# DISTRIBUTED DATA COLLECTION (DDC) FOR REINSURANCE (RI) AND RISK ADJUSTMENT (RA): On-Premise EDGE Server AWS IP Address Changes, Impacts and Solutions

## November 17, 2015

Health Insurance Marketplace Program
Training Series

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

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# Agenda

- Session Guidelines
- Intended Audience
- Purpose
- AWS Update Overview
- EDGE Operations
- Proposed Solutions
- Upcoming Webinars
- Resources
- Closing Remarks

# Session Guidelines

- This is a 60-minute webinar session.
- For questions regarding content and the DDC program, please contact your Financial Management (FM) Service Representative directly and copy the Centers for Medicare & Medicaid Services (CMS) Help Desk at CMS_FEPS@cms.hhs.gov.
- For questions regarding logistics and registration, please contact the Registrar at (800) 257-9520.

# Intended Audience

- Issuers of reinsurance-eligible plans (Marketplace and non-Marketplace)
- Third Party Administrators (TPAs), Administrative Services-Only (ASO) contractors and other Support Vendors
- On-Premise External Data Gathering Environment (EDGE) server issuers

# Purpose

- The purpose of today's session is to provide issuers with an overview of the recent changes to the internet protocol (IP) addresses used by Amazon Web Services (AWS) and the impacts to On-Premise EDGE server issuers, along with solutions for issuers to manage the impacts.

# AWS Update Overview

# AWS Update Impacting On-Premise EDGE Servers

- Some On-Premise EDGE servers may have encountered problems with software upgrades or EDGE file processing execution in the last several days.
- These problems are linked to a change that AWS has made with the specific IP addresses used by their Simple Storage Service (S3) solution that is incorporated into **ALL** EDGE server operations.

# EDGE Operations

# EDGE Operations

- The EDGE server solution has not changed. The EDGE server must have access to the S3 service for outbound calls from the EDGE server in order to:
  - Identify and retrieve software updates.
  - Retrieve remote commands, plan data and confirm their execution; and
  - Provide summary file submission output files and RA/RI summary reports to CMS from production during EDGE server data processing.
- The URL for this service is https://s3.amazonaws.com.
  - https://s3.amazonaws.com/edge.binaries.prod
  - https://s3.amazonaws.com/edge.commands.prod
  - https://s3.amazonaws.com/edge.data.prod

**Note:** AWS does not publish the IP address(es) behind this service and reserves the right to change these at any time.

# EDGE Operations (continued)

- Many On-Premise issuers have independently identified the IP addresses for the S3 URL and implemented specific IP-based firewall rules to allow this communication.
- Recently, AWS expanded the list of IP addresses behind the S3 URL and moves through those IP addresses with some frequency.
- Neither AWS nor CMS can provide the list of IP addresses, or advise when or how frequently these addresses will change.
- As a result, some EDGE servers have experienced initial failures in software updates, or intermittent failures in submitting summary files to CMS.

