Appendix B:

Awardee Reporting Architecture

Federal Spending Solution Architecture

Awardee Reporting Architecture

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1 Purpose and Scope

The Awardee Reporting Architecture describes how existing systems, platforms, business processes, databases, and technologies will be used to report, collect, or pre-populate awardee-reported information on Federal contracts and grants.[1] In addition, this document is the first step in defining a comprehensive target architecture for Federal spending transparency and future steps will be developed in collaboration with agencies and functional communities. The sections that follow explain the current state of awardee reporting and define a new Awardee Reporting Architecture that shows how the systems and processes will be modified to fulfill the OMB mandates for subaward reporting.

Recognizing the demand for and the utility of increased transparency, over the past several years the Federal Government has taken numerous steps to give the public greater insight into its spending patterns. Websites such as USASpending.gov and Recovery.gov allow users to quickly learn when, where, and how certain categories of Federal funds are being spent. These websites all work to promote trust, accountability, and the more efficient management of taxpayer dollars.

The Awardee Reporting Architecture detailed in this document represents the maturation of a comprehensive target architecture for Federal spending transparency, the Federal Spending Solution Architecture (FSSA). It focuses on awardee reporting systems and processes currently in place to support Federal spending transparency under the Federal Funding Accountability and Transparency Act (FFATA)[2]. This document includes information about the data sources for USASpending.gov, the business processes currently employed by agencies to provide spending data on contracts and grants to USASpending.gov, and a description of how existing data assets will be integrated with awardee-reported data.

This document is part of an ongoing, iterative requirements and solution package that will be refined and improved through reviews and comments by Federal and non-Federal stakeholders. Ultimately, these efforts will document the target architecture for spending transparency to ensure that the data provided is transparent, timely, accurate, useful, and readily accessible to the public.

The comprehensive FSSA will improve and extend Federal spending transparency, with a focus on the following aspects:

- **Minimizing costs** (initial implementation, yearly operations, and help desk costs)

- **Maximizing capabilities** (providing timely and accurate data on subawards)

- **Reducing risks** (alignment with future architecture, ability to execute in a timely fashion, ability to scale, technical maturity and flexibility)

- **Rationalizing Systems** (minimization of redundancies)

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[1] OMB Memorandum for Senior Accountable Officials Over the Quality of Federal Spending Information, Jeffrey Zients, 6 April 2010 at 6.
[2] Federal Funding Accountability and Transparency Act of 2006, Public Law 109-282, as amended.

- **Minimizing Reporting Burdens** (ease of use for users, ease of migration to solution)

1.1 Federal Funding Accountability and Transparency Act (FFATA)

One of the key requirements of FFATA was the creation of a single, searchable website that provides the public with greater access to information on Federal spending. USASpending.gov is that website, displaying data about grants, contracts, loans, awards, cooperative agreements, and other forms of Federal financial assistance, such as direct payments and insurance, reported by agencies. This document discusses reporting of Federal contracts and grants, focusing on systems to support new collection of subaward and executive compensation data for display on USASpending.gov.

1.1.1 Key FFATA Data Elements

FFATA specifies the data that should be captured for each Federal award, regardless of award type. These key data elements are:

- The name of the entity receiving the award

- The amount of the award

- Information on the award including transaction type, funding agency, the North American Industry Classification System code (NAICS) or Catalog of Federal Domestic Assistance (CFDA) number, program source, and an award title descriptive of the purpose of each funding action

- The location of the entity receiving the award and the primary location of performance under the award including the city, state, congressional district, and country

- A unique identifier of the entity receiving the award and of the parent entity of the recipient, should the entity be owned by another entity

- The names and total compensation of the five highest-paid officers of an entity if, in the preceding fiscal year, that entity received: 80% or more of its annual gross revenues in Federal awards, $25,000,000 or more in annual gross revenues from Federal awards, and the public does not already have access to data on executive compensation through reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934, or section 6104 of the Internal Revenue Code of 1986

- Any other relevant information specified by OMB

1.1.2 FFATA Awardee Reporting

One of the primary goals of the Awardee Reporting Architecture is to deliver on the FFATA requirement to ensure that data on subawards and executive compensation are made available on USASpending.gov. Please refer to OMB guidance on subaward and executive compensation reporting requirements for Federal agencies and awardees of Federal contracts and grants, OMB Memorandum for Senior Accountable Officials, Jeffrey Zients, 30 July 2010. Further details on the mechanisms that will support subaward reporting are included in Section 4 of this document.

Awardee-reported data related to Federal contracts and grants will be collected via the FFATA Subaward Reporting System (FSRS) for display on USASpending.gov. To promote data consistency and reduce

reporting burdens, existing agency data sources will be leveraged to pre-populate reports for prime awardees as well as for subawardees when available. The USASpending.gov website will also be modified to view subaward reported data and executive compensation submitted to FSRS.

2 FFATA Current State

A major challenge facing USASpending.gov and other transparency efforts is that different terminologies, processes, data sets, and systems have evolved over time to support different categories of spending, such as grants and contracts. The following sections provide information about how transparency data is currently reported for grants and contracts.

2.1 Current Data Feeds to USASpending.gov

Several sites have been developed to provide public access to data on Government spending, such as: Recovery.gov and FPDS.gov. However, the primary website identified to support Federal spending transparency is USASpending.gov.

The information reported on USASpending.gov is provided by Federal agencies through several sources, which fall into two major categories, described below.

Spending data sources that provide input directly from agencies:

- **Federal Procurement Data System (FPDS)** – This GSA-operated system includes procurement transactions reported primarily through the contract writing systems of approximately 65 Federal and Executive Branch departments, bureaus, agencies, and commissions. USASpending.gov is updated with FPDS data on a daily basis. Reporting to FPDS is statutorily required and governed by regulation in the Federal Acquisition Regulation (FAR), Subpart 4.6. FPDS utilizes extensive validation rules and pre-population of vendor data, as well as DUNS number validation from the Central Contractor Registration (CCR) database. Agency submissions are certified annually by Senior Procurement Executives in accordance with the FAR.

- **Federal Assistance Award Data System (FAADS) Plus** – FAADS Plus (also "**FAADS+**") is the format used by 31 executive branch departments and agencies to submit Federal assistance award actions directly to USASpending.gov. USASpending.gov is updated with FAADS+ data on a daily basis, and agencies are required to provide FAADS+ data on a bi-monthly basis.

Lookup / Validation Feeds which are used to ensure data quality, such as:

- **Catalog of Federal Domestic Assistance (CFDA**) - CFDA is a government-wide compendium of Federal programs, projects, services, and activities that provide assistance or benefits to the American public, and is the authoritative source for CFDA Program Numbers. GSA is responsible for the dissemination of Federal domestic assistance program information through the CFDA, pursuant to the Federal Program Information Act, Public Law 95-220, as amended.

- **Dun and Bradstreet (D&B**) – This commercial entity maintains a repository of unique identifiers (D-U-N-S Numbers), which are nine-digit sequences recognized as the universal standard for identifying business entities and corporate hierarchies. Any organization that has a Federal contract or grant must have a D-U-N-S Number.

At the agency level, grants and contracts data are sourced from grants management systems, contract writing systems, agency financial systems, and other intermediate systems for automated reporting, as well as from manual processes for FPDS data entry and generation of FAADS Plus data extracts.

2.2   Implementation of FFATA and the Recovery Act

For both grants and contracts, the following required data elements are currently collected from Federal agencies for display on USASpending.gov and Recovery.gov:

- The name of the entity receiving the award;

- The amount of the award;

- Information on the award including transaction type, funding agency, the NAICS code or CFDA number,[3] program source (or Treasury Account Symbol),[4] and an award title descriptive of the purpose of each funding action;

- The location of the entity receiving the award and the primary location of performance under the award including the city, state, congressional district, and country; and

- The D-U-N-S Number of the entity receiving the award, which is used as the unique entity identifier.

