



Centers for Medicare & Medicaid Services

EDGE Server Job Aid

Amazon EDGE Server File Processing

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Step 6

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1. Introduction

This document provides an overview of the steps that Amazon EDGE server issuers will take to upload enrollee and claims files to their Amazon Web Services (AWS) S3 bucket and generate outbound reports.

For EDGE server support, please send all questions to CMS Help Desk email: CMS_FEPS@cms.hhs.gov or call at 885-CMS-1515.

The following process map provides an overview of the order of steps you need to complete in order to provision your Amazon EDGE server. The blue step reflects the current step you're executing, the grey steps reflect the subsequent steps that you need to execute thereafter. Each step below has corresponding training materials (job aids and video demos as applicable) available in the REGTAP Library. Please make sure to reference all the available materials and confirm that you have completed all of these steps for each phase before moving onto the next step.

Amazon EDGE Server



2. Amazon EDGE Server File Processing Prerequisites

Before completing the steps highlighted in this document, issuers should have confirmed successful provisioning and verified they are connected to their server instance. Once issuers confirm they are connected to their External Data Gathering Environment (EDGE) server instance and confirmed the server is functioning, they can begin file processing.

Guidance on the provisioning processes is covered in the **Amazon EDGE Server Provisioning Job Aid**.

3. AWS S3 Bucket Structure

The following information provides Amazon EDGE issuers an overview of the Amazon S3 Bucket Structure. File processing is automatically initiated when a file is uploaded to an S3 bucket and the Amazon EDGE server is started. Amazon S3 service authentication, authorization and SSL/TLS encryption, and Server Side Encryption at rest policies are used to protect issuer data being transmitted between the issuer EDGE server and source/target S3 buckets.

Within the Amazon S3 bucket, issuers will find the following folders:

- **Archive**
- **Backup**
- **Inbox**
- **Logs**
- **Outbox**

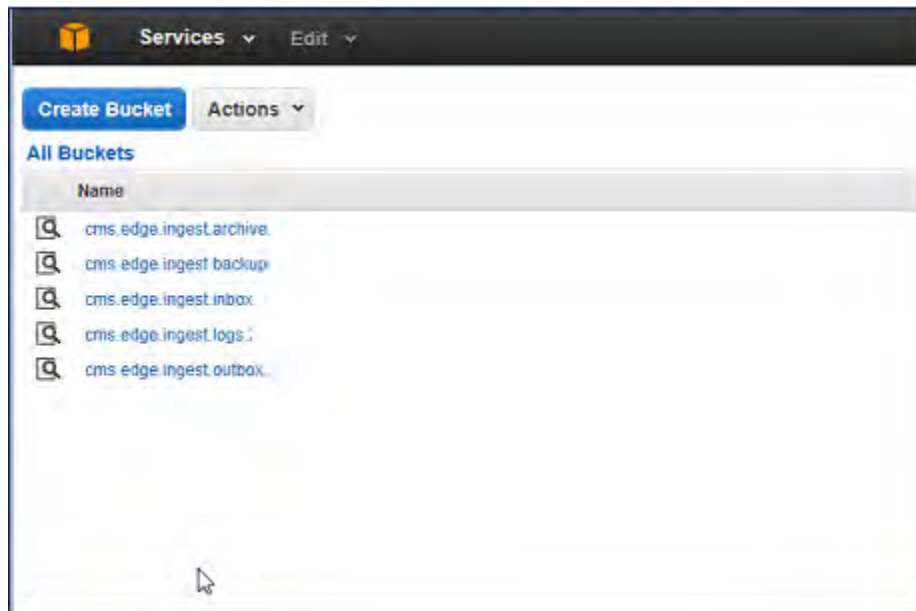


Figure 1 –AWS S3 Bucket Structure

4. Amazon EDGE Server File Processing Overview

File Ingest Overview

Issuers upload enrollment, claims and supplemental diagnosis files. The EDGE server software applies the verification edits outlined in the Interface Control Document (ICD) and EDGE Server Business Rules.

- Enrollment files must be full files; pharmacy claim, medical claim and supplemental diagnosis files will be incremental.

Extensible Markup Language (XML) files are the only method of data submission. CMS has established an inbound file naming convention that must be used and is defined in the ICD. File layouts and requirements related to data submission are outlined in the ICD and Business Rules. Processing time is only limited by the size of the environment that is used by the issuer.

Outbound Report Overview

Outbound reports are file processing reports generated after inbound files submitted by issuers are processed and verified.

Outbound files will be available to the issuer in order to review and analyze the processing results of the enrollment, claims and supplemental diagnosis information submitted for RI and RA processing.

Distribution of outbound data files:

- Amazon EDGE server issuer reports will be delivered to the AWS S3 bucket configured for the issuer.
- Summary reports for Amazon EDGE servers will be pushed to the CMS AWS S3 bucket.

Issuers will receive outbound files from both the test and production zones. CMS will only receive outbound files from the production zone using a push method.

Three (3) types of reports will be produced:

- EDGE Server File Accept-Reject Report
- EDGE Server Summary Accept-Reject Report
- EDGE Server Detail Error Report

4.1. Test and Production Zones

The test zone will allow users to test files and identify errors. For file processing in the test zone, the same file outputs are generated, but no files are sent to CMS. Files will be routed to the test and production zone based on the zone indicator included in the file name ("**T**" for Test and "**P**" for Production – see below). Refer to the ICD document for the full additional information on the file naming convention rules.

- **Test File Name Format:** 12345.HE.D04022014T091533.**T**.xml
- **Production File Name Format:** 12345.HE.D04022014T091533.**P**.xml

4.2. File Ingest

Prior to executing file ingest issuers and Third Party Administrators (TPAs) should be aware of the following issues that could cause file ingest to fail:

- EDGE Application is not running the latest version
- Internet is not connected
- XML is not valid according to the XML Schema Definition (XSD)

The following steps provide issuers using Amazon EDGE instance guidance on how to access their AWS S3 bucket, upload files to their S3 bucket inbox, and generate outbound reports to their S3 bucket outbox.

1. To begin uploading files to your EDGE server, first log into their Amazon Web Services account.

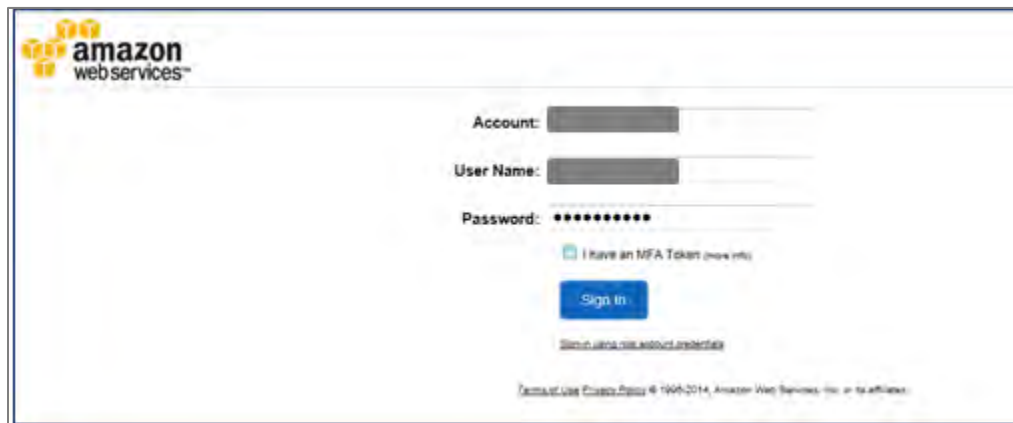


Figure 2 – Amazon Web Services – Login Screen

4.3. Reminder: Start Server Instance

In order to avoid continuous usage charges for a server instance, issuers have the ability to **“Start”** and **“Stop”** a server instance. This prevents a server from running and incurring cost when it is not being used.

