



# SPECIFICATIONS - PAPER CHECK CONVERSION LOCKBOX PROCESSING



**Disclaimer:** This document, which provides the current guidance and detailed specifications for paper check conversion processing, is provided as a reference only for potential Qualified Lockbox Providers (QLPs) and is not part of the Invitation for Expressions of Interest.

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## Introduction

The Financial Management Service (FMS) has been operating its Paper Check Conversion (PCC) program since September 2001. Based on the success of the program, FMS chose to include PCC in its Invitation for Expression of Interest document for the General Lockbox Network Rebid. FMS expects that lockbox cashflows operated by Financial Agents (FA) using the PCC system will provide a number of benefits to the Federal Government. Item and transaction information, whether settled through the Federal Reserve Bank of Cleveland (FRB-C) or by an FA, will be imaged and available for research, viewing, and reporting in the PCC image archive, providing one central repository for all PCC transactions, whether processed at over-the-counter sites or through a lockbox. The FRB-C will originate all ACH transactions, create all Image Replacement Documents (IRD), as well as operate all other aspects of the PCC system, while FMS is responsible for management and oversight.

FMS recognizes that implementing PCC will require development on the part of the FA to process and transmit the images and information to the Treasury Web Application Infrastructure (TWA) where the core of the PCC application, the Electronic Verification & Image System (ELVIS), resides. ELVIS is made up of three components:

1. Central Image and Research Archive (CIRA), where all images, financial and remittance information are stored;
2. FMS Verification Database, which houses transaction status information and allows modification of the data; and,
3. Reporting Tool, which allows PCC users access to various cached or ad hoc reports.

Access to each part of ELVIS is subject to strict viewing and editing controls. Implementation of PCC Lockbox is tentatively planned to begin at the end of July 2004.

A high-level overview of the PCC system and its interactions can be found at Appendix D. The overview contains a flow chart diagram of the entire PCC system, as well as a detailed narrative explanation of each interaction.

The following information delineates how the PCC process flows, the anticipated file formats, and other technical details required in preparation for PCC processing. Although this document is considered to be the final technical specifications, FMS is willing to consider additional input from the FA's.

## General Financial Agent Information

At least one month prior to implementation the FA and the Federal Agency (Agency) must complete the PCC Agency Cashflow Profile (ACP). The ACP defines FA and Agency users to the system, what information is accessible by various users, details of uniquely keyed fields, anticipated timing of file generation, transmission, and reporting, as well as many other specifics associated with the cashflow. An example of the table of contents for an ACP can be found in Appendix E.

Once the cashflow is set up within the PCC system and tested, receipt of payments may commence. The initial cashflows for any FA will be scheduled for pilot processing within the TWA Test Environment. It is recommended that the FA maintain a dual processing system for a period of time to verify how payments are processed, to ensure file formats are programmed properly, to become familiar with file acknowledgements generated from ELVIS, to work through out-of-balance scenarios requiring correction/retransmission of files, and to become familiar with end-of-day balancing reports. During this time the Agency and FA will have obtained the experience necessary to move from the current "live" system to the PCC system. We expect the dual process to initially last a month and then decline substantially as FAs and agencies become more familiar with the PCC system.

Operating under 31 CFR Part 210, PCC processes both business and consumer negotiable instruments payable to Federal Agencies.

All PCC Lockbox FA's must agree to process and electronically debit all PCC items from accounts drawn on their institution and to provide full reporting to its customers. ACH file formats – POP, ARC, and CCD – will be made available to each FA, as well as *PCC FAQ's for Financial Institutions*. In addition, all PCC Lockbox FA's must agree to prominently display the PCC Notice on its website.

Please note that these specifications may change from time to time as Laws, Federal Regulations, and Private Sector Operational Rules change.

## Item Processing at the Lockbox

1. The FA will need to modify or develop its system to generate and separately transmit four files to ELVIS, and to be able to receive and process two files from ELVIS.<sup>1</sup>

### **Files Transmitted to ELVIS:**

- Image File – Containing all check and related images approved for the cashflow
- Item File – Containing all MICR and financial information whether settled by FRB-C or the FA
- Remittance Information File – Containing Agency defined, agency unique information that is manually keyed or otherwise captured during FA processing
- FA Settled Item Status Update File – Containing status on items settled by the FA. These status descriptions include “Collected”, “Represented”, and “Uncollected”. The status for all items is made available in ELVIS.

### **Files to be Received From ELVIS:**

- Acknowledgement (ACK) File – Containing notification of receipt of an item, image, or remittance file
- FMS Verification File – Containing information regarding known closed accounts in the PCC system

2. Each transaction is linked to its subparts – images, financial information, and agency specific remittance information – by the same unique identification number (IRN). Assigning the same IRN to the individual sections of the transaction will allow ELVIS to group these components together for later retrieval. The IRN sequencing is defined in Appendix B.
3. Items must be flagged to reflect whether settlement is performed by the FA, will be performed by FRB-C, or will not be settled at all:

### **Items settled through the FA:**

- **On Us Items** – items drawn on the FA
- **PCC Ineligible Items** – items to include money orders, cashier checks, third party checks, credit card checks, obligations of a financial institution, checks drawn on a state or local government, or Treasury Checks.<sup>2</sup> The *PCC Standard Operating Procedures (SOP)* is kept up to date with listings of items that are not PCC eligible.

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<sup>1</sup> The files defined above do not include the output files due to an agency, if applicable. Creation and delivery of these files remain the responsibility of the FA. At a future date, the Agency output files may be generated from an FMS system.

<sup>2</sup> Items considered to be PCC Ineligible are subject to changes based on FMS' current NPRM for 31 CFR Part 210 and the Check Truncation Act, as well as other legal and regulatory changes.

### Items not settled:

- **Agency Stop List/Do Not Process Items** – items which the agency or FA have determined to be unprocessable – including fraudulent or account closed items. These items may be provided directly from the Agency, or through a PCC system interface and then added to the FMS Verification Items file.
- **Research Items** – items that can not be immediately processed for settlement due to an inability to identify/confirm payment amount, or for other reasons which the FA might determine in accordance with the cashflow or PCC SOP. Research items will be transmitted to the image archive but they will not be settled. An interface will allow the settlement flag to be changed and the dollar value and/or remittance information to be changed once the research has been completed. Once the flag is changed to reflect settlement, the item will be included for settlement. Items where the settlement flag has been changed will be reflected in the end-of-day balancing report described later in this document.
- **FMS Verification Items** – items that match to account/routing transit information provided via a file from ELVIS. Initially this file may contain only Account Closed and Fraudulent Information from personal accounts. Known commercial closed account records will be included at a later date, as well as other verification items.

### Items settled through FRB-C:

- **PCC Eligible Items - all personal and business negotiable instruments not included in the above PCC ineligible listing.** FRB-C will create IRDs for any items included in this category that are not capable of being converted to ACH.
  - **Settled Research Items** – items which are eligible for immediate FRB-C settlement, but require some investigation to properly apply the payment – includes items without a coupon or items where the required identification number can not be immediately determined.
4. Special Handling of many checks to one remittance or one check to several remittances must also be accommodated. Explanations and examples of these IRN's are shown in Appendix B.
  5. Correspondence will not be imaged and stored in ELVIS at this time. FA's will follow existing agency SOPs for handling.

## Communications

All file communication (image, item, remittance information, FMS Verification, FA settled item status update, and acknowledgement) will be via Connect:Direct with the Secure Plus Option regardless of file size. It is the responsibility of the FA to obtain and maintain Connect:Direct with the Secure Plus Option.

File communication will be between the processing FA and the TWAI.<sup>3</sup> It is the responsibility of the FA to obtain and maintain the communications line. Depending on usage, it is not required that the line be dedicated.

The first file of the day can be an item, remittance information or image file. The order in which files are received is not critical, but FAs must comply with the time frames set forth in this document.

The file submission timeline can be found in Appendix F for the item, image and remittance files.

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<sup>3</sup> Communication lines will be required for the two TWAI production sites and the TWAI test site.

## **File Formats**

See attached Appendix A for image, item, remittance information, acknowledgement, FA Settled Item Status and FMS Verification file formats.

Each individual item and image file will be validated as to file count and dollar value, if applicable, by ELVIS. If the file reflects that it should contain 25 images, or item records, then ELVIS will ensure the file has that number of items. If the file is an item file, it will also ensure that the dollar value indicated matches.

Item, remittance, and image files can consist of one or more batches. Batches are defined as containing data on only one cashflow. If a FA processes for a number of Agencies/cashflows, the file sent may contain batches for all of those cashflows, but each individual batch can only contain data for one cashflow.

If multiple image, remittance information and item batches are transmitted, the items are not required to have a one to one relationship in their placement within the batch. For example, the first item in the item batch does not need to be the first image in the image batch. The number of transactions in each individual remittance information, image, or item file may differ from each other. However, at the end of the day, each IRN transmitted must have at the minimum an item record and an image record.

Maximum file size recommendations for all file types are being considered and will be provided once a determination has been made.

An acknowledgement for receipt of the files and indicating whether the item or image files are in balance will be returned to the FA. The acknowledgement will be transmitted to the FA within approximately ten minutes after receipt of a file within ELVIS.

ELVIS will be capable of accepting and processing multiple files from one FA or multiple FA's simultaneously. If the file is out of balance or contains an error requiring correction, the FA may be required to submit a correcting file. The item and image file formats shown in Appendix A allow for a command field defining if the file is a correction file.

