System Infrastructure Provider and Production Service Provider Interface Specification

Version 1.0.0
February 7, 2007

hspd12

Document History

Status	Release	Date	Comment	Audience
Draft	0.0.1	12/08/06	Initial Draft	AWG
Draft	0.1.0	12/15/06	Released for public review	Public
Final	1.0.0	2/7/07		Public

Editors

Rick Uhrig	Dave Silver	Terry McBride
Andrew Chui	Eric Le Saint	

Table of Contents

Figures

Tables

1 Introduction

This document provides the interface specification for Systems Infrastructure Provider (SIP) and Production Service Provider (PSP) 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 SIP, when ready to order production of one or more cards, sends a *Batch Card Customization Request* to the PSP. The PSP, after it completes the production, sends a *Batch Audit Trail* back to the SIP. The SIP-PSP interface specification provides the detail needed to assure interoperability for these messages.

Section 2, Data Elements and Structures, defines all request and response transactions. Section 3, Technical Specifications, provides XML samples of the transactions summarized in Section 2.

This SIP-PSP interface specification builds on the existing foundation that was initiated by the DOD [DoD Pre-Iss], evolved to a Federal specification [PIR] and that is now advancing, through the efforts of Global Platform, toward an industry-wide standard [GP Messaging PIV]. Accordingly, [GP Messaging PIV] is the baseline for the SIP to PSP interface specification and is referenced extensively throughout this document.

This document does not supersede or contradict any existing National Institute of Standards and Technology (NIST) publication, and should be used in conjunction with existing policies and procedures – particularly [NIST 800-47] and 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 Government-wide Policy and the HSPD-12 Executive Steering Committee in furtherance of their charter to implement HSPD-12 from a "national" perspective.

1.2   References

[DOD Pre-Iss]   Pre-Issuance Technical Requirements, Version 4.1.2 Final, February 9, 2005
                       www.smart.gov/iab/documents/SmartCardPreissuanceSpecification.pdf

[GP Messaging PIV]   GlobalPlatform Systems Messaging Configuration for PIV, Version 1.0, 19
                       October 2006,
                       http://www.globalplatform.org/uploads/GPS_Messaging%20Configuration%20f
                       or%20PIV_v1%200_PublicReview.pdf

[NIST 800-47]   Security Guide for Interconnecting Information Technology Systems
                       http://csrc.nist.gov/publications/nistpubs/800-47/sp800-47.pdf

[NIST 800-87]   NIST Special Publication 800-87, Codes for the Identification of Federal and
                       Federally Assisted Organizations, version 1.0, January 2006,
                       http://csrc.nist.gov/publications/nistpubs/800-87/sp800-87-Final.pdf

[PIR]   Government Pre-Issuance Technical Requirements, Version 4.2.1 Draft, June
                       2006

[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

Batch Card Customization consists of four (4) messages between the SIP and the PSP:
1. Batch Card Customization (BCC) Request
2. BCC Response
3. Batch Audit Trail (BAT)
4. BAT Response

The message flow is:
1. The *Batch Card Customization Request* is a message from the SIP to the PSP, requesting printing and electrical pre-personalization of PIV Cards
2. The PSP responds with a *Batch Card Customization Response* to indicate whether it successfully received the request.
3. Once the batch request has been fulfilled and the cards packaged for shipment, the PSP sends a *Batch Audit Trail*
4. The PSP responds with a *Batch Audit Trail Response* to indicate whether it successfully processed the audit trail.

Figure 2-1 presents a high-level sequence diagram of this message flow.

Figure 2-1: Transaction Sequence Diagram
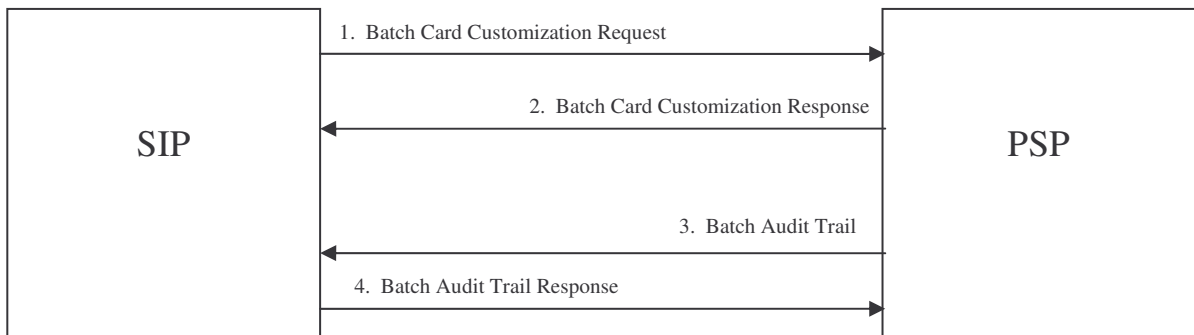
All messages are SOAP-wrapped XML messages sent over HTTPS. In accordance with [WS-Security]:
1. For every message, the sender digitally signs the SOAP body (including any attachments), and the receiver uses the digital signature to determine if tampering has occurred; and
2. For every message that contains 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.

