FEI Systems

Connecting Every Dimension of
Health and Human Services

FASAMS Requirements Document

Convert FASAMS to AWS Serverless WI 546000 (Part 2)

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Dated: 1/12/2022

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GENERAL

Version Control

Date	Version	Author(s)	Brief Description of Change
1/12/2022	1.0	Jesse Lindsey	Initial document creation
3/31/2022	1.1	Renee Sessions	Update requirements

Stakeholders

Role	Name
FEI Implementation Manager	Jesse Lindsey
FEI Account Manager	Chris Lanham
FEI Business Analyst	Charlene Pitt
DCF OITS Project Director	Nathan McPherson
DCF SAMH Project Sponsor	Richard Power
DCF Business Analysts	Sofia Castro / Victor Gaines

Supporting Documents and References

- Enhancement request form from DCF: https://feisystems3.sharepoint.com/sites/FASAMS/_layouts/15/DocIdRedir.aspx?ID=FEIDOC-1387-207516

Terms and Definitions

Terms	Description

SCOPE

Initial Request & Assumptions

Business Statement

DCF requests an update to the job processor to increase the performance when running jobs.

Scope Definition

FEI will convert FASAMS to AWS Serverless for job processing. The serverless job processor uses Lambda functions, and more Lambda functions can be dynamically added when more processing power is needed based on submission load.

Note: An EC2 server will need to be retained specifically to support task services.

Assumptions, Constraints, Dependencies

- This enhancement applies only to FASAMS Version 14.
- Note, this is part 2 of a two part enhancement.

Existing Functionality

Currently, the job processor operates on EC2 servers.

Proposed Functionality

FEI will convert FASAMS to AWS Serverless for job processing. The serverless job processor uses Lambda functions, and more Lambda functions can be dynamically added when more processing power is needed based on submission load.

Note: An EC2 server will need to be retained specifically to support task services.

Initial Estimate/ Quote History

Phase/ Quote Date	TFS Item #(s)	Description	Estimate/ Quote
1/24/2022	546000	Initial Estimate	Extra Large (Note: IE was made when this work item was combined with enhancement 568459)
10/13/2022	546000	Final Estimate	**Final Estimate:** Analysis – 100 Dev – 200 Test – 338 Acct / Project Management – 20 **Total – 658**

REQUIREMENTS

Notes to Developer

1. Convert FASAMS to AWS Serverless

Req. ID	Requirement	Ref. ID	Dev	QA
1.0	Assign FASAMS URLs to AWS Lambda functions • Including environments for Train, UAT, and PRD o Note: URLs will transition to AWS Serverless in the natural deployment process for all environments		☐	☐
1.2	Integrate current task schedule code with AWS EventBridge		☐	☐
1.3	Update Daily Report to operate as expected within the new environment architecture • Note: Changes to Daily Report can occur as part of this requirement o See ReqID 3.0 for specifics on the requested changes to Daily Report		☐	☐
1.4	Create solution to store Staging Tables where required to support reporting			
1.5	Update all Performance Reports that rely on Staging Tables •		☐	☐
1.6	Decommission existing EC2 servers after deployment to PRD		☐	☐
1.7	Update FASAMS architecture documentation to show AWS Serverless as the primary processor in place of current EC2 servers		☐	☐

2. Database Migration

Req. ID	Requirement	Ref. ID	Dev	QA
2.0	Database migration to move all data to AWS Serverless databases • Back up and restore database after AWS serverless environments are stood up		☐	☐

3. Update Daily Report

Req. ID	Requirement	Ref. ID	Dev	QA
3.0	Update the Daily Report per client requests, as referenced in Req ID 1.3 • Changes to Daily Report: o Add schedule to 'Batch Jobs' tab o Remove 'N/A' as an option in the column 'Number of Records Processed' on the 'Batch Jobs' tab. Replace with '0'. ▪ This field should always be an integer		☐	☐
3.1	Add Schedule to batch jobs tabs: • Add new column called **'Schedule'** • For each row add the following text under the schedule column: o IDS_Contract ▪ Schedule: 'Daily at 6pm EST' o MasterClientindex_MCI ▪ Schedule: Daily at 6 pm EST o MedicaidManagement _Encounter ▪ Schedule: Runs Daily. Trigger files for new clients sent on the first calendar day of each month. Trigger files for recurring clients on the 2nd weekday of each week (i.e. Tuesday). Response files are processed each time the service runs, but are only expected to exist after either new or recurring client trigger files are generated as described above. o MedicaidManagement_EnrollmentandEligibility ▪ Schedule: Daily at 3am EST. Each client is checked once per month. o ProviderLicensingAHCA ▪ Daily at 1am EST o ProviderLicensreDesignationSystem_PLADS ▪ Daily at 1am EST o TedsExtract ▪ Monthly on the 21st of every month			