### **Image Files**

The image file will be a delimited file. Electronic images must be in the following order within the image file: front of check, back of check, and remittance document(s).<sup>4</sup>

Images can be provided to ELVIS in the following formats:

TIF  
GIF  
JPEG  
KIF

The TIF is the preferred format, but all listed formats will be acceptable. Compression is assumed to be the standard for the image format being used by the FA.

The standard image quality expected from any FA processing PCC payments is 300dpi. If an image quality standard is adopted in the future due to the Check Truncation Act or other legislation, that standard will likely then be required for PCC images.

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<sup>4</sup> Due to expected changes in NACHA rules, the requirement for imaging of the back of the check may change at a future date.

Each image file will contain images, the associated IRN's, and a count of the total images contained in the file. The image count provided in the file is used as a balancing figure; it is recommended that the image file total be determined from an independent source and not from a count of the items in the file itself. The image file can be transmitted independently of the remittance information and item files. It is recommended that for large volume cashflows several image files be transmitted throughout the day. This will distribute the load of files transmitted into ELVIS and allow for a more efficient handling of all items for final processing. The only requirement is that the last image file be received into FRB-C by 7:30 pm ET.

### **Item Files**

The item file will be a fixed field file containing the MICR and financial information from negotiable instruments processed in the lockbox. This file can be comprised of one or more batches. Each batch is comprised of payments from a single cashflow. The file and batches are not required to be of any defined size. The total count of items and dollar value within each file will be verified by ELVIS. Total counts and dollar amounts included in the item file are recommended to be generated from an independent source at the FA and not a total of the file itself. ELVIS will do a count of items and totaling of dollar values to ensure that the file is balanced. Additional fields outside of the MICR line that the item record contains include:

- A flag for each financial item relating to method of settlement. Items will be flagged for settlement – meaning the FRB-C or FA will perform settlement, or for non-settlement – meaning that the item will not be settled.
- Dollar value
- The unique IRN
- The cashflow represented by its Agency Location Code (ALC) and a two digit unique identifier (ALC+2)
- An indicator representing an ARC or CCD payment type
- The Government Wide Accounting Classification Key or “C-Key”
- The capture date and time
- The name of the operator processing the transaction

The item file can be transmitted independently of the remittance information and image files. The only requirement is that the file be received into FRB-Cleveland by 6:00 pm ET for next day settlement.

### **Remittance Information Files<sup>5</sup>**

The remittance information file will be in xml format. It is an optional file depending on an Agency's requirement to have manually keyed information that is unique to the cashflow available in ELVIS. The remittance information will be required to be detailed by name, length of field, and what type of characters comprise the field (including special characters). This information will be conveyed to FMS and FRB-C via the ACP completed by each FA and Agency outlining details of set up for each cashflow. If at any time these fields are changed, notification must be provided to FMS and FRB-C at least 30 days prior to implementation.

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<sup>5</sup> The “Invitation for Expressions of Interest to be Designated as a Qualified Lockbox Provider for Federal Agency General Lockbox Collections” dated August 15, 2003 (IEI), stated the requirement that financial agents manually key into the system the dollar amount for convertible items, and any other agency specific data in the configurable fields provided in the PCC software. The "configurable fields" referred to in the IEI are those fields containing Remittance Information.

The remittance information record will be capable of containing up to 24 unique fields, each consisting of a maximum of 256 characters. The number of available fields may be increased at a future date depending on Agency requirements. These unique fields must have all edit checks performed at the lockbox. No edit checks for field content will be performed by ELVIS.

Since the remittance information file is optional and entries for each individual transaction may also be optional, ELVIS will not perform any balancing or matching for items in this file.

The remittance information file can be transmitted independently of the item and image files. The only requirement is that the file be received into FRB-Cleveland by 9:00 pm ET. Non-receipt or a delay in receiving of the remittance file will not delay settlement of the items, but it would negatively impact information delivery to Agencies.

## **Processing Within the TWAI/ELVIS**

Once a file is received into ELVIS, balancing for that individual file is performed.

ELVIS will generate an acknowledgement file back to the FA indicating if the file is in balance or out of balance. See Appendix A for the file format of the Acknowledgment File. If the file is out of balance, a notification will also be delivered to FRB-C informing the processing personnel that an out of balance situation has occurred.

Selected scenarios have been developed indicating whether a correction can be performed by FRB-C or whether a corrected file must be submitted by the FA. These scenarios are contained in Appendix C.

Once the individual file is determined by ELVIS to be in a balanced state, ELVIS will begin processing the images, remittance information or financial data into the application. During this process, all images, remittance information and financial data will be grouped together into transactions based on their unique IRN's.

## **End of Day Balancing**

At a predetermined "end of processing day", currently anticipated to be 11:00 pm ET, ELVIS will generate a cached balancing report. This information will also be available to the FA via an ad hoc report approximately 2 hours after the last image, item, or remittance file is received and accepted by ELVIS. The Balancing Report will be the responsibility of the FA to pull, review and determine any end of day out of balance conditions such as missing financial information or images for any particular unique number. This report will reflect the following information:

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*Bank Name and Site / Date*

*Summary totals for the lockbox by dollar value and number of items received in the item file(s) and number of images, using one image count per IRN.*

*Detail by Cashflow by dollar value and number of items received in the item file(s) and number of images, using one image count per IRN.*

*Ability to link to and view individual item details within a cashflow by IRN and availability of item data and/or image*

*A section of this report will provide listings of IRN's received in either an item or image file that do not have an associated image or item counterpart. A section of this report will provide listings of Research Items that were modified to become Settlement Items.*

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It will be the responsibility of the FA to contact the FRB-C regarding any out of balance conditions reflected on the above report to determine appropriate action.

**All financial agents selected to provide general lockbox services will be required to hold harmless and indemnify the Financial Management Service and/or its agents from all loss, costs or liability, including attorneys fees, arising out of any and all processing errors made by the financial agent, including but not limited to errors made in the processing of the items, presentment of duplicate images or MICR lines or failure to provide a complete, accurate and accessible image of the original payment**

## **FA and Agency Capabilities within ELVIS**

Depending on authorizations requested in the ACP, individuals at the FA or Agency will have the following capabilities:

- Ability to view individual transaction items within the archive
- Ability to view account closed information
- Ability to view available reports relating to set-up, users and their levels of access, balancing, and items processed
- Ability to change remittance information fields. These are the optional agency specific fields that may be keyed separately for each cashflow. If changes are made to these fields no validation will be performed by ELVIS, and a comment field must be completed
- Ability to change the settlement flag from non-settlement to settlement for Research Items only
- Ability to change the dollar amount field on any item with a flag of Research Item

## **Availability of an FMS Verification File**

The PCC system has the ability to accumulate information on checks received on accounts that have been closed. Often an Agency will want to take advantage of this information to determine prior to processing if the item is from a known closed account. During the completion of the ACP, an Agency will have the option of utilizing this information. ELVIS will make this data available in a xml file format downloadable via Connect:Direct. The file format for this FMS Verification file is shown in Appendix A. If the Agency ops to use this feature, it will be the responsibility of the FA to code for receipt and implementation of the file. This file will be available for import on a daily basis with updates of new items reflecting a status of closed account received within the previous 24 hours. There will also be a capability within the FA software to request receipt of the entire closed verification file for instances when an entire reload of the file is necessary.

## **Availability of Financial Reports**

For items settled by FRB-Cleveland the following daily cached financial reports will be available:

- SF 215 by day for all items settled by FRB-C
- SF 5515 for all items returned back to the Agency. For these returns only the report will be provided. The returned item can be viewed and printed from the image archive. The original item will not be returned.

Access to the above reports, at the Agency and FA sites, will be determined by completion of the ACP.

For questions regarding either the SF 215 or SF 5515, customer support will be available at FRB-C. Also, see appendix G for an excerpt of the PCC Standard Operating Procedure relating to Balancing and Reports.

## **Retention of Files and Documentation**

After the check and remittance document have been imaged and transmitted to ELVIS, the FA will be required to keep the hard and electronic copies of all documentation for a minimum of three business days, but not to exceed 14 calendar days. Short-term retention of original documentation provides availability in case of questions relating to the files and contingency situations.

## **Processing of Returns**

Return processing for items settled by FRB-C will be handled by FRB-C – this could entail ACH representment resubmission via an IRD, retirement, or in the case of some PCC Ineligible items inadvertently processed as PCC items, a request for the FA to resubmit the original item. The Agency provides guidance on representment schedules through the ACP. Once the item is determined to be uncollectable, it will be returned as an SF 5515 and will be available as a report on ELVIS to individuals with access as defined in the ACP.

Returns generated for items settled by the FA will be the responsibility of the FA, as covered in the agreement for that cashflow. Both the FA and FRB-C will be responsible for submitting an Item Status Files to ELVIS to reflect the current status of all returned items. The file format and associated documentation for this file is found in Appendix A.

## **Customer Service**

FRB-C Customer Support will be available to answer many of the questions regarding the processing of items and settlement that the FA would traditionally have fielded from the Agency.

The scope of these questions cover, but are not limited to:

- Questions relating to specific SF 215's and SF 5515's
- Timing and dates of payments processed
- Available reports to view and research payments
- Support with payment research being performed by an Agency
- Documentation regarding the payment/PCC process
- Questions relating to settlement
- The status of specific payments
- Information regarding returns
- Balancing concerns

Customer Support will also be available for technical issues or questions from both the FA and Agency. This could include availability of ELVIS within the TWAI, communication status to and from the TWAI, or status of specific files – acceptance/rejection.