For Global Platform messages, the table columns have the following meanings:
- **#:** A sequence number for convenient reference
- **Field:** The appropriate element/attribute field as defined in [GP Messaging PIV]. As Global Platform messages have an elaborate and complex structure relying heavily on nested elements, the names get very lengthy. For completeness, the nesting structure is shown using *dot notation*, so that "A.B.C" means "C" is contained by "B" which is contained by "A." For brevity and clarity, acronyms are often used for field names after the first use. For example, "GPMessage," after being introduced, is subsequently written as "GPM."
- **GP:** How [GP Messaging PIV] classifies this field. The options are:
  - M – the field is mandatory
  - O – the field is optional
  - N – the field is not used.
  - A ":n" suffix shows occurrences. ":1" means 1 occurrence, ":2" means up to 2 occurrences, ":X" means an unspecified number of multiple occurrences are allowed
- **S**: How the Shared Component Architecture (SCA) classifies this field. The options are:
  - M – the field is mandatory. PSP must use, SIP must accept
  - O – the field is optional. PSP may use, SIP must accept
  - X – the field is not required and may be ignored. PSP should not use, SIP may ignore
- **SCA Constraints:** Constraints imposed by the SCA

[GP Messaging PIV] does not currently include response messages that acknowledge receipt of a BCC or BAT message. Accordingly, BCC and BAT response messages listed herein are SCA-defined, and modeled on the Transaction Header and Transaction Status data structures used in other SCA interface specifications. For SCA defined BCC and BAT response messages:
- "xs:" prefix indicates an XML datatype in accordance with [XML Datatypes]
- all response transaction fields listed are required (mandatory)

2.1 Batch Card Customization Request

The fields and formats for the BCC Request message are defined in [GP Messaging PIV].   Table 2-2 enumerates those fields and any constraints imposed by the SCA.

Table 2-2: Batch Card Customization Request Fields and Associated Constraints

#	[GP Messaging PIV] BCC Request Field	GP	S	SCA Constraints
1	GPMessage	M	M	
2	GPM.GPHeader	M	M	
3	GPM.GPH.TransactionID	M	M	Unique for BOTH SIP and PSP
4	GPM.GPH.Source	M	M	OID for SIP
5	GPM.GPH.Destination	M	M	OID for PSP
6	GPM.GPH.Type	M	M	"BATCH_CARD_CUSTOMIZATION"
7	GPM.GPH.MessageVersion	M	M	"1.0"
8	GPM.GPH.ErrataVersion	O	O	
9	GPM.GPH.Signature	O	O	
10	GPM.GPH.RequestingEntity	M	M	
11	GPM.GPH.RequestingEntity.EntityID	M	M	
12	GPM.GPH.RequestingEntity.EntityID.Type	M	M	"OrganizationOID" or "AgencyCode"
13	GPM.GPH.RequestingEntity.EntityID.Encoding	M	M	"Hex" or "Integer"
14	GPM.GPH.RequestingEntity.EntityID.Value	M	M	
15	GPM.GPH.RequestingEntity.Entity	O	M	
16	GPM.GPH.RequestingEntity.Entity.Name	M	M	
17	GPM.GPH.RequestingEntity.Entity.Address	O	M	
18	GPM.GPH.RequestingEntity.Entity.Address.StreetAddress	M:2	M	Two lines max, 2nd optional
19	GPM.GPH.RequestingEntity.Entity.Address.City	M	M	
20	GPM.GPH.RequestingEntity.Entity.Address.State	M	M	
21	GPM.GPH.RequestingEntity.Entity.Address.Zip	M	M	
22	GPM.GPH.RequestingEntity.Entity.Address.Country	M	M	
23	GPM.GPH.RequestingEntity.Entity.Contact	O:2	M	Two Maximum
24	GPM.GPH.RequestingEntity.Entity.Contact.Person	O	M	
25	GPM.GPH.RequestingEntity.Entity.Contact.Person.FirstName	M	M	
26	GPM.GPH.RequestingEntity.Entity.Contact.Person.MiddleName	O:2	M	
27	GPM.GPH.RequestingEntity.Entity.Contact.Person.LastName	M	M	
28	GPM.GPH.RequestingEntity.Entity.Contact.PhoneNumber	O:2	M	
29	GPM.GPH.RequestingEntity.Entity.Contact.FaxNumber	O:2	M	
30	GPM.GPH.RequestingEntity.Entity.Contact.eMail	O:2	M	
31	GPM.GPH.RequestingEntity.Entity.Contact.URL	O:2	M	
32	GPM.GPH.RequestingEntity.Entity.Contact.Information	O	M	
33	GPM.GPH.RequestingEntity.Entity.Contact.Information.Comment	M	M	
34	GPM.GPH.TargetEntity	M	M	
35	GPM.GPH.TargetEntity.EntityID	M	M	
36	GPM.GPH.TargetEntity.EntityID.Type	M	M	"OrganizationOID" or "AgencyCode"
37	GPM.GPH.TargetEntity.EntityID.Encoding	M	M	"Hex" or "Integer"
38	GPM.GPH.TargetEntity.EntityID.Value	M	M	
39	GPM.GPH.TargetEntity.Entity	0	M	
40	GPM.GPH.TargetEntity.Entity.Name	M	M	
41	GPM.GPH.TargetEntity.Entity.Address	O	M	

