ASC X9 TR 47–2016

Universal Companion Document

Industry Adoption of X9.100-187

A Technical Report prepared by Accredited Standards Committee X9, Incorporated Financial Industry Standards, and registered with American National Standards Institute

Date Registered: November 13, 2016

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Contents   Page

Foreword

The Accredited Standards Committee X9, Inc. – Financial Industry Standards (ASC X9, Inc.) recognizes the value of the "Universal Companion Document – Industry Adoption of X9.100-187 Version 1.4" as developed by the CheckImage Collaborative set forth as this Technical Report 47 to formalize an industry standard for check image exchange using the ANSI X9.100-187 standard format and a compilation of industry norms.

Publication of TR 47 has been registered with the American National Standards Institute (ANSI) and according to the Procedures for the Registration of Technical Reports has been approved by the Accredited Standards Developer Accredited Standards Committee X9. This document is not an American National Standard and the material contained herein is not normative in nature. This document is being published with the permission of the CheckImage Collaborative co-sponsored by the Electronic Check Clearing House Organization (ECCHO) and the Retail Payments Office of the Federal Reserve Bank of Atlanta. Comments on the content of this document should be sent to:

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Introduction

ASC X9 develops American National Standards that support technological solutions, industry practices, and processes to provide the financial industry with a format necessary to perform electronic check exchange. ASC X9 Inc. voted to approve the inclusion of the Universal Companion Document (UCD) – Industry Adoption of X9.100-187 as an X9 Technical Report. This Technical Report is not intended to replace the ANSI X9.100-187 standard, but rather to clarify how financial institutions use the standard to ensure all necessary and appropriate payment data is exchanged between collecting and paying institutions. The UCD was written to identify and share information on Check Image clearing that will help financial institutions understand, and successfully implement, image exchange. It was prepared by the CheckImage Collaborative in 2008, which was initiated by the Electronic Check Clearing House Organization (ECCHO) and the Retail Payments Office (RPO) of the Federal Reserve Bank of Atlanta. It was developed with representation from financial institutions, processors, networks and trade associations.

X9 TR 47

- − Defines specific usages of the ANSI X9.100-187 standard
- − Describes all records and fields which contain critical payment data to be validated
- − Describes any unique field validations for:

  - Endpoint Exchange
  - Federal Reserve
  - SVPCO
  - Viewpointe

This Technical Report was processed and approved for submittal to ANSI by the Accredited Standards Committee on Financial Services, X9. Committee approval of the Technical Report does not necessarily imply that all the committee members voted for its approval.

At the time this technical report was approved, the X9 committee had the following members:

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CheckImage Central
from the CheckImage Collaborative

Raising awareness, promoting the benefits, and encouraging best practices for image exchange and Check 21

Universal Companion Document
Industry Adoption of X9.100-187

Version 1.4

November 13, 2016

Version 1.4 of the Universal Companion Document utilizes ANSI X9.100-187-2016 as the base standard.

Document Revision History

Release Number	Description of Change(s)
1.1 – November 16, 2009	File Header Record (Type 01) – Added explanation why the Standard Level (Field 2) and Companion Document Version Indicator (Field 14) did not change from the previous UCD. Image View Detail Record (Type 50) – Added one new code ('1') to the Override Indicator (Field 18) for Imperfect Image Item exchanged under ECCHO Rules. Table of Unique Requirements – Fed changed validation from "V" to "NV" for Immediate Destination Name (Field 9 in Record Type 01) and Immediate Origin Name (Field 10 in Record Type 01). Fed indicated in fields Companion Document Version Indicator (Field 14 in Record Type 01) and Returns Indicator (Field 14 in Record Type 10) will be ignored on Image Cash Letter deposits and will not be populated in presentment files. EEX (Endpoint Exchange) changed validation from "V" to "NV" for Immediate Destination Name (Field 9 in Record Type 01), Immediate Origin Name (Field 10 in Record Type 01), Bundle ID (Field 7 in Record Type 20), Endorsing Bank Identifier (Field 11 in Record Type 28), Number of Times Returned (Field 14 in Record Type 31), Payor Bank Business Date (Field 5 in Record Type 33), Endorsing Bank Identifier (Field 11 in Record Type 35), Digital Signature Indicator (Field 10 in Record Type 50), Security Key Size (Field 12 in Record Type 50), Start of Protected Data (Field 13 in Record Type 50), Length of Protected Data (Field 14 in Record Type 50), Image TIFF Variance Indicator (Field 17 in Record Type 50), Override Indicator (Field 18 in Record Type 50), Length of Image Reference Key (Field 14 in Record Type 52) and Length of Digital Signature (Field 16 in Record Type 50). Added "Validated to data type only." In Auxiliary On-Us (Field 2 in Record Type 25), External Processing Code (Field 3 in Record Type 25), On-Us (Field 5 in Record Type 25), On-Us (Field 4 in Record Type 31) and Auxiliary On-Us (Field 3 in Record Type 33).
1.2 - April 7, 2010 Changes in Version 1.2 are only for the purpose of clarifying the wording in the previous version. Organizations that have already begun making changes utilizing Version 1.1 for the implementation of the UCD may continue to do so without concern of being non-compliant.	Title "Universal Companion Document" on cover page Changed standard references from X9.100-187-2008 to X9.100-187 and X9.100-181-2007 to X9.100-181 throughout File Format – Added note regarding blank fill of non used conditional fields for clarification. (P. 6) Structural Requirements for Item Processing – Reference Validation Table for exception of requirement for Type 32 and Type 35 Record when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative). (P. 7) Check Detail Record (Type 25) – External Processing Code (Field 3) – Reworded comment to include "The ONLY valid values, if present, must be numeric or '*' (See X9.100-160-2 for current values and usage.) and "Values '2' and '5' shall not be used. (P. 11)

	Return Record (Type 31) – Return Record Addendum Count (Field 7) – Added comment "Number of Return Record Addenda to follow." (P. 17)
	Return Record (Type 31) – External Processing Code (Field 11) – Reworded comment to include "The ONLY valid values, if present, must be numeric or '*' (See X9.100-160-2 for current values and usage.) and "Values '2' and '5' shall not be used. (P. 17)
	Return Addendum A Record (Type 32) – in opening paragraph added reference to Validation Table for exception when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative). (P. 18)
	Return Addendum D Record (Type 35) – in opening paragraph added reference to Validation Table for exception when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative). (P. 21)
	Table of Unique Requirements –
	Bundle Header Record (Type 20) changed name of field 10 to Reserved as it appears in 4.3. (P. 39)
	Check Detail Record (Type 25), External Processing Code (Field 3) – Fed – Eliminated exclusion of values '2' and '5', since that is no longer a unique requirement. (P. 40)
	Return Addendum A Record (Type 32) – Added following "May be excluded by agreement when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative)". (P. 46)
	Return Addendum D Record (Type 35) – Added following "May be excluded by agreement when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative)". (P. 48)
1.3 – April 1, 2014 Changes in Version 1.3 are for the purpose of updating the UCD to conform to the updated X9.100-187-2013 standard. These changes are not substantive. Certain exchange providers also updated/corrected Table of Unique Requirements for their particular exchange.	Identified that this version 1.3 uses X9.100-187-2013 as the base standard on cover page Changed ANS to ANSI throughout File Format – Changed Annex E to D. Changed Section 5 to 6 (P. 7) Full Record names rather than just Type (P. 8) Corrected Return Record name (P.8) Reworded Truncation Indicator to a previous version of UCD (P. 8) File Header Record (Type 01) – Added Note regarding Standard Level (Field 2) and Companion Document Version Indicator (Field 14) (P. 9) Cash Letter Header Record (Type 10) – Cash Letter Documentation Type Indicator (Field 9) – Added comment "The Usage of this field is the same as the previous UCD, but different from the standard" (P. 10)