## Glossary

<b>Acronym</b>	<b>Description</b>
ACH	Automated Clearing House
ALC	Agency Location Code
ALC+2	Agency Location Code plus 2 (unique terminal id)
ARC	Accounts Receivable Conversion– the entry class code for a consumer payment processed in a lockbox environment and converted to ACH
CCD	Cash Concentration or Disbursement – the entry class code for business payments converted to ACH debits in a lockbox environment
CFR	Code of Federal Regulations
CIRA	Central Image and Research Archive – the image archive component of ELVIS
CTA	Check Truncation Act
DTN	Deposit Ticket Number: unique identifier set by USD for all items entering their system
DVN	Debit Voucher Number: unique identifier returned with the RPF for all items successfully cleared
ELVIS	Electronic Verification & Image System
FA	Financial Agent
FRB	Federal Reserve Bank
FRB-C	Federal Reserve Bank - Cleveland
IRN	Individual Reference Number – the unique number used to identify transactions within ELVIS
MVD	Master Verification Database – the portion of ELVIS containing information provided in the FMS verification file on closed accounts
NACHA	National ACH Association - The Electronic Payments Association
PCC	Paper Check Conversion
RPF	Return Payment File – the file providing FA and FRB item status updates
SOP	Standard Operating Procedure
TWAI	Treasury Web Application Infrastructure: Secure computing environment provided by the Treasury supporting all Treasury web applications.
XML	Extendable Mark-up Language (Industry Standard)

## Appendix A – File Formats

### Item File

**The below file formats are for illustrative purposes and must NOT be used for file development at this time. The below file layouts provide an accurate representation of the type and format of files which will be required for exchange with the PCC application but are subject to change.**

#### PCC Payment File – Record Layout Requirements

<b>Project ID</b>	PCC Lockbox	<b>Revision Date</b>	
<b>File Type</b>	Fixed	<b>Total Length</b>	320 Bytes
<b>File Source</b>			
<b>File Name Format</b>		<b>File Extension</b>	.dat, .cor

#### File Header: Payment Header Record (1)

Field	Position	Format	Length	Description	Notes
1	1	Char	1	Record Type	Record Type = 1
2	2-11	Char	10	Filler	Blank
3	12-21	Char	10	File Creation Date	Payment File Creation Date – Format (mm/dd/yyyy)
4	22-29	Char	8	File Creation Time	Payment file creation time – Format (hh:mm:ss)
5	30-79	Char	50	Filler	Blank
6	80	Numeric	1	Command	Create =1 in .rmt file, Correct=4 in cor file
7	81-82	Numeric	2	File Type	Check Conversion = 11
8	83-320	Char	238	Filler	Blank

#### Batch Header: Payment Header Record (2)

Field	Position	Format	Length	Description	Notes
1	1	Char	1	Record Type	Record Type = 2
2	2-11	Char	10	Batch Number	Payment Batch Identifier – Left justified with trailing spaces
3	12-21	Char	10	Batch Creation Date	Payment Batch Creation Date – Format (mm/dd/yyyy)
4	22-29	Char	8	Batch Creation Time	Payment Batch Creation Time – Format (hh:mm:ss)
5	30-79	Char	50	FA Name	Name of Lockbox FA
6	80-129	Char	50	Agency Name	Agency owner of Cashflow
7	130-139	Char	10	ALC+2	Agency Location Code + 2 Identifying Digits
8	140-189	Char	50	Cashflow Name	Name of Cashflow for GWA requirement
8	190-320	Char	131	Filler	Blank

**MICR Detail Transaction Record (3)**

Field	Position	Format	Length	Description	Notes
1	1	Char	1	Record Type	Record Type = 3
2	2-28	Char	27	IRN	IRN or Extended IRN
3	29	Char	1	Account Type	Checking – 2
4	30	Char	1	Transaction Type	Debit – 7
5	31-130	Numeric	100	Raw MICR	Raw MICR of the check -Left justified with trailing spaces -TOAD representing MICR characters -Spaces included if available from hardware
6	131-140	Numeric	10	Check Number	Not required. Plug in spaces
7	141-160	Numeric	20	Check Amount	Amount of payment -Right justified with leading zeroes -US Dollars/Cents – -No decimal or dollar sign DDDDDDDDDDDDDDDDDDDDCC
8	161	Numeric	1	Payment Type	CCD=1, ARC=5
9	162	Numeric	1	Settlement Type	Settlement Designation <ul style="list-style-type: none"> <li>• 1=On Us Items (Non-settlement)</li> <li>• 2=PCC Ineligible Items (Non-settlement)</li> <li>• 3=Stop List/Do Not Process Items (Non-settlement)</li> <li>• 4=Research Items (Non-settlement)</li> <li>• 5=FMS Verification Items (Non-settlement)</li> <li>• 6=PCC Eligible Items (Settlement)</li> <li>• 7=Settled Research Items (Settlement)</li> </ul>
10	163-172	Char	10	Operator	Operator performing item processing -Left justified with trailing spaces
11	173-182	Char	10	C-key	Code required for CashLink II/GWA
12	183-192	Char	10	Transaction Creation Date	Transaction Creation Date – Format (mm/dd/yyyy)
13	193-200	Char	8	Transaction Creation Time	Transaction Creation Time – Format (hh:mm:ss)
14	201-320	Char	120	Filler	Blank

**Batch Trailer Record (4)**

Field	Position	Format	Length	Description	Notes
1	1	Char	1	Record Type	Record Type = 4
2	2-8	Numeric	7	Batch Count	Total of Items in the Batch
3	9-28	Numeric	20	Batch Value	Total Dollar Value of Batch
4	29-320	Char	292	Filler	Blank

### File Trailer Record (5)

Field	Position	Format	Length	Description	Notes
1	1	Char	1	Record Type	Record Type = 5
2	2-6	Numeric	5	Total Batch Count	Total Number of Batches Contained in the File
3	7-13	Numeric	7	Total Item Count	Total Number of Items Contained in the File
4	14-33	Numeric	20	Total Dollar Value	Total Dollar Value of Items Contained in the File
5	34-320	Char	287	Filler	Blank

### PCC Lockbox File Details

**Record Type.** 1=File Header Record, 2=Batch Header Record, 3= MICR Detail Transaction Record, 4=Batch Trailer Record, 5=File Trailer Record

**File Name.** File name is defined as FA ID, Cashflow ID, Date/time to the minute, type of file (1=item file, 2=image file, 3=remittance file), 3 digit sequence number which begins at 001 each day.

**Batch Number.** The batch number will be constructed from the cashflow ID, date/time to the minute, 3m digit sequence number which begins at 001 each day.

**File Extensions.** Payment files will use an extension of .dat. Correction files will use an extension of .cor.

**C-Key.** GWA Classification key as specified for the cashflow.

**PCC Payment File Contents.** A PCC Lockbox Payment file consists solely of batches and records as defined in the PCC Lockbox Payment File – Record Layout Requirements. The records are all ASCII, are all of the same length, and begin with record type number.

A File is defined by a single File Header Record (Type 1, Command 1), followed by a Batch Header Record (Type 2) with zero or more Detail records (Type 3) followed by a Batch Trailer Record (Type 4), concluding with a File Trailer Record (Type 5).

## Image File

### PCC Image File – Record Layout Requirements

<b>Project ID</b>	PCC Lockbox	<b>Revision Date</b>	
<b>File Type</b>	Delimited	<b>Total Length</b>	Variable
<b>File Source</b>			
<b>File Name Format</b>		<b>File Extension</b>	.dat

Filename|File Creation Date|File Creation Time|FA|Command|Total  
Images|IRN|Image|IRN|Image|

The File Name is defined as FA ID, Date/time to the minute, type of file (1=item file, 2=image file, 3=remittance file), 3 digit sequence number which begins at 001 each day.

|

## Remittance Information File

### PCC Remittance Information File – Record Layout Requirements

<b>Project ID</b>	PCC Lockbox	<b>Revision Date</b>	
<b>File Type</b>	xml	<b>Total Length</b>	variable
<b>File Source</b>			
<b>File Name Format</b>		<b>File Extension</b>	xml

#### Sample XML

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE RemittanceFields SYSTEM "C:\xmlSampleApp\Untitled5.dtd">
<RemittanceFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="C:\xmlSampleApp\Untitled2.xsd">
  <Header>
    <FinancialAgent />
    <FileName />
    <FileCreationDateTime />
  </Header>
  <Detail>
    <IRN>
      <AgencyName />
      <ALC2 />
      <Operator />
      <CaptureDateTS />
      <Fields>
        <FieldName />
        <FieldValue />
      </Fields>
    </IRN>
  </Detail>
</RemittanceFields>
```

#### Sample Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<!--W3C Schema generated by XMLSPY v2004 rel. 2 U (http://www.xmlspy.com)-->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified">
  <xs:element name="ALC2">
    <xs:complexType />
  </xs:element>
  <xs:element name="AgencyName">
    <xs:complexType />
  </xs:element>
  <xs:element name="CaptureDateTS" type="xs:dateTime"/>
  <xs:element name="Detail">
    <xs:complexType>
      <xs:sequence>
        <xs:element ref="IRN"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="FieldName">
    <xs:complexType />
  </xs:element>
  <xs:element name="FieldValue">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:maxLength value="256"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>
  <xs:element name="Fields">
    <xs:complexType>
      <xs:sequence>
        <xs:element ref="FieldName"/>
        <xs:element ref="FieldValue"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
  <xs:element name="FileCreationDateTime" type="xs:dateTime"/>
  <xs:element name="FileName">
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:maxLength value="50"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>
  <xs:element name="FinancialAgent">
    <xs:complexType />
  </xs:element>
```

```

</xs:element >
<xs:element name="Header">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="FinancialAgent"/>
      <xs:element ref="FileName"/>
      <xs:element ref="FileCreationDateTime"/>
    </xs:sequence>
  </xs:complexType>
</xs:element >
<xs:element name="IRN">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="27"/>
      <xs:length value="27"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element >
<xs:element name="Operator">
  <xs:complexType/>
</xs:element >
<xs:element name="RemittanceFields">
  <xs:complexType mixed="true">
    <xs:choice minOccurs="0" maxOccurs="unbounded">
      <xs:element ref="Header"/>
      <xs:element ref="Detail"/>
    </xs:choice>
  </xs:complexType>
</xs:element >
</xs:schema>

