

# How Do I Automate Outbound AS400 Data Feeds?

## Scope

The business needs to transfer sensitive data to external trading partners. The data is stored internally and processed by an AS400. The AS400 outputs a data file that must be sent to the proper external trading partner using a secure protocol. The AS400 will connect to the Globalscape EFT server, but will have no exposure to the Internet or external client sites.

## Requirements

- Ensure all files are sent to the correct trading partner.
- Files will be delivered into the proper folder location on the external site.
- Audit all transactions within the process.
- The file transfers need to be secure.
- Must process in real time.
- Allow the AS400 to uploads files and trigger rules.
- Create an archived copy of each file with a date and time stamp appended to the file name.
- Send internal and external email notifications success and failure.
- PGP encryption is not required.
- Do NOT allow the AS400 and IFS exposure to the external network.

## Assumptions

- AS400 is configured to use SFTP on the internal network.
- In this use case, SFTP is used for any available file transfer protocol.
- Transfers from AS400 to Globalscape will be scheduled and automated outside of EFT.

## EFT Server Environment

- Globalscape EFT Server Enterprise 7.0.0.28 (Active – Passive)
- Globalscape DMZ Gateway
- Windows 2012 Server
- One site defined for internal and external connectivity
- Many external SFTP connections

## Solution Overview

We want to ensure that files are delivered to the correct external trading partner and will be uploaded into the correct external folder. This solution uses the **File Uploaded** Event with three Conditions to invoke an Event Rule. The file will be uploaded by the AS400 EFT user account to a specific virtual folder, and must match a filename mask.

- **File Uploaded** Event– Ensures that only uploaded files trigger the move.
- **If Login Name Is** Condition– Ensures that only the AS400 account can send files to this client
- **If Virtual Folder Names does match** Condition – Segregates the logic by creating client-specific folders. Allowing the first two triggers to be used for multiple outbound rules.
- **If File Name does match** Condition – Using filename masks as the fourth trigger gives you a lot of flexibility. Files can be routed to a targeted folder or multiple external servers based on file names.

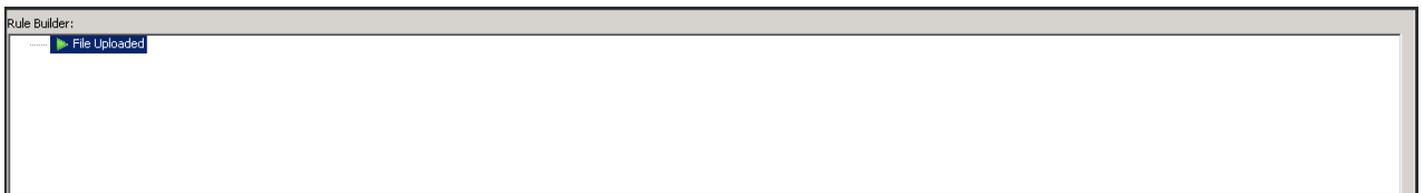
The combination creates a process that prevents files from accidentally being sent to the wrong location by the wrong user or process. This process can be edited to use the **If user is a member of a group** Condition to replace the **If Login Name Is** Condition. Physical folders can be used for the **If Virtual Folder Names does match** Condition. However, virtual folders provide more flexibility. This scenario is not required, but provides a good foundation for building logical filters to trigger events. You can simply apply Events and Conditions that match your requirements and use as many or few as needed.

**EFT account for AS400** - Establish the primary upload account that will be configured on the AS400's SFTP session to the EFT platform. In this case, the account name is AS400. If you have many AS400's sending files to EFT, this rule can be configured using a list of accounts or a group of users. Each account needs to have access to the outbound folders, so you may want to use virtual folders. Additionally, it is always best practice to use key-based authentication with service accounts.

**“Outbound” folder structure** – To define the virtual folder name, create an outbound folder system that can be accessed by the AS400 user account. As new Event Rules are added to the site, the folder you create will be populated with unique folders for each outbound feed. The AS400 will need to upload files into the proper outbound client subfolder.