Commented [CP1]: Confirm all current task schedules with developer: For All

Example: Screenshot of Daily Batch Report

FASAMS Daily Batch Report

Batch Process	Last Run	Status	Number of Records Processed	Timeframe	Schedule
IDS_Contract	2/9/2023 11:00:00 PM	Success	14	Daily	Daily at 6pm EST
MasterClientIndex_MCI	2/9/2023 3:30:00 AM	Success	N/A	Daily	Daily at 6pm EST
MasterClientIndex_MCI_Version14	10/21/2022 3:30:08 AM	Success	662344	Daily	To be removed
MedicaidManagement_Encounter	2/10/2023 4:00:04 AM	Success	0	Daily	Runs Daily. Trigger files for new clients sent on the first calendar day of each month. Trigger files for recurring clients on the 2nd weekday of each week (i.e. Tuesday). Response files are processed each time the service runs, but are only expected to exist after either new or recurring client trigger files are generated as described above.
MedicaidManagement_EnrollmentAndEligibility	2/10/2023 3:00:05 AM	Success	37549	Daily	Daily at 3am EST. Each client is checked once per month.
ProviderLicensingAHCA	2/10/2023 7:59:59 AM	Success	2130	Daily	Daily at 1am EST
ProviderLicensureDesignationsSystem_PLADS	2/10/2023 5:00:00 AM	Success	1436	Daily	Daily at 1am EST
TedsExtract	1/23/2023 10:30:01 PM	Success	138960	Monthly	Monthly on the 21st of every month

4. Add Skip Logic for Duplicate Data Set Records

Req. ID	Requirement	Ref. ID	Dev	QA

4.0	Add CheckSum logic to Job Processor to:
	• Skip an entire data set record if the submitted record values are exactly what is currently stored in the database
	  o Definition of a data set record: An entire data set record includes all fields within a data set under the root entity, including all subentities of the root entity
	  o Example: The skip logic would be triggered for a TreatmentEpisode record if the 'ProviderTreatmentEpisode' entity values and **ALL** values in **ALL** subentities are unchanged from the values stored in the database
	  o Note: The skip logic will not be applied to any specific subentity within the data set
	    ▪ This is to avoid job processing performance issues that would be caused by executing copious CheckSums
			☐	☐

Testing Requirements (for testing purposes, QA can use server based FASAMS TEST site for direct comparison of job processing, UI, etc; As needed)

5. Submission

Req. ID	Requirement	Ref. ID	Dev	QA
5.0	Verify Submission of all Data Sets submit successfully thru UI and display correctly in database. Verify submitted job displays on job detail screen and in corresponding table in database • Provider • Client • Acute Care • Treatment Episode • Service Event • Subcontract • Waiting List • Contract		☐	☐

Req. ID	Requirement	Ref. ID	Dev	QA
5.1	Verify 'Export Jobs' Button correctly exports jobs in Excel • Download button export job to Excel file			
5.2	Verify 'Search' field correctly search for value in search field			
5.3	Verify 'Refresh' button refreshes screen correctly			
5.4	Verify 'Submit a Support Ticket' button functions correctly			
5.5	Verify user can logout via 'Logout' button			
5.6	Verify Vertical Ellipsis menu displays • Change Password • User Profile – 'My Profile'			
5.7	Verify 'Advance Filtering' menu displays • Submitter • User • Start Date • End Date • DataSets • Status • Successful			
5.8	Verify filter arrow displays next to: • Name • Submitter • User • Date • Status • Successful • Errors • Warnings			

6. Reports Module

Req. ID	Requirement	Ref. ID	Dev	QA
6.0	Verify Reports Module displays and generates report		☐	☐
6.1	Verify Report Module screen displays: • Client Report ▪ Client Search ▪ Client UCIs			
6.2	Verify 'Exception • Exception Category dropdown is removed o Verify 'Clients missing UCIs with Services'no longer displays ▪ Remove Category: Exception • Remove Permission			
6.3	Verify Job Submission Performance menu displays correctly • Job Submission Performance o Overall Job Performance o Submission Summary o Submission Rollup o FASAMS Submission Performance Report o Failed Records Report ▪ Failed Records ▪ Failed Records – Treatment Episode			

Req. ID	Requirement	Ref. ID	Dev	QA
	▪ Failed Records – Service Event o Placement Record Exception o Security Report ▪ User Account Security			

7. Task Scheduler

Req. ID	Requirement	Ref. ID	Dev	QA
7.0	• Verify Task Scheduler runs daily o Enable task in lower environment ▪ Verify task trigger files show a record in the task scheduler synchronization table (TaskSchedulerModule.SynchronizationServiceTaskStatus) ▪ Coordinate with DEV team for testing o		☐	☐

8. TEDS EXTRACT

Req. ID	Requirement	Ref. ID	Dev	QA
8.0	• Verify TEDS Extract is generated and displays in database o Verify Teds Extract run monthly as expected		☐	☐

