
Agency to System Infrastructure Provider Interface Specification

Version 1.0.0
November 8, 2006

FINAL

hspod2

Document History

Status	Release	Date	Comment	Audience
Draft	0.1.0	08/31/06	Posted for public review and comment	Public
Draft	0.1.3	10/30/06	Updated per public comments, AWG guidance, and further internal review	Internal
Draft	0.1.4	10/31/06	Updates per internal review	AWG
Draft	0.1.5	11/1/06	Updates per AWG	AWG
Final	1.0.0	11/8/06	Final version	Public

Editors

Joe Broghammer	Glenn Ballard	Andrew Chiu
Peter Cox	Treb Farrales	Larry Fobian
Brian Kelly	Mike Janiszewski	Steve Lazerowich
Chris Loudon	Eric Mitchell	Eric Olsson
Dave Silver	Judith Spencer	Eric Stout
Owen Unangst	Terry McBride	Matt Tebo
Chris Broberg	Poornima Koka	Chris Brown

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1 Introduction

This document provides the interface specification for agency system and Systems Infrastructure Provider (SIP) data exchange. It is a standard, re-usable shared service specification for Federal government-wide use, per [SCI Architecture]. Therefore, one should read [SCI Architecture] before reading this specification.

The agency system uploads applicant personnel information and sponsorship information to the SIP, and retrieves applicant enrollment information (e.g., fingerprints) from the SIP. Technical interoperability with the SIP is via SOAP-wrapped Extensible Markup Language (XML) messages over Hypertext Transfer Protocol Secure (HTTPS).

All SOAP messages are signed in accordance with [WS-Security]. All SOAP messages that include personally identifiable information (PII) are encrypted in accordance with [WS-Security].

All transaction datatypes are in accordance with [XML Datatypes] and [WS-SWA]. The following table describes the schemas and associated namespaces that are imported.

Table 1-1: Namespace Listing

Schema	Namespace	Prefix
WS-Security SWA Profile	http://ws-i.org/profiles/basic/1.1/xsd	swa
Common Elements	http://hspd12.gsa.gov/federated/enrollment	hspd12

Section 2, Data Elements and Structures, defines various groupings of data. Section 3, Transaction/Message Content Summary, specifies how the data groupings are combined into specific request and response transactions (i.e., SOAP-wrapped XML messages). Section 4, Technical Specification, provides XML samples of the transactions summarized in Section 2.

This document recognizes [NIST 800-47], and does not preclude adherence to its guidelines for planning, establishing, maintaining, and terminating interconnections between information technology (IT) systems that are owned and operated by different organizations.

1.1 Authority

This document has been developed on behalf of The Office of Governmentwide Policy and the HSPD-12 Executive Steering Committee in furtherance of their charter to implement HSPD-12 from a “national” perspective.

1.2 References

- [Common Elements] HSPD-12 Shared Component Infrastructure Interface Specification Common Elements
<http://www.smart.gov/awg/documents/InterfaceSpecCommonElements.pdf>
- [EFTS] Electronic Fingerprint Transmission Specification; DOJ FBI Criminal Justice Information Services (CJIS); May 2, 2005
<http://www.fbi.gov/hq/cjisd/iafis/efts71/efts71.pdf>
- [FINGSTD] INCITS 381-2004, American National Standard for Information Technology - Finger Image-Based Data Interchange Format
<http://www.incits.org>
- [FIPS 10-4] Federal Information Processing Standards Publication 10-4; Countries, Dependencies, Areas of Special Sovereignty, and Their Principal Administrative Divisions
<http://www.itl.nist.gov/fipspubs/fip10-4.htm>
- [MINUSTD] INCITS 378-2004, American National Standard for Information Technology - Finger Minutiae Format for Data Interchange
<http://www.incits.org>
- [NIST 800-47] Security Guide for Interconnecting Information Technology Systems
<http://csrc.nist.gov/publications/nistpubs/800-47/sp800-47.pdf>
- [NIST 800-87] Codes for the Identification of Federal and Federally Assisted Organizations
<http://csrc.nist.gov/publications/nistpubs/800-87/sp800-87-Final.pdf>
- [SC PACS] Technical Implementation Guidance: Smart Card Enabled Physical Access Control Systems version 2.3
<http://www.smart.gov/iab/documents/PACS.pdf>
- [SCI Architecture] HSPD-12 Shared Component Architecture
<http://www.smart.gov/awg/documents/HSPD12sca.pdf>
- [SCI Interoperability] HSPD-12 Shared Component Infrastructure Technical Interoperability Model
<http://www.smart.gov/awg/documents/SCITECHNICALIOMODEL.pdf>
- [SCI Trust] HSPD-12 Shared Component Infrastructure Trust Model
<http://www.smart.gov/awg/documents/SCITRUSTMODEL.pdf>
- [WS-Security] Web Services Security: SOAP Message Security 1.1 (WS-SECURITY 2004), OASIS Standard Specification, 1 February 2006
<http://www.oasis-open.org/committees/download.php/16790/wss-v1.1-spec-os-SOAPMessageSecurity.pdf>
- [WS-SWA] Web Services Security SOAP Messages with Attachments (SwA) Profile 1.1; OASIS Standard, 1 February 2006
<http://www.oasis-open.org/committees/download.php/16672/wss-v1.1-spec-os-SwAProfile.pdf>

[XML Datatypes] XML Schema Part 2: Datatypes Second Edition, W3C
<http://www.w3.org/TR/xmlschema-2>

Topic	Link
SOAP	http://schemas.xmlsoap.org/soap/envelope http://schemas.xmlsoap.org/soap/encoding http://www.w3.org/TR/SOAP-attachments
WSDL	http://www.w3.org/2002/ws/desc/
XML	http://www.w3.org/1999/XMLSchema-instance http://www.w3.org/1999/XMLSchema

2 Data Elements and Structures

Transaction datatypes are as follows:

1. The “xs:” prefix indicates an XML datatype in accordance with [XML Datatypes]; and
2. “swa:swaRef” indicates a reference to a SOAP attachment in accordance with [WS-SWA]

All transactions (agency system requests and SIP responses) are SOAP-wrapped XML messages sent over HTTPS. In accordance with [WS-Security]:

1. For every message, the sender digitally signs the SOAP body (including any attachments), and the receiver uses the digital signature to determine if tampering has occurred; and
2. For every message that contains PII, the sender encrypts, and the receiver decrypts, the SOAP body (including any attachments).
 - a. The sender randomly generates a symmetric key for that message only. The sender encrypts the SOAP body with the generated key prior to submitting the message to the recipient. The sender then encrypts the randomly generated key using the recipient’s public key, and adds it to the SOAP Header. Upon receiving the encrypted message, the recipient uses its private key to decrypt the key in the SOAP header, and uses that obtained key to decrypt the SOAP body.

The constraints column indicates whether the field must be present with a value. This pertains to request transactions made by the agency system. All response transactions from the SIP must return all fields. Table 3-1 specifies which data structures are required (or optional) per transaction request and response.

2.1 Transaction Header

Field	Description	Datatype	Constraints
TransactionID	<p>Unique identifier specific to a transaction request/response pair</p> <p>Supports tracking, auditing, and billing as necessary</p>	xs:string	<p>Required <=256 characters</p> <p>For request transaction, sender must generate a unique value. To avoid collision with Transaction IDs of other senders, generated value must include the sending system's unique identifier assigned by SCI Governing Authority</p> <p>For corresponding response transaction, sender must use the TransactionID received in the request transaction</p>
TransactionOrganizationalIdentifier	Organizational Identifier (OI) of the organization sending the transaction	xs:string	<p>Required if available (i.e., may not be available for contractor-run system)</p> <p>4 characters</p> <p>Valid Values: [NIST 800-87] organization codes</p>
SystemID	Unique identifier of the system (e.g., agency HR system, SIP, enrollment station) sending the transaction	xs:string	<p>Required <=256 characters</p> <p>Value must be the sending system's unique identifier assigned by SCI Governing Authority</p>
TransactionTimeStamp	The date and time the transaction was sent (e.g., 2002-10-10T12:00:00-05:00)	xs:dateTime	<p>Required 25 characters</p> <p>Format: yyyy-mm-ddThh:mm:ss-timezone</p>

2.2 Person Identifier

Field	Description	Datatype	Constraints
SponsorOrganizationalIdentifier	Organizational Identifier (OI) of sponsoring agency This field combined with PersonIdentifier uniquely identifies a person	xs:string	Required 4 characters Valid Values: [NIST 800-87] organization codes Value must match what will be (or is) in the applicant's PIV card FASC-N OI field [SC PACS]
PersonIdentifier	Person Identifier (PI) code of the applicant This field combined with SponsorOrganizationalIdentifier uniquely identifies a person	xs:string	Required <=256 characters Value must match what will be (or is) in the applicant's PIV card FASC-N PI field [SC PACS]

