

Aligning your development and operations teams with the Optum DevOps Solution

The problem: Two teams, divided by a wall

In a 2015 survey,¹ more than three out of four executives (C level and above) felt it was “very important” to deliver business applications and services more quickly. Yet only one in seven felt “very confident” that their IT people could do so over the coming year. Small wonder: At most organizations, the people who develop software seldom talk with the people who will install it and maintain it. Rather than learn to help each other succeed, the two teams often remain siloed behind a “wall of confusion” (Figure 1). As a result, developers may inadvertently add features and functions that make the software less friendly or less stable. But issues remain hidden until the software reaches the customer. As problems are reported, the developers scramble to fix them ... from behind the wall.

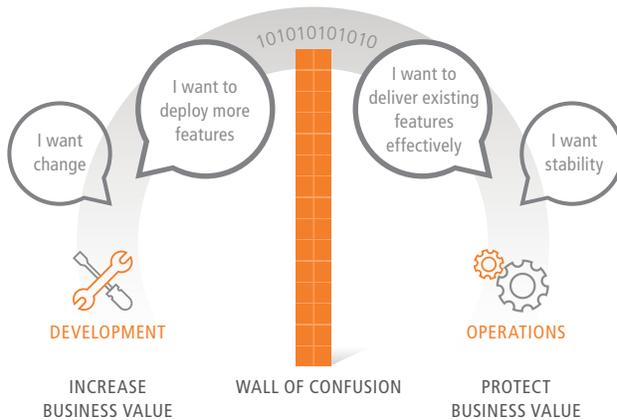


Figure 1. Developers and operations work in silos, separated by a “wall.”

The solution: Agile for business — DevOps

The Optum® DevOps solution breaks down the silos, using processes and collaborative tools to ensure that as software undergoes change, it remains stable. As users receive new features, customers receive continuous business value.

In many ways, DevOps mirrors Agile development, where developers, testers, users and other specialists work together in cross-functional teams. But where Agile solves a technology problem, DevOps solves a business problem. Where Agile introduces a new way of thinking, DevOps introduces a new culture, extending Agile and ITIL² principles throughout a product’s lifecycle.

1. 2015 State of DevOps Report, Puppet Labs.
 2. A set of practices for IT service management that aligns IT with the need of business.

Introduced in 2009, DevOps remained a niche until 2013, when Puppet Labs published its first annual State of DevOps Report. Word spread, and by 2016, DevOps — “Agile for business” — had been embraced by one in four members of the FORBES Global 2000.

To reap DevOps’ full benefits, a vendor must embrace cultural changes that use Lean methods. It must encourage teams to share information across business, development and operations, and provide tools to make sharing automatic. It must let them see the overall system, measure discrete outcomes and contribute to feedback loops across the software development lifecycle (Figure 2).



Figure 2. In DevOps, developers and operations share knowledge.

The bottom line: A better bottom line

DevOps’ benefits are measurable and real. A vendor that adopts DevOps will improve a range of business practices, typically by about 20 percent (Figure 3).

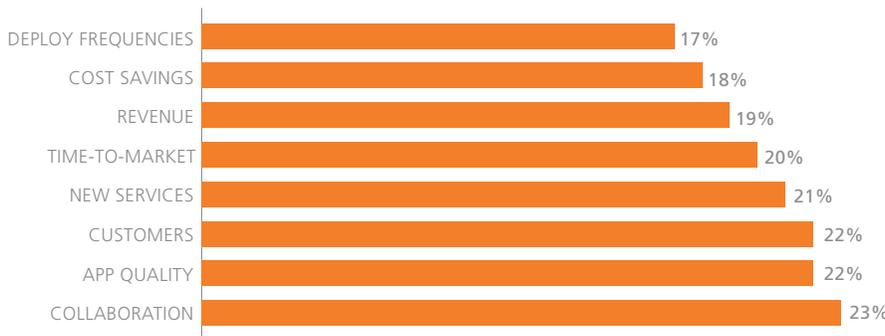


Figure 3. DevOps can improve business practices by 17 to 23%.

To secure the largest gains, the vendor must also deploy DevOps’ four pillars: continuous integration, continuous deployment, continuous monitoring and continuous feedback (Figure 4).