9. Administration

Req. ID	Requirement	Ref. ID	Dev	QA
9.0	Verify Administration menu displays with tabs: • Submitting Entities • Users • Message • Roles • Groups • Support TIcket		☐	☐
9.1	**Submitting Entities Tab** • Verify Submitting Entities list displays assigned to user • Verify '+New Submitting Entity' button displays • Verify 'Search' Field displays • Verify filter option displays next to 'Name' and Allowed Data Sets • Verify page scroll displays at bottom of screen • Verify vertical ellipsis displays next to each submitting entity with drop down menu o View Details o Delete			
9.2	Verify under Submitting Entities tab, then View Details, Submitting Entity Workspace displays: • Profile • Contacts • Allow Data Sets o **Note: Data Entry Screen Read Only boxes should not display**			
9.3	**Users Tab** • Verify new user can be created and displays in the database under '**Administation**' o Verify 'Add User' screen displays			

Req. ID	Requirement	Ref. ID	Dev	QA
	• Verify existing users display in UI and in database under Administration o Verify existing users profile can be accessed via vertical ellipsis ▪ Verify menu displays • View Details • Reset password • Lock Account • Disable Account • Verify page scroll displays at bottom of screen			
9.4	Verify User Workspace display upon 'View Details' option • Profile • Groups • Account o Manage Roles ▪ Verify Available Roles and Assigned Roles sections display • Roles • Manage Roles • Account Information • Login Information • Notifications			
9.5	**Message Tab** • Verify Message section displays and can create a new message for all message types • Verify 'Edit Notification' option displays • Verify Disclaimer section displays			
9.6	**Roles Tab** • Verify Roles section displays • Verify '+New Role' option displays • Verify 'Search' field displays • Verify 'Name' and 'Type' columns displays • Verify filter option displays next to 'Name' and 'Type' • Verify page scroll displays at bottom of page			
9.7	Verify vertical ellipsis displays menu: • View details • Delete			
9.8	Under 'View Details' menu, verify the following displays: • Profile • Permissions o Manage Permissions ▪ Verify Available Permission and Assigned Permision sections display			

10. Configuration

Req. ID	Requirement	Ref. ID	Dev	QA
10.0	Verify Configuration screen and tabs display: • Vocabulary Versions • Rules • Dynamic Data Sets		☐	☐
10.1	Vocabulary Versions Tab			

Req. ID	Requirement	Ref. ID	Dev	QA
	Verify existing and newly created vocabulary display in UI and in database • User has ability to add new vocabulary; file submission submits successfully based on new vocabulary • Verify managing entities can successfully map their vocabulary • User can successfully export vocabulary; both Complete and Simple			

10.2	Rules Tab
	• Verify all DataSets display
	• Verify 'Edit Date Thresholds' button displays
	• Veify 'Search' Field displays
	• Verify Vertical Ellipsis displays for each DataSet
	    o Verify Drop down menu displays
	        ▪ View Details
	        ▪ Export Rules, Errors and Warning			

10.3	View Details under each Data Set should display all sub entities under that DataSet
	• Each sub entites tab should display with
	    o Name
	    o DataSet
	    o Comparison Date
	    o Effective Date
	    o Expiration Date
	    o Enabled
	    o Edit Option			

10.4	Edit Option should open to Business Rule Workspace:
	• Profile
	• Parameters
	    o Data Set
	    o Comparison Date
	    o Effective Date
	    o Expiration Date			

11. OPERATIONAL DATA STORE (ODS) DB

Req. ID	Requirement	Ref. ID	Dev	QA

11.0	Verify all data tables and folders displays in the AWS Environment
	• All DataSet Tables
	• MedicaidModule Tables
	• SecurityModules Tables
	• StagingModule Tables
	• SubmissionModule Tables
	• TaskSchedulerModule Tables
	• VocabularyModule Tables
	• X12Module
	    o Hipaa270
	    o Hipaa271
			☐	☐

11.1	Verify all 'View' tables display • System Views			
11.2	Verify all 'Security' tables display • Users • Roles			

12. VOCABULARY

Req. ID	Requirement	Ref. ID	Dev	QA
12.0	Verify existing and newly created vocabulary display in UI and in database • User has ability to add new vocabulary; file submission submits successfully based on new vocabulary • Verify managing entities can successfully map their vocabulary • User can successfully export vocabulary; both Complete and Simple		☐	☐

13. SKIP LOGIC

Req. ID	Requirement	Ref. ID	Dev	QA
13.0	• Verify job submissions process faster due to bypassing validation process o Submit files with and without changes to the entire root entity ▪ Note: Verify that Record Version column does not increment up when root entity is submitted with no changes		☐	☐

ARE PAMPHLET UPDATE REQUIRED? YES ☐ NO ☒

Update ID	Pamphlet Chapter/Sections requiring change	Completed by FEI	Approved by DCF