```

## Acknowledgement File

### PCC Acknowledgement File – Record Layout Requirements

<b>Project ID</b>	PCC Lockbox	<b>Revision Date</b>	
<b>File Type</b>	xml	<b>Total Length</b>	variable
<b>File Source</b>			
<b>File Name Format</b>		<b>File Extension</b>	xml

Sample Acknowledgement XML

```

<?xml version="1.0" encoding="UTF-8"?>
<!--Sample XML file generated by XMLSPY v2004 rel. 2 U (http://www.xmlspy.com)-->
<PCCAcknowledgement xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="C:\xmlSampleApp\Untitled4.xsd">
  <DataFiles >
    <OriginatingFAName/>
    <OriginatingFAId/>
    <TotalFilesReceived/>
    <TimeLastFileReceived/>
    <FileDetails >
      <Errors >
        <ErrorCode/>
        <ErrorDescription/>
      </Errors >
      <Batches >
        <TotalBatchesRecieved/>
        <TotalItemsRecieved/>
        <TotalDollarValue/>
        <TotalImagesRecieved/>
      </Batches >
    </FileDetails >
  </DataFiles >
  <imageFiles >
    <OriginatingFAName/>
    <OriginatingFAId/>
    <TotalFilesReceived/>
    <TimeLastFileReceived/>
    <FileDetails >
      <Errors >
        <ErrorCode/>
        <ErrorDescription/>
      </Errors >
      <Batches >
        <TotalBatchesRecieved/>
        <TotalItemsRecieved/>
        <TotalDollarValue/>
        <TotalImagesRecieved/>
      </Batches >
    </FileDetails >
  </imageFiles >
  <RemittanceFieldFiles >
    <OriginatingFAName/>
    <OriginatingFAId/>
    <TotalFilesReceived/>
    <TimeLastFileReceived/>
    <FileDetails >
      <Errors >
        <ErrorCode/>
        <ErrorDescription/>
      </Errors >
      <Batches >
        <TotalBatchesRecieved/>
        <TotalItemsRecieved/>
        <TotalDollarValue/>
        <TotalImagesRecieved/>
      </Batches >
    </FileDetails >
  </RemittanceFieldFiles >
</PCCAcknowledgement >

```

Sample Acknowledgement

```

<?xml version="1.0" encoding="UTF-8"?>
<!--W3C Schema generated by XMLSPY v2004 rel. 2 U (http://www.xmlspy.com)-->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified">
  <xs:complexType name="BatchesType">
    <xs:sequence>
      <xs:element ref="TotalBatchesRecieved"/>

```

```

        <xs:element ref = "TotalItemsRecieved" minOccurs="0"/>
        <xs:element ref = "TotalDollarValue" minOccurs="0"/>
        <xs:element ref = "TotalImagesRecieved" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="DataFilesType">
    <xs:sequence>
        <xs:element ref = "OriginatingFAName"/>
        <xs:element ref = "OriginatingFAId"/>
        <xs:element ref = "TotalFilesReceived"/>
        <xs:element ref = "TimeLastFileReceived"/>
        <xs:element name="FileDetails" type="FileDetailsType"/>
    </xs:sequence>
</xs:complexType>
<xs:element name="ErrorCode">
    <xs:complexType/>
</xs:element>
<xs:element name="ErrorDescription">
    <xs:complexType/>
</xs:element>
<xs:complexType name="ErrorsType">
    <xs:sequence>
        <xs:element ref = "ErrorCode"/>
        <xs:element ref = "ErrorDescription"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="FileDetailsType">
    <xs:sequence>
        <xs:element name="Errors" type="ErrorsType"/>
        <xs:element name="Batches" type="BatchesType" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:element name="OriginatingFAId">
    <xs:complexType/>
</xs:element>
<xs:element name="OriginatingFAName">
    <xs:complexType/>
</xs:element>
<xs:element name="PCCAcknowledgement">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="DataFiles" type="DataFilesType"/>
            <xs:element name="imageFiles" type="imageFilesType"/>
            <xs:element name="RemittanceFieldFiles" type="RemittanceFieldFilesType"/>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="TimeLastFileReceived">
    <xs:complexType/>
</xs:element>
<xs:element name="TotalBatchesReceived">
    <xs:complexType/>
</xs:element>
<xs:element name="TotalDollarValue">
    <xs:complexType/>
</xs:element>
<xs:element name="TotalFilesReceived">
    <xs:complexType/>
</xs:element>
<xs:element name="TotalImagesRecieved">
    <xs:complexType/>
</xs:element>
<xs:element name="TotalItemsRecieved">
    <xs:complexType/>
</xs:element>
<xs:complexType name="RemittanceFieldFilesType">
    <xs:sequence>
        <xs:element ref = "OriginatingFAName"/>
        <xs:element ref = "OriginatingFAId"/>
        <xs:element ref = "TotalFilesReceived"/>
        <xs:element ref = "TimeLastFileReceived"/>
        <xs:element name="FileDetails" type="FileDetailsType"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="imageFilesType">
    <xs:sequence>
        <xs:element ref = "OriginatingFAName"/>
        <xs:element ref = "OriginatingFAId"/>
        <xs:element ref = "TotalFilesReceived"/>
        <xs:element ref = "TimeLastFileReceived"/>
        <xs:element name="FileDetails" type="FileDetailsType"/>
    </xs:sequence>
</xs:complexType>
</xs:schema>

```

## FMS Verification File Format

### PCC Verification File Format – Record Layout Requirements

<b>Project ID</b>	PCC Lockbox	<b>Revision Date</b>	
<b>File Type</b>	xml	<b>Total Length</b>	variable
<b>File Source</b>			
<b>File Name Format</b>		<b>File Extension</b>	xml

#### DTD for LVD

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- edited with XMLSPY v2004 rel. 2 U (http://www.xmlspy.com) by Mario Morgado (RDM Corporation) -->
<!-- DTD generated by XMLSPY v2004 rel. 2 U (http://www.xmlspy.com)-->
<!ELEMENT Delta EMPTY>
<!ATTLIST Delta
  ACCOUNT CDATA #REQUIRED
  AMOUNT CDATA #REQUIRED
  CAPTUREDATE CDATA #REQUIRED
  DENYDATE CDATA #REQUIRED
  IRN CDATA #REQUIRED
  LOCDESC CDATA #REQUIRED
  LOCTAG CDATA #REQUIRED
  MODIFIEDDATE CDATA #REQUIRED
  NOTE CDATA #REQUIRED
  OVERRIDE CDATA #REQUIRED
  RRCODE CDATA #REQUIRED
  RRDESC CDATA #REQUIRED
  RT CDATA #REQUIRED
  SSN CDATA #REQUIRED
  TRADESTATUS CDATA #REQUIRED
  TXSTATE CDATA #REQUIRED
  TXTYPE CDATA #REQUIRED
>
<!ELEMENT DeltaRecords (Delta)>
<!ELEMENT MVD (Prologue, DeltaRecords)>
<!ELEMENT Prologue (QueryTime, Version)>
<!ELEMENT QueryTime (#PCDATA)>
<!ELEMENT Version (#PCDATA)>
```

#### Sample XML

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE MVD SYSTEM "C:\xmlSampleApp\Untitled2.dtd">
<MVD >
  <Prologue>
    <QueryTime>2003-09-12 18:55:19</QueryTime>
    <Version>3</Version>
  </Prologue>
  <DeltaRecords >
    <Delta ACCOUNT="" AMOUNT="0" CAPTUREDATE="2003-09-05 17:37:21" DENYDATE="2099-09-09" IRN="BLOCK-10020" LOCDESC=""
    LOCTAG="FederalReserve" MODIFIEDDATE="2003-09-05 12:37:21" NOTE="" OVERRIDE="0" RRCODE="" RRDESC="" RT="" SSN="qqwqw"
    TRADESTATUS="BLOCKED" TXSTATE="4" TXTYPE="B"/>
  </DeltaRecords> </MVD >
```

## FA Settled Item Status File

### PCC Response Processing File - Record Layout Requirements

<b>Project ID:</b>	PCC Lockbox	<b>Revision Date:</b>	OCTOBER 15, 2001
<b>File Type:</b>	Fixed	<b>Total Length:</b>	269 Bytes
<b>File Source</b>			
<b>File Name Format:</b>	none	<b>File Extension</b>	.rpf

#### Record Type: Batch Header Record

Field	Position	Format	Length	Description	Notes
1	1	Char	1	<b>Record Type</b>	Record Type = 1
2	2-11	Char	10	<b>Batch Number</b>	Return Processing file batch identifier - Left justified with trailing spaces
3	12-21	Char	10	<b>File Creation Date</b>	Return Processing File Create Date - Format (mm/dd/yyyy)
4	22-29	Char	8	<b>File Creation time</b>	Return Processing file create time - Format (hh:mm:ss)
5	30-269	Char	240	<b>Filler</b>	Blank