Before processing your files, please remember to **“Start”** your server instance to ensure the server is running. **If your server is already running, you can skip these steps.**

2. To start a server instance, from the AWS homepage, click **EC2** from the menu at the top left hand side of the screen.

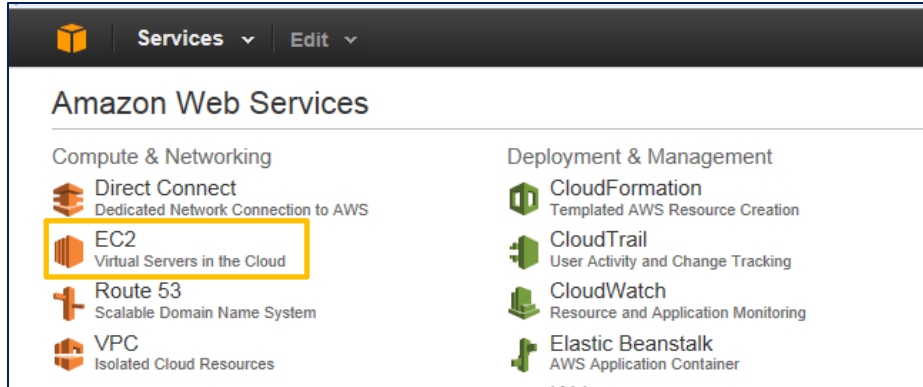


Figure 3 – Select EC2

- Next, click **Instances** at the top left hand side of the screen, and from the list of server instances, select the box next to your server instance.

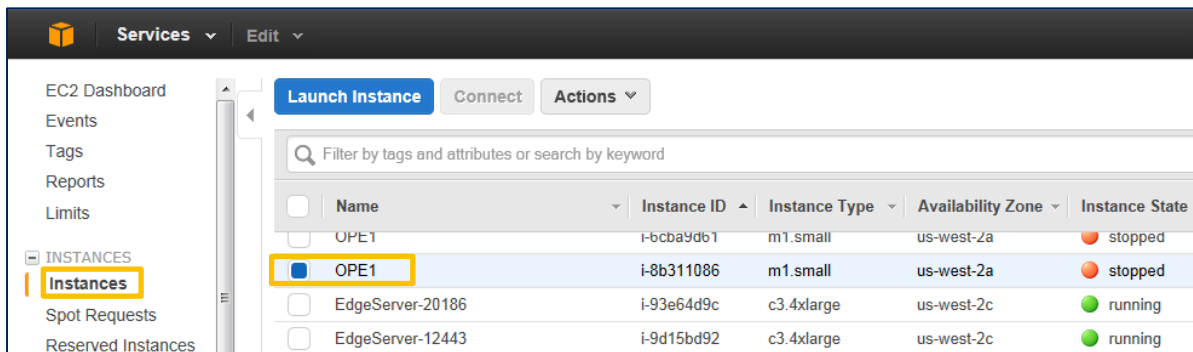


Figure 4 – Select Server Instance

- Once you have selected your server instance, click the **Actions** dropdown menu at the top of the page and then select **Start**.

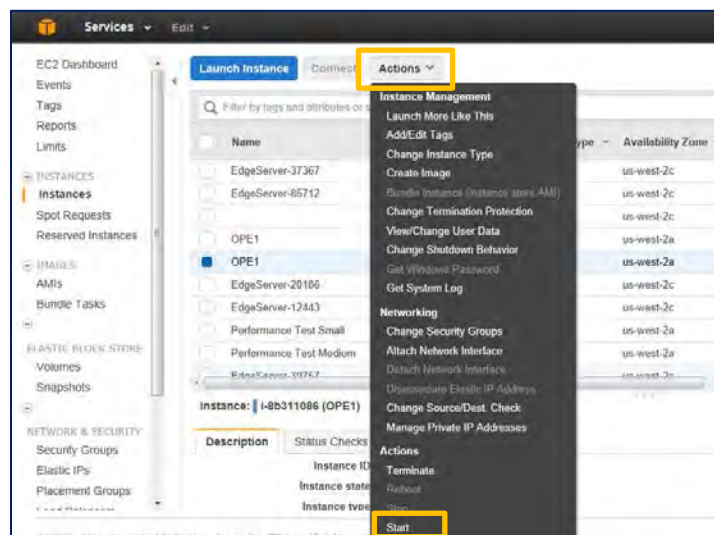


Figure 5 – Start Server Instance

5. Issuers will receive a notification message asking them to confirm. Issuers should click **Yes, Start** in the window.

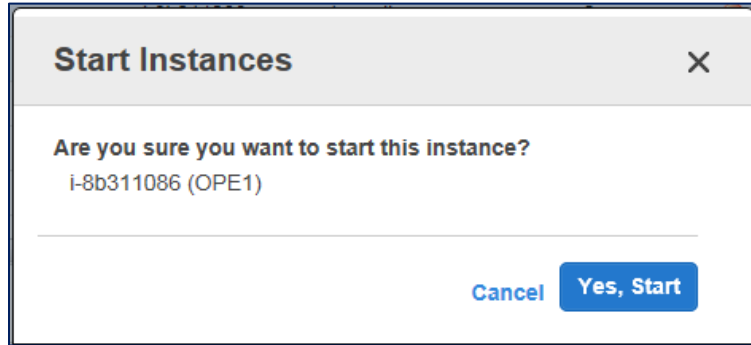


Figure 6 – Confirm Start

6. Once you have confirmed your server instance is **“Started” (running)**, from the AWS Home Page, access your AWS S3 bucket by clicking **S3** located in the **Storage and Content Delivery** sub section of the menu.