2.3 Personal Information

Field	Description	Datatype	Constraints
FirstName	Applicant's first name	xs:string	Required <=256 characters
MiddleName	Applicant's middle name	xs:string	Required <=256 characters
LastName	Applicant's last name	xs:string	Required <=256 characters
Suffix	Applicant's suffix (e.g., Jr, Sr)	xs:string	Required <=32 characters
DateofBirth	Applicant's Date of Birth	xs:date	Required 10 characters Format: yyyy-mm-dd
SSN	Applicant's social security number (e.g., 123456789)	xs:string	Required if TaxID and ForeignID are not present otherwise optional 9 digits, no hyphenation

Field	Description	Datatype	Constraints
TaxID	Applicant's federal tax ID (e.g., 123456789)	xs:string	Required if SSN and ForeignID are not present; otherwise optional 9 digits, no hyphenation
ForeignID	Applicant's foreign national ID	xs:string	Required if SSN and TaxID are not present; otherwise optional <=32 characters no hyphenation
Gender	Applicant's gender	xs:string	Required 1 character Valid Values: M – male F – female
PrimaryIdentifierCountryCode	Country code of the country listed in the primary identifying source	xs:string	Required 2 characters Country code per [FIPS 10-4]
SecondaryIdentifier	Passport ID as a secondary identifier	xs:string	Required if PrimaryIdentifierCountryCode is not US <= 32 characters
SecondaryIdentifierCountryCode	Country code of the country listed in the secondary identifying source	xs:string	Required if PrimaryIdentifierCountryCode is not US 2 characters Country code per [FIPS 10-4]

2.4 Sponsorship Information

Field	Description	Datatype	Constraints
PersonOrganizationAssociationCategory	Human-readable affiliation (e.g., Employee, Contractor)	xs:string	Required <=256 characters Value must be derived from Person/Organization Association (POA) code to be placed in (or is in) the FASC-N POA field; use text from the POA code/text mapping [SC PACS]
FederalEmergencyResponseOfficialFlag	Indicates whether Applicant is a federal emergency response official Set to True if Federal Emergency Response Official, otherwise set to False	xs:boolean	Optional Valid Values: True False
DateofSponsorship	Date sponsorship began for the applicant	xs:date	Required 10 characters Format: yyyy-mm-dd
AffiliationBeginDate	Date affiliation begins with this agency	xs:date	Required 10 characters Format: yyyy-mm-dd
AffiliationExpectedEndDate	Date affiliation is expected to end with this agency – represents a “no later than” on credential expiration	xs:date	Required 10 characters Format: yyyy-mm-dd
AffiliationSeparationReasonCode	Indicates the reason for affiliation separation	xs:int	Required if affiliation has been separated Valid Values: 1 – termination 2 – resignation 3 – transfer 4 – death
AffiliationSeparationDate	Date of affiliation separation	xs:date	Required if AffiliationSeparationReasonCode is 1, 2, 3, or 4 10 characters Format: yyyy-mm-dd
SponsorFirstName	First name of applicant’s sponsor	xs:string	Required <=256 characters

Field	Description	Datatype	Constraints
SponsorMiddleName	Middle name of applicant's sponsor	xs:string	Required <=256 characters
SponsorLastName	Last name of applicant's sponsor	xs:string	Required <=256 characters
SponsorEmailNotification	Array of email addresses to which the SIP sends notifications (e.g., upon certain exceptions, events, triggers)	xs:string	Optional <=256 characters per email address maxOccurs for this field must be set to "unbounded"

2.5 Status Information

Field	Description	Datatype	Constraints
ProcessStatusCode	<p>Indicates the current step or major event within the overall credentialing process</p> <p>Status codes are set by different participants as appropriate. For example, enrollment stations set values 1-4; finalization stations set values 50-63 to specify finalization related statuses; the SIP sets value 40 and 80; the agency sets 0, 10, 20-21, 30-31, 70</p> <p>Agency should always set ProcessStatusCode to 0 in the CreateNewEmployeeContractor transaction</p> <p>The agency can set any value as necessary, even values normally set by other participants. This provides override or correction capability as necessary</p> <p>If ProcessStatusCode is set to 1, then agency can download fingerprints and initiate investigation. Upon downloading fingerprints, agency should set ProcessStatusCode to 10 to prevent</p>	xs:int	<p>Required on create transaction, otherwise optional</p> <p>Valid Values: 0 – Affiliation established</p> <p>1 - Enrollment successfully completed 2 - Enrollment failed: applicant failed I-9 proofing 3 - Enrollment failed: applicant failed biometrics cross check failed 4 – Enrollment failed: other reason</p> <p>10 - Fingerprints retrieved by agency</p> <p>20 - Investigation in progress 21 - Investigation completed</p> <p>30 - Adjudication in progress 31 - Adjudication completed</p> <p>40 - Card production initiated 41 - Card production successfully completed 42 - PIV card shipped to FSP 43 - Card production failed: card</p>

Field	Description	Datatype	Constraints
	repeat of fingerpringt download		surface printing failed 44 - Card production failed: electronics pre-personalization failed 45 – Card production failed: other reason 50 - PIV card received by FSP 51 - Finalization successfully completed 52 - Finalization failed: biometric reader problem 53 - Finalization failed: PIV card reader problem 54 - Finalization failed: unable to unlock PIV card 55 - Finalization failed: 1:1 biometric match failed 56 - Finalization failed: unable to replace PIV card key with SIP key 57 - Finalization failed: unable to collect PIV card objects 58 - Finalization failed: unable to obtain PIV authentication certificate 59 - Finalization failed: unable to load PIV card 60 - Finalization failed: unable to set PIV card PIN 61 - Finalization failed: defective PIV card 62 - Finalization: abandoned PIV card 63 – Finalization failed: other reason 70 – Defective card found during cardholder use 80 - All current credentials terminated
ProcessStatusCodeDate	Date ProcessStatusCode was last updated	xs:date	Required if ProcessStatusCode present 10 characters Format: yyyy-mm-dd

Field	Description	Datatype	Constraints
EnrollmentStatusMessage	Additional information provided by the enrollment station pertaining to the enrollment	xs:string	Present only on response transactions <=256 characters
PIVCardProductionStatusMessage	Additional information provided by the PIV card production provider pertaining to production of the PIV card	xs:string	Present only on response transactions <=256 characters
FinalizationStatusMessage	Additional information provided by the finalization station pertaining to the finalization	xs:string	Present only on response transactions <=256 characters
EnrollmentAuthorizationFlag	Indicates whether applicant is authorized for enrollment (i.e. go to enrollment station for identity proofing and biometric capture) Set to True by agency if authorized, or set to False by agency if not yet authorized or authorization must be rescinded	xs:boolean	Required in create transaction, otherwise optional Valid Values: true false
EnrollmentAuthorizationFlagDate	Date enrollment authorization flag was last updated	xs:date	Required if EnrollmentAuthorizationFlag present 10 characters Format: yyyy-mm-dd
SuitabilityCode	Indicates the applicant's suitability per adjudication decision Agency should set to 1 on create transaction, otherwise set to 2 or 3 on update transaction when appropriate	xs:int	Required in create transaction, otherwise optional Valid Values: 1 – not yet determined 2 – suitable 3 – not suitable
SuitabilityCodeDate	Date suitability code was set	xs:date	Required if SuitabilityCode present 10 characters Format: yyyy-mm-dd
EnrollmentStatusDate	Date ProcessStatusCode was last updated with an enrollment related status	xs:date	Optional 10 characters Format: yyyy-mm-dd
InvestigationStatusDate	Date ProcessStatusCode was last updated with an investigation related status	xs:date	Optional 10 characters Format: yyyy-mm-dd

Field	Description	Datatype	Constraints
AdjudicationStatusDate	Date ProcessStatusCode was last updated with an adjudication related status	xs:date	Optional 10 characters Format: yyyy-mm-dd
PIVCardProductionStatusDate	Date ProcessStatusCode was last updated with a PIV card production related status	xs:date	Optional 10 characters Format: yyyy-mm-dd
FinalizationStatusDate	Date ProcessStatusCode was last updated with a finalization related status	xs:date	Optional 10 characters Format: yyyy-mm-dd