	Bundle Header Record (Type 20) – Corrected field name in introductory paragraph (P.11) Bundle ID (Field 7) – Added comment to match comment in Field 8 about uniqueness. (P. 11) Reserved (Field 10) – Added comment "The Usage and Type of this field is the same as the previous UCD, but different from the standard" (P. 11) Check Detail Record (Type 25) – Documentation Type Indicator (Field 9) – Added comment "The Usage of this field is the same as the previous UCD, but different from the standard" (P. 12) Check Detail Addendum Count (Field 13) - Full Record names rather than just Type (P. 13) Check Detail Addendum A Record (Type 26) – Added comment to introductory paragraph about flipping records. Full Record names rather than just Type (P. 14) BOFD / Endorsement Date (Field 4) – Corrected field name (P. 14) BOFD Item Sequence Number (Field 5) – Changed Usage from Mandatory to Conditional and added Comment (P. 14) Check Detail Addendum C Record (Type 28) – BOFD / Endorsement Date (Field 4) – Corrected field name (P. 17) User Field (Field 10) – Included Type (P. 17) Endorsing Bank Identifier (Field 11) - Added comment "The Type of this field is the same as the previous UCD, but different from the standard" (P. 17) Return Record (Type 31) – Archive Type Indicator (Field 13) – Corrected field name (P.18) Number of Times Returned (Field 14) - Added comment "The Type of this field is the same as the previous UCD, but different from the standard" (P. 18) Return Addendum A Record (Type 32) – Added comment to introductory paragraph about flipping records. (P. 19) BOFD / Endorsement Date (Field 4) – Corrected field name. Eliminated comments regarding Type (P. 19) BOFD Item Sequence Number (Field 5) - Changed Usage from Mandatory to Conditional and added Comment (P. 19) Return Addendum D Record (Type 35) – BOFD / Endorsement Business Date (Field 4) – Corrected field name (P. 22) Account Totals Detail Record (Type 40) and Non-Hit Totals Detail Record (Type 41) and Box Summary Record (Type 75) – These records are no longer supported by the standard. (P. 23, 24, 32) Image View Detail Record (Type 50) – Image Indicator (Field 2) – Refer to standard for when image view not present (P. 25) Reserved (Field 17) - Added comment "The Usage and Type of this field is the same as the previous UCD, but

	different from the standard" (P. 25)
	Override Indicator (Field 18) – Eliminated defined values and refer to X9.100-187 (P.25)
	Image View Date Record (Type 52) – ECE Institution Routing Number (Field 2), Bundle Business Date (Field 3), Cycle Number (Field 4) and ECE Institution Item Sequence Number (Field 5) – Changed Clause references (P. 26)
	ECE Institution Item Sequence Number Field 5), Clipping Origin (Field 9), Length of Image Reference Key (Field 14), Length of Digital Signature (Field 16) and Length of Image Date (Field 18) – Changed Usage from 'M' to 'C' (P. 26)
	Length of Digital Signature (Field 16) and Length of Image Data (Field 18) - Notes describing value of "X" and "Y" (P. 26)
	Credit Record (Type 62) and User Record (Type 68) – Records are not supported or used for check image exchange (P. 28, 29)
	Bundle Control Record (Type 70), Cash Letter Control Record (Type 90), and File Control Record (Type 99) – Added Credit Total Indicator Record (Field 7, 8, 8 respectively) (P. 30, 33, 34)
	Table of Unique Requirements – Notation that the requirements are valid as of the date of this document, and check with vendor for recent requirements.(P. 35)
	Changed Table to conform to other records in document
	Endpoint Exchange – Cash Letter Creation Date (Field 6, Type 10 and Type 20) eliminated comment (P. 37. 40). Returns Indicator (Field 14, Type 10) updated comment (P.39).
	Federal Reserve – Length of Image Date (Field 18, Type 52) changed limit of 350,000 bytes to single view cannot exceed 200,000 bytes. (P. 54)
	Viewpointe – ECE Institution Item Sequence Number (Field 8, Type 25) added field cannot be less than 3 characters (P. 42). Image View Format Indicator and Image View Compression Algorithm (Fields 5 and 6, Type 50) added value will be '00', if anything other than defined values (P. 52). Clipping Origin (Field 9, Type 52) will be '0', if null. Clipping Coordinate h1, Clipping Coordinate h2, Clipping Coordinate v1, Clipping Coordinate v2 (Fields 10 – 13, Type 52) added if Clipping Origin is '0' this will be replaced with ' ' and if non-zero and null will be replaced with '0' (P. 53 – 54),
TR 47-2016 Changes for the incorporation of the UCD into TR 47 are not substantive. Certain exchange providers also updated/corrected Table of Unique Requirements for their particular exchange.	File Format – Changed Section 6 to 5 (P. 8)
	Check Detail Record (Type 25) – Added note regarding RCC EPC digit. (P. 15)
	Check Detail Addendum B Record (Type 27) – Added comment to introductory paragraph allowing use by agreement of exchange partners. (P. 19)
	Return Addendum C Record (Type 34) – Added comment to introductory paragraph allowing use by agreement of exchange partners. (P. 25)

	Image View Data Record (Type 52) – Updated clause references to match X9.100-187. (P. 32, Fields 2-5). Tables of Unique Requirements- Fed – Immediate Destination Routing Number (Field 4, Type 01) – Added value must be a valid FRB RT, preferably: 061000146 (Page 43). Immediate Origin Routing Number (Field 5, Type 01) – Added value must be predefined at Federal Reserve (Page 43). Destination Routing Number (Field 3, Type 10) – Added value must be a valid FRB RT, preferably: 061000146 (Page 45). ECE Institution Routing Number (Field 4, Type 10) – Added value must be predefined at Federal Reserve (Page 45). Bundle Header Record (Field 2, Type 20) – Replaced list of valid value with "Must be same as cash letter header" (Page 48). Image View Detail Record (Field 18, Type 50) – Removed IQA comment (Page 64). Cash Letter Control Record (Field 2, Type 90) – Eliminated limit of 133,000 bundles per file (Page 68). SVPCO – Immediate Origin Routing Number (Field 5, Type 01) added value must be predefined at SVPCO. (Page 43)

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1   Purpose of the Document

The purpose of this document is to formalize an industry standard for check image exchange using the ANSI X9.100-187 standard format and a compilation of industry norms. This document is not intended to replace the ANSI X9.100-187 standard, but rather to clarify how financial institutions should use the standard to ensure all necessary and appropriate payment data is exchanged between collecting and paying institutions. The use of this document requires that all image exchange participants obtain, use and adhere to the record and field usage definitions detailed in the ANSI X9.100-187 standard. Users of this document are required to review and be knowledgeable of the full standard to ensure file structure and data and field specifications are understood and used correctly. This document further defines the specific usage of the ANSI X9.100-187 standard and describes all of the records and fields which contain critical payment data. Based on this usage, it is reasonable to expect that exchange participants will implement file validation practices to ensure that all critical payment data is contained in image exchange files. If a file contains records or fields of critical payment data that do not conform to the usage practices detailed in the standard it is reasonable to expect the paying institution will reject the item or file back to the sending institution as the transaction(s) contained in the file may be unusable/unpostable. Conversely, if a record or field which does not contain critical payment data is populated with incomplete, erroneous, or invalid data it is reasonable to expect these files or items would be accepted and processed.

2   General Conventions of the Document

The document is formatted similar to the earlier edition of 'Image Exchange Companion Document' that accompanied DSTU X9.37-2003. It details each record that is deemed to have critical payment data and lists all associated fields contained in ANSI X9.100-187. Two additional pieces of data not included in the ANSI X9.100-187 standard are also included.

The first new piece of information is the validation criteria column. This column defines whether or not the field will be validated for image exchange. The validation criteria column has three settings, 'required', 'required if present' and 'none'.
- 'Required' is defined as: must be present and in compliance with the ANSI X9.100-187 standard's usage definition unless this Companion Document modifies that usage. If modified by this document, the UCD takes precedence. Erroneous or invalid data may result in an item level or file level reject.
- 'Required if present' is defined as: if the field is populated it must be in compliance with the ANSI X9.100-187 standard's usage definition unless this Companion Document modifies that usage. If modified by this document, the UCD takes precedence. Erroneous or invalid data may result in an item level or file level reject.
- 'None' is defined as: the field populated requires no validation and shall not result in an item level or file level reject. A field that is specified as 'none' should have a valid data type as defined for that field. If it does not, the data can be omitted or ignored.

The second new piece of information is a comments column. This column provides additional information regarding each field augmenting the ANSI X9.100-187 standard to facilitate check image exchange. Only those fields containing critical payment data have information in the validation criteria column and the comments column.

Records within this document are either Mandatory or Conditionally Required. Mandatory records must always appear within a file. Conditionally Required records will appear when the condition as stated in the introduction to that record is fulfilled.