With the implementation of Section 1512 of the American Recovery and Reinvestment Act ("**Recovery Act**" or "**ARRA**"), data collection on first-tier subawardees[5] and executive compensation required under FFATA was initiated for Recovery Act funded awards via submission to FederalReporting.gov. ARRA-specific data elements are collected in addition to those outlined by FFATA[6]. FederalReporting.gov populates reports to Recovery.gov to provide public access to Recovery Act-funded awards. The Awardee Reporting Architecture provides a technical framework to facilitate the collection and display of awardee-reported data for Federal contracts, grants, and related first-tier subawards.

The following sections provide a basic description of how Federal agencies interact with the various government-wide systems to report information about spending on contracts and grants to the public. This discussion is not intended to be comprehensive across all agencies or all types of Federal financial assistance. However it does provide additional detail on major systems and processes that occur

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[3] For contracts transactions, agencies currently report the NAICS code. For other financial assistance, agencies report the CFDA program number.

[4] As documented in previous OMB guidance (M-09-19), the Treasury Account Symbol, composed of the Treasury Agency Identifier, Main Account Identifier, and optional Subaccount Identifier, serves as the 'program source' for the purposes of the FFATA reporting.

[5] The responsibility for handling and reporting this information lies either with the prime awardee directly or, if the prime has delegated that responsibility, with the subawardee.

[6] Awardee reporting pursuant to the Recovery Act includes data, such as the number and description of jobs created. There are also separate reporting requirements for ARRA infrastructure projects, which are specific to the Recovery Act and not included in FFATA. For more information, see FederalReporting.gov User Guide, available at https://www.federalreporting.gov/federalreporting/downloads.do#docs.

upstream from recipient reporting on grants, subgrants, contracts, and subcontracts. The sections below explain how each community performs its reporting requirements.

2.3   Current Grants Reporting

The generic end-to-end process for Federal grants is depicted in Figure 1. This diagram is a generalization developed to give an overview of the grants process, and there are significant and noteworthy differences between the processes for discretionary and non-discretionary grants.
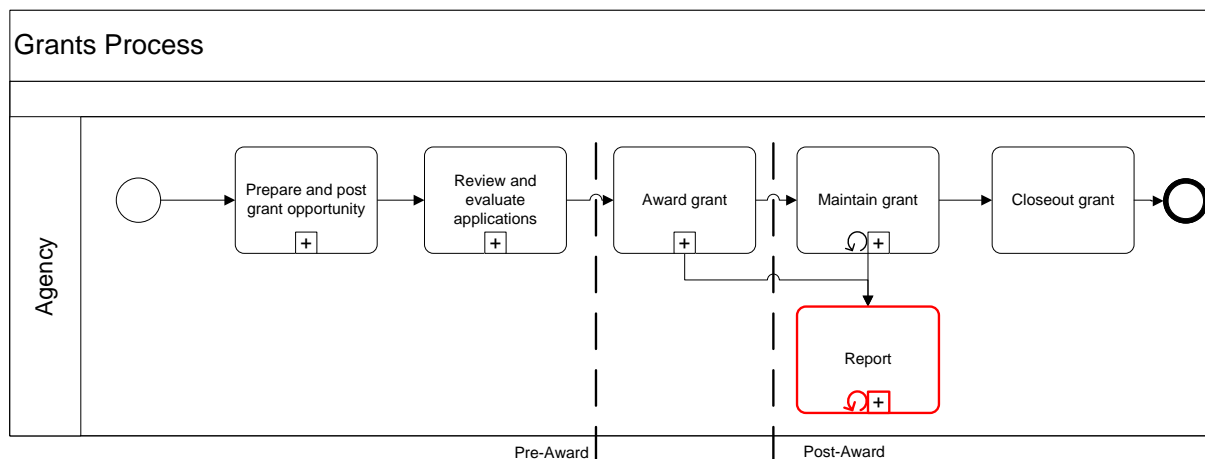

Figure 1: Grants Process Overview

This process is divided into Pre-Award, Award, and Post-Award phases. Federal discretionary grants and cooperative agreements must be made available through the Grants.gov FIND module. All grants recipients are required to register with D&B and acquire a D-U-N-S Number. The number is used by agencies to uniquely identify business entities. For competitive grants, grantees must also be registered with the CCR when applications are submitted electronically via the Grants.gov Apply module.

The discussion below focuses on reporting activities (red box in Figure 4) directly related to the current reporting requirements for grants.

2.3.1   Current Process for Reporting on Grants

Figure 2 shows the process for reporting on financial assistance received through a Federal grant.
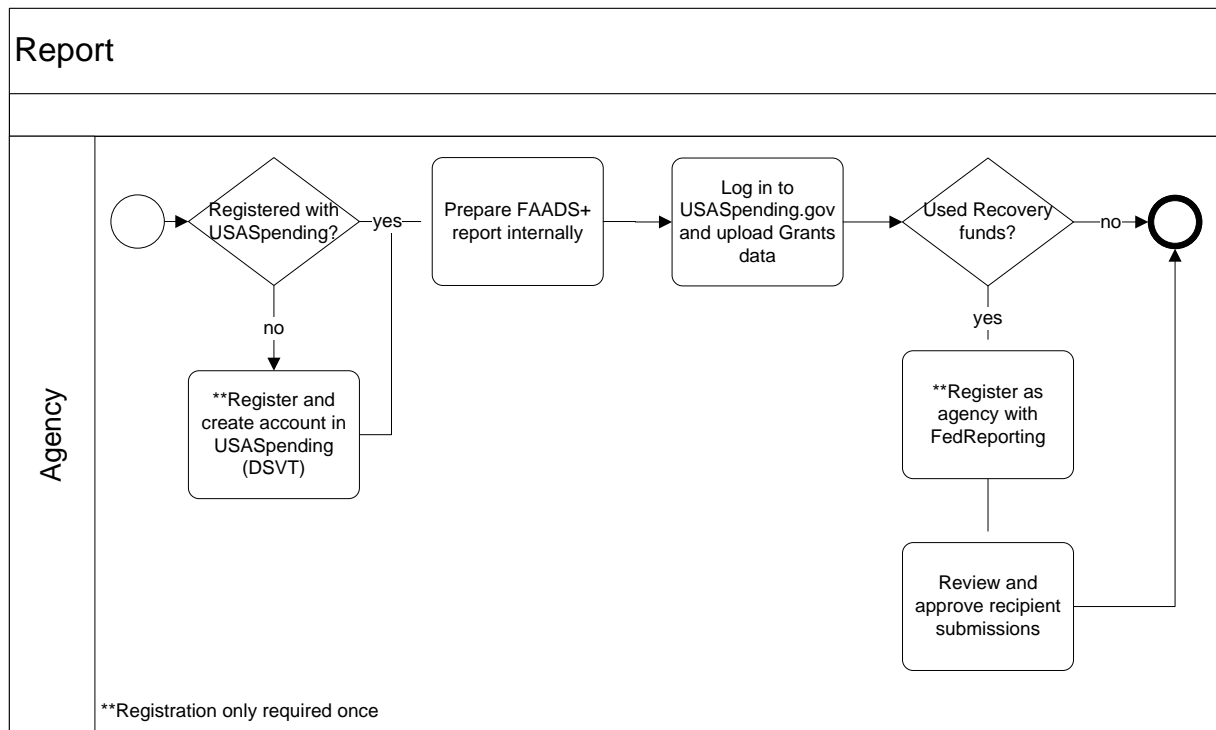
Figure 2: Reporting on Grants

In order to enhance the transparency of Federal spending there are currently two sets of reporting requirements: Recovery Act Reporting and FFATA Reporting.

2.3.1.1 Recovery Act Awardee Reporting on Grants

Awardees are required to report Recovery Act-related spending information on a quarterly basis. Awardees are given three weeks to provide their information to the agency through FederalReporting.gov, while agencies are given one week to review and validate the data provided to them. Once agency review is completed, the data is published on Recovery.gov.

