



Disbursements Imaging Transmission Toolkit



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Overview

Disbursements Image transmission offers our Full and Partial ARP clients the option to receive paid check images through a secure and direct electronic delivery channel, eliminating the need to extract paid check images from a CD ROM, individually download images from our website, or from paper copies. With Disbursements Image Transmission, you have the ability to access and view paid check images directly from their own in-house system, without the need to research and locate paid check images through an alternate delivery channel.

Disbursements Image Transmission is ideal for existing or new KeyBank Full and Partial ARP clients who are seeking a more direct method of delivery of their paid check. This service provides clients with a timely file of paid check images and data that can be fed directly into the client's existing accounts payable and/or archiving systems.

In addition to Internet, CD, and paper check delivery options, Disbursements Image Transmission offers an additional alternative to obtain paid check images, helping you to simplify your accounting and research practices and archive paid check images. This service also allows you to obtain your paid check images on their terms, by selecting the daily, weekly, or monthly transmission option that best fits their schedule. This service also allows you to access files that were previously sent.

Product:	Definition/Prerequisites:	Transmission Service Level:
Disbursements Image Transmission	<p>Allows you to receive paid ARP check images via a daily, weekly, or monthly transmission.</p> <p>Full or Partial Account Reconciliation Required.</p> <p>You must be set up for weekly account reconciliation to receive weekly transmissions.</p> <p>Monthly reconciliation clients can receive daily – or – monthly paid check transmissions.</p> <p>You must be able to receive, parse, archive and index transmission files without a supplied image viewer/archive software</p>	<p><u>Daily:</u></p> <p>9:00AM local time</p> <p><u>Weekly and Monthly:</u></p> <p>Transmission file coincides with the reconciliation reporting; by the 7th business day after the cycle end*</p>

**Please note: If your issue file is delayed or the file is missing excessive information, reconciliation may be delayed until complete information is received. If such a delay exceeds 7 days, KeyBank will contact you prior to processing your reconciliation report. In the event you encounter a delay in providing your issue file, the delivery time of transmission file may be impacted.*

ARP REPORTS: Check Image Transmission files DO NOT include ARP reports, which will continue to be delivered according to each client's specific account requirements. Please contact your Payments Advisor for more details on ARP report delivery.

Best Practices

- Check Quality:** In order to best utilize our Disbursements Image Transmission service, ARP clients are responsible for using high quality disbursement checks. This includes paper quality and MICR line quality. Consider the effects of paper color and background security features on the image you will receive when the checks clear. Please contact your Payments Advisor with any questions regarding

testing of your checks.

2. **Duplicate Check Numbers**: You should be careful not duplicate check numbers, or re-use check number ranges within a 3 year time period. Duplication of check numbers or ranges may impact the accuracy of balancing and reconciliation activities, potentially delaying receipt of image transmission files.
3. **Large Volume Clients**: It is suggested that if you have a monthly volume in excess of 50,000 items, you may want to consider utilizing the daily transmission option for Disbursements Image Transmission. This will eliminate end of cycle delays in receiving an extremely large file.

Previous Transmissions

KeyBank provides you the most recent Transmission File for immediate retrieval. As a backup, if you do not retrieve your paid check file as scheduled, we store each of your previous 45 Transmission Files as well. To Access prior Transmission Files, clients may contact the Commercial Banking Services at 1-800-821-2829. KeyBank will 'post' requested transmission files within 24 hours of your request.

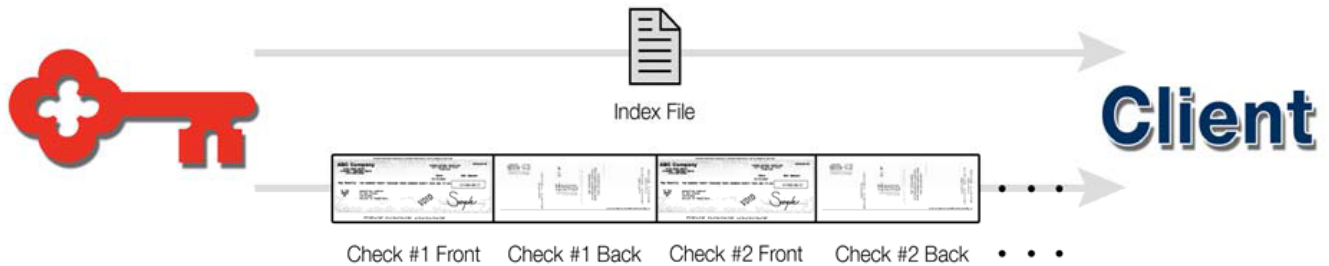
Service Frequency Changes

Some of our clients may discover that their delivery requirements have changed, and they need to alter the frequency of their Check Image Transmission delivery schedule.

