

Automation of Stock Payroll Functionality in Workday Payroll

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Abstract:

This article focusses on how we can architect the automation of stock information to Workday payroll by integrating data from Fidelity Vendor using Workday Studio, Workday Reporting and Workday payroll. This research outlines the bi-directional data integration between Workday and Fidelity with Employee Demographic and Tax Information and processes the payroll taxes for Stock Purchases. This article proves the success of this design with a successful case study by implementing this design in the Retail industry with over forty thousand employees across all states in USA, Canada and concludes with the implementation strategy.

Keywords: ERP, Workday Payroll, ESPP, US Payroll, Integration, Studio, Reports, On Demand, Federal Tax Withholding, State Tax Withholding, Local Taxes.

INTRODUCTION

Organizations offer various benefits like Medical, Dental, 401k, Bonus, Transportation allowance, Phone Allowance etc., to their employees as part of their compensation to get benefits and increase employee satisfaction which retain talents. One of the most valuable benefits offered by the companies is Employee Stock Purchase plan which helps Employees in purchasing the company shares at a discounted price. Organizations set eligibility rules, offering periods for the employees to avail themselves of these benefits. Organizations will set relationships with various vendors to track and maintain share related information and one of the major vendors who is expertise in this area in USA is Fidelity. It is also the responsibility of the Organization's payroll business to process all the applicable taxes as per the regulations for the employees who are vesting the shares and report the taxes to the appropriate Federal, State and Local agencies. In this solution model, we are going to see how Stock Information from Fidelity is getting consumed by Workday Payroll and process the taxes seamlessly using Workday On Demand Functionality with the help of Workday Studio and Workday Reporting.

1. What is Workday Payroll?

Workday Payroll is a Cloud-Based payroll management solution which is designed to automate and streamline the payroll business process for organizations irrespective of sizes and categories of employees. It helps payroll businesses to effectively manage their employees' compensation, earnings and deductions configuration rules, tax deductions, tax compliance, payroll reporting, and payroll analytics in a single software solution platform. Workday Payroll offers real-time calculations, managing FLSA rules, delivered connectors with major vendors like ADP, Fidelity, seamless integrations between HR and Finance Systems. Workday Payroll also comes in with best user self-service experience interface, maintaining employee tax elections, direct deposit information and pre built audit controls which make payroll administrator to administer the payroll activities effectively.

2. What is Workday On-Demand Payroll?

On Demand Replacement (ODR) payments are designed to replace a worker's regular on-cycle payment for specific periods or subperiods. When an ODR payment is created, the worker is excluded from the regular on-cycle run for that period.

They are typically used for:

- Termination payments in the current or next pay period.
- Payments for workers without regular on-cycle results due to unprocessed timesheets or errors in previous results.

The limitations of ODR are that the worker can only have **one ODR payment** for a given period, pay group, or company at a time. If there are subperiods, the same limitation applies.

On Demand Additional Payments are designed to provide workers with extra payments in addition to their regular on-cycle earnings or ODR for a specific period. Workers can receive one or more on-demand additional payments within the same pay period. The On Demand Additional payments can be processed for the current period or even for the previously completed payroll periods. We can configure ODA to process only certain earnings or deductions to be processed whereas the On-Cycle and ODR are set to process mandatory components. Also, earnings and deductions processed in ODA are not linked to ODR or On-Cycle, hence you cannot restrict components paid in ODA not to be processed in ODR or On-Cycle even if the ODA is the same period.

3. What is Workday Reporting?

Workday reporting is the process which is used to build reports based on the functional needs. Report Writer is a tool designed to help the users to create their custom reports for their application. Workday reporting allows users to **schedule** and **manage** reports effectively. Some of the key features like Scheduling Reports, Display options and Organizing Reports help the business function to schedule and manage the report with their desired output format. The report can be attached with tags which can help in organizing reports. Workday reports can also be used to get/send data from/to other teams and vendors and can be part of outbound and inbound integrations



Figure 1: Workday Reporting Overview

4. Workday Studio

Workday Studio is a powerful development tool designed for building sophisticated integrations to and from Workday. It is aimed at skilled developers and is offered as a set of plug-ins for the Eclipse Integrated Development Environment (IDE).

Key Features

- **Graphical Development Environment:** Users can drag and drop reusable components, simplifying the integration building process.
- **Integration Management:** Integrations built with Studio can be configured, launched, scheduled, monitored, and audited like any other Workday integration.
- **Assembly Creation:** Users create integration flows, known as assemblies, by connecting graphical elements in the Assembly Editor.
- **Cloud Hosting:** Integrations are deployed and run on Workday's integration servers, eliminating the need for on-premises middleware.

