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#1 Plan for an evolution, not a Big Bang

#2 Focus on the changes to four key groups

#3 Standardize the tools Dev and Ops teams use for deployment

Top 3 Tips for Optimizing DevOps

More collaboration is a noble goal. Make the reality match the promise.

The concept of DevOps is so appealing. Who wouldn't agree that better communication between development and operations teams will expedite release cycles, improve software quality, and make the business more agile? Just one question: why is DevOps still a "concept" at most companies rather than an operational reality? The short answer is that DevOps requires new ways of working, and that can create cultural upheaval. Here are 3 key tips for addressing the people and process issues of DevOps in a VMware environment—so you can reap the business benefits sooner.

#1. Plan for an evolution, not a Big Bang

The transition to DevOps can mean fundamental changes to IT processes—and that impacts roles, responsibilities, and the way people work together. Simply put, this is a seismic shift and it should not happen all at once.

Start by identifying the various ways development and operations teams place pressure on each other. For example, developers may have no problem writing code and pushing it out, but their demand for infrastructure means operations teams get inundated with requests for more infrastructure. This in turn may cause development teams to see Ops as a bottleneck.

Take these sources of conflict into account—honestly and openly—as you plan your transition to DevOps. Then you can put effective policies in place for shared and delegated responsibilities, with an emphasis on communication and collaboration.

#2. Focus on the changes to four key groups

As you consider how DevOps will change roles and responsibilities within IT, focus on the impact to four key stakeholder groups:

- **Operations:** Their first responsibility is to develop workflows that will automate the deployment of a complete application environment. This automation includes the provisioning of virtual infrastructure, code retrieval, application built, and even running automated testing scripts. In order to develop these workflows, Ops is obliged to be part of the development cycle earlier and will therefore have to understand their infrastructure requirements.
- **Development:** The Dev team will determine the infrastructure required for the application; for example database version, web server type, and application monitoring requirements, and this will assist the Ops team in determining the capacity required and in developing the deployment workflows. The Development team will be able to develop and deploy to the "continuous integration" and UAT environments without having to utilize Ops resources. They can "rip and replace" applications to these environments as many times as needed by QA and end users in order to be production-ready.

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- **Quality Assurance (QA):** Due to the high quality of automated test scripts used for testing in such an environment, the QA team can play a lesser role in a DevOps environment by randomly testing applications. QA will also need to test and verify the deployment workflows to ensure the infrastructure configuration used is as per the design.
- **End Users:** End-user testing can be reduced in a DevOps environment by only randomly testing applications. However, once DevOps is in place, end users should notice a vast improvement in the quality and speed of the applications produced.

#3. Standardize the tools Dev and Ops teams use for deployment

Consider a process for DevOps in which the operations team develops automated deployment workflows, and the development team uses the workflows to deploy to the test and UAT environments. The final deployment to production is carried out by the Ops team; however, it is critical that Dev teams have access to monitoring tools in production so they can monitor the performance of their applications and diagnose issues without having to consume Ops resources.

When the DevOps tools and workflows will be used for all deployments, including production, the Dev and Ops teams must use the same tools to deploy to all environments to ensure consistency and continuity, as well as to "rehearse" the production release.

One example of a tool that can facilitate tighter integration between Dev and Ops teams is VMware vRealize Code Stream, which provides automation and governance of the entire application release process; a dashboard for end-to-end visibility of the release process across Dev and Ops organizations; and artifact management and tracking. These capabilities can help streamline the transition to DevOps.

DevOps can also benefit greatly from the offerings of platform-as-a-service (PaaS) providers. By developing and releasing software on PaaS, consistency is guaranteed as the platform layer (as well as lower layers) are always consistent. Pivotal CF, for example, allows users and DevOps to publish and manage applications running on the Cloud Foundry platform across distributed infrastructure.

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