How Can IT Organizations Deliver Sustained Value in Today's Demanding Application Economy?

Build the most agile, scalable and resilient continuous delivery pipeline

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Executive Summary

Challenge

Digital transformation has made virtually every company a software provider in one form or another. Since almost every interaction an individual has with a business today—whether it's for personal or professional reasons—includes a digital component, users are conditioned to expect a seamless, rich, high-quality experience across all channels and devices. As a result, enterprises must find new ways to create and deliver customer value.

To transform and thrive in the application economy, companies must embrace continuous delivery—the ability to rapidly and reliably release applications on demand that provide superior user experiences and meet the demands of internal and external customers alike.

However, continuous delivery is not a quick fix. It's a journey that sees companies gradually become more automated, standardized, efficient and agile—all while improving release quality. As they mature, they can handle the growing cadence and complexity of applications. Teams, meanwhile, become more productive, focusing on delivering differentiating features versus managing unplanned work and maintenance tasks.

But the journey is not without its challenges. In particular, many enterprises struggle with:

- **Pressure to deliver more, faster:** Meeting customer and business demands means increasing the volume and velocity of releases and building an efficient feedback loop—impossible tasks when the release pipeline suffers from slow throughput.

- **Enterprise complexity:** With numerous tool and technology preferences across multiple teams—not to mention a wide array of environments and infrastructures—integrating everything is a juggling act.

- **Application downtime and errors:** Moving faster can result in mistakes or quality degradation, especially when teams use manual or scripted processes.

Opportunity

With an automated continuous delivery pipeline in place, enterprises can simplify and standardize their delivery processes and, ultimately, roll out higher-quality releases with greater frequency.

They'll be able to plan, execute and govern releases as a connected team, making them more responsive to changing requirements. Likewise, it will become easier to scale in response to the growing volume of applications, releases, environments and dependencies. And, they'll have the freedom to leverage data in ways that enable continuous improvements to release quality, pipeline processes, time to resolution and team productivity.

CA Release Automation Makes True Continuous Delivery a Reality

The Challenge: Pressure to Deliver More, Faster

The pressure on organizations to rapidly and reliably deliver applications built to satisfy diverse customer and business expectations continues to mount. As development teams work to roll out smaller updates more frequently, operations teams must maintain release processes that can keep pace, without jeopardizing performance, security or availability.

This pressure quickly ratchets up as more teams, applications and releases enter the picture. Managing a release pipeline with so many moving parts and dependencies—while working to eliminate bottlenecks, avoid conflicts and uphold compliance—quickly becomes untenable.

Leveraging agile development on the front end typically means systemic, continuous delivery practices are needed to maintain a steady, error-free flow of releases that satisfies customer and business requirements.

The CA Release Automation Solution

With CA Release Automation, you can increase release cycle agility, so application updates and stories move through the development pipeline in a much more fluid, coordinated, end-to-end manner. You'll be able to develop complex release processes once, and re-use them across applications, teams and environments to speed deployment, reduce errors and increase productivity. And, its powerful workflow engine allows you to visually create standard deployment processes with ease.

When you pair these capabilities with the advanced continuous delivery functions built into CA Release Automation, you'll have everything in place to plan, manage and govern a complex release cycle—from agile output to production. You'll be able to effectively shape the content and scope of multi-app, multi-team releases, giving you the visibility you need to prioritize content to meet business requirements, understand interdependencies, easily manage the process from end to end and quickly resolve conflicts before they jeopardize release windows.

And with the ability to dynamically assign, manage and communicate with team members throughout all phases of the release, you'll increase collaboration and help everyone involved stay on the same page, no matter their roles.

The Challenge: Enterprise Complexity

In many respects, today's modern enterprises aren't so modern at all. They still have to manage legacy applications, services and systems—many of which are often too customized and business critical to be replaced—while carefully connecting them with newer offerings and systems. At the same time, they're adopting new practices, technologies and platforms that enable them to compete in today's application economy.

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To add to the complexity, many teams act independently. They develop and deliver software in isolation, but still contend for the same resources, perpetuating a fragmented, sprawling tool and technology landscape.