Target Users

Workday Studio is intended for users who:

- Have a development skill set.
- Are familiar with integration programming concepts.
- Are comfortable using an IDE.

Requirements for Use

To effectively use Workday Studio, teams should consider:

- Technical experience with XML, XSLT, SOAP, and WSDL.
- The need for scalable processing of large data sets.
- Requirements for complex logic, error handling, and source code control.

Employee Stock Purchase Plan

An Employee Stock Purchase Plan (ESPP) is company run program which allows employees to purchase company shares at a discounted rate which is an attractive benefit provided by the companies to their employees. Companies will be providing features for their employees based on the eligibility to enroll in this benefit and contribute some percentage of their pay towards this benefit. Through payroll deductions, employees can accumulate funds over a specific period typically known as offering period and the actual purchase date. Upon the purchase date, these accumulated funds are used to buy company stock at a discounted price.

ESPPs can be categorized as qualified or non-qualified, with qualified plans offering tax advantages and requiring shareholder approval. Non-qualified plans are not subject to as many restrictions as a qualified plan. However, non-qualified plans do not have the tax advantages of after-tax deductions that qualified plans do. Selling ESPP stock immediately after purchase is allowed but holding it for more than a year can result in lower capital gains tax rates on long-term profits.

Live Case Study

One of the Top Retail Company in USA having more than forty thousand employees across fifty states of USA and having employees in Canada is providing the ESPP benefit to their employees. This company outsourced the maintenance of Stock with Vendor Fidelity. To have a seamless integration between Fidelity, we need to have both inbound and outbound data integrations to share data between the company and Fidelity vice versa.

Process Flow Diagram

Process Flow – Stock Maintenance

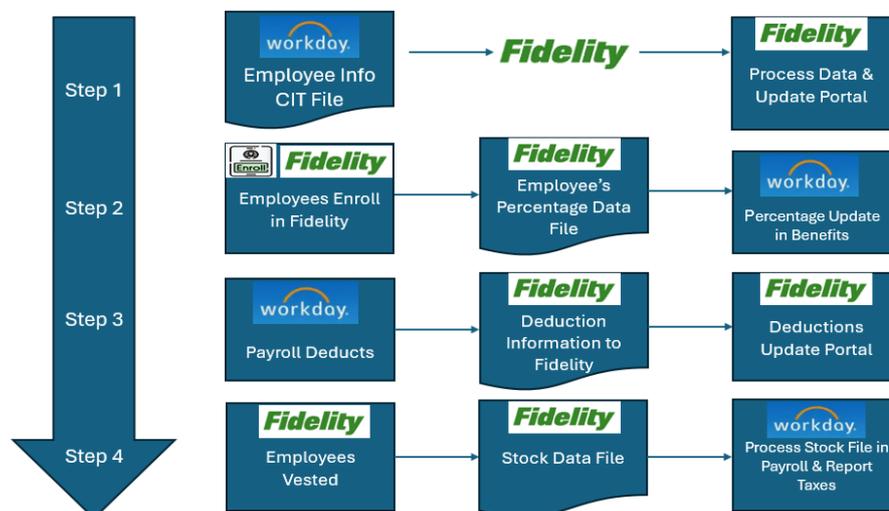


Figure 2: Process Flow Diagram

Stock Sold - Report Taxes

It is the responsibility of the organization and regulatory requirements to process and report the taxes for the ESPP stocks sold by their employees. Depending on the Employee’s work location and resident address, the required taxes like Federal, State, Social Security and other local taxes should be reported.

Federal withholding refers to the amount of an employee's earnings that is withheld by an employer to pay federal income taxes on behalf of the employee. This withholding is calculated based on various factors, including the employee's tax status, income level, and any applicable deductions or credits.

OASDI stands for **Old-Age, Survivors, and Disability Insurance**. It is a federal program in the United States that provides benefits to retirees, disabled individuals, and survivors of deceased workers. The OASDI tax is a payroll tax that funds this program.

State tax refers to the taxes imposed by individual states on income, sales, property, and other financial transactions. Here are key points regarding state tax:

- **Income Tax:** Many states levy a tax on personal income, which can vary based on income levels and filing status (e.g., single, married).
- **Withholding Tax:** Employers are required to withhold state income tax from employees' wages, which can differ based on the employee's residence and work location.

Local taxes are imposed by municipalities and local governments based on the worker's home and work locations. Many states have their own local taxes based defined based on the attributes of location like county etc.

