# Description of FAS Acquisition Applications for Supplier Portal

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### Scope

Applications described in this document:

| | | |
|---|---|---|
| ● FSS19<br>● Contract Services<br>● FSSOnline | ● FSSOnline Security<br>● eFSSOnline<br>● eOffer<br>● eMod | ● ORS<br>● MassMods<br>● Other (incl. eOffer FCS instance) |

Note: SWS is currently out of scope, so for now, will not be described.

# 1. General Description of Each Application

## 1.1. FSS-19

The FSS19 System includes the database installed in a UNISYS mainframe which contains the Contract related Information.
The following applications maintain the contract information (Contract Support) using in the back end the FSS19 Database: Security, FSSOnline, eFSSOnline, Contracting Services, Mass Mods. However, there are still some programs that run inside the FSS19 (mainframe) providing the following functionality:

- Process in support to maintain the Vendor name and address at contract level
- Process in support of the creation reports to functionality that are processed in other applications which limited capability for the creation of the needed reports :
- Process for providing contract information to other applications (via sFTP) to downstream applications.
- Diverse process to sync data on the database.

## 1.2. Contract Services

The Contracting Services is an application with 2 different types of functionalities:

- Diverse Asynchronous process.

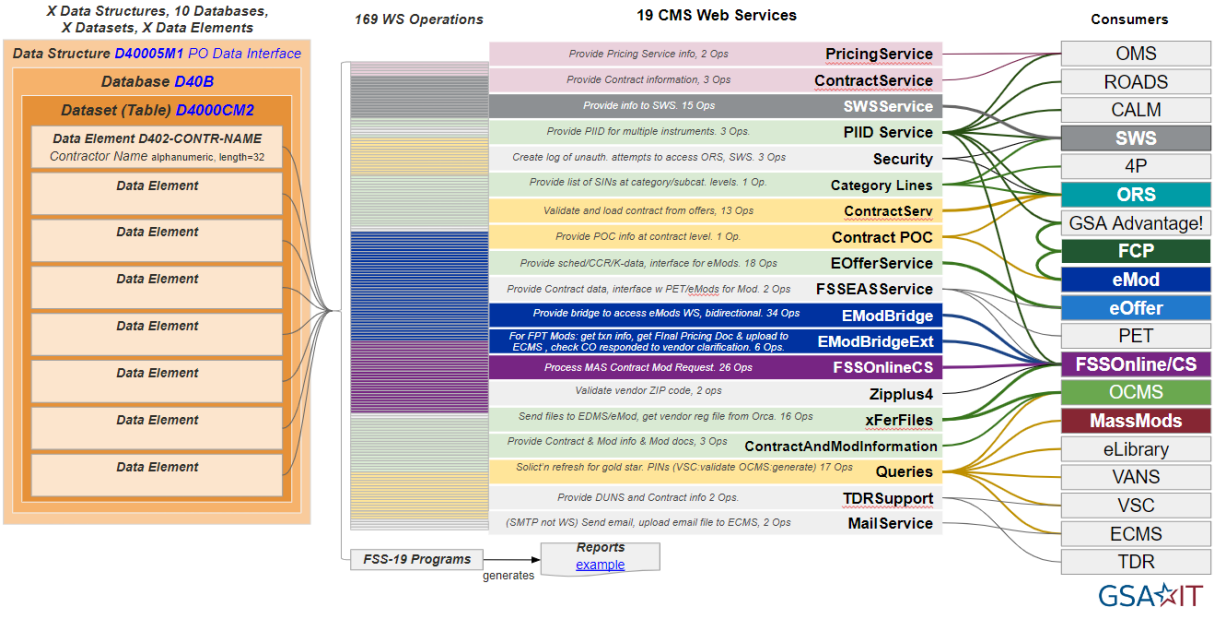
- Synchronous processes and APIs
    - The Contracting Services interface with other applications via APIs:
        - Has available APIs allowing other applications to get the needed information or status.
        - As API consumer of other applications, it uses to get information or report information to the other application

In summary, the Contract Services provides core back-end processes and web services to orchestrate the contract and contract modification processes. This includes awarding offers and creating and completing contract modifications. The Web Services transmit data to and from certain GSA and other government applications.

The Contracting Service interfaces with 19 applications and manages a total of 166 operations.

