

Incident Report - April 11, 2016

Incident #2016-141

IDM Bonita Outage

Summary

ITSC requested an emergency deployment of the next iteration of Bonita code to alleviate issues being encountered by clients using the service. An emergency outage was scheduled for 1 pm on April 11, 2016. During the downtime, it was discovered that the new code could not be deployed. After many failed attempts at resolution, it was discovered that the new code could not be deployed until all archived and pending processes pertaining to the previous code were deleted. There were approximately 60,000 archived processes. An attempt to remove this archived data directly from the database was not successful. The agreed upon course of action was to let the Bonita Management Studio remove the archived processes. This was a slow process that took approximately two hours to complete. Once the old workflows were removed and the new ones deployed, the Bonita self-service application was returned to service.

Impact

Staff and students were unable to access the following self-service functions:

- account claim
- password change
- account management
- account recovery

Root Cause

After investigation, the main cause of the incident is the use of the Community version of Bonita. The Community version does not allow the management of archived processes. The result: we are currently limited to removing the archived processes using the Community Management Studio - which does not allow bulk removal. Archived process removal can only take place once workflows are taken offline.

Unfortunately, TridentHE is dependent on this particular version of Bonita. Migrating to a non-Community version of Bonita would break the dependencies as the equivalent Enterprise version is no longer available. We are currently pursuing an alternate solution.

Resolution

IDM staff worked in conjunction with other Middleware staff to isolate the cause of the issue. Several unsuccessful attempts were made to remove the archived processes via direct database manipulation. Deploying a brand new database was discussed but it was determined that it would be quicker to wait for the Management Studio to complete the archived process deletion.

Communications (Internal)

Communication between Middleware staff was primarily face-to-face. The ITSC was kept informed via telephone and email. iTrack notices and downtime alerts were also employed.

ITSP Communication (External)

RSS and email alerts were sent to the broader Queen's community to notify them of the outage. Notices were also posted on the Notification Tool.

Lessons Learned

We are currently limited by the capabilities of the Community version of Bonita. There are two suggestions:

- Continue to pursue a means of programmatically removing the archived processes so we are no longer limited by their existence. There is an API that could be part of the solution but would require additional training. The direct database manipulation should be more fully explored.
- A database shell could be implemented such that it can be used to initialize a fresh Bonita instance prior to code deployment.

Action Items

Determine the most suitable method of minimizing Bonita workflow deployment time and implement.