



MAGIC FTP SERVER FILE MANAGEMENT PROCESS

The purpose of the Magic FTP server is to provide a secured server to manage processing of inbound and outbound interfaces for agencies within the State's firewall and for third-party vendors outside the State's firewall.

There are three sets of folders on the MAGIC FTP Server:

1. /MAGIC/<agency_name> and /MAGIC/HR/<agency_name> – used to stage agency interface data for agencies within the state's firewall.
 - Each agency will have a one or two unique sets of folders identified by the agency name or acronym (10 character max). The first set of folders is used for FI, LO and SRM interfaces. The second set is for HCM interfaces only.
 - Agencies will have FTP read/write access to their folders only, which will be used to load and/or retrieve interface data.
 - Separate login credentials will be supplied to each agency for the HR and non-HR folders, with a generic username/password.
 - Under each agency's folder there are separate folders for inbound and outbound interfaces:
 - For inbound interfaces:
 - /MAGIC/<agency_name>/INB and /MAGIC/HR/<agency_name>/INB
 - These folders also have two sub-folders - SUCCESS and ERROR - used for storing processing log files generated by the interface.
 - For outbound interfaces:
 - /MAGIC/<agency_name>/OTB and /MAGIC/HR/<agency_name>/OTB
2. /MAGIC/INTF and /MAGIC/HR/INTF - used internally by the MAGIC inbound and outbound interfaces and is not visible to the agencies.
 - A file management program will control movement of the agencies interface files between the agency folders /MAGIC/<agency_name> and /MAGIC/HR/<agency_name>, and the internal interface folders /MAGIC/INTF and /MAGIC/HR/INTF.
 - The SAP-PI system will be used to process files for third party vendors outside the state's firewall. PI will load and/or retrieve files directly to and or from /MAGIC/INTF and /MAGIC/HR/INTF folders.
3. /MAGIC/MASTERDATA - used to store non-HR Master Data and Cross-walk files for agency use.
 - This folder will be visible to agencies within the State's firewall.
 - Using the same generic username/password that is used to access the /MAGIC/<agency_name> folder, agencies will have FTP read-only access to the files in this folder.



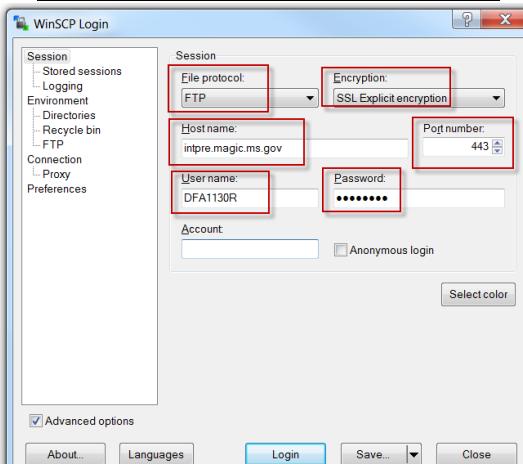
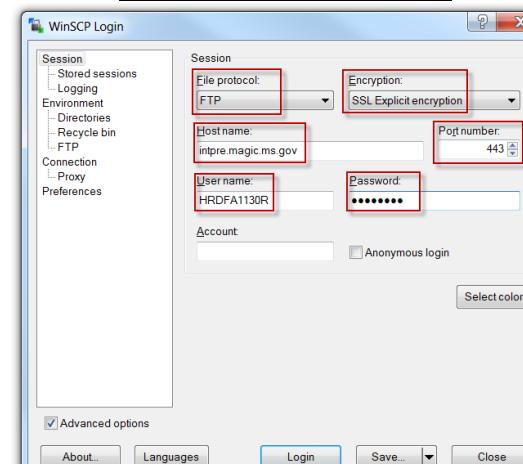
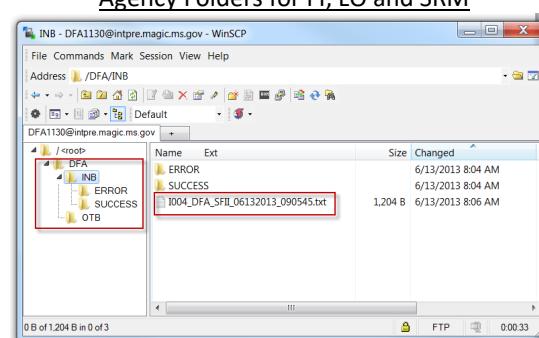
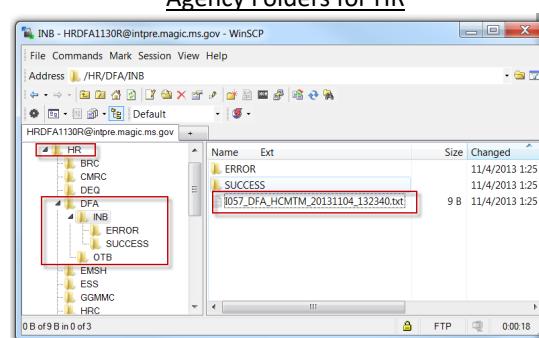
OVERVIEW DOCUMENTS:

FTP Server File Management Process Overview	Describes the flow and processing of files between the Vendor, Agency and Interface folders.	Exhibit A
FTP Directory Structure – Overview	Generic overview of the folders on the FTP Server.	Exhibit B
FTP File Management Programs and Process	Describes the FTP File management programs and classes/methods, plus use of logical file paths and config Z-tables	Exhibit C

MAGIC FTP SERVER ACCESS:

The screenshots below show an example logging into the DFA non-HR and HR folders using WinSCP. Note that the WinSCP does not display the /MAGIC part of the folder path. The protocol to be used is FTP-S (FTP with SSL Explicit encryption).

The user will have read-write access to their folders, as well as read-only access to the MASTERDATA folder.

FTP Login screen for FI, LO and SRM access 	FTP Login Screen for HR access 
Agency Folders for FI, LO and SRM 	Agency Folders for HR 



INBOUND INTERFACE PROCESSING FOR AGENCIES AND OUTSIDE VENDORS:

1. An agency within the State's firewall will load interface files via FTP to the agency's designated folder. Multiple files can be added to these folders and they will be processed in sequence based on the file's date/time stamp:
 - /MAGIC/<agency_name>/INB
 - /MAGIC/HR/<agency_name>/INB
2. The naming convention for the inbound interface file is:
 - <interface_id>_<agency_name>_<filename>_<date>_<time>.txt

Example: I025_TREASURY_CLRWARR_EMP_20130313_172400.TXT
3. The first three parts of the filename (separated by underscores) - Interface Id, Agency/Interface Name and File Name - are used to control movement of files between the agencies folders in /MAGIC/<agency_name>/INB or /MAGIC/HR/<agency_name>/INB, and the internal folders in /MAGIC/INTF/INB or /MAGIC/HR/INTF/INB. It is critical that these filenames are set up correctly, to ensure that the interface file will end up being processed by the correct interface. Files with an incorrect naming format will not be picked up.
4. Based on the structure of the filename, interface files are moved by the FTP File Management program to the appropriate inbound interface sub-folder under the /MAGIC/INTF/INB or /MAGIC/INTF/INB folder and processed by the inbound interface program. The destination folder of the files is controlled by entries in table ZZCA_FILE_MGMT.
5. The interface process and archives the files. If an interface generates SUCCESS and/or ERROR processing log files, these files are moved by the FTP File Management program from the inbound interface program's folder in /MAGIC/INTF/INB or /MAGIC/HR/INTF/INB, to the two sub-folders under the agency's folder in /MAGIC/<agency_name>/INB or /MAGIC/HR/<agency_name>/INB. The filenames for the processing logs will be the same as the original data file, with a prefix of SUCCESS and ERROR respectively.
6. For third part vendors outside the state's firewall, PI is used to authenticate to the vendors FTP server and pull interface files from their server directly to the interface's folder on MAGIC/INTF/INB or MAGIC/HR/INTF/INB. In some cases these files will be renamed to align with the State's naming conventions.



OUTBOUND INTERFACE PROCESSING FOR AGENCIES AND OUTSIDE VENDORS:

1. The outbound interfaces initially write their interface files to the Magic Interface Outbound folder. The names of the outbound interface are controlled by entries in table, ZZCA_INTF_FILE:
 - /MAGIC/INTF/OTB/<interface_id>
 - /MAGIC/HR/INTF/OTB/<interface_id>
2. For agencies within the State's firewall, these data files are then moved by the FTP File Management program to the agency's folder. The destination folder of the files is controlled by entries in table ZZCA_FILE_MGMT. From there the agency can access the files using their generic FTP username/password.
 - /MAGIC/<agency_name>/OTB
 - /MAGIC/HR/<agency_name>/OTB
3. For third-part vendors outside the State's firewall, PI is used to authenticate to the vendor's FTP server and the data files are pushed to specified folder on the vendor's server:
 - /MAGIC/INTF/OTB/<interface_id>
 - /MAGIC/HR/INTF/OTB/<interface_id>

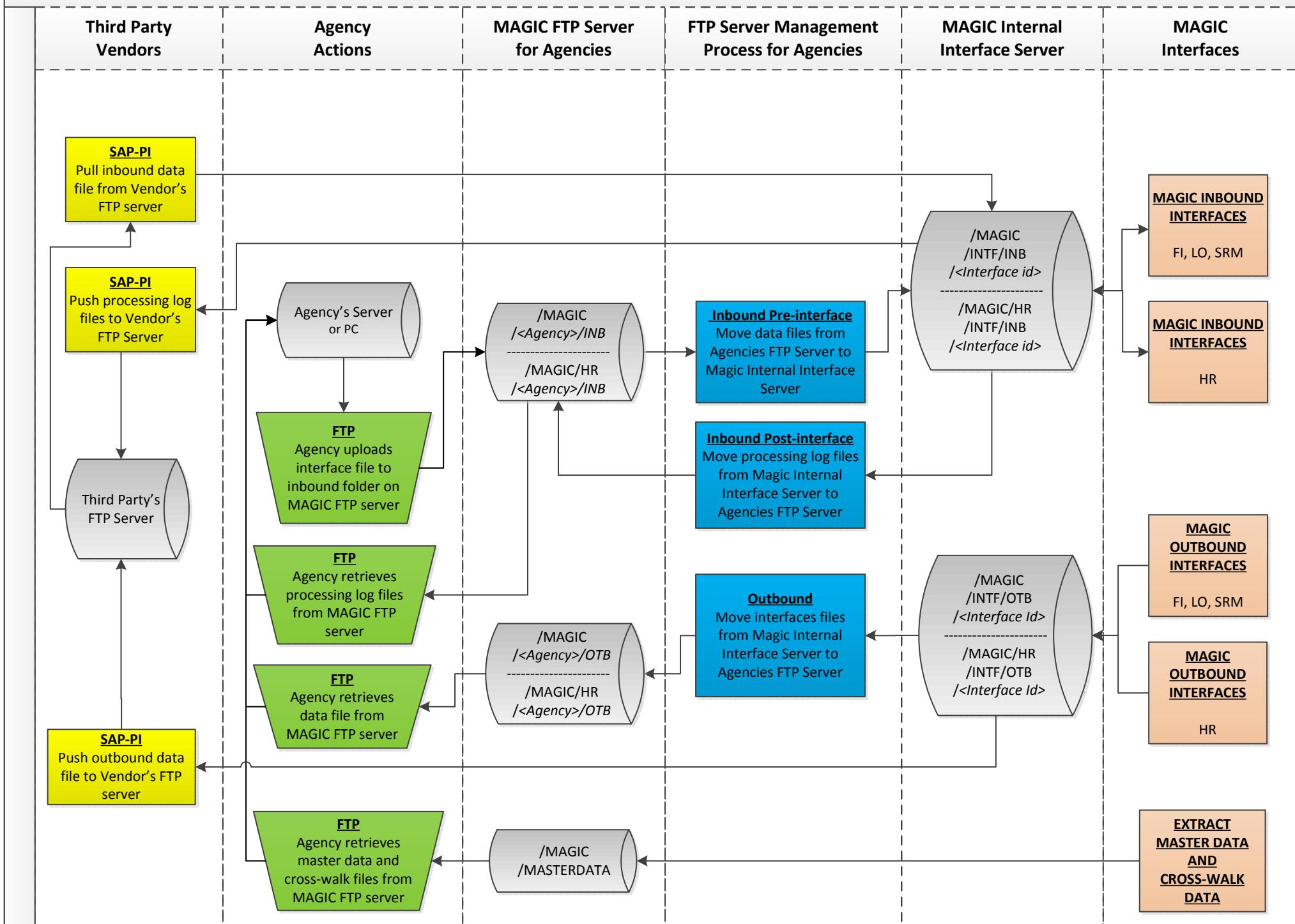


INTERFACE SPECIFIC DIRECTORY STRUCTURES AND PROCESS:

1	FTP Directory Structure – Assets	Details for the Assets create and change inbound interface	Exhibit D
2	FTP Directory Structure – Assetworks Scan-and-Validate	Inbound and outbound interface to Assetworks for the Scan-and-Validate system	Exhibit E
3	FTP Directory Structure – Assetworks Surplus	Outbound interface to Assetworks for the Surplus system	Exhibit F
4	FTP Directory Structure – EBS/ACH	Process EBSW files generated by Payment Run and Treasury Inbound interface, generates ACH files for Regions and Trustmark	Exhibit G
5	FTP Directory Structure – FUELMAN	FUELMAN inbound interface for data directly from Fleetcor, MDOT data and Manual data from agencies.	Exhibit H
6	FTP Directory Structure – MDOT	Inbound interface from MDOT for Purchase Order create/change, Goods Receipt and Invoices	Exhibit I
7	FTP Directory Structure – MSI	Inbound and outbound interfaces to MSI for Payments and Contracts	Exhibit J
8	FTP Directory Structure – PAYMODE	Inbound and outbound interfaces for Paymode-x and Bank of America	Exhibit K
9	FTP Directory Structure – Peregrine	Outbound interfaces to Peregrine for 1099's	Exhibit L
10	FTP Directory Structure – Regions	Outbound ACH interface to Regions Bank	Exhibit M
11	FTP Directory Structure – SFII	Standard Financial Inbound Interface (aka. JV interface) used by multiple agencies for loading parked documents	Exhibit N
12	FTP Directory Structure – POST	Similar to the SFII interface, but used to post documents directly instead of parking them first.	Exhibit O
13	FTP Directory Structure – Treasury	Inbound and outbound interfaces for Treasury	Exhibit P
14	FTP Directory Structure – Trustmark	Outbound ACH interface to Trustmark Bank	Exhibit Q
15	FTP Directory Structure – Time Entry System	Inbound Time Entry and Outbound Time Entry Master Data	Exhibit R
16	FTP Directory Structure – NEOGOV	NEOGOV Inbound and Outbound Interface	Exhibit S
17	FTP Directory Structure – BRICKS	BRICKS Inbound Interface	Exhibit T
18	FTP Directory Structure – ATTACH	Attachments for FI, LO, SRM	Exhibit U

