



Medicaid Management Information System Replacement (MMISR) Project Deliverable - SI12A - Software-as-a-Service (SaaS) Shared Services Designs – Address Standardization and Validation (ASV) and Identity, Credential, and Access Management (ICAM) – Task 3.0 – Define Service Enablement Plan for ASV HSD Deliverable Owner: Paula Morgan Contractor Deliverable Owner: Spruce-KPMG Team Version Number: v3.0

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1.0 Introduction

The New Mexico (NM) Human Services Department (HSD) has adopted the Health and Human Services (HHS) 2020 vision, a transformational, enterprise-wide approach to the HHS business. HHS 2020 will move service delivery from a program-centric approach to a citizen-centric approach. In addition, HSD will migrate away from program and technology silos into an integrated, flexible framework that supports service delivery and stakeholder interaction across HHS programs and organizations. HHS 2020 is technology-enabled, but includes rethinking organizational design, redesigning and streamlining business processes, and reducing barriers between organizations within the HHS enterprise. Please see Section 1: Introduction in Project Management Plan (PMO1) for a detailed Medicaid Management Information System Replacement (MMISR) project overview (link provided in <u>Appendix C</u> Section 13.3 of this document).

The NM HSD selected the Spruce-KPMG Team as its MMISR System Integrator (SI) to assess, evaluate, design, plan, and develop the integration platform for an information system to coordinate functions and operations between multiple agency systems and service modules.

2.0 Purpose

As part of the Spruce-KPMG Team Statement of Work (SOW), the Spruce-KPMG Team is providing Deliverable Number 12A: Software-as-a-Service (SaaS) Shared Services Designs – Address Standardization and Validation (ASV) and Identity, Credential, and Access Management (ICAM) – Task 3.0 – Define Service Enablement Plan for ASV (SI12A). The purpose of this document is to define the service enablement for the KPMG Resource Integration Suite-Connected (KRIS-C) ASV solution. The intended audience for this document includes the HSD-designated reviewers of SI12A – SaaS Shared Services Designs – ASV and ICAM – Task 3.0 – Define Service Enablement Plan for ASV defined in the Resource Needs spreadsheet (link provided in <u>Appendix C</u> Section 11.3 of this document).

3.0 Goal

The goal of the SI12A – SaaS Shared Services Designs – ASV and ICAM – Task 3.0 – Define Service Enablement Plan for ASV is to define the service enablement of the KRIS-C ASV solution to be used by MMISR Modules and Integration Partners, as applicable.

4.0 Scope

Based on the agreed-upon SOW, the scope of the SI12A – SaaS Shared Services Designs – ASV and ICAM – Task 3.0 – Define Service Enablement Plan for ASV deliverable includes:

Task Item	Sub Tasks	Description
3.0 Define Service Enablement Plan for ASV		
	3.1	The Contractor will review with the Procuring Agency the out-of-the-box (OOTB) application programming interfaces (APIs) provided by KRIS-C.
	3.2	The Contractor will conduct alignment sessions to identify functional requirements and configuration needs for:

Table 1 - Deliverable Scope

Task Item	Sub Tasks	Description
		a) Expected use and interaction by internal MMISR modules
		 b) Gap analysis of MMISR requirements against OOTB APIs provided by KRIS- C.
	3.3	Define required authorization requirements to access the ASV service.
	3.4	Publish the Open API specifications for ASV.

5.0 Approach

This deliverable serves to document the APIs for the ASV functionality as defined by the KRIS-C ASV solution. The technical information in the document will rely upon using OpenAPI Specification (OAS) as defined by the KRIS-C solution. Also, the Spruce-KPMG Team conducted ASV requirement review sessions with HSD that identified functionality to support HSD's ASV needs.

6.0 Roles and Responsibilities

The table below lists the roles and responsibilities specific to the creation and review of this deliverable.

