

# DEVOPS: THE FOUNDATION FOR SUCCESSFUL DIGITAL TRANSFORMATION



DevOps is a rage now – it has been accepted as the established method of software development and the preferred medium for driving digital transformation in an enterprise. The approach offers a far easier and hassle-free approach to software development, compared to the traditional approaches, because it spurs better collaboration, fosters a culture of continuous development, reduces time to market, improves efficiency, and cuts costs. It enables enterprises to take a proactive approach to software development, enabling them to seize the day, and in the process elevate IT to the role of a strategic business partner as opposed to a cost center.

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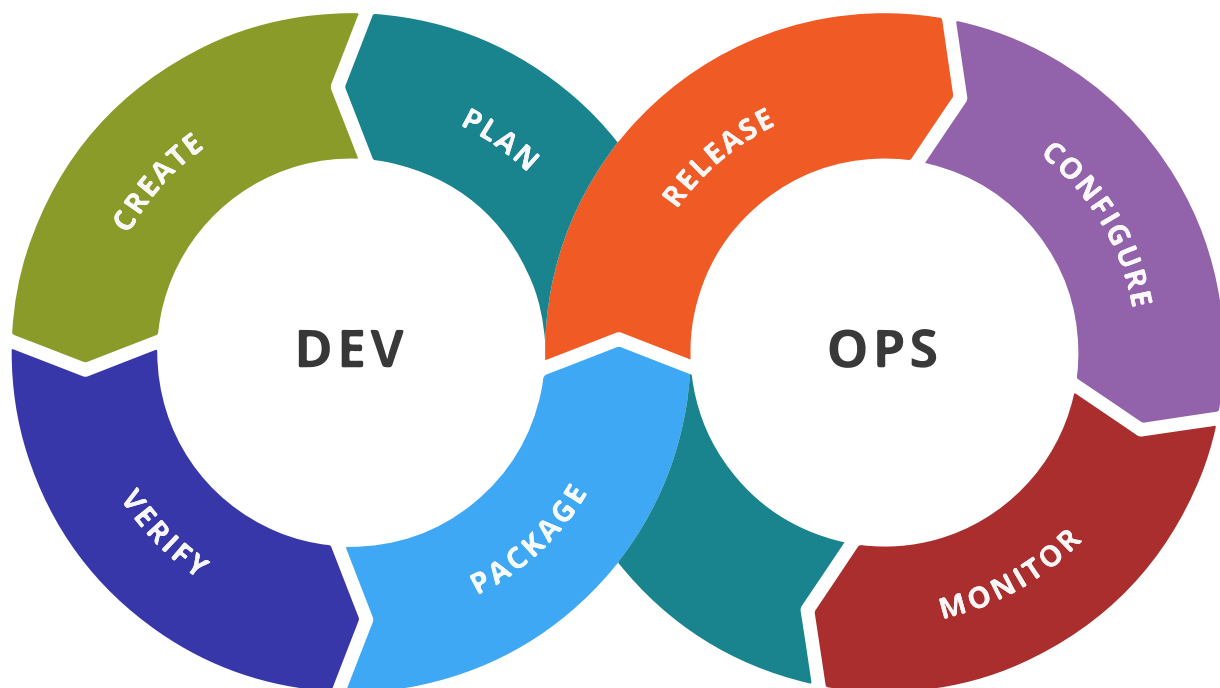
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# DEVOPS: THE FOUNDATION FOR SUCCESSFUL DIGITAL TRANSFORMATION

DevOps is a rage now – it has been accepted as the established method of software development and the preferred medium for driving digital transformation in an enterprise. The approach offers a far easier and hassle-free approach to software development, compared to the traditional approaches, because it spurs better collaboration, fosters a culture of continuous development, reduces time to market, improves efficiency, and cuts costs. It enables

enterprises to take a proactive approach to software development, enabling them to seize the day, and in the process elevate IT to the role of a strategic business partner as opposed to a cost center.

Enterprises adopting the DevOps culture gain 200x more frequent deployments, 24x faster recovery times, and 3x lower change failure rates.



# DEVOPS DRIVES AGILITY

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The DevOps approach integrates the principles of agility and lean to software development. In fact, it goes beyond – it extends the same agile principles down the value chain, to the business operations powered by the software.

With most companies today operating in an uncertain business environment where making predictions are difficult, the only safe way to hard-code flexibility and prepare the enterprise for possible changes are agility and modularity. DevOps, which facilitate such competencies, enable big companies to be nimble like small companies, even while delivering large company results. They also help small companies achieve big company results.