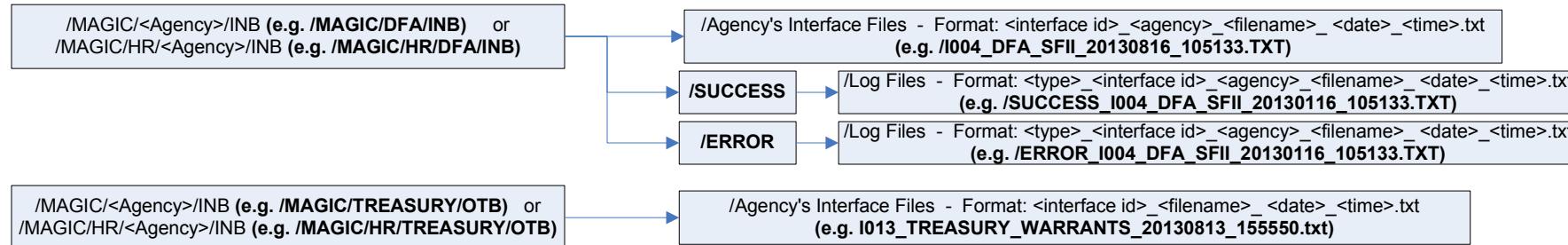
Exhibit A

PROCESS FLOW – FTP SERVER FILE MANAGEMENT



FTP SERVER DIRECTORY STRUCTURE - OVERVIEW

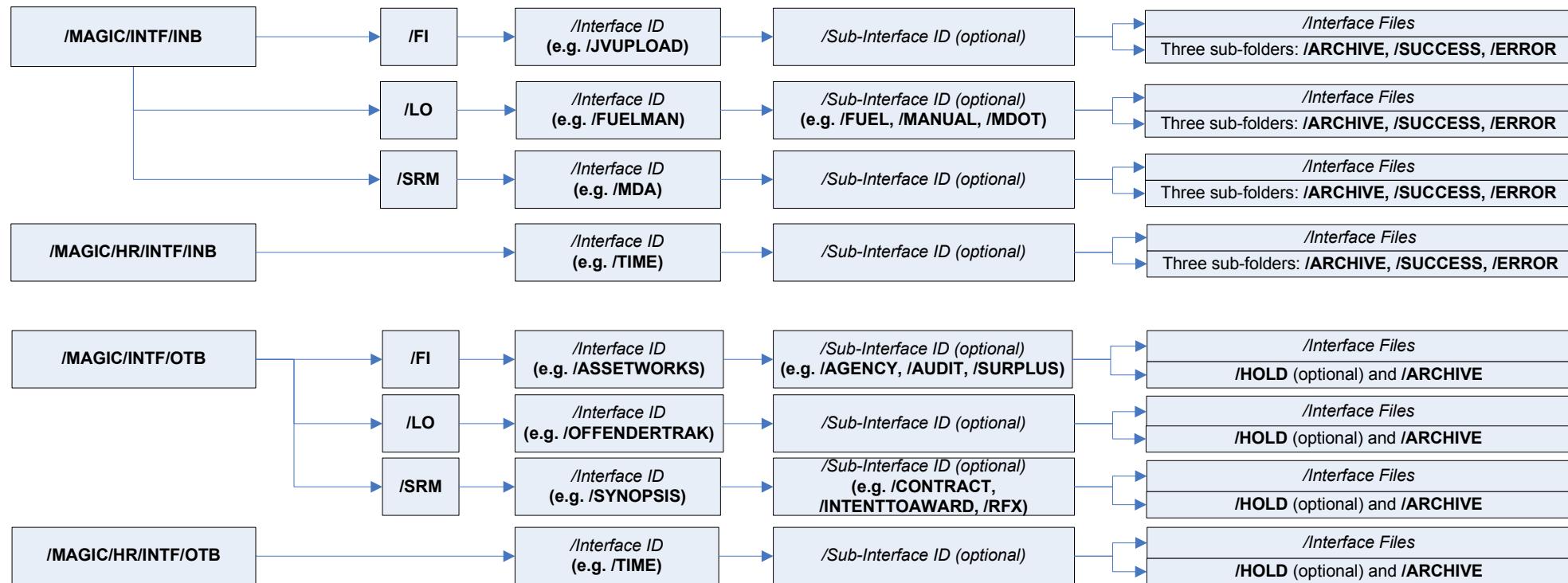
Updateable/Viewable by agency (secured)



FTP Server Management program controls movement of Agency files between the Agency folders and the INTF folders.

PI controls movement of files between the INTF folders and Third Party vendor's FTP servers.

Internal to Interfaces – No agency access



Viewable by all agencies (secured)

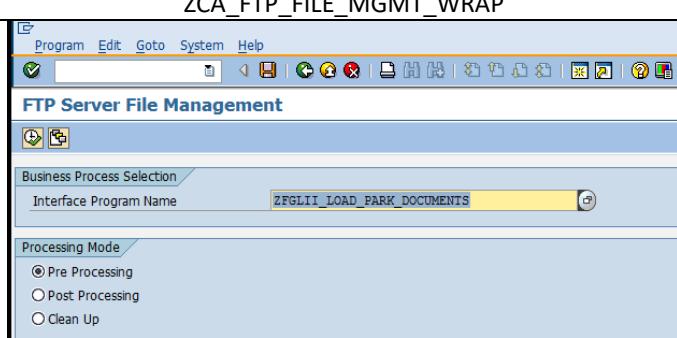
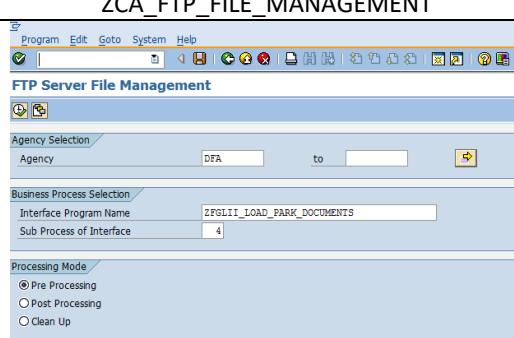


Exhibit C - FTP SERVER FILE MANAGEMENT PROGRAMS AND PROCESS

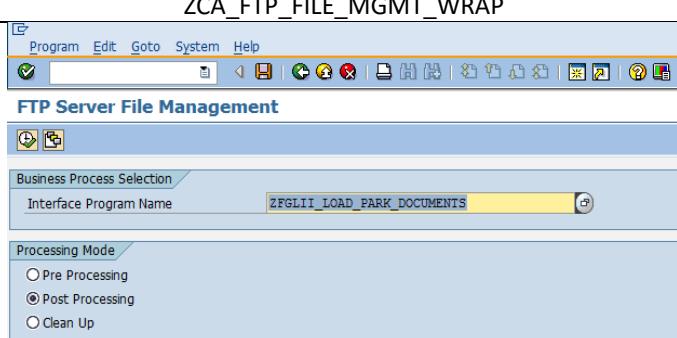
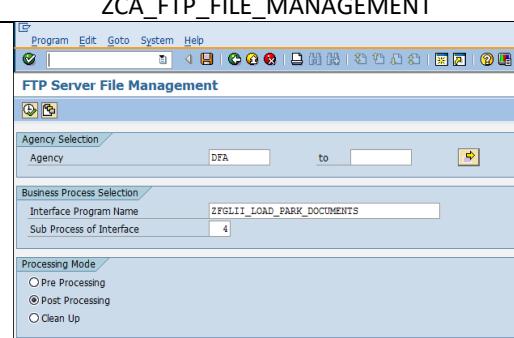
FTP Server File Management:

- **There are two FTP server file management programs:**
 - ZCA_FTP_FILE_MANAGEMENT (tcode ZCA_FTP_FILE_MGMT) – runs for one interface, moves files for one agency.
 - ZCA_FTP_FILE_MGMT_WRAP (tcode ZCA_FTP_FILE_MGMT_WR) – runs for one interface, moves files for all agencies set up for that interface. This is a wrapper program that submits ZCA_FTP_FILE_MANAGEMENT multiple times.

- **Pre-processing for inbound interfaces:**
 - Moves inbound interfaces file from the /MAGIC/<agencies> and /MAGIC/HR/<agencies> folders to the /MAGIC/INTF and /MAGIC/HR/INTF interface folders. Does not archive the file as the archiving is done by the interface program.

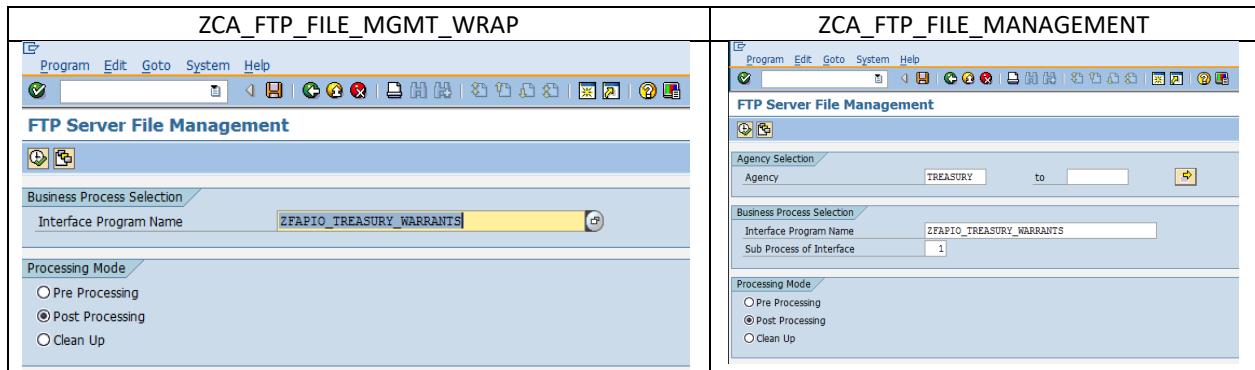
ZCA_FTP_FILE_MGMT_WRAP	ZCA_FTP_FILE_MANAGEMENT
	

- **Post-processing for inbound interfaces:**
 - Moves inbound processing log files from the /MAGIC/INTF and /MAGIC/HR/INTF interface folders to the /MAGIC/<agencies> and /MAGIC/HR/<agencies> folders. Archives files after moving.

ZCA_FTP_FILE_MGMT_WRAP	ZCA_FTP_FILE_MANAGEMENT
	

- Post-processing for outbound interfaces:**

- Moves outbound interface files from the /MAGIC/INTF and /MAGIC/HR/INTF interface folders to the /MAGIC/<agencies> and /MAGIC/HR/<agencies> folders. Archives outbound interface files.



Methods for handling server files

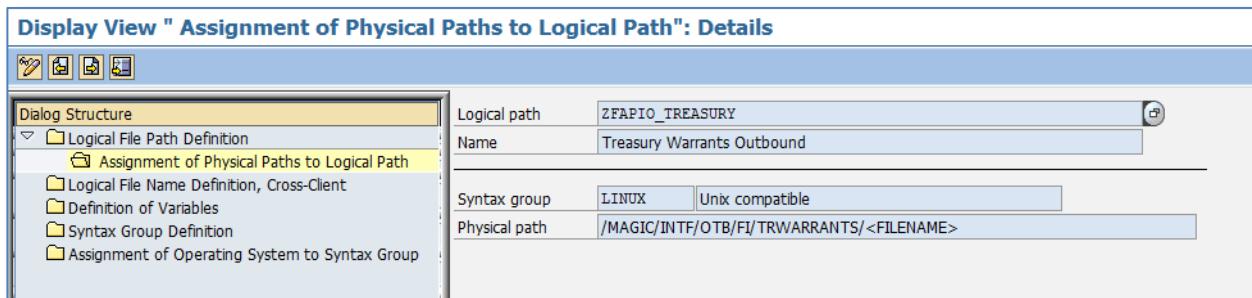
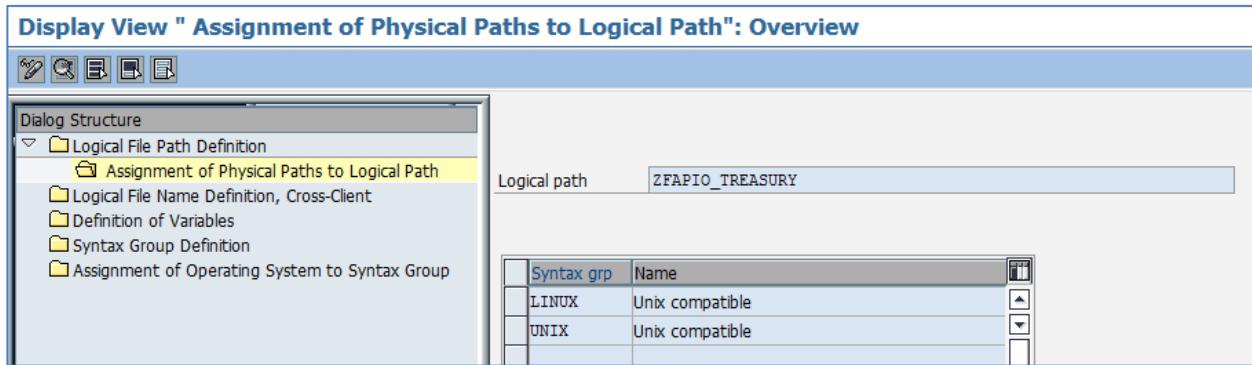
- Class ZCL_ZCA_FILE.Utility has been set up with the following methods (tcode **SE24**):

The screenshot shows the SAP Class Builder interface for the class 'ZCL_ZCA_FILE.Utility'. The title bar says 'Class Builder: Display Class ZCL_ZCA_FILE.Utility'. The 'Methods' tab is selected in the top navigation bar. Below it, a table lists various methods:

Method	Level	Visibility	Method type	Description
GET_PHY_PATH_FOR_LOGFILE	Static Method	Public		Get Physical path for Logical File name
ARCHIVE	Static Method	Public		Archive file
LIST_LOCAL_FILES	Static Method	Public		Displays a File Open Dialog
LIST_APPSERVER_FILES	Static Method	Public		List all Application Server Files
MODIFY_SCREEN	Static Method	Public		Modify screen
GET_DIRECTORY_FILES	Static Method	Public		Get Directory Files
GET_OUTFILE_NAME	Static Method	Public		Get outbound file name
FTP_WRITE	Static Method	Public		Write to FTP servers

Logical File Paths for interfaces

- Use logical file paths in interface program instead of specifying the physical file path. Use the method ZCL_ZCA_FILE.Utility->GET_PHY_PATH_FOR_LOGFILE to get the physical file path.
- Set up the logical file path using transaction code **FILE**. Specify physical file path for LINUX, the UNIX one is really not needed.



