

Managed File Transfer in Service Oriented Architectures (SOA)

Overview

Gartner has estimated that over 80% of data exchanged between organizations are transferred via files such as office documents, PDF, CSV, media files, and for the majority of our customers it's: check images and financial transaction files.

Managed File Transfer (MFT) solutions, like Flux, orchestrate automated file transfers between departments and business partners in a secure fashion while providing:

- **Monitoring:** Central web-based monitoring console.
- **Notifications:** Email, SMS, JMS, etc.
- **Automatic Error Handling:** Automatic handling of failures: send an email and retry the transfer.
- **Reporting:** Web-based reporting and auditing.
- **Enterprise Integration:** Integration with web service APIs (SOAP and REST) and 3rd party enterprise applications such as Cognos and Informatica.

MFT solutions have the ability to invoke a web service API when a file arrives to drive automation, thus allowing data to be processed immediately by the recipient. For example, after a partner successfully uploads a file to your file server, the MFT solution can invoke a web service immediately to kick-off an ETL job to process the data.



Many organizations are considering Managed File Transfers (MFT), or automated file transfers, as part of their Service Oriented Architecture (SOA) initiative.

Service Oriented Architectures

An SOA is made up for loosely coupled services which interoperate. An SOA supports adding new services without going back to the drawing board. Web services are often found at the core of the architecture.

Complementing Web Services with Automated File Transfers

This year marked the 40th anniversary for the File Transfer Protocol (FTP). Building on its success, today, secure protocols, like: SFTP (FTP over SSH) and FTPS (FTP over SSL/TLS) are commonly used to transmit data files.

Managed File Transfers can complement web services in Service Oriented Architectures. If a business partner is not equipped to integrate with web services, then a secure file server can eliminate a potential roadblock.

Taming File Transfers

File servers can be locked down using authentication mechanisms such as usernames and passwords as well as secure SSH keys. Data transmitted across the wire can be encrypted using SSH or SSL to ensure critical data is not exposed to unauthorized parties. Files integrity can be guaranteed using hash algorithms like SHA or MD5 to ensure the data received matches the data sent. Pretty Good Privacy (PGP) can be used to encrypt files for compliance so data is not stored “in the clear” on the remote side while waiting to be processed.



Examples of Managed File Transfers in Service Oriented Architectures

1. Supply Chain Management

- a. Retail stores compile inventory data files daily which are placed on a file server.
- b. Files are pulled down from a central location for processing.
- c. The supply chain management software runs an Extract-Load-Transform (ETL) process on the files, evaluates the inventory data, and generates inventory and purchase reports.

2. Medical

- a. Physicians input patient data which is stored on a file server at the hospital.
- b. Data files are pulled from the file server in the evening, patient data is automatically coded, and a result file is sent back to the hospital.

3. Payroll

- a. Clients generate time sheets for employees and upload them to a file server.
- b. The time sheet files are retrieved and processed — employees are paid.

Summary

Management realizes the benefit of deploying proven technologies which are familiar to personnel. Time and budget for training is eliminated thus streamlining projects and shortening the time to market. Sometimes it's worth considering taking advantage of existing and widely deployed technologies in lieu of new technologies or to complement new technologies.

Perhaps you should consider a Managed File Transfer solution as part of your Service Oriented Architecture initiative?

To learn more about automating file transfers in Service Oriented Architectures, visit fluxcorp.com.