SAFE Transmission — *Automated Transmission*

Quick Reference Guide

Overview

SAFE Transmission allows you to transfer large volumes of data between your company and Wells Fargo securely. When you use any Wells Fargo treasury management product requiring data transmission, such as ACH, account reconciliation, and lockbox, the security features in SAFE Transmission will protect your files and data from unauthorized access while in transit.

SAFE transmission provides the following benefits:

- **Multiple access options**:
  o **Manual browser access:** Manually access the service through any browser equipped with at least 128-bit SSL encryption through the *CEO* portal. No additional software is required. See the *SAFE Transmission —* CEO *Portal Users Quick Reference Guide* for details.
  o **Automated user access**: Schedule sessions to connect automatically with the service to send or receive files. Client software is available upon request.
  o **Outbound push**: Automatically receive outbound files from Wells Fargo as they become available.

- **Support for multiple transmission protocols:** Deliver or retrieve files securely over the Internet using https, FTP over SSL, FTP using SSH, FTP with PGP, and AS2.

- **IP validation**: Automated connections to SAFE Transmission are checked to ensure the connection originates from an IP address that is authorized for the user ID. If the IP address is valid for the user ID, the transmission session continues. IP address validation ensures that only your authorized users from approved locations can send or receive data on the channel. If the IP address for the user ID is not valid, the session is terminated.
  Note: Customers with automated user IDs set up prior to July 2013 will be contacted about enabling the service. New automated users set up after July 2013 will be enabled for IP address validation during implementation.

- **Convenient online user management**: *CEO* Self Administration is available to setup, maintain, and authorize manual users to SAFE Transmission product folders.

- **Digital certificate management (HTTPS and FTPS protocols)**: Issue and renew digital certificates by accessing SAFE Transmission through the *CEO* portal.

SAFE Transmission also provides value-added services available to you at no additional charge including:

- **PGP encryption**: Increase the security and confidentiality of your sensitive data with PGP encryption. PGP encryption can be used in conjunction with all SAFE Transmission protocols. For more information about file-based encryption using PGP, refer to the *SAFE Transmission PGP Fact Sheet.*

Overview, cont.

- **Anti-virus scanning**: Reduce risks with automatic scans of all inbound and outbound files for viruses and malware.

- **Transmission messaging**:
  o **Alerts**: Receive alerts when a file fails a service check and can't be delivered to its destination system within Wells Fargo, when a password is expiring, and when a digital certificate is due for renewal. See the *File upload value-added services performed* section for information on service checks.
  o **Notifications**: Choose to receive courtesy notifications when:
    - A file is ready for download
    - A file has been successfully received by Wells Fargo
  o **Expected Events service**: Receive critical notification when an expected event occurs or fails to occur within the expected timeframe for specified recipients. This service provides notification when:
    - An expected file is not received
    - An unexpected file is received outside the expected window
    - A zero-byte file is received
    - A file is pending download
    - A pending file is purged

- **Trigger files**: Request notification after SAFE Transmission has delivered a file to you through the Outbound Push service.

- **Custom file renaming**: For files you receive from Wells Fargo, the file-naming convention can be customized to match your internal systems for quick identification and reference.

- **Client automation software**: Wells Fargo can provide client automation software.

- **Validation environment**: A separate validation environment is available for testing purposes. See the *Using the validation environment* for more information.

If you need assistance

For questions or transmission problems, please contact Wells Fargo Transmission Support Services at 1-800-835-2265, ext. 75555. Live support is available Sunday 11:30 p.m. Central Time through Saturday 2:30 a.m. Central Time. For support after hours, please leave a message and a support representative will be paged to assist you.

Together we'll go far

Accessing SAFE Transmission

Protocols and authentication

The authentication method you use when accessing SAFE Transmission depends on which protocol you use.

Protocol	Authentication method
FTPS (SSL)	User ID, password, and digital certificate provided by Wells Fargo
SFTP (SSH)	User ID and key (preferred) or User ID and password
HTTPS	User ID, password, and digital certificate provided by Wells Fargo
FTP with PGP	User ID and password (requires encryption with PGP key)
AS2	User ID, password, and digital certificate.

URL

You access SAFE Transmission using one of the following:

Protocol	URL	Port
FTPS (SSL)	safetrans.wellsfargo.com	21
SFTP (SSH)	safetrans.wellsfargo.com	22 (RSA key)
SFTP (SSH)	Safetrans.wellsfargo.com	122 (DSA key)
HTTPS	safetrans.wellsfargo.com	443
FTP with PGP	safetranspgp.wellsfargo.com	21
AS2	safetrans.wellsfargo.com	5000 or 5080

Note: FTP over SSL (FTPS) and FTP with PGP are "dual channel" protocols. This means that one channel controls the transmission connection and one channel is used for data transfer.