Custom Z-Tables used in interfaces and by the FTP File Management program

These are customizing (config) tables. Changes are made in DEA-100 and a transport gets created. The transport gets released and imported to all higher level environments. Transport must be manually copied to DEA-300 using tcode SCC1

- **Table ZZCA_AGENCIES**

- Check table for agency names, used by the FTP File Management Program. The agency name matches against the agencies directory name on the FTP Server.

Display of Entries Found		
Table to be searched	ZZCA_AGENCIES	Agency Codes
Number of hits	5	
Runtime	0	Maximum no. of hits 500
Agency	BusA	Description
DFA	1130	Finance & Administration
MDA	1411	Mississippi Development Authority
MDOT	1941	Dept. of Transportation
MDPS	1711	Dept. of Public Safety
TREASURY	1171	Treasury

- **Table ZZCA_INTF_FILE**

- Table used to specify the filenames for outbound interfaces. Not needed for inbound interfaces. Use the method ZCL_ZCA_FILE.Utility=>GET_OUTFILE_NAME to retrieve the filename from this table.

Display of Entries Found						
Table to be searched	ZZCA_INTF_FILE	Interface Logical file path				
Number of hits	1					
Runtime	0	Maximum no. of hits 500				
Program Name	Area ID	Logical file path	Direction	Filename Prefix	Filename Part 1	Filename Part 2
ZFAPIO_TREASURY_WARRANTS		ZFAPIO_TREASURY	OUTBOUND	I013	TREASURY_WARRANTS	.txt

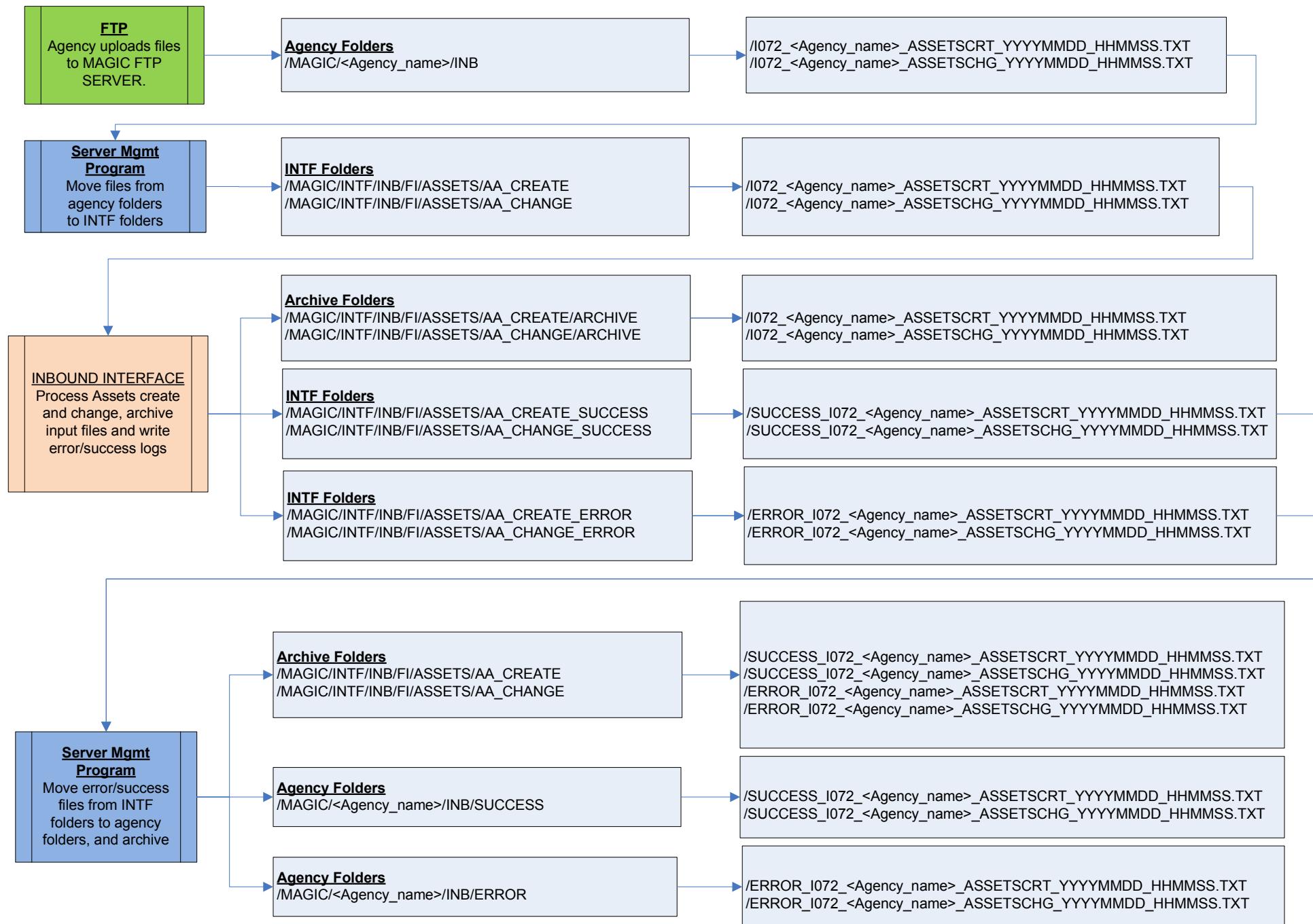
- **Table ZZCA_FILE_MGMT:**

- Table used to control movement of files between the /MAGIC/INTF and /MAGIC/HR/INTF folders and the /MAGIC/<agency> and /MAGIC/HR/<agency> folders. The “HCM File” indicator is used to determine if the interface is using the /MAGIC or the /MAGIC/HR folders.
- This file is used for both inbound and outbound interfaces.
- This file is not used if interfaces are being pushed/pulled from an outside vendor via PI, as PI processes file directly to/from the /MAGIC/INTF and /MAGIC/HR/INTF folders.

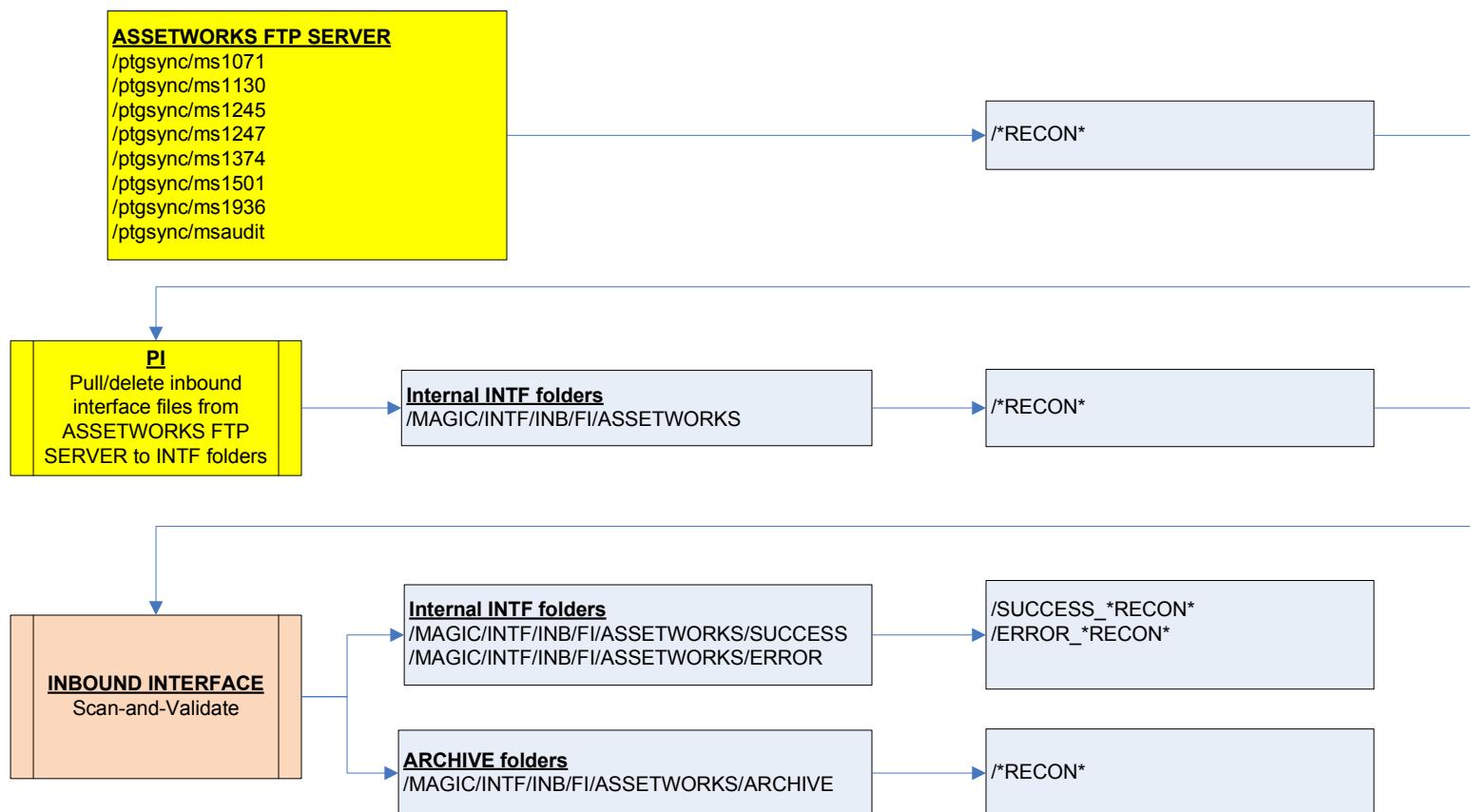
The screenshot shows the SAP GUI interface for the ZZCA_FILE_MGMT table. The title bar reads "Table Entry Edit Goto System Help". Below it is a toolbar with various icons. The main area is titled "Display of Entries Found" and contains a table with the following data:

Program Name	Sub Process	Direction	HCM File Description	Logical file path	Filename Part 1	Filename Part 2	Filename Part 3	RFC Destination
ZFGLII_LOAD_PARK_DOCUMENTS	1	INBOUND	Attorney General	ZIV_INBOUND_INTF	1004	AGO	SFII	
ZFGLII_LOAD_PARK_DOCUMENTS	2	INBOUND	Boswell Regional Center	ZIV_INBOUND_INTF	1004	BRG	SFII	
ZFGLII_LOAD_PARK_DOCUMENTS	3	INBOUND	Dept of Environmental Quality	ZIV_INBOUND_INTF	1004	DEQ	SFII	
ZHTMIL_UPLEVAL_ENT	1	INBOUND	X	Boswell Regional Center	ZHTMIL_EVAL_ENT_FILES	1057	BRG	HCMTM
ZHTMIL_UPLEVAL_ENT	2	INBOUND	X	Dept of Environmental Quality	ZHTMIL_EVAL_ENT_FILES	1057	DEQ	HCMTM
ZHTMIL_UPLEVAL_ENT	3	INBOUND	X	Division of Medicaid	ZHTMIL_EVAL_ENT_FILES	1057	MEDICAID	HCMTM
ZHTMIO_DOWNLOAD_EXTTMSYS	1	OUTBOUND	X	Boswell Regional Center	ZHTMIO_EXTTMSYS	1050	BRG	HCMTM
ZHTMIO_DOWNLOAD_EXTTMSYS	2	OUTBOUND	X	Dept of Environmental Quality	ZHTMIO_EXTTMSYS	1050	DEQ	HCMTM
ZHTMIO_DOWNLOAD_EXTTMSYS	3	OUTBOUND	X	Division of Medicaid	ZHTMIO_EXTTMSYS	1050	MEDICAID	HCMTM

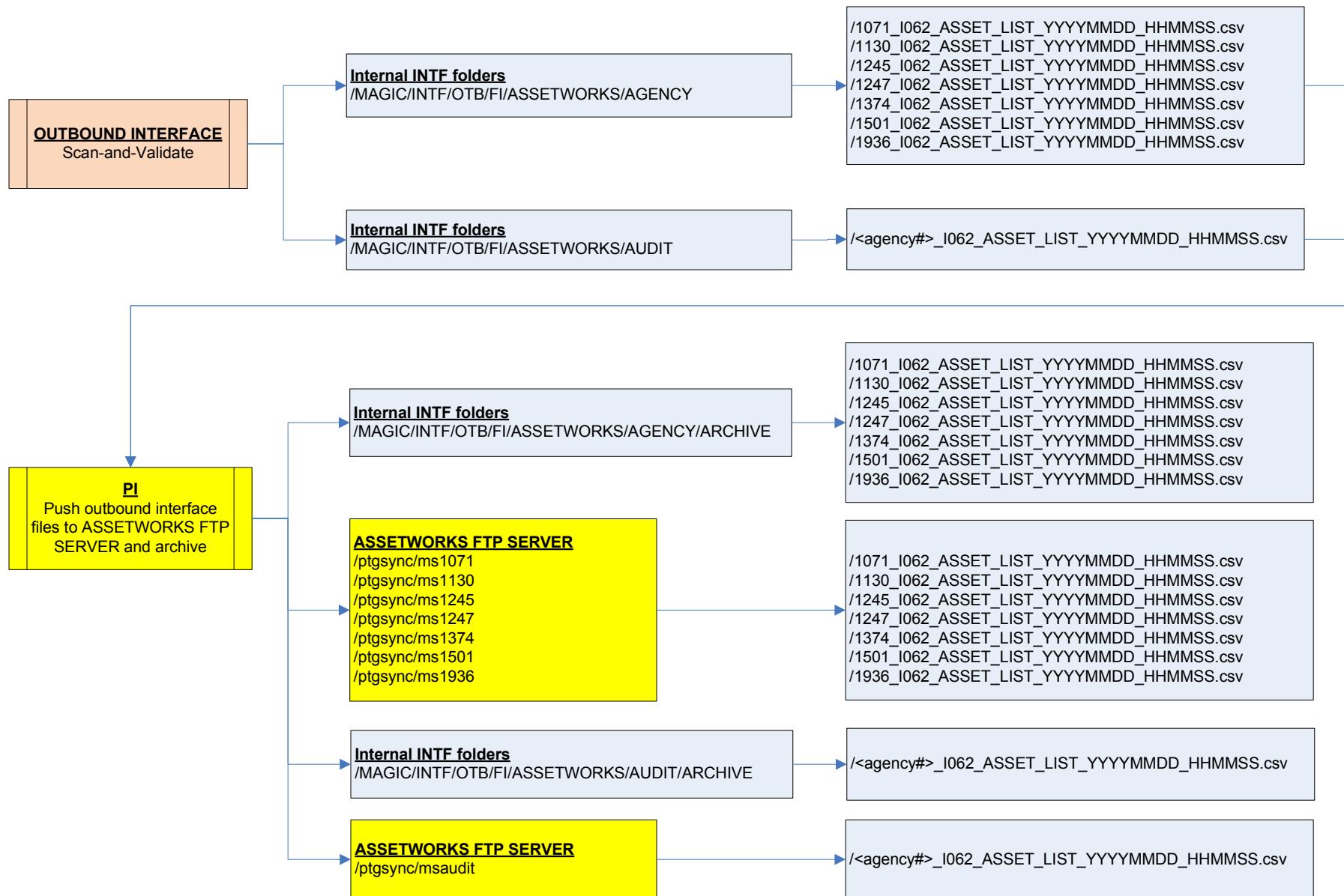
FTP SERVER DIRECTORY STRUCTURE – ASSETS CREATE/CHANGE