#	[GP Messaging PIV] BCC Request Field	GP	S	SCA Constraints
42	GPM.GPH.TargetEntity.Entity.Address.StreetAddress	M:2	M	
43	GPM.GPH.TargetEntity.Entity.Address.City	M	M	
44	GPM.GPH.TargetEntity.Entity.Address.State	M	M	
45	GPM.GPH.TargetEntity.Entity.Address.Zip	M	M	
46	GPM.GPH.TargetEntity.Entity.Address.Country	M	M	
47	GPM.GPH.TargetEntity.Entity.Contact	O:2	O	
48	GPM.GPH.TargetEntity.Entity.Contact.Person	O	O	
49	GPM.GPH.TargetEntity.Entity.Contact.Person.FirstName	M	O	
50	GPM.GPH.TargetEntity.Entity.Contact.Person.MiddleName	O:2	O	
51	GPM.GPH.TargetEntity.Entity.Contact.Person.LastName	M	O	
52	GPM.GPH.TargetEntity.Entity.Contact.PhoneNumber	O:2	O	
53	GPM.GPH.TargetEntity.Entity.Contact.FaxNumber	O:2	O	
54	GPM.GPH.TargetEntity.Entity.Contact.eMail	O:2	O	
55	GPM.GPH.TargetEntity.Entity.Contact.URL	O:2	O	
56	GPM.GPH.TargetEntity.Entity.Contact.Information	O	O	
57	GPM.GPH.TargetEntity.Entity.Contact.Information.Comment	M	O	
58	GPM.GPH.MessageContext	O	O	
59	GPM.GPH.MessageContext.Data	O	O	
60	GPM.GPH.MessageContext.Data.DataElement	O	O	
61	GPM.GPH.MessageContext.Data.DataElement.Author	M	O	
62	GPM.GPH.MessageContext.Data.DataElement.Comment	O	O	
63	GPM.GPH.MessageContext.Data.DataElement.TaskOrder	O	O	
64	GPM.GPH.MessageContext.Data.DataElement.Purchase Order	O	O	
65	GPM.GPH.MessageContext.Data.DataElement.BatchParentId	O	O	
66	GPM.GPH.MessageContext.Data.Value	O	O	
67	GPM.GPBody	M	M	
68	GPM.GPB.BatchCardCustomization	M:1	M	One per bcc request message
69	GPM.GPB.BCC.BatchID	M	M	
70	GPM.GPB.BCC.IssuingEntity	M	M	
71	GPM.GPB.BCC.ProcessingEntity	M	M	
72	GPM.GPB.BCC.UserData	N	X	Not Used
73	GPM.GPB.BCC.BatchType	M	M	
74	GPM.GPB.BCC.EnvironmentContainer	M:1	M	One per bcc request message
75	GPM.GPB.BCC.EC.EnvironmentName	M	M	e.g. "GlobalPlatform"
76	GPM.GPB.BCC.EC.EnvironmentVersion	M	M	
77	GPM.GPB.BCC.EC.Preference	M	M	??
78	GPM.GPB.BCC.EC.CommandInterpreterSupport	O	O	
79	GPM.GPB.BCC.EC.CommandInterpreterType	O	O	
80	GPM.GPB.BCC.EC.CommandInterpreterVersion	O	O	
81	GPM.GPB.BCC.EC.JobContainer	M:1	M	One per bcc request message
82	GPM.GPB.BCC.EC.JC.JobID	O	X	Not used
83	GPM.GPB.BCC.EC.JC.JobPriorityLevel	O	O	
84	GPM.GPB.BCC.EC.JC.RiskLevel	O	O	
85	GPM.GPB.BCC.EC.JC.DataContainerHeader	M:1	M	One per bcc request message
86	GPM.GPB.BCC.EC.JC.DCH.DataGenerationDate	M	M	
87	GPM.GPB.BCC.EC.JC.DCH.CardProductID	M	M	must be pre-agreed
88	GPM.GPB.BCC.EC.JC.DCH.CardProductVersion	M	M	must be pre-agreed
89	GPM.GPB.BCC.EC.JC.DCH.IssuerName	M	M	Same as RequestingEntity.name
90	GPM.GPB.BCC.EC.JC.DCH.CardRecordCount	M	M	
91	GPM.GPB.BCC.EC.JC.DCH.PlasticStockID	O	O	If used, must be pre-agreed
92	GPM.GPB.BCC.EC.JC.DCH.RequiredProcessingDate	O	O	
93	GPM.GPB.BCC.EC.JC.DCH.CommonDataContainer	M	M	

#	[GP Messaging PIV] BCC Request Field	GP	S	SCA Constraints
94	GPM.GPB.BCC.EC.JC.DCH.CDC.CommonModuleIdentifier	M	M	Electrical Pre-perso common to all
95	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.Identifier	M	M	"COMMON_CHIP_ENCODING"
96	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.CardCommonConfiguration	M	M	
97	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.CCC.CollatorStatus	M	M	"4"
98	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.CCC.ValidCardProfileID	M	M	Pre-agreed, unique OID for profile.
99	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.CCC.AID	M:1	M	Per SP 800-73
100	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.ApplicationCommonData	M:1	M	
101	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.ACD.ApplicationData	M	M	
102	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.ACD.AD.AID	M	M	
103	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.ACD.AD.ApplicationProfileUniqueID	M	M	OIP of PIV Application profile
104	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.ACD.AD.ProcessingStep	N	X	Not Used
105	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.ACD.AD.LogData	N	X	Not Used
106	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.ACD.AD.ICCData	N	X	Not Used
107	GPM.GPB.BCC.EC.JC.DCH.CDC.CMI.ACD.AD.Signature	N	X	Not Used
108	GPM.GPB.BCC.EC.JC.DCH.CDC.Module	M	M	Printing layout common to all
109	GPM.GPB.BCC.EC.JC.DCH.CDC.M.ModuleName	M	M	"COMMON_LAYOUT_PRINTING"
110	GPM.GPB.BCC.EC.JC.DCH.CDC.M.Identifier	M	M	Defined by sender
111	GPM.GPB.BCC.EC.JC.DCH.CDC.M.ProfileUniqueID	M	M	Unique OID of card printing profile
112	GPM.GPB.BCC.EC.JC.DCH.CDC.M.ProcessingStep	N	X	Not used
113	GPM.GPB.BCC.EC.JC.DCH.CDC.M.LogData	N	X	Not used
114	GPM.GPB.BCC.EC.JC.DCH.CDC.M.ModuleData	O	O	If present, must have at least 1 Data
115	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DataSet	M:X	O	":X" Redundant???
116	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Name	O	O	
117	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
118	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"ZONE_4_AGENCY SPECIFIC"
119	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	ASCII Text
120	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
121	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"ZONE_9_AGENCY_SPECIFIC"
122	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	ASCII Text
123	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
124	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"ZONE_10_AGENCY_SPECIFIC"
125	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	ASCII Text
126	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
127	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"ZONE_17_AGENCY_SPECIFIC"
128	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	ASCII Text
129	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
130	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"HEADER"
131	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	ASCII Text
132	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
133	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"AGENCY_SEAL"
134	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	Base 64 encoded jpeg
135	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
136	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"FOOTER"
137	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	ASCII Text
138	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
139	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"RETURN_TO"
140	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	ASCII Text
141	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.Data	O	O	
142	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.DataElement	O	O	"WARNING_LANGUAGE"
143	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.D.Value	O	O	ASCII Text
144	GPM.GPB.BCC.EC.JC.DCH.CDC.M.MD.DS.TransportKey	N	X	Not Used
145	GPM.GPB.BCC.EC.JC.DCH.CDC.M.Signature	N	X	Not used

