

Overview Transmission Toolkit

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This publication is designed to provide accurate information about the subject matter covered. Please be aware that changes to the information may occur after the publication date.

1. Overview

File Transfer / Transmissions provide an opportunity to automate and streamline the delivery and receipt of information reporting and payment related files. This can save you time and money versus manually entering payment data, or manually retrieving information reporting data.

KeyBank provides both attended and unattended file delivery services and is able to exchange files that are compatible with a variety of Treasury Management Workstations (TMS), Enterprise Resource Planning systems (ERP) and some industry specific applications. The Transmission service provides a simple and secure method for sending and/or receiving files with KeyBank. There are three standard methods utilized to send and/or receive data:

- 1. KeyNavigatorSM Web-Based File Transfer Module
- 2. Secure File Transfer (Direct Transmission i.e. FTP, sFTP, AS2, etc.)
- 3. SWIFT for Corporates "FileAct"

Each transmission alternative is described in more detail in the Transmission Options section.

The following types of files can be sent to KeyBank:

- ACH NACHA Files
- Check Issue Files (for ARP, Positive Pay and Check Outsourcing)
- Consolidated Payables Files (transmission connection is with FIS, our Con Pay partner)
- EDI Origination Files
- Batch Wire Transfer Files
- Cash Vault Order Files
- PrePaid Card Files
- Lockbox Stop Files

KeyBank can send you the following types of files:

- ACH Returns and Notification of Change (NOC) Files
- BAI2 File (Previous Day and Intraday) Files
- Returned Items Files (data and/or images)
- EDI 820 Remittance Files
- EDI 822 Account Analysis Files
- Lockbox Detail Information Files
- Lockbox Image files
- Account Reconcilement (ARP) Data Files
- Account Reconcilement (ARP) Paid Check Image Files
- PrePaid Card Acknowledgement Files

Please Note: KeyBank can also send and receive Image Cash Letter files. Due to the highly technical industry specifications and resources required to implement this service, please speak with your Payments Advisor for additional information.

A list of transmission products available is found on the next page.

Transmission Products Available

Product / Solution	Transmission Methods Supported
Account Reconcilement (ARP)	 Browser Based File Transfer: KeyNavigator File Transfer Secure File Transfer (Direct Transmission) SWIFT FileAct
Account Reconcilement (ARP) - Paid Check Images	 Secure File Transfer (Direct Transmission)
ACH Payments	 Browser Based File Transfer: KeyNavigator File Transfer Secure File Transfer (Direct Transmission) SWIFT FileAct
BAI2 (Information Reporting)	 Browser Based File Transfer: KeyNavigator File Transfer Secure File Transfer (Direct Transmission) SWIFT FileAct
Cash Vault Orders	 Secure File Transfer (Direct Transmission)
Consolidated Payables	 Secure File Transfer (Direct Transmission)* Consolidated Payables Portal Upload* *connection is with FIS, our Con Pay partner
EDI	 Browser Based File Transfer: KeyNavigator File Transfer Secure File Transfer (Direct Transmission) SWIFT FileAct
Lockbox Data	 Browser Based File Transfer: KeyNavigator File Transfer Secure File Transfer (Direct Transmission)
Lockbox Images	Secure File Transfer (Direct Transmission)
Prepaid Card Files	 Secure File Transfer (Direct Transmission)
Returned Item Data	 Browser Based File Transfer KeyNavigator File Transfer Secure File Transfer (Direct Transmission)
Returned Item Images	 Secure File Transfer (Direct Transmission)
Wire Transfer Services	 Browser Based File Transfer: KeyNavigator File Transfer Secure File Transfer (Direct Transmission) SWIFT FileAct

2. Implementation & Service Information

Roles & Responsibilities

The procedure for setup with KeyBank's standard transmission services consists of three phases:

- 1. Communications set-up and testing
- 2. Application file testing
- 3. Move to Production (live)

Operational and technical contacts from both your organization and KeyBank will establish to your satisfaction in order to ensure network communication is successful. Your organization will then collaborate with KeyBank's operational areas to test and validate file formats. Once in production, the initial transmission will be verified for completeness.

KeyBank will not supply any codes or programs other than the parameters that are necessary for interaction with the bank's transmission platform(s). It is your responsibility to be able to interface with KeyBank's file transfer system.

Prior to the request for transmission services

- You must meet all hardware and software specifications described in this toolkit. If any of the hardware and/or software specifications cannot currently be supported by your organization, you may request a technical review session with KeyBank's Transmissions Team by contacting your Treasury Services Payment Advisor.
- 2. You must have the appropriate staff (technical or otherwise) available to work with KeyBank to establish communication links, test file formats, and run validity checks.
- 3. Each product type (ACH, ARP, etc.) has its own file format. Please refer to the specific applicable product file format document for details. The test file requirement applies to all clients who will be **sending** files to KeyBank for processing. If your system or application cannot create a file in the standard format, Key can evaluate our ability to translate the incoming file from your system into the applicable product's file format for processing in our system additional fees apply. Any questions regarding the creation of test files can be directed to your Treasury Services Payment Advisor.
- 4. Your internal applications must be capable of accepting files from KeyBank. Each product type has its own file format. Please refer to the specific applicable product file format document for details. This requirement applies to all clients who will be **receiving** files from KeyBank. If your system or application cannot ingest a file in the standard format, Key can evaluate our ability to translate the outgoing file from our system into your system's file format additional fees apply. Please contact your Treasury Services Payment Advisor with any questions regarding the receipt of files.