The following shows a high level of the APIs available:

# Current Acquisition Applications and Data Integration



## 1.3. FSSOnline

FSSOnline serves as a procurement management tool for FAS offices, and is the front-end client server application to the FSS-19 database system. The FAS acquisition workforce uses FSSOnline to track and manage contracts and modifications from the award date through the contract life. Modifications include discrete modifications as well as mass modifications, or "mass mods," to entire groups of contracts. (Note: Internal FAS users use the FSSOnline application to perform actions on mass mods or eMods, while external suppliers use the Mass Mods or eMods application - see the "Mass Mods" section below).

In order to provide detail of the functionality of FSSOnline, a list of the application navigation menus is provided:

**My Data and Work in Progress**
- My Contracts
- My Contract Modification
- My Offers
- My Orders
- My SAM (CCR) Data

**Contract**
- Load Non-MAS Contract
- Contract Maintenance
- Contract/NSN Maintenance
- Copy/Move NSNs to other Contract
- Global Contract Actions
- Award Letter/Forms
- Load NSN to Contract
- Future Price
- Closeout Non-MAS Contract

**Offers**
- Offers Actions
- My Offers
- Cycle Time Reports

**Central Intake Desk CID**
- Register a Mod in behalf of the vendor

**Code Tables Maintenance (Special access only)**
- Business Types
- FIPS location codes
- Method of Purchase (MOPs)
- NAICS codes
- PSC Codes
- GWAC programs-CLINs
- Constant Data File
- Lookup Tables
- Data Dictionary maintenance
- Markup Table
- Country Code table

**Reports (manager access only)**
- Vendor Survey - Offers
- Vendor Survey - Mods
- Work-in-Process (WIP Reports)
- Cycle Time Reports
- Contracting Officer Status
- Mass Mods Reports
- Offer/Mod Reports
- List Buyers/ Managers

**Contract Support Files**
- Address Maintenance
- Buyer/ Manager
- PO Notes

**Contract Modification**
- Load/ Maintain Mods
- FAS Initiated Mods
- Associate Workload Analysis
- eMods
- Mass Mods

**Additional Functions**
- Table & Database Searches
- Reports/ Queries
- Web Links
- Help

**Contract Support Functions**
- PCOs and PCSs table
- Vendor Address File
- Web Links
- Help

## 1.4. FSSOnline Security

A separate but related application is FSSOnline Security. This is a front-end system that manages GSA users and their (role-based) access to various applications/systems within FAS. The application is responsible for FSSOnline, Offer Registration System (ORS), Solicitation Writing System (SWS), Online Contract Management System (OCMS), Security, and user roles to the FSSOnline Procurement system.

## 1.5. eFSSOnline

eFSSOnline is a web-based application that contains limited functions from FSSOnline. For example, the system allows internal users to fix some FPDS errors for contracts, Mods and purchase orders, maintain the Schedule SIN as well as the Activity Address code (AAC) tables.

## 1.6. eOffer

eOffer is an external facing web-based application that allows offerors to electronically prepare and submit a Multiple Awards Schedule (MAS) offer to FAS. Offerors input, upload, make selections to submit offers for the Schedule solicitation, and review their documents. Used by MAS program only. Users log into eOffer with their UEI Number, complete each section of the offer creation process, and submit the offer for acceptance. Once awarded, an offer becomes a contract, and offerors will now be able to use eMod to maintain their contracts.

From eOffer's *About* section: "eOffer is a web-based application that allows Offerors to electronically prepare and submit a MAS offer to the Federal Acquisition Service (FAS)."

## 1.7. eMod

eMod is an external-facing web-based application that allows MAS contractors to electronically prepare and submit contract modification requests to FAS. Contractors input, upload, make selections to submit modification requests for MAS contracts, and review their documents. Used by MAS program only. eMod is not used for mass mods. eMod is only accessible and usable once GSA and the supplier have established a contract under the MAS program, i.e. a contract must be in place in order to request a contract modification. After submitting the mod request to GSA, the supplier can monitor its status using eMod.

## 1.8. ORS

ORS ("Offer Registration System") is an online application that Contracting Officers and other GSA staff use that records/catalogs and stores offers/proposals that (potential) suppliers submit to GSA in response to the MAS Solicitation. ORS enables the Contract Specialist (CS) and Contracting Officer (CO) to evaluate and capture information related to Offers, as well as make Contract Awards. This system is behind a firewall and only accessible through the GSA network. Used by MAS program only. It contains its own database from which Offer information can be accessed. It also includes MAS Solicitation Refresh information that applies to each Offer.