Role	Responsibilities
SI Deliverable Team	 Conduct deliverable kickoff Develop Deliverable Expectations Document (DED) and obtain approval following the established review process Perform the scope of work defined in the contract for the deliverable Develop deliverable and coordinate with HSD throughout the established review process to address reviewer feedback
Deliverable Review Team	 Participate in Knowledge Transfer (KT) sessions and provide documentation and related information to SI Deliverable Team Participate in deliverable kickoff and draft assessment walkthroughs Review deliverable in alignment with the Request for Quote (RFQ), proposal, and contract
Enterprise Project Management Office (EPMO)	 Review the deliverable against the "Deliverable Standards Acceptance Criteria" checklist and provide comments, as applicable
Independent Verification and Validation (IV&V)	 Review deliverable in alignment with the RFQ, proposal, and contract
HSD Contract Manager	 Provides notification to the SI Deliverable Team of rejection or approval of the deliverable

Table 2 - Roles and Responsibilities

Role	Responsibilities
	 Coordinates the completion of the Deliverable Approval Signature Form
HSD Project Manager (PM)	Coordinates SME reviews of the deliverable
	 Coordinates the submission and tracking of comments provided by reviewers on the deliverable
	Communicates status of the deliverable to the HSD Contract
	Manager, SI Deliverable Team, Deliverable Review Team,
	EPMO, and IV&V

7.0 Risk Mitigation Methods

To help mitigate risks throughout the deliverable development process, the Spruce-KPMG Team maintained consistent and open communication with HSD key resources. The Spruce-KPMG Team and NM HSD held collaborative ASV requirement validation sessions which assisted with helping to ensure the KRIS-C ASV functionality aligns with expectations. During the ASV implementation process, the Spruce-KPMG Team will continue to collaborate with the NM HSD team to manage implementation processes.

8.0 Assumptions / Constraints / Risks

This section documents any assumptions made, constraints considered, and risks identified that affected the development of the deliverable.

8.1 Assumptions

- The APIs for ASV will be RESTful services and MMISR Modules and Integration Partners should support using RESTful services, as this technology is readily available.
- The APIs will use JavaScript Object Notation (JSON) for the payload and MMISR Modules and Integration Partners should support using JSON payloads, as this technology is readily available.
- At the time of Module and Integration Partner integration, the Spruce-KPMG team will review the ASV API functionality and integration capability with the Module/Integration partner. If any functional or integration updates are identified, the Spruce-KPMG team would follow the HSD Change Control Process outlined in "PMO10 Change Control Management Plan".

8.2 Constraints

• None identified at this time.

8.3 Risks

• If the module or integration partner cannot utilize Out-of-the-Box (OOTB) ASV service capabilities, then there may be module integration timeline impacts based on the scope of the change. The Spruce-KPMG team would follow the HSD Change Control Process outlined in "PMO10 Change Control Management Plan".

9.0 KRIS-C – ASV Open API Specification

This section provides the high-level functional and technical overview of the OOTB APIs provided by the KRIS-C solution and details for use and integration with the ASV API. The technical overview will rely upon the ASV OpenAPI Specification document, and this document will be explained in the technical overview section.

9.1 Functional Overview

The OOTB KRIS-C ASV solution will provide the ability to search and verify one (1) or more United States (US) addresses using a Coding Accuracy Support System (CASS) certified US Postal Service (USPS) vendor, as well as look up and verify city, state, and Zone Improvement Plan (ZIP) code combinations. The certification helps ensure the solution is able to correct and match US street addresses. Address data is updated monthly from the USPS.

ASV APIs can be utilized by MMISR Modules and Integration Partners to cleanse, verify, and standardize their address data in real-time using RESTful service calls. It is designed to overcome a significant degree of variation, fix misspellings and erroneous information, fill in omitted components, and normalize incorrect formatting to support the address standardization and validation. The KRIS-C ASV solution will provide two (2) RESTful APIs to support ASV functions: US Street Address API and US ZIP Code API.