2.3.1.2 FFATA Reporting on Grants

The other requirement governing grants reporting is FFATA. Federal agencies are required to report accurate information to USASpending.gov no later than 30 days following the award or modification of a grant. Currently, submissions occur through upload of a text file using the FAADS Plus specification[7] via the USASpending.gov Data Submission and Validation Tool (DSVT) (https://ffatadata.usaspending.gov).

In the current environment for assistance award reporting to USASpending.gov, reference data about awardees is collected and maintained by the reporting Federal agency. To address data quality concerns, some agencies have started to provide awardees with access to their data in order to validate the information prior to submission. However, this had not been done in a standardized way across the Federal Government.

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[7] The FAADS Plus file specification is outlined in previous guidance on FFATA reporting, M-09-19.

2.3.2 Grants Reporting Systems

The systems and systems interfaces depicted in Figure 3 support transparency in grants reporting process. These systems are:

- **FAADS+ Data Submission and Validation Tool (DSVT)** – the DSVT is a module of USASpending.gov that collects FFATA required data elements related to Federal assistance

- **USASpending.gov** –responsible for collecting and displaying data required under FFATA

- **Dun & Bradstreet (D&B)** – responsible for maintaining unique identifiers (D-U-N-S Number) and organizational linkages on behalf of the Federal Government for business entities that receive Federal assistance

- **Central Contractor Registration (CCR)** – governmentwide registration system for entities that do business with the Federal Government. CCR stores information about awardees including financial account information for payment purposes and a link to D&B for maintaining current D-U-N-S information

- **FederalReporting.gov** –the collection mechanism for data required under the Recovery Act
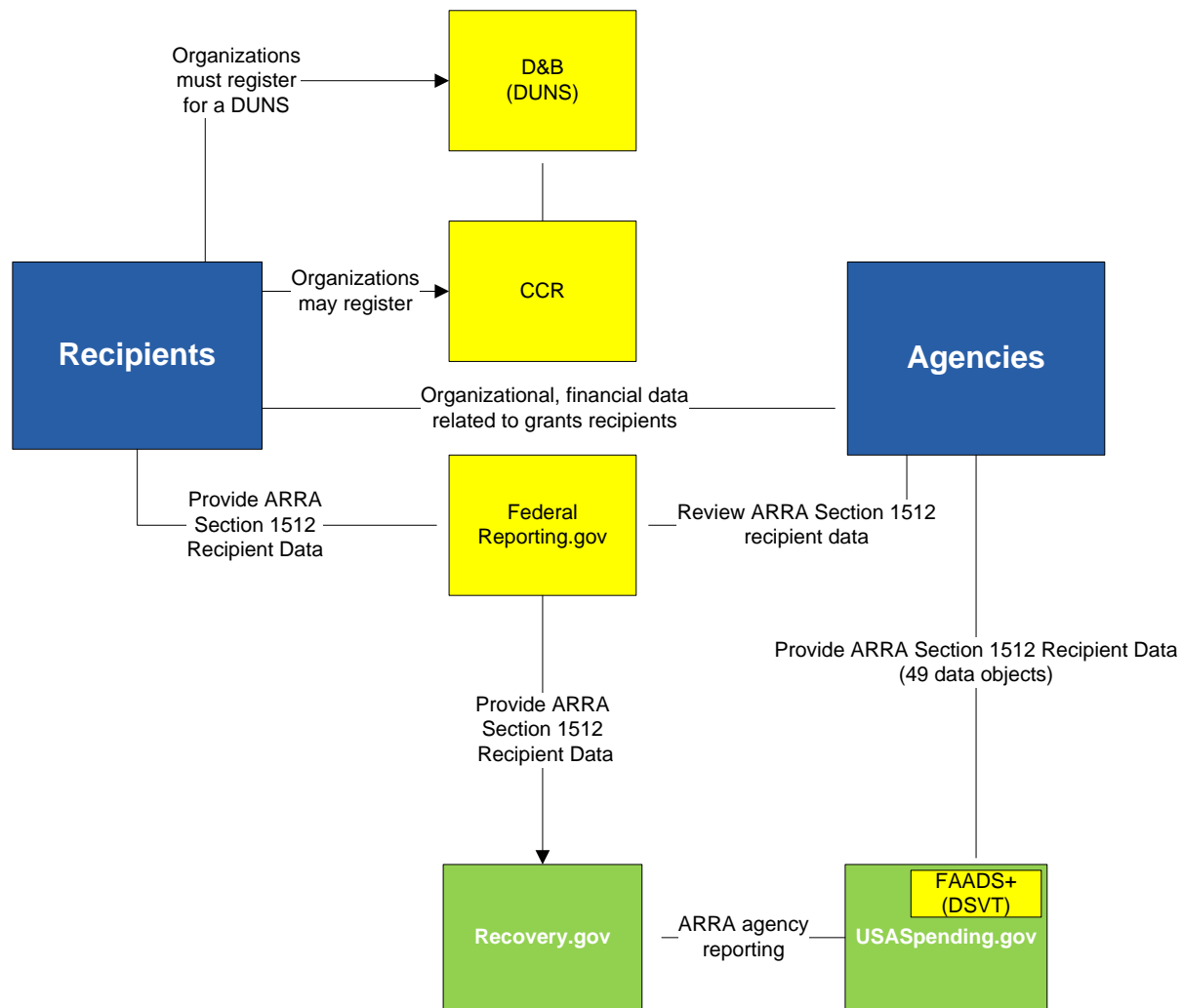
Figure 3: Current Grants Reporting Systems

2.4   Current Contracts Reporting

Figure 4 provides a high-level overview of transparency in contracts process. Contracting offices solicit offers from vendors, in certain cases by posting a notice on FedBizOpps.gov. Offers are evaluated, and a contract is awarded.The diagrams and the sections that follow describe a generic contract with the Federal Government, and are meant to provide general insight into the complexity of the contracting process rather than exhaustively detailing every possible contract path.
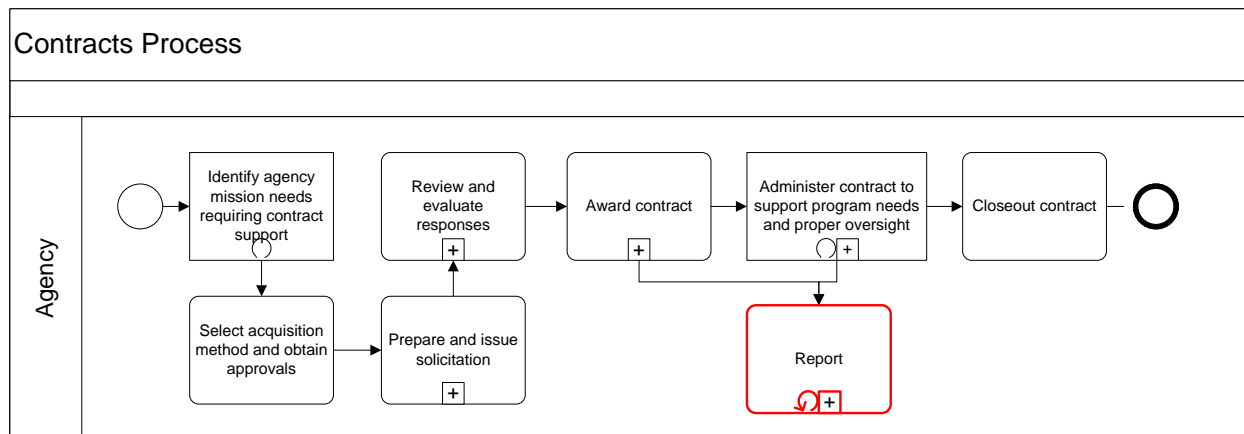
Figure 4: Contracts Process Overview

Similar to the grants process, any organization or business applying for federal procurement opportunities must first register with D&B to receive a D-U-N-S Number if the potential vendor does not already have a valid D-U-N-S Number. After receiving a D-U-N-S Number, the business entity must then register with the Central Contractor Registration (CCR) system.

