Electronic Data Interchange

SFTP and FTPS

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Introduction

Logico exchanges electronic data with our trading partners using either SFTP or FTPS (also known as FTP Secure or FTP-SSL or FTP-ES). Logico does not utilize an EDI Value Added Network (VAN) or an AS2.

The following documentation provides detailed instructions for this exchange. To utilize this process, you as the trading partner must take responsibility for several actions:

Trading Partner Responsibilities

- Utilizing a static IP address when connecting to the server
  - static IP must be provided to Logico during implementation
  - connection attempts from unknown IP addresses will be rejected by the server
- If using FTPS, establishing and controlling a secure FTP session (explicit FTP over TLS).
  - Non-encrypted connection attempts will be rejected by the server
- Monitoring your folders for new files
  - Check outbound folders at a minimum of once every 5 minutes
- Adhering to the Logico file naming conventions (see File Naming Convention section of this document for details)
- Depositing your inbound data in the appropriate directory (see Directory Structure section of this document for instructions)
- Withdrawing your outbound data from the appropriate directory
- Deleting outbound files from the server as they are withdrawn

Server URL

The following URL is used for both SFTP and FTPS connections:

ftp.grupologico.com

SSL Certificate

If necessary, our public SSL certificate can get be obtained using OpenSSL:

> openssl s_client -connect ftp.grupologico.com:21 -starttls ftp

In the output, save everything between BEGIN CERTIFICATE and END CERTIFICATE to a text file.

SFTP Overview

SFTP (SSH File Transfer Protocol) is a secure file transfer protocol. It runs over the SSH protocol. It supports the full security and authentication functionality of SSH (end-to-end encryption).

SFTP Client Requirements and Configuration Details

Authentication

Username: *(will be issued by Logico during implementation)*
Password: *(will be issued by Logico during implementation)*
SFTP Public Key: *(will be issued by Logico during implementation)*
Protocol: SFTP
Port: 22

FTPS Overview

FTPS is an extension to the commonly used File Transfer Protocol (FTP) that adds support for the Transport Layer Security (TLS) and the Secure Sockets Layer (SSL) cryptographic protocols.

Please note that FTPS should not be confused with the SSH File Transfer Protocol (SFTP), an incompatible secure file transfer subsystem for the Secure Shell (SSH) protocol. It is also different from Secure FTP, the practice of tunneling FTP through an SSH connection.

FTPS Client Requirements and Configuration Details

Authentication

Username: *(will be issued by Logico during implementation)*
Password: *(will be issued by Logico during implementation)*
Protocol: FTP – File Transfer Protocol
Encryption: <u>Explicit</u> FTP over TLS (required)

To successfully connect and transfer files using FTPS, clients must support the following:

- FTP protocol
- FTP over SSL/TLS (FTPS, also known as FTP-ES, FTP-SSL and FTP Secure) in Explicit mode
    - Explicit FTP over TLS
- Passive transfer mode (PASV)

Configuration Details

- For maximum compatibility, **Explicit mode** is used. The FTPS client must "explicitly request" security from an FTPS server and then step-up to a mutually agreed encryption method. Unsecured connections are not permitted.
- Connections are initiated on the standard FTP **port 21**
- For Passive transfer mode, ports 21000-23000 are used

Firewall Considerations

- Allow outbound connections to port 21, optionally restricted to the Logico server
- Allow outbound connections to ports 21000-23000, optionally restricted to the Logico server (<u>required</u> to support passive transfer mode)

Trading Partner Codes (ISA/GS Sender and Receiver IDs)

Logico prefers to utilize federal employer identification numbers – FEIN (32). However, if necessary, a SCAC (02) or a mutually defined (ZZ) code may be established.

Trading Partner Code (ISA/GS ID): *will be established during implementation*
Trading Partner Qualifier (ISA/GS Qualifier): either 32 (FEIN) or 02 (SCAC) or ZZ (mutually defined) - *will be established during implementation*
Logico Code (ISA/GS ID): 300237446
Logico Qualifier (ISA/GS Qualifier): 32 (FEIN)

Directory Structure

Each trading partner is assigned a root folder on the server. The root folder name will be established during implementation and provided to the trading partner. Sub-folders under the root folder exist for testing and production purposes. Further sub-folders exist for inbound and outbound traffic. Inbound and outbound are defined from the perspective of Logico (e.g. the Inbound folder is used to send files TO Logico).

Directory Structure:

/Test/Inbound
/Test/Outbound
/Production/Inbound
/Production/Outbound

Test

During implementation the test sub-directories are utilized to certify the communication, file formats, naming conventions, and data content comply.

All inbound files placed in the test sub-directory by the trading partner are considered test files and will NOT be processed in the Logico production system.

All outbound files placed in the test sub-directory by Logico should be considered test files and should NOT be processed in the trading partner's production system.

Production

Once testing is completed and a go-live date is established, the production sub-directories are utilized for live file transmission. Prior to this, the production sub-directory must NOT be utilized.

