MB
```

Pro Tips

- Remove the "#" and update the parameters.
- If no SSL certificate in place, set ssl = off, keep the ssl_cert_file and ssl_key_file unchanged.
- *shared_buffers* must be lower than the actual physical memory of your Database server.

4. **Restart Service:** Restart the Splashtop® Gateway Clustering Service on the DB node.

4. Database Restoration

1. **Upgrade Main Nodes:** Run *SplashtopGatewayClustering_x64.exe* on one of the Main Nodes, and stop the *Splashtop® Gateway Clustering Service*.
2. **Initialize Database:** Run CMD as Administrator at the above Main Nodes, go to *{InstallDir}* to run the following commands:

```
onpremise_x64.exe -initdbonly -pgadminname postgre -pgadminpass {adminpass} -pgdbpass
{dbuserpass}
```

NOTE **The command only needs to be issued once from one of the Main Node instances.**

Pro Tips

- Exclude the { } sign while typing.
- *-initdbonly* will connect and initialize Database without creating Splashtop DB tables.
- *-pgadminname postgre* Default Splashtop Database admin name.
- *{adminpass}* and *{dbuserpass}* should be the same with the original ones.

3. **Restore Database:** Run CMD as Administrator at your DB node and go to *{InstallDir}\Splashtop Gateway Clustering\postgre\bin* to run the below command:

```
psql -h 127.0.0.1 -U onpremise_support -d onpremise_support < "{sql_file}"
```

{sql_file} is the backup filename. (e.g. backup.sql)

4. **Run cmd as *Administrator*** on the above Main Node, and go to *Install Drive:\\Program Files\Splashtop\Splashtop Remote\Splashtop Gateway Clustering*, then issue "onpremise_x64.exe -upgradeversion".
5. **Restart Service:** Restart *Splashtop® Gateway Clustering Service* on the above Main Node.

5. Clustering component upgrade

1. Run *SplashtopGatewayClustering_x64.exe* on other Main Nodes, make sure *Splashtop® Gateway Clustering Service* is up and running from Task Manager for each Main Node.
2. Run *SplashtopGatewayClustering_x64.exe* on the Load Balancer.
   a. Copy and paste your certificate backups back to *Install Drive:\\Program Files\Splashtop\Splashtop Remote\Splashtop Gateway Clustering\reverseProxy*
   b. Restart *Splashtop® Gateway Clustering Service* on the Load Balancer.
3. **Activate License:** Navigate to System → License in the web console, and import the license.
4. **Import Certificate (Optional):** Navigate to System → Security in the web console, and import the SSL certificate.
5. **Restart Streamers:** Restart the Streamers to update the latest configurations.

6. Validation

1. Confirm the PostgreSQL version: Right-click the *{InstallDir}\Splashtop Gateway Clustering\postgre\bin\postgres.exe*, and navigate to *Properties > Details* to check the *Product version* field.
    a. NOTE PostgreSQL will be upgraded to v16.10 or higher after the successful execution.
2. Confirm Gateway web console accessibility.
3. Check the Streamer connections.