Requesting Transmission Services

- 1. Your Payments Advisor will work with you to determine which method of file exchange will best suit your company's needs. In most cases, you or your company's Technical resource will have a desired transmission protocol to use.
- 2. Your Payments Advisor will provide you with a **Secure File Transfer Request Form** to complete. The form will capture applicable information required to set-up and test transmission connectivity, etc.
- 3. Once the form and all required information has been provided to your Payments Advisor, the Transmission implementation process will begin.

Implementation Process

- After the transmission setup forms and all necessary agreements have been received, the technical contact for your company will receive an email notifying them to expect a call from a Transmission Specialist. Transmission Toolkit information will be included with the email. Sections of the toolkit that should be reviewed prior to the call will be identified.
- 2. A KeyBank Transmission Specialist will call your technical contact. During the call, the Transmission Specialist will verify the information on the set-up form and discuss the following components of the implementation process:
 - a. Client commitment, responsibilities, and scheduling
 - b. Formatting requirements
 - c. Submitting and retrieving test files
 - d. Any questions and concerns that exist
- 3. After the call, you will be emailed logon and sign-on credentials / instructions.
- 4. During the initial set-up phase, a process called the "handshake" takes place. This is the initial communication test between your organization's systems and KeyBank. This test establishes that you can communicate electronically with KeyBank. It is done before a test file is sent or downloaded.
- 5. If you will be retrieving files from Key, we will transmit a test file after the "handshake" process has been completed and verified. You will need to retrieve and examine the file to ensure that it meets defined requirements. KeyBank must receive confirmation from you that the file is satisfactory before transmission services begin.
- 6. KeyBank will work closely with your technical resources during the testing and approval phase. The pertinent individuals at your organization MUST make themselves available to work with KeyBank during the transmission set-up and testing process. The start of your selected service(s) will be delayed until the testing process has been completed.
- 7. Depending on the availability of your technical resources and the validity of the test file(s), completion of the entire process can take between three to six weeks.

Post Implementation

- 1. Once testing is complete and you confirm that the service is setup correctly, your organization will be moved from the test environment to the production environment. Once you have been moved to the production environment, you must use the same format for all files transmitted to the bank.
- 2. There is no limit on the number of files that you can send per day to KeyBank. Depending on the service, files will be processed as they are received, or the new file(s) will be appended to the original file and the entire file will be processed during nightly batch processing.
- 3. Multiple accounts can be sent in the same file, as long as they are in the same processing region (contact your Payments Advisor for details). If the accounts are from different "banks" within that region, then the files must include the bank number in the record layout. (These requirements will be discussed in detail during testing.)
- 4. You should not alter or add additional information, such as another account, to your file without notifying KeyBank. Proper procedures must be followed in order to ensure that all accounts are correctly setup, in the same layout, and appropriately formatted.
- 5. KeyBank cannot assist with correcting file issues caused by a problem with your organization's software. You must utilize your internal technical support or contact your software vendor to address and resolve issues.
- 6. Once you are set-up in production:
 - a. *All Transmission Communication Issues* should be directed to the PDO Helpdesk at (800) 282-1628.
 - b. *All File / Application Issues* (incorrect file, wrong format, etc.) should be directed to the PDO Helpdesk at (800) 282-1628.
 - c. *If you are using KeyNavigator File Transfer*, please contact the Commercial Banking Services Internet Group at (800) 539-9039.
- 7. If you are performing any upgrades to hardware or software that is used for transmissions, you must contact the PDO Helpdesk to schedule pre-production testing in order to make certain your upgrades will not affect transmission communications and/or prevent production files from being sent and/or received. Please allow 5 to 10 business days prior to implementation for testing to be performed.

3. Transmission Options

KeyBank offers three file transmission options:

- 1. Browser based file transfer: KeyNavigator File Transfer
- 2. Secure File Transfer (Direct Transmission i.e. FTP, etc.)
- 3. SWIFT for Corporates "FileAct"

All Transmission channels are available 24 hours a day / seven days a week. Please refer to the product grid at the beginning of this document for more information on which services can be supported by the transmission options listed above.

Deadlines for sending transmission files to KeyBank for processing:

File Type	Submission Deadline
ACH	• 8:00 P.M. ET*
ARP	• 11:00 P.M. ET
Batch Wire	• 5:30 P.M. ET
Cash Vault Order	• 9:30 A.M. ET
EDI	• 5:30 P.M. ET

*Please note: ACH files can be sent up until 8:00 P.M. ET; however, files received after 5:00 P.M. ET that will be processed on the next business day will be assessed a late fee.