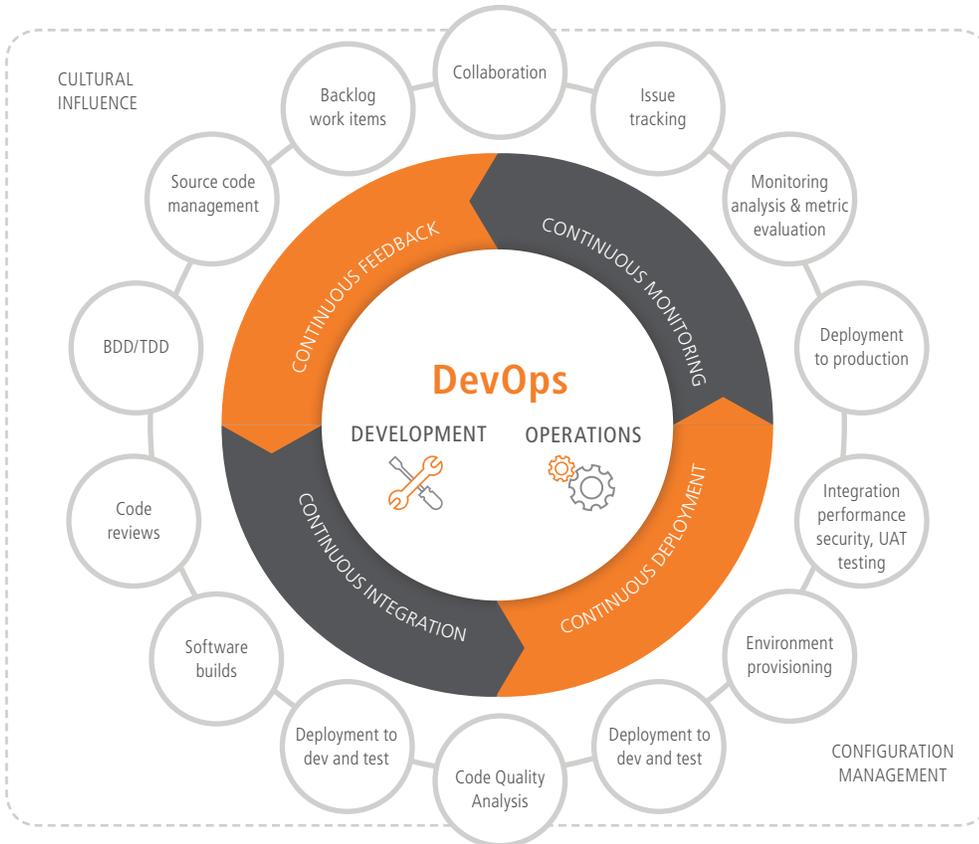


Figure 4. For the highest payoff, combine DevOps with its four pillars, shown just inside the outer ring.

In 2014, Optum Government delivery teams began to combine DevOps, Agile development and three related practices (Figure 5). A complete, end-to-end DevOps solution is expected to be deployed in 2017.



Figure 5. DevOps, Agile development and “continuous” methodologies work together in Optum Government delivery solutions.

As our customers begin to explore DevOps, Optum Government is positioned to help them choose wisely. Bringing a broad view of our client's enterprise, we can identify best-fit tools to support a single stage of the software development lifecycle as well as tools to bind together the DevOps process.

WHAT WE'RE DOING	HOW WE'RE DOING IT
Develop a hands-on DevOps proof of concept.	<p>Develop proof-of-concept applications for today's three most prevalent technology stacks: Java, .NET and MEAN. These are functionally lightweight sample applications modeled to follow enterprise-like, multi-tier architectures designed to capture the deployment and operational complexities that DevOps aims to solve.</p> <p>In 2015, we began creating a cloud-based DevOps solution to meet the challenges that arise when developing an application for the cloud. Coupling native cloud solutions with industry-leading COTS tools, our cloud solution enables continuous integration, continuous delivery, continuous monitoring and continuous feedback.</p> <p>For projects where a cloud deployment is not an option, we are investigating ways to deploy DevOps in a private data center, using Platform as a Service (PaaS) offerings to implement an end-to-end DevOps solution.</p>
Develop a DevOps offering package.	<p>Taking an Application Lifecycle Management (ALM) perspective, Optum Government compiles a catalog of relevant tools that apply most closely to an individual process area. Meanwhile, the company ties together the entire DevOps process to make processes traceable and encourage teams to work together.</p> <p>Because commercial, off-the-shelf offerings change swiftly, we compare and contrast the latest DevOps tools.</p>
Identify, evaluate, collaborate with and partner with choice vendors.	Tapping its strong industry relationships, Optum Government partners with best-of-breed DevOps tool vendors to provide the most cost-effective solutions.
Practice a Center of Excellence approach.	Drawing on our global scope and scale, Optum Government identifies best practices around the world to deliver white papers, demos and brown-bag talks to its internal delivery teams and its customers.

WHAT OPTUM GOVERNMENT DEVOPS DELIVERS	HOW CUSTOMERS BENEFIT
Informed decisions for DevOps investments	A customized, comprehensive and integrated DevOps solution
More responsiveness to business needs via more frequent releases	Improved user satisfaction and system adoption
Improved quality of software deployments	Increased efficiencies, the ability to do more with less and a higher return on investment
Better stability and reliability of systems	A sounder, more accurate statement of work

To learn how Optum can help your organization align its development and operations team, contact us at **1-800-765-6073**, or send an email to **solutions@optum.com**.



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