To change the frequency of Check Image Transmission, please contact your Payments Advisor for assistance, or contact the Commercial Banking Services at 1-800- 821-2829.

Disbursement Image Transmission Files

The Disbursements Image Transmission can be broken down into two essential areas: an Index File, and an Image File. The Index File contains important details about the Image File. The Image File contains a 'bundled' file of concatenated paid check images. The following diagram illustrates these files:



As noted above, the Index File provides critical information about the size and location of each of the paid check images within the Image File. Using this information, you are able to identify, parse and accurately archive the paid check images contained within the Image File. The Following sections provide additional details and information about the Index File and Image File areas of the Disbursements Image Transmission service.

Index File

The Index file includes two main sections: a Header File and an Index Details File. The Header File provides summary information about the contents of the Transmission and the paid check images included within it. The Index Details File provides the specific details about each individual paid check image included within the related Image File.

The following table illustrates the details provided within the Header File and Index Details File:

Header File	Index Details File
<ul style="list-style-type: none"> • Total Size of Paid Image File • Total Number of Paid Images Transmitted • Total Number of ARP Paid Images Requested • Total Number of Paid Images Missing • Total Dollar Amount of paid check images • Range of dates the Transmission File includes 	<ul style="list-style-type: none"> • The 'Location' for each paid check image • Front & Back image indicator for each paid check • Account Number (DDA or CDA) • Dollar Amount • Serial Number • Routing/Transit Number • MICR Data and/or MICR Correction Data • Paid (posting) Date • Capture Date • CPCS Item Sequence Number (Document ID #) • An 'Availability Code' for each paid check image

Please see the File Format section of this document for a more detailed look at the Index File.

Image File

Along with the Index File, clients receive an Image File containing paid check images for the specified period of time identified in the Index File. These images are provided as a bundled file of concatenated images (the paid check images are located one after another in the file, with no separations). Because the size and length of each check image may vary, the Index File provides you with the size and location of each check image included in the Transmission, allowing clients to easily identify and parse each check image.

The Image File includes a front and back image (where available) for each paid check, and is provided as a black and white, TIFF/G4 image. Most items are provided at 240dpi, however a very small percentage (typically 1% or less) may require MICR correction by KeyBank, and will be provided at 200dpi. A sample of a Paid Check Image is provided in the File Format Section of this document.

Requirements for Interpreting the Transmission

Check Image Transmission is intended for use if you have the capability to interpret and parse your paid check image file, as it is provided by KeyBank. You should not require KeyBank's support for:

- Parsing the paid check images within the Transmission File
- Indexing the paid check images within the Transmission File
- Archiving the paid check images within the Transmission File
- Researching and/or Viewing the paid check images within the Transmission File

Important Contacts

Area	Responsibility	Contact Information
Transmissions Support	Assists with questions on connections, secure file transfer, and file retrieval	1-800-282-1628

Check Image Transmission Implementation Process

Pre-Implementation

1. You, as an ARP client, must meet all transmission and user capabilities as defined in this toolkit. If you do not meet any of the hardware and/or software specifications, you may request a technical review session prior to requesting service by contacting the transmission coordinator or technical development team for assistance.
2. You must have the appropriate staff, technical or otherwise, available to work with Key to establish communication links, test file formats and run validity checks outlined in this toolkit.
3. You and your Payments Advisor complete the 'Transmission Setup Request Form' and 'Testing Schedule' documents, located in the KeyBank Data Transmission Toolkit. These forms help to define dates, time, staff, and other items required to complete implementation.
4. Once the proper documentation is complete and the client meets the pre-service requirements outlined above, your Payments Officer will submit the appropriate service request to request data transmission service.

Implementation

5. When the request for Check Image Transmission is received by the Cash Management Operations Transmission Coordinator (TC), the TC conducts a brief Technical Review session with the client to validate the client's hardware, software and formatting capabilities.
6. The TC notifies KeyBank's Transmission Programming Support (TPS) and all applicable Application areas to initiate service request for implementing a new Check Image Transmission client.
7. TPS establishes your associated data transmission ID's, and provides all applicable ID's and testing instructions for you.
8. Your technical staff, Key's Transmission Support and Key's Application Support teams coordinate to establish a test environment. Within this environment, you can expect to test the communication link and the Check Image Transmission files the you will receive from Key.
 - a. KeyBank provides you with an encrypted sample file (via email), allowing the client to begin understanding and parsing out the file as it will be provided by KeyBank.
 - b. KeyBank works with you to fully understand the encryption process and ensures that you and KeyBank can 'shake hands' through the connection that has been made
 - c. KeyBank creates and test file using client information and transmits the file to you
 - d. We work together to fine tune the file interpretation on your side.
9. Once testing is completed, you, your technical staff, Key's Transmission Support and Key's Application Support will review and approve:
 - a. Communication links
 - b. Check Image Transmission Files
 - c. Other items as needed
10. Upon review and/or approval, Key's Application Programming team provides any additional adjustments, and prepares for production processing.
11. KeyBank's Transmission Support team implements the client into live production.