Other Taxes refer to specific payroll taxes that are not categorized under standard federal or state taxes. These taxes can vary by state and locality and may include various assessments or contributions mandated by local governments.

Integration Architecture

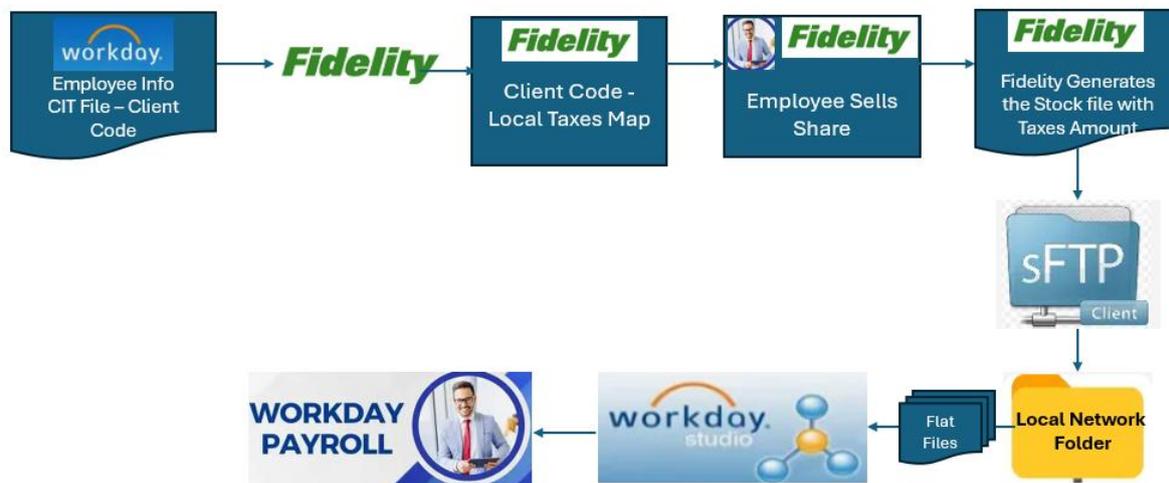


Figure 3: Integration Architecture Model

Architecture Explanation

This architecture model is based on processing the Stock Information flat file from Fidelity and loading the information of Net Units, Federal Tax, State Tax, Local Taxes inside Workday as Off-Cycle Inputs in the appropriate earnings and deduction with appropriate tags for processing.

Step 1: Employee Information from Workday is sent to Fidelity and attach Client Code attributes based on the Employee Work location attributes

Step 2: Payroll business will configure the appropriate Federal, State and Local Taxes for each client code

Step 3: When an employee sells the share, then fidelity will be sending the stock and taxes information for that employee based on the client code mapping to the client SFTP Server

Step 4: File transfer rules are configured in the sftp to transfer the file from SFTP to Payroll User’s shared folder

Step 5: Payroll business will process the file by attaching the file to a Workday Integration. Integration will process the file data and create the payroll off cycle inputs using the Workday Webservice

Step 6: Once the integration is completed, payroll business will audit for the inputs loaded

Step 7: Based on the audit success, payroll business will process the Workday off cycle payroll calculation to calculate the payroll

Step 8: Once the payroll is calculated, payroll business will audit the values for inputs against calculated

Step 8: On Completion of Audit, the payroll will be completed and settled, and the taxes will be reported to the appropriate agencies

Challenges

Workday has its own internal codes for each state and taxes and has different deduction codes for taxes. Based on the deduction codes, there are specific tags to be assigned. Also, the client is having employees working across all states in US which results in more state and local taxes

Configuration Option

The integration is modelled using the configuration method instead of hardcoding for states and locals to avoid code changes and seamless processing. We use the “**Integration Maps**” feature of Workday Integration to map all the codes between the input file and Workday and used Xslt transformation to transform the values based on mappings before the webservice call.

Integration Attributes					
Integration Maps					
Launch Parameters					
Business Process Definitions					
Security					
Integration Maps 138 Items					
Map Provider	Map	Description	Default Value	Map Values	
				Internal Value	External Value
INT Fidelity Stock Tx Inbound AttribSvc	Earning Codes			LTHPU	IMP008
				LTHRU	IMP008
				LTHS01	STOCK
	Deduction Codes			LTHPU	RSUREV
				LTHRU	RSUREV
				LTHS01	NQREV

Figure 4: Mapping Screenshot – 1

State Authority Codes				
			AK	02
			AL	01
			AR	05
			AZ	04

Figure 5: Mapping Screenshot – 2

Local/Other Authority Codes				
			AK	ST-W_SWW-02
			AL	ST-W_SWW-01
			AR	ST-W_SWW-05
			AZ	ST-W_SWW-04
			CA	ST-W_SWW-06
			CAD-CPP	W-W_CCPP-CAN