#	[GP Messaging PIV] BCC Request Field	GP	S	SCA Constraints
146	GPM.GPB.BCC.EC.JC.DCH.CDC.DeliveryModule	O	O	Delivery instructions
147	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.EntityID	M	O	
148	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.EntityID.Type	M	O	"OrganizationOID" or "AgencyCode"
149	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.EntityID.Encoding	M	O	"Hex" or "Integer"
150	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.EntityID.Value	M	O	
151	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity	0	O	
152	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Name	M	O	
153	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Address	O	O	
154	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Address.StreetAddress	M:2	O	
155	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Address.City	M	O	
156	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Address.State	M	O	
157	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Address.Zip	M	O	
158	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Address.Country	M	O	
159	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact	O:2	O	
160	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.Person	O	O	
161	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.Person.FirstName	M	O	
162	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.Person.MiddleName	O:2	O	
163	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.Person.LastName	M	O	
164	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.PhoneNumber	O:2	O	
165	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.FaxNumber	O:2	O	
166	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.eMail	O:2	O	
167	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.URL	O:2	O	
168	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.Information	O	O	
169	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.Entity.Contact.Information.Comment	M	O	
170	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.RequestedDeliveryDate	O	O	
171	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.RDD.RequestedDeliveryDate	M	O	
172	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.RDD.ExpectedCommitDate	M	O	
173	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.ShippingInformation	O	O	If present, at least 1 Data
174	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.SI.Data	O	O	
175	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.SI.Data.DataElement	M	O	"CARRIER_NAME"
176	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.SI.Data.Value	M	O	Pre-agreed upon values
177	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.SI.Data	O	O	
178	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.SI.Data.DataElement	M	O	"CARRIER_MODE"
179	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.SI.Data.Value	M	O	Pre-agreed upon values
180	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.PackagingInformation	O	O	
181	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.PI.Data	M	O	
182	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.PI.Data.DataElement	M	O	"PACKAGE_TYPE"
183	GPM.GPB.BCC.EC.JC.DCH.CDC.DM.PI.Data..Value	M	O	Pre-agreed upon values
184	GPM.GPB.BCC.EC.JC.DCH.DataContainer	M:X	M	
185	GPM.GPB.BCC.EC.JC.DCH.DC.ModuleIdentifierCode	O	M	"CHIP_ENCODING"
186	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.Identifier	M	M	
187	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CardConfiguration	M	M	
188	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.CollatorStatus	M	M	"4"
189	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.CRN	M	M	
190	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.CRN.Number	M	M	
191	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.VaildCardProfileID	N	X	
192	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.AID	M	M	
193	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.AID.AID	M	M	
194	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.AID.Order	M	M	
195	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.AID.TargetState	N	X	
196	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.CC.AID.ReachedState	N	X	"1"
197	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.ApplicationData	M:1	M	

#	[GP Messaging PIV] BCC Request Field	GP	S	SCA Constraints
198	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.AID	M	M	
199	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.AID.AID	M	M	
200	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.AID.Order	M	M	"1"
201	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.AID.TargetState	N	X	
202	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.AID.ReachedState	N	X	
203	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ApplicationProfileUniqueID	N	X	Not used
204	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ProcessingStep	N	X	Not used
205	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.LogData	N	X	Not used
206	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ICCData	O	X	Not used
207	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ICCD.DataSet	M:X	X	Not used
208	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ICCD.DS.Name	O	X	Not used
209	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ICCD.DS.Data	M:X	X	Not used
210	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ICCD.DS.Data.DataElement	O	X	Not used
211	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ICCD.DS.Data.Value	O	X	Not used
212	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.ICCD.DS.TransportKey	N	X	Not used
213	GPM.GPB.BCC.EC.JC.DCH.DC.MIC.AD.Signature	N	X	Not used
214	GPM.GPB.BCC.EC.JC.DCH.DC.ModuleCommonData	N	X	Not Used
215	GPM.GPB.BCC.EC.JC.DCH.DC.Module	M	M	Card-specific printing info
216	GPM.GPB.BCC.EC.JC.DCH.DC.M.ModuleName	M	M	"LAYOUT_PRINTING"
217	GPM.GPB.BCC.EC.JC.DCH.DC.M.Identifier	M	M	
218	GPM.GPB.BCC.EC.JC.DCH.DC.M.ProfileUniqueID	N	M	
219	GPM.GPB.BCC.EC.JC.DCH.DC.M.ProcessingStep	N	M	
220	GPM.GPB.BCC.EC.JC.DCH.DC.M.LogData	N	M	
221	GPM.GPB.BCC.EC.JC.DCH.DC.M.ModuleData	M	M	
222	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DataSet	M:X	M	":X" redundant???
223	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Name	O	M	
224	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	M	M	
225	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	M	"FIRST_NAME_MIDDLE_INT"
226	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	M	ASCII
227	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	M	M	
228	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	M	"LAST_NAME"
229	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	M	ASCII
230	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	M	M	
231	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	M	"PRINTED_PHOTO"
232	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	M	Base64 encoded jpeg
233	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	M	M	
234	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	M	"EMPLOYEE_AFFILIATION_LINE_1"
235	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	M	ASCII
236	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	M	O	
237	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"EMPLOYEE_AFFILIATION_LINE_2"
238	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	ASCII
239	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	M	M	
240	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	M	"EXPIRATION_DATE_PI"
241	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	M	ASCII
242	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	M	M	
243	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	M	"AGENCY_CARD_SERIAL_NM"
244	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	M	ASCII
246	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	M	M	
247	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	M	"ISSUER_IDENTIFICATION"
248	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	M	ASCII
249	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
250	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"SIGNATURE_IMAGE"

