Accelerating Integration to **Drive Your DevOps Success**

A guide to understanding how a modern integration strategy can accelerate software delivery and enhance your business outcomes

ConnectALL

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Introduction

As businesses demand a steady stream of new software features fueled by digitalization and modern customer demands, IT organizations must be prepared to deliver products and services faster and better than their competitors. Every organization has concerns about the accelerated rate of change in the market and is looking for ways to drive up the speed of innovation. This lofty challenge has driven the adoption of DevOps in recent years from niche to mainstream practices, and it's not difficult to understand why DevOps is here to stay. Compared with traditional IT, "high performing DevOps teams deploy code 46 times more frequently, see 440 times faster lead time from commit to deploy and experience 5 times lower change failure rate." The value in adopting DevOps practices is vast, and it has emerged as the key approach for organizations looking for more effective, agile ways to meet frequent iterations, releases and delivery goals.

Most DevOps initiatives in the enterprise focus on leveraging automation, which leads to the adoption of different sets of tools to support the initiative. IT organizations often make tool choices for DevOps independently as a specific need arises and end up utilizing a chain of tools to support end-to-end application delivery — from software development through release and into production. However, focusing on specific areas creates "tool siloes" that often results in many disparate or disconnected tools and processes. Eventually, this would require integration to achieve greater visibility and efficiencies through the introduction of automation on workflow.

If you are looking for ways to fill in the gaps in your DevOps ecosystem to enable IT agility and faster service delivery, read on — this e-book is for you.

This e-book focuses on the role of integration in enabling your DevOps efforts and allows you to:

Understand the key objectives of DevOps

Look at the key integration challenges that need to be addressed as IT organizations strive to deliver applications in faster and more agile ways

Understand how multi-tool integration brings connectivity and enhances the productivity of software delivery

Learn about the changing nature of integration in the modern organization

Get acquainted with the must-have features of a sophisticated integration platform, and adapt your DevOps integration strategy

The Key Drivers of DevOps

The success of your DevOps efforts is based on customer value delivered at the cadence required.

To leverage the full value of DevOps, development, testing and operations all must work together to plan, develop, release and manage applications in order to ensure rapid delivery and improved time to market. In an age when requirements change frequently, and software must be developed at an ever-accelerating pace, not only must software and applications be released to market faster, it must also be possible to easily update software, constantly add new features, and fix any bugs that are found. There is a need for enhanced transparency, lesser manual intervention, and efficient processes at every stage, spanning the entire lifecycle, from planning, through development and into production.

Simply deploying a set of tools to users is not enough to ensure the success of your DevOps initiative.The true insight from high performing IT organizations is that they are able to automate the entire software life cycle and achieve end-to-end traceability. They are able to deliver features to production faster and demonstrate business results, such as revenue, cost reduction and customer satisfaction. This explains why a majority of DevOps engineers and practitioners are feeling the heat to automate.

Properly instrumented process automation can significantly improve application quality and speed of delivery and maximize the potential afforded by DevOps. Organizations need to define and integrate the entire lifecycle of activities and tools to bolster the software delivery and innovation process. Hence, seamless cross-tool collaboration is very important here.

Multi-tool Integration — an Imperative for DevOps Success

"Separate islands and silos of automation are the biggest problem in DevOps now."
— Robert Stroud, Analyst, Forrester Research

Most aspiring DevOps organizations use a variety of tools in their DevOps toolchain. In a typical scenario, DevOps initiatives start as a series of experiments where tool choices for DevOps are made independently based on specific requirements — requirements management, test management, IT service management, or release automation. But focusing on discrete areas creates "tool silos" due to multiplicity of disconnected tools and processes. Often, a variety of tools are introduced by different developers and architects working on the same project over time, leading to a situation where none of the tools can work together in a seamless fashion, and teams have to spend more time integrating tools instead of software innovation. There are also cases where this approach results in tool duplication or overlap (like multiple configuration tools) and leaves functional gaps (like metrics gathering, operations activities, and security requirements), as tool vendors extend their tool capabilities across the delivery chain.

Evidently, as organizations strive to develop a toolchain to support DevOps practices, they have to deal with myriad issues including tool integration and implementation of automation across the DevOps pipeline.

The key challenges that can cripple DevOps efforts:

Highly individual DevOps implementations can lead to disparate DevOps tool portfolios, consisting of a variety of overlapping tools.
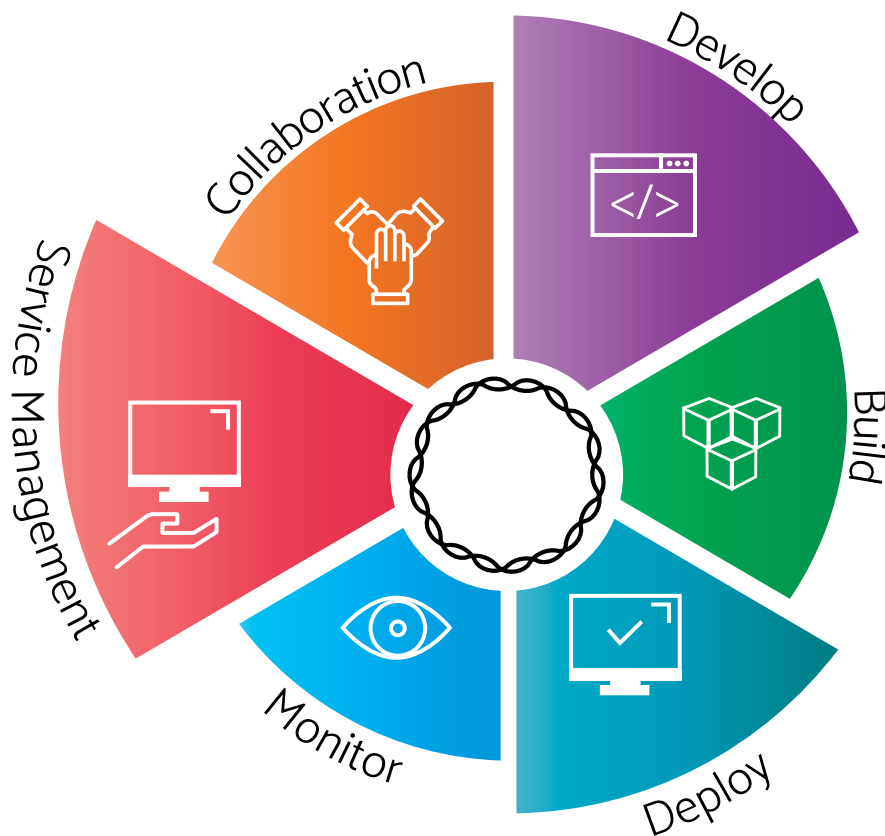
These tools don't come with built-in integration features, which leads to inconsistent information flow and lack of control and visibility over the entire DevOps life cycle.