2.6 I-9 Document Information

Field	Description	Datatype	Constraints
I9Document1Type	Human-readable type of first I-9 document presented (e.g., Maryland State ID, VA Drivers License, U.S. Passport)	xs:string	Required <=256 characters
I9Document1Issuer	Human-readable first I-9 document Issuer (e.g., State Department, State of X Dept of Y, County-Issued)	xs:string	Required <=256 characters
I9Document1IDNumber	Unique ID number from the identity document	xs:string	Required <=256 characters
I9Document1Image	Joint Photographic Experts Group (JPEG) image of document	swa:swaRef	Required
I9Document1Results	Authenticity score specified by the document verifier device	xs:string	Required <=256 characters
I9Document2Type	Human-readable type of second I-9 document presented (e.g., valid Drivers License, U.S. Passport)	xs:string	Required <=256 characters
I9Document2Issuer	Human-readable second I-9 document Issuer (e.g., State Department, State of X Dept of Y, County-Issued)	xs:string	Required <=256 characters
I9Document2IDNumber	Unique ID number from the identity document	xs:string	Required <=256 characters
I9Document2Image	JPEG image of document	swa:swaRef	Required
I9Document2Results	Authenticity score specified by the document verifier device	xs:string	Required <=256 characters

2.6 Photograph Information

Field	Description	Datatype	Constraints
FacialImage	Applicant's picture in binary format	swa:swaRef	Required

2.7 Fingerprint Information

Field	Description	Datatype	Constraints
EFTSData	Data (in binary format) for OPM/FBI to conduct applicant investigation	swa:swaRef	Required Formatted per [EFTS]
INCITS381	Images (in binary format) for Agency Records in InterNational Committee for Information Technology Standard (INCITS) 381 format [FINGSTD].	swa:swaRef	Required
PrimaryFingerDesignation	Designation of finger used for primary fingerprint.	xs:string	Required Should be Right index finger unless not available. Per the FGP field in [EFTS], Appendix C 2 characters Valid Values: 00-10 – for the 10 fingers XX – for amputated UP – for unprintable
SecondaryFingerDesignation	Designation of finger used for secondary fingerprint.	xs:string	Required Should be Left index finger unless not available. Per the FGP field in [EFTS] Appendix C 2 characters Valid Values: 00-10 – for the 10 fingers XX –for amputated UP – for unprintable

Field	Description	Datatype	Constraints
PrimaryFingerprintMinutia1	Minutia (in binary format) computed per scheme #1 in INCITS 378 format [MINUSTD].	swa:swaRef	Required
PrimaryFingerprintMinutia2	Minutia (in binary format) computed per scheme #2 in INCITS 378 format [MINUSTD].	swa:swaRef	Required
SecondaryFingerprintMinutia1	Minutia (in binary format) computed per scheme #1 in INCITS 378 format [MINUSTD].	swa:swaRef	Required
SecondaryFingerprintMinutia2	Minutia (in binary format) computed per scheme #2 in INCITS 378 format [MINUSTD].	swa:swaRef	Required

2.8 Credential Request Information

The scope of credential request information is drive by the circumstances of the request (i.e., credential request type). Credential requests types are:

- **Issue** – issue a new credential as part of initial issuance
- **Reissue** – reissue a credential with termination of current credential done at finalization; keep current PIV card until new PIV card is finalized
- **ImmediateTerminateReissue** – reissue credential with immediate termination of current credential; done when PIV card is lost or stolen
- **ImmediateTerminate** – immediate termination of current credential; no re-issuance; done at termination of employee/contractor

Field	Description	Datatype	Constraints
CredentialRequestType	Reason for the credential request If CredentialRequestType set to 1, 2, or 3, the SIP initiates PIV card production. The SIP then sets ProcessStatusCode to 40 to prevent repeat of card production initiation	xs:int	Required Valid Values: 1 – Issue 2 – Reissue 3 – ImmediateTerminateReissue 4 – ImmediateTerminate 2, 3, and 4 are not valid in a create transaction.

Field	Description	Datatype	Constraints
PSPIdentifier	<p>Unique identifier of the PSP (i.e., PIV card production service provider) to use for this card production request</p> <p>This field overrides the default PSP value(s) configured in the SIP for this agency. The SIP must initiate PIV card production to the PSP specified by this field. Default PSP values are used only when this field is not present</p>	xs:string	<p>Optional <=256 characters</p> <p>Can only be present if CredentialRequestType is set to 1, 2, or 3</p> <p>Value must be the unique identifier assigned to the PSP by the SCI Governing Authority</p>
CredentialRequestEarliestIssuanceDate	Earliest date credential issuance can occur (i.e., cannot be issued before this date)	xs:date	<p>Required if CredentialRequestType is 1, 2 or 3</p> <p>10 characters Format: yyyy-mm-dd</p>
CredentialRequestExpirationDate	Date new credential is to expire	xs:date	<p>Required if CredentialRequestType is 1, 2, or 3</p> <p>10 characters Format: yyyy-mm-dd</p>
CurrentCredentialTerminationDate	Date to terminate current credential	xs:date	<p>Required if CredentialRequestType is 3 or 4</p> <p>10 characters Format: yyyy-mm-dd</p>
CurrentCredentialTerminationReasonCode	Reason for terminating current credential	xs:int	<p>Required if CredentialRequestType is 2, 3, or 4</p> <p>Valid Values: 1 – lost or stolen 2 – personnel action (e.g., separation) 3 – credential information change</p>

2.9 Current Credential Information

Field	Description	Datatype	Constraints
FederalAgencySmartCardNumber	Binary encoded decimal string to identify the credential	xs:hexBinary	Required

Field	Description	Datatype	Constraints
CredentialIssuanceDate	Date current credential issued	xs:date	Required 10 characters Format: yyyy-mm-dd
CredentialExpirationDate	Date current credential will expire	xs:date	Required 10 characters Format: yyyy-mm-dd
CredentialTerminationDate	Date when current credential terminated	xs:date	Required if CredentialTerminationReasonCode is 1, 2, or 3 10 characters Format: yyyy-mm-dd
CredentialTerminationReasonCode	Reason for current credential termination	xs:int	Optional Valid Values: 1 – lost or stolen 2 – personnel action (e.g., separation) 3 – credential information change

2.10 Reservation Number

Field	Description	Datatype	Constraints
ReservationNumber	<p>Unique number generated by SIP upon create or update transaction request that requires applicant enrollment (i.e., applicant must visit an enrollment station for identity proofing and biometric capture)</p> <p>Presented by applicant at enrollment and finalization in order to begin processing</p> <p>The enrollment station and finalization station use the SIP identifier portion of the Reservation Number (left of the hyphen) to know which SIP to contact for the applicant</p>	xs:string	<p>Required <=64 characters</p> <p>Format: unique identifier assigned to the SIP by the SCI Governing Authority, followed by a hyphen, followed by a number unique within the SIP itself</p>

2.11 Query List

Field	Description	Datatype	Constraints
QueryList	<p>Indicates what information the SIP should return to the agency in the QuerySIPResponse transaction</p> <p>Additive value (bitmap) of items to be downloaded</p> <p>(e.g., to retrieve Personal Information, Sponsorship Information, and Fingerprint Information, set QueryList = 1 + 2 + 64)</p>	xs:unsignedByte	<p>Required</p> <p>Valid Values that can be added: 1 - Personal Information 2 - Sponsorship Information 4 - Status Information 8 - Current Credential Information 16 - I-9 Document Information 32 - Photograph Information 64 - Fingerprint Information</p>

2.12 Transaction Status

Field	Description	Datatype	Constraints
StatusCode	Status code indicating whether transaction was processed successfully or not	xs:string	<p>Required</p> <p>Valid Values: Success Failure</p>
StatusMessage	Human-readable message to provide additional information	xs:string	Required

3 Transaction\Message Content Summary

This section provides a high-level summary of each transaction. Section 4, Technical Specifications, provides complete transaction detail in XML format. Tags must be created, and the interface incorporated into a Web Services Description Language (WSDL). The agency system initiates all transactions to the SIP. An agency system can send applicant information to, or retrieve applicant information from the SIP. Sending information to the SIP (new or revised information) results in the SIP updating its record for that applicant (i.e., adds, changes, deletes information as necessary). Updates to the SIP typically trigger the SIP to initiate PIV card and/or credential management activities. An agency system can retrieve applicant information from the SIP as necessary (e.g., obtain fingerprints for applicant investigation purposes). Table 3-1 summarizes each agency-SIP transaction in terms of the data structures defined in Section 2, Data Elements and Structures.