As a result, getting new, innovative solutions into customers' hands continues to be a high-risk event—one that makes it difficult for companies to act fast, improve quality and stay compliant amidst such inherent complexity.

The CA Release Automation Solution

With CA Release Automation, you can adapt your continuous delivery pipeline to your enterprise's infrastructure landscape.

With CA Release Automation's open platform, which easily integrates with any continuous delivery toolchain, your teams can use their preferred tooling and technology to consistently deploy applications to all test and production environments. Plus, they can connect with application lifecycle management (ALM) and change management tools to accelerate the feedback loop, as well as scope future features.

At each stage of application delivery, CA Release Automation simplifies the process of creating, managing and decommissioning complete, production-like environments within a single deployment workflow. It helps to ensure your environments are provisioned with exactly the right resources, as needed. And it even automatically promotes the application to the next stage of the lifecycle, including production, while decommissioning obsolete environments to free up resources for other applications.

And with the solution's advanced capabilities, you'll be able to understand the dependencies spanning complex processes and cross-server processing—and be better positioned to support multi-team, composite applications with increased cadence, frequency and volume.

The Challenge: Application Downtime and Errors

Success in the application economy requires a constant, relentless focus on quality. When it comes to application releases, however, teams often struggle to reach this goal, particularly as the volume, velocity and complexity of applications increase. Reducing failures and the time to resolve problems are essential to stability, yet teams continue to find themselves distracted by the need to fight fires, repair code and manage escalation support.

Beyond achieving stability, teams also have to make the release pipeline as resilient as possible—they must be free to fail fast, learn from their mistakes and quickly improve their applications, turning missteps into a tool for improvement. While organizations are certainly aware of this potential, achieving true optimization requires cohesive management of their continuous delivery pipelines.

The CA Release Automation Solution

With CA Release Automation, you'll be able to continuously optimize your delivery practices. You'll have access to a wealth of deployment process reports, audit trails, notifications and alerts—all of which provide the data and insights you need to improve release quality, pipeline processes and time to resolution.

In addition, the solution's advanced capabilities give you an informative dashboard that enables you to detect problems and bottlenecks in real time, so you can resolve them before they become significant concerns. Plus, you'll be able to map releases to stories and defects, track application content, assess the quality of your releases and more effectively manage resources and team productivity. This way, you'll be able to build a highly efficient pipeline that embraces experimentation and delivers instantaneous feedback.

Key Features

CA Release Automation is a proven, end-to-end application release management solution built to execute a successful DevOps and continuous delivery strategy. CA Release Automation includes two distinct building blocks that work together to ignite and advance your continuous delivery practices:

- **The core automation engine**, which helps you rapidly and reliably deploy application releases across diverse servers, data centers and cloud environments—from development through production

- **CA Release Automation Continuous Delivery Edition**, which enables you to plan, manage and optimize an advanced continuous delivery pipeline, including ALM tool integration

The solution's key capabilities include:

- **An open, scalable platform.** Easily integrates with any continuous delivery toolchain, delivering end-to-end visibility and orchestration of releases and content throughout the software development lifecycle.

- **Automated, model-driven deployment operations.** Enable standard, reusable processes for improved efficiency and quality.

- **A single control point for intricate release planning and execution.** Includes release scheduling, release criteria checking, dependency tracking and conflict resolution.

- **Customizable release dashboards.** Provide transparency, governance, auditability, reporting and analysis of releases in the continuous delivery pipeline.

- **Knowledge safekeeping.** Offers a single, complete source of release information, which can be used for enterprise-wide auditing and accountability.

CA Release Automation is an integral part of the market-leading CA Technologies continuous delivery portfolio, which also includes agile development and test management products.

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What You Gain

With the help of **CA Release Automation**, you'll be able to:

Accelerate Deliveries	Reduce Errors	Manage Complexity	Increase Visibility	Drive Collaboration	Continually Improve

To learn how CA Release Automation can help you build an agile, scalable, resilient pipeline, please visit: **ca.com/releaseautomation**.

Connect with CA Technologies at ca.com

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