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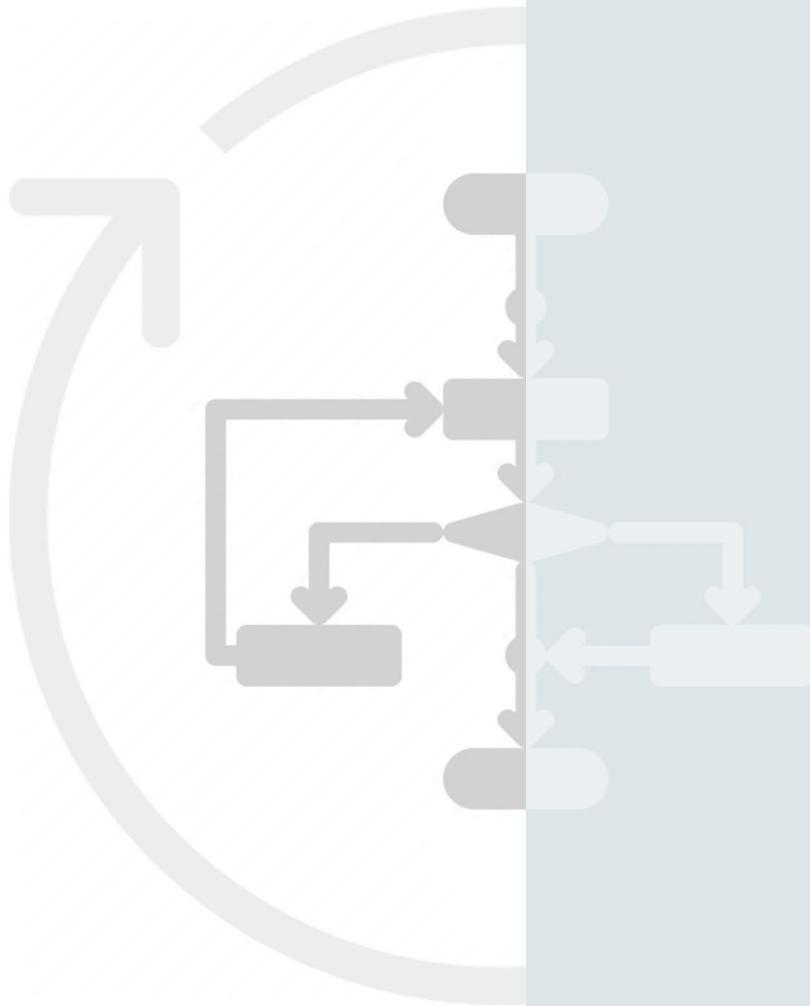## DevOps on NOW

# A case for modernizing Change Management through automation

Introduction

This case study highlights the importance of leveraging ServiceNow to modernize change processes within the DevOps world.

DevOps and Change Management: focus on quality, productivity and velocity through automation

Control vs Velocity

In the DevOps world, change management workflows are kept stringent in order to avoid defects and major incidents occurring in the production environment. Adhering to manual change processes, as teams march towards Agile/DevOps culture, makes it all the more difficult to follow the two conflicting approaches. The idea behind change management shouldn't be to slow down company initiatives, or developers; instead, it should be focused on enabling high velocity without reducing control. A more effective approach to achieve '**low risk-high velocity**' would be to automate change based on pre-defined risk policies and objective risk scores - removing CAB reviews for changes that do not require it.

High Velocity Change

- Deliver more features
- Document changes
- Meet Audit Reqs.
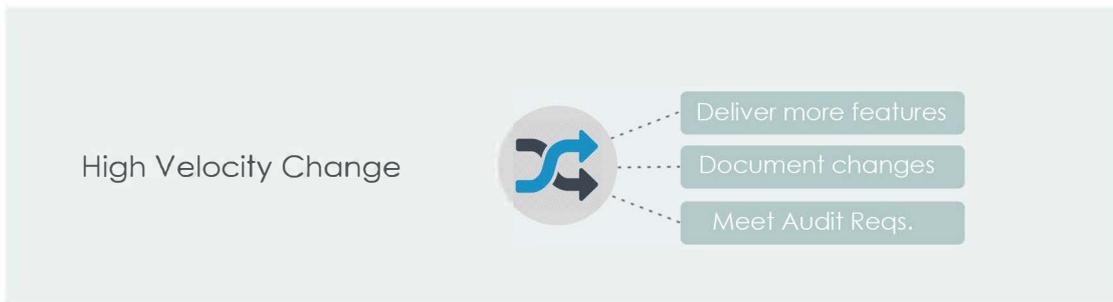
Modern Change Management

With so many changes taking place in the CI/CD pipeline, businesses often need to emphasize the importance of documenting changes to maintain compliance. In turn, these legacy change management processes slow down developers by forcing them to log changes manually and subsequently slowing down their commit velocity.