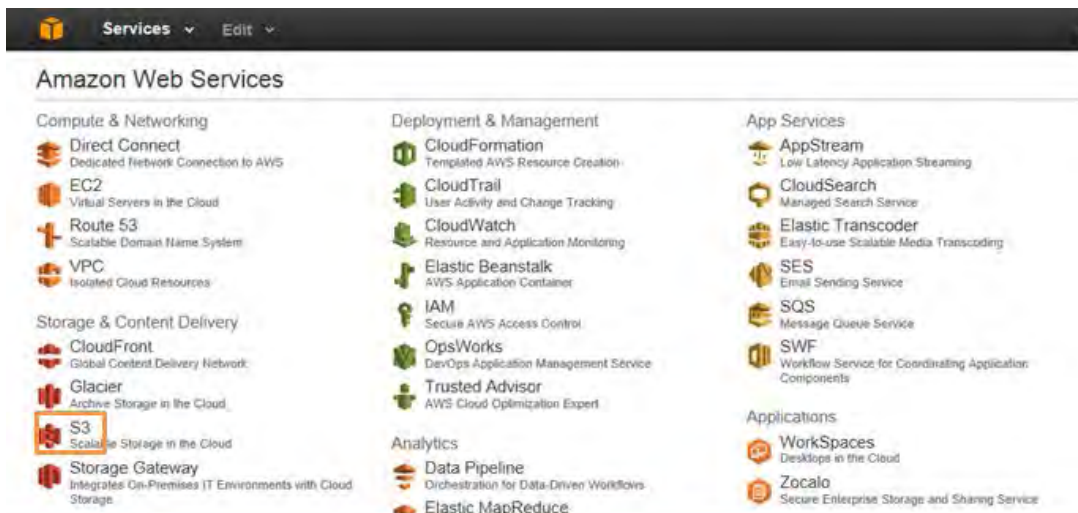


Figure 7 – AWS Home Screen – Select S3

7. Issuers will then need to access their inbox by selecting **‘cms.edge.ingest.inbox’** from the list of S3 Buckets.

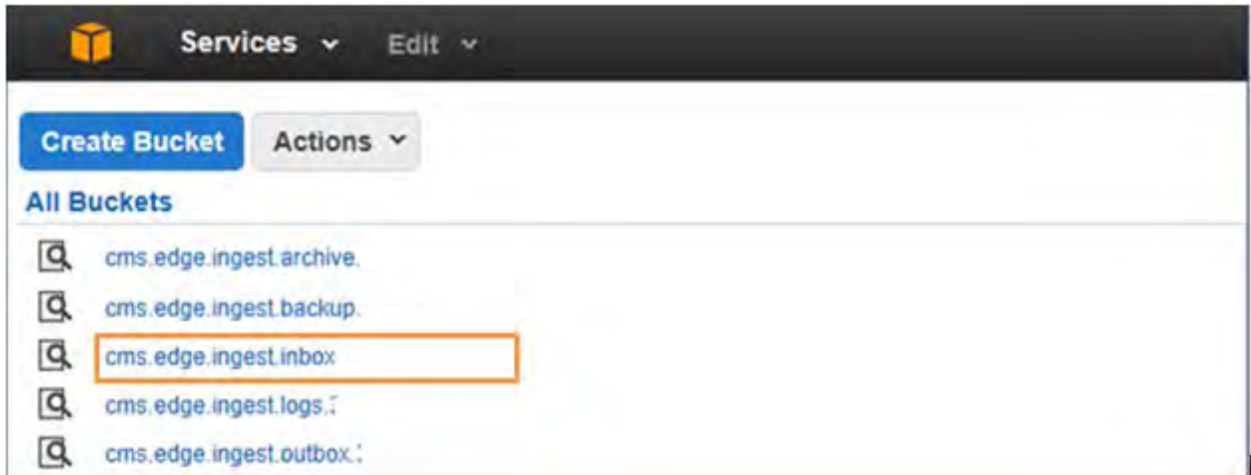


Figure 8 – Select S3 Buckets Inbox

8. In the next screen, issuers will select their **Issuer ID** from the displayed list.

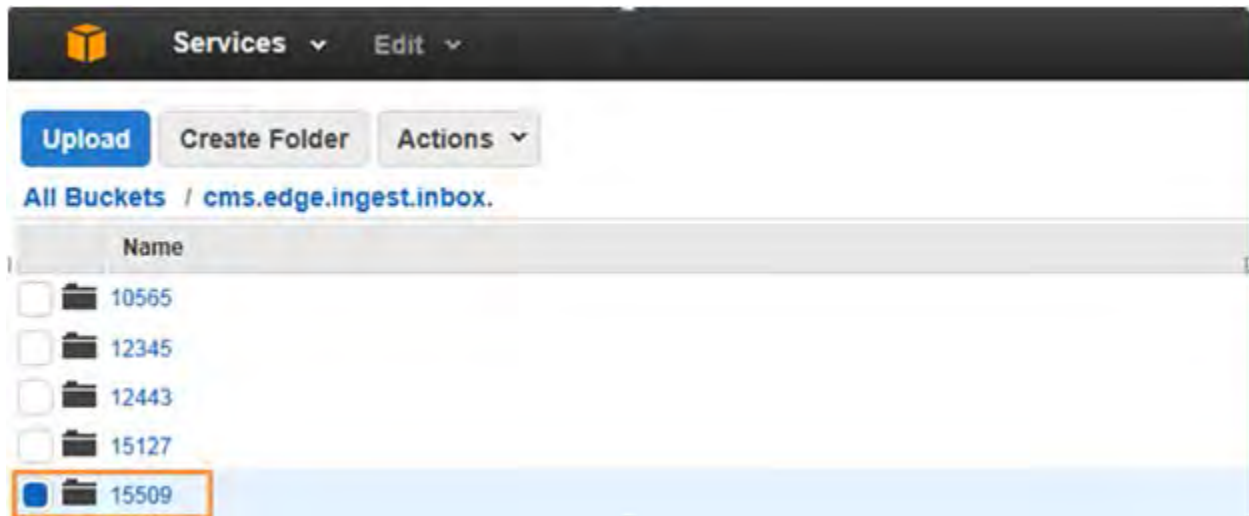


Figure 9 – Select Issuer ID

9. From the inbox screen, issuers will see their Inbox folder is empty as files are moved to the Archive folder after processing. To begin uploading files, first, click the **'Upload'** button at the top left.



Figure 10 – Select Upload

10. In the Upload window, issuers can now begin attaching files. Issuers will click the ‘**Add Files**’ link to select files to upload from their computer.