Additionally, several major image clearing networks have a small number of unique file format requirements for sending Image Exchange Files through their networks. These requirements are detailed in Section 5 - Table of Unique Requirements.

3   File Format

The ANSI X9.100-187 file is comprised of variable length records. Refer to ANSI X9.100-187 Annex D, Variable Length Record File.

- All characters and symbols must be represented using 8-bit EBCDIC.
- Where appropriate, spaces shall be used to fill data and shall not be embedded within data elements.
- Image Data (Field 19) in the Image View Data Record (Type 52) is binary data.
- Inserted Length Field (the 4-byte length value) must be in Big Endian (Motorola) byte order.
- TIFF image data must be in Little Endian (Intel) byte order and must comply with ANSI X9.100-181.
- The format of all field types shall follow what is defined in the standard unless otherwise noted in this document. Failure to follow the data and field specifications could result in an item or file rejection. Refer to ANSI X9.100-187, Section 5 Data and Field Specifications.
- All fields that are conditional and are not used shall be filled with Blanks.
- All Annexes in ANSI X9.100-187 are critically important to the use of this document for interoperable image exchange. The information in the annexes should be understood to ensure proper deployment of this standard.
- Eastern Time zone shall be used.
- Exchange partner specific requirements are listed in Section 5 – Table of Unique Requirements.

3.1   Exception Information

Field validation requirements are defined in the tables for each record. Fields with validation identified as 'Required' will always be validated. Fields with validation identified as 'Required if present' will be validated only if non-blank data exists in the field. Fields with validation identified as 'None' will not be validated and any data included in the field will be passed as-is.

Control Record errors or file corruption type errors will result in a file rejection and item record level errors will result in an item level reject and will be adjusted back or returned as an administrative return using a defined value of '2' as the Return Reason Code. Field level edit information is included in the tables for each record type. The following lists structural requirements for ANSI X9.100-187 image exchange files:

Structural Requirements for File Processing – Failure to meet processing requirements will result in file rejection, when:

- All Header Records that DO NOT have a corresponding Control Record
    - File Header Record (Type 01) – File Control Record (Type 99)
    - Cash Letter Header Record (Type 10) – Cash Letter Control Record (Type 90)
    - Bundle Header Record (Type 20) – Bundle Control Record (Type 70)
- All records are NOT properly sequenced in accordance with ANSI X9.100-187
- Addendum counts DO NOT correspond to the number of addendum records included
- Item Counts or Dollar Amounts in Bundle, Cash Letter, and File Control Records fail to balance
- File includes little Endian (Intel) byte order data in the inserted length field (the 4 –byte length value)

Structural Requirements for Item Processing – Failure to meet processing requirements will result in item level rejects, when

- An Image View Detail Record (Type 50) DOES NOT have a corresponding Image View Data Record (Type 52).
- A Check Detail Record (Type 25), DOES NOT have at least one Check Detail Addendum A Record (Type 26) or Check Detail Addendum C Record (Type 28) Addendum record.
- A Return Record (Type 31) DOES NOT have at least one Return Addendum A Record (Type 32) and one Return Addendum D Record (Type 35). (See Validation Table for exception when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative)).
- There must be one and only one truncation indicator set to 'Y' unless there is a '4' in the EPC field in the Check Detail Record (Type 25)/Return Record (Type 31) indicating an image of a substitute check. If there is a '4' in the EPC field ALL truncation indicators shall be set to 'N'.
- A Primary Image View (Front and Rear) is NOT TIFF 6.0, group 4 compressed, Little Endian (Intel) byte order, 200 or 240 dpi.

4   File Records

4.1   File Header Record (Type 01)

- This record is Mandatory. If a corresponding File Control Record (Type 99) is not present as the last record in this file, the file will be rejected
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Standard Level	M	03 – 04	N	Required	'03' Indicates X9.100-187 *
3	Test File Indicator				Required	
4	Immediate Destination Routing Number	M	06 – 14	N	Required	Must pass mod-check validation and end with a valid check digit
5	Immediate Origin Routing Number	M	15 – 23	N	Required	Must pass mod-check validation and end with a valid check digit
6	File Creation Date	M	24 - 31	N	Required	
7	File Creation Time	M	32 - 35	N	Required	
8	Resend Indicator	M	36 – 36	A	Required	Must be 'N'
9	Immediate Destination Name	C	37 – 54	AN	Required if Present	AN is a deviation from X9.100-187 since special characters are not permitted for image exchange.
10	Immediate Origin Name	C	55 – 72	AN	Required if Present	AN is a deviation from X9.100-187 since special characters are not permitted for image exchange.
11	File ID Modifier	C	73 – 73	AN	Required if Present	Lower case letters are NOT valid
12	Country Code				None	
13	User Field				None	
14	Companion Document Version Indicator	C	80 - 80	AN	Required if Present	'1' Indicates version 1 of the Universal Companion Document for the standard level stated in field 2 of this record. *

* Note: In order to maintain the concept that the DSTU X9.37 plus its UCD would equal X9.100-187 plus this UCD, these codes were left as defined in the previous UCD. No changes were needed to these fields to maintain compatibility with the standard and previous version of the UCD.

4.2 Cash Letter Header Record (Type 10)

- This record is Mandatory. If a corresponding Cash Letter Control Record (Type 90) is not present, the file will be rejected
- Cash letter collection types (Forward and Returns) cannot be mixed in the same file. Mixed collection types in the same file will result in a file reject
- Image Exchange files support two types of returns, both of which represent monetary value. The following defines the return types:
  - Customer returns are items being returned that directly affect a customer's account. These are for typical return reasons that have been used in paper exchanges for years (i.e. NSF, Closed Account, Stop Pay, etc.)
  - Administrative Returns are items being returned that are handled by the bank and usually do not directly affect the customer or their account. They need to be sorted from customer returns and handled separately. In many cases these are adjustments and will be handled by the adjustment area of the bank. Some of these include: poor quality image, missing image and duplicate
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Collection Type Indicator	M	03 – 04	N	Required	The only valid values are: '01' and '03'
3	Destination Routing Number	M	05 – 13	N	Required	
4	ECE Institution Routing Number	M	14 – 22	N	Required	
5	Cash Letter Business Date	M	23 – 30	N	Required	
6	Cash Letter Creation Date	M	31 – 38	N	Required	
7	Cash Letter Creation Time	M	39 – 42	N	Required	
8	Cash Letter Record Type Indicator	M	43 – 43	A	Required	
9	Cash Letter Documentation Type Indicator	M	44 - 44	AN	Required	The only valid values are: 'C', 'G', 'K', 'L', and 'Z' The Usage of this field is the same as the previous UCD, but different from the standard.
10	Cash Letter ID	M	45 - 52	AN	Required	
11	Originator Contact Name				None	
12	Originator Contact Phone Number				None	
13	Fed Work Type				None	

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
14	Returns Indicator	M	78 - 78	A	Required if Present	
15	User Field	C	79 - 79	ANS	None	
16	Reserved	M	80 - 80	B	None	

4.3 Bundle Header Record (Type 20)

- This record is Conditionally Required if Cash Letter Record Type Indicator (Field 8) in the Cash Letter Header Record (Type 10) is not 'N' and there are Check Detail Record(s) (Type 25) or Return Records (Type 31) in the file
- If a corresponding Bundle Control Record (Type 70) is not present, the file will be rejected
- The data in the fields are created by the ECE institution, which may or may not be the Bank of First Deposit (BOFD)
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Collection Type Indicator	M	03 – 04	N	Required	The only valid values are: '01' and '03'
3	Destination Routing Number	M	05 – 13	N	Required	Must be the same as the Destination Routing Number (Field 3) in the Cash Letter Header Record (Type 10).
4	ECE Institution Routing Number	M	14 – 22	N	Required	Must be the same as the values in the ECE Institution Routing Number (Field 4) in the Cash Letter Header Record (Type 10).
5	Bundle Business Date	M	23 – 30	N	Required	
6	Bundle Creation Date	M	31 – 38	N	Required	
7	Bundle ID				Required if Present	Combination of Bundle ID (field 7) and Bundle Sequence Number (field 8) must be unique within the Cash Letter Business Date.
8	Bundle Sequence Number	C	49 - 52	NB	Required if Present	Combination of Bundle ID (field 7) and Bundle Sequence Number (field 8) must be unique within the cash letter.
9	Cycle Number				None	
10	Reserved	C	55 – 63	N	None	The Usage and Type of this field is the same as the previous UCD, but different from the standard.
11	User Field				None	
12	Reserved				None	