On SAFE Transmission, port 21 is used for connectivity. High order ports 20,000 – 21,000 are used for data transfer. If you are using FTPS or FTP as your transmission protocol, Wells Fargo recommends you open ports to allow for data transfer over ports 20,000 – 21,000.

As a best practice, we recommend you use URL's to connect to SAFE Transmission, not static IP addresses, as the IP addresses are subject to change. However, if you must use static IP addresses, or need to do so for firewall configuration, see the *SAFE Transmission business continuity* section for IP address information.

Transmission folders

Folder structure

Wells Fargo provides a folder for all SAFE Transmission activity for your company. Your company folder includes the following sub-folders:

Inbound	For files you send to Wells Fargo.
Outbound	For files you download from Wells Fargo.
Archive_out	The system automatically moves files here from the outbound folder after you download them. You can also retrieve previously downloaded files from this folder at any time during the storage period.

Transmission folders, cont.

Folder structure, cont.

Each of the folders has a sub-folder for each product. For example, if you transmit ACH and Account Reconciliation files, your folder structure would look like this:

Inbound	ACH
	ARP
Outbound	ACH
	ARP
Archive_out	ACH
	ARP

Automated User ID authorization for folder access

Users can see all folders but can transmit files only for those folders they are authorized to use. If you attempt to transmit a file to or from a folder you are not authorized to use, your FTP client may display a message: Transfer aborted: permission refused

Storage

You can request one of the following file storage periods:

1 day	2 days	3 days	4 days	5 days
6 days	7 days	15 days	31 days	

Note: The default storage period is seven calendar days. The storage applies to both inbound and outbound directories, and the storage period can be the same, or different for each.

Using your FTP client

Available functions

You use your FTP client to transfer files and perform other functions. Your client should allow you to do the following:
- Upload files
- Download files
- Display a list of files and folders
- Change folders

Note: Wells Fargo can provide client automation software.

Changing your password

You are required to change your password the first time you sign-on. You are also required to change your password periodically based on the identified time period (e.g., 60, 90, 0r 120 days). However, you may also change it at any time.

To change your password, enter the following in the password field:

oldpassword:newpassword:newpassword

When creating a new password, keep in mind that passwords:
- Are case-sensitive
- Must include at least eight characters
- Can include the following special characters
  ! @ # $ % ^ * ; < > ? +
- Must contain three of the following types of characters:
  o Uppercase alpha
  o Lowercase alpha
  o Numeric
  o Special character

Naming conventions for uploading files

Allowable characters

For files you upload to Wells Fargo, the following characters are allowed in a file name:
- Uppercase letters A-Z
- Lowercase letters a-z
- Digits 0-9
- Hyphen (-)
- Period (.)
- Underscore (_)
- Space

Note: No other characters are allowed.

File extensions

The following file name extensions are **not** allowed:

BAT	EXE	RAR	CMD	HTA	SCR	COM	JOB
SDA	CPL	OCX	SHS	DLL	PIF	VBS	

File upload value-added services performed

Each time you upload a file, the system does the following:

1. Renames the file to include: _*TID[number]_datetime*

   TID is the transaction identification. The date format is YYYYMMDD, and the time format is HHMMSS.

2. Scans the file for viruses.

3. Verifies that the file name does not include any prohibited characters. See the *Naming conventions for uploading files* section for more information.

4. Verifies that the file name extension is correct for the type of file being uploaded and does not include a prohibited file name extension. See the *File extensions* section for more information.

5. Verifies that the file name includes the required product identifier.

6. Verifies that the file is encrypted with PGP and decrypts the file. After decrypting the file, the system rescans the file for viruses.

   Note: This applies to sessions using PGP only.

7. Verifies the expected headers are present.

 The system sends you an email if any of the file check processes fail.

Transmission administrator

Your company has at least one administrator user who can:
- Manage digital certificates (including issuance and downloading) for HTTPS and FTPS, or upload SFTP key.
- Manage IP Addresses for automated user IDs, including adding, updating and deleting IP addresses in SAFE Transmission, and in the validation environment.
- Access client software and user documentation.
- Upload and download PGP keys to support PGP encryption.

Note: The person(s) designated as SAFE administrators will access SAFE transmission through the *CEO* portal to send and receive automated transmission setup information, key file, encryption keys, etc. Administration users are authorized to a special admin folder where they send and receive this type of information.

