



**Centers for Medicare & Medicaid  
Services (CMS)  
Federally-Facilitated Marketplace (FFM)**

**EDGE 19.0 Prerequisite Steps  
Job Aid**

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**Version 2.0  
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# 1 Introduction

CMS is preparing to deploy the External Data Gathering Environment (EDGE) server Maintenance Release 19.0 to install a new data schema, which will create a third zone on issuers' servers. This new data schema will be known as the Validation Zone.

The EDGE server Validation Zone will serve as a Pre-Production (Pre-Prod) environment for CMS to test EDGE application releases with issuers using their existing EDGE servers prior to releasing the application to production. The Validation Zone will consist of schemas for transactional, plan and global reference data that are independent of the existing production, test and common schemas on issuers' EDGE servers.

This document details the prerequisite steps necessary to prepare issuers' On-premise (OP) and Amazon Web Services (AWS) Elastic Compute Cloud (EC2) EDGE servers.

Issuers who have technical questions related to the steps provided below, or the EDGE application, should contact the Financial Management Coordination Center (FMCC) at [EDGE\\_Server\\_Data@cms.hhs.gov](mailto:EDGE_Server_Data@cms.hhs.gov) and include a subject line of "EDGE 19.0 – Server Type <insert AWS or OP> – Health Insurance Oversight System (HIOS) ID <insert one (1) of your HIOS IDs>".

# 2 Conventions

The following documentation conventions will be used:

**Table 1 Conventions Table**

| Convention                                                                              | Description                                                                                                    |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Black highlighted in gray<br><ul style="list-style-type: none"><li>Text</li></ul>       | Black characters highlighted in gray indicate a command that should be ran at the Linux or MySQL command line. |
| Red highlighted in gray<br><ul style="list-style-type: none"><li>&lt;Text&gt;</li></ul> | Red characters highlighted in gray indicate text that needs to be replaced with a value custom to the issuer.  |

**IMPORTANT: Please do not copy commands to the Linux command line directly from this document. Please type the commands in the command line instead.**

### 3 Assumptions



**This step must be completed prior to starting EDGE 19.0 prerequisite steps.**

Issuers should verify they have **completed the EDGE 18.0 upgrade** on their servers before starting the EDGE 19.0 prerequisite steps by running the following commands using the Linux command prompt:

- `cd /opt/edge/bin`
- `./edge version`

The following version should be seen after running 'edge version' command.

Edge version is EDGEServer\_18.00\_00\_b0195

Issuers who have not completed the EDGE 18.0 upgrade on their servers should not start the EDGE 19.0 prerequisite steps outlined below and should contact the Financial Management Coordination Center (FMCC) at [EDGE\\_Server\\_Data@cms.hhs.gov](mailto:EDGE_Server_Data@cms.hhs.gov).

### 4 EDGE 19.0 Prerequisite Steps

Issuers should follow the steps below to prepare their servers for EDGE Server Maintenance Release 19.0.

#### 4.1 Turn Off EDGE Cron

This step will stop ingest Cron from applying application updates before granting the necessary privileges and adding Validation buckets. This step is applicable only for issuers who use Cron on their servers.

Log in to your server.

1. From the command line, enter the following command, which opens crontab:

- `crontab -e`

```
#*/1 * * * * /opt/edge/bin/edge ingest
```

2. Enter # at the beginning of the line.

3. Save and exit by hitting “Esc” key on the keyboard and entering the following:

- :wq!

[illegible]

## 4.2 Add Validation Buckets Information in edge.properties

This step will add Simple Storage Service (S3) Validation bucket properties in the `edge.properties` file.