4.4 Check Detail Record (Type 25)

- This record is Conditionally Required, but shall be present if the Cash Letter Header Record (Type 10) Collection Type Indicator (Field 2) is set to '01' and when the Cash Letter Record Type Indicator (Field 8) in the Cash Letter Header Record (Type 10) is not 'N'
- A valid routing number field consists of 2 fields; the 8 digit Payor Bank Routing Number (Field 4) and the 1 digit Payor Bank Routing Number Check Digit (Field 5)
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Auxiliary On-Us	C	03 – 17	NBSM	Required if Present	Mandatory if present on the MICR Line • On-Us symbols on the MICR line, shall not be included • Dashes must be retained
3	External Processing Code	C	18 – 18	NS	Required if Present	Mandatory if present on the MICR Line* • The ONLY valid values, if present, must be numeric or asterisk (*) (See X9.100-160-2 for current values and usage.) • Values '2' and '5' shall not be used.
4	Payor Bank Routing Number	M	19 – 26	N	Required	
5	Payor Bank Routing Number Check Digit	M	27 – 27	N	Required	
6	On-Us	C	28 – 47	NBSM OS	Required if Present	Mandatory if present on the MICR Line • The On-Us Field of the MICR document is located between positions 14 and 32 of the MICR Line of the item. • On-Us symbols, as they appear within this field on the MICR line, must be represented with a forward slash '/'. • Dashes must be retained
7	Item Amount	M	48 – 57	N	Required	
8	ECE Institution Item Sequence Number	M	58 – 72	NB	Required	
9	Documentation Type Indicator	M	73 – 73	AN	Required	This value will always be the same as the value in the Cash Letter Header Record (Type 10) Cash Letter Documentation Type Indicator (Field 8) unless that value is 'Z'. The only valid values are: 'C', 'G', 'K', and 'L' The Usage of this field is the same as the previous UCD, but different from the standard.

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
10	Return Acceptance Indicator	C	74 – 74	AN	None	
11	MICR Valid Indicator				None	
12	BOFD Indicator				None	
13	Check Detail Record Addendum Count	M	77 – 78	N	Required	Value must represent the sum of the number of Check Detail Addendum A Record (Type 26), Check Detail Addendum B Record (Type 27) and Check Detail Addendum C Record (Type 28) records and must be > '0' and match the number of addendum records included.
14	Correction Indicator				None	
15	Archive Type Indicator				None	

* Note: Remotely Created Checks (RCCs) are identified with a value of '6' in the EPC field.

4.5 Check Detail Addendum A Record (Type 26)

- This record is Conditionally Required if there is a Check Detail Record (Type 25) and the Truncating Bank is the BOFD and there is no Check Detail Addendum C Record (Type 28) Record.
- This record is highly recommended when the BOFD is known, however manual keying of the record is not required.
  - Paying Banks can use the information from this record to route return items; however, the absence of this record is not a reason to reject the item. If this record is not present, other methods can be used to determine where to send the return item
  - The data in the fields may be created by, or on behalf of, the BOFD when the physical item is converted to an image
- The Return Location Routing Number (Field 3) may be used to identify the routing number of the location of the institution where the item should be returned.
  - If the Return Location Routing Number (Field 3) is not the Bank of First Deposit and is being used as a Return location routing number see the note following the listing of the fields included in the Check Detail Addendum A Record (Type 26)
- Data from this Check Detail Addendum A Record (Type 26) shall be transferred to the Return Addendum A Record (Type 32) if the item is returned electronically
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Check Detail Addendum A Record Number	M	03 - 03	N	Required	The Type '26' record with the highest number in this field shall indicate the current return location for this item
3	Return Location Routing Number	M	04 – 12	N	Required	
4	BOFD / Endorsement Date	M	13 – 20	N	Required	Must be a valid calendar date
5	BOFD Item Sequence Number	C	21 - 35	NB	Required if Present	Change needed of usage from "M" to "C" to conform to X9.100-187-2013 Type "NB" definition and allow field to be blank under some limited conditions as in previous version
6	Deposit Account Number at BOFD				None	
7	BOFD Deposit Branch				None	
8	Payee Name				None	
9	Truncation Indicator	M	74 – 74	A	Required	
10	BOFD Conversion Indicator				None	
11	BOFD Correction Indicator				None	
12	User Field				None	

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
13	Reserved				None	

Note: The Return Location Routing Number field (Field 3) may be used to designate a returns location. This could be a returns processor or an entity other than the BOFD. In this scenario a Check Detail Addendum C Record (Type 28) shall be added and the data in the addenda records shall be as follows:

Check Detail Addendum A Record (Type 26):

- Routing Number reflects the return location
- Endorsement Date and Sequence number reflects process information and shall match the data in the Check Detail Addendum C Record (Type 28)
- Truncation indicator (Field 9) is set to 'N'
- All other fields shall be used as defined by the X9.100-187 Standard

Check Detail Addendum C Record (Type 28):

- Routing Number reflects the BOFD
- Endorsement Date and Sequence number reflects process information and shall match the data in the Check Detail Addendum A Record (Type 26)
- Truncation Indicator (Field 6) is set to 'Y', however, if the EPC field has a value of '4' denoting an imaged Substitute Check, the Truncation Indicator is then set to 'N'
- Endorsing Bank Identifier (Field 11) is set to '0'
- All other fields shall be used as defined by the X9.100-187 Standard

This will ensure proper routing of the return item to the desired location and appropriately assign converting bank responsibilities to the appropriate entity. Consistent endorsement date and sequence number information will ensure proper item location information is maintained regardless of the flow of the payment.

4.6   Check Detail Addendum B Record (Type 27)

- This record can be used with the agreement of the exchange partners.
- Without agreement of the exchange partners
  - The use of this record is not recommended
  - If included the record may be dropped or passed along unedited at the exchange partner's discretion
- If used this record must adhere to the length and location requirements defined in the X9.100-187 standard

4.7 Check Detail Addendum C Record (Type 28)

- This record is Conditionally Required if there is a Check Detail Record (Type 25) and no Check Detail Addendum A Record (Type 26). This record contains endorsement information that may not be present on the physical item
- This record is required when the item is sent electronically by endorsers subsequent to the BOFD
- There may be multiple Check Detail Addendum C Records (Type 28), as each endorsing bank creates a new record and forwards all previous records
- Data from this Check Detail Addendum C Record (Type 28) are transferred to the Return Addendum D Record (Type 35) if the item is returned
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Check Detail Addendum C Record Number	M	03 – 04	N	Required	
3	Endorsing Bank Routing Number	M	05 – 13	N	Required	
4	BOFD / Endorsement Business Date	M	14 – 21	N	Required	Must be a valid calendar date
5	Endorsing Bank Item Sequence Number	M	22 – 36	NB	Required	
6	Truncation Indicator	M	37 – 37	A	Required	
7	Endorsing Bank Conversion Indicator				None	
8	Endorsing Bank Correction Indicator				None	
9	Return Reason	C	40 – 40	AN	Required if Present	Refer to X9.100-188 for valid Return Reason Codes
10	User Field	C	41 – 59	ANS	None	
11	Endorsing Bank Identifier	C	60 – 60	N	Required if present	The Type of this field is the same as the previous UCD, but different from the standard.
12	Reserved	M	61 – 80	B	None	

4.8 Return Record (Type 31)

- This record is Conditionally Required, but shall be present if the Cash Letter Header Record (Type 10) Collection Type Indicator (Field 2) is set to '03' and when the Cash Letter Record Type Indicator (Field 8) in the Cash Letter Header Record (Type 10) is not 'N'
- The Return Reason (Field 6) must be consistent with the values defined in X9.100-188 and must correspond with the value set in the Returns Indicator (Field 14) of the Cash Letter Header Record (Type 10)
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Payor Bank Routing Number	M	03 - 10	N	Required	
3	Payor Bank Routing Number Check Digit	M	11 – 11	N	Required	
4	On-Us	C	12 – 31	NBSMOS	Required if Present	
5	Item Amount	M	32 - 41	N	Required	
6	Return Reason	M	42 – 42	AN	Required	Refer to X9.100-188 for valid Return Reason Codes
7	Return Record Addendum Count	M	43 - 44	N	Required	There must also be at least 1 Return Addendum Record A (Type 32) and 1 Return Addendum Record D (Type 35). Number of Return Addenda to follow.
8	Return Documentation Type Indicator	C	45 - 45	AN	Required	This value will always be the same as the value in the Cash Letter Header Record (Type 10) Cash Letter Documentation Type Indicator (Field 8) unless it is 'Z'. The only valid values are: 'C', 'G', 'K', and 'L'
9	Forward Bundle Date	C	46 - 53	N	Required if Present	
10	ECE Institution Item Sequence Number	C	54 - 68	NB	Required if Present	
11	External Processing Code	C	69 – 69	NS	Required if Present	Mandatory if present on the MICR Line • The ONLY valid values, if present, must be numeric or '*' (See X9.100-160-2 for current values and usage.) • Values '2' and '5' shall not be used.
12	Return Notification Indicator				None	