#	[GP Messaging PIV] BCC Request Field	GP	S	SCA Constraints
251	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	Base64 encoded jpeg
252	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
253	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"COLOR_CODING"
254	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	ASCII image reference
255	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
256	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"EMERGENCY_RESPONDER"
257	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	ASCII
258	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
259	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"PHOTO_BORDER"
260	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	ASCII image reference
261	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
262	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"2D_BAR_CODE"
263	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	Base64 encoded PDF417 bar code
264	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
265	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"RANK"
266	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	ASCII
267	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
268	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"PHYS_CHAR_HEIGHT"
269	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	ASCII
270	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
271	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"PHYS_CHAR_EYE_COLOR"
272	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	ASCII
273	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
274	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"LINEAR_3_OF_9_BAR_CODE"
275	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	Base64 encoded Code39 bar code
276	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data	O	O	
277	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.DataElement	M	O	"ISSUE_DATE"
278	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.Data.Value	M	O	ASCII
279	GPM.GPB.BCC.EC.JC.DCH.DC.M.MD.DS.TransportKey	N	X	Not Used
280	GPM.GPB.BCC.EC.JC.DCH.DC.M.Signature	N	X	Not Used
281	GPM.GPB.BCC.EC.JC.DCH.DC.DeliveryModule	N	X	Not Used

2.2 Batch Card Customization Response

The fields and formats for the BCC Response message are NOT currently defined in [GP Messaging PIV].   Table 2-3 enumerates those fields.

Table 2-3: Batch Card Customization Response Fields with Associated Constraints

Transaction Header Field	Description	Datatype	Constraints
TransactionID	Unique identifier specific to a transaction request/response pair. Supports tracking, auditing, and billing as necessary	xs:string	Required. <=256 characters The value from corresponding BCC transaction of GPM.GPH.TransactionID
TransactionOrganizationalIdentifier	Organizational Identifier (OI) of the organization sending the transaction	xs:string	Required. 4 characters Valid Values: [NIST 800-87] organization codes
SystemID	Unique identifier of the system (e.g., agency HR system, SIP, enrollment station) sending the transaction	xs:string	Required. <=256 characters The PSP system's unique identifier assigned by the SCI Governing Authority
TransactionTimeStamp	The date and time the transaction was sent (e.g., 2002-10-10T12:00:00-05:00)	xs:dateTime	Required, 25 characters Format: yyyy-mm-ddThh:mm:ss-timezone

Transaction Status Field	Description	Datatype	Constraints
StatusCode	Status code indicating whether transaction was received	xs:string	Required. Valid Values: "Success", "Failure"
StatusMessage	Human-readable message to provide additional information	xs:string	Required. e.g. "The BCC was received"

2.3 Batch Audit Trail

The fields and formats for the BAT message are defined in [GP Messaging PIV].   Table 2-4 enumerates those fields and any constraints imposed by the SCA.