1. From Linux command line, type the following command to navigate to the edge.properties file:

- `cd /opt/edge/config`

```
[ec2-user@edgeServer-84639 ~]$ cd /opt/edge/config
[ec2-user@edgeServer-84639 config]$ ls -ltr
total 16
-rwxr-xr-x. 1 ec2-user ec2-user 2164 Oct 18 12:47 logback.xml.bak
-rwxr-xr-x. 1 ec2-user ec2-user  98 Jan  7 16:11 edge.keys
-rwxr-xr-x. 1 ec2-user ec2-user  0 Jan  7 16:25 completeConfiguration
-rwxr-xr-x. 1 ec2-user ec2-user 2246 Jan  7 16:35 logback.xml
-rwxr-xr-x. 1 ec2-user ec2-user 1166 Jan  9 06:56 edge.properties
[ec2-user@edgeServer-84639 config]$
```

2. View the `edge.properties` file by typing the following command at the Linux command prompt:

- vi edge.properties

3. Insert the following lines in the `edge.properties` file if they are not present:

- `aws_s3_bin_validation=edge.binaries.validation`
- `aws_s3_data_validation=edge.data.validation`

- `aws_s3_command_validation=edge.commands.validation`

```
showBuildNumber=true
aws_s3_bin_validation=edge.binaries.validation
aws_s3_data_validation=edge.data.validation
aws_s3_command_validation=edge.commands.validation
-- INSERT --
```

#### 4. **This step is applicable only for issuers who want to have custom schemas for the Validation Zone!**

If you plan to have custom schemas for the Validation Zone, add your custom schemas in the edge.properties file using the following commands:

- `db_common_schema_v=EDGE_SRVR_COMMON_V_CUSTOM`
- `db_validation_schema=EDGE_SRVR_VALIDATION_CUSTOM`

In the below example, 'EDGE\_SRVR\_COMMON\_V\_CUSTOM' and 'EDGE\_SRVR\_VALIDATION\_CUSTOM' are used:

```
showBuildNumber=true
aws_s3_bin_validation=edge.binaries.validation
aws_s3_data_validation=edge.data.validation
aws_s3_command_validation=edge.commands.validation
db_common_schema_v=EDGE_SRVR_COMMON_V_CUSTOM
db_validation_schema=EDGE_SRVR_VALIDATION_CUSTOM
-- INSERT --
```

5. Save and exit by hitting "Esc" key on the keyboard and entering the following:

- `:wq!`

### 4.3 Obtain the Default MySQL Root Password

In this step, you will take note of MySQL root password if you have an AWS server. Issuers who have OP servers should have the root password (check with your server administrator).

The MySQL root user will need this password in the next step to connect to MySQL and grant database privileges on Validation Zone schemas.

1. Navigate to the config folder if you are not already there by typing the following command:

- `cd /opt/edge/config`

```
[ec2-user@edgeServer-84639 ~]$ cd /opt/edge/config/
[ec2-user@edgeServer-84639 config]$ ls -lart
total 28
-rwxr-xr-x. 1 ec2-user ec2-user 2164 Oct 18 12:47 logback.xml.bak
-rwxr-xr-x. 1 ec2-user ec2-user  98 Jan  7 16:11 edge.keys
-rwxr-xr-x. 1 ec2-user ec2-user   0 Jan  7 16:25 completeConfiguration
-rwxr-xr-x. 1 ec2-user ec2-user  12 Jan  7 16:26 .edge.root
-rwxr-xr-x. 1 ec2-user ec2-user 2246 Jan  7 16:35 logback.xml
-rwxr-xr-x. 1 ec2-user ec2-user 1166 Jan  9 06:56 edge.properties
drwxr-xr-x. 13 ec2-user ec2-user 4096 Jan  9 15:25 ..
drwxr-xr-x.  2 ec2-user ec2-user 4096 Jan 10 23:53 .
[ec2-user@edgeServer-84639 config]$
```

2. View the .edge.root file by typing the following command and take note of the password in the file:

- `cat .edge.root`

```
[ec2-user@edgeServer-84639 config]$ cat .edge.root
eDG#5#RVE91
[ec2-user@edgeServer-84639 config]$
```

#### 4.4 Grant Privileges to {db\_user} Defined in the edge.properties File for Validation Zone Schemas

This step will grant privileges to the {db\_user} defined in the edge.properties file for Validation Zone schemas.