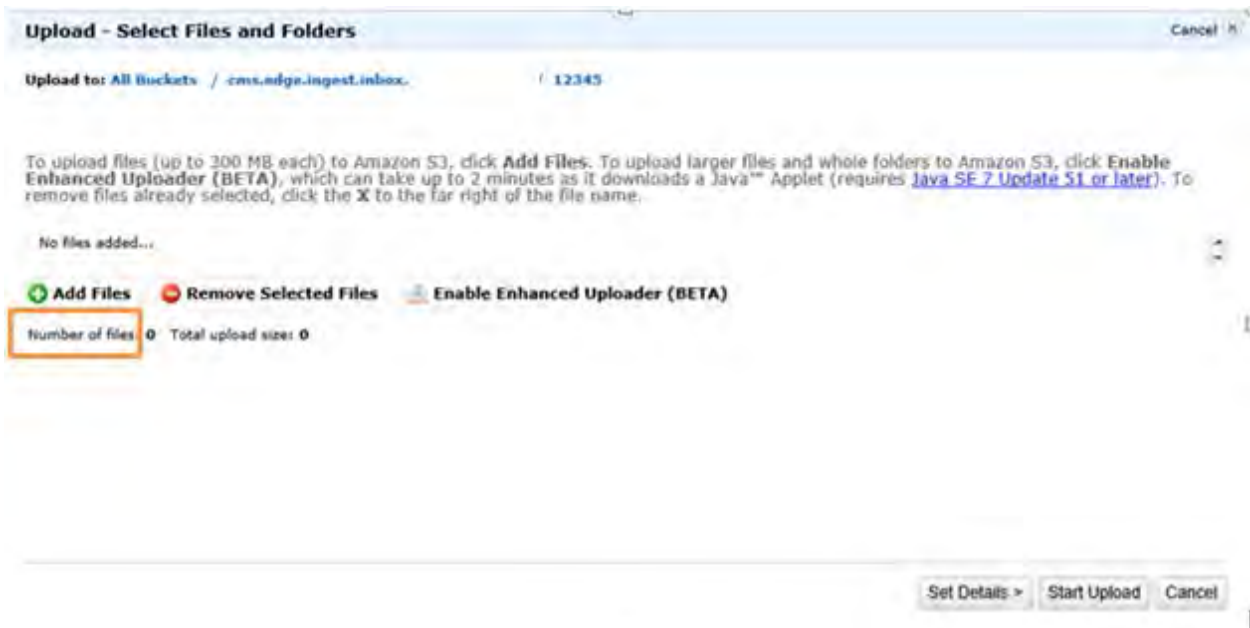


Figure 11 – Upload – Select Files and Folder

11. In the **Choose File to Upload** window, select the enrollment or claims files to upload that are saved locally on your computer.

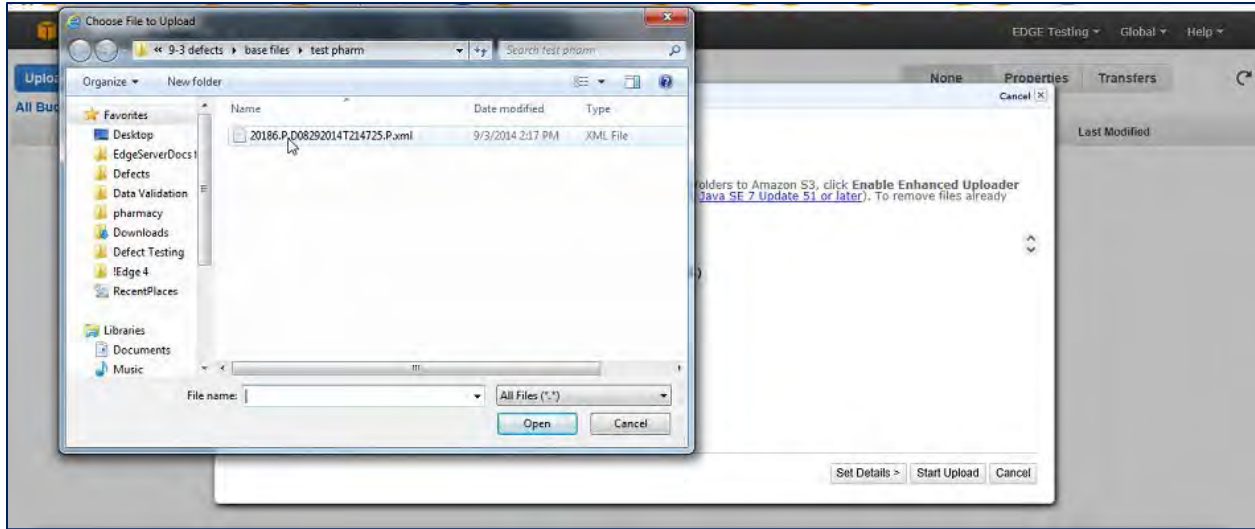


Figure 12 – Choose File to Upload

12. Once all files are attached for upload, click the **'Set Details'** button at the bottom of the screen.

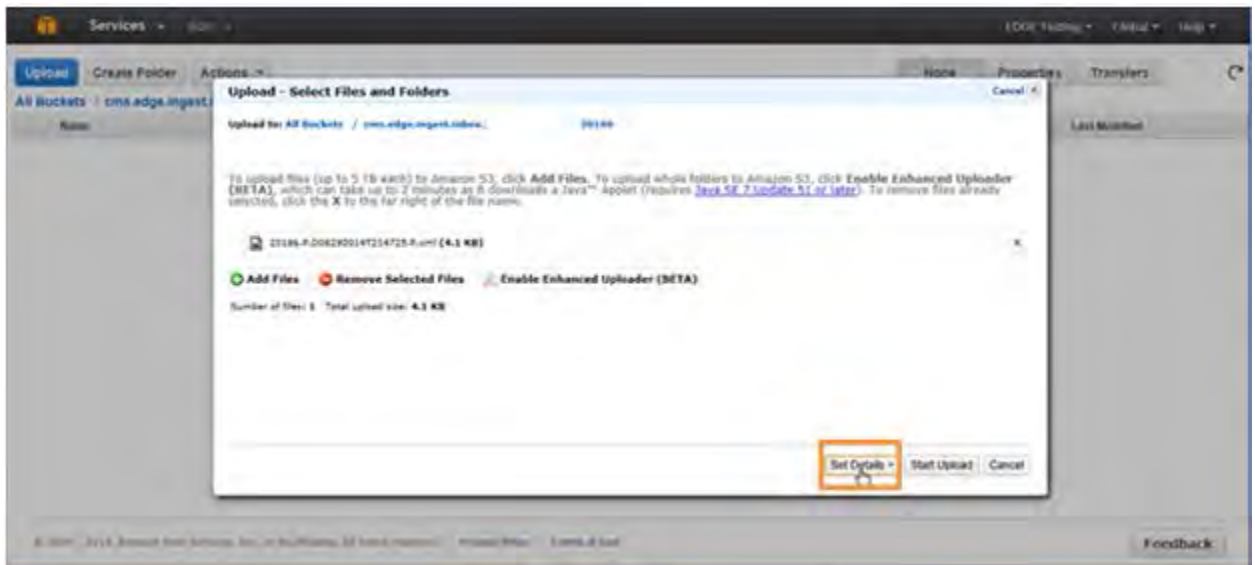


Figure 13 – Set Details

13. In the **Set Details** window, select the **'Use Server Side Encryption'** checkbox. This will ensure your uploaded files are encrypted on the server. Next, click the **'Start Upload'** button.

