

Successful DevOps needs the right ingredients

By Harkrishan Singh

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In the age of disruption and fast data, the success of a new software solution is often dependent on being first to market. Currently, businesses are exploring ways to innovate quicker to jump ahead of competitors.



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Since its mainstream adoption over the past decade, DevOps has become entrenched in many software businesses as a method of improving time to market.

However, if not properly implemented, DevOps can also lead to errors, operational issues and product defects. So, how can businesses benefit from the efficiency that DevOps offers and avoid the potential pitfalls of fast development, and what do they need to achieve success?

What is DevOps?

Typical hindrances to successful product delivery include late delivery, quality issues and an incapable infrastructure, all of which result in expanded costs. These issues often arise from a lack of collaboration, communication and integration between the development and operations teams.

DevOps effectively bridges the gap between the development and operations teams for rapid application delivery. Development and operations teams work in synchronicity, collaborating at every step of a project lifecycle rather than working in silos to deliver a solution. It also typically leverages technology such as automation tools to enable an increasingly programmable and dynamic infrastructure from a lifecycle perspective. However, DevOps looks different for various organisations, based on the skills, traits and culture that unique businesses need to streamline their individual project delivery.

The benefits of DevOps

DevOps can ensure faster time-to-market and accelerated delivery of a specific product or solution. Speedier development and production with fewer mistakes or recalls means a significantly better return on investment and profit margins.

Different business units are traditionally connected yet work individually on each aspect of a project as it reaches them. With DevOps, communication and collaboration between teams is enabled and encouraged, fuelling improved communication and paving the way for an atmosphere of integrated teamwork across globally collocated teams within an IT business.

When teams work cohesively, businesses experience more stable operating environments, easier and faster identification and resolution of errors or defects, and a culture of continuous testing, monitoring, and release and deployment. Overall, teams are happier, there is higher engagement across different business units, and productivity escalates.

Nevertheless, establishing a functional and successful DevOps process relies on team cooperation, having the right tools in place, and ensuring rules and processes are adhered to.

Challenges of DevOps Implementation

On a micro level, operations and development teams need visibility into each other's activities, which requires that teams cooperate and communicate with each other. On a macro level, it's important that upper-level management maintain insight into the overall operation to enable proper decision making and adopt corrective measures as and when hiccups occur.

Every team member within a project needs to be involved, however, there also needs to be an overlying set of rules and processes that the team needs to adhere to in order for DevOps to be effective.

Businesses also need to the right tools, which need careful selection and buy-in from all users. If any single department is unfamiliar with a tool, or unwilling to use it, operational issues will occur. Tool management is something that needs to be addressed early and in conjunction between development and operations teams.

What makes a great DevOps team?

Since DevOps is a cross-functional endeavour, teams need to be clear on what their expectations and deadlines are.

Managers need to establish this at the onset of a project and ensure all roles and responsibilities are acknowledged and interlocking with each other.

DevOps teams need to possess the following characteristics to be successful:

• **Communication skills**: Great teams know how to communicate and collaborate with each other to succeed. When every team member knows what their role is and how to leverage each other's strengths, they become a successful team.

• **Team player mindset**: A 'one team' attitude must be adopted. Teams involve a cross section of players, including application development, infrastructure development, architecture, operations organisations, and business stakeholders, all of whom need to understand and drive the objective.

• Agile thinking: DevOps requires a shift in traditional thinking and requires that team members be open to change and adaptable.

• **Fearlessness**: According to a Gartner study, 75% of enterprise IT departments will have tried to create a bimodal capacity by 2018. However, less than 50% of them will reap the benefits that new methodologies like DevOps promise. Team members need to be unafraid to fail and quick to recover from failure.

• **Sustained enthusiasm**: Good teams recognise every team member's effort and contribution regularly. When everyone knows their efforts are valued and form part of the bigger picture, they deliver great results.

• Effective leadership: The best teams are led by great and effective leads who communicate the business's vision clearly, act humbly, and are always open to advice and criticism.

• Clear vision: Every team member needs to understand the vision and objective of the project so that they can contribute effectively.

Ensuring DevOps success

Nearly every IT organisation wants to embrace DevOps, with the promise of increased software development speed and greater business agility that helps in accelerating the interactions between development and operations.

A successful journey starts with the right people in the right DevOps roles with the right skills—and a willingness to collaborate.

The key to successful DevOps is greater collaboration between engineering and operations. That means rethinking existing development and operations roles and reorienting them around continuous software delivery, from ideas and development to production and maintenance.

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