#### Record Type: Detail Transaction Record

Field	Position	Format	Length	Description	Notes
1	1-1	Char	1	<b>Record Type</b>	Record Type = 6
2	2-31	Char	30	<b>Trace Number</b>	Unique transaction identifier provided at origination - Left justified with trailing spaces
3	32-41	Char	10	<b>Effective Date</b>	Effective Settlement date of Payment or Return Transaction - Format (mm/dd/yyyy) - <i>Blank on Rejected Items</i>
4	42-51	Numeric	10	<b>Payment Amount</b>	Payment Amount - US Dollars and Cents (DDDDDDDDDDCC) - Right justified with leading zeros - No decimal or dollar signs
5	52-52	Numeric	1	<b>Transaction Status</b>	A numeric representation of the state of the Transaction. <a href="#">See Transaction Status Table</a>
6	53-89	Char	37	<b>Transaction Type Code - Description</b>	A text description of the action taken on an item. <a href="#">See Transaction Type Code Table for List</a> - Format: ##-<34 Characters of Text>
7	90-189	Char	100	<b>Return Description</b>	A text description of the return of a payment. Examples: - 01 - Insufficient Funds - 02 - Account Closed
8	190-195	Char	6	<b>Voucher Number</b>	Sequential CASHLINK Deposit Ticket numbers, and Debit Voucher Numbers. Only Received on Settlement Status Updates.
9	196-205	Char	10	<b>ALC+2 Number</b>	Originating Location of payment transaction - Left justified (10-digits expected)

<b>Project ID:</b>	PCC Lockbox	<b>Revision Date:</b>	OCTOBER 15, 2001
<b>File Type:</b>	Fixed	<b>Total Length:</b>	269 Bytes
<b>File Source</b>			
<b>File Name Format:</b>	none	<b>File Extension</b>	.rpf

10	206-269	Char	64	<b>ALC+2 Name</b>	Originating Location Name - Left Justified
----	---------	------	----	-------------------	---

**Record Type: Batch Trailer Record**

Field	Position	Format	Length	Description	Notes
1	1	Char	1	<b>Record Type</b>	Record Type = 9
2	2-11	Numeric	10	<b>Total Detail Count</b>	Return Processing detail record count - Right justified with leading zero's
3	12-23	Numeric	12	<b>Total Detail Amount</b>	Return Processing detail check total - US Dollars and Cents (DDDDDDDDDDCC) - Right justified with leading zeroes - No decimal or dollar signs
4	24-269	Char	246	<b>Filler</b>	Blank

<b>Status+TxType Code RPF File - Field 6</b>	<b>Transaction Status RPF File - Field 5</b>	<b>Description</b>
Item added to system upload of Lockbox item file	In Process	On-us and PCC Ineligible Items (settlement type 1 or 2)* and PCC Eligible and Settled Research Items (settlement type 6 or 7)*
	Stop List – Non-settlement	Stop List/Do Not Process Items (settlement type 3)*
	Research Item – Non- settlement	Research Item (settlement type 4)*
	FMS Verification	FMS Verification (settlement type 5)*
412	Collected	CashLink Settlement File Exported for on us and PCC ineligible items
017	Represented	Return items requiring representment
404	Retire	Return items that are retired

\*(Settlement type references Items File Format)

## Return Description Table

Return Description (RPF File - Field 7)	Field Code Value
Insufficient Funds	01 - Insufficient Funds
Account Closed	02 - Account Closed
No Account / Unable to Locate	03 - No Account / Unable to Locate
Invalid Account Number	04 - Invalid Account Number
Reserved	05 - Reserved
Returned per ODFI Request	06 - Returned per ODFI Request
Auth Revoked by Customer	07 - Auth Revoked by Customer
Payment Stopped	08 - Payment Stopped
Uncollected Funds	09 - Uncollected Funds
Customer Advises Not Authed	10 - Customer Advises Not Authed
Check Truncation Entry Return	11 - Check Truncation Entry Return
Branch Sold to Another DFI	12 - Branch Sold to Another DFI
RDFI Not Qualified to Participate	13 - RDFI Not Qualified to Participate
Representative Payee Deceased or Unable to Continu	14 - Representative Payee Deceased or Unable to Continue in that Capacity
Beneficiary or Account Holder (Other Than a Repres	15 - Beneficiary or Account Holder (Other Than a Representative Payee) Deceased
Account Frozen	16 - Account Frozen
File Record Edit Criteria	17 - File Record Edit Criteria
Improper Effective Entry Date	18 - Improper Effective Entry Date
Amount Field Error	19 - Amount Field Error
Non-Transaction Account	20 - Non-Transaction Account
Invalid Company Identification	21 - Invalid Company Identification
Invalid Individual ID Number	22 - Invalid Individual ID Number
Credit Entry Refused by Receiver	23 - Credit Entry Refused by Receiver
Duplicate Entry	24 - Duplicate Entry
Addenda Error	25 - Addenda Error
Mandatory Field Error	26 - Mandatory Field Error
Trace Number Error	27 - Trace Number Error
Routing Number Check Digit Error	28 - Routing Number Check Digit Error
Corporate Customer Advises Not Authorized	29 - Corporate Customer Advises Not Authorized
RDFI Not Participant in Check Truncation Program	30 - RDFI Not Participant in Check Truncation Program
Permissible Return Entry (CCD and CTX only)	31 - Permissible Return Entry (CCD and CTX only)
RDFI Non-Settlement	32 - RDFI Non-Settlement
Return of XCK Entry	33 - Return of XCK Entry
Limited Participation DFI	34 - Limited Participation DFI
Non Participant in ENR Program	40 - Non Participant in ENR Program
Invalid Transaction Code (ENR only)	41 - Invalid Transaction Code (ENR only)
Routing Number/Check Digit Error	42 - Routing Number/Check Digit Error
Invalid DFI Account Number	43 - Invalid DFI Account Number
Invalid Individual ID Number	44 - Invalid Individual ID Number
Invalid Individual Name	45 - Invalid Individual Name
Invalid Representative Payee Indicator	46 - Invalid Representative Payee Indicator
Duplicate Enrollment	47 - Duplicate Enrollment
State Law Prohibits Truncated Checks	50 - State Law Prohibits Truncated Checks
Notice not provided/ Signature not authentic/ Item	51 - Notice not provided/ Signature not authentic/ Item altered/ Ineligible for conversion
Stop Pay on Item	52 - Stop Pay on Item
Misrouted Return	61 - Misrouted Return
Incorrect Trace Number	62 - Incorrect Trace Number
Incorrect Dollar Amount	63 - Incorrect Dollar Amount
Incorrect Individual Identification	64 - Incorrect Individual Identification

<b>Return Description (RPF File - Field 7)</b>	<b>Field Code Value</b>
Incorrect Transaction Code	65 - Incorrect Transaction Code
Incorrect Company Identification	66 - Incorrect Company Identification
Duplicate Return	67 - Duplicate Return
Untimely Return	68 - Untimely Return
Multiple Errors	69 - Multiple Errors
Permissible Return Entry Not Accepted	70 - Permissible Return Entry Not Accepted
Misrouted Dishonor Return	71 - Misrouted Dishonor Return
Untimely Dishonored Return	72 - Untimely Dishonored Return
Timely Original Return	73 - Timely Original Return
Corrected Return	74 - Corrected Return
Cross-Border Payment Coding Error	80 - Cross-Border Payment Coding Error
Non-Participant in Cross-Border Program	81 - Non-Participant in Cross-Border Program
Invalid Foreign Receiving DFI Identification	82 - Invalid Foreign Receiving DFI Identification
Foreign Receiving DFI Unable to Settle	83 - Foreign Receiving DFI Unable to Settle

## Appendix B – Unique Identification Number Generation (IRN)

It is the responsibility of the FA to link every record component, whether remittance/negotiable instrument image, remittance information or financial information, to a specific IRN. ELVIS will ensure that all items associated with any given IRN will be available for research and viewing as one transactional group.

The 27 digit IRN is composed of two parts. The first 12 digits are used to relate the financial and remittance documents into transactional groups. These first 12 digits provide ELVIS with an indication that this transaction is composed of either one financial record and one remittance document or is composed of multiple remittance documents and/or financial records. The last 15 digits of the IRN represent the core IRN digits. These 15 digits will be carried forward into ELVIS and used for item retrieval in the archive.

The first 12 digits are defined as follows:

# of Characters	Definition	Description
2 - numeric	Identifies whether this transaction is a group of remittance documents and/or financial records (MICR), or is a transaction containing one remittance document associated with only one financial record	00 = transaction contains one remittance document and one financial record 01 = transaction contains multiple remittance documents /financial records
5 - numeric	Represents the sequence number of any item within the transaction group	The parent or first component receives a 00000 designation. Subsequent documents are identified by increasing the number by a count of one. The second document in this grouping has a sequence number of 00001.
5 - numeric	Represents the total number of components in the transactional group.	For transactions containing one financial record and one remittance document, this number is 00000. For transactions having multiple financial records/remittance documents, this will be the total number of items. For example, five checks and one remittance document would represent six components in the transactional grouping. One check and three remittance documents would represent four components in the transactional grouping.