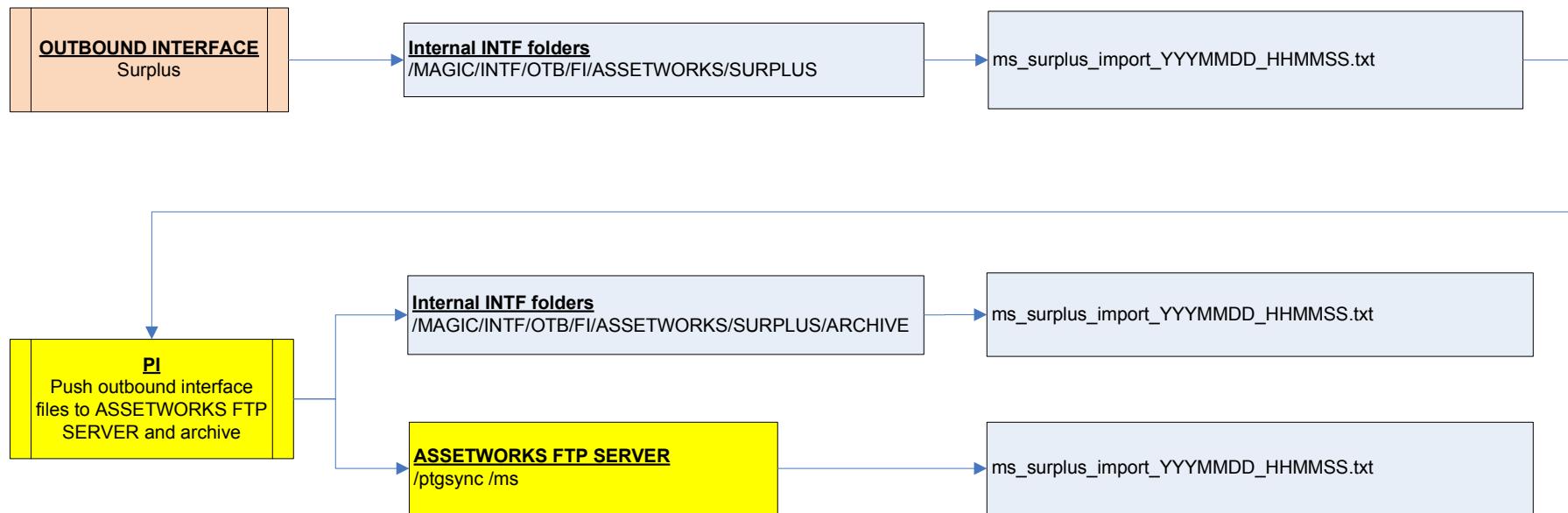
**FTP SERVER DIRECTORY STRUCTURE – ASSETWORKS INBOUND
SCAN-AND-VALIDATE**

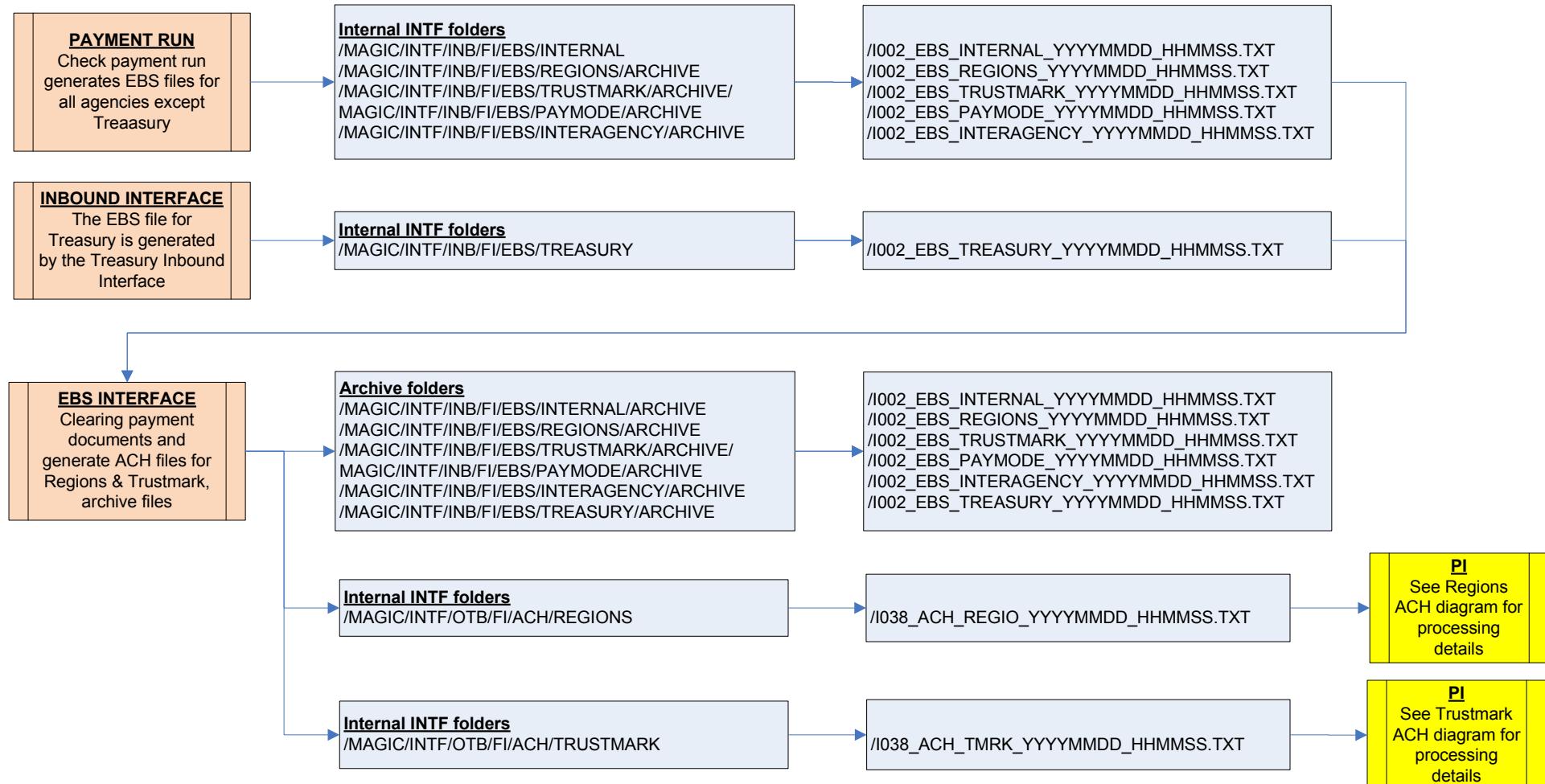


FTP SERVER DIRECTORY STRUCTURE – ASETWORKS OUTBOUND SCAN-AND-VALIDATE

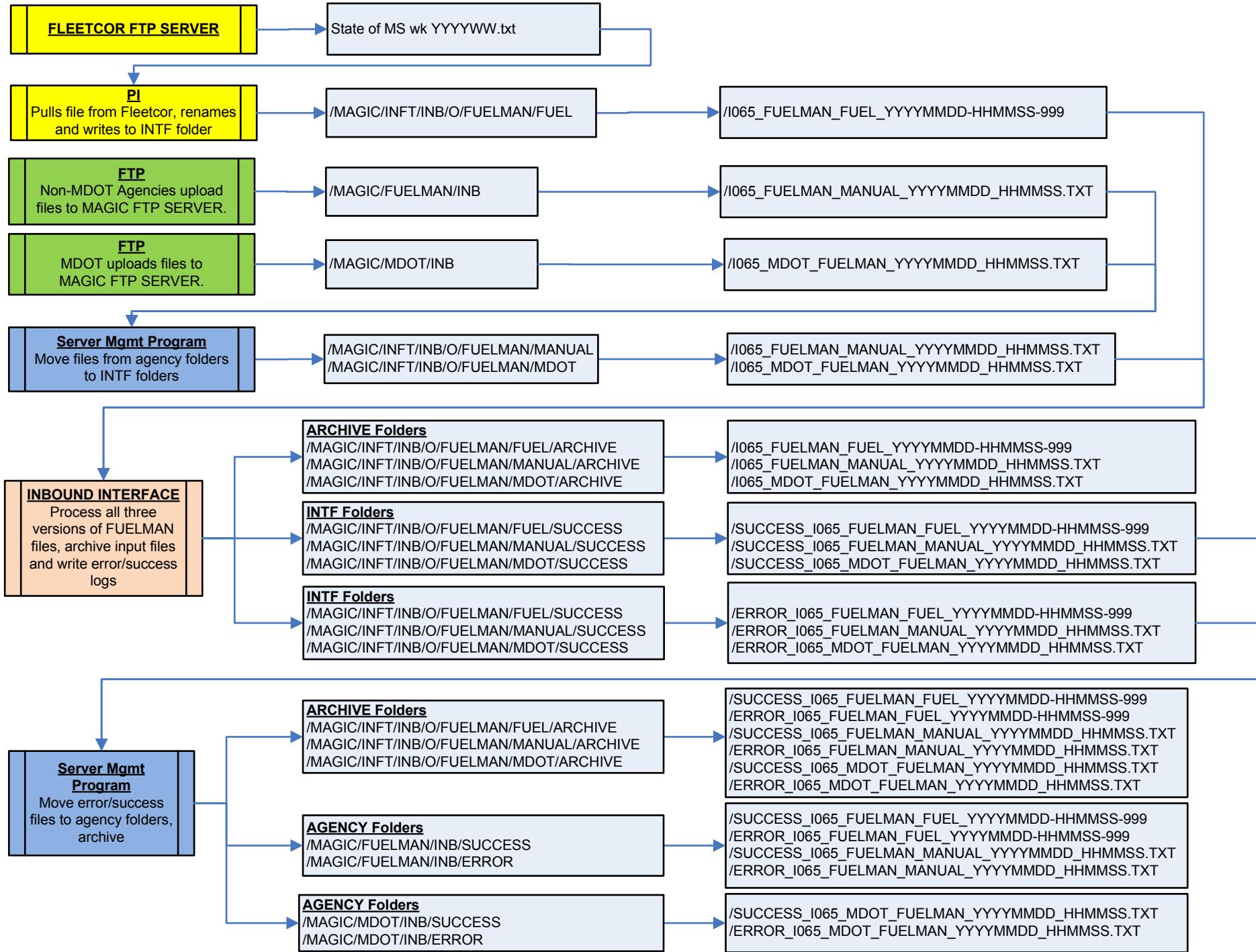


FTP SERVER DIRECTORY STRUCTURE – ASSETWORKS OUTBOUND SURPLUS

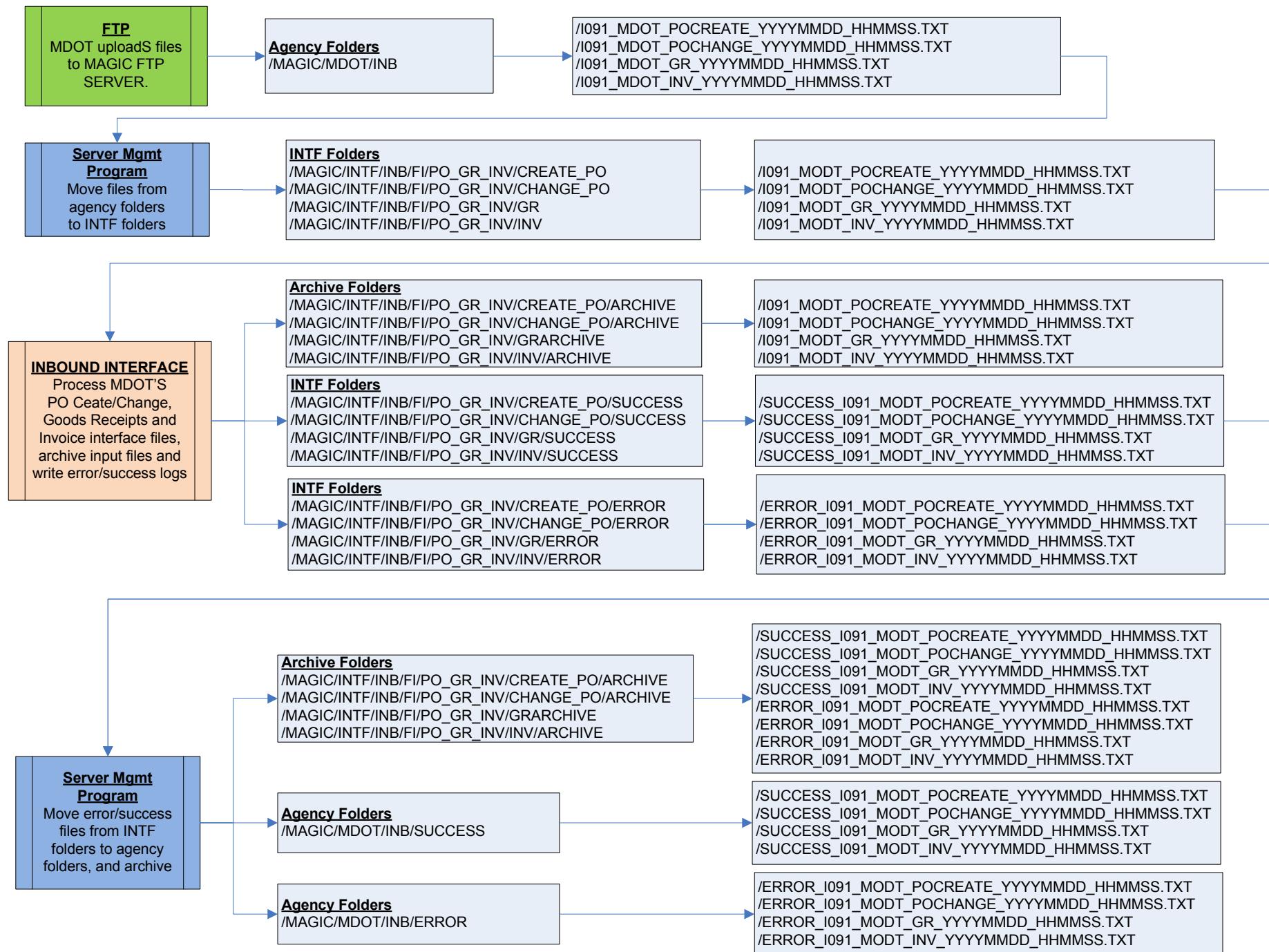


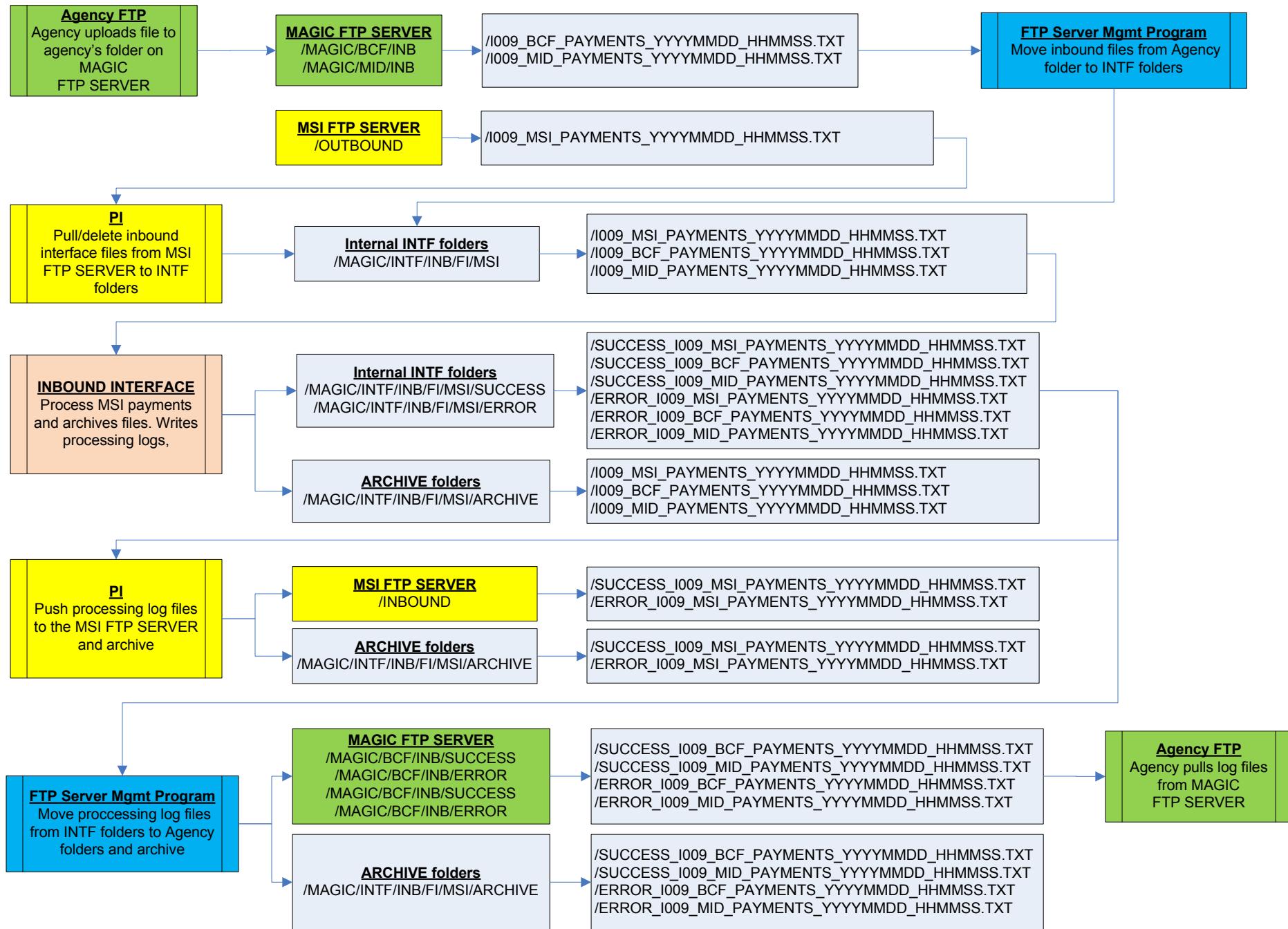
FTP SERVER DIRECTORY STRUCTURE – EBS/ACH

INTERFACE FILE NAME	FUNCTIONAL SPECS	TECHNICAL SPECS
/I025_TREASURY_CLRWARREMP_YYYYMMDD_HHMMSS.TXT /I025_TREASURY_CANWARREMP_YYYYMMDD_HHMMSS.TXT	FI_I025_FS_Cleared Warrants (Employees)	FI_I025_TS_Cleared Warrants (Employees)
/I026_TREASURY_CLRWARRVEN_YYYYMMDD_HHMMSS.TXT /I026_TREASURY_CANWARRVEN_YYYYMMDD_HHMMSS.TXT	FI_I026_FS_Cleared Warrants (Vendors)	FI_I026_TS_Cleared Warrants (Vendors)
/I013_TREASURY_WARRANTS_YYYYMMDD_HHMMSS.TXT	FI_I013_FS_Treasury Control Sheet-warrants written FI_I015_FS_Treasury Control Sheet-Manual Warrants records GL	FI_I013_I015_TS_Treasury Control Sheet
