

[INC0497908] - Due date information doesn't reflect the change

Reported date: **Aug 15th**

Release fix date: **Aug 15th**

Incident Description:

Users are not able to update Due Date for Work Orders in Duplo.

How was the incident detected?

The issue is: Tried to change the due date for DFA/575265B WO, from 18 Aug to Sept 2. even it showed "Successful" the information doesn't reflect change. And I checked the history, there is no record of the action.

What were the symptoms?

The issue is: Tried to change the due date for DFA/575265B WO, from 18 Aug to Sept 2. even it showed "Successful" the information doesn't reflect change. And I checked the history, there is no record of the action.

What was the customer or business impact?

Users were not able to update the Due Date for Work Orders and that was impacting their day to day work for sending the work to the vendors with due date update.

How was the issue resolved?

We removed code related to airings in our worker that we no longer needed. However, because this code was used in the past and existed for workflows that were already created in cadence by the previous worker that did have this code, when the worker replayed through the `execution history` it found that what Cadence thought should happen did not match what actually happened, and it through an error.

The solution was reverting our changes and adding the code back into the woms-worker. Cadence constantly retries failed workflows every 5 minutes, so the second we deployed the fixed woms-worker code all the updates that needed to happen completed successfully.

5-Whys & Root-Cause

Problem Statement: Users were unable to update the Due Dates

Why did user face this issue?

We removed code related to airings in our worker that we no longer needed. However, because this code was used in the past and existed for workflows that were already created in cadence by the previous worker that did have this code, when the worker replayed through the `execution history` it found that what Cadence thought should happen did not match what actually happened, and it through an error.

Why did we not face this issue before?

This issue was there in QA/UAT right from the day the build was made. The scenario is happening for all the existing WO before deployment, for those orders created via airings, all updates manual and airings update will fail.

Updating an order created through airings which was created before the code deployment, test case was missing.

Why was the cadence code removed?

This was done as part of Code Improvement to reduce the DB calls.

Why did we not catch the impact of the code improvement?

We did the testing on Due Date updates and WO creation/updation, but missed to identify the scenario of WO created through Airings before the code change.

Why we did not think about the missed scenario?

This is a very basic scenario, which we all missed. Production has more airing events than manually created ones, hence we should emphasise more testing around this area.

Overall learnings and recommendations

1. Any changes to Worker, use the Cadence branching API for testing to make sure the older version of WorkFlows is not used anymore and then remove the Older APIs.
2. Use Splunk Alert for Cadence Failure logs and inform in all Environments - QA/UAT/PROD
3. More Sanity Testing around the areas of Impact
 - a. More automation stories to be added
 - b. Strong code review
 - c. Cross developer testing for regression
 - d. Impact analysis of code change
 - e. Stories should capture the Areas of Impact for QA Team Testing

Operational Excellence Learnings and recommendations

1. Use Splunk Alert for Cadence Failure logs and inform in all Environments - QA/UAT/PROD
 2. Monitor Cadence Status and alert
 3. Dashboard using EMR/Message Replay Service
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