Times after which files can be retrieved from KeyBank:

File Type	Retrieval Time
ACH Returns EDI Return Items BAI2 Intraday BAI2 Previous Day (ME, NH, VT, NY, OH, IN, MI)	• 8:00 A.M ET
ARP	• 8:00 A.M. ET
BAI2 Previous Day (CO, UT, ID, OR, WA)	• 10:30 A.M. ET
BAI2 Previous Day (AK)	• 11:30 A.M. ET
Lockbox – All times are local to site	 8:00 AM - Cleveland and Cincinnati only 12:00 Noon – All sites except Buffalo and Denver 3:00 PM – All sites except Buffalo EOD – All sites

4. Key Navigator Web Based File Transfer

The KeyNavigator File Transfer module allows you to upload or download data files to/from KeyBank's transmission platform using a PC and Internet browser.

KeyNavigator is a web-based system, so there's no need to use special software. You can access KeyNavigator from any Internet-enabled PC. For optimal performance, we advise that you only use versions of Browsers and Operating Systems that are currently supported by the manufacturer. This does not mean that older versions of Browsers and Operating Systems will not work with KeyNavigator; it means that they may not work as well, or as efficiently, or certain functions may not operate as intended. To determine compatibility, a technical review may be arranged by contacting the Commercial Banking Services Internet Team at 1-800-539-9039.

Web-Based File Transfer also reports the status of data transfers. Files are available for a period of 45 days. After 45 days files are deleted but a record of the file is available for a total of 180 days.

Processor:	• 486 or higher
RAM:	32 MB or higher
Communication Method:	 28.8 Modem or higher (Key recommends DSL, cable, T1 or T3 lines)
Encryption:	 Must support 128-bit Secure Socket Layer (SSL) Encryption
Secure Port:	• 443
Non-Secure Port:	• 80
File Size:	Smaller than 50 MB
Protocol:	HTTPS
Data Characteristics	 All data must be provided in appropriate formats provided within this toolkit

KeyNavigator System Requirements

Instructions for Sending and Receiving Files

The Transmission and File Transfer User Guide has detailed, step-by-step instructions for how to send and receive files through KeyNavigator Web Based File Transfer. Please visit KeyNavigator Online Help for access to User Guides, Frequently Asked Questions and Overview Tours.

5. Secure File Transfer (Direct Transmission)

Key's Secure File Transfer service allows you a simple (attended or unattended) method for processing and/or retrieving files from KeyBank. We support the following secure / encrypted transmission protocols:

Data Transmissions	Image Transmissions
FTP w/PGP	FTP w/ PGP
FTP w/TLS (FTPs – SSL)	FTP w/TLS (FTPs – SSL)
sFTP (SSH)	sFTP (SSH)
AS2/AS3	AS2
VPN (Secure Remote)	VPN
Other – HTTP/S, MQ Series, EBICS, VPN	
Private Gateway	

Please Note: Once files are retrieved, they are removed from the system. Files that are not retrieved are available on the system for 60 days.

FTP

KeyBank will only setup authenticated and encrypted FTP connections.

FTP file transfers can occur in two ways: using KeyBank's FTP Server or using a trading partner's FTP Server. KeyBank prefers that trading partners connect to our FTP Server to place/retrieve files. This gives us greater control over the connection. The options for encrypting FTP traffic are TLS or PGP.

Pretty Good Privacy (PGP) is a computer program which can be used to encrypt the payload (the file being transferred) so no one but the intended recipient can read it. PGP encryption occurs prior to sending the file. The system that receives the file must have the corresponding PGP key to successfully decrypt the file.

Transport Layer Security (TLS) is used to encrypt the traffic over the network and ensures privacy between communicating applications and their users. TLS can only occur if both the FTP Client and the FTP Server support TLS/SSL. A valid server certificate is required on the FTP Server (or FTP Proxy). TLS is composed of two layers: the TLS Record Protocol and the TLS Handshake Protocol. The TLS Record Protocol provides connection security with an encryption method. The TLS Handshake Protocol allows the parties to authenticate each other and to negotiate an encryption algorithm and cryptographic keys before data is exchanged. A TLS handshake occurs at connection time to establish the TLS connection.

Specific FTP Configuration Plans

- Enable TLS, but do not require (force) TLS on the FTP connection (some trading partner's may not support TLS)
- Authentication required on FTP connection (no anonymous access)
- Encryption of the payload file with PGP is required for those trading partners who cannot support TLS

AS2

AS2 is a real-time technology that provides security and encryption around the HTTP packets. AS2 file transfer is now used by many retail businesses. It has the advantage of providing builtin security features, such as support for digital signatures and encryption. AS2 specifies the means to connect, deliver, validate, and reply to (receipt) data in a secure and reliable way. Messaging features include support for MDN (Message Disposition Notice) to inform the sender of the success or failure of the file transfer. AS2 trading partners can be authenticated by the HTTP Reverse Proxy Server (SecureLink) and/or by digitally signing the message.

Specific AS2 Configuration Plans

- HTTP/S required
- Support S/MIME (default), Support digital signing of AS2 messages
- Enable basic authentication (username) for AS2 Relay in the DMZ
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