/I017_TREASURY_JV_YYYYMMDD_HHMMSS.TXT	FI_I017_FS_Treasury Control Sheet- JVs for cash FI_I019_FS_Treasury Control Sheet-(IG) intergov. transfer	FI_I017_TS_Treasury Control Sheet- JVs for cash FI_I019_TS_Treasury Control Sheet-(IG) intergov. transfer
/I020_TREASURY_REGEFT_YYYYMMDD_HHMMSS.TXT	FI_I020_FS_Voided Payroll and Travel Warrants/EFTs FI_I021_FS_EFTs - PH.PROD.PH1300.D1300S37.EFT FI_I022_FS_EFTs - PH.PROD.PH1300.R1300S62.EFT FI_I024_FS_EFTs - PH.PROD.PH1300.R1300S55.WK9.VEFT FI_I045_FS_EFT Interface	FI_I020_I021_I022_I024_I045_TS_Voided Payroll and Travel Warrant
/I023_TREASURY_VOIDEFT_YYYYMMDD_HHMMSS.TXT	FI_I023_FS_Voided warrants	FI_I023_TS_Voided warrants
/I027_TREASURY_BUDGET01_YYYYMMDD_HHMMSS.TXT /I028_TREASURY_BUDGET02_YYYYMMDD_HHMMSS.TXT /I029_TREASURY_BUDGET03_YYYYMMDD_HHMMSS.TXT /I030_TREASURY_BUDGET04_YYYYMMDD_HHMMSS.TXT	FI_I027_FS_Treasury Budgets FI_I028_FS_Treasury Budgets Semi-Annual (July) FI_I029_FS_Treasury Budgets Allocation 2 (Jan) FI_I030_FS_Treasury Budgets Annual Allotment (annually)	FI_I027_28_29_30_TS_Treasury Budgets

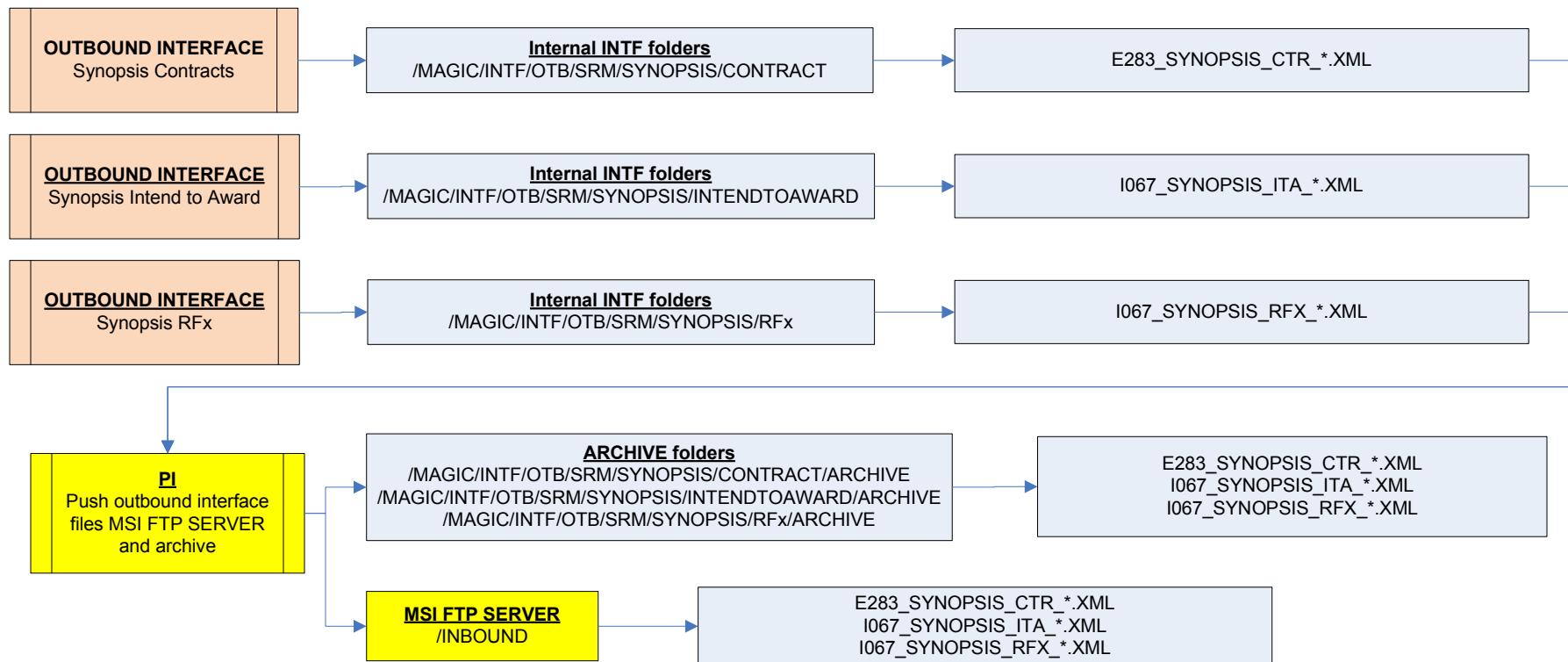
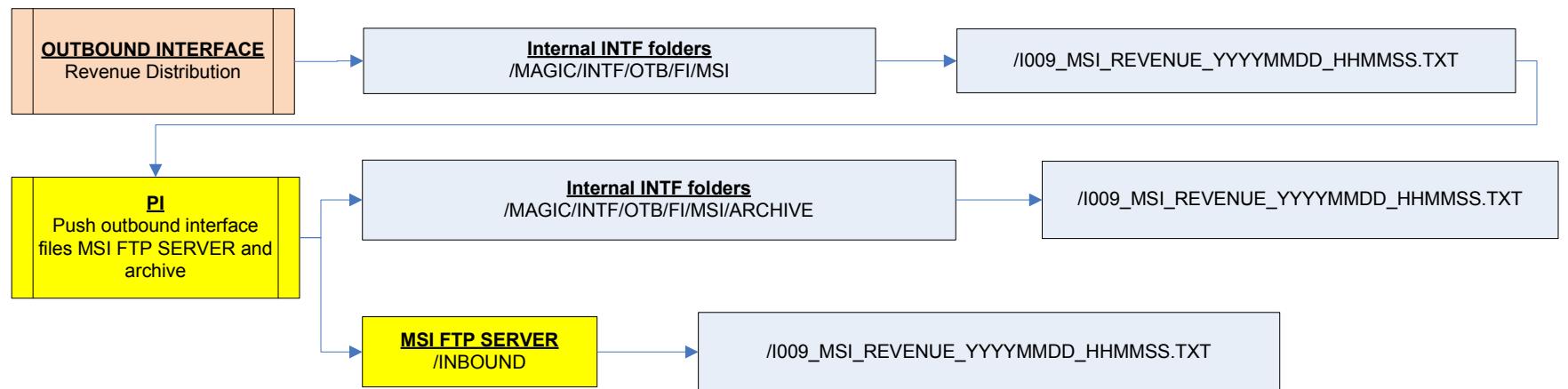
FTP SERVER DIRECTORY STRUCTURE - FUELMAN