Deleting files

There is normally no need to delete files that reside on the system. The system automatically moves files from the outbound folder to the archive_out folder when you download them, and the system automatically deletes files in the inbound and archive_out folders after the file storage period specified by your company has ended.

The system does not allow you to delete files in the inbound folder. The system processes files when it receives them, so you cannot "undo" a file that you uploaded. If you want to delete a file that you uploaded, contact Wells Fargo Transmission Support Services at 1-800-835-2265, ext. 75555. Live support is available Sunday 11:30 p.m. Central Time through Saturday 2:30 a.m. Central Time. For support after hours, please leave a message and a support representative will be paged to assist you.

Using the validation environment

As part of the SAFE Transmission value-added services, a separate validation environment is available for testing purposes. You can use the validation environment to:
- Test connectivity and automation scripts
- Confirm file format and data changes

Note: Please check with your Wells Fargo Implementation representative regarding support for file format and data changes using the SAFE Transmission validation environment.

The SAFE Transmission validation environment offers the following features:

- **Separate testing environment:** The validation environment mirrors your file transfer setups. Product folder names and identifiers, user authorization, and value-added services provide the same functionality in the test environment as in production with exception of email delivery.

- **Separate authentication credentials:** You will receive login credentials that are authorized only for validation to help reduce the chances of accidently submitting files to production.

- **Wells Fargo-initiated transfers:** Also called "outbound push." The SAFE Transmission validation environment can deliver test files to your test environment according to your business needs.

- **Support for multiple transmission protocols:** File transfer protocols include https, FTP over SSL, FTP using SSH, FTP with PGP, and AS2.

- **Multi-user application profiles:** The SAFE Transmission validation environment mirrors the SAFE Transmission service. The same user authorizations are enforced for each product that is set up.

- **PGP encryption:** The SAFE Transmission validation environment uses the same Pretty Good Privacy (PGP) controls as those set-up in the SAFE Transmission service to replicate the transfer experience.

- **IP Address validation**: The validation environment provides the same verification as SAFE Transmission. Only authorized automated users from authorized devices can access the validation environment.

Using the validation environment, cont.

You access the validation environment using one of the URLs listed below and separate credentials provided by Wells Fargo.

Protocol	URL	Port
FTPS (SSL)	safetransvalidate.wellsfargo.com	21
SFTP (SSH)	safetransvalidate.wellsfargo.com	22 (RSA key)
SFTP (SSH)	safetransvalidate.wellsfargo.com	122 (DSA key)
HTTPS	safetransvalidate.wellsfargo.com	443
FTP with PGP	safetranspgpvalidate.wellsfargo.com	21
AS2	safetransvalidate.wellsfargo.com	5000 5080

Digital certificates (HTTPS and FTPS protocols)

Overview

Note: You must be authorized to access your company's SAFE Transmission admin folder to manage digital certificates.

Digital certificates are for users who access the SAFE Transmission service for automated transmissions. Digital certificates are not used to access the SAFE Transmission service on the *CEO* portal.

To provide a digital certificate to a user, complete these steps:
1. Create a digital certificate.
2. Download a digital certificate.
3. Obtain the passphrase.
4. Activate the digital certificate.

Managing digital certificates

To access certificate management, sign on to the *CEO* portal and select **Safe Transmission** from My Services or enter **https://safe-t.wellsfargo.com** in a browser window to access SAFE Transmission directly.

1. Click **Manage Digital Certificates** in the navigation bar.

The Manage Digital Certificates page lists information for your SAFE Transmission users.

2. View the **Actions** column, and do one of the following:
   - Click **Create** for the user in the Actions column to create a digital certificate for a new user.
   - Click **Renew** for the user in the Actions column to create a digital certificate for an existing user.

The Confirmation page displays to confirm you want to create a new digital certificate.

3. Click **OK**.

Digital certificates, cont.

Download a digital certificate

Note: Certificates must be created before they can be downloaded.

1. Click **Manage Digital Certificates** in the navigation bar.

2. From the Manage Digital Certificates page, click **Download** for the user in the Actions column.

3. The system displays a message. Click **Go to Download Files**.

4. The Download Files page lists the files in the admin folder. Digital certificate files begin with the user's *CEO* user ID and have a **.p12** file extension. Click the file name link for the digital certificate.

5. The system asks which format to use. Select a format (the default is .p12), and click **Submit**.

6. A pop-up displays, asking whether to open or save the file. Click **Save**. Follow the instructions to download the digital certificate.

7. After downloading, use a secure method to send the digital certificate to the user.

Note: For security reasons, always send the digital certificate and passphrase separately to the user. See the next section for information on how to obtain the passphrase.

Obtain the passphrase

Note: You must create a certificate before you can obtain the passphrase.