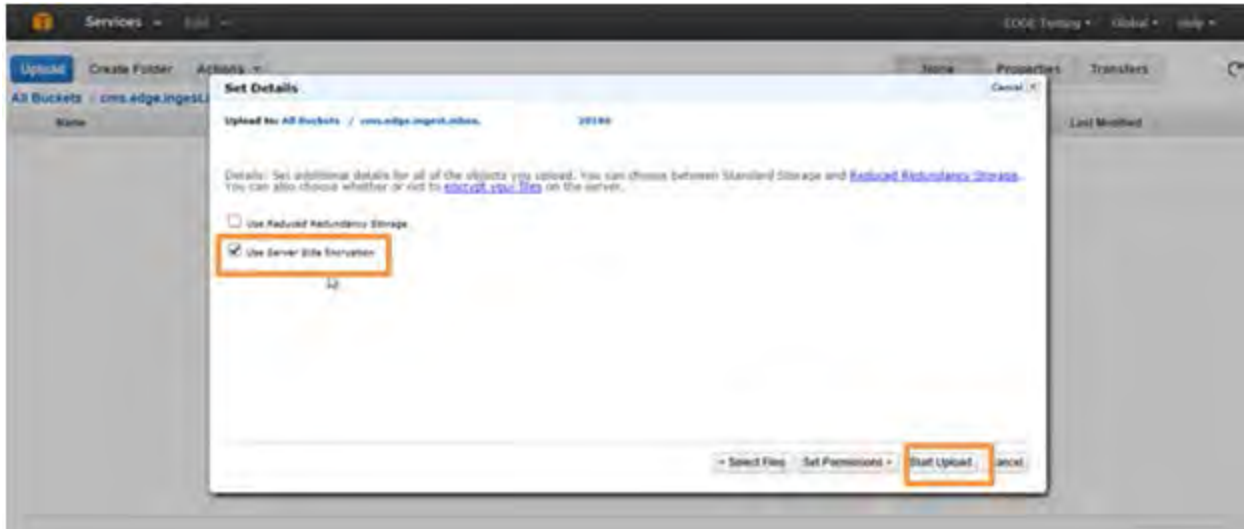


Figure 14 – Set Details and Upload

- a. **IMPORTANT:** If you do not enable the Server File Encryption noted in Step 9 and immediately click **'Start Upload'** after attaching your file, file upload will fail and you will receive the error message shown below. If this occurs, you will have to re-attach the file and upload again. **Please remember to enable the server file encryption in the Set Details menu.**

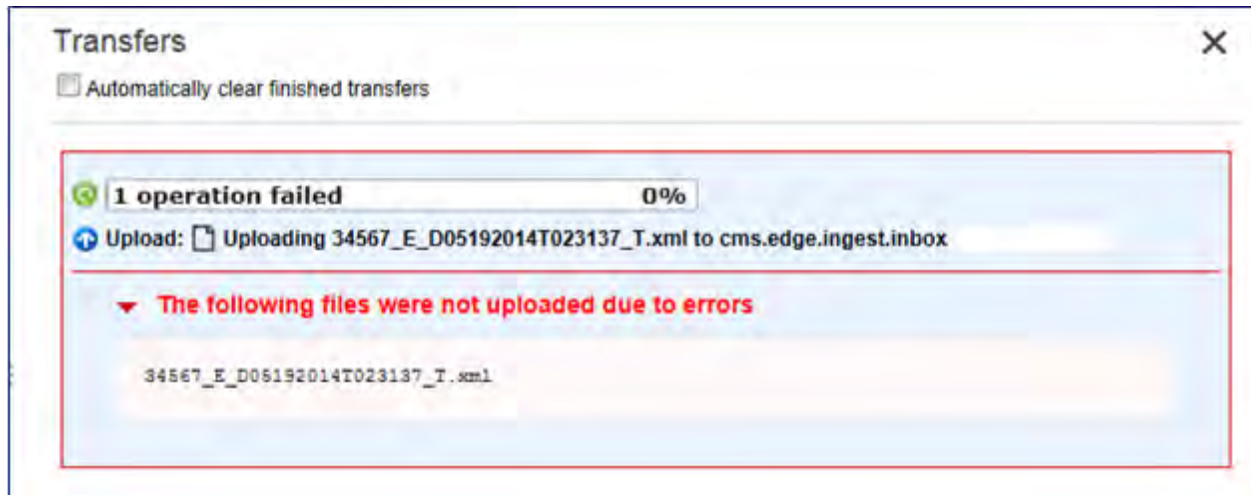


Figure 15 – File Upload Error

After uploading the files, issuers will be taken back to their inbox and will see the download progress of their files. Once complete, they will see a green check mark with a status **Done** on the right side of the screen under the **Transfers** section. The uploaded file will be listed on the left in the inbox.

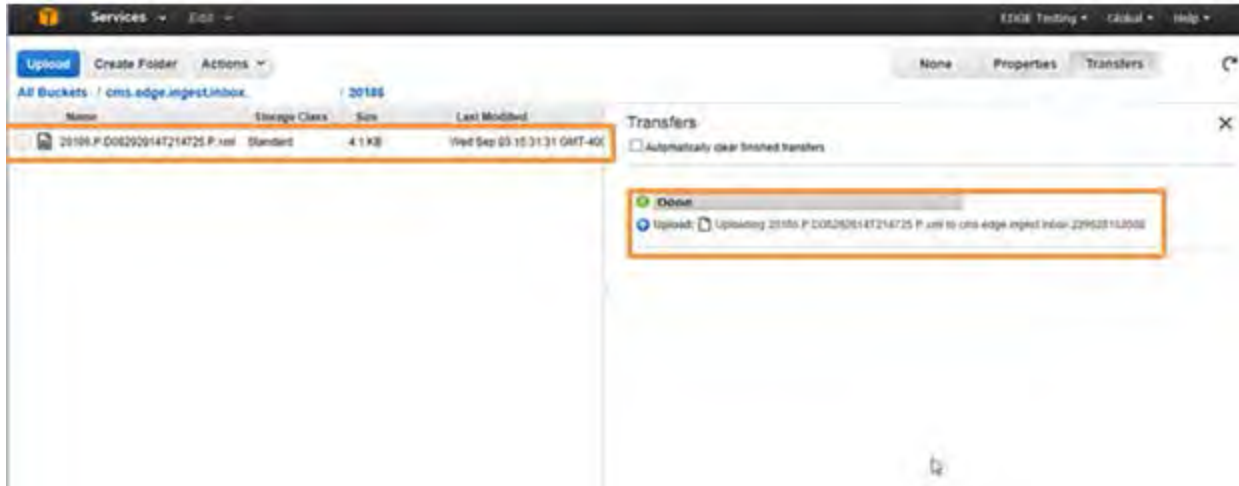


Figure 16 – Upload Complete

NOTE: AWS Email Notification Available

Users may elect to set up an AWS SNS subscription service that is connected to their S3 bucket to receive email notifications when a file is picked up for processing. If this service is activated, when a file is processing, the email account connected to the service will receive an email notification when the file is picked up. Please refer to the AWS Email Notification Job Aid for more information on this service and how to set it up.

4.4. Locate Outbound Reports

14. Once the file is cleared and the folder is empty, this will indicate that the file has processed completely and the corresponding outbound reports have generated. Once complete, click the 'All Buckets' link in the top left to return to the S3 bucket main screen.