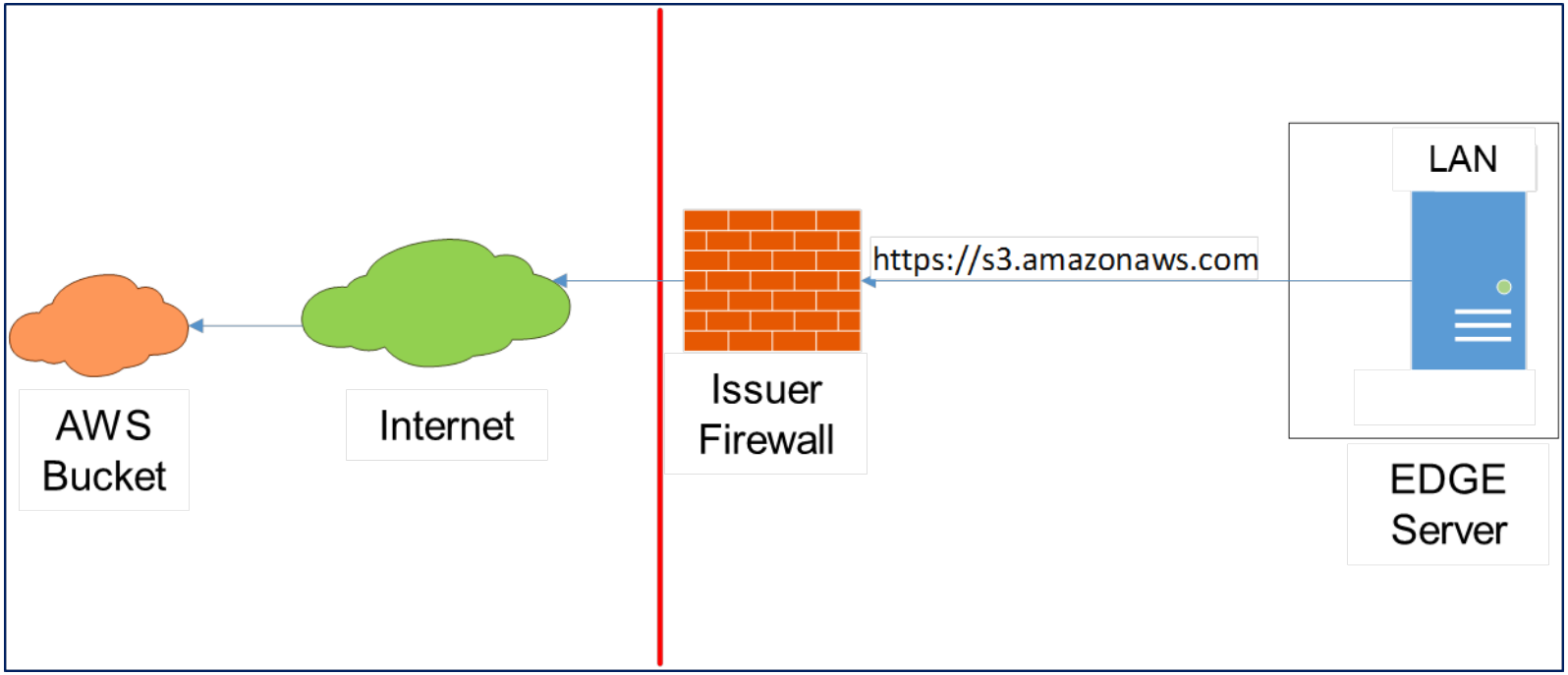
# Proposed Solutions

# EDGE Operations – Proposed Solution

- CMS proposes the below three (3) solutions for issuer consideration when configuring infrastructure. CMS is not specifically recommending any of these as solutions and does not present any recommendations regarding the relative security, robustness or ease of maintenance of any particular solution.
  1. URL-based firewall rules.
  2. Proxy server in the issuer Demilitarized Zone (DMZ).
  3. IP-based firewall rules with heightened vigilance for AWS changes.

# URL-base Firewall Rules

- This image depicts the use of URL-based firewall rules to allow traffic to htts://s3.amazonaws.com