1. Click **Manage Digital Certificates** in the navigation bar.

2. From the Manage Digital Certificates page, click **Show** for the user in the Passphrase column.

3. The system displays the passphrase for the user. Copy the passphrase and provide it to the user in a secure manner.

Activate a digital certificate

Once you have provided the digital certificate and passphrase to the user, instruct them how to activate the certificate by calling Technical Support Services at 1-800-835-2265, extension 75555.

Digital certificates, cont.

Renewing a digital certificate

Wells Fargo notifies your company by email 30 days before your digital certificate expires. We send additional reminder emails two weeks, one week, and one day before the expiration date.

1. Create the digital certificate.

2. From the Manage Digital Certificate page, click **Renew** in the Actions column for the user.

3. Download the digital certificate.

4. Obtain the passphrase.

5. Instruct the user to activate the digital certificate.

Redownload a certificate

You can download the certificate multiple times and in different formats as long as the file is available in the Admin folder; usually 31 days, but your company may specify a different time period.

Revoke a digital certificate

If you need to revoke a digital certificate for any reason, call Technical Support Services at 1-800-835-2265, extension 75555.

Manage IP Addresses

Authorized SAFE Transmission administrators can add, edit, and remove IP addresses, as well as assign and remove automated users from the Manage IP Addresses page.

Note: You cannot enable or disable IP address validation in SAFE Transmission. This can only be changed by a Wells Fargo representative.

Any change made through Manage IP Addresses will be effective on the next connection attempt to SAFE Transmission, or the validation environment.

1. From the SAFE Transmission left navigation menu, select **Manage IP Addresses**.

The Manage IP Addresses page displays.

2. From the Manage IP Addresses page, you can:
   - Add new IP addresses with a description.
   - Edit or Delete existing IP addresses.
   - Add or Remove IP addresses for automated users (for live SAFE Transmission and the SAFE Transmission validation environment).

Manage IP Addresses, cont.

Adding IP addresses to your pool

You can add a single or multiple IP addresses.

1. From the Manage IP Addresses page, click **Add Address** on the bottom of the IP Address box.

An Add Address window displays.

2. Click the radio button to add a **Single** address, or **Multiple** addresses.

Note: Multiple IP addresses must use the standard format (xxx.xxx.xxx.xxx) and be separated by a comma, colon, semi-colon, or space.

3. Enter a description in the **Description** field.

4. Click **Save**.

Adding an IP address for a SAFE Transmission user

1. From the Manage IP Addresses page, click **Add/Remove IP Addresses** to the right of the IP address under the SAFE Transmission or SAFE Transmission Validation Environment boxes.

The Add/Remove Address for Automated User window displays.

2. To add an IP address for automated user, click an address in the **Available** box, then click the green arrow to move it to the **Active** box.

Note: To add a new IP address, at the top of the window enter the address next to New Address, enter a Description and click **Add**.

3. Click Save.

Removing an IP address for a SAFE Transmission user

1. From the Manage IP Addresses page, click **Add/Remove IP Addresses** to the right of the IP address under the SAFE Transmission or SAFE Transmission Validation Environment boxes.

The Add/Remove Address for Automated User window displays.

2. To remove an IP address for automated user, click an address in the **Active** box, then click the green arrow to move it to the **Available** box.

3. Click **Save**.

SAFE Transmission business continuity

Overview

SAFE Transmission may exercise its business continuity plan during the year. These are scheduled events and users of the transmission service are notified in advance. Unfortunately there may be situations when a switch to an alternate processing site is required without advance notice to our user base.

For accessing the SAFE Transmission service, Wells Fargo recommends that users leverage URLs in their automation scripts. This will provide uninterrupted service if changes between SAFE Transmission sites is required.

If IP addresses are used to access SAFE Transmission or for firewall rules, the chart below provides all SAFE Transmission IP addresses.

Note: If you would like to be notified of IP address changes when they occur, either due to a BCP event, or other technology change, please provide your contact information to your implementations coordinator.

IP address range to cover all (for firewall filter as needed)		
151.151.0.0/16		
Inbound connections to SAFE Transmission		
URL	**Primary**	**Alternate**
Safetrans.wellsfargo.com	151.151.18.51	151.151.65.214
Safetranspgp.wellsfargo.com	151.151.18.52	151.151.65.215
Safetransvalidate.wellsfargo.com	n/a	151.151.65.204
Safetranspgpvalidate.wellsfargo.com	n/a	151.151.65.209
Outbound connections from SAFE Transmission to remote site		
	Primary	**Alternate**
	151.151.19.131	151.151.68.67
	151.151.18.38	151.151.65.195