The 15 digits are defined as follows:

# of Characters	Definition	Assigned By
3 – alpha-numeric	Bank/Machine Identifier	Assigned by FA and FMS
5 – numeric	Simplified Julian Date This assigns each day of the year a sequential number, with January 1 being 001. The last two digits of the year make up the complete date. For example 03203 represents Feb. 1, 2003	Assigned by FA
7 – numeric	Sequential number beginning at one each day.	Assigned by FA

The above sequencing will allow, for example, the designation of a group of 50 components all relating to one transaction to be used and validated in several ways within ELVIS. ELVIS will validate that if the sequencing designates 50 items, that there are 50 individual records, either remittance or financial information entries, making up that transaction group. ELVIS will also ensure upon receipt of image, item and remittance information files, that the records are in numerical order within the file. For the above mentioned fifty components, files submitted by the FA should reflect IRN's with the five digit sequence number ranging from 00001 through 00050. If these records are out of sequence or a record is missing, the file will be rejected.

The IRN generated is always generated per negotiable instrument. A group of images can all be associated in the same transaction with one unique number. An image without an associated financial instrument, such as correspondence, will never be assigned a unique number and will not be processed by the PCC system.

The IRN number can **never** be duplicated between transactional groups; it must always be a unique number. ELVIS will do some basic verification to ensure that no duplicate IRN's are received in a batch, but it is the FA's responsibility to ensure that IRN's are never duplicated between transactional groups. The 15 digit IRN shown above is the number that the FA and Agency will use when searching the archive. For purposes of IRN generation and FA assignment to images, financial records, and remittance items, when transmitting files, a more descriptive IRN was required. The following will accommodate and group items consisting of one check and one remittance as well as the exception processes of one check and many remittances, or one remittance and many checks.

## IRN's and Non-Standard Processing

FMS recognizes that often times lockboxes receive items in various groupings, e.g. – one item and many remittances, many items and one remittance, and many items and many remittances. The following examples are intended to cover these various scenarios.

When items are received and must be processed in a non-standard grouping, preceding the core IRN will be the following numbers to designate item groupings:

- 2 digit number identifying group or no group = 00 no group, and 01 group
- 5 digit representing the sequenced items with 00000 representing which is the parent
- 5 digit representing the total number of items

### 1 Check and 1 Remittance:

For many cashflows this is assumed to be the majority of the work. The IRNs would be developed as follows:

Document	IRN	Description
One check/financial record	000000000000XXX235031234567 Contained in the item file	Since this is a one to one relationship with the remittance, all of the leading 12 digits will be assigned a zero value.
Remittance	000000000000XXX235031234567 Contained in the image file	You will note that the IRN is exactly the same as that used for the financial record. In the image file this same IRN will proceed the image.
Check Image – Front and Back	000000000000XXX235031234567 Contained in the image file	You will note that the IRN is exactly the same as that used for the financial record. In the image file this same IRN will proceed the front image and the back image of the check.

**Following is an example of five checks (financial documents) received with one remittance document:**

<b>Document</b>	<b>IRN</b>	<b>Description</b>
Remittance	010000000006XX213037890123 Contained in the image file	The item with only one document is designated as the parent (to have the five digit sequence number all zeros). As you can see, the <b>core</b> IRN is the same as the IRN for the first check. The sequence of five digits representing the number of components in the group shows that there are six components that belong to this transaction (1 remittance and 5 checks). Only the remittance image is associated with this IRN.
First Check	010000100006XX213037890123 Contained in the image and item files	The first check has the same <b>core</b> IRN as the remittance document. The initial 12 digits of this number reflect that it is the second item in the group of six. The elements that will be assigned this IRN are the financial data for this check and the front and back of the check.
Second Check	010000200006XX213037890124 Contained in the image and item files	The second check has a different <b>core</b> IRN from the remittance document and first check. Each negotiable instrument receives a unique core IRN. The initial 12 digits of this number reflect that it is the third item in the group of six. The elements that will be assigned this IRN are the financial data for this check and the front and back of the check.
Third Check	010000300006XX213037890125 Contained in the image and item files	The third check has a different <b>core</b> IRN. The initial 12 digits of this number reflect that it is the fourth item in the group of six. The elements that will be assigned this IRN are the financial data for this check and the front and back of the check.
Fourth Check	010000400006XX213037890126 Contained in the image and item files	The fourth check has a different <b>core</b> IRN. The initial 12 digits of this number reflect that it is the fifth item in the group of six. The elements that will be assigned this IRN are the financial data for this check and the front and back of the check
Fifth Check	010000500006XX213037890127 Contained in the image and item files	The fifth check has a different <b>core</b> IRN. The initial 12 digits of this number reflect that it is the sixth item in the group of six. The elements that will be assigned this IRN are the financial data for this check and the front and back of the check

**Following is an example of two checks (financial documents) received with one remittance document and two remittance information fields associated with the remittance document:**

<b>Document</b>	<b>IRN</b>	<b>Description</b>
Remittance	010000000003XX305038765432 Contained in the image file	The item with only document is designated as the parent (to have the five digit sequence number all zeros). As you can see the <b>core</b> IRN is the same as the IRN for the first check. The sequence representing the number of components in the group shows that there are three components that belong to this transaction (1 remittance and 2 checks). Only the remittance image is associated with this IRN.
First Check	010000100003XX305038765432 Contained in the image and item files	The first check has the same <b>core</b> IRN as the remittance document. The initial 12 digits of this number reflect that it is the second component in the group of three. The elements that will be assigned this IRN are the financial data for this check and the front and back of the check.
Second Check	010000200003XX305038765433 Contained in the image and item files	The second check has a different <b>core</b> IRN from the remittance document and first check. The initial 12 digits of this number reflect that it is the third item in the group of three. The elements that will be assigned this IRN are the financial data for this check and the front and back of the check.
First remittance information field	010000000003XX305038765432 Contained in the remittance information file	The IRN for this remittance field is the same as for the remittance document. This field relates to the remittance document itself, not the financial data.
Second remittance information field	010000000003XX305038765432 Contained in the remittance information file	The IRN for this remittance field is the same as for the remittance document. This field relates to the remittance document itself, not the financial data.

**Following is an example of one check and three remittances:**

<b>Document</b>	<b>IRN</b>	<b>Description</b>
Check	010000000004XX155035791357 Contained in the item and image files	The check is the parent document in this group. There are four components in the group (1 check and 3 remittance docs). Components with this IRN are the financial information and the front and back of the check.
First Remittance Document	010000100004XX155035791357 Contained in the image file	The first remittance document has the same <b>core</b> IRN as the check. This is because only a financial item can be provided a unique core IRN. All of these

		remittance documents are associated with one negotiable instrument. The first 12 digits are unique to each document. The first 12 digits show that this is the second component in a grouping of four items. Components associated with this IRN will be the image of the remittance document.
Second Remittance Document	010000200004XX155035791357 Contained in the image file	The second remittance document has the same <b>core</b> IRN as the check. The first 12 digits show that it is the third component in a grouping of four items. Components associated with this IRN will be the image of the remittance document.
Third Remittance Document	010000300004XX155035791357 Contained in the image file	The third remittance document has the same <b>core</b> IRN as the check. The first 12 digits show that it is the fourth component in a grouping of four items. Components associated with this IRN will be the image of the remittance document.

**Following is an example of one check, two remittance documents with one remittance information field associated with each remittance document:**

<b>Document</b>	<b>IRN</b>	<b>Description</b>
Check	010000000003XX200034319876 Contained in the item and image files	The check is the parent document in this group. There are three components in the group (1 check and 2 remittance docs). Components with this IRN are the financial information and the front and back of the check.
First Remittance Document	010000100003XX200034319876 Contained in the image file	The first remittance document has the same <b>core</b> IRN as the check. The first 12 digits show that it is the second component in a grouping of three items. Components associated with this IRN will be the image of the remittance document.
Second Remittance Document	010000200003XX200034319876 Contained in the image file	The second remittance document has the same <b>core</b> IRN as the check. The first 12 digits show that it is the third component in a grouping of three items. Components associated with this IRN will be the image of the remittance document.
Remittance Field associated with the <b>First</b> Remittance Doc	010000100003XX200034319876 Contained in the remittance information file	The IRN for this field is the same as for the <b>First</b> Remittance Document.
Remittance Field associated with	010000200003XX200034319876 Contained in the remittance information	The IRN for this remittance field is the same as for the <b>Second</b> Remittance

