

# Building A Continuous Delivery Process for An Enterprise Application & Integration Team

## Challenge

In order to remain competitive, this large Canadian retailer needed to implement an automated testing approach and framework to their existing enterprise integration platform. With limited visibility and traceability, current development practices were time consuming and disconnected. In the absence of testing and proper product version management, deployments were slow, unstable, and difficult to manage impacting the organizations time to market.

## Solution

Having a solid development lifecycle process in place became an organizational priority, as 3rd party companies were leveraged heavily to deliver development projects. After conducting an assessment on the software delivery pipeline used within the organization, Middleware360 Solutions proposed the implementation of a full continuous delivery strategy for the enterprise application and integration team. Developing a holistic approach helped automate and streamline the software build-test-release lifecycle improving the overall time to delivery.

## Introduction

The continuous delivery process was prototyped on a multi month project implementation. This transformational project required a collaborative approach to DevOps, involving people from all parts of the organization. Critical milestones included implementing a ticket management system by component and version number(s), incorporating a testing framework, build framework, and continuous integration (CI) process via CI server, and developing a consistent continuous build/deploy process with clear version management via build server. The team was fully trained on platform/tools and agile practices and materials were created to develop future team leads. Middleware360 mentorship led to the team's first successful project implementation quickly leading to an influx of project requests to jump on the "new process".

## Results

- When a developer commits code change, the continuous integration server checks out the code, runs a test, and if it passes, build artefacts for deployment.
- A structured code review process via pull requests to team leads improved overall quality and architecture and stability of development code.
- With over 80 deployable artefacts, fully automated deployment process was built to deploy/install the artefacts into all environments from development all the way through to production, with no manual steps involved.
- Migrating from an antiquated CVS source control system to an industry standard GIT source control system incorporated a comprehensive set of branching strategies, reporting and merging capabilities.

## Actionable Insights

**Culture:** Adopting a continuous delivery culture is a work in progress. Ensure you have a project champion, collaboration among cross-functional DevOps teams and an investment in training.

**Process:** Partnering with a continuous delivery mentor with a strong understanding of development lifecycle management can help you accelerate your time to value.

**Tools:** One of the biggest barriers to continuous delivery is technology, not people. For this project, continuous delivery Atlassian products and custom continuous delivery plugins for non-java based projects were implemented.

## Incorporating A Culture of Change

Tackling a full-scale continuous delivery transition was an interesting challenge. With teams busy on other projects, and project managers resistant to adapt, it was critical for the organization to invest time in developing the vision and transforming the organization to support this new methodology. Through collaboration, process improvement, and technology, the team was able to demonstrate the value of the continuous delivery process and how it could improve visibility, quality, and time to delivery.

Middleware360 Solutions continues to offer ongoing mentorship and expertise as the organization matures through the continuous delivery process.