The discussion below focuses on reporting activities (red box in Figure 4) directly related to current transparency reporting requirements for contracts.

2.4.1 Current Process for Reporting on Contracts

Federal agencies are required to report contract award data to FPDS to comply with Federal Acquisition Regulation Subpart 4.6 Contract Reporting. Data collected at FPDS is used to report to USASpending.gov to satisfy FFATA requirements for contracts. FPDS also provides data about contracts using Recovery Act funds to Recovery.gov. Initial reporting is triggered at the time of award, and any additional modifications to the original contract during the contract administration period must also be reported.

Many agencies have linked their contract writing systems (CWS) to FPDS, which allows for pre-population of some of the required FPDS data and keeps agency contract information tightly synchronized. Alternately, agencies that have not linked their CWS to FPDS, or do not have a CWS, can enter FPDS directly from the web and enter all of the required data manually.

The following diagram, Figure 5, shows the basic process flow for contracts reporting.
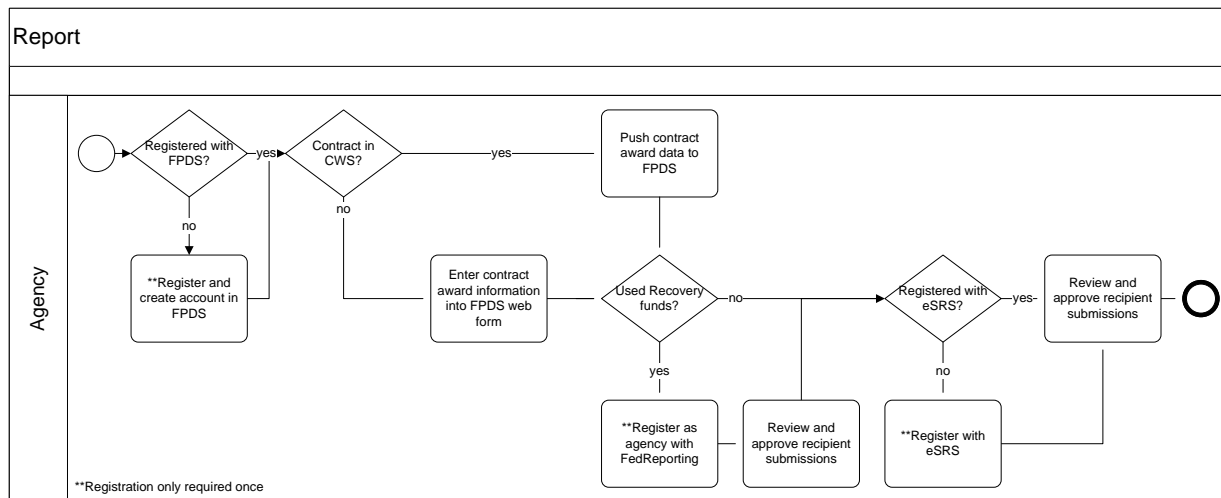
Figure 5: Reporting on Contracts

Contract reporting for public use has three major variations: (1) operational reporting to FPDS, (2) Recovery Act reporting, and (3) FFATA reporting. Each of these is described in more detail below.

2.4.1.1 Operational Reporting for Contracts

Upon award, agencies are required to report contract award information to FPDS as described above. FAR Subpart 4.6 requires the transmission of procurement information to the FPDS for all transactions over $3000. This may be accomplished through contract writing systems, manual data entry, or a combination of both. Agencies are required to certify the accuracy of data on an annual basis to OMB[8]. Reporting requirements include all of the data elements currently required under FFATA for federal contracts.

2.4.1.2 Recovery Act Awardee Reporting on Contracts

The process for Recovery Act Awardee Reporting for contracts is similar to that for grants reporting. Awardees of Recovery Act funds are required to report Recovery-related information on a quarterly basis. Awardees are given three weeks to provide their information to the agency, and agencies are then given one week to review and validate it. A recently revised FAR clause requires contractors to report by the 10th of the month[9]. Once this review is completed, the data are made public on Recovery.gov.

2.4.1.3 FFATA Reporting on Contracts

The FFATA Reporting process for contracts is similar to that for reporting on grants, with additional requirements from the FAR. On July 8, 2010, a FAR interim rule[10] with request for comments was

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[8] OMB guidance on FPDS Data Quality reporting for FY 2009 and FY 2010 can be accessed at:
http://www.whitehouse.gov/omb/assets/procurement_memo/data_quality_guidance_100709.pdf
[9] Federal Acquisition Regulation (FAR) 52.204-11
[10] Federal Acquisition Circular (FAC) 2005–44: http://edocket.access.gpo.gov/2010/pdf/2010-16691.pdf

published in the Federal Register titled "Reporting Executive Compensation and First-Tier Subcontractor Award Information." FAR Clause 52.204-10 details the complete requirements for prime contractors under the rule and requires that the FAR clause be included in all new contracts.

The FAR interim rule specifies the reporting requirements for prime recipients related to executive compensation and first-tier subcontract awards. It also requires prime recipients to report executive compensation and sub contract award data in a phased approach, beginning with contracts with a value of $20 million or greater. Executive compensation for prime recipients will be reported to CCR with information on subcontractors reported to FSRS. The phased approach also stipulates that prime recipients will be required to report information by the end of the month following the month of award.
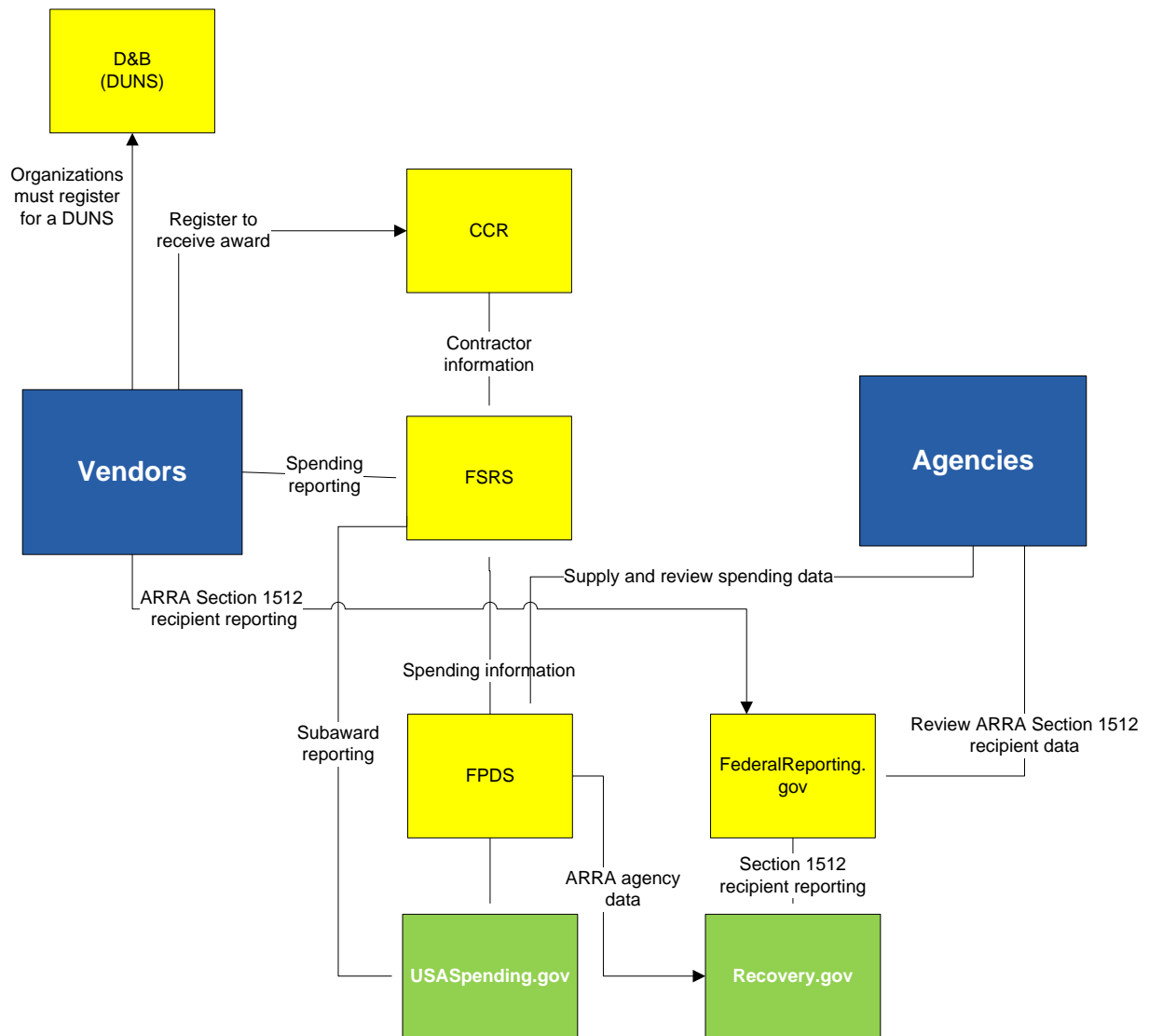
2.4.2   Contracts Reporting Systems