Post Implementation

12. Once in production, all communication issues should be directed to the Transmission Support Group at (800) 282-1628.
13. If you are performing any upgrades to hardware or software used for data transmission with KeyBank, you must contact the Transmission Coordinator to schedule pre-production testing to make certain the your upgrade will not affect transmission communications and prevent production files from being sent and/or received. Allow a minimum of one business week prior to implementation of your upgrade to schedule and perform testing.

File Formats

Index File Format

I. Index File Header Layout

Field #	Column Begin	Column End	Field Description	Format
1	1	15	Header Account Number	Always Zeroes
2	16	16	Blank	
3	17	22	Header Capture Date	Always Zeroes
4	23	23	Blank	
5	24	35	Header Seq Number	Always Zeroes
6	36	36	Blank	
7	37	48	Total Image File Size	Total Size, in bytes, of the Image File; Zero indicates that there are no images to retrieve.
8	49	49	Blank	
9	50	61	Total Requests	Total Number of Paid Check Images files requested for the Transmission File, including missing, invalid, recycled etc, The requests are doubled to account for both Front and Back paid check images
10	62	62	Blank	
11	63	70	File Create Date	YYYYMMDD
12	71	71	Blank	
13	72	77	File Create Time	HHMMSS
14	78	78	Blank	
15	79	91	Internal Use	For KeyBank Internal Use Only
16	92	92	Blank	
17	93	98	From Date	Earliest Date Encountered for all paid check image requests
18	99	99	Blank	
19	100	105	To Date	Latest Date Encountered for all paid check image requests
20	106	106	Blank	
21	107	318	Internal Use	For KeyBank Internal Use Only
22	319	319	Blank	
23	320	331	Total Missing Image Fronts	Number of Missing Check Fronts
24	332	332	Blank	

Field #	Column Begin	Column End	Field Description	Format
25	333	344	Total Missing Image Backs	Number of Missing Check Backs
26	345	345	Blank	
27	346	600	Internal Use	For KeyBank Internal Use Only
28	601	602	Optional Line Feed	If the Index File is transmitted in ASCII, this field will be used for 'line feeds'. If the Index File is transmitted in binary (EBCDIC), this field will not be utilized, and the Index record will be 600 positions, not 602.

Image File Naming Definition

Example: **c61_ne_060101_1200.img**

c	Check Image Transmission
61	Client number or ID number
ne	Client regional location within KeyBank: ne = northeast; nw = northwest, rm = rocky mountain; gl = great lakes
060114_1200	Date and time check image file was created (optional)
.im	Image file extension

II. Index File Detail Layout

Field #	Column Begin	Column End	Field Description	Format
1	1	15	Account Number	Numeric, with leading zeroes
2	16	16	Blank	
3	17	22	Capture Date	YYMMDD
4	23	23	Blank	
5	24	35	Sequence Number	Numeric, currently use 8, with 4 leading zeroes
6	36	36	Blank	
7	37	134	Internal Use	KeyBank Internal Use Only
8	135	135	Blank	
9	136	136	Availability Code	"A" = Available, See Below for Availability Codes
10	137	137	Blank	
11	138	155	Image Starting Location	Numeric Starting Location of the Image within the separate



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Field #	Column Begin	Column End	Field Description	Format
				Image File
12	156	156	Blank	
13	157	165	Image Length	File 'length' of the Image
14	166	166	Blank	
15	167	167	Front / Back Indicator	F=Associated Image is a Check Front, B=Back
16	168	177	Amount	Amount of the paid check image
17	178	187	Serial	Serial number of the paid check image
18	188	204	Internal Use	KeyBank Internal Use Only
19	205	213	Routing Transit	Routing and Transit Number of the paid check image
20	214	223	Amount	Amount of the paid check image
21	224	238	Check Number	Numeric, left zero filled
22	239	246	Posted Date	Date Posted to the client account, YYYYMMDD
23	247	261	Internal Use	KeyBank Internal Use Only
24	262	262	Correction Indicator	"C" = indicates an item which has been corrected and resent to the client archive (Amount or Serial # change)
25	263	500	Blank	
26	501	514	E-Check Account	E-Check Account (should match pos 2-15)
27	515	542	E-Check Description	E-Check Basic Description
28	543	558	E-Check Payee Name	E-Check Payee Name
29	559	568	E-Check Payee ID	E-Check Payee Identification Number
30	569	600	Internal Use	Date Posted to the client account, YYYYMMDD
31	601	602	Optional Line Feed	If the Index File is transmitted in ASCII, this field will be used for 'line feeds'. If the Index File is transmitted in binary (EBCDIC), this field will not be utilized, and the Index record will be 600 positions, not 602.