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
13	Archive Type Indicator				None	
14	Number of times returned	C	72 - 72	NB	Required if Present	The Type of this field is the same as the previous UCD, but different from the standard.
15	Reserved	M	73 - 80	B	None	

4.9   Return Addendum A Record (Type 32)

- This record is Conditionally Required if there is a Return Record (Type 31) (See Validation Table for exception when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative))
- The Return Location Routing Number (Field 3) identifies the routing number of the location of the institution where the item is to be returned
- A Return Addendum A Record (Type 32) shall be created from the data contained in the Check Detail Addendum A Records (Type 26), if the item was presented electronically and Check Detail Addendum A Record (Type 26) was provided.
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Return Addendum A Record Number	M	03 - 03	N	Required	
3	Return Location Routing Number	M	04 – 12	N	Required	
4	BOFD / Endorsement Business Date	M	13 – 20	N	Required	Must be a valid calendar date.
5	BOFD Item Sequence Number	C	21 - 35	NB	Required if Present	Change of usage from "M" to "C" needed to conform to X9.100-187-2013 Type "NB" definition and allow field to be blank under some limited conditions as in previous version
6	Deposit Account Number at BOFD				None	
7	BOFD Deposit Branch				None	
8	Payee Name				None	
9	Truncation Indicator	M	74 – 74	A	Required	
10	BOFD Conversion Indicator				None	
11	BOFD Correction Indicator				None	
12	User Field				None	
13	Reserved				None	

4.10 Return Addendum B Record (Type 33)

- This record is Conditionally Required and shall be present if there is data in the Auxiliary On-Us field in the MICR line
- Used in conjunction with the Return Record (Type 31)
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Payor Bank Name			ANS	None	
3	Auxiliary On-Us	C	21 – 35	NBSM	Required if Present	Mandatory if present • On-Us symbols on the MICR line, shall not be included • Dashes must be retained
4	Payor Bank Item Sequence Number				None	
5	Payor Bank Business Date	C	51 - 58	N	None	
6	Payor Account Name				None	

4.11 Return Addendum C Record (Type 34)

- This record can be used with the agreement of the exchange partners.
- Without agreement of the exchange partners
    - The use of this record is not recommended
    - If included the record may be dropped or passed along unedited at the exchange partner's discretion
- If used this record must adhere to the length and location requirements defined in the X9.100-187 standard

4.12 Return Addendum D Record (Type 35)

- This record is Conditionally Required if there is a Return Record (Type 31) and contains endorsement information that may not be present on the physical item (See Validation Table for exception when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative))
- This record is Required when the Return item is sent electronically
- If creating a new Return Record (Type 31) from a paper item, there shall be a Return Addendum D Record (Type 35) associated with that Return Record (Type 31)
- The paying bank should create a Return Addendum D Record (Type 35) consistent with their processing information
- A Return Addendum D Record (Type 35) shall be created from the data contained in the Check Detail Addendum C Records (Type 28), if the item was presented electronically
- There may be multiple Return Addendum D Records (Type 35) since each endorsing bank creates a new record and forwards all previous records
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Return Addendum D Record Number	M	03 – 04	N	Required	
3	Endorsing Bank Routing Number	M	05 – 13	N	Required	
4	BOFD / Endorsement Business Date	M	14 – 21	N	Required	Must be a valid calendar date
5	Endorsing Bank Item Sequence Number	M	22 – 36	NB	Required	
6	Truncation Indicator	M	37 – 37	A	Required	
7	Endorsing Bank Conversion Indicator				None	
8	Endorsing Bank Correction Indicator				None	
9	Return Reason	C	40 – 40	AN	Required if Present	Refer to X9.100-188 for valid Return Reason Codes
10	User Field			ANS	None	
11	Endorsing Bank Identifier	C	60 – 60	AN	Required if present	

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
12	Reserved	M	61 - 80	B	None	

4.13 Account Totals Detail Record (Type 40)

- This record is no longer supported by the standard. and shall not be used for Check Image exchange
- Use of this record may result in the rejection of the file

4.14 Non-Hit Totals Detail Record (Type 41)

- This record is no longer supported by the standard and shall not be used for Check Image exchange
- Use of this record may result in the rejection of the file

4.15 Image View Detail Record (Type 50)

- This record is Conditionally Required when the Documentation Type Indicator (Field 9) in the Check Detail Record (Type 25) or the Return Documentation Indicator (Field 8) in the Return Record (Type 31) is 'G'
- According to X9.100-187, the front image shall be provided first followed by the rear image of the item
- If there are multiple views of the check, the first two are considered primary views and must be the bi-tonal front and bi-tonal rear
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Image Indicator	M	03 – 03	N	Required	The only valid values are: '0' indicates image view not present. Must adhere to X9.100-187 to address when image view is not present '1' indicates Image view is check or substitute check
3	Image Creator Routing Number	M	04 - 12	N	None	
4	Image Creator Date				None	
5	Image View Format Indicator	C	21 – 22	N	Required	
6	Image View Compression Algorithm Identifier	C	23 – 24	N	Required	
7	Image View Data Size	C	25 - 31	N	None	
8	View Side Indicator	M	32 - 32	N	Required	
9	View Descriptor	M	33 – 34	N	Required	The only valid value for primary views is: '00' Full View
10	Digital Signature Indicator	C	35 - 35	N	Required if Present	
11	Digital Signature Method				None	
12	Security Key Size				Required if present	
13	Start of Protected Data				Required if present	
14	Length of Protected Data				Required if present	
15	Image Recreate Indicator				None	

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
16	User Field				None	
17	Reserved	C	66 – 66	AN	None	The Usage and Type of this field is the same as the previous UCD, but different from the standard.
18	Override Indicator	C	67 – 67	AN	None	Values are defined in X9.100-187:
19	Reserved	M	68 – 80	B	None	

4.16 Image View Data Record (Type 52)

- This record is Conditionally Required if there is an Image View Record (Type 50)
- Bi tonal Front and Rear views are required, these are considered Primary Views
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	ECE Institution Routing Number (Clause 9.4)	M	03 – 11	N	Required	
3	Bundle Business Date (Clause 9.5)	M	12 – 19	N	Required	
4	Cycle Number (Clause 9.9)				None	
5	ECE Institution Item Sequence Number (Clause 10.8 & 14.10)	C	22 – 36	NB	Required	
6	Security Originator Name				None	
7	Security Authenticator Name				None	
8	Security Key Name				None	
9	Clipping Origin	C	85 - 85	NB	Required	'0' Indicates Full View. Primary front and rear views shall only have a value of '0'
10	Clipping Coordinate h1				None	
11	Clipping Coordinate h2				None	
12	Clipping Coordinate v1				None	
13	Clipping Coordinate v2				None	
14	Length of Image Reference Key	C	102 – 105	NB	Required	
15	Image Reference Key				None	
16	Length of Digital Signature Note: X = value in Length of Image Reference Key (Field 14) if present, else X = 0	C	(106+X) – (110+X)	NB	Required	
17	Digital Signature				None	
18	Length of Image Data	C	(111+X	NB	Required	

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
	Note: Y = value in Length of Digital Signature (Field 16) if present, else Y = 0		+Y) – (117+X +Y)			
19	Image Data				Required	

4.17 Image View Analysis Record (Type 54)

- The use of this record is optional
- If included, this record may be dropped or passed along unedited at the exchange partner's discretion
- This record may be overlaid or replaced by exchange partner
- If used this record must adhere to the length and location requirements defined in the X9.100-187 standard

4.18 Credit Record (Type 62)

- This record is not supported and shall not be used for Check Image exchange
- Use of this record may result in the rejection of the file