Figure 6: Mapping Screenshot – 3

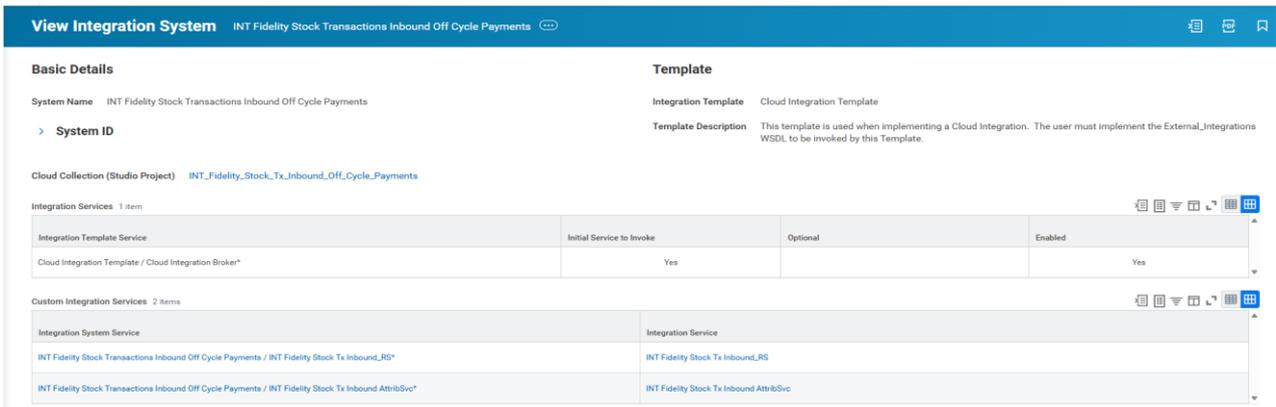
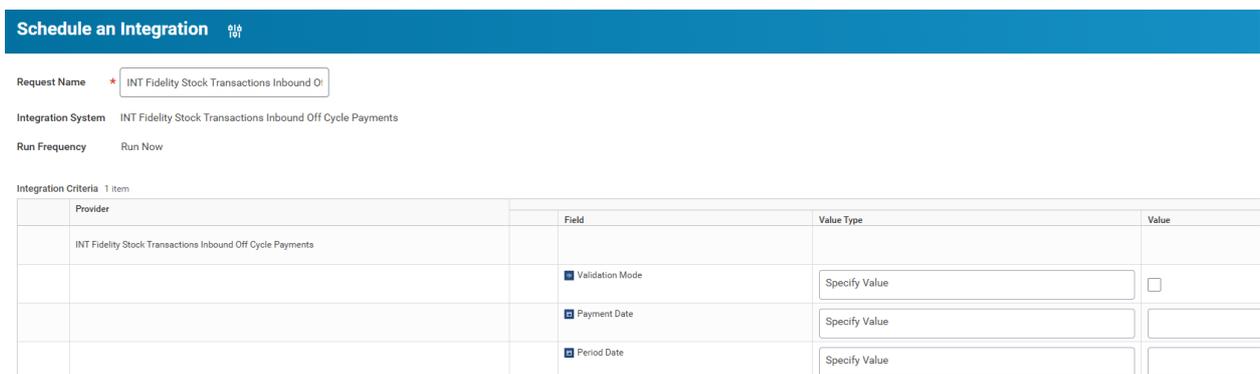
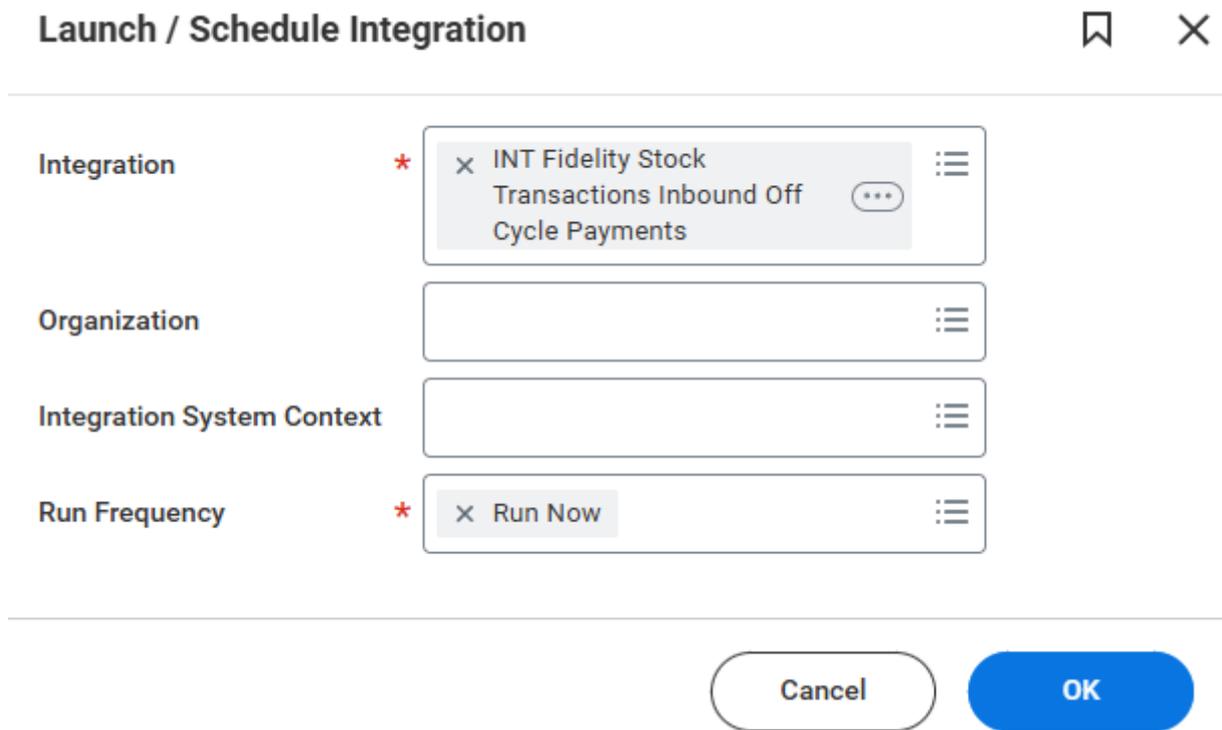