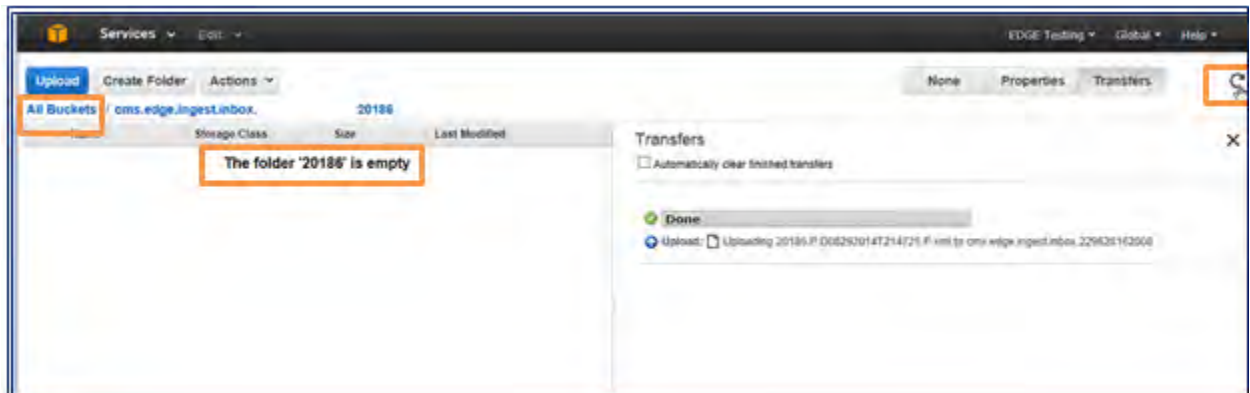


Figure 17 – Refresh Inbox

15. From the S3 bucket list, select the '**cms.edge.ingest.outbox**' link to open the Outbox folder.

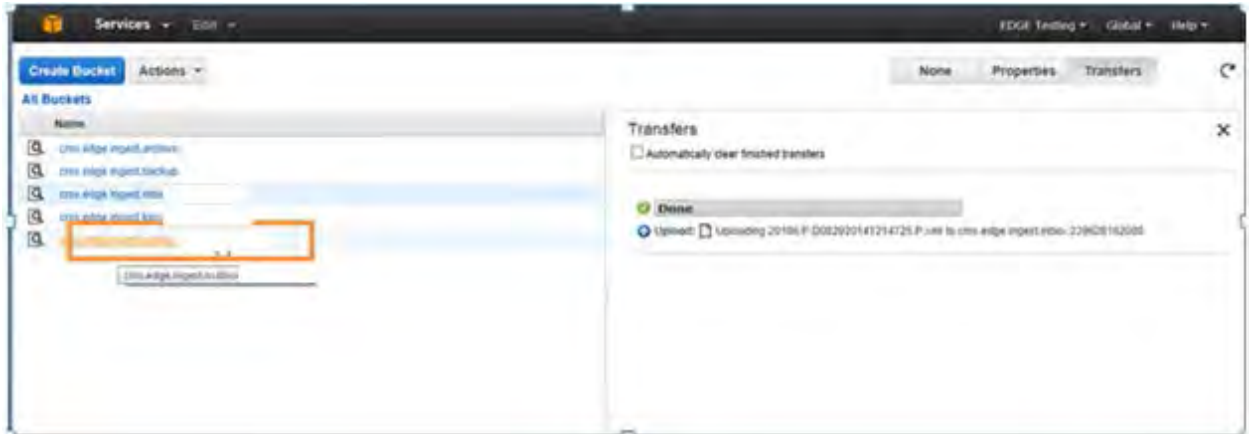


Figure 18 – Select Outbox

16. In the next screen, issuers will select their **Issuer ID** from the displayed list.

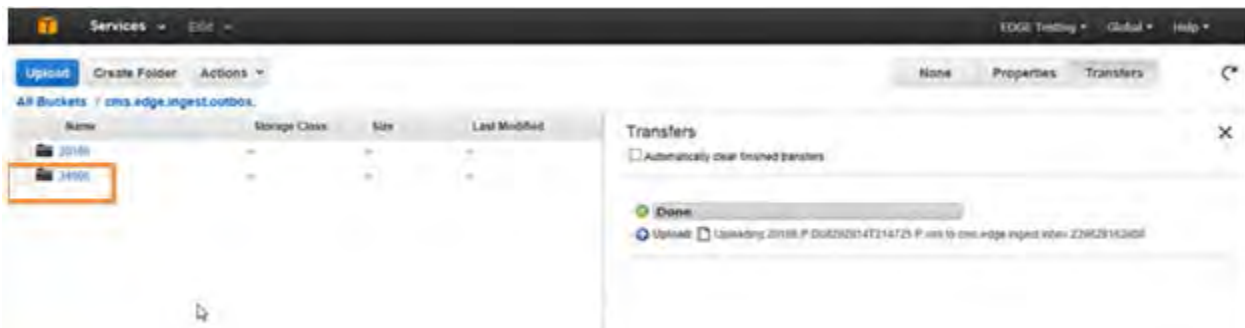


Figure 19 – Select Issuer ID

17. In the Outbox screen, issuers will need to identify the outbound report that corresponds to the uploaded file by the **time/date** stamp and the file naming convention. Issuers can identify the type of outbound file produced by the two (2) letter code provided in the standard outbound file naming convention. The list below provides the two (2) letter code and the corresponding file type.

- 'EH' – EDGE Server File Accept – Reject Report for Enrollment
- 'MH' – EDGE Server File Accept – Reject Report for Medical Claims
- 'PH' – EDGE Server File Accept – Reject Report for Pharmacy Claims
- 'SH' – EDGE Server File Accept – Reject Report for Supplemental Files
- 'ES' - EDGE Server Enrollment Summary Accept – Reject Report
- 'MS' - EDGE Server Medical Claim (MC) Summary Accept – Reject Report
- 'PS' - EDGE Server Pharmacy (RxC) Summary Accept – Reject Report
- 'SS' - EDGE Server Supplemental Diagnosis Summary Accept – Reject Report
- 'MD' – EDGE Server Medical Claim (MC) Detail Error Report
- 'PD' – EDGE Server Pharmacy Claim (RxC) Detail Error Report
- 'ED' – EDGE Server Enrollment Detail Error Report

- ‘SD’ – EDGE Server Supplemental Diagnosis Detail Error Report
 - a. To match an outbound report to the inbound report, issuers will need to download the file produced, open the file and look for the inbound File Identifier. To download a report, select the report by clicking the checkbox to the left and then right-click. Select ‘**Download**’ from the pop-out menu. In this example, the **EDGE Server Medical Claim (MC) Detail Error Report** is selected by identifying the **MD** code.

