

# **DevOps: Bridging the Gap between Development and Operations**

## **A Video Brief by Frost & Sullivan**

Welcome. I'm Rufus Connell, VP of Research with global research and consulting firm Frost & Sullivan, and today we will discuss the emerging area of DevOps. DevOps, which is the concatenation of the "development" and the "operations" sides of the IT family, represents a movement that seeks to close the gaps between these two groups via a combination of suitable approaches and technology.

The DevOps initiative seeks to align and streamline the organization and its processes to enable more rapidly iterative application delivery and support greater development and business agility. In a way, it represents the response to the increasing consciousness of the fact that there exists a disconnect between what has been traditionally regarded as a "development activity" and what has been historically considered an "operations activity". This concept can potentially revolutionize the world of software development and delivery, as it breaks down the barriers (human, process and technology) between application development and system operations.

The divergence between development and operations probably stems from a fundamental difference in philosophy between these two teams. Developers typically embrace change and love the challenges that are brought on by change – in fact, their *raison d'être* is to creatively respond to the changing needs of their customers. At the other end of the spectrum, the Operations teams are responsible for the stability and reliability of the systems in production. Since change is potentially disruptive to both, the operations teams' default *modus operandi* is to treat change as a risk to be managed.

Besides this philosophical difference, the problem of organizational silos also needs to be tackled, as development and operations typically fall in different parts of a company's organizational structure (dev folks are usually regarded as R&D resources while ops folks are considered as part of a company's Operations, Administration, and Maintenance resources). Finally, there is also the issue of the tool sets being used by each side, which are quite different and typically provide very few opportunities for significant interaction between the two groups.

The advent of DevOps will help break down these silos by empowering two powerful strategic business directives: business agility and IT

alignment. Business agility enables an organization to quickly adapt to change in an efficient and cost effective manner. IT alignment allows that organization to efficiently leverage IT to achieve its business objectives. Like the Chinese “yin and yang” concept, DevOps brings together the two distinct philosophies of developers and operations teams, who by necessity are interconnected and interdependent, and strikes a balance between them.

In order to bring DevOps to life, it is necessary to define a framework for automating software delivery, making it part of an efficient activity that integrates human collaboration with actual activity on machines, and provides a way for businesses to bridge the DevOps gap. Products such as IBM’s Build Forge can play the role of a ‘smart conveyor belt’ in the software factory. IBM provides the automated framework for managing the factory floor, moving work pieces from tool to tool, and giving instructions to the tools so those tools perform the right operation on the work pieces. This orchestration of both automated and human-centered tasks provides more consistency and predictability to the overall DevOps process, leading to reduced error rates, less rework, shorter cycle time and lower expenses required to bring a software product to general availability.

Thank you for joining us today in this exploration of opportunities to reduce risk and improve productivity in your DevOps environment. For Frost & Sullivan, I'm Rufus Connell. Good day.