

DETAILED LEVEL DESIGN FOR BATCH JOBS

FILE ARCHIVE / BACKUP

07/04/2011	Version	1.1

Change History:

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06/24/2011	1.0	Initial Draft	David Shapiro
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Detailed Level Design – File Archive/Backup

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1. Overview

This document covers the high level design for the introduction of new File Archival process incorporated into the system. This Script will be compress the existing EDI Files in the Multiple Backup Folders and transfer it to another server. The files that had been transferred will be purged from the existing server.

1.1. References

Serial No	Document	Version
1.	EDI File Archive Backup Business_Requirement_Document_V3.0	3.0
2.		
3.		



2. Use Case Details

2.1 Backup/Archive

EDI MonthlyScheduler

Monthly Scheduler Script

EDI AdhocScheduler

Conditional Scheduler Script

- Checks the disk usage.
- Sends an alert mail to the user if the disk usage reaches Priority 2 and Priority 1 Threshold limits.
- Call the EDI_FileArchival Script
- For Priority 3 Threshold limits call the EDI_FileArchival Script.
- If the File Archival script works fine, display a message as "File Archival and FTP Successful", else send alert mails to the user, as the frequency set for Priority 1 and Priority 2 issue.

Backup File Archival.

File Name starting with similar EDI transactions with Specific Date range would be archived together into a single file

In case of any archive failure, retry for the limit which is configured. Archive fails after the retry limit, send an email.

Log the archive status (success/failure) into table.

Archived files should be moved to an EDIArchive folder.

Archive file should be FTP-end to a destination.

In case of FTP failure, retry for the limit which is configured. FTP fails after the retry limit; send an email for manual download.

Log the FTP Status (Success/Failure) to table.

Monthly Scheduler Flag to be set as 'No-run' when Backup Archival script runs



3. Detailed Job Design

3.1 Job Properties

3.1.1.1. EDI_FileArchival

Job Description	The job will be called for File Archival of the EDI Backup Files in multiple	
	folders	
Job Type	FTP	
Job Parameterized	Parameter to be fed from Database	
Job Frequency	Monthly, Daily	
Job Predecessors	EDI_MonthlyScheduler & EDI_AdhocScheduler	
Job Successors	N/A	
Job Shared/Common	N/A	
Job Process ID	Not yet assigned	

3.1.1.2. EDI_MonthlyScheduler

Job Description	The job will call the EDI_FileArchival once in a month			
Job Type	Monthly Scheduler			
Job Parameterized	Parameter to be fed from Database			
Job Frequency	Monthly			
Job Predecessors	N/A			
Job Successors	EDI_FileArchival			
Job	N/A			
Shared/Common				
Job Process ID	Not yet assigned			

3.1.1.3. EDI_Adhoc Disk Space Scheduler

Job Description	The job will check the Disk Usage after every specified interval.			
Job Type	Adhoc Scheduler			
Job Parameterized	Parameter to be fed from Database			
Job Frequency	Daily			
Job Predecessors	N/A			
Job Successors	EDI_FileArchival			
Job	N/A			
Shared/Common				
Job Process ID	Not yet assigned			



3.2 Job Parameters

Parameter Name	Parameter Scope (Project/Job)	Parameter Data Type	Parameter Default Value	Parameter Description
Job Id	Job		10001	Job Id for this particular job
DB Server Name	Job		AMP5	Database server name from property file
DB Server Name	Job		AMP9	Database server name from property file
DB Schema Name for AMP5 Server	Job		CDPOLIB	Database server name from property file
DB Schema Name for AMP9 Server	Job		CSPDLIB.	Database server name from property file
DB Connection Url for AMP5	Job		Given URL	Database server name from property file
DB Connection Url for AMP5	Job		Given URL	Database server name from property file
DB User Id for AMP5	Job		ymtest	Database server name from property file
DB Pwd for AMP5	Job		ymtest	Database server name from property file
DB User Id for AMP9	Job		VNDRPORT	Database server name from property file
DB User Id for AMP9	Job		portal12	Database server name from property file
No of Retry Frequency	Job	Number	3	If FTP fails, the no of retry mechanism
Priority No	Job	Number	3	Will determine the no. of priorities