The DevOps approach places the focus extensively on end user requirements, and ensures a collaborative approach where the development team works directly with the business users. It also focuses on providing a set of tools, practices and ideas, rather than straitjacketing developers into a rigid system or methodology. DevOps support about 30+ different tools for the entire gamut of tasks, from coding to testing, and from collaboration to Quality Assurance, offering a wide range of choice. Such a wide range of functionality and choice makes it easy for enterprises to change in tune with markets and competition, and innovate well.

# DEVOPS PROMOTE RAPID APPLICATION DEVELOPMENT

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DevOps ensure faster delivery of features, accelerating time to market. They allow enterprises to deliver mission critical software anywhere between 10X to 100X faster, so critical in today's age of high competition where even a minor delay can have huge implications.

Legacy development approaches limit new releases to once a year simply because the underlying infrastructure could not be made available more quickly, owing to manual processes and constraints on resources. The DevOps approach focuses on rapid application development and when used in conjunction with the highly scalable cloud solutions, facilitates continuous delivery.

However, infrastructure constraints are not the only inhibitor to rapid application development. Many development groups are constrained by opaque systems and find it difficult to make decisions with very little information.

A major barrier to digital transformation is data and functional silos, which hamper the seamless flow of information and subvert analytical insights. The DevOps approach focuses on seamless systems, backed by the smooth flow of information. It does away with the legacy method of one team completing all tasks associated with a discrete project before passing it over to another team to work on and so on. Instead, it entrusts each specific task to a

cross-functional team, drawn in from different disciplines. Such teams erode the barriers between different departments and functional teams, accelerating the flow of information, and speeding up execution greatly.

The fast and frequent release cycles promoted by DevOps makes it possible to identify and resolve issues proactively. When errors are not identified at

the source, it becomes hard-coded on to the software, and becomes much more difficult to fix.

All in all, enterprises deploying DevOps deploy software 30X more frequently, with 200X shorter lead times.

## DEVOPS PROMOTES RESILIENCE

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DevOps contribute to the resilience of the enterprise in a big way, by fostering greater stability and reliability compared to the traditional software development models. Enterprises adopting DevOps experience 60X fewer failures and recover from failure 168X faster compared to lower-performing peers.

With DevOps, a continuous pipeline replaces the loosely coupled and error-prone hand-offs of the traditional waterfall method. The culture of collaboration brought about by DevOps co-opts multiple feedback loops between the development, operations, business and other teams. This allows the team to identify issues very early in the development pipeline and fix issues in the bud before it escalates

into big issues. Nipping issues in the bud also helps developers spend less time on fire-fighting and spend more time on improvements and innovations related to the core purpose of the software.

DevOps make everyone accountable for developing and implementing the application. It unites cross-functional teams with common objective centered on quality standards such as performance, stability, user experience, and security.

A spin off benefit of the collaborative approach brought about by DevOps is the ability to test out hypotheses with real users, making results grounded in reality, rather than on assumptions or conjectures.

## CLOUD BASED DEVOPS IMPROVE EFFICIENCY

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The cloud complements DevOps perfectly. Migrating to the cloud enables enterprises to shed the traditional inflexible hardware inventories dragging them down, and also gain access to robust platforms for seamless collaboration and unhindered scalability.

The scalability and collaboration capabilities offered by the cloud do away with time and resource waste, where developers wait for inputs from another person, which is typical of a traditional IT environment.

The cloud also offers a convenient repository to make and store builds, allowing geographically dispersed team members to access it and make contributions seamlessly.

More importantly, the cloud powered DevOps approach automates the delivery pipeline. A hallmark of the DevOps approach is the use of a single execution environment, and automated code deployment. Creating new virtual machines or new containers through a control script, or reusing the execution environment created during development

and testing are all easy with the cloud.

The growth of containers and micro services, coupled with the arrival of the Internet of Things (IoT), raises the stakes of DevOps further. These new interconnected ecosystems require a high degree of accuracy and preciseness, coupled with robustness. The DevOps approach facilitates hyper-efficiency, realized through increasing automation and proactive error-fixing, the essential mantra for success in the new scheme of things.

## DEVOPS AND IMPROVED PRODUCTIVITY

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DevOps facilitate a holistic approach, through automated testing, continuous delivery and full integration of the application and infrastructure stack. The approach places the spotlight on performance throughout the lifecycle, rather than trying to rectify errors at the testing phase. Obstacles that impede developer productivity or delay time to market are identified and removed early. Error detection becomes a proactive exercise, eliminating costly rework.

The culture of collaboration brought on by DevOps also improves productivity and efficiency. With all stakeholders contributing to the continuous delivery chain, everyone is empowered, and a culture of trust develops, contributing to work enrichment and better output. DevOps based development teams discover dependencies, learn how the application will perform when it goes “live”, and make suitable modifications in the compute environment. These processes reiterate with practice and automation.