9.1.1 US Street Address API

The US Street Address API will verify one (1) or more, up to ten (10), US-based addresses. To help ensure the best possible matches, the API includes the input fields identified in the table below. The input field column identifies the possible address components, and the description column defines the input fields.

Input Field	Description
Street	The street line of the address, or the entire address ("freeform" input). This
	can include Highway Contract (HC) or Rural Route (RR).
	Freeform input can be up to 100 characters but only the first 50 will be
	considered for the street portion of the address. Freeform inputs should NOT
	include any form of country information (like "USA").
Street 2	Any extra address information.
Secondary	Apartment, suite, or office number (such "Apt 52" or simply "52"; not
	"Apt52".)
City	The city name.
State	The state name or abbreviation.
ZIP Code	The ZIP Code.
Urbanization	The neighborhood (only Puerto Rican addresses).
Candidates	The maximum number of addresses returned when the input is ambiguous.

Each request must have one (1) of the following combinations of input:

• Street, City, State

- Street, ZIP Code
- Street with entire address

If a match or matches, up to ten (10), are found, the following data is returned as identified by the table below. If no matches are found, an empty data set will be returned.

The following two (2) tables includes both the output fields for US street addresses, which incorporates HC and Rural Routes, and the value definitions:

Output Field	Description
Street Name	The name of the street.
Street Pre-direction	Directional information before a street name (such as N or SW).
Street Post-direction	Directional information after a street name (such as N or SW).
Street Suffix	Abbreviated value describing the street (such as St, Ave, or Blvd).
Secondary Number	Apartment or suite number, if any.
Urbanization	The neighborhood, or city subdivision; used with Puerto Rican addresses.
City Name	The USPS preferred city name for this particular address, or an acceptable
	alternate if provided by the user.
State Abbreviation	The two (2) letter state abbreviation.
ZIP Code	The five (5) digit ZIP Code.
Plus 4 Code	The four (4) digit add-on code.
County	The name of the county in which the address is located.
Carrier Route	The postal carrier route for the address. Consists of a one (1) letter prefix
	followed by a three (3) digit route designator (such as C007 or R123).
Latitude	The horizontal component used for geographic positioning; it is the angle
	between 0° (the equator) and $\pm 90^\circ$ (north or south) at the poles measured in
	decimal degrees. It is the first value in an ordered pair of (latitude, longitude).
	A negative number denotes a location south of the equator; a positive
	number is north. Combining latitude/longitude values enables a user to
	pinpoint addresses on a map.
Longitude	The vertical component used for geographic positioning; it is the angle
	between 0° (the Prime Meridian) and $\pm 180^\circ$ (westward or eastward)
	measured in decimal degrees. It is the second number in an ordered pair of
	(latitude, longitude). A negative number indicates a location west of
	Greenwich, England, a positive number east. Combining latitude/longitude
	values enables a user to pinpoint addresses on a map.
Line of Travel	Line of travel four (4) digit sequence number.
DPV Match Code	Status of the Delivery Point Validation (DPV). This indicates whether or not
	the address is present in the USPS data. The following are the possible match
	codes.
	Y — Confirmed; entire address is present in the USPS data. (To be certain the
	address is actually deliverable, verify that the dpv_vacant field has a value of
	N. A user may also want to verify that the dpv_no_stat field has a value of N.
	However, the USPS is often several months behind in updating this data
	point, so only rely on the dpv_no_stat data if the user is fully aware of its
	weaknesses and limitations.)
	(e.g., 1600 Amphitheatre Pkwy Mountain View, CA)

