

**Middleware File  
Transport Services  
(External)**

**Middleware Infrastructure (JCAPS)**

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August 11, 2009**



## Middleware File Transport Services

### Document Release History

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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

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# Middleware File Transport Services

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## 1. Purpose

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

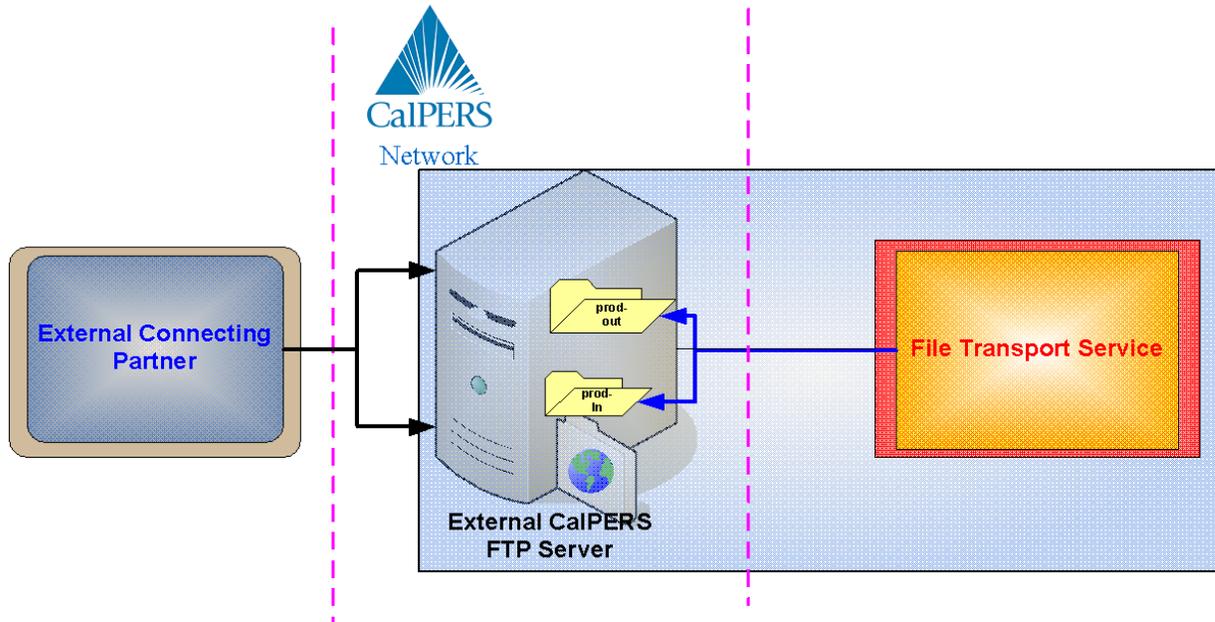


Figure 1-File Transport Services Logical Overview

## 2. File Transport Services External Processing Definitions

The following parameters describe the process for external partners:

### 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.



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### ***Inbound files to CalPERS:***

- Data files must be encrypted using any OpenPGP standard compliant software
- 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.
  1. Data files will have a .pgp file extension.
  2. 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.
  3. 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 using GnuPG (GPG) based on the OpenPGP standard (applicable for FTS with encryption).
- Data 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.
  1. Data files will have a .pgp file extension.
  2. 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.
  3. 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.



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- 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.

### a. File Naming Convention

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Both inbound and outbound files will adhere to the file naming convention described below.

The standard format for file names:

A) *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 can not be produced)

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

*xxx* is the file extension (.pgp) for data files