The systems which support contracts reporting include:

- **Federal Procurement Data System (FPDS)** – collection of procurement award information

- **Central Contractor Registration (CCR)** – governmentwide registration system for entities that do business with the Federal Government, which stores information about recipients, including financial account information for payment purposes and a link to D&B for maintaining current D-U-N-S information

- **USASpending.gov** –responsible for collecting and displaying data required under FFATA

- **Dun & Bradstreet (D&B)** – responsible for maintaining unique identifiers (D-U-N-S Number) and organizational linkages on behalf of the Federal Government for business entities that receive Federal assistance

- **FFATA Subaward Reporting System (FSRS)** – tool for collecting information about subcontracting plans

Figure 6 shows the current interfaces between the systems supporting contracts reporting.

Figure 6: Current Contracts Reporting Systems

3 Current State Issues and Opportunities for Improvement

Efforts are underway to streamline and integrate governmentwide systems that support Federal spending transparency, starting with the Awardee Reporting Architecture for subaward and executive compensation reporting. The Awardee Reporting Architecture takes advantage of opportunities to improve on the timeliness and quality of data, minimize duplicative technology, and reduce burdens on the reporting entities and Federal employees. These opportunities have been addressed by:

- Developing a reporting system, the FFATA Subaward Reporting System (FSRS), that uses a common platform for both contracts and grants reporting of subaward and executive compensation data;

- Requiring, pursuant to FFATA , timely reports of subawards and associated information; and

- Pre-populating data elements with primary source data to the maximum extent possible.

3.1 Target Architecture Development

The Federal Spending Solution Architecture (FSSA), of which the Awardee Reporting Architecture is the first phase, is being developed based on the premise that transparency can be best accomplished with input from key stakeholder communities both inside and outside of Government. This includes the development of common cross-agency, and cross-community, technical and data standards, and the utilization of reference architectures and open source-based reference implementations that yield value to all stakeholders.

3.2 Awardee Reporting Architecture Design Goals

The Awardee Reporting Architecture will support three priority goals:

1. Improving Data Quality
2. Improving Data Timeliness
3. Providing one publicly accessible website to view Federal financial spending, including required first-tier subaward and executive compensation data for Federal grants and contracts

In order to achieve those goals, the Awardee Reporting Architecture employs the following design principles:

- *Simplicity*

  The target state will make use of the fewest systems necessary in order to eliminate duplication of data and functionality. It will also utilize best practices in information sharing, and minimize the number of point-to-point interfaces.

- *Separating data, workflow, and user interface*

  Separating the underlying data from business workflows will allow different spending areas to follow their own processes while still sharing the same underlying data. Where business processes are

similar, the different domains can also share functionality. This is a modern design pattern, commonly referred to as n-tier or multi-tier architecture.

- *Loose Coupling Between Systems*

  Interfaces and feeds will be designed with the understanding that the source and target systems will not necessarily evolve in lockstep. Information exchanges will take place using open standards that include meta-data and version information. Evolving interface schemas will be designed with backward compatibility when possible, and will use multiple simultaneous versions of the schema when not.

- *REST / Web-Oriented Architecture (WOA)*

  Documents and data will be treated as web resources, accessible via Uniform Resource Identifiers (URIs) in standard representation formats. Application functionality will be implemented as services that enable the accessibility and management of these resources using the uniform interface provided by the HTTP standard.

- *Feeds*

  Whenever data is exchanged that can be shared publicly, data feeds should be used wherever possible to integrate systems and provide that data to public-facing channels for reporting, aggregation, analysis and dashboarding.

3.3 Timeliness and Data Quality

Current reporting under FFATA and ARRA requires submission of data at different intervals and frequencies. In the case of Section 1512 Recipient reporting to FederalReporting.gov, there are strictly defined windows of reporting, reviewing, and posting. These windows of time are designed to ensure that the data being displayed is accurate, but they also result in significant delays between Federal spending and reporting through the public portals.

In the implementation of FFATA subaward and executive compensation reporting, the prime awardee must report information related to a subaward on a rolling basis as awards are made. This will enhance transparency by providing more timely and accurate data to the public on subawardee and executive compensation information. This removes some of the delays by streamlining the overhead needed to make data available.

Following the premise on the principle that data quality is highest when collected from the source, and leveraging reference data sources, this reporting system uses information already collected by the Federal Government from prime awardees themselves to pre-populate information in FSRS. This will enable prime awardees to locate the contracts and grants required for reporting without the duplicative burden of these entities providing the same information to the Federal Government multiple times.

3.4   Multiple Registration and Streamlined Registration Process

To comply with subaward and executive compensation reporting under FFATA, users will be required to access FSRS for both subcontracts and grants subaward reporting. Requiring two different logins can be very burdensome and time-consuming. The Awardee Reporting Architecture seeks to minimize this burden by allowing for use of a single log-in ID, to the greatest extent possible. Further, entity identifying information will be pre-populated into FSRS to minimize burden associated with the registration process.

3.5   Separate Data and Processes

Another major roadblock to transparency in the current state is the isolation of similar data and processes related to Federal spending. The level of unity among the systems supporting Federal spending challenges transparency by creating a situation where various functional domains within the Government use different and sometimes incompatible technologies for reporting on contracts, grants, and other forms of Federal spending. The Awardee Reporting Architecture addresses this by utilizing the FFATA Subaward Reporting System ("FSRS") as the common platform for reporting subaward and executive compensation data for both Federal contracts and grants.

The following section provides additional details on how FSRS and other existing data collection systems will support subaward and executive compensation reporting.

4 Awardee Reporting Solution Architecture

4.1 Introduction

The Awardee Reporting Architecture has two specific goals: to provide the capability to track contracts and grants at the first-tier subawardee level, and to provide the capability to view compensation of the five highest-paid employees of entities that meet the requirements for reporting compensation. The scope of the Awardee Reporting Architecture is the reporting for Federal grants and contracts to the first-tier subawardee level.

The Awardee Reporting Architecture drives Federal spending transparency forward in the near-term by:

- **Minimizing costs** (initial implementation, yearly operations, and help desk costs)

- **Maximizing capabilities** (providing timely and accurate data on subawards)

- **Reducing risks** (alignment with future architecture, ability to execute in a timely fashion, ability to scale, and technical maturity and flexibility)

The longer-term FSSA target architecture will build on the Awardee Reporting Architecture by:

- **Rationalizing Systems** (minimization of redundancies)

- **Minimizing Reporting Burdens** (ease of use for users, ease of migration to solution)

4.2 Solution Attributes

The Awardee Reporting Architecture leverages eSRS, an existing tool for collecting information about subcontracting plans, to handle grants and contracts reporting for prime awards and subawards. The resulting system is called the FFATA Subaward Reporting System (FSRS), which can be accessed at http://www.fsrs.gov. FSRS will serve as the collection tool for subaward data for Federal grants and contracts, which will ultimately be transmitted for publication and display on USASpending.gov.