Table 4 - US Street Address Output Fields

Output Field	Description
	N — Not confirmed; address is not present in the USPS data.
	${f S}-{f Confirmed}$ by ignoring secondary info; the main address is present in the
	USPS data, but the submitted secondary information (such as apartment or
	suite) was not recognized (such as 62 Ea Darden Dr Apt 298 Anniston, AL).
	D — Confirmed but missing secondary info; the main address is present in the
	USPS data, but it is missing secondary information (such as apartment or
	suite), for example, 122 Mast Rd Lee, NH.
	[blank or null] — The address is not present in the USPS database.
DPV Footnotes	Information related to the delivery point validation of this address. These
	footnotes have a length of two (2) characters, and there may be up to 14
	footnotes. The following are the DPV Footnotes:
	AA — Street name, city, state, and ZIP are all valid (such as 2335 S State St Ste
	300 Provo UT)
	A1 — Address is invalid (such as 3214 N University Ave New York NY)
	BB — Entire address is valid (such as 2335 S State St Ste 300 Provo UT)
	CC — The submitted secondary information (apartment, suite, etc.) was not
	recognized (such as 2335 S State St Ste 500 Provo UT)
	F1 — Military or diplomatic address (such as Unit 2050 Box 4190 APO AP
	96278)
	G1 — General delivery address (such as General Delivery Provo UT 84601)
	M1 — Primary number (such as house number) is missing (such as N
	University Ave Provo UT)
	M3 — Primary number (such as house number) is invalid (such as 16 N
	University Ave Provo UT)
	N1 — Address is missing secondary information (apartment, suite, etc.)
	(such as 2335 S State St Provo UT)
	PB — Post Office (PO) Box street style address (such as 555 S B King Blvd Unit
	1 Memphis TN 38103)
	P1 — PO, RR, or HC box number is missing. (such as Dept 126 Denver CO
	802910126)
	P3 — PO, RR, or HC box number is invalid (such as PO BOX 60780 FAIRBANKS
	AK 99706)
	RR — Confirmed address with private mailbox (PMB) information (such as
	3214 N University Ave #409 Provo UT)
	R1 — Confirmed address without PMB information (such as 3214 N University
	Ave Provo UT)
	R7 — Confirmed as a valid address that does not currently receive USPS
	street delivery (such as 6D Cruz Bay St John VI 00830)
	U1 — Address has a "unique" ZIP Code (such as 100 North Happy Street
	12345)
DPV Footnotes	The description of the DPV footnotes.
Description	
Footnotes	Indicates which changes were made to the input address. Footnotes are
	delimited by a # character. See below table for details.

Output Field	Description
Footnotes	The description of the footnotes.
Description	

Table 5 - Value Definition and Details

Value	Definition	Details
A#	Corrected ZIP Code	The address was found to have a different five (5)-digit ZIP Code than the one submitted. The correct ZIP Code is shown in the zip code field.
		(such as 4800 Fairmount Ave Kansas City MO 64111)
B#	Corrected city/state spelling	The spelling of the city name and/or state abbreviation in the submitted address was found to be different than the standard spelling. The standard spellings are shown in the city_name and state_abbreviation fields.
C#	Invalid city/state/ZIP	The ZIP Code in the submitted address could not be found because neither a valid city and state, nor valid five (5)-digit ZIP Code was present. Recommend that the user check the accuracy of the submitted address.
		(such as 200 Camp Drive 25816)
D#	No ZIP+4 assigned	This address is not present in the USPS data. Recommend that the user check the accuracy of the submitted address.
		(such as 39 Main Street Roebling NJ 08554)
E#	Same ZIP for	Multiple records were returned, with the same five (5)-digit ZIP Code.
multiple	(such as 1 Rosedale Baltimore MD)	
F#	Address not found	The address, exactly as submitted, could not be found in the city, state, or ZIP Code provided. Either the primary number is missing, the street is missing, or the street is too badly misspelled to understand.
		(such as 2600 Rafe Lane Jackson MS 39201)
G#	Used addressee data	Information in the addressee input field was determined to be part of the address. It was moved out of the addressee field and incorporated into the street field.
		(such as 97 Taylor St apt 3F Taylor Manchester NH)
H#	Missing secondary number	The address as submitted is missing a secondary number (such as apartment or suite). Recommend that the user check the accuracy of the submitted address and add the missing secondary number to help ensure the correct Delivery Point Barcode (DPBC).
		(such as 109 Wimbledon Sq Chesapeake VA 23320)