Parameter Name	Parameter Scope (Project/Job)	Parameter Data Type	Parameter Default Value	Parameter Description
Priority 3 Threshold limit	Job	Number	75%	The Priority 3 Threshold limit
Priority 2 Threshold limit	Job	Number	80%	The Priority 2 Threshold limit
Priority 1 Threshold limit	Job	Number	90%	The Priority 1 Threshold limit
Email id of the recipient	Job	Varchar		The Email id of the recipient
FTP Server name	Job	Varchar		The Remote Server name
FTP User Id	Job	Varchar		The Remote Server User Id
FTP Pwd	Job	Varchar		The Remote Server Password
NOMHPI	Job	Number	3	No of mails if FTP fails in case of Priority 1 Issue
FOMHPI	Job	Number	5min	Freq of mails if FTP fails in case of Priority 1 Issue
NOMMPI	Job	Number	2	No of mails if FTP fails in case of Priority 2 Issue
FOMMPI	Job	Number	5min	Freq of mails if FTP fails in case of Priority 2 Issue
Flag	Job	Varchar	Active/No Run	The flag is set as per the flow of FTP job

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3.1.1.3 Detailed Job Design Description

Pre-Requisite for this Job

- 1. Read the DB Server name, credentials, Schema name from the property file.
- 2. Read the source parameters from the database, table (ED500P).
- 3. There is a Root Folder would be created as /usr/local/<<EDIArchive>>
- 4. Backup files under the following folder and all its subfolder would be considered for Archiving and Moving.
- /usr/local/WagVP/trans/appl/fromWag
- /usr/local/WagVP/trans/appl/toWag

Archiving Procedure

- Files starting with similar EDI transactions (810,856 etc) will be archived together into a single archive file
- 2. File Structure of the Archive File is fromWag_VP_<folder1>_.....<folder n>_<First Word of the Filename>_<DateRangFrom>_<DateRangeTo>
- 3. Find the below examples:
- File Names(echoback.d052010.t070126.rdy) Starting with echoback will be archived together into a single file as fromWag VP bkup echoback 0601 0615.tar.gz
- FileName starting with VP.0180 (VP.O180.D100202.T175400.RDY) will be archived together into a single file as fromWag_VP_bkup_VP.O180_0601_0615.tar.gz
- FileNames starting with VP.0850 (VP.0850.D100202.T175400.RDY) will be archived together into a single file as fromWag_VP_bkup_VP.0850_ 0615_0630.tar.gz
- FileNames starting with VP.0861 (VP.0861.D100202.T175400.RDY) will be archived together into a single file as fromWag_VP_bkup_VP.0861_0615_0630.tar.gz
- FileNames starting with VP.861 (VP.O850.D100202.T175400.RDY) will be archived together into a single file as fromWag_VP_bkup_VP.0850_0615_0630.tar.gz
- File Names Starting with POASNInvoice (POASNInvoice_07-01-2009_0843.xml) will be archived together as a single file as fromWag_WM_bkup_POASNInvoice_0615_0630.tar.gz
- File NameStarting with 1856 (1856.VMAP.D090604.T160000.V033815.ASN00489512466CL.0000000000000000)
 will be archived together as a single archive file as toWag bkup errorfiles 1856 0615 0630.tar.gz
- File Name starting with FilePolling would be archived together into a single archive file as toWag_bkup_filepolling_error_FilePolling_0615_0630.tar.gz
- 4. In case of any failures while archiving, there should be retry mechanism and if retry fails, an email to be triggered to re-run the process.



❖ File Backup/Move

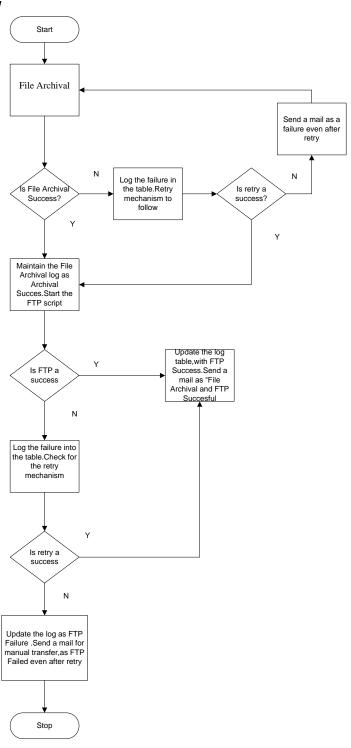
- 1. FTP the files in the archive folder (for ex: **EDIArchive**) to the remote server.
- 2. FTP Status whether it is a failure or success should be logged in the database.
- 3. In case the moving fails, there are retry mechanism. No of retry frequency is store in the database.
- 4. In case the moving fails even after retry, an email to be sent to the user for manual transfer.