## DEVOPS MAKE ANALYTICS MORE RELEVANT

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The DevOps approach, by moving the testing forward and integrating it into the core process, makes analytics more efficient. Generally, analytics is reactive, concerning itself with post-production performance data to analyze what went wrong. In

today's extremely fluid and fast-paced world, such data may have become obsolete by the time the analytics is performed. With DevOps, performance analytics models anticipate operational and quality problems before deployment, paving the way for

relevant and actionable analytics.

# DEVOPS REDUCE COSTS AND IMPROVE ROI

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Time is money, more so in today's highly competitive and fast-paced business environment. Well-executed DevOps practices eliminate costly time sinks, while simultaneously mitigating risks. Improved efficiency reduces wastage. Continuous delivery reduces the need to spend more on testing and reworking the code. Automated testing and monitoring assure performance without adding to delivery timeframes. Faster time to market and continuous incorporation of user feedback enable businesses to maintain a competitive advantage. Adopting the cloud and Big Data tools to run DevOps tools enable businesses to save further time and money, and recoup valuable opportunity costs quickly.

The DevOps approach also drives top line benefits centered on revenue growth, both in terms of lesser operating costs and improved efficiency, and also in terms of increased sales due to customer delight.

Enterprises promoting DevOps based interactions are about 10x times more likely to enjoy double-digit revenue growth to the prior year, compared to enterprises where DevOps interactions are rated as "average" or "poor".

# DEVOPS IMPROVE CUSTOMER SATISFACTION

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By facilitating an agile approach, DevOps deliver high-quality software in double-quick time, delighting all stakeholders. The internal customers, or the software developers, are empowered to develop highly powerful software easily. Operational staff and end users get their say, and contribute deeply to the process, providing them with a sense of ownership. Employees and support units, such as HR, Accounts, and others, often left out of the process, also become stakeholders, and their critical inputs are valued.

End users are delighted with the high quality and

powerful bug-free software which improves their productivity manifold, saving them considerable time and hassles. They are also delighted at the speedy and prompt resolution of their issues or needs.

Today's external end-users are highly demanding, seeking exceptional customer experience (CX) across touch points. The DevOps approach enables companies to deliver on such demands effortlessly.

An underestimated benefit of the DevOps approach is the ability to obtain continuous feedback and

incorporate it more expeditiously into application development. This makes it easier to cater to what exactly customers want, improving their satisfaction and driving revenues in the process.

All the potential notwithstanding, the advantages of DevOps are not realized just because companies embrace the concept. Companies seeking to leverage DevOps to deliver customer satisfaction require a strong cultural foundation as a prerequisite, and need to align their systems and procedures to this effect.

Research major Gartner estimates 90% of I&O organizations attempting to use DevOps without specifically addressing their cultural foundations to fail. Adopting DevOps the right way, to leverage its potential, requires the services of a strategic partner who is competent not just on the technical front, but has a long experience of working in the industry and creating customizable solutions grounded in the practicalities of running a business.





# ABOUT SUYATI

Suyati provides marketing technology and integration services for companies that wish to combine the best of breed solutions and create a unified approach to customer acquisition. This unified digital marketing approach requires system integration between various CMS and CRM platforms, and a slew of eCommerce, Marketing Automation, Social Media Listening, email and social marketing, and customer service systems. Our specialized knowledge in Salesforce, open source and .Net based systems enables us to build effective custom integrated solutions for our clients. Suyati's custom technology solutions have been deployed in companies in the US, Western Europe and Australia, and have helped many enterprises leverage the web/cloud/mobile technologies to acquire customers through integrated digital marketing. Suyati is based in Chicago with product engineering capability out of the US and India.

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## Reference

1. <http://www.devopsdigest.com/devops-advantages-2>
2. <http://www.devopsdigest.com/the-devops-payoff>
3. <http://www.coda.global/3-benefits-devops-cloud/>
4. <http://www.tothenew.com/blog/5-benefits-of-using-devops-with-cloud/>
5. <https://puppet.com/resources/whitepaper/2016-state-of-devops-report>
6. <https://newrelic.com/devops/benefits-of-devops>
7. [http://insights.tothenew.com/why-cios-should-consider-using-devops-with-cloud?\\_ga=2.112627329.46665261.1501832453-376957548.1501832453](http://insights.tothenew.com/why-cios-should-consider-using-devops-with-cloud?_ga=2.112627329.46665261.1501832453-376957548.1501832453)
8. <https://insights.hpe.com/articles/why-cloud-makes-aile-and-dvops-more-important-1701.html>
9. <https://www.talend.com/blog/2017/03/17/how-devops-can-bring-innovation-through-cloud-integration/>