FTP SERVER DIRECTORY STRUCTURE – MDOT - PO/GR/INV

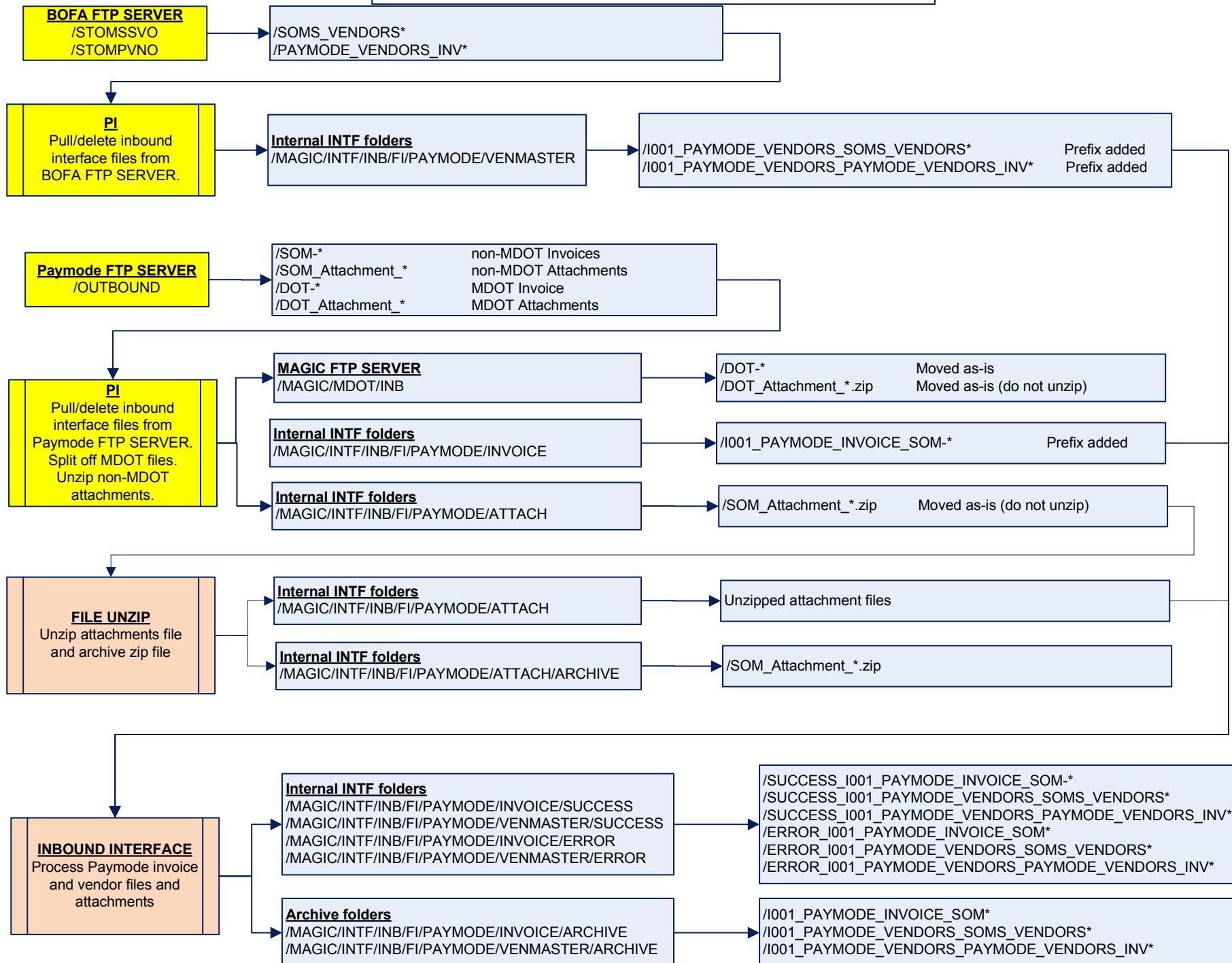


FTP SERVER DIRECTORY STRUCTURE – MSI INBOUND

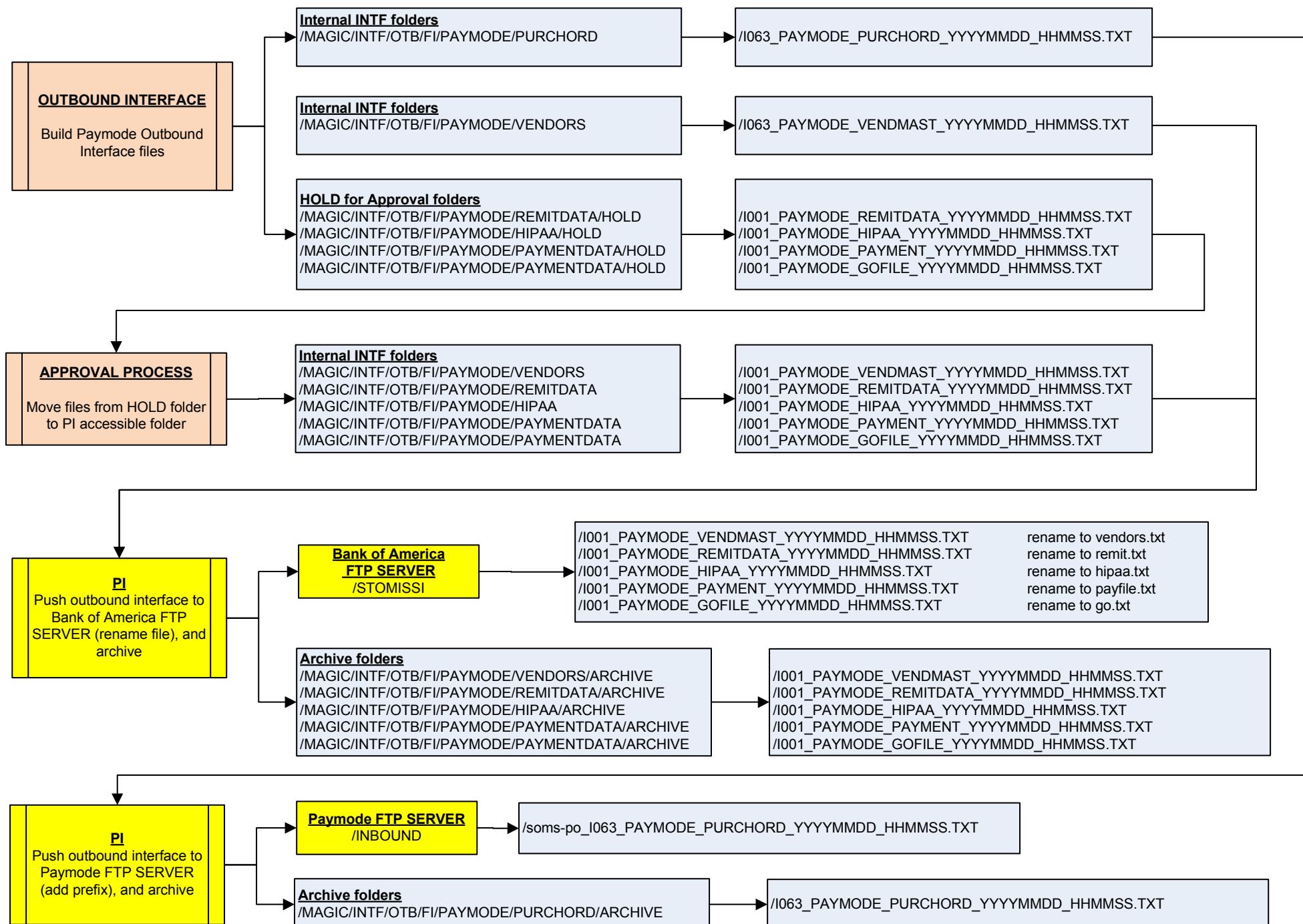
FTP SERVER DIRECTORY STRUCTURE – MSI OUTBOUND

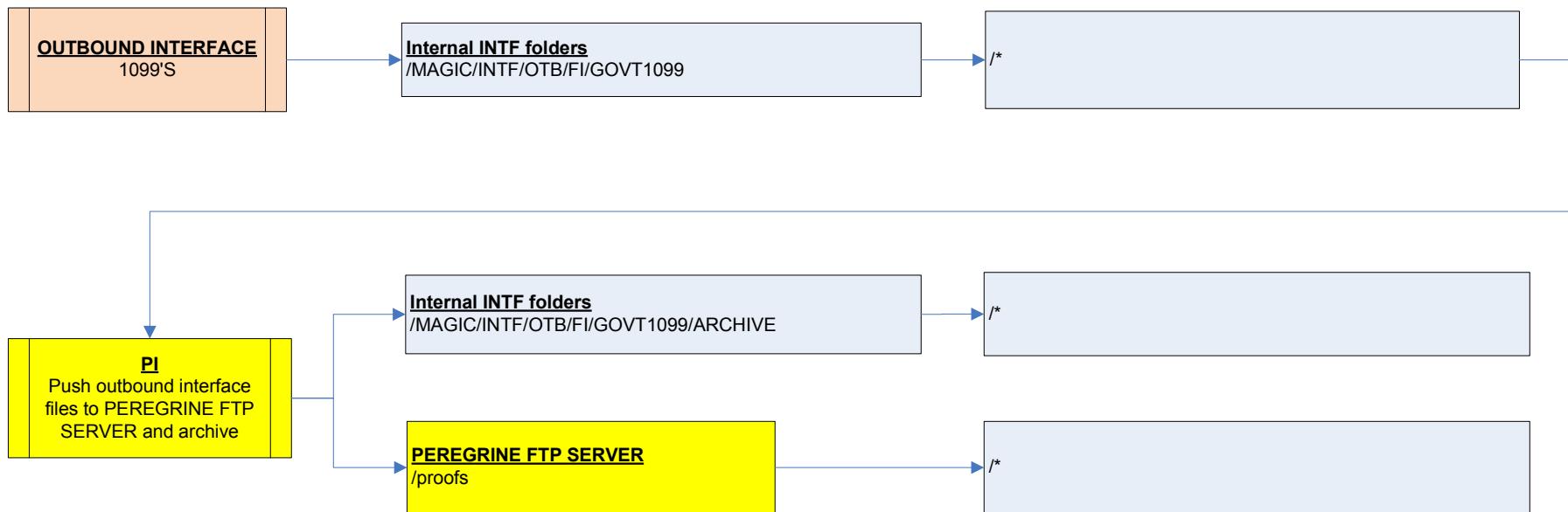


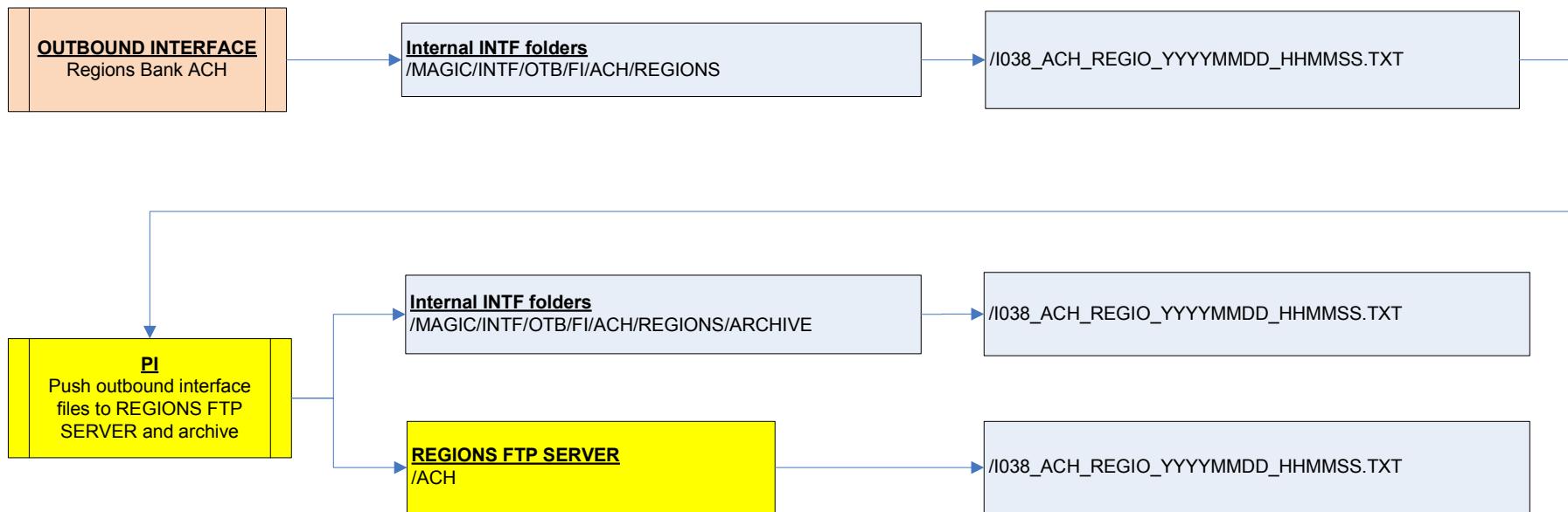
FTP SERVER DIRECTORY STRUCTURE – PAYMODE INBOUND