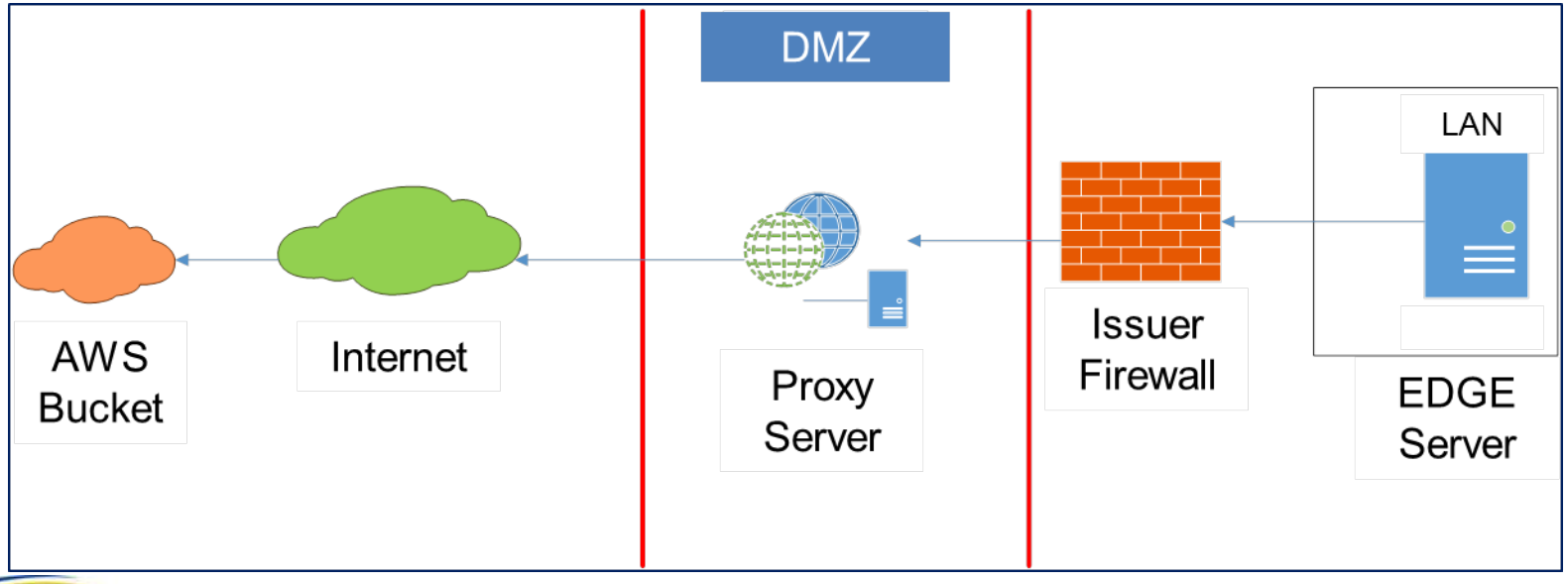


# Proxy Server in Issuer DMZ

- A proxy server provides network service to workstations and applications and serves to make indirect internet calls to websites.
- Proxy servers are placed in DMZ and a firewall is opened for the internal network to access proxy server on a specific port.
- The EDGE application allows the use of a proxy server to access Amazon S3 services. This will allow the EDGE application to access Amazon S3 services without making firewall openings for IP addresses for Amazon S3 service.
- Properties to be added to edge.properties:
  - proxy_host
  - proxy_port
  - proxy_user
  - proxy_password

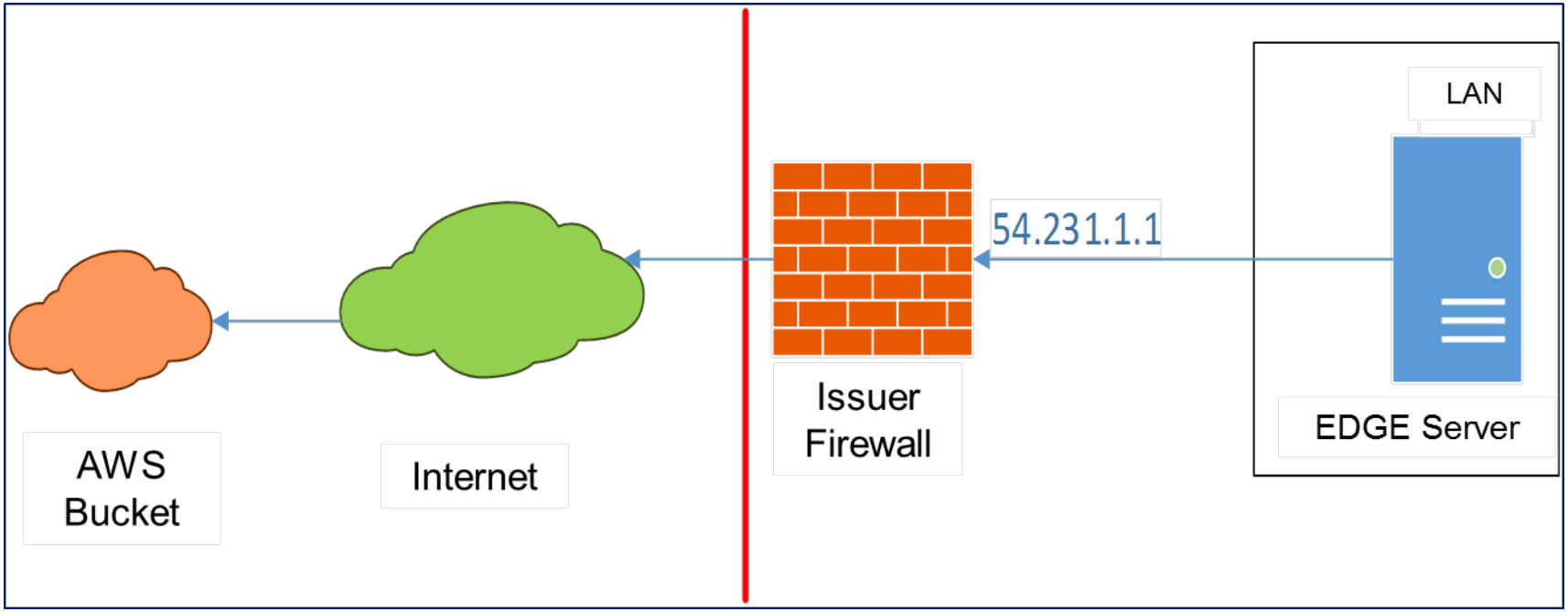
# Proxy Server in Issuer DMZ (continued)