Table 2-4: Batch Audit Trail Fields with Associated Constraints

#	[GP Messaging PIV] BAT Field	GP	S	SCA Constraints
1	GPMessage	M	M	
2	GPM.GPHeader	M	M	
3	GPM.GPH.TransactionID	M	M	Unique for BOTH SIP and PSP
4	GPM.GPH.Source	M	M	OID for SIP
5	GPM.GPH.Destination	M	M	OID for PSP
6	GPM.GPH.Type	M	M	"BATCH_CARD_CUSTOMIZATION"
7	GPM.GPH.MessageVersion	M	M	"1.0"
8	GPM.GPH.ErrataVersion	O	O	
9	GPM.GPH.Signature	O	O	
10	GPM.GPH.RequestingEntity	M	M	
11	GPM.GPH.RequestingEntity.EntityID	M	M	
12	GPM.GPH.RequestingEntity.EntityID.Type	M	M	"OrganizationOID" or "AgencyCode"
13	GPM.GPH.RequestingEntity.EntityID.Encoding	M	M	"Hex" or "Integer"
14	GPM.GPH.RequestingEntity.EntityID.Value	M	M	
15	GPM.GPH.RequestingEntity.Entity	O	M	
16	GPM.GPH.RequestingEntity.Entity.Name	M	M	
17	GPM.GPH.RequestingEntity.Entity.Address	O	M	
18	GPM.GPH.RequestingEntity.Entity.Address.StreetAddress	M:2	M	Two lines max, 2nd optional
19	GPM.GPH.RequestingEntity.Entity.Address.City	M	M	
20	GPM.GPH.RequestingEntity.Entity.Address.State	M	M	
21	GPM.GPH.RequestingEntity.Entity.Address.Zip	M	M	
22	GPM.GPH.RequestingEntity.Entity.Address.Country	M	M	
23	GPM.GPH.RequestingEntity.Entity.Contact	O:2	O	Two Maximum
24	GPM.GPH.RequestingEntity.Entity.Contact.Person	O	O	
25	GPM.GPH.RequestingEntity.Entity.Contact.Person.FirstName	M	O	
26	GPM.GPH.RequestingEntity.Entity.Contact.Person.MiddleName	O:2	O	
27	GPM.GPH.RequestingEntity.Entity.Contact.Person.LastName	M	O	
28	GPM.GPH.RequestingEntity.Entity.Contact.PhoneNumber	O:2	O	
29	GPM.GPH.RequestingEntity.Entity.Contact.FaxNumber	O:2	O	
30	GPM.GPH.RequestingEntity.Entity.Contact.eMail	O:2	O	
31	GPM.GPH.RequestingEntity.Entity.Contact.URL	O:2	O	
32	GPM.GPH.RequestingEntity.Entity.Contact.Information	O	O	
33	GPM.GPH.RequestingEntity.Entity.Contact.Information.Comment	M	O	
34	GPM.GPH.TargetEntity	M	M	
35	GPM.GPH.TargetEntity.EntityID	M	M	
36	GPM.GPH.TargetEntity.EntityID.Type	M	M	"OrganizationOID" or "AgencyCode"
37	GPM.GPH.TargetEntity.EntityID.Encoding	M	M	"Hex" or "Integer"
38	GPM.GPH.TargetEntity.EntityID.Value	M	M	
39	GPM.GPH.TargetEntity.Entity	0	M	
40	GPM.GPH.TargetEntity.Entity.Name	M	M	
41	GPM.GPH.TargetEntity.Entity.Address	O	M	
42	GPM.GPH.TargetEntity.Entity.Address.StreetAddress	M:2	M	

#	[GP Messaging PIV] BAT Field	GP	S	SCA Constraints
43	GPM.GPH.TargetEntity.Entity.Address.City	M	M	
44	GPM.GPH.TargetEntity.Entity.Address.State	M	M	
45	GPM.GPH.TargetEntity.Entity.Address.Zip	M	M	
46	GPM.GPH.TargetEntity.Entity.Address.Country	M	M	
47	GPM.GPH.TargetEntity.Entity.Contact	O:2	O	
48	GPM.GPH.TargetEntity.Entity.Contact.Person	O	O	
49	GPM.GPH.TargetEntity.Entity.Contact.Person.FirstName	M	O	
50	GPM.GPH.TargetEntity.Entity.Contact.Person.MiddleName	O:2	O	
51	GPM.GPH.TargetEntity.Entity.Contact.Person.LastName	M	O	
52	GPM.GPH.TargetEntity.Entity.Contact.PhoneNumber	O:2	O	
53	GPM.GPH.TargetEntity.Entity.Contact.FaxNumber	O:2	O	
54	GPM.GPH.TargetEntity.Entity.Contact.eMail	O:2	O	
55	GPM.GPH.TargetEntity.Entity.Contact.URL	O:2	O	
56	GPM.GPH.TargetEntity.Entity.Contact.Information	O	O	
57	GPM.GPH.TargetEntity.Entity.Contact.Information.Comment	M	O	
58	GPM.GPH.MessageContext	O	O	
59	GPM.GPH.MessageContext.Data	O	O	
60	GPM.GPH.MessageContext.Data.DataElement	O	O	
61	GPM.GPH.MessageContext.Data.DataElement.Author	M	O	
62	GPM.GPH.MessageContext.Data.DataElement.Comment	O	O	
63	GPM.GPH.MessageContext.Data.DataElement.TaskOrder	O	O	
64	GPM.GPH.MessageContext.Data.DataElement.Purchase Order	O	O	
65	GPM.GPBody	M	M	
66	GPM.GPB.BatchAuditTrail	M:1	M	One per BAT request message
67	GPM.GPB.BAT.BatchID	M	M	Same as in BCC Request
68	GPM.GPB.BAT.IssuingEntity	M	M	Same as in BCC Request
69	GPM.GPB.BAT.ProcessingEntity	M	M	Same as in BCC Request
70	GPM.GPB.BAT.UserData	N	X	Not Used
71	GPM.GPB.BAT.ReturnCodeStep	O	O	
72	GPM.GPB.BAT.RCS.AuditTrailHeader	O	O	
73	GPM.GPB.BAT.RCS.EnvironmentContainer	O	O	
74	GPM.GPB.BAT.RCS.JobContainer	O	O	
75	GPM.GPB.BAT.RCS.DataContainerHeader	O	O	
76	GPM.GPB.BAT.RCS.Collation	O	O	
77	GPM.GPB.BAT.RCS.DataContainer	O	O	
78	GPM.GPB.BAT.Error	O	O	
79	GPM.GPB.BAT.Error.ErrorCategory	O	O	
80	GPM.GPB.BAT.Error.ErrorNumber	M	O	
81	GPM.GPB.BAT.Error.ErrorDescription	0	O	
82	GPM.GPB.BAT.EnvironmentContainerLog	M:1	M	One per BAT request message
83	GPM.GPB.BAT.ECL.EnvironmentName	M	M	e.g. "GlobalPlatform"
84	GPM.GPB.BAT.ECL.EnvironmentVersion	M	M	
85	GPM.GPB.BAT.ECL.Error	0	O	
86	GPM.GPB.BAT.ECL.Error.ErrorCategory	O	O	
87	GPM.GPB.BAT.ECL.Error.ErrorNumber	M	O	
88	GPM.GPB.BAT.ECL.Error.ErrorDescription	0	O	
89	GPM.GPB.BAT.ECL.JobContainerLog	M:1	M	One per BAT request message
90	GPM.GPB.BAT.ECL.JCL.JobID	O	O	Not used
91	GPM.GPB.BAT.ECL.JCL JobPriorityLevel	O	O	Same as in BCC Request
92	GPM.GPB.BAT.ECL.JCL.RiskLevel	O	O	Same as in BCC Request
93	GPM.GPB.BAT.ECL.JCL.Date	O	O	
94	GPM.GPB.BAT.ECL.JCL.LogContainerHeader	M:1	M	One per BAT request message