Value	Definition	Details		
1#	Insufficient/ incorrect address data	More than one ZIP+4 Code was found to satisfy the address as submitted. The submitted address did not contain sufficiently complete or correct data to determine a single ZIP+4 Code. Recommend that the user check the accuracy and completeness of the submitted address. For example, a street may have a similar address at both the north and south ends of the street.		
		(such as 1 Rosedale Baltimore MD 21229)		
J#	Dual address The input contained two (2) addresses. For example: 123 MAIN ST 99.			
		(such as PO Box 38606 30th Street Train Station Philadelphia PA 19104)		
K#	Cardinal rule Although the address as submitted is not valid, the system is able to match by changing the cardinal direction (North, South, East, West) cardinal direction used to find a match is found in the components.			
		(such as 315 W Cesar Chavez St Austin TX)		
L#	Changed address	An address component (such as directional or suffix only) was added, changed, or deleted in order to achieve a match.		
component		(such as 213 S QUANAH RUSSELLVILLE AR 72801)		
LL# or Ll#	Flagged address for LACSLink	The input address matched a record that was Locatable Address Conversion System (LACS)-indicated, that was submitted to LACSLink for processing. This does not mean that the address was converted; it only means that the address was submitted to LACSLink because the input address had the LACS indicator set.		
M#	Corrected street spelling	The spelling of the street name was changed in order to achieve a match. (such as 3308 Fountainview Monsey NY)		
N#	Fixed abbreviations	The delivery address was standardized. For example, if STREET was in the delivery address, it will return ST as its standard spelling.		
		(such as 2438 Brown Avenue Knoxville TN 37917)		
O#	Multiple ZIP+4; lowest used	More than one ZIP+4 Code was found to satisfy the address as submitted. The lowest ZIP+4 add-on may be used to break the tie between the records.		
		(for example RR 2 Box 132 Wolf Summit WV 26426)		
P#	Better address exists	The delivery address is matchable, but it is known by another (preferred) name. For example, in New York, NY, AVENUE OF THE AMERICAS is also known as 6TH AVE. An inquiry using a delivery address of 39 6th Avenue would be flagged with Footnote P.		
		(such as 131 Stone Farm Lebanon NH 03766)		
Q#	Unique ZIP match	The address has a "unique" ZIP Code.		
		(such as 645 Swick Hill Street Charlotte NC 28263)		

Value	Definition	Details	
R#	No match; EWS: Match soon	The delivery address is not yet matchable, but the USPS Early Warning System (EWS) file indicates that a match will be available soon.	
S#	Unrecognized secondary	The secondary information (such as apartment or suite) was not recognized as part of the USPS data.	
	address	(such as 1409 Hueytown Rd Apt 1781 Bessemer AL 35023)	
T#	Multiple response due to magnet street syndrome	The search resulted in a single response; however, the record matched was flagged as having magnet street syndrome, and the input street name components (pre-directional, primary street name, post-directional, and suffix) did not exactly match those of the record. A "magnet street" is one having a primary street name that is also a suffix or directional word, having either a post-directional or a suffix (for example, 2220 PARK MEMPHIS TN logically matches to a ZIP+4 record 2200-2258 PARK AVE MEMPHIS TN 38114-6610), but the input address lacks the suffix "AVE" which is present on the ZIP+4 record. The primary street name "PARK" is a suffix word. The record has either a suffix or a post-directional present. Therefore, in accordance with CASS requirements, a ZIP+4 Code must not be returned. The multiple response return code is given since a "no match" would prevent the best candidate.	
		(such as 84 Green St Northampton MA)	
U#	Unofficial city name	The city name in the submitted address is an alternate city name that is not accepted by the USPS. The preferred city name is output in the city_name field.	
		(such as 9894 Bissonnet St #723 Sharpstown TX 77036)	
V#	Unverifiable city/state	The city and state in the submitted address could not be verified as corresponding to the given five (5)-digit ZIP Code. This comment does not necessarily denote an error; however, recommend that the user check the accuracy of the city and state in the submitted address.	
		(such as 107 Kerwood St Kildeer IL 60067)	
W#	Invalid delivery address	The USPS does not provide street delivery service for this ZIP Code. The USPS requires the use of a PO Box, General Delivery, or Postmaster for delivery within this ZIP Code.	
X#	Unique ZIP	The address has a "unique" ZIP Code.	
	Code	(such as 609 Pheasant Ridge Road Wayne PA 19088)	
Y#	Military	The address has a military or diplomatic ZIP Code.	
	match	(such as PSC 10 Box 1324 APO AE 09142)	
Z#	Matched with ZIPMOVE The ZIPMOVE product shows which ZIP+4 records have moved from one Code to another. If an input address matches a ZIP+4 record which the		