The following sections describe the target solution and its processes.

4.2.1 Achieving a Single System through FSRS

The most efficient and effective approach for meeting the October 1, 2010 deadline[11] for subaward reporting is a modification of FSRS to handle grant sub-reporting. The current release of FSRS has already been modified to handle the FFATA requirements for contract subawardee reporting, and OMB will also leverage FSRS as the platform for grant awardee reporting.

Successful modification of FSRS to support grant sub-reporting will provide a unified platform, with a single help desk, which will have sole responsibility for providing subaward data to USASpending.gov. Additionally, in order to achieve greater efficiency and ease-of-use, the solution will pre-populate data through FPDS, CCR, and FAADS+. All prime grantees will be required to maintain an active registration in CCR, if they are not already in the CCR system.

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[11]*See* Open Government Directive, December 2009; OMB Memorandum from 6 April 2010 at 6.

Prime grantees reporting in FederalReporting.gov will not be required to also report the information in FSRS for Recovery-related data. This is not the case for prime contractors; they will be required to report in both systems.

4.2.2 Subaward Reporting

One of the major changes that will be incorporated into the Awardee Reporting Architecture for USASpending.gov is the addition of a capability for reporting on first-tier subawards. Users of the site will be able to view the amount of money awarded to each awardee and subawardee of Federal funds. In addition, summary information will be aggregated to highlight the total value of all prime awards and subawards given to a particular entity. Figure 7 gives an example representation of what this capability would look like from a user's perspective.
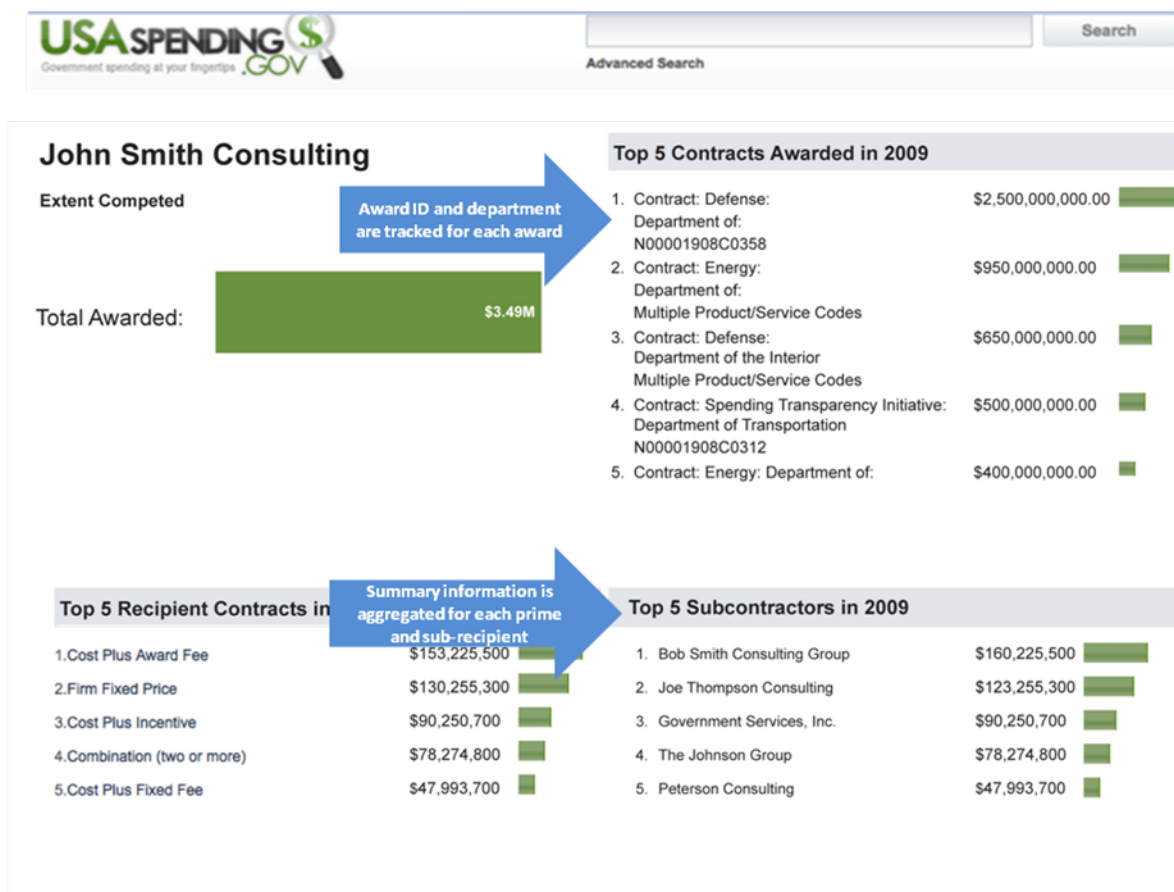

Figure 7: Example of a Subaward Data View

Further, for grantees in receipt of grant funds through the Recovery Act will not be required to report again in FSRS.

4.2.3 Executive Compensation

Another major change that will be incorporated into the Awardee Reporting Architecture for USASpending.gov is a capability for ascertaining, in accordance with FFATA requirements,[12] the compensation of the five highest-paid employees of entities doing a significant amount of business with the Federal Government. Figure 8 provides an example representation of what this function might look like from a user's perspective.

Figure 8: Example of Executive Compensation View

Further, for grantees in receipt of grant funds through the Recovery Act will not be required to report again in FSRS.

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[12] If an awardee or subawardee certifies that they receive less than 80% of annual gross revenues from the federal government, receive less than $25M of their annual gross revenues from the federal government, or already provide executive compensation to the Securities Exchange Commission, this data is not required to be submitted under FFATA.

4.3 System Interactions

As noted earlier, there is a high degree of similarity among data collected for grants and data collected for contracts. USASpending.gov currently collects 49 element for assistance and 192 elements for procurement. Of the 49 elements for assistance, 34 align with elements in procurement with only small differences in terminology.

Examples of this overlap are demonstrated in Table 1. "Grantee Information" describes a set of data elements that include recipient name, recipient address, and recipient D-U-N-S Number, among others. "Contractor Information" similarly includes data elements such as contractor name, contractor address, contractor D-U-N-S Number and others.

Grants Data Element	Related Contracts Data Element
Grantee Information	Contractor Information
Project and Award Info	Purchaser Info, Contract Info
Action	Amounts, Contract Info, Record Info
Principal Place	Principal Place of Performance