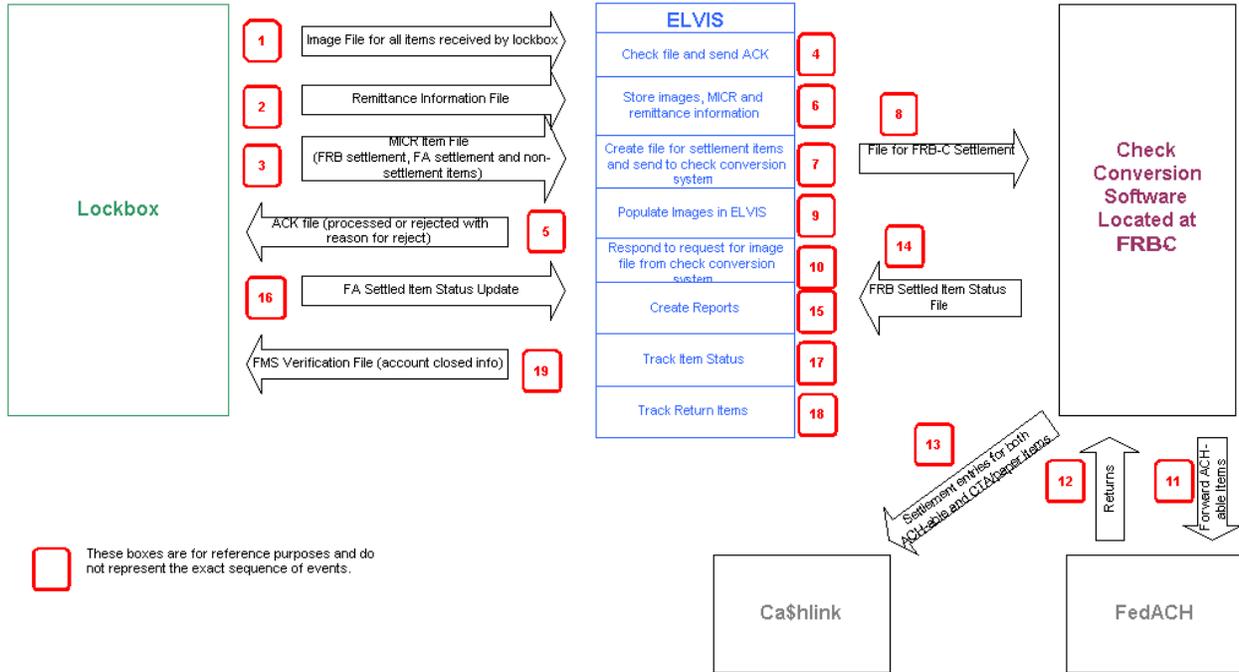
the <b>Second</b> Remittance Doc.	file	Document.
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## Appendix C – Out of Balance Conditions and Correcting Party

Reason	Correcting Party
<i>Totals in either file do not match total calculated by ELVIS</i>	FRB-C
<i>Duplicate IRN</i>	FA
<i>Group identifier out of sequence</i>	FA
<i>Invalid File Format data elements</i>	FA
<i>Hashing Error</i>	FA
<i>Invalid image format and quality</i>	FA
<i>Duplicate</i>	FRB-C
<i>Unreadable or corrupt</i>	FA
<i>All mandatory fields must be completed</i>	FA
<i>Locations (either FA or ALC+2) not recognized</i>	FA
<i>File or Batch Headers/Trailers incomplete</i>	FA
<i>Invalid File Format</i>	FA

# Appendix D – Industrial Lockbox Processing

## PCC Industrial Lockbox Item Processing (as of 9/15/03)



## **Industrial Lockbox Item Processing Overview** (Narrative Description of Diagram)

For industrial lockbox it is assumed that large volumes of payments and ancillary documentation will be required to be opened, imaged, verified and keyed. To facilitate the transmission and processing of these various transaction components, the FA will provide three types of files to ELVIS during the processing day. These files are identified by the numbers **1**, **2**, and **3**.

### **Image Files (1)**

Image file(s) contain an image of all negotiable instruments, and their respective remittances received by the lockbox, and will be transmitted periodically throughout the day. Images can be in the form of TIF, GIF, JPEG, or KIF. Images will be in the following order: front of check, back of check, and optionally the coupon or remittance document. Each image will be immediately preceded by an IRN. Image files must be transmitted into the TWAI and received by ELVIS no later than 7:30pm ET. A timeline is available in Appendix F.

### **Remittance Information File (2)**

The remittance information file is in an xml format and contains unique information required by the Agency. This information may be manually keyed or otherwise captured by the FA. Each PCC remittance information record can contain up to 24 fields with a maximum field size of 256 characters. Examples of remittance information might include invoice number, form number, date, or remitter ID. Remittance Files must be transmitted into the TWAI and received by ELVIS no later than 9:00pm ET. A timeline is available in Appendix F.

### **Item Files (3)**

The FA will provide a separate item file that contains all of the financial information; MICR, payment type, dollar value, and a flag to identify items that are to have settlement performed by Federal Bank of Cleveland (FRB-C), the FA, or not have settlement performed at all. Image files must be transmitted into the TWAI and received by ELVIS no later than 6:00pm ET. A timeline is available in Appendix F.

The method of transmission between each FA and the Treasury Web Application Infrastructure (TWAI) will be via Connect:Direct with the Secure Plus Option

After each file is received into ELVIS (**4**), an acknowledgement file will be generated back to the FA (**5**). This acknowledgement file will indicate if the individual file is in a balanced state. This is determined by ensuring that the item total count and/or dollar value matches between the actual file items and the balancing figure provided in the file trailer.

The above files do not need to be transmitted in any order. The image, remittance, or item file can be transmitted first. The item and/or remittance file can be transmitted before all of the image files have been sent. The items within each image and item file are not required to be in a one for one or identical order.

After each file has been verified as being balanced, ELVIS will begin populating the various tables within the application (**6, 9**), including the CIRA.

ELVIS will use the IRN to organize each file and group all images, financial information and remittance information with the same IRN into the same transaction. When a user later searches the archive, all images and data associated with an IRN will be visible as a whole transaction.

Throughout the day ELVIS will be creating files to send to FRB-C for conversion to ACH (7, 8) using the financial information contained in the item file. Only items flagged for FRB-C settlement will be included in these transmissions. It is not required that all image files be received prior to generation of the settlement file to FRB-C. If PCC ineligible items are inadvertently transmitted to FRB-C, they could be handled in a number of ways. An image of the item may be submitted or a request could be made to the FA to pull the physical item and process it in the proper manner. FRB-C Customer Service will work with the FA to ensure proper accounting for these items. As previously noted, the composition of the PCC ineligible items will likely change over time.

FRB-C uses back-end software for the ACH conversion, to verify that items should be converted to ACH, and to request images/substitute checks if required (10). This backend software generates two files. One is transmitted to FedACH for settlement (11), and the other is sent to CA\$HLINK for appropriate accounting to the Agency (13).

Periodically each day, FRB-C will receive information on returned items (12). The FRB conversion software will assign a status code to the return. This status will indicate if the item is ACH or paper, whether it requires resubmission or whether it will be retired. Also during the day, due to advices, acknowledgements, and the return information from FedACH, an item status file will be generated and transmitted to ELVIS (14). ELVIS will use this file to update the status of various transactions/IRN's (17, 18). The FA's will be required to submit an item status update file for items settled through them (16). The file format for this file can be found in Appendix A, along with status codes.

At the end of day, currently anticipated to be 11:00pm ET (see Appendix F for a timeline), ELVIS will perform balancing to ensure that for each IRN submitted, at least an image and a financial item record have been received. A balancing report will be available from ELVIS that will reflect all items received into ELVIS (15).

Also available during the day will be an FMS Verification file (19). At this time it contains mainly closed account information. This file will be sent to the FA via Connect: Direct. This file will be used by the FA to validate all checks processed to ensure none are drawn on a known closed account. If a payment matches to the FMS Verification file, that item will be flagged as an R02 item for non-settlement.

## Appendix E – Agency Cashflow Profile



### PAPER CHECK CONVERSION AGENCY CASHFLOW PROFILE

**AGENCY NAME:** \_\_\_\_\_

**AGENCY  
REPRESENTATIVE:** \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_

**This document must be completed for each physical location and cashflow**

<b>Agency Authorized Signatory Name / Title</b> <i>(please print)</i>	<b>Signature</b>	<b>Date</b>
<b>FMS Authorized Signatory Name / Title</b> <i>(please print)</i>	<b>Signature</b>	<b>Date</b>



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*SF 215 / SF 5515 RECIPIENTS (AGENCY AND FA)* .....

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*REMITTANCE INFORMATION 1-24 FIELDS* .....

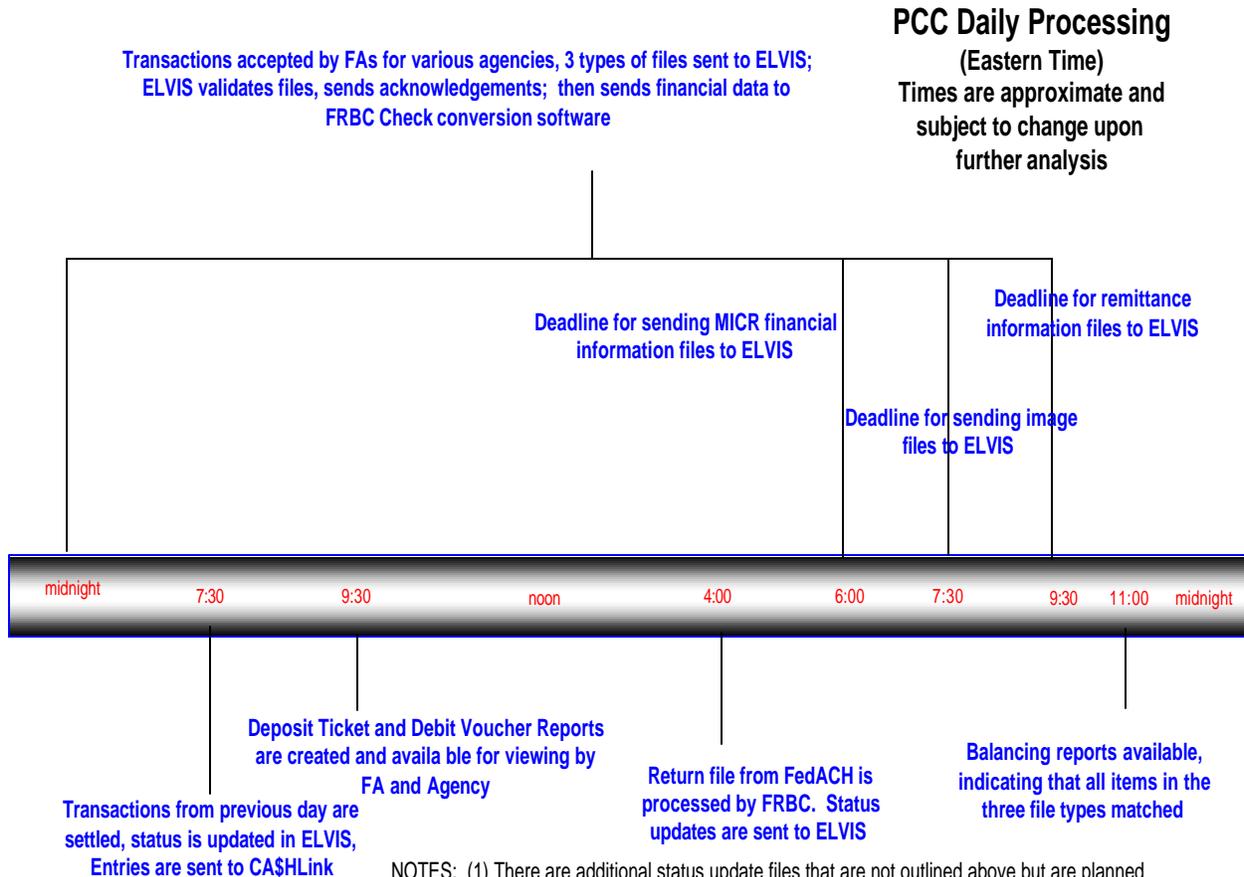
*MASTER VERIFICATION DATABASE (MVD)* .....