Value	Definition	Details	
		ZIPMOVE product indicates has moved, the search is performed again in the new ZIP Code.	
		(such as 10300 Fm 920, Weatherford TX)	

9.1.2 US ZIP Code API

The US ZIP Code API will look up and verify one (1) or more, up to ten (10), city, state, and ZIP Code combinations. The below table identifies the input for the API:

Table 6 - US ZIP Input Field

Input Field	Description
City	The city name.
State	The state name or abbreviation.
ZIP Code	The ZIP Code.

Each request must have one of the following input combinations:

- City, State
- ZIP Code
- City, State, ZIP Code

If any matches are found, then the following data will be returned described in the table:

Table 7 - US ZIP Output Field

Output Field	Description
City	The name of the city.
State	The state name.
State abbreviation	The official, two (2) letter state abbreviation.
Mailable City	A Boolean value indicating whether or not the city name is an approved USPS mailing name.
ZIP Code	The five (5)-digit ZIP Code.
ZIP Code Type	Indicates the type of the ZIP Code for the address that was matched. Only given if a five (5)-digit match is made.
Default City	A string containing the default city name for this ZIP Code.
County FIPS	The county Federal Information Processing System (FIPS) code.
County Name	The county name listed here pertains to the five (5)-digit ZIP Code, not necessarily the city.

Output Field	Description
State	The state name.
Latitude	The approximate latitude geo-coordinate.
Longitude	The approximate longitude geo-coordinate.
Alternate Counties	The county names, state abbreviations, and states that share the same ZIP Code.

If there are no matches, then a status and reason will be returned. The following table describes the statuses and reasons:

Status	Reason
Blank	Blank lookup (user must provide a ZIP Code and/or City/State combination).
invalid_state	Invalid State name or abbreviation.
invalid_city	Invalid City for the given State.
invalid_zipcode	Invalid ZIP Code.
conflict	Conflicting ZIP Code/City/State information.

Table 8 - US Zip Statuses

9.2 Technical Overview

The Spruce-KPMG Team will rely upon OpenAPI Specification (OAS) version 3.0.3 to define the synchronous RESTful API interfaces. These specifications allow the discovery and understanding of the capabilities of the services to consumers. An OpenAPI document will be created according to the OAS in the YAML Ain't Markup Language (YAML) format, and this document will allow:

- consumers to view the RESTful service the includes request elements, response elements, and return codes which includes errors;
- generate supporting client code;
- implement the service client code;
- test, and other functions.

The ASV APIs are defined by OAS version 3.0.3 which is linked in <u>Appendix C: Referenced Documents</u>.

Lastly, the services will be versioned to provide backward capability for modules/partners.