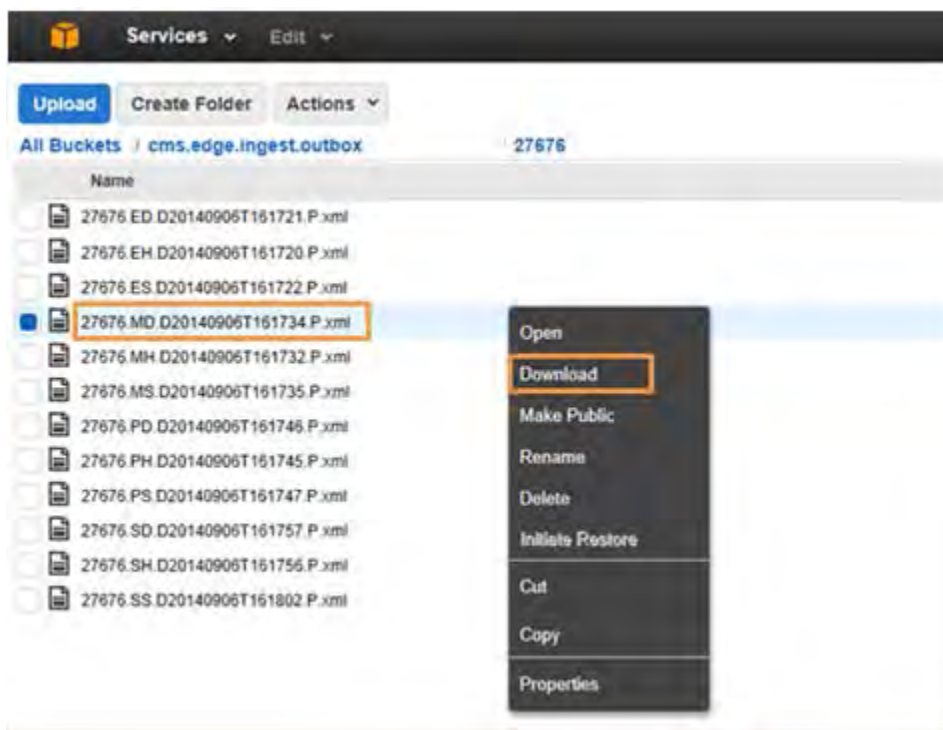


Figure 20 – Locate and Download Report

18. In the pop-out window that displays, right-click the ‘**Download**’ link and then select ‘**Save Target as...**’ in the pop-out menu. This will open a separate window to save the outbound report file locally to your computer. Due to the large file size, it is recommended to always download and save the file to open it rather than opening the file directly in the internet browser.

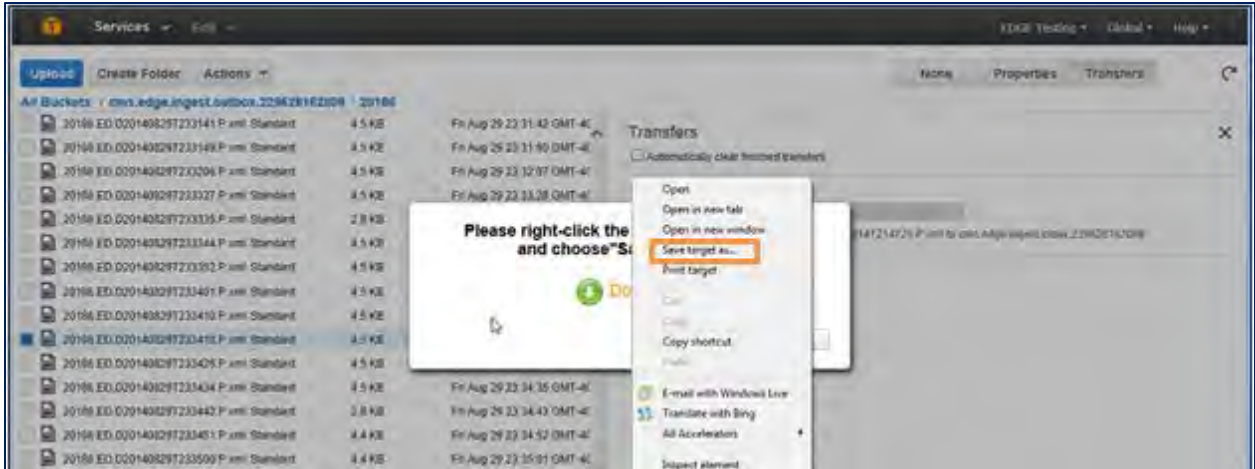


Figure 21 – Download Report

19. In the **Save As** window, choose the appropriate file location for the outbound reports and save the files locally to your computer.

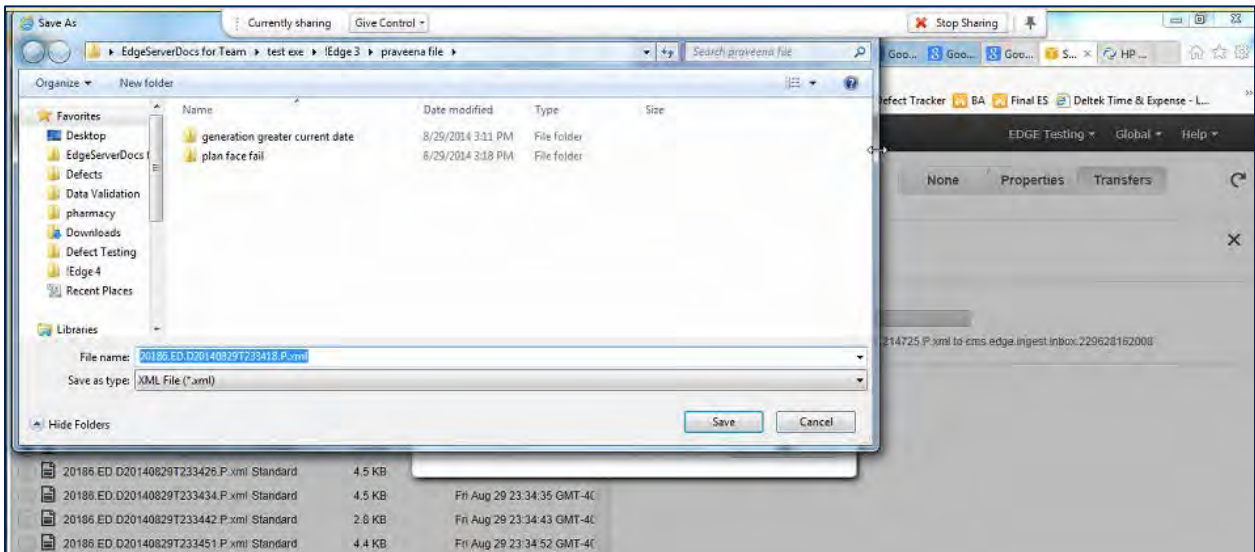


Figure 22 – Save Downloaded Report

Once saved, you will be able to open and review the outbound report results to validate that submitted data was processed successfully and does not contain any deficiencies.

NOTE: AWS Email Notification Available

Users may elect to set up an AWS SNS subscription service that is connected to their S3 bucket to receive email notifications when a file is uploaded to their outbox. If this service is activated, when a report is generated, the email account connected to the service will receive an email notification when a file is uploaded to their outbox. Please refer to the AWS Email Notification Job Aid for more information on this service and how to set it up.