Table 3-1: Transaction Content Summary

Transaction	Agency System to SIP (Request)	SIP to Agency System (Response)
<p>Create new Employee/Contractor</p> <p>CreateNewEmployeeContractor CreateNewEmployeeContractorResponse</p>	<ul style="list-style-type: none"> ○ Transaction Header (required) ○ Person Identifier (required) ○ Personal Information (required) ○ Sponsorship information (required) ○ Status Information (required) ○ Credential Request Information (optional) ○ Digitally signed and encrypted 	<ul style="list-style-type: none"> ○ Transaction Header (required) ○ Reservation Number (required if Credential Request Information is present and CredentialRequestType is 1) ○ Transaction Status (required) ○ Digitally signed ○ Partial List of Status Messages: <ul style="list-style-type: none"> - new record created - record already exists
<p>Update Employee/Contractor</p> <p>UpdateEmployeeContractor UpdateEmployeeContractorResponse</p>	<ul style="list-style-type: none"> ○ Transaction Header (required) ○ Person Identifier (required) ○ Personal Information (optional) ○ Sponsorship Information (optional) ○ Status Information (optional) ○ Credential Request Information (optional) ○ Current Credential Information (optional) ○ Digitally signed and encrypted 	<ul style="list-style-type: none"> ○ Transaction Header (required) ○ Reservation Number (required if Credential Request Information is present and CredentialRequestType is 1, 2, or 3) ○ Transaction Status (required) ○ Digitally signed ○ Partial List of Status Messages: <ul style="list-style-type: none"> - record updated - record not found

Transaction	Agency System to SIP (Request)	SIP to Agency System (Response)
<p>Request information from SIP</p> <p>QuerySIP QuerySIPResponse</p>	<ul style="list-style-type: none"> ○ Transaction Header (required) ○ Person Identifier (required) ○ Query List (required) ○ Digitally signed 	<ul style="list-style-type: none"> ○ Transaction Header (required) ○ Personal Information (required if in QueryList) ○ Sponsorship Information (required if in QueryList) ○ Status Information (required if in QueryList) ○ Current Credential Information (required if in QueryList) ○ I-9 Document Information (required if in QueryList) ○ Photograph Information (required if in QueryList) ○ Fingerprint Information (required if in QueryList) ○ Transaction Status (required) ○ Digitally signed and encrypted ○ Partial List of Status Messages: <ul style="list-style-type: none"> - all available information returned - record not found

4 Technical Specifications

The following are sample XML transactions that are summarized in Sections 2 and 3.

4.1 XML Schema Definition: CommonElements

See [Common Elements].

4.2 XML Schema Definition: HSPD12Agency-SIP

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:hspd12="http://hspd12.gsa.gov/federated/enrollment"
xmlns:swa="http://ws-i.org/profiles/basic/1.1/xsd"
elementFormDefault="qualified"
attributeFormDefault="unqualified">
  <xs:import
namespace="http://hspd12.gsa.gov/federated/enrollment"
schemaLocation="CombinedSchema.1.0.xsd"/>
  <xs:simpleType name="TerminationReasonCodeType">
    <xs:restriction base="xs:int">
      <xs:enumeration value="1">
        <xs:annotation>
          <xs:documentation>lost or
stolen</xs:documentation>
        </xs:annotation>
      </xs:enumeration>
      <xs:enumeration value="2">
        <xs:annotation>
          <xs:documentation>personnel action
(e.g., separation)</xs:documentation>
        </xs:annotation>
      </xs:enumeration>
      <xs:enumeration value="3">
        <xs:annotation>
          <xs:documentation>credential
information change</xs:documentation>
        </xs:annotation>
      </xs:enumeration>
    </xs:restriction>
  </xs:simpleType>
  <xs:complexType name="CredentialRequestInformationType">
    <xs:sequence>
      <xs:element name="CredentialRequestType">
        <xs:simpleType>
          <xs:restriction base="xs:int">
            <xs:enumeration value="1">
              <xs:annotation>
                <xs:documentation>Issue</xs:documentation>
              </xs:annotation>
            </xs:enumeration>
            <xs:enumeration value="2">
```



```

                <xs:annotation>
                <xs:documentation>Reissue</xs:documentation>
                </xs:annotation>
            </xs:enumeration>
            <xs:enumeration value="3">
                <xs:annotation>
                <xs:documentation>ImmediateTerminateReissue</xs:documentati
on>
                </xs:annotation>
            </xs:enumeration>
            <xs:enumeration value="4">
                <xs:annotation>
                <xs:documentation>ImmediateTerminate</xs:documentation>
                </xs:annotation>
            </xs:enumeration>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
<xs:element name="PSPIdentifier" minOccurs="0">
    <xs:simpleType>
        <xs:restriction base="xs:string">
            <xs:maxLength value="256"/>
        </xs:restriction>
    </xs:simpleType>
</xs:element>
<xs:element
name="CredentialRequestEarliestIssuanceDate" type="xs:date"
minOccurs="0"/>
    <xs:element
name="CredentialRequestExpirationDate" type="xs:date"
minOccurs="0"/>
    <xs:element
name="CurrentCredentialTerminationDate" type="xs:date"
minOccurs="0"/>
    <xs:element
name="CurrentCredentialTerminationReasonCode"
type="TerminationReasonCodeType" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="CurrentCredentialInformationType">
    <xs:sequence>
        <xs:element name="FederalAgencySmartCardNumber"
type="xs:hexBinary"/>
        <xs:element name="CredentialIssuanceDate"
type="xs:date"/>
        <xs:element name="CredentialExpirationDate"
type="xs:date"/>
        <xs:element name="CredentialTerminationDate"
type="xs:date" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>

```

```

        <xs:element
name="CredentialTerminationReasonCode"
type="TerminationReasonCodeType" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:simpleType name="ReservationNumberType">
    <xs:restriction base="xs:string">
        <xs:maxLength value="64"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="QueryListType">
    <xs:restriction base="xs:unsignedByte">
        <xs:enumeration value="1">
            <xs:annotation>
                <xs:documentation>Personal
information</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        <xs:enumeration value="2">
            <xs:annotation>
                <xs:documentation>Sponsorship
informatio</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        <xs:enumeration value="4">
            <xs:annotation>
                <xs:documentation>Event
flags</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        <xs:enumeration value="8">
            <xs:annotation>
                <xs:documentation>Vetting
information</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        <xs:enumeration value="16">
            <xs:annotation>
                <xs:documentation>Current credential
information</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        <xs:enumeration value="32">
            <xs:annotation>
                <xs:documentation>I-9 document
information</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
        <xs:enumeration value="64">
            <xs:annotation>
                <xs:documentation>Photograph
information</xs:documentation>
            </xs:annotation>
        </xs:enumeration>
    </xs:restriction>
</xs:simpleType>

```

```

        </xs:enumeration>
      </xs:restriction>
    </xs:simpleType>
    <xs:complexType name="StatusInformationType">
      <xs:sequence>
        <xs:element name="ProcessStatusCode"
minOccurs="0">
          <xs:simpleType>
            <xs:restriction base="xs:int">
              <xs:enumeration value="0">
                <xs:annotation>

                  <xs:documentation>Affiliation
established</xs:documentation>

                </xs:annotation>
              </xs:enumeration>
              <xs:enumeration value="1">
                <xs:annotation>

                  <xs:documentation>Enrollment successfully completed
</xs:documentation>

                </xs:annotation>
              </xs:enumeration>
              <xs:enumeration value="2">
                <xs:annotation>

                  <xs:documentation>Enrollment failed: applicant failed I-9
proofing
</xs:documentation>

                </xs:annotation>
              </xs:enumeration>
              <xs:enumeration value="3">
                <xs:annotation>

                  <xs:documentation>Enrollment failed: applicant failed
biometrics cross check failed</xs:documentation>

                </xs:annotation>
              </xs:enumeration>
              <xs:enumeration value="4">
                <xs:annotation>

                  <xs:documentation>Enrollment failed: other
reason</xs:documentation>

                </xs:annotation>
              </xs:enumeration>
              <xs:enumeration value="10">
                <xs:annotation>

                  <xs:documentation>Fingerprints retrieved by agency
</xs:documentation>

                </xs:annotation>
              </xs:enumeration>
              <xs:enumeration value="20">

```

```

                                <xs:annotation>

    <xs:documentation>Investigation in
progress</xs:documentation>

                                </xs:annotation>
                                </xs:enumeration>
                                <xs:enumeration value="21">
                                <xs:annotation>

    <xs:documentation>Investigation
completed</xs:documentation>

                                </xs:annotation>
                                </xs:enumeration>
                                <xs:enumeration value="30">
                                <xs:annotation>

    <xs:documentation>Adjudication in
progress</xs:documentation>

                                </xs:annotation>
                                </xs:enumeration>
                                <xs:enumeration value="31">
                                <xs:annotation>

    <xs:documentation>Adjudication completed</xs:documentation>

                                </xs:annotation>
                                </xs:enumeration>
                                <xs:enumeration value="40">
                                <xs:annotation>

    <xs:documentation>Card production
initiated</xs:documentation>

                                </xs:annotation>
                                </xs:enumeration>
                                <xs:enumeration value="41">
                                <xs:annotation>