## 1.9. Mass Mod Portal

Mass Mod Portal is an online application that suppliers (about 30,000 users external to GSA) use to perform actions on GSA Initiated “mass mods”, which are uniform changes (i.e., mass modifications) to large numbers of FAS contracts. GSA staff, on the other hand, typically use the FSSOnline application for their tasks, so there are far fewer (~50) internal Mass Mods users. GSA initiates mass mods when uniform changes to the contracts are required for entire segments or large numbers of contractors. Examples include “refreshes” to the MAS Solicitation, as well as the addition of or changes to contract requirements.

GSA staff with privileged access also use the internal version of Mass Mods (**Mass Mods Admin**) with identical configuration to create customized mass mods.

The Contracting orchestrates the creation of the different types of MassMods as well the process to apply the Mod into the contract when the mod is completed.

## 1.10. Other

A special reference is the interfaces created in support of FCP implementation.
The Contracting Services and eMods interface with FCP application in order to allow the contractors to provide and upload the catalogs with the product and services which are used by eLibrary and Advantage.

# 2. Number of Records

Approximately how many records will need to be migrated to the new system?

Records can be defined as:
Contract information (consisting of multiple data fields…)
Modifications of contracts
Etc.

Data records above are shared by multiple applications: X, Y, Z

+Data records independent of the above: e.g. ORS Offer-related data

## 2.1. FSS19 DB used as back end data by FSSOnline, Contracting Services, Mass Mods, Security, eFSSOnline:

The database used by the contract support process includes the different tables tables used for each basic entity some of each are:

- Contracts → 74,000
- Mods → 1,770,000
- SINs In contracts → 520,000
- CLINs in Contracts → 12,676

- SIN Sales → 85,000,000
- NSNs in contracts → 146,000
- Purchase Orders → 31,000,000
- CCR table → 2,560,000
- VAF → 80,000

However, there are additional tables that are related to each one.
For example, Authorized negotiators assigned to each, contract, PCO list, PCS List, ACO list, IOA list, Audit file, FIPS table, NAICS Table, PSC code table, business types at contract level, Users, Roles, etc

**In summary, there are a total of around 220,000,000 records.**

## 2.2. eOffer + ORS

Approximately 99,534 offers reside in the eOffer database, when award relating to the Offer was 7 or fewer years ago.

Note that the eOffer database is also the database of record for Offer information in ORS.

## 2.3. eMod

Data relating to about 56,000-58,000 contracts, approximately 886,923 modifications need to be migrated to the new system.

# 3. Technical Environment

What is the technical environment for the application(s) and data for system production (e.g., application server, database system, OS...)?

### 3.1 FSS19

FSS19 is primarily a batch processing system without any online users. The application programs consist of COBOL applications maintained and run in the ClearPath Mainframe environment. These applications are run using pre-scheduled batches configured with Work Flow Language (WFL) scripts. The FSS-19 application uses the DMSII database shared across other applications. The FSS19 batch processes also support a number of interfaces with external applications using data files/extracts.

### 3.2 Contract Services

- App Server: JBoss
- Database: DMSII, Sybase

- Operating System:  RHEL 7
- Infrastructure components:  Apache, JBoss, LDAP
- Software Components: J2EE, SOAP and REST Services
- Pipeline Components: Jenkins, SVN
- Downstream applications: ECMS, FPDS, API Exchange, GSA SMTP, eMod, SWS, Roads, PIID, OCMS, FSSOnline, eLibrary, VSC

## 3.4 FSSOnline

- Client Server application deployed to the user's laptop
- Database: DMSII
- Software Components: Powerbuilder
- Pipeline Components: Jenkins, SVN
- Downstream applications: eMods, Roads, eLibrary

## 3.5 eFSSOnline

- App Server: JBoss, Apache
- Database: DMSII, Sybase
- Operating System: RHEL 7
- Infrastructure components: SecureAuth,  Apache, JBoss
- Software Components: J2EE, Spring framework, JSP, Bootstrap, SecureAuth
- Pipeline Components: Jenkins, SVN
- Downstream applications: PIID

## 3.6 eOffer

- App Server - JBoss, Apache
- Database - Sybase, PostgreSQL, MySQL
- Operating System - RHEL 7
- Infrastructure components: SecureAuth, OKTA, Apache, RDS Sybase, RDS Postgresql, JBoss
- Software components: J2EE, Struts, SpringBoot, JSP, SOAP & REST Services
- Pipeline components: GITHUB, Jenkins, RDS (Postgres)
- Alerting & Monitoring components: Splunk
- Downstream applications and the data exchange: ECMS, eSOA, DSS, API.gsa.gov, SAM.gov, GSA SMTP

