Change management in workflows

TCS Case Study

Conceptualized by: Mayur Deodhar
Designed by: Niralee Shah
Developed by: Amitkumar Makwana

TATA CONSULTANCY SERVICES

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About the Author

The author of the document, Ms. Niralee Shah has been working in SAP since the past 1.5 years and has experience of handling clients working in different industry sectors and has been providing support to various projects and handling various issues in Materials Management module of SAP.

About the Domain

This document mainly focuses on the domain of workflows combined with Materials Management module of SAP. It showcases a typical scenario faced at client level at the time of change in a PO. Workflow is a very helpful feature of SAP which enforces a strict order in the approval process. Materials management module of SAP deals basically procuring and purchasing materials and services required for an organization.

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Context

This document is basically to give an idea about restricting manual intervention for restarting workflows related to Purchase Requisitions (PR) and Purchase Orders (PO) when there are frequent changes in the organizations hierarchy and thus the approvers of documents.

About TCS

The case study depicted in this document is a very typical scenario faced with a client of SAP. If the frequency of cases defined in this document is more, then the solution shown here can be used cross client to save consultant's time and efforts. It is a very thoughtful initiative by TCS to make the approval process of purchasing documents easier and user friendly in case of any change in the role of approvers. The dependency on consultants is reduced to a great extent and the users can themselves initiate the changes whenever there is a change in the approver for a document.

About the Customer

The customer for whom the solution was developed is in the insurance line of business. Their organization structure used to face many changes as the branches were spread all over India. In the event of a change in approver at the time of new joining or switching of employees, the process of change in approvers used to be dependant on the consultants, that is till a consutant attended the document and do the changes, further processing was halted. The customers wanted to automate the process so as to reduce the dependency on any individual as well as mark the changes themselves for faster processing of the documents.

Mainly, this issue was faced as the customer has a huge organizational structure and it keeps on changing frequently. In all the events of changes, the approver at a particular level changes and these changes have to be updated in the table maintained for the same in the SAP system.

Background

The issue started with workflows for Purchase Requisitions (PR) and Purchase Orders (PO) being manually started by the users leading to incorrect approver's whenver there was a change in the organizational hierarchy.

Overview

For all the 'dialog' users in SAP system, a button 'Services for Objects' is available on the SAP screen for PRs and POs from where the workflow details are visible to the user.

For this particular scenario, a Z table was maintained by the users to pick up agents (that is to whom the purchasing document should be forwarded for approval) for workflow levels. Whenever the mapping of the Z table is changed, the workflow would have to be logically deleted from the previous user and restarted again to reflect in the new user's inbox.

Problems / Concerns / Challenges

Problems

Initially, the users were given authorizations to restart the workflows from the front-end, that is from the SAP screen of PR/POs through the services for object button. But many a times, without deleting the old ones, the workflows used to be restarted, leading to one document being reflected in inboxes of multiple users.

Concerns

One option was to limit the manual restart of workflows by restricting authorizations of users. But it was not a feasible option as the older workflows which were pending with the previous approvers used to remain as it is, inspite of the new ones getting reflected in the new user's ID. The older workflows had to be manually deleted from the previous user's inbox who no longer had to process it.

Challenges

The biggest challenge was to find out a mid approach which would allow few selective users to restart the workflows as well as the option of deleting the older ones, serving both purposes.

Analysis

In depth analysis of the issue paved the way for a customized program, which would execute the restarting of workflows from the back-end, while providing a front-end interface to the users to input the document numbers which were to be corrected for following the correct workflow hierarchy.

Options, Recommendations and Best Fit Solution

Options

One option was to give authorizations to specific users to restart the workflows from front-end. But this led to ambiguity of the same document being reflected in more than one user's inbox at a time. To remove the document from a user's inbox who was not supposed to process it, it was required that the older workflow be deleted, which could not be done from the front-end.

A step further, another approach was taken to restart the workflows from the back-end and logically deleting the incorrect ones from the back-end after analysis by the functional and ABAP teams. But this led to users every time communicating to restart the workflows and mailing the details. This was a lot time consuming and caused unnecessary delay in the process of approving the purchasing documents.

Recommendations

It was recommended to have a mid way solution where the users could themselves restart the workflow and some way through which the older workflows could be logically deleted, that is the action items that were not to be attended by the previous users, without the dependency on any consultant. A strict check was also recommended to have a control over the whole process to avoid documents getting reflected in more than one user's inbox at a time.

Best Fit Solution

A customized program seemed the best-fit solution for the above concerns, which could be configured according to the user requirements, minimizing the dependency on consultants as well as having the authority to restart the workflows manually by some set of specific users, for example, Single Point of Contact (SPOC) after every update done on Z table to reflect the changes in the purchasing documents accordingly.

A program executing the above action in the background was designed and assigned a transaction code, authorization of which was given to specific users, who would execute it on need basis.

Results and Benefits

Results

The customized program checked for agents (users) to whom workflow was to be forwarded through the Z table. If a match was found from the table and if it was found to be different than the current one, then it was assumed that the current agent in the document is the incorrect one and the table was updated after the creation of the document. Hence, the program would logically delete all the older workflows associated with that document and restart the same when executed. This led to removal of documents from the older approver's inbox as well as their reflection in the new approver's inbox according to the table entries maintained.

Benefits

By implementing this solution, the users could now have the facility of restarting the workflows for the purchasing documents without anyone's intervention. The checks implemented in the program ensured that at a time, the document would reflect in only one user's inbox, eliminating the possibility of multiple copies of the same document in inbox of various users.

By putting authorization control, the benefit of restricting the authority of the program to a certain set of users monitoring and analyzing the issues before executing the program to avoid unnecessary chaos was achieved.

Inputting multiple documents at a time in the input screen of the program gave the convenience of processing multiple documents at a time, ensured time saving and quick execution of the process.

A summary at the end of the program execution helped the users to see various details associated with the workflow of the particular documents, for example, its previous state before program execution, current state, current processor and previous processor.

Value to Customer

The customer is assured of documents being flown only to the concerned users for approvals avoiding unnecessary dependencies and synchronicity issues. The entire workflow process runs smoothly and in a controlled fashion.

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References

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