4.19 User Record (Type 68)

- This record is not supported and shall not be used for Check Image exchange
- Use of this record may result in the rejection of the file

4.20 Bundle Control Record (Type 70)

- This record is Conditionally Required when there is a Bundle Header Record (type 20). In the case of an empty Cash Letter there will be no Bundle Header Record and, therefore, no Bundle Control Record
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Items Within Bundle Count	M	03 – 06	N	Required	
3	Bundle Total Amount	M	07 – 18	N	Required	
4	MICR Valid Total Amount				None	
5	Images within Bundle Count	M	31 - 35	N	Required	
6	User Field				None	
7	Credit Total Indicator				None	
8	Reserved				None	

4.21 Box Summary Record (Type 75)

- This record is no longer supported by the standard.
- Use of this record may result in the rejection of the file

4.22 Routing Number Summary Record (Type 85)

- This record is not supported and shall not be used for Check Image exchange
- Use of this record may result in the rejection of the file

4.23 Cash Letter Control Record (Type 90)

- This record is Mandatory. There must be one Cash Letter Control Record (Type 90) for each Cash Letter Header Record (Type 10)
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Bundle Count	M	03 – 08	N	Required	
3	Items Within Cash letter Count	M	09 – 16	N	Required	
4	Cash Letter Total Amount	M	17 – 30	N	Required	
5	Images Within Cash Letter Count	M	31 - 39	N	Required	
6	ECE Institution Name				None	
7	Settlement Date				None	
8	Credit Total Indicator				None	
9	Reserved				None	

4.24 File Control Record (Type 99)

- This record is Mandatory
- Fields listed with Number and Name only shall be formatted per the X9.100-187 standard

Field	Field Name	Usage	Position	Type	Validation Criteria	Comments
1	Record Type				Required	
2	Cash Letter Count	M	03 – 08	N	Required	
3	Total Record Count	M	09 – 16	N	Required	
4	Total Item Count	M	17 – 24	N	Required	
5	File Total Amount	M	25 – 40	N	Required	
6	Immediate Origin Contact Name				None	
7	Immediate Origin Contact Phone Number				None	
8	Credit Total Indicator				None	
9	Reserved				None	

5   Table of Unique Requirements

- This table defines any unique requirements of specific Image Exchange Intermediaries over and above what has been defined in the preceding sections of this document
- In the following table, the columns labeled EEX, Fed, SVPCO and VPT, contain the code 'V" that means the field is Validated by the respective exchange network or the code 'NV' when the field is Not Validated
- These Unique Requirements are valid as of the date of this document as it appears on the cover page, please check with your vendor for any recent additional Unique Requirements

File Header Record (Type 01)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	**Field Name**	**Usage**	**Type**	**Validation Criteria**							
1	Record Type			Required	V	V	V	V				
2	Standard Level	M	N	Required	V	V	V	V				
3	Test File Indicator			Required	V	V	V	NV				
4	Immediate Destination Routing Number	M	N	Required	V	V	V	V	The value in this field must be predefined at Endpoint Exchange.	This Routing Number must be a valid FRB RT, preferably: 061000146	The value in this field must be predefined at SVPCO	The value is not mod-checked, however, it must be predefined at Viewpointe.
5	Immediate Origin Routing Number	M	N	Required	V	V	V	V	The value in this field must be predefined at Endpoint Exchange.	This Routing Number must be predefined at Federal Reserve	The value in this field must be predefined at SVPCO	The value is not mod-checked, however, it must be predefined at Viewpointe.
6	File Creation Date	M	N	Required	V	V	V	V				The value must be in **YYYYMMDD** format, however it is not validated to represent a valid date.
7	File Creation Time	M	N	Required	V	V	V	V				The value must be numeric, however, it is not validated to represent a valid time.
8	Resend Indicator	M	A	Required	V	V	V	V				The value in this field must be a **'Y'** or **'N'**
9	Immediate Destination Name	C	AN	Required if Present	NV	NV	V	NV				
10	Immediate Origin Name	C	AN	Required if Present	NV	NV	V	V				The first four bytes of this field represents the sending institution's Viewpointe customer code followed by a space, however, it is not validated by Viewpointe for incoming files.
11	File ID Modifier	C	AN	Required if Present	V	V	V	NV				

File Header Record (Type 01)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
12	Country Code			None	NV	NV	NV	NV				
13	User Field			None	NV	NV	NV	NV				
14	Companion Document Version Indicator	C	AN	Required if Present	NV	NV	NV	NV		The Fed will ignore this field on deposit files and will not populate this field in presentment files.		

Cash Letter Header Record (Type 10)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria							
1	Record Type			Required	V	V	NV	V				
2	Collection Type Indicator	M	N	Required	V	V	V	V	Valid Values: '01' for deposits '03' for returns	Valid Value for ICL deposits: '01' – Forward Collection '03' – Returns Valid Values for ICL presentments: '01' – Forward Presentment '02' – Same Day Settlement '03' – Returns	Valid Values: '01', '02', '03', and '05'	Must be: '01' or '02' for ECP or ECPI '03' for ECPR
3	Destination Routing Number	M	N	Required	V	V	V	V	The value in this field must be predefined at Endpoint Exchange.	This Routing Number must be a valid FRB RT, preferably: 061000146	Must be the same as field 4 in Record 1	The value is not mod-checked, however, it must be predefined at Viewpointe.
4	ECE Institution Routing Number	M	N	Required	V	V	V	V	The value in this field must be predefined at Endpoint Exchange.	This Routing Number must be predefined at Federal Reserve	Must be the same as field 5 in Record 1	The value is not mod-checked, however, it must be predefined at Viewpointe.
5	Cash Letter Business Date	M	N	Required	V	V	V	V	Must be within range of current system date plus 5 days or minus 21 days		Must correspond to the Super DTA current date or the Super DTA current date plus one day.	Must be a valid date within range of current system date plus 2 business days and cannot be federal reserve holiday.
6	Cash Letter Creation Date	M	N	Required	V	V	V	V				The value must be numeric, however it is not validated to represent a valid date.
7	Cash Letter Creation Time	M	N	Required	V	V	V	V				The value must be numeric, however it is not validated to represent a valid time.

Cash Letter Header Record (Type 10)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
8	Cash Letter Record Type Indicator	M	A	Required	V	V	V	V	Valid Value for ICL deposits: 'I' Valid Values for Returns: 'I', 'E'	Valid Value for deposits: 'I' Valid Values for presentments: 'I', 'E', 'F'		Must be: 'I' or 'F' for ECPI 'E' for ECP files 'E' or 'I' for ECPR files.
9	Cash Letter Documentation Type Indicator	M	AN	Required	V	NV	V	V	Valid Value for ICL deposits: 'G' Valid Values for Returns: 'G' if Cash Letter Type Indicator = 'I' 'K' if Cash Letter Type Indicator = 'E'		Valid values are: 'C', 'G', and 'K'	Must be: 'C' or 'Z' for ECP 'G', 'K' or 'Z' for ECPI and ECPR
10	Cash Letter ID	M	AN	Required	V	NV	V	V				
11	Originator Contact Name			None	NV	NV	NV	NV				
12	Originator Contact Phone Number			None	NV	NV	NV	NV				
13	Fed Work Type			None	NV	V	NV	NV		Cannot be blank, Valid Work Type Codes can be found at http://www.frbservices.org		
14	Returns Indicator	M	A	Required if Present	V	NV	V	V	Optional additional values for Exception files received from Endpoint Exchange: 'D' - cash letter lists Duplicate items that could not be accepted for exchange.	The Fed only accepts Customer/Monetary Returns and will ignore this field on ICL deposits. The Fed will not populate this field in presentment files.		Must be: 'E' or 'R' if 10.2 = '03'

Cash Letter Header Record (Type 10)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
								'X' - cash letter lists items that could not be accepted for exchange due to invalid data or images, or were accepted for exchange but then found to be undeliverable. Note these values may not be used in files submitted to Endpoint Exchange.			
15	User Field	C	ANS	None	NV	NV	NV	NV				
16	Reserved	M	B	None	NV	NV	NV	NV				