## 3.7 eMod

- App Server - JBoss, Apache
- Database - Sybase, PostgreSQL, MySQL
- Operating System - RHEL 7

- Infrastructure components: SecureAuth, OKTA, Apache, RDS Sybase, RDS Postgresql, JBoss
- Software components: J2EE, Struts, SpringBoot, JSP, SOAP & REST Services
- Pipeline components: GITHUB, Jenkins, RDS (Postgres)
- Alerting & Monitoring components: Splunk
- Downstream applications and the data exchange: ECMS, eSOA, DSS, API.gsa.gov, SAM.gov, GSA SMTP, FCP

### 3.8 ORS

- App Server - JBoss, Apache
- Database - Sybase, PostgreSQL, MySQL
- Operating System - RHEL 7
- Infrastructure components: SecureAuth, OKTA, Apache, RDS Sybase, RDS Postgresql, JBoss
- Software components: J2EE, Struts, SpringBoot, JSP, SOAP & REST Services
- Pipeline components: GITHUB, Jenkins, RDS (Postgres)
- Alerting & Monitoring components: Splunk
- Downstream applications and the data exchange: ECMS, eSOA, DSS, API.gsa.gov, SAM.gov, GSA SMTP

### 3.9 MassMods

What is the **technical environment for the application(s) and data** for **Mass Mods** production (e.g., application server, database system, OS...)?

- App Server - JBoss, Apache
- Database - DMSII
- Operating System - RHEL 7
- Infrastructure components: SecureAuth, OKTA, Apache, JBoss
- Software components: J2EE, Spring mvc, JSP, SOAP, CKEditor, Bootstrap
- Pipeline components: Jenkins, SVN
- Alerting & Monitoring components: JBoss, OKTA
- Downstream applications and the data exchange: ECMS, SWS, MCaaS API exchange

## 4. Upstream applications

*Description of **data flow** from those systems **to** the following apps*

### 4.1 Flow to FSS19

The FSS-19 applications receives data from various applications to support key processes:

- Central Contractors Registration (CCR) data is provided by SAM.GOV

- Sales Data is received from SRP for processing and reporting in FSS19

## 4.2 Flow to Contract Services

- ORS: provides contract award information
- eMod: provides contract modification information
- SWS: provides solicitation and clauses information
- ECMS: provides offer,  contract, and contract modification documents information.
- LDAP: provides user information.
- FCP: provides FCP contracts

## 4.3 Flow to FSSOnline

See Contract Services

## 4.4 Flow to FSSOnline Security

FSSOnline: User Access Request

## 4.5 Flow to eFSSOnline

- PIID

## 4.6 Flow to eOffer

**Upstream applications/data sources** that supply **eOffer/eMod** are:

- From SWS to eOffer: provides information about the solicitations, regulations and clauses as well as Large/Sub Categories and SIN/NAICS codes.
- For Offers, there is no upstream application as eOffer database is the system of record
- For Contract Information, only SAM.gov API: provides information about the organization such as; UEI, Address, Phone Numbers, etc.

## 4.7 Flow to eMod

The data flows via various RESTful APIs and SOAP Web Services including the following:

- FSS Online Web Service : Provides Contract data, interface with eMods for Contract modifications and mod types
- SAM.gov API: provides information about the organization such as; UEI, Address, Phone Numbers, etc.

## 4.8 Flow to ORS

ORS interfaces with several internal and external systems during the offer evaluation process. These systems include:

- eOffer
- Solicitation Writing System (SWS)
- FSS Online
- SAM (System for award Management)
- Electronic Content Management System (ECMS) - electronic contract file

### 4.9 Flow to MassMods

- Contract Services: Provides Contract Modification Launch and Award process for Mass Mods.
- FSS Online: CO (Contract Officer) actions on Contract modification clause exceptions taken by Vendor in Mass Mods.

### 4.10 Flow to Other

**FCS**
eOffer/eMod data currently flows to PostgreSQL Database that resides in FCS.

## 5. Downstream data flow

How does data flow to downstream systems/dependencies (currently listed as ECMS, eSOA, DSS, API.gsa.gov, SAM.gov, GSA SMTP, ORS)

- As with the flow **to** eOffer/eMod: various APIs (RESTful, Hibernate, Spring Boot) and Web Services (SOAP)

### 5.1 Flow from FSS19

The FSS-19 applications provides contract related data files to various external applications including Assist, Advantage, eLibrary, LDE, SRP, FCSD and FALCON etc. The system also interfaces with Federal Procurement Database System-Next Generation (FPDS-NG) to enable data transparency by reporting. If the contract is amended or canceled after being sent to FPDS-NG, an amendment record or cancellation record is sent to FPDS-NG.