    <xs:documentation>Card production successfully completed
</xs:documentation>

                                </xs:annotation>
                                </xs:enumeration>
                                <xs:enumeration value="42">
                                <xs:annotation>
                                <xs:documentation>PIV
card shipped to FSP </xs:documentation>

                                </xs:annotation>
                                </xs:enumeration>
                                <xs:enumeration value="43">
                                <xs:annotation>

    <xs:documentation>Card production failed: card surface
printing failed</xs:documentation>

                                </xs:annotation>
                                </xs:enumeration>

```

```

                <xs:enumeration value="44">
                    <xs:annotation>

                <xs:documentation>Card production failed: electronics pre-
personalization failed
</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="45">
                    <xs:annotation>

                <xs:documentation>Card production failed: other
reason</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="50">
                    <xs:annotation>
                        <xs:documentation>PIV
card received by FSP</xs:documentation>
                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="51">
                    <xs:annotation>

                <xs:documentation>Finalization successfully
completed</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="52">
                    <xs:annotation>

                <xs:documentation>Finalization failed: biometric reader
problem</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="53">
                    <xs:annotation>

                <xs:documentation>Finalization failed: PIV card reader
problem</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="54">
                    <xs:annotation>

                <xs:documentation>Finalization failed: unable to unlock PIV
card</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="55">
                    <xs:annotation>

```

```

    <xs:documentation>Finalization failed: 1:1 biometric match
failed
</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  <xs:enumeration value="56">
    <xs:annotation>

    <xs:documentation>Finalization failed: unable to replace
PIV card key with SIP key
</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  <xs:enumeration value="57">
    <xs:annotation>

    <xs:documentation>Finalization failed: unable to collect
PIV card objects
</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  <xs:enumeration value="58">
    <xs:annotation>

    <xs:documentation>Finalization failed: unable to obtain PIV
authentication certificate
</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  <xs:enumeration value="59">
    <xs:annotation>

    <xs:documentation>Finalization failed: unable to load PIV
card
</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  <xs:enumeration value="60">
    <xs:annotation>

    <xs:documentation>Finalization failed: unable to set PIV
card PIN
</xs:documentation>
    </xs:annotation>
  </xs:enumeration>
  <xs:enumeration value="61">
    <xs:annotation>

    <xs:documentation>Finalization failed: defective PIV
card</xs:documentation>
    </xs:annotation>
  </xs:enumeration>

```

```

                <xs:enumeration value="62">
                    <xs:annotation>

                <xs:documentation>Finalization: abandoned PIV card
</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="63">
                    <xs:annotation>

                <xs:documentation>Finalization failed: other
reason</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="70">
                    <xs:annotation>

                <xs:documentation>Defective card found during cardholder
use
</xs:documentation>

                    </xs:annotation>
                </xs:enumeration>
                <xs:enumeration value="80">
                    <xs:annotation>
                        <xs:documentation>All
current credentials terminated</xs:documentation>
                    </xs:annotation>
                </xs:enumeration>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>
    <xs:element name="ProcessStatusCodeDate"
type="xs:date" minOccurs="0"/>
    <xs:element name="EnrollmentStatusMessage"
minOccurs="0">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="256"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>
    <xs:element name="PIVCardProductionStatusMessage"
minOccurs="0">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:maxLength value="256"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>
    <xs:element name="FinalizationStatusMessage"
minOccurs="0">
        <xs:simpleType>
            <xs:restriction base="xs:string">

```

```

                <xs:maxLength value="256"/>
            </xs:restriction>
        </xs:simpleType>
    </xs:element>
    <xs:element name="EnrollmentAuthorizationFlag"
type="xs:boolean" minOccurs="0"/>
    <xs:element
name="EnrollmentAuthorizationFlagDate" type="xs:date"
minOccurs="0"/>
        <xs:element name="SuitabilityCode" minOccurs="0">
            <xs:simpleType>
                <xs:restriction base="xs:int">
                    <xs:enumeration value="1">
                        <xs:annotation>
                            <xs:documentation>not
yet determined</xs:documentation>
                        </xs:annotation>
                    </xs:enumeration>
                    <xs:enumeration value="2">
                        <xs:annotation>
                            <xs:documentation>suitable</xs:documentation>
                        </xs:annotation>
                    </xs:enumeration>
                    <xs:enumeration value="3">
                        <xs:annotation>
                            <xs:documentation>not
suitable</xs:documentation>
                        </xs:annotation>
                    </xs:enumeration>
                </xs:restriction>
            </xs:simpleType>
        </xs:element>
        <xs:element name="SuitabilityCodeDate"
type="xs:date" minOccurs="0"/>
        <xs:element name="EnrollmentStatusDate"
type="xs:date" minOccurs="0"/>
        <xs:element name="InvestigationStatusDate"
type="xs:date" minOccurs="0"/>
        <xs:element name="AdjudicationStatusDate"
type="xs:date" minOccurs="0"/>
        <xs:element name="PIVCardProductionStatusDate"
type="xs:date" minOccurs="0"/>
        <xs:element name="FinalizationStatusDate"
type="xs:date" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:element name="CreateNewEmployeeContractor">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="TransactionHeader"
type="hspdl2:TransactionHeaderType"/>

```



```

        <xs:element name="PersonIdentifier"
type="hspd12:PersonIdentifierType"/>
        <xs:element name="PersonalInformation"
type="hspd12:PersonalInformationType"/>
        <xs:element name="SponsorshipInformation"
type="hspd12:SponsorshipInformationType"/>
        <xs:element name="StatusInformation"
type="StatusInformationType"/>
        <xs:element
name="CredentialRequestInformation"
type="CredentialRequestInformationType" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="CreateNewEmployeeContractorResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="TransactionHeader"
type="hspd12:TransactionHeaderType"/>
            <xs:element name="ReservationNumber"
minOccurs="0"/>
            <xs:element name="TransactionStatus"
type="hspd12:TransactionStatusType"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="UpdateEmployeeContractor">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="TransactionHeader"
type="hspd12:TransactionHeaderType"/>
            <xs:element name="PersonIdentifier"
type="hspd12:PersonIdentifierType"/>
            <xs:element name="PersonalInformation"
type="hspd12:PersonalInformationType" minOccurs="0"/>
            <xs:element name="SponsorshipInformation"
type="hspd12:SponsorshipInformationType" minOccurs="0"/>
            <xs:element name="StatusInformation"
type="StatusInformationType" minOccurs="0"/>
            <xs:element
name="CredentialRequestInformation"
type="CredentialRequestInformationType" minOccurs="0"/>
            <xs:element
name="CurrentCredentialInformation"
type="CurrentCredentialInformationType" minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="UpdateEmployeeContractorResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="TransactionHeader"
type="hspd12:TransactionHeaderType"/>

```

```

        <xs:element name="ReservationNumber"
type="ReservationNumberType" minOccurs="0"/>
        <xs:element name="TransactionStatus"
type="hspd12:TransactionStatusType"/>
    </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="QuerySIP">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="TransactionHeader"
type="hspd12:TransactionHeaderType"/>
            <xs:element name="PersonIdentifier"
type="hspd12:PersonIdentifierType"/>
            <xs:element name="QueryList"
type="QueryListType"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="QuerySIPResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="TransactionHeader"
type="hspd12:TransactionHeaderType"/>
            <xs:element name="PersonalInformation"
type="hspd12:PersonalInformationType" minOccurs="0"/>
            <xs:element name="SponsorshipInformation"
type="hspd12:SponsorshipInformationType" minOccurs="0"/>
            <xs:element name="StatusInformation"
type="StatusInformationType" minOccurs="0"/>
            <xs:element
name="CurrentCredentialInformation"
type="CurrentCredentialInformationType" minOccurs="0"/>
            <xs:element name="I-9DocumentInformation"
type="hspd12:I-9DocumentType" minOccurs="0"/>
            <xs:element name="PhotographInformation"
type="hspd12:PhotographInformationType" minOccurs="0"/>
            <xs:element name="FingerprintInformation"
type="hspd12:FingerprintInformationType" minOccurs="0"/>
            <xs:element name="TransactionStatus"
type="hspd12:TransactionStatusType"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
</xs:schema>

```

4.3 CreateNewEmployeeContractor

This transaction submits applicant information to the SIP for the purpose of having the SIP create a new record for a specified individual. The following schema fragment defines this transaction:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```

<CreateNewEmployeeContractor
xsi:noNamespaceSchemaLocation="AgencyToSIP.xsd"
xmlns:hspd12="http://hspd12.gsa.gov/federated/enrollment"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <TransactionHeader>
    <hspd12:TransactionID>BLSLSKE-
12</hspd12:TransactionID>

    <hspd12:TransactionOrganizationalIdentifier>0000</hspd12:Tr
ansactionOrganizationalIdentifier>
    <hspd12:SystemID>928282830</hspd12:SystemID>
    <hspd12:TransactionTimeStamp>2001-12-
17T09:30:47.0Z</hspd12:TransactionTimeStamp>
  </TransactionHeader>
  <PersonIdentifier>

    <hspd12:SponsorshipOrganizationalIdentifier>0000</hspd12:Sp
onsorshipOrganizationalIdentifier>

    <hspd12:PersonIdentifier>PersonID</hspd12:PersonIdentifier>
  </PersonIdentifier>
  <PersonalInformation>
    <hspd12:FirstName>John</hspd12:FirstName>
    <hspd12:MiddleName>A</hspd12:MiddleName>
    <hspd12:LastName>Jackson</hspd12:LastName>
    <hspd12:Suffix>III</hspd12:Suffix>
    <hspd12:DateOfBirth>1967-08-13</hspd12:DateOfBirth>
    <hspd12:SSN>987654321</hspd12:SSN>
    <hspd12:TaxID>123456789</hspd12:TaxID>
    <hspd12:ForeignID>ForeignID</hspd12:ForeignID>
    <hspd12:Gender>M</hspd12:Gender>

    <hspd12:PrimaryIdentifierCountryCode>AA</hspd12:PrimaryIden
tifierCountryCode>

    <hspd12:SecondaryIdentifier>SecondaryId</hspd12:SecondaryId
entifier>

    <hspd12:SecondaryIdentifierCountryCode>AA</hspd12:Secondary
IdentifierCountryCode>
  </PersonalInformation>
  <SponsorshipInformation>

    <hspd12:PersonOrganizationAssociationCategory>Employee</hsp
d12:PersonOrganizationAssociationCategory>

    <hspd12:FederalEmergencyResponseOfficialFlag>true</hspd12:F
ederalEmergencyResponseOfficialFlag>
    <hspd12:DateofSponsorship>1967-08-
13</hspd12:DateofSponsorship>
    <hspd12:AffiliationBeginDate>1967-08-
13</hspd12:AffiliationBeginDate>