Figure 6: Integration Screenshot – 1

Integration Parameters

This integration is designed in such a way that the payroll business can attach the file and process the integration on their own convenient time. Also, the integration has parameters to validate the file process before the actual load and having check date and period date as input so that the payroll business can determine the period and check date for the payroll processing



View Event Integration: INT Fidelity Stock Transactions Inbound Off Cycle Payments - 01/06/2026, 12:35:08.723 PM

Overall Process Integration: INT Fidelity Stock Transactions Inbound Off Cycle Payments - 01/06/2026, 12:35:08.723 PM

Overall Status In Progress

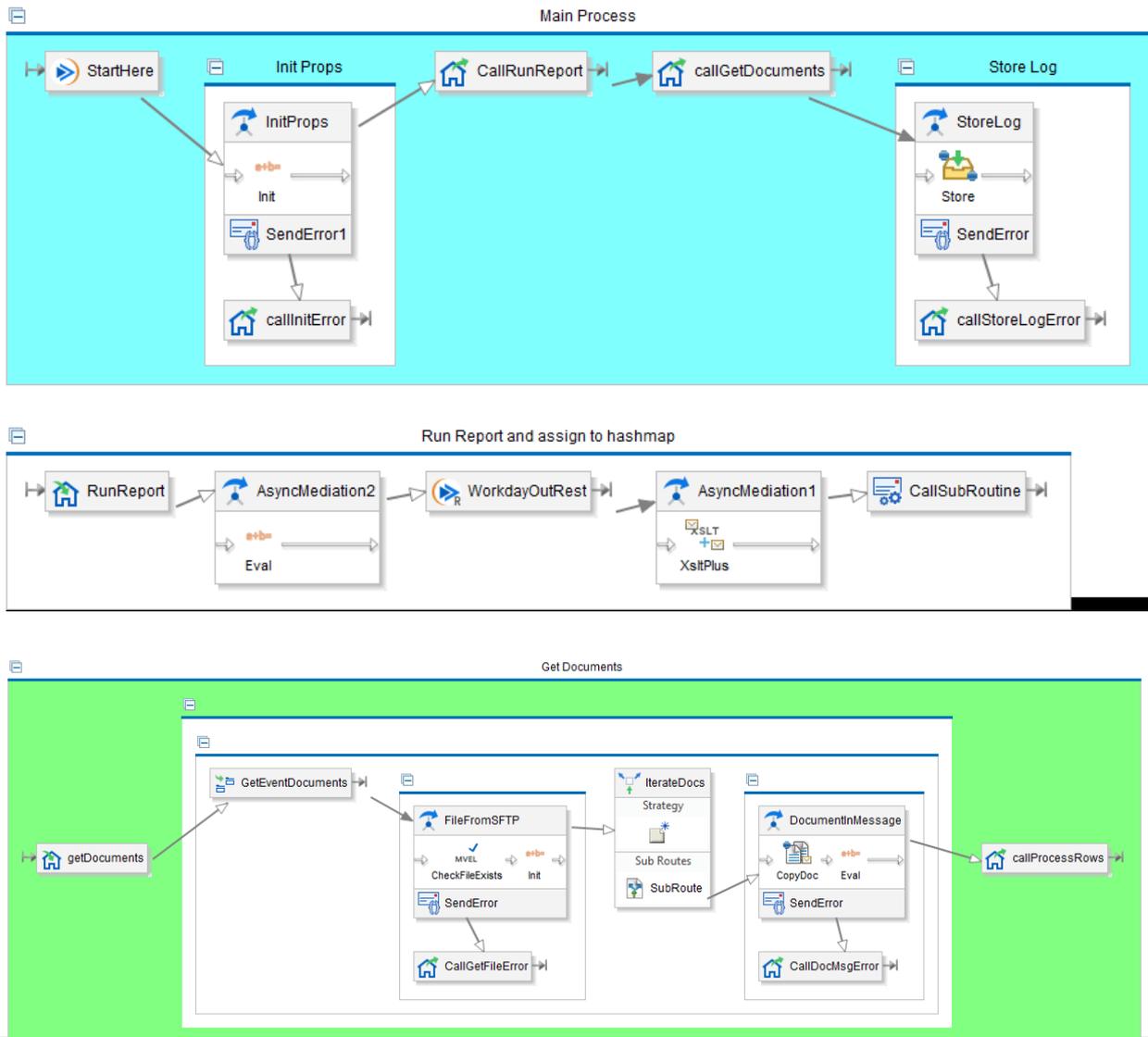
My Actions Details Process

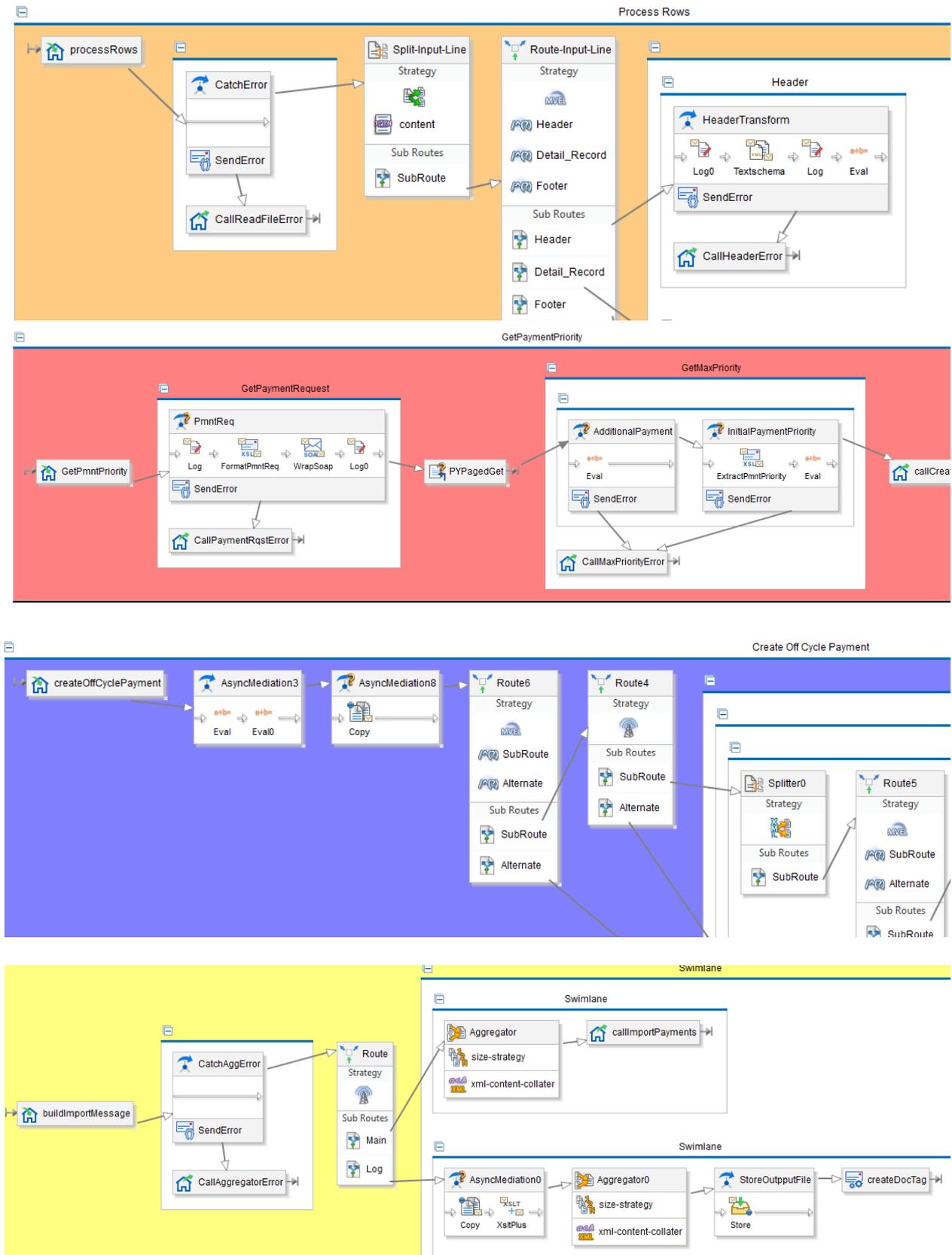
My Actions 1 item

Awaiting Me	Due Date	Business Process
<input type="button" value="Attach Document"/>		Integration: INT Fidelity Stock Transactions Inbound Off Cycle Payments - 01/06/2026, 12:35:08.723 PM