Automated change management allows for developers to be agnostic of the change management processes; enabling them to deliver features more quickly without compromising code quality. This approach not only drives more velocity without reducing control but also enables organizations to centralize and standardize all data required for critical DevOps and business insights.

Developer Productivity

- Code Quality
- Commit Velocity
- Repo Statistiscs
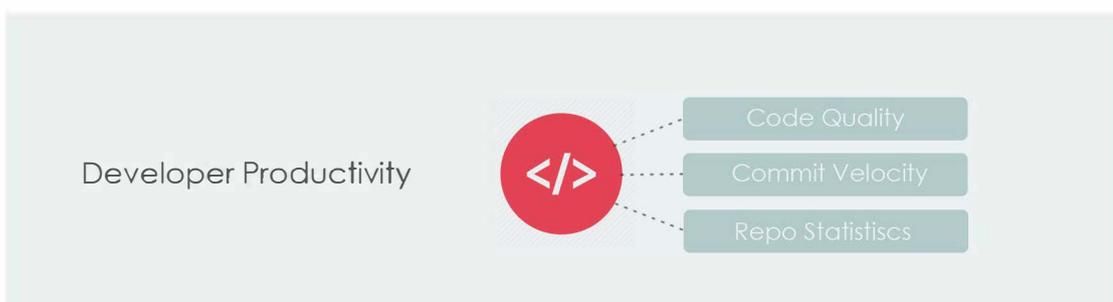
Modernizing Change: DevOps + NOW Integrations

Customer Challenge

Manually logging software changes via legacy change management processes slowing down build velocity and CAB approvals taking too long for low risk changes

1 Complex legacy change approval processes slow down build velocity

2 Lack of developer data creates challenges for CAB approvals

3 Reduce Software induced major Incidents

Common Challenges

▼ Lack of approval automation slows down development process

▼ Forcing developers to manually log changes and spend less time coding

▼ Dev and Ops teams unable to proactively manage failures due to lack of visibility across the pipeline

▼ Lack of traceability resulting in lengthy audit times

The Solution

- Integrated DevOps tools into NOW for data aggregation
- Created change policies for intelligent change automation
- Enabled collection of metadata to enrich platform for intelligent approvals
- Build developer Karma engine (Gamification/Risk Measurement)
- Built tight approval workflow around CI/CD for Applications
- Developed all DevOps dashboards for Ecosystem Health
- Enabled data driven operations by creating BI metrics dashboards for Dev and Ops

| Faster Deploys to Production | Increased Developer Productivity | Reduced Software Induced Major Incidents |

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Business Impact: Velocity, Control and Enhanced developer experience

Pipeline Visibility

Customer required an operational point of view for pipeline insights. NOW/DevOps made it possible to centralize all the data in ServiceNow and standardized the data so it was consumable by all relevant organizations. This enabled teams to capture data which helped convert useful insights into reduced failure rate and higher release efficiency.

▲ Release efficiency 18%

- 18% more releases to production per month
- Identify Pipeline inefficiencies
- Increased efficiency + effectiveness of pipleine by providing BI metrics for Devs - Ops - LOBs

Automated Change Management

Prior to DevOps/NOW Integration developers were forced to record changes manually, slowing down the release process and resulting in increased process overheads. Integrating DevOps tools into ServiceNow allowed for automating DevOps change processes via a 'hands-off change creation workflow' for developers. This resulted in improving the developers commit velocity and reduced engineering overheads.

▼ Hours saved 102

- 102 development hours saved per week
- More commit velocity
- Custom NOW dashboard for intelligent insights

Intelligent Controls

Intelligent approvals, driven by change policies, allowed for automating approvals for changes based on their objective risk scores. This enabled Dev and Ops teams to focus on deploying and tracking commits based on their 'criticality'; enhancing velocity and control for all changes occurring in the CI/CD pipeline.

▼ Revert Rate 4%

- Higher traceability across the pipeline
- Control pipeline approvals
- Stop builds based on Risk profile
- Track all builds using Change Module