Bundle Header Record (Type 20)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria								
1	Record Type			Required	V	V	**NV**	V				
2	Collection Type Indicator	M	N	Required	V	V	**NV**	V	Must be same as cash letter header	Must be same as cash letter header		The value must be numeric, however it is not validated.
3	Destination Routing Number	M	N	Required	V	V	**NV**	**NV**	Must be same as cash letter header			
4	ECE Institution Routing Number	M	N	Required	V	V	**NV**	**NV**	Must be same as cash letter header			
5	Bundle Business Date	M	N	Required	V	V	**NV**	V	Must be within range of current system date plus 5 days or minus 21 days. May be different value from Cash Letter Business Date			This value, in combination with the ECE Institution Item Sequence Number, (Type 25, Field 8) must be a unique key to the item. Must represent a valid date within range of current system data plus 120 days and minus 8 days.
6	Bundle Creation Date	M	N	Required	V	V	**NV**	V				The value must be numeric, however it is not validated.
7	Bundle ID			Required if Present	**NV**	**NV**	**NV**	**NV**				
8	Bundle Sequence Number	C	NB	Required if Present	V	**NV**	**NV**	**NV**				
9	Cycle Number			None	**NV**	**NV**	**NV**	**NV**				

Bundle Header Record (Type 20)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
10	Reserved	C	N	None	NV	NV	NV	NV				
11	User Field			None	NV	NV	NV	NV				
12	Reserved			None	NV	NV	NV	NV				

Check Detail Record (Type 25)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria								
1	Record Type			Required	V	V	NV	V				
2	Auxiliary On-Us	C	NBSM	Required if Present	V	NV	NV	V	Validated to data type only.			Validated to data type only.
3	External Processing Code	C	NS	Required if Present	V	V	NV	V	Validated to data type only.	The Fed does NOT accept the following EPC codes in ICL Deposits: ''2' – Qualified Return '5' – Qualified Return IRD		Validated to data type only.
4	Payor Bank Routing Number	M	N	Required	V	V	NV	NV				
5	Payor Bank Routing Number Check Digit	M	N	Required	V	V	NV	NV				
6	On-Us	C	NBSMOS	Required if Present	V	NV	NV	V	Validated to data type only.			Validated to data type only.
7	Item Amount	M	N	Required	V	V	NV	V				Validated to data type only.
8	ECE Institution Item Sequence Number	M	NB	Required	V	NV	NV	V				This value in combination with the bundle business date (Type 20, Field 5) must be a unique key to the item. The field cannot be less than 3 characters. The data type of this field is validated by Viewpointe.
9	Documentation Type Indicator	M	AN	Required	V	NV	NV	V	Only valid Value 'G'			G' or 'K' are the only valid values.

Check Detail Record (Type 25)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
10	Return Acceptance Indicator	C	AN	None	NV	NV	NV	NV	Any value in this field shall be ignored.			
11	MICR Valid Indicator			None	NV	NV	NV	NV				
12	BOFD Indicator			None	NV	NV	NV	NV				
13	Check Detail Record Addendum Count	M	N	Required	V	V	NV	V				
14	Correction Indicator			None	NV	NV	NV	NV				
15	Archive Type Indicator			None	NV	NV	NV	NV				

Check Detail Addendum A Record (Type 26)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria								
1	Record Type			Required	V	V	NV	V				
2	Check Detail Addendum A Record Number	M	N	Required	V	V	NV	NV				
3	Return Location Routing Number	M	N	Required	V	V	NV	NV	If last (newest) endorsement then must be Endpoint Exchange member Routing number.			
4	BOFD / Endorsement Date	M	N	Required	V	V	NV	NV	If last (newest) endorsement then must be within range of current system date plus 5 days minus 21 days			
5	BOFD Item Sequence Number	C	NB	Required if Present	V	V	NV	NV	If last (newest) endorsement then must be present and non blank with at least 7 numeric digits.			
6	Deposit Account Number at BOFD			None	NV	NV	NV	NV				
7	BOFD Deposit Branch			None	NV	NV	NV	NV				
8	Payee Name			None	NV	NV	NV	NV				
9	Truncation Indicator	M	A	Required	V	V	NV	NV				
10	BOFD Conversion Indicator			None	NV	NV	NV	NV				
11	BOFD Correction Indicator			None	NV	NV	NV	NV				
12	User Field			None	NV	NV	NV	NV				

Check Detail Addendum A Record (Type 26)	EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
13	Reserved			None	NV	NV	NV	NV				

Check Detail Addendum C Record (Type 28)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria								
1	Record Type			Required	V	V	NV	V				
2	Check Detail Addendum C Record Number	M	N	Required	V	V	NV	NV				
3	Endorsing Bank Routing Number	M	N	Required	V	V	NV	NV	If last (newest) endorsement then must be Endpoint Exchange member Routing number.			
4	BOFD / Endorsement Business Date	M	N	Required	V	V	NV	NV	If last (newest) endorsement then must be within range of current system date plus 5 days minus 21 days			
5	Endorsing Bank Item Sequence Number	M	NB	Required	V	V	NV	NV	If last (newest) endorsement then must be present and non blank with at least 7 numeric digits.			
6	Truncation Indicator	M	A	Required	V	V	NV	NV				
7	Endorsing Bank Conversion Indicator			None	NV	NV	NV	NV				
8	Endorsing Bank Correction Indicator			None	NV	NV	NV	NV				
9	Return Reason	C	AN	Required if Present	V	NV	NV	NV				
10	User Field	C	ANS	None	NV	NV	NV	NV				
11	Endorsing Bank Identifier	C	N	Required if present	NV	NV	NV	NV				

Check Detail Addendum C Record (Type 28)	EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
12	Reserved	M	B	None	NV	NV	NV	NV				

Field	Field Name	Usage	Type	Validation Criteria	EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Return Record (Type 31)												
1	Record Type			Required	V	V	NV	V				
2	Payor Bank Routing Number	M	N	Required	V	V	NV	NV				
3	Payor Bank Routing Number Check Digit	M	N	Required	V	V	NV	NV				
4	On-Us Return Record	C	NBSMOS	Required if Present	V	NV	NV	NV	Validated to data type only.			
5	Item Amount	M	N	Required	V	V	NV	NV				
6	Return Reason	M	AN	Required	V	NV	NV	NV	If Cash letter returns indicator = 'D' only valid value is 'Y' If Cash letter returns indicator = 'X' only valid values are: 'Q' Ineligable item 'I' No image 'U' cannot decompress image '1' does not conform with ANSI X9.100-181 'O' Could not deliver item after 2 business days			
7	Return Record Addendum Count	M	N	Required	V	V	NV	NV				
8	Return Documentation Type Indicator	C	AN	Required	V	NV	NV	NV	Only Valid Values: 'G' if Cash Letter Type Indicator = 'I' 'K' if Cash Letter Type Indicator = 'E'			

Return Record (Type 31)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
9	Forward Bundle Date			Required if Present	V	NV	NV	NV				
10	ECE Institution Item Sequence Number			Required if Present	V	NV	NV	NV				
11	External Processing Code	C	NS	Required if Present	V	V	NV	NV		The Fed does NOT accept the following EPC codes in ICL Deposits: ''2' – Qualified Return '5' – Qualified Return IRD		
12	Return Notification Indicator			None	NV	NV	NV	NV				
13	Archive Type Indicator			None	NV	NV	NV	NV				
14	Number of times returned	C	NB	Required if Present	NV	NV	NV	NV				
15	Reserved	M	B	None	NV	NV	NV	NV				

Return Addendum A Record (Type 32) – May be excluded by agreement when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative).				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria							
1	Record Type			Required	V	V	**NV**	V				
2	Return Addendum A Record Number	M	N	Required	V	V	**NV**	**NV**				
3	Return Location Routing Number	M	N	Required	V	V	**NV**	**NV**				
4	BOFD / Endorsement Business Date	M	N	Required	V	V	**NV**	**NV**				
5	BOFD Item Sequence Number	C	NB	Required if Present	V	V	**NV**	**NV**				
6	Deposit Account Number at BOFD			None	**NV**	**NV**	**NV**	**NV**				
7	BOFD Deposit Branch			None	**NV**	**NV**	**NV**	**NV**				
8	Payee Name			None	**NV**	**NV**	**NV**	**NV**				
9	Truncation Indicator	M	A	Required	V	V	**NV**	**NV**				
10	BOFD Conversion Indicator			None	**NV**	**NV**	**NV**	**NV**				
11	BOFD Correction Indicator			None	**NV**	**NV**	**NV**	**NV**				