- Install proxy server in DMZ.
- Specify proxy server details in edge.properties.
  - Property names:
    - proxy_host
    - proxy_port
    - proxy_user (if required)
    - proxy_password (if required)



# IP-Based Firewall Rules with Increased Vigilance for AWS Changes

- Issuers should use current methods of IP-based firewall rules and scan for new IP addresses and update rules when a new IP address is introduced.



# Upcoming Webinars



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# Upcoming Webinars

| Webinar Topic | Scheduled Event Date |
|---|---|
| No Session | November 24, 2015 |
| Firewall & File Processing Detail and Summary Reports, Including Managing Errors | December 1, 2015 |
| Orphan and Frequency Reports | December 8, 2015 |
| Data Retention and Truncation Management | December 15, 2015 |

# *Questions?*

To submit questions by phone:

- ❑ Dial ‘14’ on your phone’s keypad
- ❑ Dial ‘13’ to exit the phone queue

# Resources



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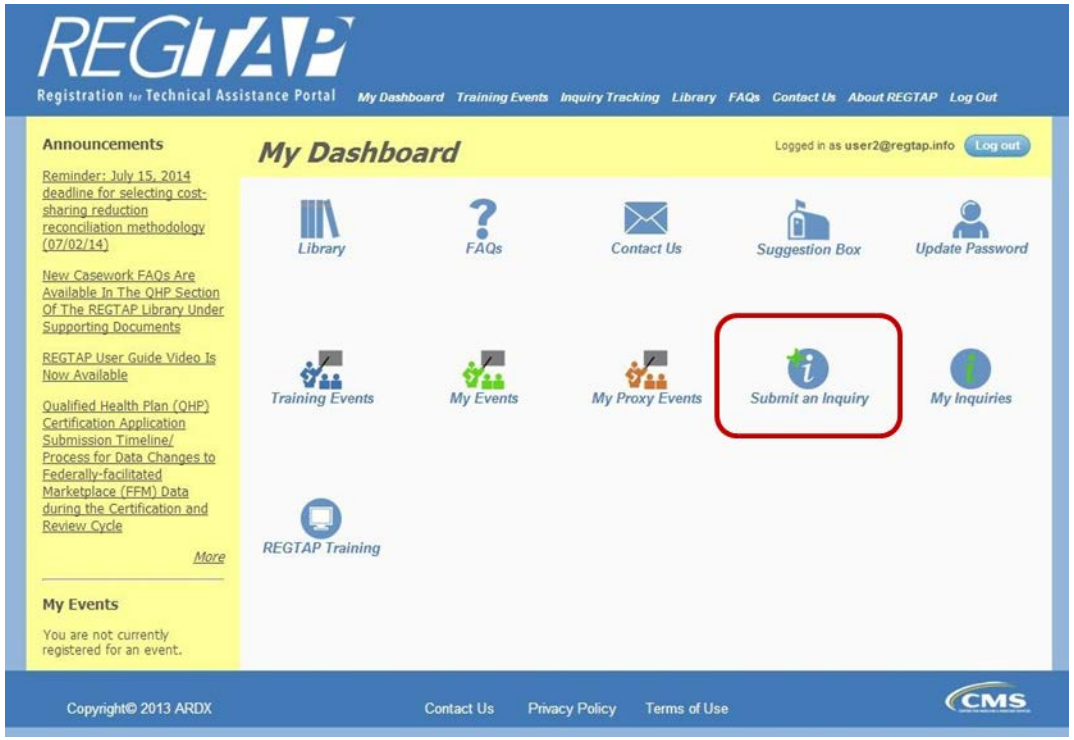
# Resources

| Resource | Link/Contact Information |
|---|---|
| Center for Consumer Information and Insurance Oversight (CCIIO) | http://cms.gov/cciio/ |
| Registration for Technical Assistance Portal (REGTAP)<br>• Registration<br>• Inquiry Tracking and Management System (ITMS)<br>• Resource Library<br>• Frequently Asked Questions (FAQs) | https://www.REGTAP.info/ |
| CMS Help Desk<br>• Technical assistance with EDGE Registration, Provisioning and File Processing | CMS_FEPS@cms.hhs.gov<br>855-CMS-1515 |