Figure 6: Integration Parameters

Workday Studio Integration Design





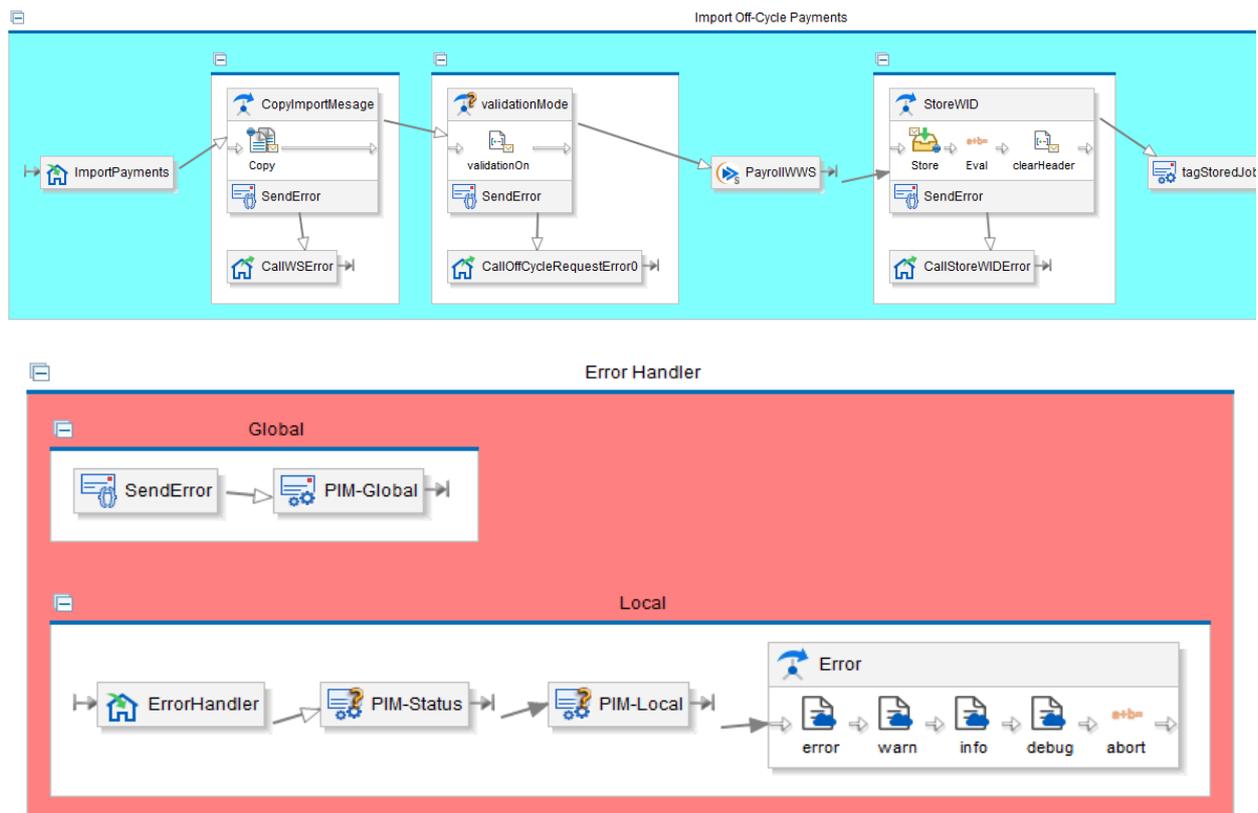


Figure 7: Workday Studio Design

Implementation Methodology

The Implementation Methodology requires establishing connectivity with the vendor who is going to maintain your ESPP information. In this design the ESPP is maintained by vendor Fidelity. Create specific earnings to record the Net income and the reversal to offset the income to process the taxes without generating any positive net pay. Also, have audit reports built to validate the load after the integration process is completed and have an audit report to validate the input vs the actual payroll calculation as the taxes should match with what is coming in the file. The integration will tag all the entries loaded by the integration using a unique batch id for each run so that it can referred or process calculation only for the batch id. The unique batch id concept also helps in deleting the entries specific to a particular run in case of any major issues.

Sample Audit Report after the Integration Load is completed

Batch ID	Priority	Calculation Status	Reason	Include Retro Differences	Pay Component	Start Date	End Date	Worktags	Value
INT FIDELITY STOCKRESTRICTED STOCK FEEDBACK 20260103141149	6	Requires Re-calculation	Stock Transaction	No	Canada Pension Plan (CPP) [CAN]	12/21/2025	12/21/2025	Federal: Federal	15.88
					Federal Income Tax (FIT) [CAN]	12/21/2025	12/21/2025	Federal: Federal	54.71
					Province Income Tax (PIT) [CAN]	12/21/2025	12/21/2025	Province: Ontario	24.42
					Restricted Stock Unit [CAN USA]	12/21/2025	12/21/2025		266.9
					RSU Reversal	12/21/2025	12/21/2025		171.89
INT FIDELITY STOCKRESTRICTED STOCK FEEDBACK 20260103141149	1	Requires Re-calculation	Stock Transaction	No	Canada Pension Plan (CPP) [CAN]	12/21/2025	12/21/2025	Federal: Federal	17.47
					Federal Income Tax (FIT) [CAN]	12/21/2025	12/21/2025	Federal: Federal	60.19
					Province Income Tax (PIT) [CAN]	12/21/2025	12/21/2025	Province: Ontario	26.86

Figure 8: Audit Report Sample – After Load

Sample Audit Report after Payroll Calculation

Fidelity_StockLoad_Audit							
Periods		12/21/2025 - 12/27/2025 (CAN Weekly)		Payment Date or Reversal Date 01/09/2026			
Pay Run Groups and/or Pay Group Details		Canada Weekly Payroll: Regular (Weekly)					
Period	Pay Group Detail	Worker	Employee ID	Payment Date or Reversal Date	Input Amount	Result Amount	Difference