```

```

        <hspd12:AffiliationExpectedEndDate>1967-08-
13</hspd12:AffiliationExpectedEndDate>

        <hspd12:AffiliationSeparationReasonCode>1</hspd12:Affiliati
onSeparationReasonCode>
        <hspd12:AffiliationSeparationDate>1967-08-
13</hspd12:AffiliationSeparationDate>

        <hspd12:SponserFirstName>Ulysees</hspd12:SponserFirstName>
        <hspd12:SponsorMiddleName>S</hspd12:SponsorMiddleName>
        <hspd12:SponserLastName>Grant</hspd12:SponserLastName>
    </SponsorshipInformation>
    <StatusInformation>
        <ProcessStatusCode>0</ProcessStatusCode>
        <ProcessStatusCodeDate>1967-08-
13</ProcessStatusCodeDate>
        <EnrollmentStatusMessage>Status
Message</EnrollmentStatusMessage>
        <PIVCardProductionStatusMessage>PivCard Status
Message</PIVCardProductionStatusMessage>
        <FinalizationStatusMessage>Finalization Status
Message</FinalizationStatusMessage>

        <EnrollmentAuthorizationFlag>true</EnrollmentAuthorizationF
lag>
        <EnrollmentAuthorizationFlagDate>1967-08-
13</EnrollmentAuthorizationFlagDate>
        <SuitabilityCode>1</SuitabilityCode>
        <SuitabilityCodeDate>1967-08-13</SuitabilityCodeDate>
        <EnrollmentStatusDate>1967-08-
13</EnrollmentStatusDate>
        <InvestigationStatusDate>1967-08-
13</InvestigationStatusDate>
        <AdjudicationStatusDate>1967-08-
13</AdjudicationStatusDate>
        <PIVCardProductionStatusDate>1967-08-
13</PIVCardProductionStatusDate>
        <FinalizationStatusDate>1967-08-
13</FinalizationStatusDate>
    </StatusInformation>
    <CredentialRequestInformation>
        <CredentialRequestType>1</CredentialRequestType>
        <PSPIdentifier>UIEOE-XXXXX</PSPIdentifier>
        <CredentialRequestEarliestIssuanceDate>1967-08-
13</CredentialRequestEarliestIssuanceDate>
        <CredentialRequestExpirationDate>1967-08-
13</CredentialRequestExpirationDate>
        <CurrentCredentialTerminationDate>1967-08-
13</CurrentCredentialTerminationDate>

        <CurrentCredentialTerminationReasonCode>1</CurrentCredentia
lTerminationReasonCode>
    </CredentialRequestInformation>

```

```
</CreateNewEmployeeContractor>
```

4.4 *CreateNewEmployeeContractorResponse*

This transaction specifies whether the SIP was successful or not in creating a new record for a specified individual with the information submitted to it. The following schema fragment defines this transaction:

```
<?xml version="1.0" encoding="UTF-8"?>
<CreateNewEmployeeContractorResponse
xsi:noNamespaceSchemaLocation="AgencyToSIP.xsd"
xmlns:hspd12="http://hspd12.gsa.gov/federated/enrollment"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <TransactionHeader>
    <hspd12:TransactionID>BIEIEIS-
23</hspd12:TransactionID>

    <hspd12:TransactionOrganizationalIdentifier>0000</hspd12:Tr
ansactionOrganizationalIdentifier>
    <hspd12:SystemID>BIEIEIESL-23</hspd12:SystemID>
    <hspd12:TransactionTimeStamp>2001-12-
17T09:30:47.0Z</hspd12:TransactionTimeStamp>
  </TransactionHeader>
  <ReservationNumber>ReservationID</ReservationNumber>
  <TransactionStatus>
    <hspd12:StatusCode>Success</hspd12:StatusCode>

    <hspd12:StatusMessage>StatusMessage</hspd12:StatusMessage>
  </TransactionStatus>
</CreateNewEmployeeContractorResponse>
```

4.5 *UpdateEmployeeContractor*

This transaction submits applicant information to the SIP for the purpose of having the SIP update an existing record for a specified individual. The following schema fragment defines this transaction:

```
<?xml version="1.0" encoding="UTF-8"?>
<UpdateEmployeeContractor
xsi:noNamespaceSchemaLocation="AgencyToSIP.xsd"
xmlns:hspd12="http://hspd12.gsa.gov/federated/enrollment"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <TransactionHeader>
    <hspd12:TransactionID>BKSKSLS-
32</hspd12:TransactionID>

    <hspd12:TransactionOrganizationalIdentifier>0000</hspd12:Tr
ansactionOrganizationalIdentifier>
    <hspd12:SystemID>BKDKDKS-3223</hspd12:SystemID>
    <hspd12:TransactionTimeStamp>2001-12-
17T09:30:47.0Z</hspd12:TransactionTimeStamp>
  </TransactionHeader>
  <PersonIdentifier>
```

```

    <hspd12:SponsorshipOrganizationalIdentifier>0000</hspd12:SponsorshipOrganizationalIdentifier>

    <hspd12:PersonIdentifier>PersonID</hspd12:PersonIdentifier>
  </PersonIdentifier>
  <PersonalInformation>
    <hspd12:FirstName>Thomas</hspd12:FirstName>
    <hspd12:MiddleName>K</hspd12:MiddleName>
    <hspd12:LastName>Crane</hspd12:LastName>
    <hspd12:Suffix>Jr</hspd12:Suffix>
    <hspd12:DateOfBirth>1967-08-13</hspd12:DateOfBirth>
    <hspd12:SSN>212345678</hspd12:SSN>
    <hspd12:TaxID>222222222</hspd12:TaxID>
    <hspd12:ForeignID>ForeignID</hspd12:ForeignID>
    <hspd12:Gender>M</hspd12:Gender>

    <hspd12:PrimaryIdentifierCountryCode>AA</hspd12:PrimaryIdentifierCountryCode>

    <hspd12:SecondaryIdentifier>SecondaryId</hspd12:SecondaryIdentifier>

    <hspd12:SecondaryIdentifierCountryCode>AA</hspd12:SecondaryIdentifierCountryCode>
  </PersonalInformation>
  <SponsorshipInformation>

    <hspd12:PersonOrganizationAssociationCategory>Contractor</hspd12:PersonOrganizationAssociationCategory>

    <hspd12:FederalEmergencyResponseOfficialFlag>true</hspd12:FederalEmergencyResponseOfficialFlag>
    <hspd12:DateofSponsorship>1967-08-13</hspd12:DateofSponsorship>
    <hspd12:AffiliationBeginDate>1967-08-13</hspd12:AffiliationBeginDate>
    <hspd12:AffiliationExpectedEndDate>1967-08-13</hspd12:AffiliationExpectedEndDate>

    <hspd12:AffiliationSeparationReasonCode>1</hspd12:AffiliationSeparationReasonCode>
    <hspd12:AffiliationSeparationDate>1967-08-13</hspd12:AffiliationSeparationDate>

    <hspd12:SponserFirstName>Patrick</hspd12:SponserFirstName>
    <hspd12:SponsorMiddleName>R</hspd12:SponsorMiddleName>

    <hspd12:SponserLastName>Thomas</hspd12:SponserLastName>
  </SponsorshipInformation>
  <StatusInformation>
    <ProcessStatusCode>0</ProcessStatusCode>