#	[GP Messaging PIV] BAT Field	GP	S	SCA Constraints
95	GPM.GPB.BAT.ECL.JCL.LCH.DataGenerationDate	M	M	Same as in BCC Request
96	GPM.GPB.BAT.ECL.JCL.LCH.CardProductID	M	M	Same as in BCC Request
97	GPM.GPB.BAT.ECL.JCL.LCH.CardProductVersion	M	M	Same as in BCC Request
98	GPM.GPB.BAT.ECL.JCL.LCH.IssuerName	M	M	Same as in BCC Request
99	GPM.GPB.BAT.ECL.JCL.LCH.CardRecordCount	M	M	
100	GPM.GPB.BAT.ECL.JCL.LCH.PlasticStockID	O	O	Same as in BCC Request
101	GPM.GPB.BAT.ECL.JCL.LCH.ProcessingDate	M	M	
102	GPM.GPB.BAT.ECL.JCL.LCH.Error	O	O	
103	GPM.GPB.BAT.ECL.JCL.LCH.Error.ErrorCategory	O	O	
104	GPM.GPB.BAT.ECL.JCL.LCH.Error.ErrorNumber	M	O	
105	GPM.GPB.BAT.ECL.JCL.LCH.Error.ErrorDescription	0	O	
106	GPM.GPB.BAT.ECL.JCL.LCH.CommonLogContainer	M	M	
107	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CommonLogIdentifierCode	M	M	
108	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.Identifier	M	M	"COMMON_CHIP_ENCODING"
109	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.CardCommonConfigurationLog	M	M	
110	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.CCCL.DecollationStatus	M	M	
111	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.CCCL.ValidCardProfileID	M	M	Same as in BCC Request
112	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.CCCL.Error	M	M	
113	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.CCCL.E.ErrorCategory	O	O	
114	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.CCCL.E.ErrorNumber	M	O	
115	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.CCCL.E.ErrorDescription	0	O	
116	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.CCCL.CollatorReturnCode	N	X	Not Used
117	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.ApplicationCommonLog	M:1	M	
118	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.ACL.ApplicationLog	M	M	
119	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.ACL.AL.AID	M	M	Same as in BCC Request
120	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.ACL.AL.ApplicationProfileUniqueID	M	M	Same as in BCC Request
121	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.ACL.AL.ProcessingStepResult	M	M	Not Used
122	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.ACL.AL.LogData	N	X	Not Used
123	GPM.GPB.BAT.ECL.JCL.LCH.CLC.CLIC.ACL.AL.Signature	N	X	Not Used
124	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ModuleLog	M	M	
125	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.ModuleName	M	M	"COMMON_LAYOUT_PRINTING"
126	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.Identifier	M	M	Same as in BCC Request
127	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.ProfileUniqueID	M	M	Same as in BCC Request
128	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.ProcessingStepResult	N	X	Not Used
129	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.LogData	M	M	Not Used
130	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.Signature	M	M	Not Used
131	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.Error	O	O	
132	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.E.ErrorCategory	O	O	
133	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.E.ErrorNumber	M	O	
134	GPM.GPB.BAT.ECL.JCL.LCH.CLC.ML.E.ErrorDescription	0	O	
135	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DeliveryModuleLog	M	M	
136	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.RequestedDeliveryDate	O	O	Same as in BCC Request
137	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.ExpectedDeliveryDate	O	O	
138	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.DeliveryDate	O	O	
139	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.EntityID	O	O	Same as in BCC Request
140	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.Entity	O	O	Same as in BCC Request
141	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.ShippingInformation	O	O	
142	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data	M	O	
143	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data.DataElement	M	O	"SHIPPING_DATE"
144	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data.Value	M	O	YYYYMMDD
145	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data	M:X	O	
146	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data.DataElement	M	O	"CARRIER_NAME"