Availability Codes

Availability Codes, also known as Reason Codes, indicate or provide reference to the current status of an image within the Image Transmission File. The majority of the following codes refer to the availability of the paid check image during the preparation of the Transmission File.

Code	Availability Code Description
A	Image is Available and included in the Transmission File
H	Image converted to ACH "E-Check", Payee Info Included in E-Check Section of Index Detail
I	Image was not found, (Image only had 1 side, and both Front and Back were requested).
L	Image Length exceeds 1MB limit
M	Missing Archive (Missing the entire 'batch' of paid check images)
N,S,T	Image not found within the KeyBank Image Archive
R	Recall Required. Item was found to be more than 74 days old.
V	Validation error on Image request
X	This indicates that the Image Found was Invalid, other than those identified by "N".

Index File Naming Definition

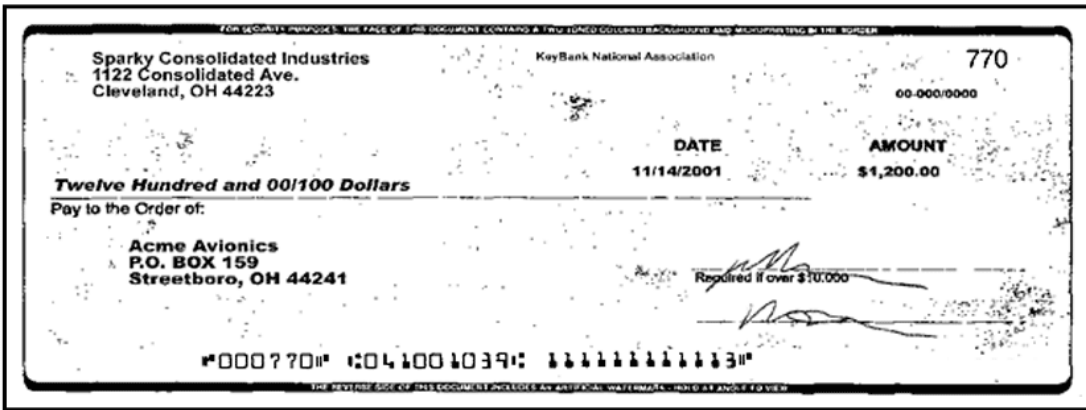
Example: **c61_ne_060101_1200.idx**

c	Check Image Transmission
61	Client number or ID number
ne	Client regional location within KeyBank: ne = northeast; nw = northwest, rm = rocky mountain; gl = great lakes
060114_1200	Date and time check image file was created (optional)
.idx	Index file extension

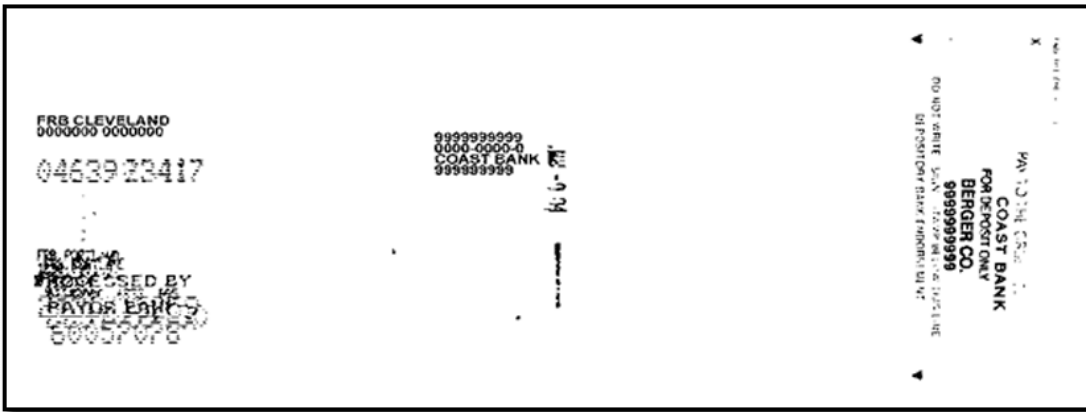
Check Image Details

Image: Front and Back Paid Check
Images Resolution: Typically 200-240dpi
Format: TIFF/G4, Black and White

Check Image Sample



Front Image



Back Image