```

```

        <ProcessStatusCodeDate>1967-08-
13</ProcessStatusCodeDate>
        <EnrollmentStatusMessage>Status
Message</EnrollmentStatusMessage>
        <PIVCardProductionStatusMessage>PivCard
Message</PIVCardProductionStatusMessage>
        <FinalizationStatusMessage>Finalization
Message</FinalizationStatusMessage>

        <EnrollmentAuthorizationFlag>true</EnrollmentAuthorizationF
lag>
        <EnrollmentAuthorizationFlagDate>1967-08-
13</EnrollmentAuthorizationFlagDate>
        <SuitabilityCode>1</SuitabilityCode>
        <SuitabilityCodeDate>1967-08-13</SuitabilityCodeDate>
        <EnrollmentStatusDate>1967-08-
13</EnrollmentStatusDate>
        <InvestigationStatusDate>1967-08-
13</InvestigationStatusDate>
        <AdjudicationStatusDate>1967-08-
13</AdjudicationStatusDate>
        <PIVCardProductionStatusDate>1967-08-
13</PIVCardProductionStatusDate>
        <FinalizationStatusDate>1967-08-
13</FinalizationStatusDate>
        </StatusInformation>
        <CredentialRequestInformation>
            <CredentialRequestType>1</CredentialRequestType>
            <PSPIdentifier>BKDKDKD-33949493</PSPIdentifier>
            <CredentialRequestEarliestIssuanceDate>1967-08-
13</CredentialRequestEarliestIssuanceDate>
            <CredentialRequestExpirationDate>1967-08-
13</CredentialRequestExpirationDate>
            <CurrentCredentialTerminationDate>1967-08-
13</CurrentCredentialTerminationDate>

            <CurrentCredentialTerminationReasonCode>1</CurrentCredentia
lTerminationReasonCode>
        </CredentialRequestInformation>
        <CurrentCredentialInformation>

            <FederalAgencySmartCardNumber>41394644363445313243</Federal
AgencySmartCardNumber>
            <CredentialIssuanceDate>1967-08-
13</CredentialIssuanceDate>
            <CredentialExpirationDate>1967-08-
13</CredentialExpirationDate>
            <CredentialTerminationDate>1967-08-
13</CredentialTerminationDate>

            <CredentialTerminationReasonCode>1</CredentialTerminationRe
asonCode>
        </CurrentCredentialInformation>

```

```
</UpdateEmployeeContractor>
```

4.6 UpdateEmployeeContractorResponse

This transaction specifies whether the SIP was successful or not in updating the specified individual's existing record with the information submitted to it. The following schema fragment defines this transaction:

```
<?xml version="1.0" encoding="UTF-8"?>
<UpdateEmployeeContractorResponse
  xsi:noNamespaceSchemaLocation="AgencyToSIP.xsd"
  xmlns:hspd12="http://hspd12.gsa.gov/federated/enrollment"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <TransactionHeader>
    <hspd12:TransactionID>BDDKSLs-2</hspd12:TransactionID>

    <hspd12:TransactionOrganizationalIdentifier>0000</hspd12:Tr
  ansactionOrganizationalIdentifier>
    <hspd12:SystemID>SystemID</hspd12:SystemID>
    <hspd12:TransactionTimeStamp>2001-12-
  17T09:30:47.0Z</hspd12:TransactionTimeStamp>
  </TransactionHeader>
  <ReservationNumber>3838383838</ReservationNumber>
  <TransactionStatus>
    <hspd12:StatusCode>Success</hspd12:StatusCode>
    <hspd12:StatusMessage>Status
  Message</hspd12:StatusMessage>
  </TransactionStatus>
</UpdateEmployeeContractorResponse>
```

4.7 QuerySIP

This transaction requests information for a specified individual. The following schema fragment defines this transaction:

```
<?xml version="1.0" encoding="UTF-8"?>
<QuerySIP xsi:noNamespaceSchemaLocation="AgencyToSIP.xsd"
  xmlns:hspd12="http://hspd12.gsa.gov/federated/enrollment"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <TransactionHeader>
    <hspd12:TransactionID>BBBKDKD-3</hspd12:TransactionID>

    <hspd12:TransactionOrganizationalIdentifier>0000</hspd12:Tr
  ansactionOrganizationalIdentifier>
    <hspd12:SystemID>BKDKDKDS</hspd12:SystemID>
    <hspd12:TransactionTimeStamp>2001-12-
  17T09:30:47.0Z</hspd12:TransactionTimeStamp>
  </TransactionHeader>
  <PersonIdentifier>

  <hspd12:SponsorshipOrganizationalIdentifier>0000</hspd12:Sp
  onorshipOrganizationalIdentifier>
```



```

    <hspd12:PersonIdentifier>PersonIdentifier</hspd12:PersonIdentifier>
  </PersonIdentifier>
  <QueryList>1</QueryList>
</QuerySIP>

```

4.8 QuerySIPResponse

This transaction returns all information available from the SIP for the specified individual. The following schema fragment defines this transaction:

```

<?xml version="1.0" encoding="UTF-8"?>
<QuerySIPResponse xsi:noNamespaceSchemaLocation="AgencyToSIP.xsd"
xmlns:hspd12="http://hspd12.gsa.gov/federated/enrollment"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <TransactionHeader>
    <hspd12:TransactionID>BBJKDKDK-
3</hspd12:TransactionID>

    <hspd12:TransactionOrganizationalIdentifier>0000</hspd12:TransactionOrganizationalIdentifier>
    <hspd12:SystemID>BLSLSL88888</hspd12:SystemID>
    <hspd12:TransactionTimeStamp>2001-12-
17T09:30:47.0Z</hspd12:TransactionTimeStamp>
  </TransactionHeader>
  <PersonalInformation>
    <hspd12:FirstName>Joe</hspd12:FirstName>
    <hspd12:MiddleName>A</hspd12:MiddleName>
    <hspd12:LastName>Smith</hspd12:LastName>
    <hspd12:Suffix>Jr</hspd12:Suffix>
    <hspd12:DateOfBirth>1967-08-13</hspd12:DateOfBirth>
    <hspd12:SSN>999999999</hspd12:SSN>
    <hspd12:TaxID>111111111</hspd12:TaxID>
    <hspd12:ForeignID>ForeignId</hspd12:ForeignID>
    <hspd12:Gender>M</hspd12:Gender>

    <hspd12:PrimaryIdentifierCountryCode>AA</hspd12:PrimaryIdentifierCountryCode>

    <hspd12:SecondaryIdentifier>Passport</hspd12:SecondaryIdentifier>

    <hspd12:SecondaryIdentifierCountryCode>AA</hspd12:SecondaryIdentifierCountryCode>
  </PersonalInformation>
  <SponsorshipInformation>

    <hspd12:PersonOrganizationAssociationCategory>Employee</hspd12:PersonOrganizationAssociationCategory>

    <hspd12:FederalEmergencyResponseOfficialFlag>true</hspd12:FederalEmergencyResponseOfficialFlag>

```

```

        <hspd12:DateofSponsorship>1967-08-
13</hspd12:DateofSponsorship>
        <hspd12:AffiliationBeginDate>1967-08-
13</hspd12:AffiliationBeginDate>
        <hspd12:AffiliationExpectedEndDate>1967-08-
13</hspd12:AffiliationExpectedEndDate>

        <hspd12:AffiliationSeparationReasonCode>1</hspd12:Affiliati
onSeparationReasonCode>
        <hspd12:AffiliationSeparationDate>1967-08-
13</hspd12:AffiliationSeparationDate>

        <hspd12:SponserFirstName>John</hspd12:SponserFirstName>

        <hspd12:SponsorMiddleName>Abraham</hspd12:SponsorMiddleName
>

        <hspd12:SponserLastName>Johnson</hspd12:SponserLastName>
</SponsorshipInformation>
<StatusInformation>
        <ProcessStatusCode>0</ProcessStatusCode>
        <ProcessStatusCodeDate>1967-08-
13</ProcessStatusCodeDate>
        <EnrollmentStatusMessage>Status
Message</EnrollmentStatusMessage>
        <PIVCardProductionStatusMessage>Production Status
Message</PIVCardProductionStatusMessage>
        <FinalizationStatusMessage>Finalization Status
Message</FinalizationStatusMessage>

        <EnrollmentAuthorizationFlag>true</EnrollmentAuthorizationF
lag>
        <EnrollmentAuthorizationFlagDate>1967-08-
13</EnrollmentAuthorizationFlagDate>
        <SuitabilityCode>1</SuitabilityCode>
        <SuitabilityCodeDate>1967-08-13</SuitabilityCodeDate>
        <EnrollmentStatusDate>1967-08-
13</EnrollmentStatusDate>
        <InvestigationStatusDate>1967-08-
13</InvestigationStatusDate>
        <AdjudicationStatusDate>1967-08-
13</AdjudicationStatusDate>
        <PIVCardProductionStatusDate>1967-08-
13</PIVCardProductionStatusDate>
        <FinalizationStatusDate>1967-08-
13</FinalizationStatusDate>
</StatusInformation>
<CurrentCredentialInformation>

        <FederalAgencySmartCardNumber>41394644363445313243</Federal
AgencySmartCardNumber>
        <CredentialIssuanceDate>1967-08-
13</CredentialIssuanceDate>