Table 1: Data Element Mapping

Figure 9 depicts the solution architecture, specifically for subaward and executive compensation reporting, in terms of the interactions among component systems. FSRS is the focal point for grants and contracts subaward reporting, with pre-population from FPDS, DSVT, and CCR. Pre-population will have a significant positive impact on the user experience, and will improve data quality. For the near-term solution, other systems involved with the grants or contracts processes will continue to function as they do today with the exception of the interactions described in this diagram and subsequent text.
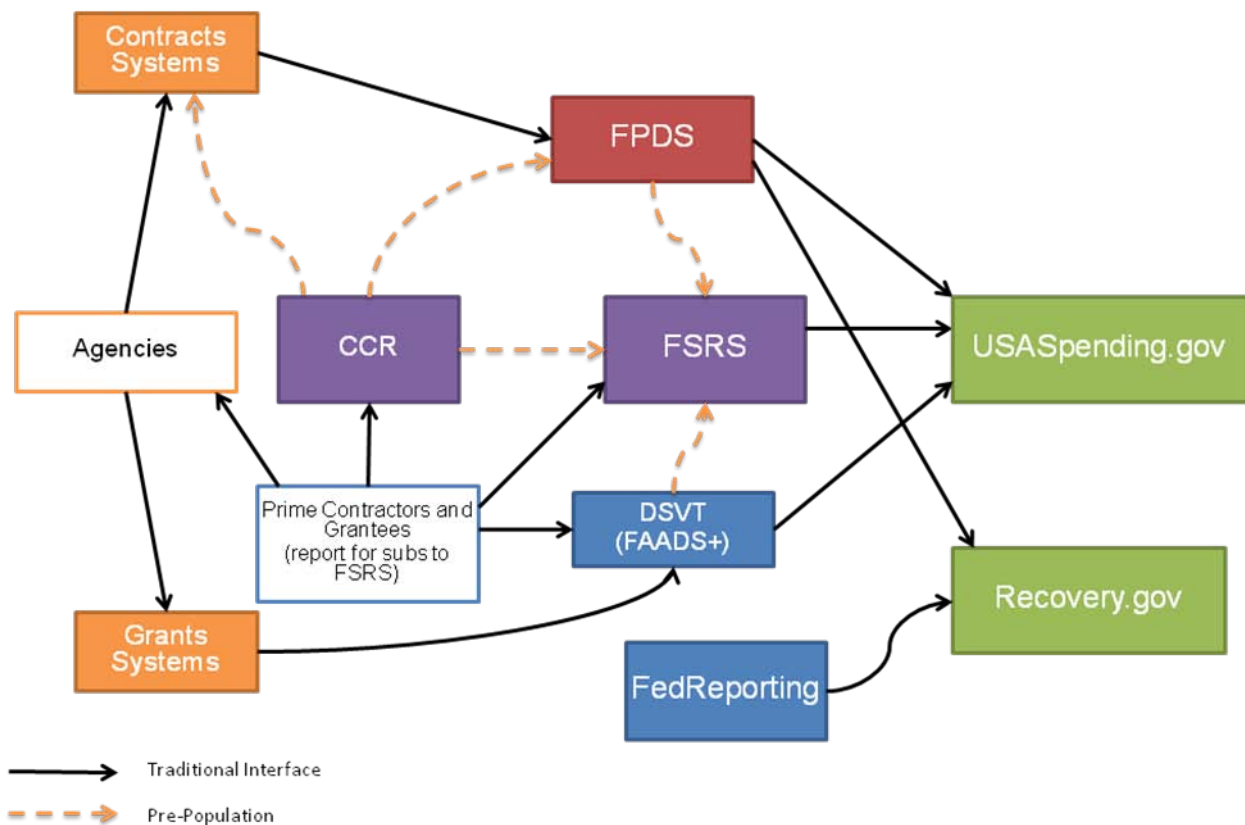
Figure 9: Awardee Reporting Architecture System Interface Diagram

4.3.1 Contracts Pre-population

The relationship between FPDS and FSRS is critical for contracts reporting. FPDS, which is the primary reporting tool for Federal contracts, maintains interfaces with agencies' contract writing systems (CWS) as well as other Integrated Acquisition Environment (IAE) systems and USASpending.gov. These interfaces allow the updating of detailed contract and contractor information on an almost real-time basis when a contract is made or modified. A 2008 memo from the Office of Federal Procurement Policy (OFPP) mandated that agency heads be required to certify data accuracy, and that a third-party validation and verification process be instituted. The OFPP's ongoing efforts have achieved some success in building additional confidence in the data stored in FPDS, with the recognition that continuous improvements are needed.

In addition to collecting data, FPDS publishes data using Atom feeds and other reporting mechanisms and allows for various reports for differing user communities. Because this data is published using open standards, FSRS and USASpending.gov are both able to retrieve and report the data on a real-time basis.

4.3.2 Grants Pre-population

For the near-term target state, a process similar to that of contracts pre-population will be adopted for grants. Currently, agencies awarding grants are required to report information by uploading files using the FAADS Plus file specification to USASpending.gov. The files are then received and validated by the USASpending.gov DSVT module.

Awardees report Recovery Act funds through Excel files or XML files to FederalReporting.gov. There is no pre-population of data. Awardees' reports may differ from the data stored by Federal agencies and by USASpending.gov.

In the Awardee Reporting Architecture, FSRS will be designed to pre-populate data from USASpending.gov. USASpending.gov will be leveraged for this purpose because it is currently the most accessible source of grants award data.

4.3.3 Registration

All prime grantees and contractors are currently required to register with D&B, at a minimum, and this will continue to be leveraged for the Awardee Reporting Architecture. Additionally, prime awardees (both grantees and contractors) will be required to register with CCR, and the new FSRS solution will maintain a connection with CCR for the purposes of pre-populating organization information. The current FSRS solution also maintains a connection with D&B to validate D-U-N-S related information.

4.3.4 Recovery.gov

As described previously, grantees will not have to report in both FederalReporting.gov and FSRS for Recovery data. USASpending.gov proposes to connect with Recovery.gov to gather the grants-related Recovery data.

4.4 Processes

The process for reporting is described here from both an awardee perspective and from an agency's perspective to highlight what changes will be experienced in the near-term target state.

4.4.1   Awardees

The biggest impact on awardees will be in reporting award information. Awardees will be required to register with FSRS. For users accustomed to FederalReporting.gov, FSRS will have certain differences, including the use of a web interface for data collection. FSRS will conduct outreach and training to help ease the transition for awardees.

Prime awardees can register with FSRS to create and view reports where prime awardees are the responsible parties in reporting subaward information. During registration, an awardee's data will be pre-populated with information from CCR if a CCR record exists for the recipient. After creating an account and logging into the system, awardees will have access to a "MyFSRS" page with a set of actions available to them. This customized page will give awardees the ability to file multiple reports, access and update previously initiated reports, view approved reports, and create batch uploads.

The batch upload option will be particularly useful for grantees who prefer the use of Microsoft Excel for reporting. The FSRS solution will provide a downloadable template that can be filled out and submitted online. This template will be available as a Comma Separated Values (CSV) file, and must be submitted in the format provided by FSRS. Reporting may also provide for other types of batch uploading capabilities, including XML formats.

To initiate a new report, prime awardees will provide a basic set of data about the contract or grant being reported. Users will be able to find the appropriate award by using a variety of potential identifiers, possibly in combination. These identifiers include, but are not limited to, award ID, award amount, awarding agency, or program number. The report template and screens will guide the user through the process. Throughout the reporting process, recipients can save their progress and return at a later time to complete the reporting.

An additional requirement of FFATA is to capture the top five highly-compensated officials of the organization, if circumstances described in Section 1.1.1 are met. For organizations registered in CCR, this information can be entered into CCR and then pre-populated into FSRS. Alternatively, for those not using CCR, FSRS will provide fields for capturing this data.
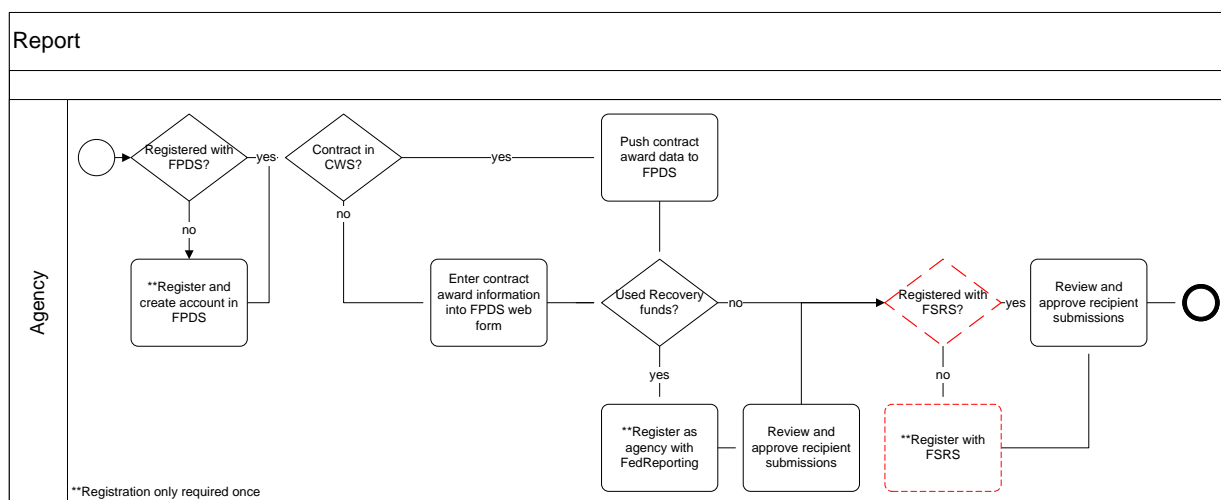
4.4.2   Agencies

In the near-term target state, agencies reporting contracts information will follow a process very similar to the one in place today. Contract information will be provided to FPDS, and this data will be used to pre-populate information for recipients. Agency users will login to FSRS to review recipient reports. USASpending.gov will leverage a new interface to FSRS to retrieve data.