All inbound files placed in the production sub-directory by the trading partner are considered production files and will be processed in the Logico production system.

All outbound files placed in the production sub-directory by Logico should be considered production files and should be processed in the trading partner's production system.

Inbound

Trading partner should place files into this folder that are destined for Logico.

Outbound

Logico will place files into this folder that are destined for the Trading Partner.

File Naming Convention

Inbound

For inbound files from the trading partner to be processed properly, the following naming convention MUST be followed:

{Document Type}_{Trading Partner Code}_{Logico Code}_{TimeStamp}.edi

- Document Type valid values are listed below
- Trading Partner Code is described in the above section on Trading Partner codes and determined during implementation
- Logico Code is identified in the above section on Trading Partner codes
- Timestamp value must be formatted as yyyyMMddHHmmssfff. This will ensure a unique file name for each transmission.

Document Type	Valid Value
Load Tender	204
Functional Acknowledgement	997
Load Tender Response	990
Shipment Status Message	214
Freight Invoice	210

Example:

997_123456789_383544957_20121214092416021.edi

Outbound

For outbound file transmission, Logico utilizes the following naming convention:

{Document Type}_{Trading Partner Relationship ID}_{Trading Partner Code}_{Logico Code}_{TimeStamp}_{Sequential Number}.edi

- Document Type valid values are listed above
- Trading Partner Relationship ID is an internal relationship record identifier used by Logico
- Trading Partner Code is described in the above section on Trading Partner codes and is determined during implementation
- Logico Code is identified in the above section on Trading Partner codes
- Timestamp is formatted as YYYYMMDDHHMMSS
- Sequential number is an incrementing value to ensure uniqueness

Example:

204_100_XXXX_300237446_20220310132843_1.edi

File Processing Frequency

Logico processes EDI files on an event-driven basis (as files arrive, they are immediately added to the process queue). Batch processing at specific time intervals is not utilized.

Functional Acknowledgements

If the trading partner requests to receive EDI 997s, they will be available as soon as the inbound file(s) are processed

Setup / Testing Process

Logico utilizes the following setup/testing process:

1. Carrier provides Logico with their Trading Partner code and qualifier (ISA/GS Sender – Receiver IDs) and static IPs. Logico code (ISA/GS) and qualifier is provided above (See Trading Partner Codes section of this document)
2. Logico configures carrier for EDI in the Logico LMS and access to our file server.
3. Carrier configures and tests connection to the Logico file server.
4. Carrier confirms when the test connection is successful or advises of any issues
5. Logico issues a test 204 (Load Tender) to Carrier
6. Logico advises Carrier via email when the test 204 is available on the Logico file server
7. Carrier retrieves the test 204 and issues a 997
8. Carrier processes the test 204 in the Carrier testing system and issues a 990 (Load Tender Response).
   a. Carrier must ensure that all inbound EDI files adhere to the Logico naming convention (See File Naming Convention section of this document)
9. Carrier advises Logico via email when the test 990 has been deposited on the Logico file server
10. Logico reviews the test 990
    a. If any issues are found, Logico will advise, and Carrier will correct issue(s) and submit a corrected 990. This process will continue until a successful 990 has been issued and confirmed by Logico.
    b. If/when successful, Logico advises the 990 is successful and testing may continue with test 214s (Shipment Status Messages)
11. Carrier begins to issue test 214 status messages
    a. Carrier should simulate a production environment and issue <u>one message at a time</u> just as they would be received in a live environment. Each EDI file should contain only one message. Do NOT send all 214 test messages at once.
12. Carrier advises Logico via email <u>each time</u> a test 214 has been deposited on the Logico server
13. Logico reviews the test 214
    a. If any issues are found, Logico will advise, and Carrier will correct issue(s) and submit a corrected 214 for the same status message. This process will continue until a successful 214 has been issued and confirmed by Logico.
    b. If/when successful, Logico advises the 214 is successful and testing may continue with the next status message. Do NOT issue subsequent 214s until Logico advises that the current test 214 is acceptable.
14. Logico and Carrier may elect to issue additional 204s for different types of loads depending upon what traffic the Carrier is handling for Logico. If so, the process repeats for each load tender.
15. Once all required status messages have been issued and confirmed as acceptable, testing is complete
16. Logico will schedule a go-live planning conference call which must include representatives from Logico's Operations and IT departments along with representatives from the Carrier's Operations and IT/EDI departments. This call will:
    a. Schedule a go-live date/time for the EDI connection to be turned on within the Logico LMS

b. Identify any steps that must be taken by the Carrier to turn on the EDI connection on the Carrier's end
c. Confirm that the Carrier is monitoring the Logico file server frequently enough and utilizing the Production folders instead of the Test folders (See Directory Structure section of this document)
d. Establish operational contacts and process/timing for issuing the first production 204 and monitoring that the EDI connection is working in production
e. Confirm is Carrier desires to receive 997s in response to the 990 and 214 messages