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MOVING DEVELOPMENT INTO THE FUTURE

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In a recent report, Forrester found that DevOps has the potential to save money, improve efficiencies and help the business recognise revenue sooner. It also allows for the organisation to make small, continuous improvements that shift focus and achieve objectives steadily without the risks of the big changes and equally impressive failures.

Organisations such as Netflix, Google and Etsy are leading the way in demonstrating the efficacy and capability of the DevOps principle and what can be done if adopted culturally and done dynamically. DevOps is fascinating and brilliant, it is also complex and hard to define – a mystical force that can transform profitability and productivity, but only if done right. So what is it and why should you care?

“DevOps combines the previously separate disciplines of development and operations. It’s a continually evolving practice that bridges the gap by leveraging existing skills and maturity to enable the delivery of value through the provision of software on a continuous basis. Organisations must be mature enough to empower their development teams to make decisions and trust that they will make the right ones.”

Peter Searle, BBD Chief Executive Officer

DevOps creates high performance teams that redefine silos and boundaries by bringing together the two professions of development with a common goal or strategy. It is also a culture that’s defined

by open communication, collaboration and transparency as all stakeholders sit in one place, creating continuous feedback loops to improve quality and delivery.

Speed and dexterity

“Developers and operations can now frequently deploy micro-application functions and services, which result in fewer errors, reduced risks, and improvements in quality,” says Jaco Fourie, Integration lead & architect for Oracle at Britehouse. “Release early, release often – this is the DevOps mantra and it minimises the potential for catastrophic failure due to the small size of the deployments while simultaneously keeping up with the demands of the business.”

The concept of DevOps is 100% awesome: two teams, one hive mind and endless potential. What could the business achieve if it managed to harness this potential properly? Would it have the same speed to market as a Game of Thrones raven?

The State of DevOps Report found that high-performing organisations deploy 200 times more frequently, with 2 555 times faster lead times. They have three times lower change failure rates and recover 24 times faster in the event of a failure. The report also found that these organisations spend 22% less time on unplanned work and rework and spend 29% more time on new work.

“The cost in time and resourcing of a traditional building-testing-staging-

production process is a significant barrier to corporates looking at conducting their own systems development or maintenance,” says Benon Czornij, MD, BNRy. “Without a DevOps process, consider what is required when there is an update for every machine in a large enterprise. If the DevOps process is setup correctly, then deployment can happen more frequently and very quickly. As the organisation identifies new requirements or features, they can be developed and deployed to production.”

The result? An organisation that can respond with agility to customer needs while boasting stable, bug-free software that has on-point functionality. By reducing the software or product time to market, the organisation has an edge over any competitor that still has a manual testing and deployment process. According to a 2017 DevOps Trends report, adoption of this model has increased by 74% in 2016 from 66% in 2015, with continuous integration, deployment and delivery providing the business with huge momentum.

There’s a lot to be said for the concept of DevOps, but the next question is possibly the most pressing in the South African market – does the business understand the requirements?

Culture trip

“I doubt that big business has a thorough understanding of DevOps,” says Mthokozisi Ntuli, DevOps manager, First Technology Digital. “Realistically, many corporates are

tied up with red tape and are unable to make speedy decisions. This means that DevOps requirements are hardly met within these organisations.”

Naresh Pema, Opensource specialist, Aptronics, adds: “Businesses must understand that DevOps is a cultural change. The first step would be for top management to understand and accept DevOps, then the mindset of the business; developers and operations teams would need to embrace this culture.”

DevOps is comprised of three components – people, processes and tooling. Buying a tool doesn’t provide DevOps maturity, even though tooling is part of continuous delivery. If there isn’t a cultural shift within the organisation, any tool adoption will fail. Executives must embrace the change and create a culture where people question the status quo and where innovative thinking is recognised and rewarded. Like any change in structure, ideology and behaviour, the introduction of DevOps will impact on how the enterprise functions and there needs to be support at the top for it to work effectively. If this doesn’t happen, DevOps will fail and the executives will label it another buzz word that didn’t deliver.

“Organisations shouldn’t be scared to make mistakes,” says Jaco Greyling, CTO, Enterprise DevOps, CA Southern Africa. “The important thing is to learn from it and to grow each day, carving out a culture and process that works for them. If companies want to survive, they will have to become digital businesses. Digital transformation is the cornerstone of this transformation and DevOps is the enabler. It has never been more important for your enterprise to be able to efficiently develop and swiftly deliver stable, high-quality applications and updates.”

Greyling also provides one hugely relevant example of how DevOps has transformed one very well-known organisation – Amazon. In 2001, the Amazon.com website was an architectural monolith across multiple tiers, with multiple components that were closely coupled together and behaved as one giant monolith. Changes were frustrating and slow, limiting the development lifecycle and innovation, so the company teased the monolith apart into a service oriented architecture. The senior AWS product manager, Rob Birgham, said: “We originally wanted teams so small we could feed them with just two pizzas.”

Agile and flexible

The results speak for themselves: today, Amazon’s front-end development lifecycle is impressively swift and capable. The company makes 50 million deployments a year. Most businesses would be happily placed on the same pedestal as Amazon, it’s a giddy height. It is also one that recognises the value of speed and agility alongside the importance of customer and delivery.

“Increasingly, we will find that the calibre of an organisation’s DevOps practice will be intimately linked with the quality of the eventual customer experience,” says Venkateshvaran Gopal, test architect, Wipro Limited. “The winners will be those providing superior customer experiences at a much faster pace and this can only be powered by a well-oiled DevOps machine.”

Customer expectations are certainly changing fast: the always-on mobile device, the social networks, the demand for smarter business interfaces and connected experiences. The checklist goes on, but the trends that dominate remain the same. The business has to adopt an

agile and flexible business process and DevOps is key to enabling this adoption and change.

“DevOps can support business agility for the business to remain relevant, with the main goals being to deliver better customer experiences in a much faster way than was possible before,” says Mathew Lee, regional manager for Africa, SUSE. “As digital businesses depend on recurring revenues and profitability through high rates of customer retention, adopting the DevOps processes forces the enterprise to break out of silos and embrace collaboration to ensure high levels of customer satisfaction.” Just like that raven.

DevOps trends

- 2017 is going to be the ‘Year of DevOps.’
- Along with DevOps, Continuous Integration, Continuous Deployment, and Continuous Delivery, are going to gain a huge momentum.
- A number of new DevOps automation tools will be released that will change the way software is developed.
- Automation and continuous testing will become more popular and more important.
- Must-have tools and platforms, including Docker, AWS, GitHub and JIRA will become even more popular within developer zones. Source: devops.com

About BBD

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