```

```

        <CredentialExpirationDate>1967-08-
13</CredentialExpirationDate>
        <CredentialTerminationDate>1967-08-
13</CredentialTerminationDate>

        <CredentialTerminationReasonCode>1</CredentialTerminationRe
asonCode>
    </CurrentCredentialInformation>
    <I-9DocumentInformation>
        <hspd12:I9Document1Type>Virginia
License</hspd12:I9Document1Type>
        <hspd12:I9Document1Issuer>State of
Virginia</hspd12:I9Document1Issuer>

        <hspd12:I9Document1IDNumber>12282822</hspd12:I9Document1IDN
umber>

        <hspd12:I9Document1Image>http://www.altova.com</hspd12:I9Do
cument1Image>

        <hspd12:I9Document1Results>12</hspd12:I9Document1Results>
        <hspd12:I9Document2Type>Maryland
License</hspd12:I9Document2Type>
        <hspd12:I9Document2Issuer>State of
Maryland</hspd12:I9Document2Issuer>

        <hspd12:I9Document2IDNumber>5678</hspd12:I9Document2IDNumbe
r>

        <hspd12:I9Document2Image>http://www.altova.com</hspd12:I9Do
cument2Image>

        <hspd12:I9Document2Results>32</hspd12:I9Document2Results>
    </I-9DocumentInformation>
    <PhotographInformation>http://www.altova.com</PhotographInf
ormation>
    <FingerprintInformation>

        <hspd12:EFTSData>http://www.altova.com</hspd12:EFTSData>

        <hspd12:INCITS381>http://www.altova.com</hspd12:INCITS381>

        <hspd12:PrimaryFingerDesignation>01</hspd12:PrimaryFingerDe
signation>

        <hspd12:SecondaryFingerDesignation>01</hspd12:SecondaryFing
erDesignation>

        <hspd12:PrimaryFingerprintMinutial>http://www.altova.com</h
spd12:PrimaryFingerprintMinutial>

        <hspd12:PrimaryFingerprintMinutia2>http://www.altova.com</h
spd12:PrimaryFingerprintMinutia2>

```

```
<hspd12:SecondaryFingerprintMinutia1>http://www.altova.com<
/hspd12:SecondaryFingerprintMinutia1>

<hspd12:SecondaryFingerprintMinutia2>http://www.altova.com<
/hspd12:SecondaryFingerprintMinutia2>
</FingerprintInformation>
<TransactionStatus>
  <hspd12:StatusCode>Success</hspd12:StatusCode>
  <hspd12:StatusMessage>Status
Message</hspd12:StatusMessage>
</TransactionStatus>
</QuerySIPResponse>
```

Appendix A: Glossary & Acronyms

Term	Description
Adjudication	The final decision as to any employee's suitability for employment, either as a government employee or contractor, exclusively determined by the agency's adjudication authority, using at a minimum the results of the: (a) NACI, and (b) FBI National Criminal History Check.
Applicant	Individual seeking a PIV card.
Enrollment	<p>An applicant to whom an identity credential is to be issued provides supporting enrollment documentation for claimed identity (i.e., enrollment establishes that the individual present matches the supporting documents). Enrollment delivers a secured enrollment package to the SIP for agency adjudication. There are two enrollment scenarios:</p> <ul style="list-style-type: none"> • Initial Enrollment – an applicant's first ever enrollment, evidenced by no enrollment package for the applicant yet residing at the SIP; • Re-enrollment – all enrollments where an enrollment package for the applicant already resides at the SIP. Re-enrollment may occur for many reasons including, but not limited to PIV card renewal, PIV card reissuance.
Extensible Markup Language (XML)	Specification developed by the W3C. XML is a pared-down version of SGML, designed especially for Web documents. It allows designers to create their own customized tags, enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.
HyperText Transfer Protocol, Secure (HTTPS)	The protocol for accessing a secure Web server. Using HTTPS in the URL instead of HTTP directs the message to a secure port number rather than the default Web port number of 80. The session is then managed by a security protocol such as Secure Socket Layer (SSL).
National Agency Check (NAC)	An integral part of all background investigations, consisting of searches of the OPM <i>Security/Suitability Investigations Index (SII)</i> , the <i>Defense Clearance and Investigations Index (DCII)</i> , the Federal Bureau of Investigation (FBI) Identification Division's name and fingerprint files, and other files or indices.
National Agency Check with Written Inquiries (NACI)	<p>The basic and minimum investigation required on all new Federal employees consisting of a NAC with written inquiries and searches of records covering specific areas of an individual's background during the past five years (inquiries sent to current and past employers, schools attended, references, and local law enforcement authorities). Coverage includes:</p> <ul style="list-style-type: none"> – Employment, 5 years – Education, 5 years and highest degree verified – Residence, 3 years – References – Law Enforcement, 5 years – NACs
Production Service Provider (PSP)	PSPs produce and personalize PIV cards.

Term	Description
SOAP	Lightweight XML-based messaging protocol used to encode the information in Web service request and response messages before sending them over a network. It consists of three parts: an envelope that defines a framework for describing what is in a message and how to process it, a set of encoding rules for expressing instances of application-defined data types, and a convention for representing remote procedure calls and responses. SOAP messages are independent of any operating system or protocol and may be transported using a variety of Internet protocols, including MIME and HTTP.
Sponsorship	An agency-authorized individual substantiates the need for a PIV credential to be issued to an individual (i.e, employee, contractor), and provides sponsorship to the individual. The PIV Sponsor requests the issuance of a PIV credential to the individual, who is then considered and applicant.
Suitability	<p>Suitability is not about job skills, but rather is about lack of criminal history, an upstanding character, and an evidenced loyalty to the United States. These determinations come out in the background investigation. Suitability is in addition to proving who an individual is. The NACI or higher, helps agencies make this suitability determination regardless of their job skills that come out in the interviews and resume. The final decision as to any employee's suitability for employment, as either a government employee or contractor, is exclusively with the agency's adjudication authority. At a minimum, the following results are needed to adjudicate:</p> <ul style="list-style-type: none"> ▪ NACI; and ▪ FBI National Criminal History Check
Web Services Description Language (WSDL)	An XML format for describing network services as a set of endpoints operating on messages containing either document-oriented or procedure-oriented information. The operations and messages are described abstractly, and then bound to a concrete network protocol and message format to define an endpoint. Related concrete endpoints are combined into abstract endpoints (services). WSDL is extensible to allow description of endpoints and their messages regardless of what message formats or network protocols are used to communicate
WS-Security	Standard that addresses data exchange security as part of a Web service. Specifically, WS-Security is a mechanism for adding security information into SOAP messages. SOAP provides a flexible technique for structuring messages, but it does not directly address how to secure the messages.

Acronym	Abbreviation For
EFTS	Electronic Fingerprint Transmission Specification
FASC-N	Federal Agency Smart Credential Number
FBI	Federal Bureau of Investigation
FIPS	Federal Information Processing Standards
HSPD-12	Homeland Security Presidential Directive-12
HTTPS	Hypertext Transfer Protocol Secure
INCITS	InterNational Committee for Information Technology Standards
IT	Information Technology
JPEG	Joint Photographic Experts Group
NAC	National Agency Check
NACI	National Agency Check with Written Inquiries
OI	Organizational Identifier
OPM	Office of Personnel Management
PACS	Physical Access Control System
PSP	Production Service Provider
PI	Person Identifier
PII	Personally Identifiable Information
PIV	Personal Identity Verification
SCI	Shared Component Infrastructure
SIP	System Infrastructure Provider
SOAP	Simple Object Access Protocol
SwA	SOAP with Attachment
WS	Web Services
WSDL	Web Services Description Language
XML	Extensible Markup Language