1. Connect to MySQL by typing the following command and enter the password noted in Step 4.3 when prompted:

- `sudo mysql -u root -p`

```
[ec2-user@edgeServer-84639 config]$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 20165
Server version: 5.7.17 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

2. After the password is accepted in Step 1 above, enter the following commands to grant privileges to {db\_user} defined in the edge.properties file:

- `GRANT ALL PRIVILEGES ON `EDGE_SRVR_COMMON_V`.* TO '<db_user>'@'localhost' WITH GRANT OPTION;`
- `GRANT ALL PRIVILEGES ON `EDGE_SRVR_VALIDATION`.* TO '<db_user>'@'localhost' WITH GRANT OPTION;`
- `FLUSH PRIVILEGES;`

In the below example, 'edgedbuser' is used as an example:

```
mysql> GRANT ALL PRIVILEGES ON `EDGE_SRVR_COMMON_V`.* TO 'edgedbuser'@'localhost'
' WITH GRANT OPTION;
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> GRANT ALL PRIVILEGES ON `EDGE_SRVR_VALIDATION`.* TO 'edgedbuser'@'localhost'
' WITH GRANT OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql>
```

**3. This step is applicable only for issuers who want to have custom schemas for the Validation Zone!**

If you plan to have custom schemas for the Validation Zone, grant privileges to {db\_user} defined in the edge.properties file on your custom schemas using the following commands:

- GRANT ALL PRIVILEGES ON `EDGE\_SRVR\_COMMON\_V\_CUSTOM`.\* TO '<\$db\_user>'@'localhost' WITH GRANT OPTION;
- GRANT ALL PRIVILEGES ON `EDGE\_SRVR\_VALIDATION\_CUSTOM`.\* TO '<\$db\_user>'@'localhost' WITH GRANT OPTION;
- FLUSH PRIVILEGES;

In the below example, 'edgedbuser' is used as an example and 'EDGE\_SRVR\_COMMON\_V\_CUSTOM' and 'EDGE\_SRVR\_VALIDATION\_CUSTOM' are used as custom schemas:

```
mysql> GRANT ALL PRIVILEGES ON `EDGE_SRVR_COMMON_V_CUSTOM`.* TO 'edgedbuser'@'localhost' WITH GRANT OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> GRANT ALL PRIVILEGES ON `EDGE_SRVR_VALIDATION_CUSTOM`.* TO 'edgedbuser'@'localhost' WITH GRANT OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql>
```

**4. Verify privileges have been granted correctly with the following command:**

- SHOW GRANTS FOR '<\$db\_user>'@'localhost';

**5. Type the following command to exit MySQL:**

- exit

## 4.5 Turn On EDGE Cron

This step will turn on ingest Cron again. This step is applicable only for issuers who use Cron on their servers.

**1. From the command line, enter the following command, which opens crontab:**

- crontab -e

2. Remove the # at the beginning of the line.

```
* /1 * * * * /opt/edge/bin/edge ingest
```

3. Save and exit. Cron should be enabled now.

## 4.6 Get the Latest EDGE Version

**STOP** This step must be completed after EDGE 19.0 is deployed on February 17, 2017.

This step will update the EDGE application to version 19.0.

1. From Linux command prompt, run the 'edge version' command by typing the following commands:

- `cd /opt/edge/bin`
- `./edge version`

2. Run the 'edge update' command.

- `./edge update`

3. Run the 'edge version' command again by typing the following command:

- `./edge version`

The following version should be seen after running the 'edge version' command:

Edge version is EDGEServer\_19.00\_00\_b0196

Edge version for Validation Zone is EDGEServer\_19.00\_00\_b0196