Disk Space Monitoring

- 1. Another script is scheduled to check the disk usage in a defined interval, daily.
- 2. If the disk usage reaches the Priority 3 threshold limit call the main script, set the flag as 'no-run'. The 'no-run' flag stops the execution of the disk usage calculation script, while the file archival script is in progress. As soon as the File Archival script gets completed set the flag as 'active' and feed the control to the disk usage calculation script.
- 3. If the disk usage reaches the Priority 2 Threshold Limit, send an alert mail; call the main script, set the flag as 'no-run'. The 'no-run' flag stops the execution of the disk usage calculation script, while the file archival script is in progress. As soon as the File Archival script gets completed set the flag as 'active' and feed the control to the disk usage calculation script.
- 4. If the disk usage reaches the Priority 1 Threshold Limit, send an alert mail call the main script, set the flag as 'no-run'. The 'no-run' flag stops the execution of the disk calculation script, while the file archival script is in progress. As soon as the File Archival script gets completed set the flag as 'active' and feed the control to the disk usage calculation script.
- 5. Once the FTP gets successfully completed it shows a message "File archival and FTP successful".
- 6. If FTP fails we are sending mail depending on the number and frequency as set for the Priority 1 and Priority 2 issues. As soon as the FTP is success the mailing stops with a success mail as "FTP successful".



> FILE ARCHIVE FLOW





DISK USAGE CHECKING FLOW Start Disk Usage Check Script File If Disk Usage reaches Archival.Set Send an alert mail Priority 1 Flag as "No-run Ν Log the failure in the table.Check Is File Archival for retry mechanism Success? Υ Υ If Disk Usage reaches Priority 2 Maintain the log as "Archival Is retry a Success".Start the succes? FTP script Ν Set the flag as "Active". Send a mail as Archival Failure, even after If Disk Usage reaches Priority 3 Is FTP a retry success Ν Maintain the log as FTP Sucess.Send mail as File Log the failure in Archival and FTP the table.Retry mechanism Succes.Set the Flag as 'Active" 1s retry a Stop success Update the log as "FTP Failure'.Send N a mail for manual transfer.Set the flag as "Active"



❖ Reject/Error Handling

Reject/Error	File Description	Handling Instructions
FTP Failure	Automatic FTP fails	Retry mechanism, if retry fails, send mail for manual
		transfer
Archival Failure	File Archival fails	Retry mechanism, if retry fails, send mail, stating to re run the job
DB Server	Connectivity Issue with the Database Server	, , , ,

Additional Scripts

Script Name	:	Type of Script	Description
Monthly		Unix Shell Script	Will call the main script monthly once
Scheduler			
Script			
Disk Sp	ace	Unix Shell Script	Will check the disk usage and call the main script
usage Scrip			depending on the threshold limit.



4. Database Design

> Table_Name = ED500P EDI Files Backup Source Parameters SQL Table

Column Name	Data type	Constraint (if any)
Parameter Key	VarChar[60]	Not Null
Parameter Value	VarChar[60]	Not Null

Parameter Key can have the following parameters and also any other parameters if required.

raiameter key can have the follow
Job Id
No of Retry Frequency
Priority 3 Threshold limit
Priority 2 Threshold limit
Priority 1 Threshold limit
Email id of the recipient
FTP Server name
FTP User Id
FTP Password
NOMHPI
FOMHPI
NOMMPI
FOMMPI
Flag
Archive Folder Name
·

> Table_Name = ED501P EDI Files Archival & Transfer Log SQL Table

Column Name	Specification	Constraint(If Any)	Primary Key
Job Id	Number	Unique Key	
Folder Name	Varchar[50]	Not null	
Archive File Name	Varchar[50]	Not null	
Files Date Range Start	Date	Not Null	
Files Date Range End	Date	Not null	
File Archival Status	Varchar[50]	Not null	File Name with path
File Archival Timestamp	Timestamp	Not null	



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FTP Status	Varchar[50]	
FTP TimeStamp	Timestamp	

• The DB server names, credentials and schema details should be in property files

5. Clarifications

6. Open Issues