### 5.2 Flow from Contract Services

- eMod: Contracting Services API provides vendor, contract and contract information
- SWS: Contracting Services provides Production Plan information; User Information
- ORS: Contracting Services API provides vendor and user information.
- OCMS: Contracting Services provides Vendor, Contract and Contract Modification information, and User information.
- Roads: Contracting Services provides Contract information.
- eLibrary: Contracting Services provides Contract information
- VSC: Contracting Services provides Contract information

## 5.3 Flow from FSSOnline

FSSOnline sends or receives Contract information data via Contracting Services with interfaces to SWS, ORS/eOffers, eMods, and ECMS.

## 5.4 Flow from FSSOnline Security

- Security application stores the changes into ECMS / EDMS

## 5.5 Flow from eFSSOnline

- Provides Schedule/Sin  information, via API, to SWS

## 5.6 Flow from eOffer

The data flows via various RESTful APIs and SOAP Web Services including the following:

- FSS Online Web Service : Provides Contract data, interface with eMods for Contract modifications

- ORS: eOffer API provides ORS evaluation and awarding process information, i.e. submitted offer and clarification data necessary for the offer approval process.

## 5.7 Flow from eMod

The data flows via various RESTful APIs and SOAP Web Services including the following:

- FSS Online: eMod API provides FSS Online submitted mod and clarification data necessary for the mod approval process. (FSSOnline receives contract data from ORS after offer approval).

## 5.8 Flow from ORS

After the contract is awarded in ORS it is sent to eOffer for the vendor to sign the contract and is sent back to ORS for the CO to sign and mark the contract as complete. The data is sent to FSSonline and the contract is loaded into the system.

## 5.9 Flow from Mass Mod Portal

- SWS API: Mass Mods retrieves Clause language information from SWS.

- ECMS API: Provides web service to retrieve Contract Modification related documents which are uploaded by Contract Services.

- Contract Services API: Provides web service to manage (upload, download) Contract modification related documents for Mass Mods Admin application.

# 6. Data volume

Roughly **how much data (in GB/TB)** is in the current system (broken down by the database, filesystem, other file or data store...)

## 6.1 Current sizes of production databases pre-Award (eOffer/ORS)

3,751,097 MB of data (i.e. ~3.75 TB) in the current system
(consisting of:)

- eOffer: 3,588,267 MB
- ORS: 20,500 MB
- eOffer_archive: 142,340 MB

The above records are broken down by the database. There is no significant data stored outside of DBs.

## 6.2 Current sizes of production databases post-Award

| **Production Database** | **Size in MB (Including Indexes)** | **Size in MB (Excluding Indexes)** |
|---|---|---|
| Total | **291,552 MB (i.e. ~292 GB)** | **162,516 MB (i.e. ~163 GB)** |

# 7. Data: % pertaining to System of Record

How much of that data is considered the **system of record** (perhaps some data is redundant, cached from other systems)?

We regard **any** data supporting a transaction (e.g. Period of Performance dates) as being part of the System of Record, with the exception of data that may be archived, in accordance with the data retention policies established for the Government. As such, we provide the following estimates:

## 7.1 FSS19 DB

This includes FSSOnline, eFSSOnline, Contracting Services, MassMods
The system of record, main entities, is around 52%
From this number, % of active contracts is 10%

## 7.2 eOffer/eMOD/ORS

- 42% of the data is system of record
- 58% is data that is inactive 7+ years

- 42% of offers are still active and need to be retained.
- eOffer/eMod holds some documents as a system of record, but much of the data is transitory related to people filling out the offer/mod and is not considered a system of record.
- 56,000-58,000 contracts in the system today - many of which are expired.
- Note:  Any “in-flight” offers (those started but not yet complete) in parallel with Supplier Portal being “active” will remain and be completed in eOffer, as there are no plans to move “in-flight” offers from eOffer to Supplier Portal.

### 7.3 MassMods

## 8. Non-production environments

What kind of functioning **non-production environments** exist and how do they compare to production?

- Development environment, test environment and COOP environment comparable to the production site