Return Addendum A Record (Type 32) – May be excluded by agreement when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative).				EEX	Fed	SVPCO	VPT	**Endpoint Exchange**	**Federal Reserve**	**SVPCO**	**Viewpointe**
12	User Field			None	NV	NV	NV	NV				
13	Reserved			None	NV	NV	NV	NV				

Return Addendum B Record (Type 33)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	**Field Name**	**Usage**	**Type**	**Validation Criteria**								
1	Record Type			Required	V	V	**NV**	V				
2	Payor Bank Name		ANS	None	**NV**	**NV**	**NV**	**NV**				
3	Auxiliary On-Us	C	NBSM	Required if Present	V	**NV**	**NV**	**NV**	Validated to data type only.			
4	Payor Bank Item Sequence Number			None	**NV**	**NV**	**NV**	**NV**				
5	Payor Bank Business Date	C	N	Required if Present	**NV**	**NV**	**NV**	**NV**				
6	Payor Account Name			None	**NV**	**NV**	**NV**	**NV**				

Return Addendum D Record (Type 35) – May be excluded by agreement when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative).					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria								
1	Record Type			Required	V	V	NV	V				
2	Return Addendum D Record Number	M	N	Required	V	V	NV	NV				
3	Endorsing Bank Routing Number	M	N	Required	V	V	NV	NV	For newest paying bank endorsement must be Endpoint Exchange member routing number			
4	BOFD / Endorsement Business Date	M	N	Required	V	V	NV	NV				
5	Endorsing Bank Item Sequence Number	M	NB	Required	V	V	NV	NV				
6	Truncation Indicator	M	A	Required	V	V	NV	NV				
7	Endorsing Bank Conversion Indicator			None	NV	NV	NV	NV				
8	Endorsing Bank Correction Indicator			None	NV	NV	NV	NV				
9	Return Reason	C	AN	Required if Present	V	NV	NV	NV	For newest paying bank endorsement must be same as 31 record			

Return Addendum D Record (Type 35) – May be excluded by agreement when Returns Indicator (Field 14 in Record Type 10) has a defined value of 'E' (Administrative).				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
10	User Field		ANS	None	NV	NV	NV	NV				
11	Endorsing Bank Identifier	C	AN	Required if present	NV	NV	NV	NV				
12	Reserved	M	B	None	NV	NV	NV	NV				

Image View Detail Record (Type 50)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria								
1	Record Type			Required	V	V	NV	V				
2	Image Indicator	M	N	Required	V	V	NV	V				Values other than '1' are considered a missing image
3	Image Creator Routing Number	M	N	None	NV	NV	NV	NV				
4	Image Creator Date			None	NV	NV	NV	NV				
5	Image View Format Indicator	C	N	Required	V	V	NV	V				Any values other than '00', '01', '20', '21', '22', '23', '24' will be treated as '00'
6	Image View Compression Algorithm Identifier	C	N	Required	V	V	NV	V				Any values other than '00', '01', '02', '21', '22', '23' will be treated as '00'
7	Image View Data Size	C	N	None	NV	NV	NV	NV				
8	View Side Indicator	M	N	Required	V	V	NV	V				Must be '0' or '1'
9	View Descriptor	M	N	Required	V	V	NV	V	First 2 views must be Primary Front and Back Bi-tonal 200/240dpi. Additional views ignored and not passed through.	Fed accepts Primary Front and Back Bi-Tonal only - no additional views.		Viewpointe accepts Primary Front and Back Bi-Tonal only - no additional views.
10	Digital Signature Indicator	C	N	Required if Present	NV	NV	NV	NV				
11	Digital Signature Method			None	NV	NV	NV	NV				

Image View Detail Record (Type 50)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
12	Security Key Size			Required if present	**NV**	**NV**	**NV**	**NV**				
13	Start of Protected Data			Required if present	**NV**	**NV**	**NV**	**NV**				
14	Length of Protected Data			Required if present	NV	NV	NV	NV				
15	Image Recreate Indicator			None	NV	NV	NV	NV				
16	User Field			None	NV	NV	NV	NV				
17	Reserved	M	AN	Required if Present	NV	NV	NV	NV				
18	Override Indicator	C	AN	Required if Present	NV	NV	NV	NV				This value will be ignored. The use of alternate views is not supported.
19	Reserved	M	B	None	NV	NV	NV	NV				

Image View Data Record (Type 52)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria								
1	Record Type			Required	V	V	NV	V				
2	ECE Institution Routing Number (Clause 9.4)	M	N	Required	V	V	NV	NV				
3	Bundle Business Date (Clause 9.5)	M	N	Required	V	V	NV	NV				
4	Cycle Number (Clause 9.9)			None	NV	NV	NV	NV				
5	ECE Institution Item Sequence Number (Clause 10.8 & 14.10)	C	NB	Required	V	NV	NV	NV				
6	Security Originator Name			None	NV	NV	NV	NV				
7	Security Authenticator Name			None	NV	NV	NV	NV				
8	Security Key Name			None	NV	NV	NV	NV				
9	Clipping Origin	C	NB	Required	V	NV	NV	NV				If null, will be replaced by '0'
10	Clipping Coordinate h1			None	NV	NV	NV	NV				If 52.9 is '0', this will be replaced by ' '. If 52.9 is non-zero and this field is null, it will be replaced by '0'
11	Clipping Coordinate h2			None	NV	NV	NV	NV				If 52.9 is '0', this will be replaced by ' '. If 52.9 is non-zero and this field is null, it will be replaced by '0'

Image View Data Record (Type 52)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
12	Clipping Coordinate v1			None	NV	NV	NV	NV				
13	Clipping Coordinate v2			None	NV	NV	NV	NV				
14	Length of Image Reference Key	C	NB	Required	NV	NV	NV	NV				
15	Image Reference Key			None	NV	NV	NV	NV				
16	Length of Digital Signature	C	NB	Required	NV	NV	NV	NV				
17	Digital Signature			None	NV	NV	NV	NV				
18	Length of Image Data	C	NB	Required	V	V	NV	V		A single view cannot exceed 200,000 bytes		
19	Image Data			Required	V	V	NV	NV				

Bundle Control Record (Type 70)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	**Field Name**	**Usage**	**Type**	**Validation Criteria**							
1	Record Type			Required	V	V	NV	V				
2	Items Within Bundle Count	M	N	Required	V	V	NV	V				Validated to data type only.
3	Bundle Total Amount	M	N	Required	V	V	NV	NV				
4	MICR Valid Total Amount			None	NV	NV	NV	NV				
5	Images within Bundle Count	M	N	Required	V	NV	NV	V				Validated to data type only.
6	User Field			None	NV	NV	NV	NV				
7	Credit Total Indicator			None	NV	NV	NV	NV				
8	Reserved			None	NV	NV	NV	NV				

Cash Letter Control Record (Type 90)					EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	Field Name	Usage	Type	Validation Criteria								
1	Record Type			Required	V	V	NV	V				
2	Bundle Count	M	N	Required	V	V	V	V				Validated to data type only.
3	Items Within Cash letter Count	M	N	Required	V	V	V	V				Validated to data type only.
4	Cash Letter Total Amount	M	N	Required	V	V	V	V				Validated to data type only.
5	Images Within Cash Letter Count	M	N	Required	V	NV	V	V				Validated to data type only.
6	ECE Institution Name			None	NV	NV	NV	NV				
7	Settlement Date			None	NV	NV	NV	NV				
8	Credit Total Indicator			None	NV	NV	NV	NV				
9	Reserved			None	NV	NV	NV	NV				

	File Control Record (Type 99)				EEX	Fed	SVPCO	VPT	Endpoint Exchange	Federal Reserve	SVPCO	Viewpointe
Field	**Field Name**	**Usage**	**Type**	**Validation Criteria**								
1	Record Type			Required	V	V	NV	V				
2	Cash Letter Count	M	N	Required	V	V	V	V				Validated to data type only.
3	Total Record Count	M	N	Required	V	V	V	NV				
4	Total Item Count	M	N	Required	V	V	V	V				Validated to data type only.
5	File Total Amount	M	N	Required	V	V	V	V				Validated to data type only.
6	Immediate Origin Contact Name			None	NV	NV	NV	NV				
7	Immediate Origin Contact Phone Number			None	NV	NV	NV	NV				
8	Credit Total Indicator			None	NV	NV	NV	NV				
9	Reserved			None	NV	NV	NV	NV				