# Inquiry Tracking and Management System (ITMS)

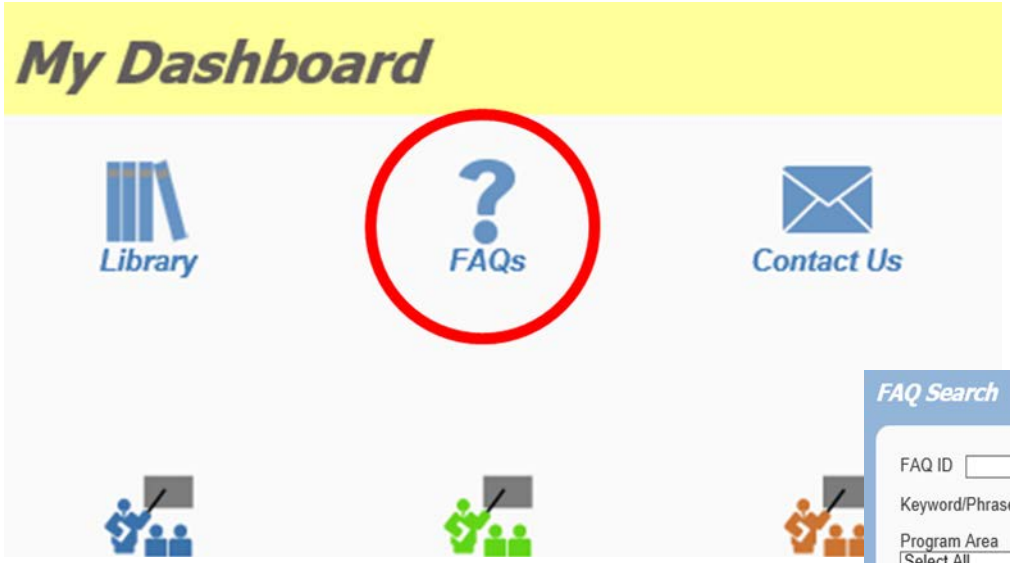
ITMS is available at https://www.REGTAP.info/

Users can submit questions after the webinar by selecting "Submit an Inquiry" from My Dashboard.

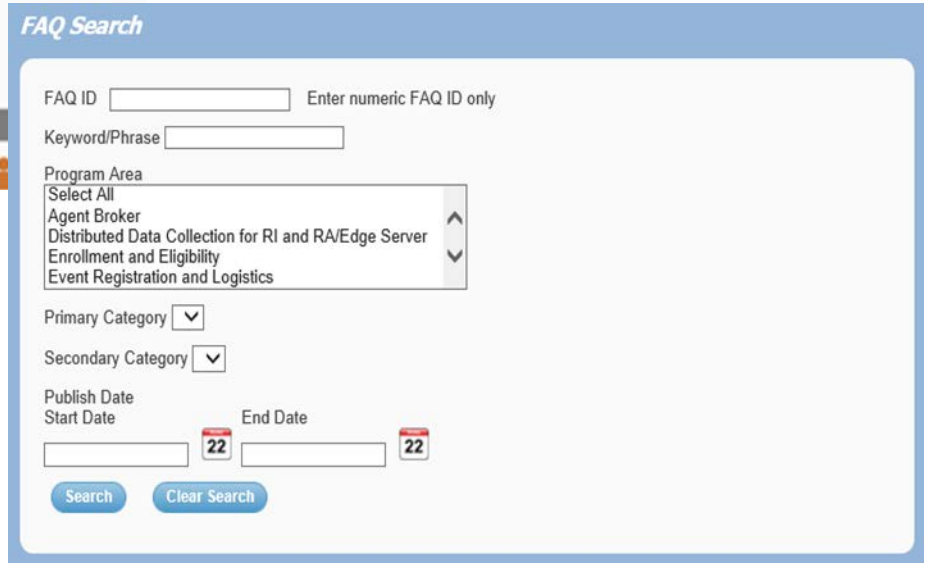



***Note: Enter only one (1) question per submission.***

# FAQ Database on REGTAP




The FAQ Database allows users to search FAQs by FAQ ID, Keyword/Phrase, Program Area, Primary and Secondary categories, and Publish Date.




FAQ Database is available at https://www.REGTAP.info/

# Closing Remarks