#	[GP Messaging PIV] BAT Field	GP	S	SCA Constraints
147	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data.Value	M	O	ASCII
148	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data	M:X	O	
149	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data.DataElement	M	O	"CARRIER_MODE"
150	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data.Value	M	O	ASCII
151	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data	M:X	O	
152	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data.DataElement	M	O	"TRACKING_NUMBER"
153	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.SI.Data.Value	M	O	ASCII
154	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.PackagingInformation	O	O	
155	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.PI.Data	M:X	O	
156	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.PI.Data.DataElement	M	O	"PACKAGE_TYPE"
157	GPM.GPB.BAT.ECL.JCL.LCH.CLC.DML.PI.Data.Value	M	O	ASCII
158	GPM.GPB.BAT.ECL.JCL.LCH.LogContainer	M:X	M	
159	GPM.GPB.BAT.ECL.JCL.LCH.LC.LogIdentifierCode	O	O	
160	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.Identifier	M	O	"CHIP_ENCODING"
161	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CardConfigurationLog	M	O	
162	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.DecollationStatus	M	O	"1"
163	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.Error	O	O	
164	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.E.ErrorCategory	O	O	
165	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.E.ErrorNumber	M	O	
166	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL E.ErrorDescription	0	O	
167	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.CollatorReturnCode	N	X	Not Used
168	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.CRN	M	O	
169	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.CRN.Number	M	O	
170	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.ValidCardProfileID	N	X	
171	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PhysicalCardIdentifier	M	O	
172	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PCI.IdentifierType	M	O	
173	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PCI.IdentifierValue	M	O	
174	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PCI.AID	M	O	
175	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PCI.AID.AID	M	O	Same as in BCC
176	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PCI.AID.Order	M	O	"1"
177	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PCI.AID.TargetState	N	X	Not Used
178	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PCI.AID.ReachedState	N	X	Not Used
179	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.PCI.CardLifeCycleState	O	O	
180	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.CCL.MuteCardsNumber	N	X	Not USed
181	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.ApplicationLog	N	O	Not Used
182	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.AID	M	O	
183	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.AID.AID	M	O	Same as in BCC
184	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.AID.Order	M	O	"1"
185	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.AID.TargetState	N	X	Not Used
186	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.AID.ReachedState	N	X	Not Used
187	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.ApplicationProfileUniqueID	N	X	Not Used
189	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.ProcessingStep	N	X	Not Used
190	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.LogData	N	X	Not Used
191	GPM.GPB.BAT.ECL.JCL.LCH.LC.LIC.AL.Signature	N	X	Not Used
192	GPM.GPB.BAT.ECL.JCL.LCH.LC.ModuleCommonData	N	X	Not Used
193	GPM.GPB.BAT.ECL.JCL.LCH.LC.ModuleLog	M	M	
194	GPM.GPB.BAT.ECL.JCL.LCH. LC.ML.ModuleName	M	M	"LAYOUT_PRINTING"
195	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.Identifier	M	M	Same as in BCC Request
196	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.ProfileUniqueID	M	M	Same as in BCC Request
197	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.ProcessingStepResult	N	X	Not Used
198	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.LogData	N	X	Not Used
199	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.Signature	N	X	Not Used

#	[GP Messaging PIV] BAT Field	GP	S	SCA Constraints
200	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.Error	O	O	
201	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.E.ErrorCategory	O	O	
202	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.E.ErrorNumber	M	O	
203	GPM.GPB.BAT.ECL.JCL.LCH.LC.ML.E.ErrorDescription	0	O	
204	GPM.GPB.BAT.ECL.JCL.LCH.LC.DeliveryModuleLog	N	X	Not Used

2.4 Batch Audit Trail Response

The fields and formats for the BAT Response message are NOT currently defined in [GP Messaging PIV].   Table 2-5 enumerates those fields.

Table 2-5: Batch Audit Trail Response Fields with Associated Constraints

Transaction Header Field	Description	Datatype	Constraints
TransactionID	Unique identifier specific to a transaction request/response pair. Supports tracking, auditing, and billing as necessary	xs:string	Required. <=256 characters Value from the corresponding BAT transaction of GPM.GPH.TransactionID
TransactionOrganizationalIdentifier	Organizational Identifier (OI) of the organization sending the transaction	xs:string	Required. 4 characters Valid Values: [NIST 800-87] organization codes
SystemID	Unique identifier of the system (e.g., agency HR system, SIP, enrollment station) sending the transaction	xs:string	Required. <=256 characters The SIP system's unique identifier assigned by the SCI Governing Authority
TransactionTimeStamp	The date and time the transaction was sent (e.g., 2002-10-10T12:00:00-05:00)	xs:dateTime	Required, 25 characters Format: yyyy-mm-ddThh:mm:ss-timezone

Transaction Status Field	Description	Datatype	Constraints
StatusCode	Status code indicating whether transaction was received	xs:string	Required. Valid Values: "Success", "Failure"
StatusMessage	Human-readable message to provide additional information	xs:string	Required. e.g. "The BAT was received"

3 Technical Specifications

The following are sample XML transactions that are summarized in Section 2.

3.1   XML Schema Definition: CommonElements

[To be included in final version]

3.2   XML Schema Definition: HSPD12SIP-PSP

[To be included in final version]

3.3   Batch Card Customization Request

This transaction submits a BCC request from the SIP to the PSP for the purpose of producing PIV cards. The following schema fragment defines this transaction:

[To be included in final version]

3.4   Batch Card Customization Response

This transaction specifies whether the PSP successfully received the BCC request. The following schema fragment defines this transaction:

[To be included in final version]

3.5   Batch Audit Trail

This transaction submits a BAT from the PSP to the SIP for the purpose of updating the SIP with a per PIV card production status. The following schema fragment defines this transaction:

[To be included in final version]

3.6   Batch Audit Trail Response

This transaction specifies whether the SIP successfully received the BAT. The following schema fragment defines this transaction:

[To be included in final version]

Appendix A: Glossary & Acronyms

Term	Description
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.
Global Platform	International association, not-for-profit organization focused on establishing and maintaining interoperable specifications for single and multi-application smart cards, acceptance devices and systems infrastructure that deliver benefits to issuers, service providers and technology suppliers.
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).
Production Service Provider (PSP)	PSPs produce and personalize PIV cards.
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.
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
ASCII	American Standard Code for Information Interchange
BAT	Batch Audit Trail
BCC	Batch Card Customization
HSPD-12	Homeland Security Presidential Directive-12
HTTPS	Hypertext Transfer Protocol Secure
IT	Information Technology
NIST	National Institute of Standards and Technology
PSP	Production Service Provider
PII	Personally Identifiable Information
PIV	Personal Identity Verification
SCI	Shared Component Infrastructure
SIP	System Infrastructure Provider
SOAP	Simple Object Access Protocol
WS	Web Services
WSDL	Web Services Description Language
XML	Extensible Markup Language