10.0 KRIS-C API – Functional Requirements and Configuration Parameters

The services require informational data elements within the request payload. These data elements are needed to identify who is calling the service, what integration is being used, and the application that is using the service. These data elements will be within the requestHeader node and are identified in the OAS which is linked in <u>Appendix C: Referenced Documents</u>.

11.0 KRIS-C API – Authorization Requirements

The RESTful APIs will use Open Authorization (OAuth) identification (ID) authentication and authorization implementation from the SIP ASV implementation.

12.0 NM HSD – OpenAPI Specification

At the time of module/partner integration, a review with the module contractor or partner will occur for authorization configuration. The configuration will also include access to the API developer portal where the module contractors or partners have access to the OpenAPI specification and testing capabilities.

13.0 Appendices

13.1 Appendix A: Deliverable Record of Changes

The deliverable will include a record of changes in the following form:

Version Number	Date	Author/Owner	Description of Change
0.1	7/15/2022	Spruce-KPMG	The initial draft of the deliverable
		Team	
1.0	7/22/2022	Spruce-KPMG	Initial draft submitted to NM
		Team	Deliverable Review Team
2.0	8/12/2022	Spruce-KPMG	Final draft submitted to NM
		Team	Deliverable Review Team
3.0	9/6/2022	Spruce-KPMG	Updates made to the final draft to
		Team	incorporate feedback

Table 9 - Deliverable Record of Changes

13.2 Appendix B: List of Acronyms

A list of project-specific acronyms will be maintained on the MMISR SharePoint site.

Table 10 - List of Acronyms

Acronym	Definition
API	Application Programming Interface
ASV	Address Standardization and Validation
CASS	Coding Accuracy Support System
DED	Deliverable Expectations Document
DPBC	Delivery Point Barcode
DPV	Delivery Point Validation
EPMO	Enterprise Project Management Office
EWS	Early Warning System
FIPS	Federal Information Processing System
НС	Highway Contract

Acronym	Definition
HHS	Health and Human Services
HSD	Human Services Department
ID	Identification
IV&V	Independent Verification and Validation
JSON	JavaScript Object Notation
KRIS-C	KPMG Resource Integration Suite - Connected
КТ	Knowledge Transfer
MMISR	Medicaid Management Information System Replacement
NM	New Mexico
OAS	OpenAPI Specification
OAuth	Open Authorization
ООТВ	Out-of-the-box
PM	Project Manager
PMB	Private Mailbox
PO	Post Office
REST	Representational State Transfer
RFQ	Request for Quote
RR	Rural Route
SaaS	Software-as-a-Service
SI	System Integrator
SIP	System Integration Platform
SOW	Statement of Work
ST	Street
US	United States
USPS	United States Postal Services
YAML	YAML Ain't Markup Language
ZIP	Zone Improvement Plan

13.3 Appendix C: Referenced Documents

Upon contract award, the selected vendor will be provided access to additional information, as needed.

13.4 Appendix D: Requirements

			Approval	Document
Item Type	Name	Description	Status	Location
SI Business	BR-ASV-001-	The Address	Approved	Section 9.1
Requirement	Service_Enablement-	Standardization and		
	Certified product	Validation (ASV)		
		solution shall leverage		
		a Coding Accuracy		
		Support System (CASS)		
		certified COTS product.		

