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Dynanet Corporation has a long history of successfully assisting federal and state governments in accomplishment of their missions. The proof of our success is in the numerous accommodations and awards we have been given and the list of partners who choose Dynanet as a business team member. Our talented and certified professionals are led by a highly experienced and senior leadership team with both private sector and federal experience.

8182 Lark Brown Road,  
Suite 300 | Elkrige,  
Maryland 21075 |  
443-661-1403 |  
[www.dynanetcorp.com](http://www.dynanetcorp.com)

## Software Development's "New" Frontier: DEVOPS

By Jack Dunham, Dynanet Director, Managed Services

Suffice it to say, I have been in and around software development for many years; and I've got the scars and war stories to prove it. When you've been around this long, you see concepts, principles, and methods come, go, come again, reincarnate and morph into new concepts, principles and methods. DEVOPS is one of the current evolutions in software development. It uses as its ingredients a collection of existing concepts, principles, mixing in new methods and technologies to create a new way of software development. This new mixture promises to deliver to the business world the speed, quality and user experience we've come to expect from applications running on our mobile devices.

According to Gartner, Patrick DeBois first coined the term "DEVOPS" in 2009. DEVOPS builds on the tenants of Agile and Lean development strategies, while leveraging the power of technology to reduce human errors; and cross-functional teams to minimize handoffs that inherently increase risks, delays and rework. The ultimate goal of DEVOPS is to increase the speed of delivery and the product quality created to deliver business value to customers paying the bills.

DEVOPS integrates five compelling practices into a cohesive approach to software development. In my opinion, these practices are not new to the world of software development. Individually, several of these practices have been around for some time and each have delivered incremental improvements to the development process. It is their convergence as demonstrated by mobile computing, cloud and e-commerce that show the true value and benefits of this approach.

(1) Collaborative, Cross-functional Teams – Cross-functional, Integrated Product Teams have been around for some time. The goal of establishing such teams is to mitigate the risks inherent in hand-offs between groups. Each hand-off presents an opportunity for misinterpretation and information loss. Both of which introduce inefficiencies and risks into the lifecycle.

(2) Rapid, Continuous Delivery – A never-ending goal, the timeframe to deliver new compelling functionality continues to shrink as customer sophistication and expectations rise. The goal of rapid, continuous delivery is to maximize the benefits by providing smaller chunks of functionality in shorter timeframes. It's often better to have a few new product features today, than wait for many new features months or years later.

(3) Continuous Assessment & Improvements – Historically, done retrospectively the continuous assessment of a shorter development cycle is to focus on increasing the degree and reliability of achieving repeatability with the introduction of these improvements sooner.

(4) Technology Enhanced Processes – Integrated environments built on a comprehensive repository that spans the various disciplines across development and operations such as version control, change management and release management is instrumental to facilitating interdisciplinary communications and maintaining product integrity while the product evolves over shorter periods of time.

(5) Automated Infrastructure Deployments - Leveraging Virtualization and Cloud technologies, DEVOPS relies on the ability to quickly create, expand, dispose and recreate software environments. Whether the environments are for development, QA, production, testing; whether they are temporary or permanent, DEVOPS relies on the ability to quickly and accurately create environments and repurpose resources from obsolete environments.

In the end, DEVOPS is another step in the maturation of the software development process. As the technology advances, as demand for new capabilities continues to accelerate and as the lifespan of “new” things diminish, DEVOPS and its evolutionary successors will play a vital role in our ability to meet the increasing demands of our customer.