



Middleware File Transport Services (External)

Version 1.3.5

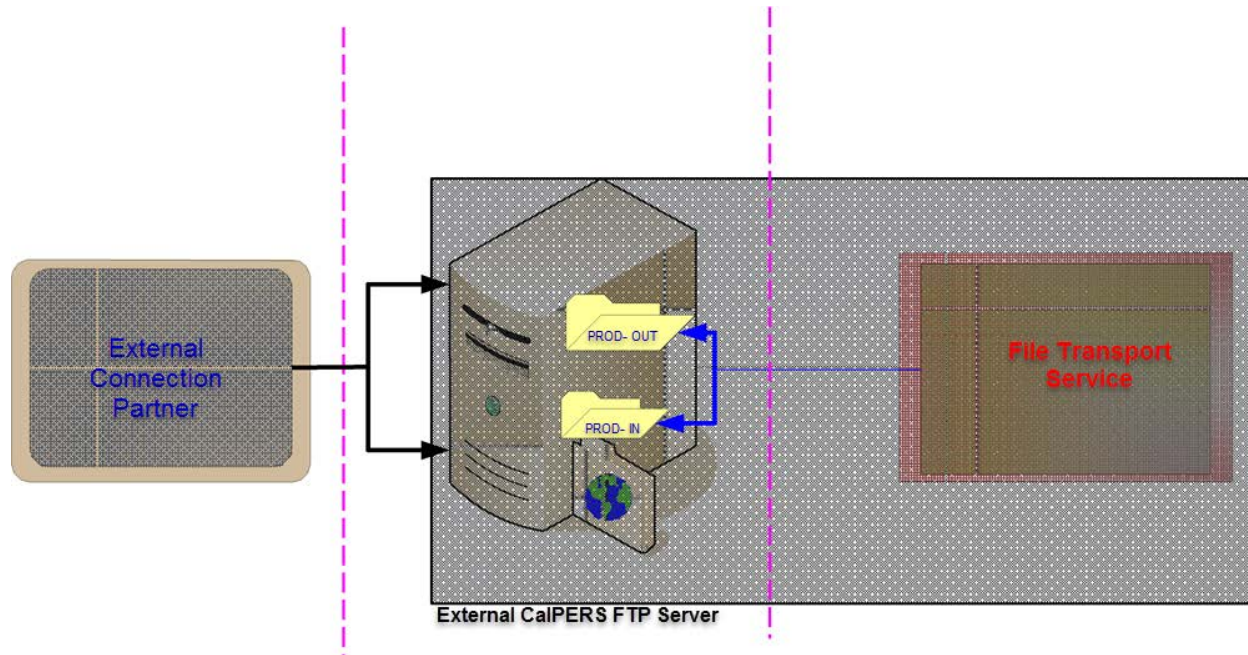
Introduction

This document illustrates the File Transport Services (FTS) and has been divided into individual sections that detail specific aspects of the services.

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Figure 1 – File Transport Services Logical Overview



Document Release History

Version	Author/Contributor	Date	Comments
0.1	Nate Eckler	1/30/2009	Initial Draft
1.0	Nate Eckler	2/27/2009	Release V.1
1.1	Nate Eckler	3/24/2009	
1.3	Shan Bains	06/02/2009	Rewrite
1.3.3	Shan Bains	01/06/2011	Update cover page
1.3.4	John Draper	04/12/2011	Added example filenames on last page
1.3.5	Amanda Poletti	02/07/2013	General editing, no content change
1.3.6	Rachael Lankford	01/22/2018	Update formatting for accessibility mandate. No content changes.

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File Transport Services External Processing Definitions

The business partner will be provided with a secure login account to the CalPERS external SFTP server.

Process Parameters

For inbound only:

External partner will be provided with one folder - prod-in

- This folder will be used to retrieve files from CalPERS

For outbound only:

External partner will be provided with one folder - prod-out

- This folder is used for sending files to CalPERS

For bidirectional (inbound & outbound):

External partner will be provided with two folders - prod-in & prod-out

- The prod-in folder is used to retrieve files from CalPERS.
- The prod-out folder is used for sending files to CalPERS.

Inbound files to CalPERS:

- Data files must be encrypted with the CalPERS public key using any OpenPGP standard compliant software
- Encrypted data files must be uploaded to the **prod-out** folder on CalPERS external FTP server using Binary mode.
- Data file names must be all lower case and will match the data file naming convention discussed later in this document.
- Two files must be provided for each transaction, one data file and one semaphore file.
 - Data files will have a .pgp file extension.
 - Semaphore files will have a .sem file extension. The semaphore file will have the same name as the data file but with a .sem file extension. The semaphore file is an empty file that indicates that the data file is complete and ready for further processing.
 - Example of a file pair of files sent for each transaction.
"filename".pgp and *"filename".sem*
- The CalPERS File Transport Service will poll the prod-out folder for files at a pre-determined interval. The .pgp file and the matching .sem file will be deleted when successfully processed. Erroneous files that do not match the above naming requirements will not be processed.

Outbound files from CalPERS:

- Data files will be encrypted with the partner's public key using GnuPG (GPG) based on the OpenPGP standard.
- Encrypted data files will be uploaded to the **prod-in** folder on CalPERS external FTP server using Binary mode.
- Data file names will be all lower case and will match the data file naming convention discussed later in this document.
- Two files will be uploaded for each transaction, one data file and one semaphore file.
 - Data files will have a .pgp file extension.
 - Semaphore files will have a .sem file extension. The semaphore file will have the same name as the data file but with a .sem file extension. The semaphore file is an empty file that indicates that the data file is complete and ready for further processing.
 - Example of a file pair of files sent for each transaction.
"filename".pgp and *"filename".sem*
- The CalPERS File Transport Service will upload encrypted data files to the FTP location at a pre-determined interval.
- The external partner will retrieve files from the FTP location at their own pre-determined interval.
- The external partner application will look for a filename with a .sem file extension. This will indicate that a data file with the same name and a .pgp extension is available for processing. At this point, the partner's application can download the data file to the trading partner's system.
- After successfully downloading the data file, the trading partner's process will rename the data file from a .pgp extension to a .fin extension. This renaming process will indicate that the files have been processed and can be deleted. The FTS cleanup service will delete the *"filename".fin* and the *"filename".sem* files.

File Naming Convention

Both inbound and outbound files must adhere to the file naming convention described below and apply to both SFTP and File Upload.

The standard format for file names is *yyyymmddhhmiss_sss_p(n).xxx*.

Where:

yyyy is the year

mm is the month

dd is the day

hh is the hours using a 24-hour clock

mi is the minutes

ss is the seconds

sss is the milliseconds (use 000 if milliseconds cannot be produced)

p(n) application specific area of the file name (project defined)

- Payroll Contribution files = 10006
- Retirement Enrollment files = 00007
- Health Enrollment files = 50031
- Deduction Register files = 20010
- Deduction Request files = 20016

xxx is the file extension

- .pgp = data encrypted FTP
- .sem = semaphore files

Examples of proper file naming:

Payroll - 20110321122800_000_10006.pgp

Retirement Enrollment - 20110321122800_000_00007.pgp

Health Enrollment - 20110321122800_000_50031.pgp