*AGENCY AND FINANCIAL AGENT HIERARCHY*.....

*PCC ELVIS DATABASE AUTHORIZATION REQUEST*.....

*PCC ELVIS USER REQUEST FORM* .....

## Appendix F – PCC Processing Timeline



NOTES: (1) There are additional status update files that are not outlined above but are planned throughout the day. Timing of the files will be provided when available.  
 (2) The Ca\$hLink shown here is FRB Ca\$hLink. There is an interface between this system and Riggs Ca\$hLink, through which agencies can view transactions. The timing of this interface is currently daily, however more file exchanges are planned.

## Appendix G – PCC SOP Excerpt for Reporting and Balancing with CA\$HLINK

# Reporting and Balancing with CA\$H-LINK

## Overview

The CIRA web site provides the ability to view transactions based on several criteria. On a daily basis items received by 9:30<sup>6</sup> EST will be forwarded on to FedACH for payment collections. All transactions sent to the CIRA since the last business day will be forwarded to the Federal Reserve Bank of Cleveland for further processing. Transactions will be processed at the Federal Reserve's Automated Clearing House system, known as FedACH. FedACH will send a debit ACH transaction to the check writer's financial institution. The following business day, an SF215 deposit ticket will be credited to your agency's CA\$HLINK account. The Federal Reserve System feeds into Riggs CA\$HLINK at the end-of-day. You will see activity in Riggs on the third day with the effective entry date matching your SF215 that FRB Cleveland provided. All PCC activity will be reflected in CA\$HLINK as activity from 0420 which is the Federal Reserve Bank of Cleveland's Cincinnati office.

***NOTE: Federal Reserve Bank of Cleveland business days are Monday thru Friday, except holidays. To view holiday dates, please go to [www.clevelandfed.org/about/Holidays.htm](http://www.clevelandfed.org/about/Holidays.htm).***

## Daily Reports

Three reports will be delivered to the appropriate agency contact through email from FRBC each business day. (The sender of the email will be PCC.) These include:

- The SF215 Report for all items being deposited into CA\$H-LINK on that day. The SF215 report will contain detailed information with the number of transactions, dollar amount, transaction date, cashier ID, and location that add up to a single deposit for an ALC/DSSN. This would reflect activity sent on prior business day until 9:30 ET cutoff time.
- The SF5515 report will contain the debit voucher number for each item that is retired by the Federal Reserve Bank. At this time, each debit voucher represents a single retired transaction. The report provided includes detailed information on the Unique Transaction ID (or IRN number) for easy research on the CIRA site.
- The Daily Checks Pending Redeposit Report reflects the first time an item has been returned but will be based on the represent schedule selected by the agency during the pre-deployment process.

A sample of each of these reports is available in the *Appendix*.

## Problems Balancing to CA\$H-LINK

Each day, SF215 and SF5515 information will be emailed to the designated agency contact (i.e. Regional Accounting Manager or Disbursing Officer). If this information on the SF215 does not match what was transmitted to the CIRA,

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<sup>6</sup> These times are subject to change based on the volume of transactions being processed. If this time changes the appropriate agency contact will be notified 30 days prior to the change.

- Determine the time that the information was sent to the CIRA. Currently, if this is prior to currently published deadlines, the batch of transactions will be contained on the SF215 form on the next day.
- Currently, if all transactions were sent prior to currently published deadlines but are not on the SF215 form, please contact the Federal Reserve Bank of Cleveland at 800-624-1373 or 216-579-2112 or at [pcc@clev.frb.org](mailto:pcc@clev.frb.org).

*NOTE: If unable to match to information provided on the SF215 or SF5515, please contact the Federal Reserve Bank of Cleveland with the dates and ALC numbers of the locations having problems balancing.*

# APPENDIX H - PCC Frequently Asked Questions and CCD File Format

## Paper Check Conversion FAQs for Financial Institutions

### What is Paper Check Conversion?

Paper check conversion is the process of converting personal and business checks into electronic funds transfers at the point of sale (POS) or in a lockbox environment (commercially known as eCheck). These transactions can be consumer (Point Of Purchase, POP), consumer accounts receivable (ARC) as well as business transactions that are taken over the counter or received through the mail. The authorization to process business checks electronically is delineated in Reg 31 CFR 210, Treasury's adaptation of NACHA rules.

How are business customers notified that their checks will be converted to an ACH debit?

Processing agencies are responsible for notifying their customers. This may be by mail, electronic postings or physical postings at drop box locations. This notification constitutes authorization of conversion.

### What should Financial Institutions know?

- ◆ All commercial checks will be converted using the CCD SEC code. The check number will be placed in field 7, (identification number), found in positions 40-54 of the entry detail record.
- ◆ It is anticipated that alternate payment methods will be made available for any lockbox at which all checks are converted so remitters will have payment options available.
- ◆ The originating ABA # identifying Treasury transactions is 041736126.
- ◆ For fraud or legal questions, we will provide an image of the transaction.

### What happens if the ACH debit cannot be processed?

- ◆ The use of cash management tools at the financial institution such as account debit blocks or positive pay verification may prohibit the account to be debited via ACH.
- ◆ For accounts that utilize cash management tools, the customer may request debits coming from a specific originating ID to be debited from their account. For example, company XYZ may allow an electronic debit originated by the Treasury with Treasury's ACH ID to be debited from their account.
- ◆ Customers may contact the processing agency for alternative payment options
- ◆ If the debit is not processed electronically, an image of the check will be submitted and settled through the check processing system.

### What happens to the physical check?

A copy of the check is retained for seven years while the physical check is destroyed within fourteen days of the settlement day.

More detailed information can be found at [www.fms.treas.gov/ach](http://www.fms.treas.gov/ach) or [www.pcc.gov](http://www.pcc.gov)

# Paper Check Conversion FAQs for Businesses

## What is Paper Check Conversion (lockbox)?

Check conversion is the process of converting checks into electronic funds transfers. "Electronic funds transfer" is the term used to refer to the process in which we electronically instruct your financial institution to transfer funds from your account to our account, rather than processing your check. If, after receiving this notice, you choose to pay by check, you authorize us to process your check as an electronic funds transfer.

## What happens to the physical check?

The imaged or copied check is retained for seven years. The original check is destroyed within fourteen calendar days after the funds have been transferred.

## How quickly will funds be transferred from my account?

The electronic funds transfer from your account will usually occur within 24 hours. If the electronic funds transfer cannot be completed because there are insufficient funds in your account, we may try to make the transfer up to two more times and may impose fees against your account, which we will also collect by electronic funds transfer.

## Will the electronic funds transfer appear on my account statement?

The electronic funds transfer from your account will be on the account statement that you receive from your financial institution. However, the transfer may be in a different place on your statement than the place where your checks normally appear. For example, it may appear under "other withdrawals" or "other transactions/activity" mixed with transactions. The information on your statement can include the check number, city and state where it was processed as well as the name of the processing agency.

## What do I tell my Financial Institution if I use cash management tools?

- ◆ Electronic debits from the Treasury should be accepted
- ◆ For a listing or Agency/Company ID's go to <https://www.pcc.gov>.
- ◆ The originating ABA # identifying Treasury transactions is 041736126.
- ◆ Request information from your Financial Institution on how electronic debits will appear on your statement; you should see the transaction date, agency name, dollar amount and check number.

## What if there is a problem with the electronic funds transfer?

You should contact your financial institution immediately if you believe that the electronic fund transfer reported on your account statement was not properly authorized or is otherwise incorrect. A Federal law called the Electronic Fund Transfer Act provides protection against unauthorized or incorrect electronic funds transfers.

## What if the electronic funds transfer cannot be processed?

In rare instances, an electronic fund transfer cannot be processed for reasons other than insufficient funds. If cash management tools are utilized by your financial institution for your account for protecting against unauthorized or incorrect funds transfers, contact your financial institution to allow these specific transactions to be electronically debited from your account. If we cannot process the check electronically, you authorize us to process a copy of the check for collection through the check system.

More detailed information can be found at [www.fms.treas.gov/ach](http://www.fms.treas.gov/ach) or [www.pcc.gov](http://www.pcc.gov)