The key difference will be the collection of additional data elements specified in the FFATA legislation and guidance, such as the executive compensation and subaward data. Figure 10 shows how the process will change for agencies reporting about grants information. The red box indicates a change from the current process.
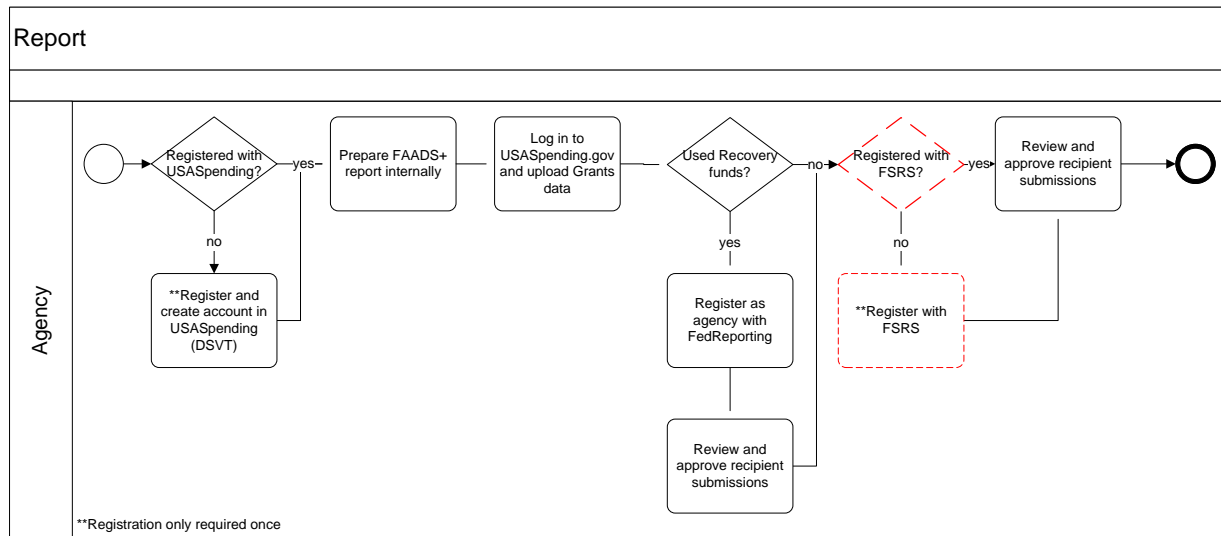
Figure 10: Near-Term Target Reporting Process for Grants

Figure 11 depicts the process flow for agency reporting for acquisitions.

Figure 11: Near-Term Target Reporting Process for Contracts

As shown in Figure 9 in the previous section, agencies reporting on grants awards may collect information directly from grantees and provide information to USASpending.gov through DSVT. For the near-term, these processes will continue. However, once the data is available in USASpending.gov, it will also be available to pre-populate FSRS reports. This will allow agencies to respond to reports more quickly, and consequently improve the quality of data.

Because there is a difference in both the data collected and the terminology used in contracts and grants, the FSRS solution will present customized subaward reporting templates to support the business process for each community.

5 Conclusions

Federal spending transparency is a crucial component of open government. The Awardee Reporting Architecture will bring USASpending.gov more fully into compliance with FFATA and other relevant spending transparency mandates from OMB. It will allow the public to use new and exciting capabilities such as discovering the first-tier subawards of Federal grants, and viewing the salaries of the five highest-paid executives at entities conducting significant business with the Federal Government.

The Awardee Reporting Architecture will also drive efficiency by consolidating grant and contract sub-reporting into a coherent, unified, and integrated system through modification of FSRS. It will thus be a far more important development than a simple compliance exercise, and will effectively align USASpending.gov with the future target architecture and help position it for sustainable long-term development and growth. In this manner, the Awardee Reporting Architecture provides the first step towards the longer-term solution of the FSSA.
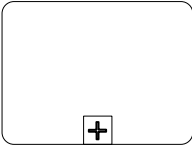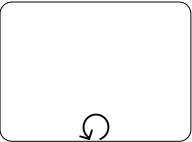
Appendix A – Acronym List
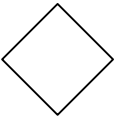
ARRA – The American Recovery and Reinvestment Act (Recovery Act)
BPN – Business Partner Network
CCR – Central Contractor Registration
CFDA – Catalog of Federal Domestic Assistance
CSV- Comma Separated Values
CWS – Contract Writing System
D&B – Dun and Bradstreet
DSVT - Data Submission and Validation Tool
DUNS – Data Universal Numbering System
eSRS - Electronic Subcontracting Reporting System
FAC – Federal Acquisition Circular
FAR – Federal Acquisition Regulations
FBO – Federal Business Opportunities/FedBizOpps
FFATA – Federal Funding Accountability and Transparency Act of 2006
FPDS – Federal Procurement Data System
FSRS - FFATA Subaward Reporting System
GSA – General Services Administration
HTTP – Hypertext Transfer Protocol
IAE - Integrated Acquisition Environment
NAICS – North American Industry Classification System
OFPP – Office of Federal Procurement Policy
OMB – Office of Management and Budget
URI – Uniform Resource Identifier
WDOL - Wage Determinations Online
WOA – Web Oriented Architecture
XML – eXtensible Markup Language

Appendix B – BPMN Legend

The Business Process Modeling Notation (BPMN) is a graphical notation that depicts the steps in a business process. BPMN depicts the end to end flow of a business process. The notation has been specifically designed to coordinate the sequence of processes and the messages that flow between different process participants in a related set of activities.

The following table explains the BPMN symbols used in the course of this document.

Element	Description	Notation
Task (Atomic)	A Task is an atomic activity that is included within a Process. A Task is used when the work in the Process is not broken down to a finer level of Process Model detail.	
Process/Sub-Process (non-atomic)	A Sub-Process is a compound activity that is included within a Process. It is compound in that it can be broken down into a finer level of detail (a Process) through a set of sub activities.	+
Sequence Flow	A Sequence Flow is used to show the order that activities will be performed in a Process. No name is applied for standard flows.	→

Element	Description	Notation
Activity Looping	The properties of Tasks and Sub-Processes will determine if they are repeated or performed once. There are two types of loops: Standard and Multi-Instance. A small looping indicator will be displayed at the bottom-center of the activity.	
Gateway	A Gateway is used to control the divergence and convergence of Sequence Flow in a Process. Thus, it will determine branching, forking, merging, and joining of paths.	
Pool	A Pool is a graphical container for partitioning the set of activities for one entity from others.	Name
Event	An event is something that "happens" during the course of a business process. These events affect the flow of the process and usually have a cause (trigger) or an impact (result). There are three types of Events, based on when they affect the flow: Start, Intermediate, and End.	Name or Source
Start	As the name implies, the Start Event indicates where a particular process will start.	Start
Intermediate	Intermediate Events occur between a Start Event and an End Event. It will affect the flow of the process, but will not start or (directly) terminate the process.	Intermediate
End	As the name implies, the End Event indicates where a process will end.	End