4.5. Truncate Database Tables

As part of managing the data on your Amazon EDGE server, you have the option of truncating your MySQL database tables in both the test and production environments.

In order to truncate the data in in your MySQL database tables, please execute the following commands from the EDGE server Linux console in PuTTY (or SSH client of your choice). Any user who has access/permission to execute “**edge**” commands will be able to perform this step:

- **edge truncate test**
- **edge truncate prod**

In both cases, the command will search for a file in the issuer-specific CMS AWS S3 bucket for permission to execute this command on or before a particular date.

Production Environment: In order to truncate the data in your production environment, you must get approval from CMS. In order to get a permission file created for you, please contact the CMS Help Desk by emailing CMS_FEPS@cms.hhs.gov or call 1-855-CMS-1515.

4.6. Reminder: Stop Server Instance

Once you receive the final notification that reports were sent to CMS for the files you have processed, you can shut down your server instance in order to stop incurring charges for having the server running.

1. To stop a server instance, from the AWS homepage, click **EC2** from the menu at the top left hand side of the screen.

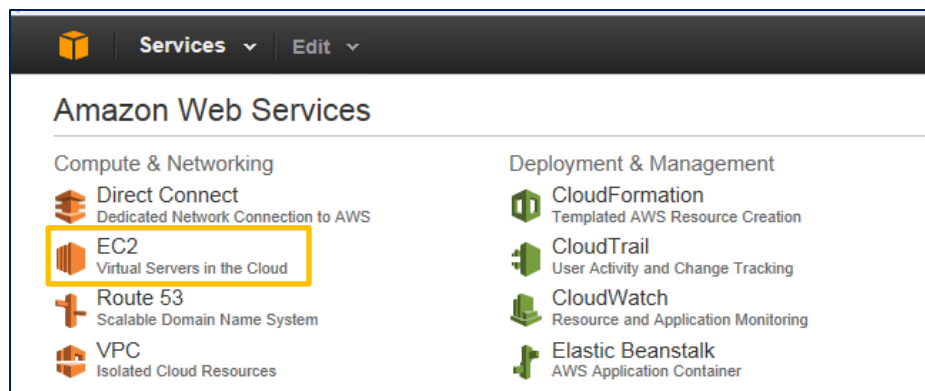


Figure 23 – Select EC2

- Next, click **Instances** at the top left hand side of the screen, and from the list of server instances, select the box next to your server instance.

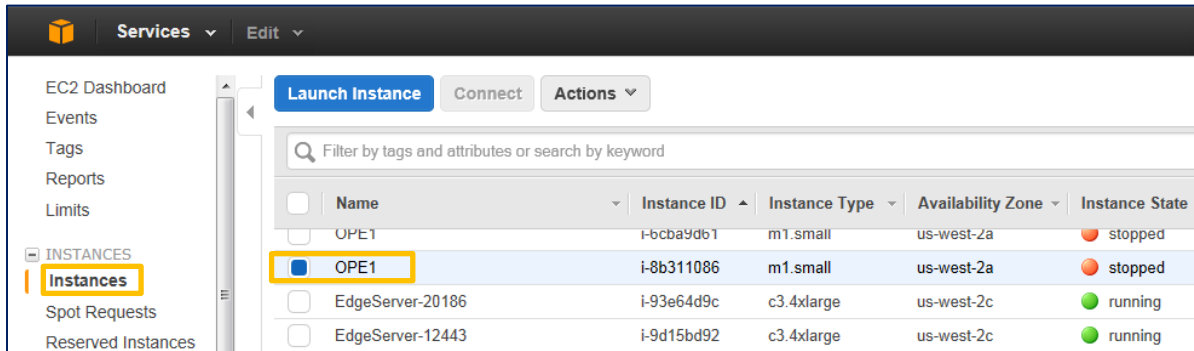


Figure 24 – Select Server Instance

- Once you have selected your server instance, click the **Actions** dropdown menu at the top of the page and then select **Stop**.

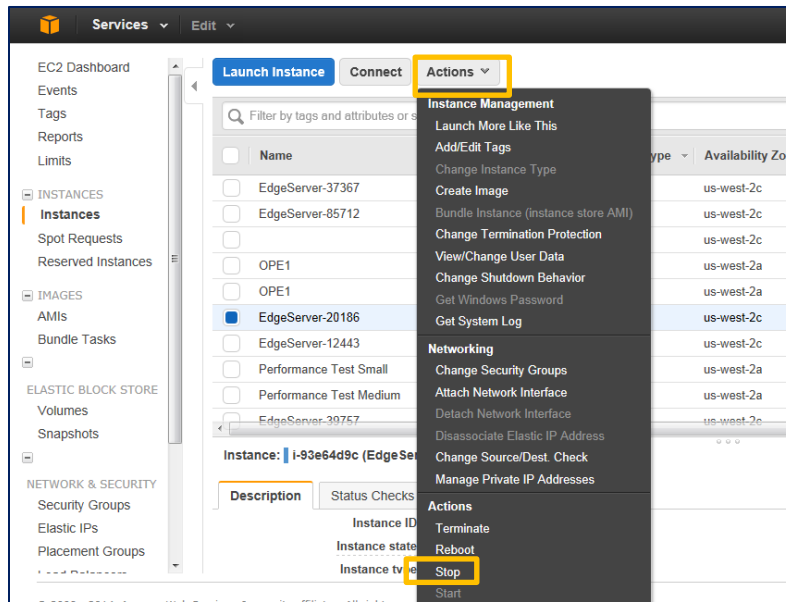


Figure 25 – Stop Server Instance

4. Issuers will receive a notification message asking them to confirm. Issuers should click **Yes, Stop** in the window.

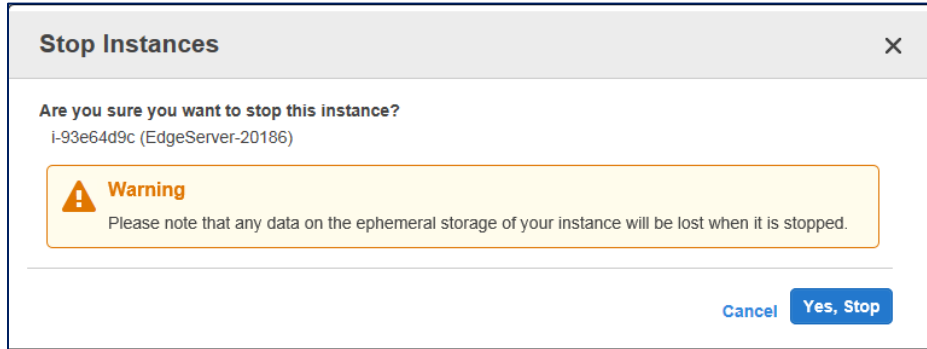


Figure 26 – Confirm Stop

This completes the Amazon EDGE Server File Processing Job Aid.