Total					0.00	0.00	0.00

Figure 9: Audit Report Sample – After Payroll Calculation

Case Study Outcome:

This model has been successfully implemented to process more than Forty thousand employees across all states in USA and Canada. This automation design has so far processed more than ten thousand employees stock data for all states with all federal, state, local and other taxes with 100% accuracy. The architecture model for enabling the Integration maps model enabled the new addition or exclusion of taxes in less than 5 minutes without any code change and without the intervention of IT Team. The Audit reports designed to support the model is auditing 100% variances of the process and this helps in payroll business to validate the data easily and complete the payroll in less time but with 100% accuracy.

CONCLUSION

Organizations provide various benefits to their employees to increase the higher employee satisfaction and retain talent. Employee Stock Purchase Plan (ESPP) is one of critical benefits provided by the companies to their employees. Most of the companies outsource the maintenance of the Stock Programs with an outside vendor but the reporting of taxes when the employees sell the shares remains with the companies. Companies who implemented Workday Payroll can integrate the Vendor file into the payroll and process the taxes without impacting Gross or Net Pay using the Workday On Demand Payroll functionality. To process this On Demand Functionality, the data from the file needs to load into Workday and it requires integration to process the file data. This integration building is very complex as it needs to handle all the regulatory Federal, State, Local and other taxes based on the employee work and home address information. This research article not only researched various taxes but also built the model successfully using parameters and Webservices. Apart from the integration process, this model provides Audit functionality for delivering audit reports to audit the after-load entries and after payroll calculation results. This model is successfully implemented in a Live US Retail industry handling both USA and Canada employees in all states across these countries with 100% accuracy and less process time. The automation not only enables payroll to process and report taxes but also makes sure the company is regulatory compliance.

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