

EDGE Server Implementation Weekly Update

Issue 13

2.3.2015

This weekly communication provides information on common questions we have received from issuers related to External Data Gathering Environment (EDGE) server implementation. Some of the information in this document will be incorporated into updated job aids.

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Getting Help with Technical Difficulties and Business/Policy Questions

If you are having technical difficulties with registration, provisioning or file processing, please contact the CMS Help Desk at CMS-855-1515 or CMS_FEPS@cms.hhs.gov. Include in your email supporting documentation of the problem you are experiencing.

If you have business or policy questions related to the EDGE server requirements as outlined in the Interface Control Document (ICD), EDGE Server Business Rules and other published documentation, please submit your question to REGTAP. If you have a specific business scenario you would like addressed, please include a sufficient amount of detail and/or examples to help us evaluate the question.

Please refrain from submitting questions/concerns to other mailboxes or directly to individuals unless specifically instructed. Submitting questions to other sources will likely result in a delayed response and resolution.

EDGE Server Hot Topics

Expand EDGE Server Data Limit

Several issuers have raised a concern about their EDGE servers' ability to populate their Rating Area tables when large numbers of plan data exist. This data size limitation has caused problems with being able to load a complete set of Rating Areas.

When a remote command is received, the EDGE server maintains a copy of the remote command file and its meta data. This data is stored in REMOTE_CMD_QUEUE table. The remote command file size may vary depending on the type of command and data that is being received. The default MySQL configuration allows the packet size to be 1MB. Some issuers might have trouble refreshing their plan data, as the remote command size exceeds the size limit that MySQL can receive from the client. Please execute the following steps to increase your EDGE server's size limit:

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1. Edit "my.cnf", default location of this file is "/etc" and can be edited by "root" user:
 - a. (Note: User may be prompted to re-enter the password when running "sudo". "sudo" is not needed if you are logged in as root)
 - b. To edit this file run: "sudo vi /etc/my.cnf"
2. Add/Edit property to alter the packetallowed size for a request (Note: this property will not be found on this file by default, and the issuer may need to add this). Perform the following actions:
 - a. In the vi editor, navigate to any line after [mysqld] and before [mysqld-safe] section on the file
 - b. Add or edit max_allowed_packet and set value to 10MB
 - c. Save and exit out of editor
3. To make the new property changes take effect. MySQL must be restarted. Run "sudo service mysqld restart".

Sample my.cnf file

```
[mysqld]
max_allowed_packet=10mb
datadir=/var/lib/mysql
socket=/var/lib/mysql/mysql.sock
user=mysql
```

```
[mysqld-safe]
log-error=/var/log/mysqld.log
pid-file=/var/run/mysqld/mysqld.pid
```

EDGE Server Commands Overview

All EDGE activities on the EDGE server are initiated through the "edge" command. The "edge" command has several "primitives" that perform various directed activities as "local commands." **A table of these is provided below.** In addition to the "local commands", there are "remote commands" that are staged by CMS, and executed on the EDGE Server. These commands are simply requests to invoke particular programs on the EDGE server that are packaged as a part of the standard EDGE software. Remote commands are picked up by the EDGE Talk Phone Home request that is executed each time an "edge" command is run on the EDGE server.

With local commands and remote commands, the order of operations on the EDGE server is important. Every invocation of an "edge" command on the EDGE server starts with a Phone Home command in the background, prior to executing any of the local commands that are specified in the "edge" command.

EDGE Talk Phone Home

- Phone Home verifies that the local version of the EDGE software is the same as the version that is available on the CMS software site. When it is not, it downloads the latest software version and installs it (Note: all software versions are cumulative). If one (1) or more software versions have been missed due to non-operation of the EDGE server, the latest software version will be downloaded, and includes all prior updates, including database updates that are applied in order. Upon completion of the software upgrade, the EDGE software restarts itself in order to continue operations.

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- In addition to the software version verification and update, the Phone Home command also downloads any remote commands that have been staged by CMS for a particular EDGE server. These commands are stored in the **REMOTE_CMD_QUEUE** table in the EDGE_SRVR_COMMON schema in MySQL. Note that they are no longer stored as files or retrieved from the inbox folder. Placing CMD files in the inbox folder will NOT result in those remote command files being captured and executed. Some of these remote commands may also be “Cancel” commands to cancel execution of remote commands that had been staged earlier, but not yet executed by the EDGE server.

Remote Command execution

- After the Phone Home command is complete, the EDGE application checks to see if there are any remote commands in the REMOTE_CMD_QUEUE table that have an effective date later than the current date, and have not been cancelled. Note that remote commands can be created and sent with a future effective date, and will not be executed until that time. Remote commands are executed in the order that they were received in the queue for any that are currently scheduled to execute on or prior to the current date.

After these have completed, the local command will execute (EDGE Ingest, for example). A common practice is to set up a **cron job** to perform “edge ingest.” Doing this will result in the EDGE server automatically receiving EDGE software updates, executing remote commands staged by CMS, and picking up any data files that you have provided for processing – in that order.

Reminder: The steps for how to set up a cron job can be found in the On-Premise EDGE Server Provisioning Job Aid – Version 3.0 on page 19/section 4.5.

Table 1: List of EDGE Local Commands

Command	Result
edge ingest	Consumes any properly named data files in your inbox, producing reports in your outbox folder. Summary reports are sent to CMS.
edge version	Interrogates the local software to determine the software version, and prints it to the screen.
edge report OrphanClaimEnrollee YYYY	Executes the orphan claims report to identify any active claims that do not have corresponding valid enrollment records. This is a manual method for executing this particular report that is typically requested by CMS as a remote command in the vicinity of a Risk Adjustment execution request. The "YYYY" represents the benefit year the report is pulling data from.

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Command	Result
edge truncate TEST	This command requires permission from the CMS Help Desk to run. Once permission is granted, the command will drop tables (i.e., truncate) from the Test schema in the EDGE server.
edge truncate PROD	This command requires permission from CMS and is active for a limited time period. This command will drop from the Production schema in EDGE server.
edge queue list	Provides a list of all EDGE remote commands received by the EDGE Server and their status.
edge update	Typically used only by the EDGE software, but can be executed manually. Checks the CMS site for the latest version of software, and updates the local EDGE software as necessary. This command also sends a message back to CMS that the software update has completed successfully, and provides the current version of software on your EDGE Server.
edge queue execute	Executes any commands in the REMOTE_CMD_QUEUE table. This command should not be required for use, as this is now built into the sequencing, as described above.
edge provisioned	Provides status to CMS that the EDGE server has completed the provisioning process. Typically only executed automatically during the initial provisioning process.

EDGE Server Resources

[REGTAP](#) is your primary source for communications and documentation for the EDGE server.