FTP SERVER DIRECTORY STRUCTURE – PAYMODE OUTBOUND



FTP SERVER DIRECTORY STRUCTURE – PEREGRINE 1099 OUTBOUND

FTP SERVER DIRECTORY STRUCTURE – REGIONS ACH OUTBOUND

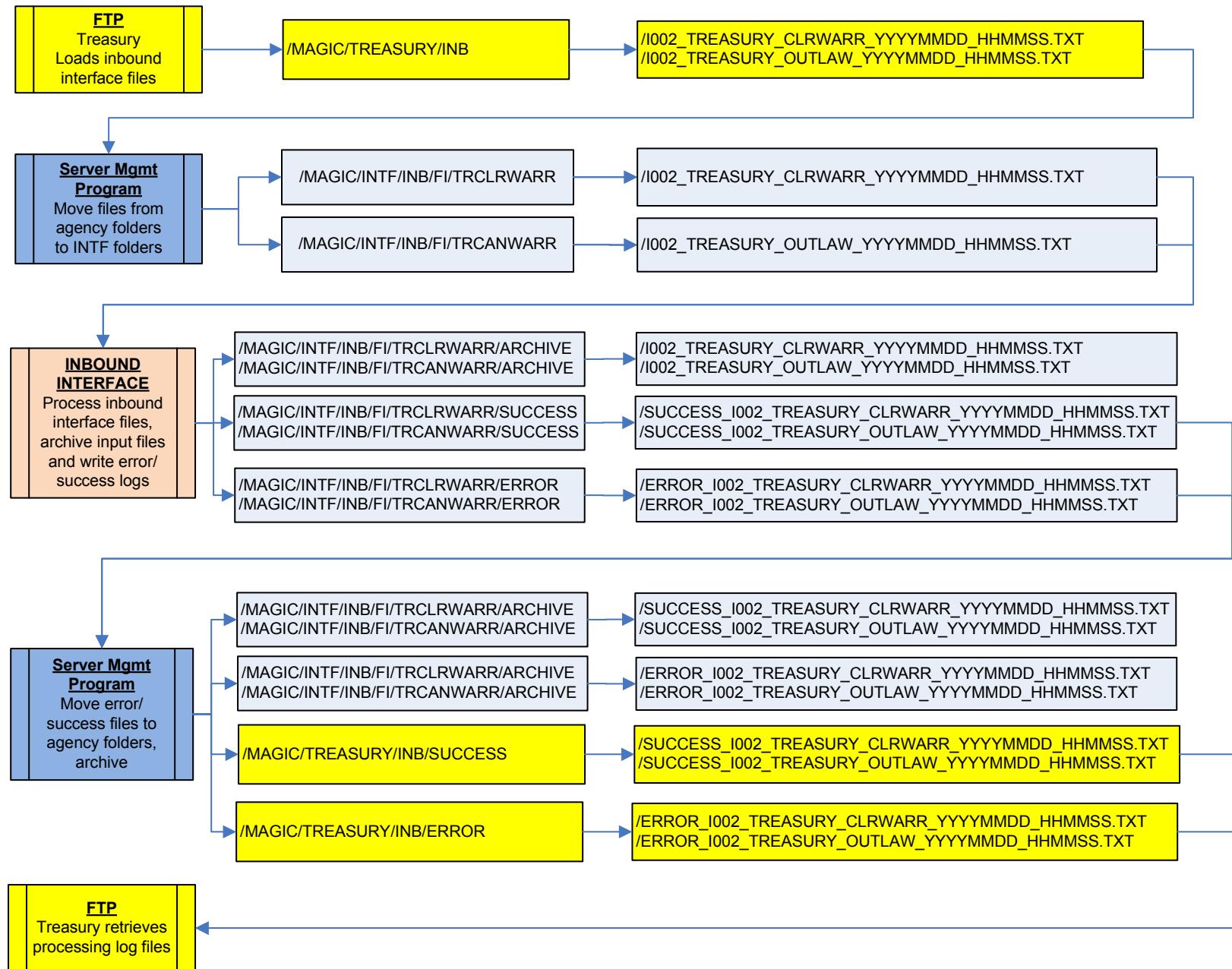
FTP SERVER DIRECTORY STRUCTURE – JV INTERFACE



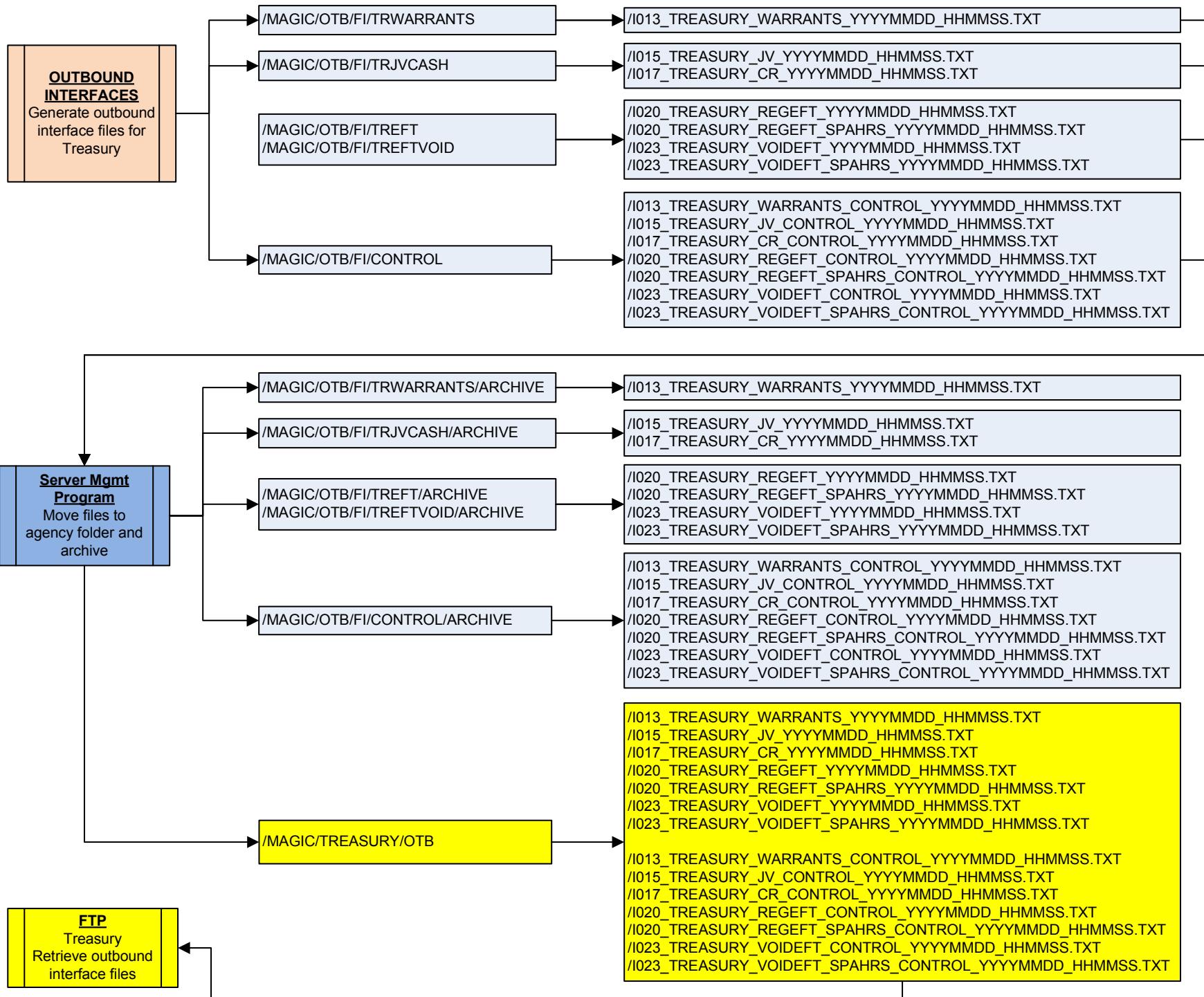
FTP SERVER DIRECTORY STRUCTURE – JV INTERFACE FOR POSTING DOCUMENTS



FTP SERVER DIRECTORY STRUCTURE – TREASURY INBOUND



FTP SERVER DIRECTORY STRUCTURE – TREASURY OUTBOUND



Inbound Interfaces – Treasury to MAGIC	Treasury FTP Folder	MAGIC Interface Folder	Inbound Interface File Name
FI_I002_Electronic Bank Statement Inbound FI_I025_Cleared Warrants (Employees) FI_I026_Cleared Warrants (Vendors)	/MAGIC /TREASURY /INB	/MAGIC/INTF/INB/FI/TRCLRWARR	/I002_TREASURY_CLRWARR_YYYYMMDD_HHMMSS.TXT
FI_I023_Voided warrants		/MAGIC/INTF/INB/FI/TRCANWARR	/I002_TREASURY_OUTLAW_YYYYMMDD_HHMMSS.TXT

Inbound Interfaces Processing Logs – MAGIC to Treasury	Treasury FTP Folder	MAGIC Interface Folder	Inbound Interface File Name
FI_I002_Electronic Bank Statement Inbound FI_I025_Cleared Warrants (Employees) FI_I026_Cleared Warrants (Vendors)	/MAGIC /TREASURY /INB /SUCCESS	/MAGIC/INTF/INB/FI/TRCLRWARR	/SUCCESS_I002_TREASURY_CLRWARR_YYYYMMDD_HHMMSS.TXT
FI_I023_Voided warrants		/MAGIC/INTF/INB/FI/TRCANWARR	/SUCCESS_I002_TREASURY_OUTLAW_YYYYMMDD_HHMMSS.TXT
FI_I002_Electronic Bank Statement Inbound FI_I025_Cleared Warrants (Employees) FI_I026_Cleared Warrants (Vendors)	/MAGIC /TREASURY /INB /ERROR	/MAGIC/INTF/INB/FI/TRCLRWARR	/ERROR_I002_TREASURY_CLRWARR_YYYYMMDD_HHMMSS.TXT
FI_I023_Voided warrants		/MAGIC/INTF/INB/FI/TRCANWARR	/ERROR_I002_TREASURY_OUTLAW_YYYYMMDD_HHMMSS.TXT

Outbound Interfaces – MAGIC to Treasury	Treasury FTP Folder	MAGIC Interface Folder	Outbound Interface File Name
FI_I013_Treasury Control Sheet-warrants written	/MAGIC/OTB/FI/	/TRWARRANTS	/I013_TREASURY_WARRANTS_YYYYMMDD_HHMMSS.TXT /I013_TREASURY_WARRANTS_CONTROL_YYYYMMDD_HHMMSS.TXT
FI_I015_Treasury Control Sheet-Manual Warrants records from daily GL FI_I017_Treasury Control Sheet- JVs for cash		/TRJVCASH	/I015_TREASURY_JV_YYYYMMDD_HHMMSS.TXT /I015_TREASURY_JV_CONTROL_YYYYMMDD_HHMMSS.TXT /I017_TREASURY_CR_YYYYMMDD_HHMMSS.TXT /I017_TREASURY_CR_CONTROL_YYYYMMDD_HHMMSS.TXT
FI_I020_Voided Payroll and Travel Warrants/EFTs FI_I021_EFTs - PH.PROD.PH1300.D1300S37.EFT FI_I022_EFTs - PH.PROD.PH1300.R1300S62.EFT FI_I024_EFTs - PH.PROD.PH1300.R1300S55.WK9.VEFT FI_I045_EFT Interface		/TREFT	/I020_TREASURY_REGEFT_YYYYMMDD_HHMMSS.TXT /I020_TREASURY_REGEFT_CONTROL_YYYYMMDD_HHMMSS.TXT /I023_TREASURY_VIDEFT_YYYYMMDD_HHMMSS.TXT /I023_TREASURY_VIDEFT_CONTROL_YYYYMMDD_HHMMSS.TXT
FI_I023_Voided warrants	/MAGIC/OTB/FI/	/TREFTVOID	/I020_TREASURY_REGEFT_SPAHRS_YYYYMMDD_HHMMSS.TXT /I020_TREASURY_REGEFT_SPAHRS_CONTROL_YYYYMMDD_HHMMSS.TXT /I023_TREASURY_VIDEFT_SPAHRS_YYYYMMDD_HHMMSS.TXT /I023_TREASURY_VIDEFT_SPAHRS_CONTROL_YYYYMMDD_HHMMSS.TXT
			/I020_TREASURY_REGEFT_YYYYMMDD_HHMMSS.TXT /I023_TREASURY_VIDEFT_CONTROL_YYYYMMDD_HHMMSS.TXT /I020_TREASURY_REGEFT_YYYYMMDD_HHMMSS.TXT /I023_TREASURY_VIDEFT_CONTROL_YYYYMMDD_HHMMSS.TXT