		_	Approval	Document
Item Type	Name	Description	Status	Location
SI Functional Requirement	FR-ASV-001.01- Service_Enablement- Validate Addresses	The ASV solution shall standardize and validate up to ten (10) addresses	Approved	Section 9.1.1
SI Functional Requirement	FR-ASV-001.03- Service_Enablement- Invoke Service	The ASV service will treat Address Line 1 and either a City or a Zip Code as required input fields to invoke the address validation service.	Approved	Section 9.1.1
SI Functional Requirement	FR-ASV-001.04- Service_Enablement- Maximum Records	The ASV service can return a maximum of ten (10) records that match the input criteria.	Approved	Section 9.1.1
SI Functional Requirement	FR-ASV-001.06- Service Enablement- Geocoding	The ASV service shall provide geocode capabilities.	Approved	Section 9.1.1
SI Functional Requirement	FR-ASV-001.07- Service_Enablement- Input Fields	The ASV service will use the following data fields as inputs to the application. Street and Street 2, Secondary, City, State and Zip Code. The optional input fields include Street 2, Secondary, and State.	Approved	Section 9.1.1
SI Functional Requirement	FR-ASV-001.08- Service_Enablement- Error Handling	If the ASV service encounters an error for real-time calls, the service will return an appropriate error code(s) to the requestor.	Approved	Section 9.1.1
SI Functional Requirement	FR-ASV-001.12- Service_Enablement- Error Message	If the ASV service fails, the service returns a user-friendly, human readable and 508 compliant error message to the requestor.	Approved	Section 9.1.1

			Approval	Document
Item Type	Name	Description	Status	Location
SI Functional	FR-ASV-001.13-	For real time calls	Approved	Section 9.1.2
Requirement	Service_Enablement-	involving US addresses,		
	Function for	the ASV service will		
	City/County	allow access to the		
		capability that returns		
		matching City and		
		County results for a		
		particular Zip Code		
		back to the requestor		
		in real-time mode.		
SI Functional	FR-ASV-001.14-	For real time calls	Approved	Section 9.1.2
Requirement	Service_Enablement-	involving US addresses,		
	Function for	the ASV service will		
	City/State	allow access to the		
		capability that returns		
		matching City and		
		State results for a		
		particular Zip Code		
		back to the requestor.		
SI Functional	FR-ASV-001.15-	For real time calls	Approved	Section 9.1.2
Requirement	Service_Enablement-	involving US addresses,		
	Function for	the ASV service will		
	State/County	allow access to the		
		capability that returns		
		matching State and		
		County results for a		
		particular State		
		abbreviation back to		
		the requestor.		
SI Functional	FR-ASV-001.16-	For real time calls	Approved	Section 9.1.2
Requirement	Service_Enablement-	involving US addresses,		
	Function for Zip	the ASV service will		
	Code	allow access to the		
		capability that returns		
		matching Zip Codes for		
		a particular City/State		
		area back to the		
		requestor.		

			Approval	Document
Item Type	Name	Description	Status	Location
Item Type SI Functional Requirement SI Functional Requirement	Name FR-ASV-001.18- Service_Enablement- Function for Line of Travel FR-ASV-001.19- Service_Enablement- Function for Latitude	Description For real time calls involving US addresses, the ASV service will allow access to the capability that returns USPS line of travel information back to the requestor. For real time calls involving US addresses, the ASV service will	Status Approved Approved	Location Section 9.1.1 Section 9.1.1
	and Longitude	allow access to the capability that returns latitude and longitude coordinates to the requestor.		
SI Non- Functional Requirement	NFR-ASV-001.01- Service_Enablement- USPS Monthly Updates	The ASV service will automatically conduct monthly updates when provided by USPS.	Approved	Section 9.1
SI Non- Functional Requirement	NFR-ASV-001.04- Service_Enablement- Address Correction	The ASV service shall follow the Coding Accuracy Support System (CASS) guidelines for address correction.	Approved	Section 9.1.1
SI Non- Functional Requirement	NFR-ASV-001.05- Service_Enablement- Standardize and Validate Addresses	The ASV service shall standardize and validate addresses submitted in real time mode.	Approved	Section 9.2
SI Non- Functional Requirement	NFR-ASV-001.08- Service_Enablement- SaaS Service	The SI shall leverage SaaS service for ASV as approved by HSD.	Approved	Section 9.0
SI Non- Functional Requirement	NFR-ASV-001.10- Service_Enablement- Backward Compatibility	For the ASV service, the SI will follow enterprise policies and maintain backward compatibility to prevent disruption for requestors.	Approved	Section 9.2