As DevOps initiatives continue to grow in complexity, it can get increasingly difficult to understand where bottlenecks exist in the application delivery pipeline.

IT can no longer scale agile development without connecting the separate, moving parts of their application delivery toolchain. As DevOps initiatives mature into full-fledged battle strategies for IT organizations, there is an urgent need to shift attention from automating individual steps to tying disparate processes and automation tools together in order to create a united front.

A well-integrated DevOps toolchain facilitates collaborative development across the entire IT organization — and beyond — by automating communication across systems and processes through a more integrated succession of events for continuous build, delivery, and deployment. Everyone on the DevOps team gains improved visibility and control, resulting in substantial improvements in collaboration and release cadence. Multi-tool integration also allows IT to scale a particular model to all the other project areas, as well as the other lines of business, boosting ROI from their DevOps efforts and creating the kind of impact that all aspiring DevOps organizations seek.

A well-integrated DevOps toolchain improves IT agility

Accelerating DevOps Integration Using a Modern Integration Platform

A lot of DevOps initiatives have failed to deliver value because integrating the DevOps toolchain is a complex endeavor. The key challenge is: how can users integrate different DevOps tools, while also ensuring regulated control in the process?

IT teams often spend more time integrating siloed DevOps tools than developing software itself. According to Forrester, 64 percent of businesses are dissatisfied with the length of time it takes enterprises to ship new software. Point-to-point integration between tools is cumbersome, time-consuming, costly and not scaleable. Even a single change in integration rules calls for complex coding and high maintenance across development, test and deployment cycles. This leads to too much overhead to innovate. As more and more tools get added to the DevOps environment, there is an urgent need for an efficient, scalable and agile approach to integrate and control all assets. Most modern integrations are being done at an API level (like REST APIs). But in many scenarios, deeper integration may be required to ensure that specific parameters and data can be exchanged or shared cohesively across toolsets. ConnectALL is an example of a modern integration technology platform that can support such integration scenarios.

ConnectALL aims to provide the most flexible approach to integration that will allow organizations to bring together applications, processes and data, on-premises or in the cloud. With the help of a codeless configuration facility, ConnectALL dramatically reduces the complexity of creating and managing integrations and allows for enhanced connectivity between disparate types of applications, as well as hand-offs between different groups. The platform is highly configurable to work the way your IT team works, with their systems, and their processes.

Here are some of its key features:

- It can address myriad integration needs, providing integration specialists, software developers or QA specialists the glue needed to streamline the software delivery process.

- It can support integration flows that connect any combination of cloud and on-premise endpoints for ALM and DevOps tools, and synchronize data, workflow and requirements automatically.

- Through a self-service portal that selectively provides access to the integration features and functions according to the user profile, it helps drive decentralization.

- It also facilitates centralized governance and control by enforcing security, administration, monitoring, and management.

- It provides scalability on demand. It is capable of scaling as needed by the business.

In DevOps-driven environments, an integrated DevOps toolchain that spans process silos and links up each stage of the development, testing and deployment process is the Holy Grail. When all the tools participating in DevOps sync with each other, it enables teams to automate and streamline the flow of work, enhance collaboration and increase release velocity. Once connected to an integrated tool ecosystem, you can gain improved visibility into the state of application delivery by coalescing information across the application delivery life cycle. Previously informal and error-prone handoffs through chats, emails, and duplicate data entry can be easily replaced with a traceable and measurable flow of information. This information can then be used for optimization, management as well as for automated traceability reporting.

Conclusion

Selecting the right integration platform is one of the most important strategic business decisions your organization can make. By giving everyone a consistent view of the DevOps toolchain, ConnectALL Integration Platform helps keep the team focused on delivering rapid business value, as well as enhances the flexibility to change with the market — the key criteria to thrive in a digital world. As with most new and challenging endeavors, we recommend starting with initiatives that involve strategic, but limited, connectivity and integration at first. As digital value is realized, you can gradually build on success, incrementally expanding upon connectivity and integration, while applying the lessons learned, to the larger organization.

About ConnectALL

ConnectALL® powers businesses in achieving higher agility and increased velocity. Teams from software development and delivery, IT and business units across large and small enterprises worldwide use ConnectALL's integration platform to unify people, processes, applications and tools from multiple ALM and DevOps providers, such as Atlassian, Micro Focus, Microsoft, IBM, Salesforce, BMC, ServiceNow, and more. Designed to break down barriers to continuous delivery, ConnectALL helps companies rapidly create business value by bringing software innovation to market faster and increasing productivity through cross-team collaboration.