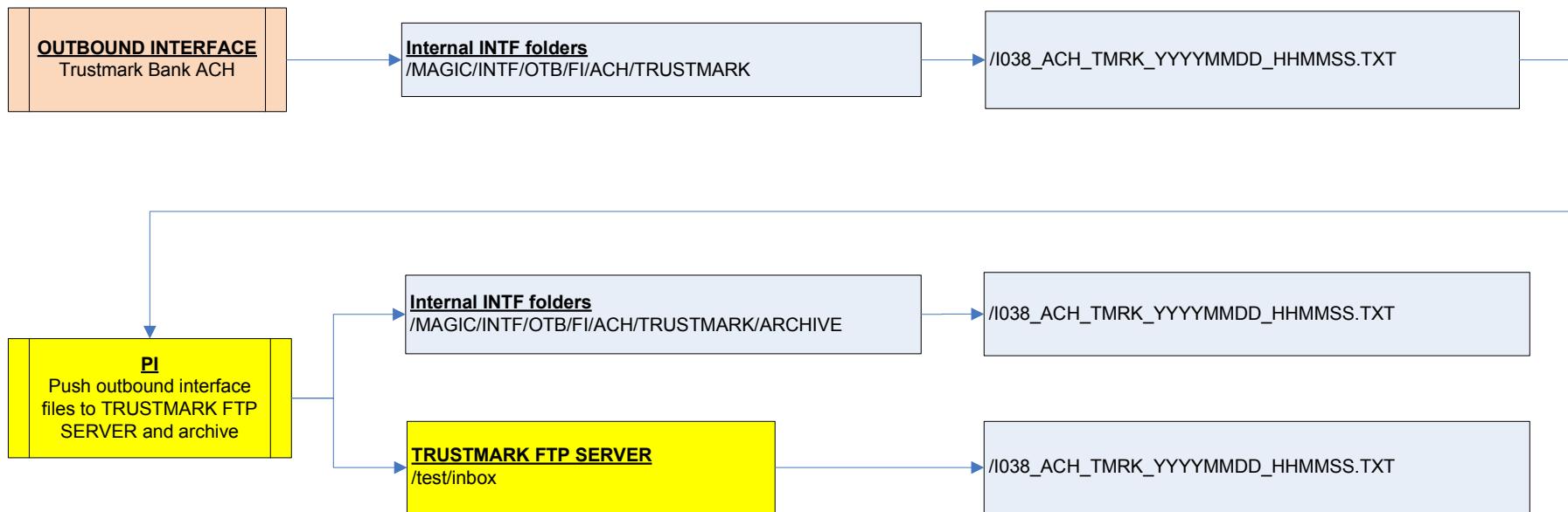
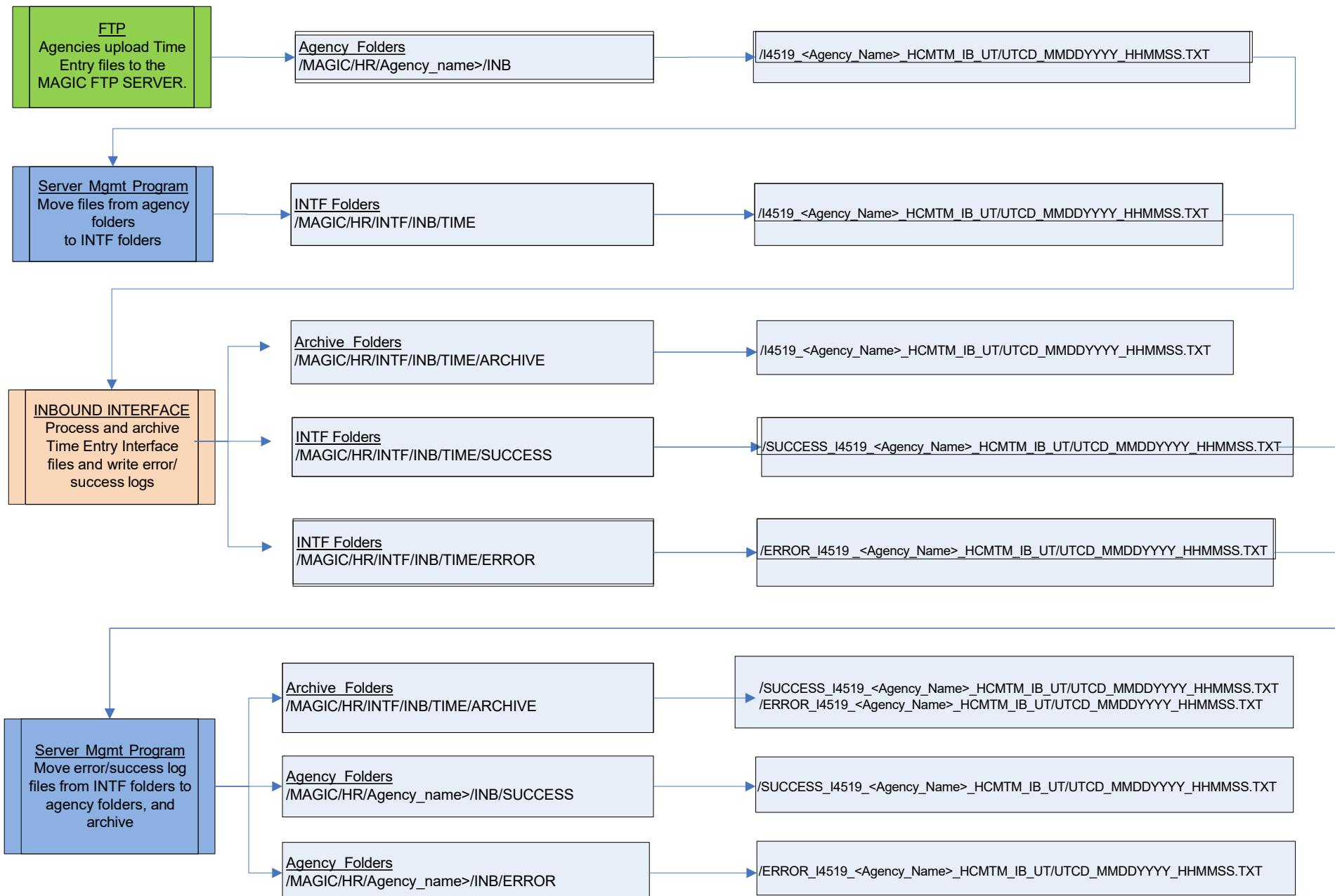
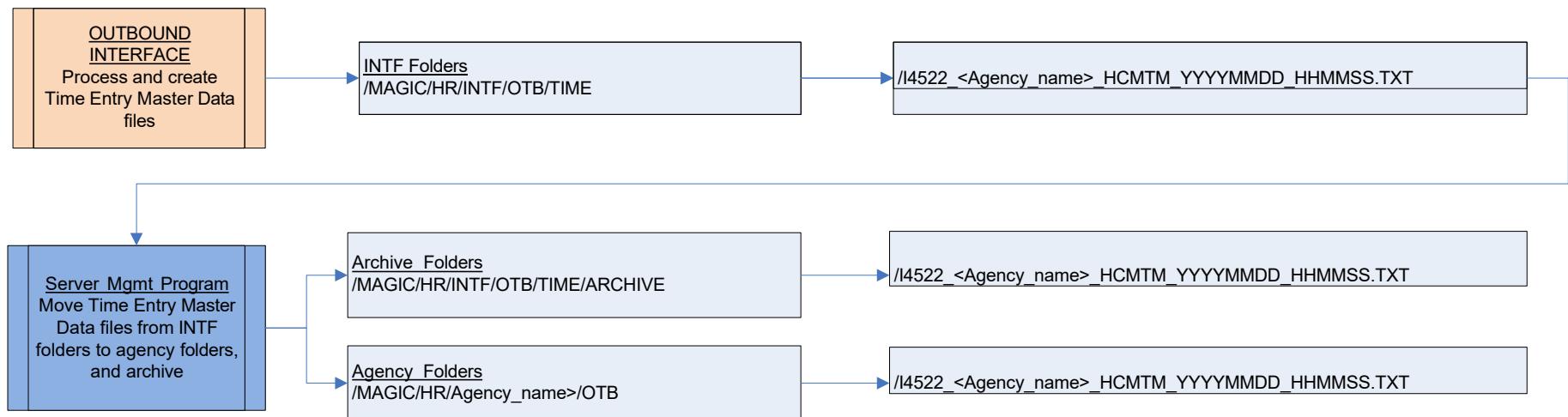
FTP SERVER DIRECTORY STRUCTURE – TRUSTMARK ACH OUTBOUND

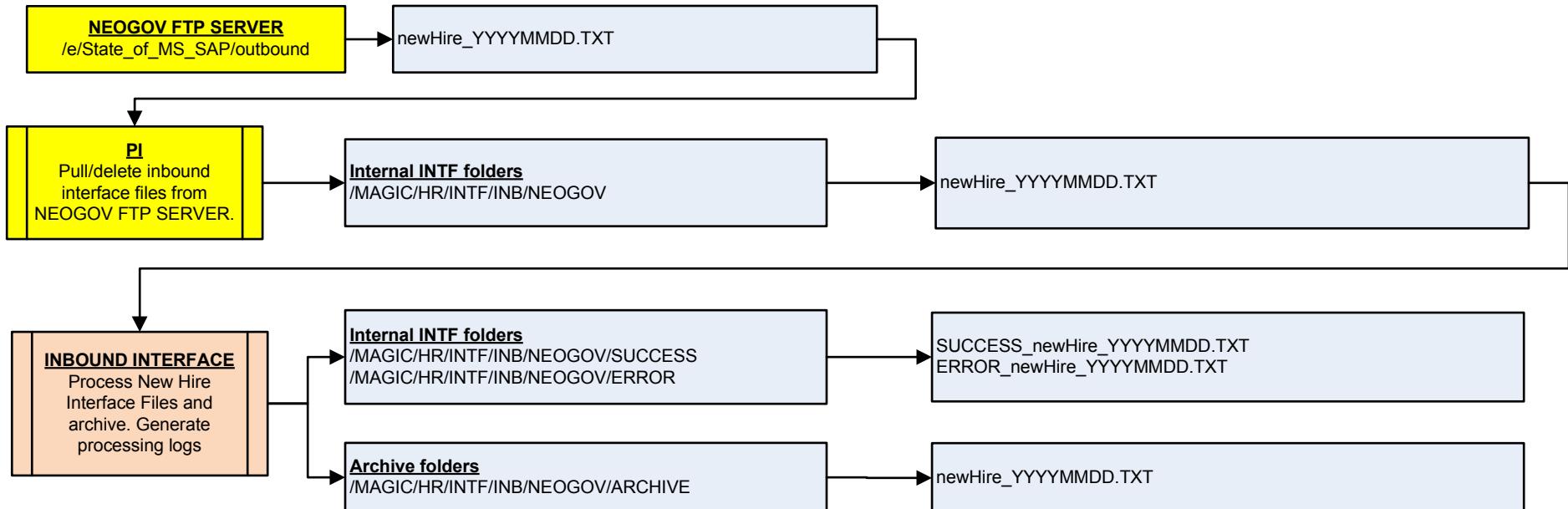
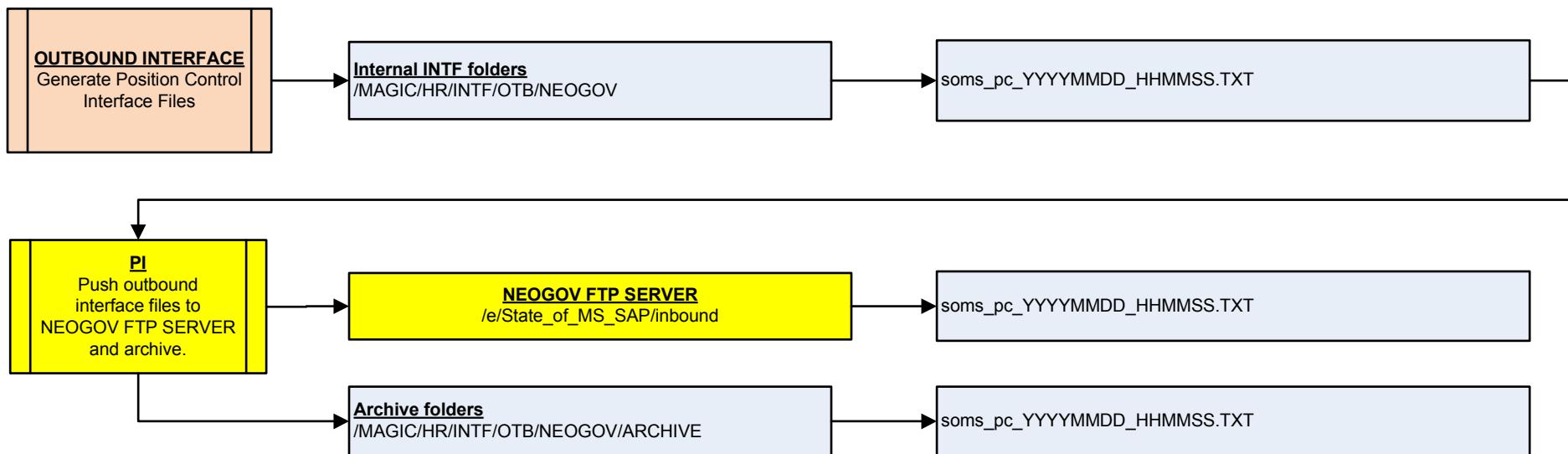
Exhibit R

FTP SERVER DIRECTORY STRUCTURE – TIME ENTRY INBOUND INTERFACE

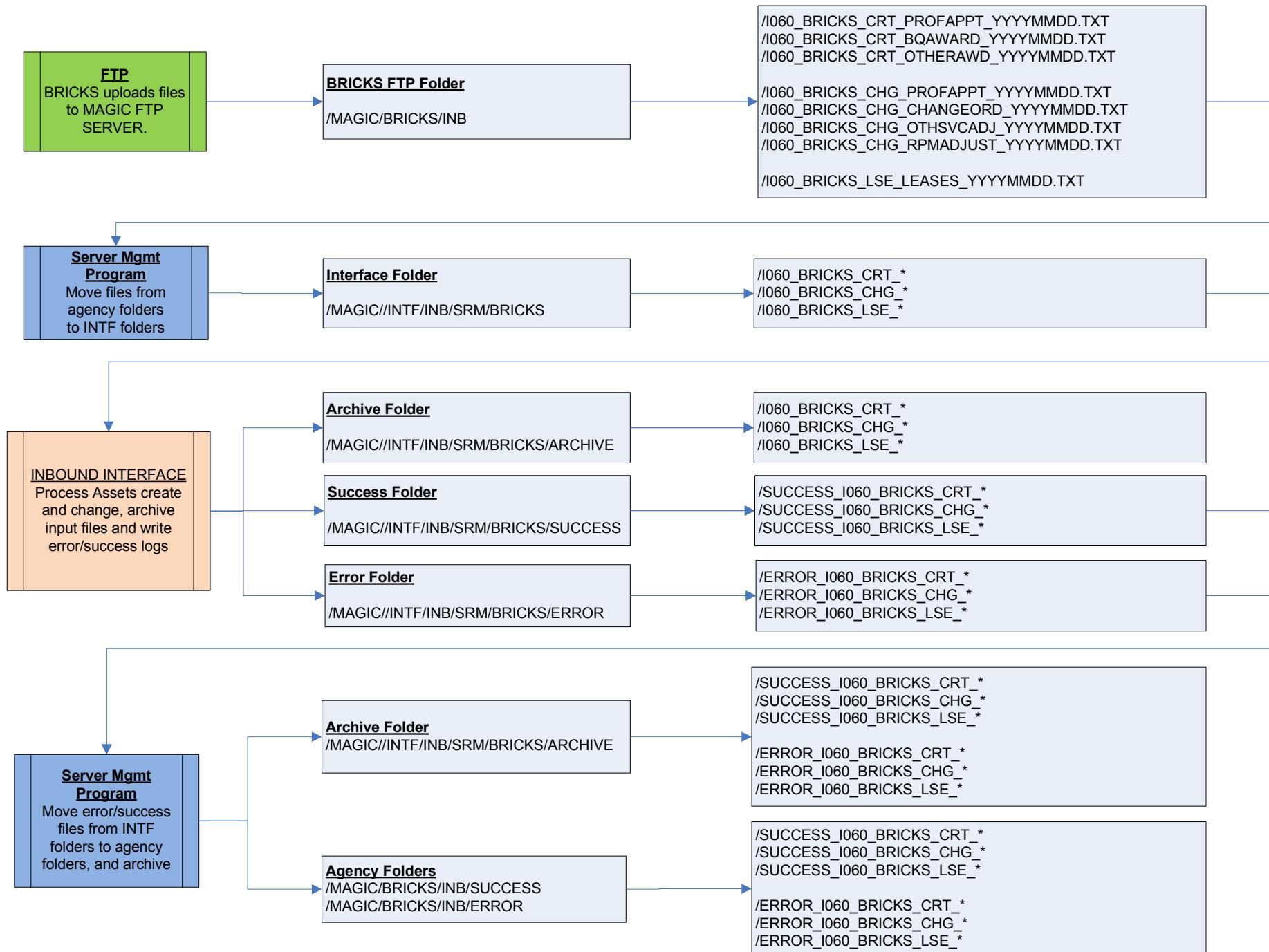


FTP SERVER DIRECTORY STRUCTURE - TIME ENTRY - MASTER DATA OUTBOUND INTERFACE



FTP SERVER DIRECTORY STRUCTURE – NEOGOV INBOUNDFTP SERVER DIRECTORY STRUCTURE – NEOGOV OUTBOUND

FTP SERVER DIRECTORY STRUCTURE – BRICKS



FTP SERVER DIRECTORY STRUCTURE – ATTACHMENTS