### Build the outbound rule:

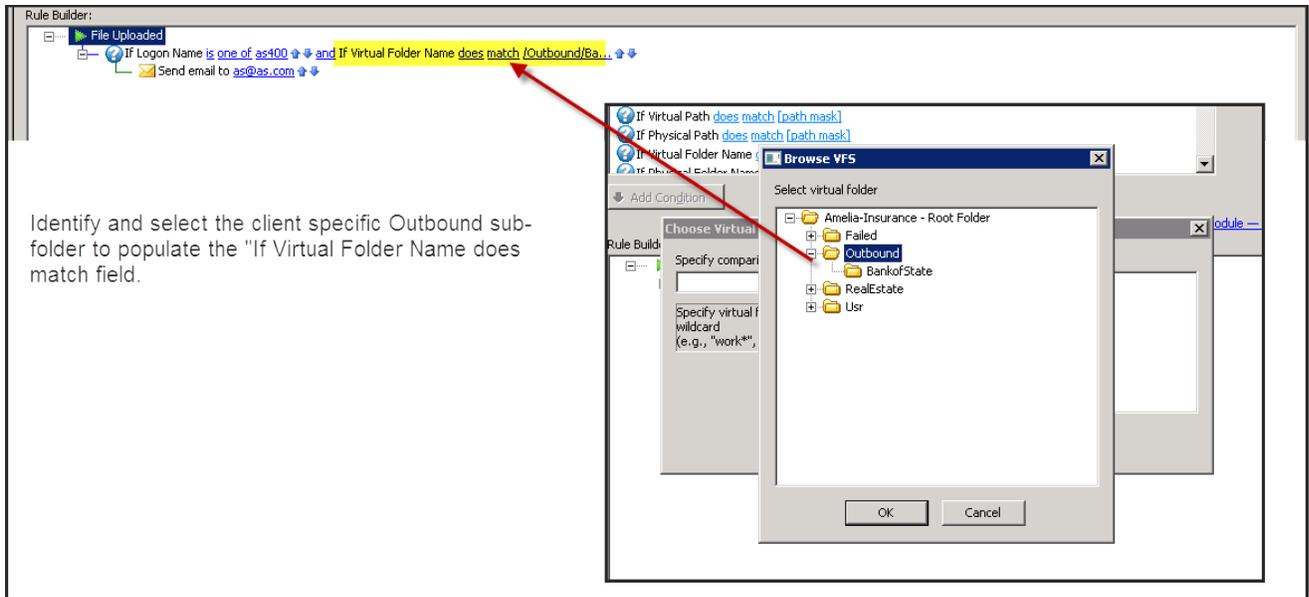
1. Start with a new **On File Upload** Event Rule:



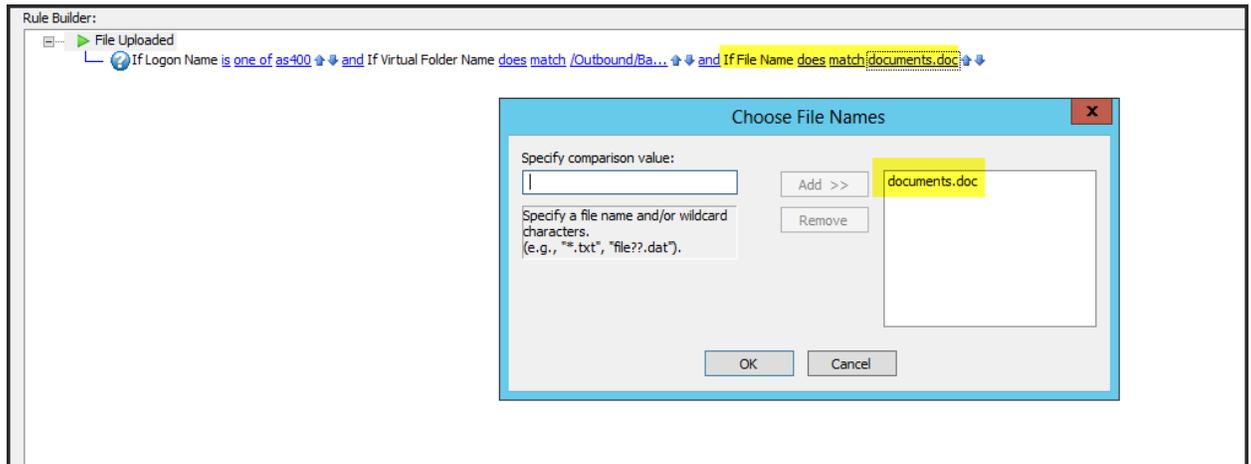
2. Add the AS400 user that must upload files to trigger the rule:



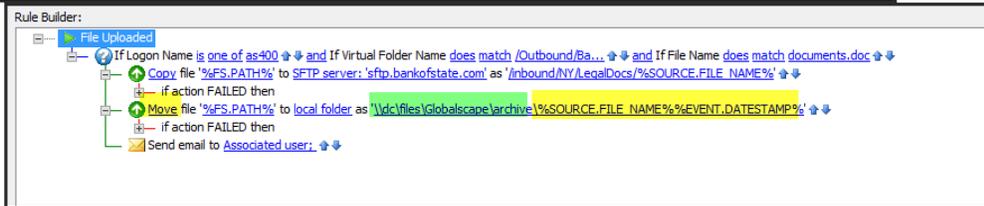
3. Add the If Virtual Folder Name does match Condition:



4. Add a file name mask. You should agree on a file name mask with the internal business and the external client. By specifying that only certain filenames can be sent, we have set our **If File Name does match** Condition. In the example below, the Event Rule will only trigger on the file name **documents.doc**. Wildcards can be used with filename masks for flexibility. (*\*documents.doc* or *documents.\**):



5. Add the **Copy/Move** Action to copy the file to the SFTP server into the virtual folder. Then move the file to your internal archive location adding a date stamp to the file name. Don't forget to add in your failed actions and successful transfer email notification:



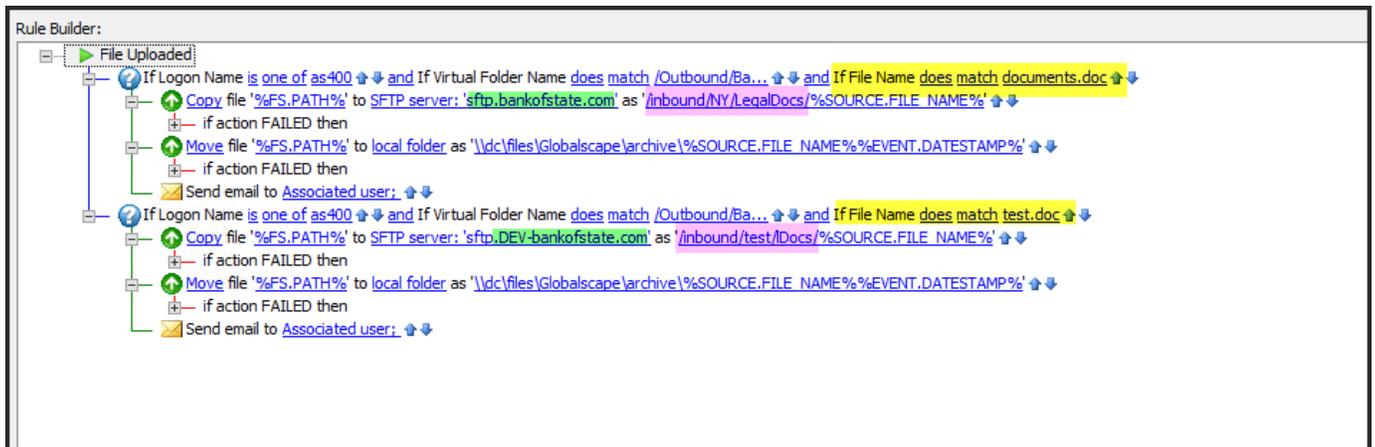
In the above example, anytime a file named **documents.doc** is uploaded by user "as400" to the virtual folder, it is copied to another folder and then renamed and moved to yet another folder—all automatically with just one Event Rule.

## Additional Options:

Optionally, you can add a second destination or folder. In this example, we will send documents intended for a test process. The external client uses a development environment for test files. This requires that all test files be sent to a server using a different site address, folder, and user credentials.

- Create a new trigger for test files:
  - a. Add a new filename mask (test.doc)
  - b. Update the virtual path – (Client-Test)

For this example, we will use a new file name to trigger the file. All files named **test.doc** will be sent to the DEV server and will be placed in the /inbound/test/Docs/ folder:



## Help configuring AS400 for SFTP transfers:

Please see one of the following links:

Configuring the IBM i SSH, SFTP, and SCP Clients to Use Public-Key Authentication:

<http://www-01.ibm.com/support/docview.wss?uid=nas8N1012710>

SFTP tips for AS400

<http://www.ibmssystemsmag.com/ibmi/administrator/systemsmanagement/sFTP-Tips>