

# Devops is a Verb



Lori MacVittie, 2012-20-06

#devops Devops is not something you build, it's something you do



Devops is application lifecycle management with the goal of continuous delivery achieved through the discovery, refinement and optimization of repeatable processes.

Operations is increasingly responsible for deploying and managing applications within this architecture, requiring traditionally developer-oriented skills like integration, programming and testing as well as greater collaboration to meet business and operational goals for performance, security, and availability. To maintain the economy of scale necessary to keep up with the volatility of modern data center environments, operations is

adopting modern development methodologies and practices.

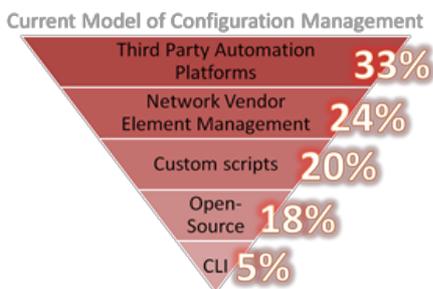
cloud computing and virtualization have elevated the API as the next generation management paradigm across IT, driven by the proliferation of virtualization and pressure on IT to become more efficient. In response, infrastructure is becoming more programmable, allowing IT to automate, integrate and manage continuous delivery of applications within the context of an overarching operational framework.

The role of infrastructure vendors in devops is to enable the automation, integration, and lifecycle management of applications and infrastructure services through APIs, programmable interfaces and reusable services. By embracing the toolsets, APIs, and methodologies of devops, infrastructure vendors can enable IT to create repeatable processes with faster feedback mechanisms that support the continuous and dynamic delivery cycle required to achieve efficiency and stability within operations.

**FAST FACT**  
**3 months**  
Average time to deploy a new application from data center to user

## DEVOPS MORE THAN ORCHESTRATING VM PROVISIONING

Most of the attention paid to devops today is focused on automating the virtual machine provisioning process. Do you use scripts? Cloned images? Boot scripts or APIs? Open Source tools?



DATA SOURCE: InfoBlox / EMA Research, March 2012

But devops is more than that and it's not what you use. You don't suddenly get to claim you're "doing devops" because you use a framework instead of custom scripts, or vice-versa. Devops is a broader, iterative agile methodology that enables refinement and eventually optimization of operational processes. Devops is lifecycle management with the goal of continuous delivery of applications achieved through the discovery, refinement and optimization of repeatable processes. Those processes must necessarily extend beyond the virtual machine. The bulk of time required to deploy an application to the end-user lies not in provisioning it, but in provisioning it in the context of the entire application delivery chain.

Security, access, web application security, load balancing, acceleration, optimization. These are the services that comprise an application delivery network, through which the application is secured, optimized and accelerated. These services must be defined and provisioned as well. Through the iterative development of the appropriate (read: most optimal) policies to deliver specific applications, devops is able to refine the policies and the process until it is repeatable.

Like enterprise architects, devops practitioners will see patterns emerge from the repetition that clearly indicate an ability to reuse operational processes and make them repeatable. Codifying in some way these patterns shortens the overall process. Iterations refine until the process is optimized and applications can be completely deployed in as short a time as possible. And like enterprise architects, devops practitioners know that these processes span the silos that exist in data centers today. From development to security to the network; the process of deploying an application to the end-user requires components from each of these concerns and thus devops must figure out how to build bridges between the ivory towers of the data center. Devops must discern how best to integrate processes from each concern into a holistic, application-focused operational deployment process.

To achieve this, infrastructure must be programmable, it must present the means by which it can be included the processes. We know, for example, that there are over 1200 network attributes spanning multiple concerns that must be configured in the application delivery network to successfully deploy Microsoft Exchange to ensure it is secure, fast and available. Codifying that piece of the deployment equation as a repeatable, automated process goes a long way toward reducing the average time to end-user from 3 months down to something more acceptable.

Infrastructure vendors must seek to aid those on their devops journey by not only providing the APIs and programmable interfaces, but actively building an ecosystem of devops-focused solutions that can be delivered to devops practitioners. It is not enough to say "here is an API", go forth and integrate. Devops practitioners are not developers, and while an API in some cases may be exactly what is required, more often than not organizations are adopting platforms and frameworks through which devops will be executed. Infrastructure vendors must recognize this reality and cooperatively develop the integrations and the means to codify repeatable patterns. The collaboration across silos in the data center is difficult, but necessary. Infrastructure vendors who cross market lines, as it were, to cooperatively develop integrations that address the technological concerns of collaboration will make the people and process collaboration responsibility of devops a much less difficult task.

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