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The Financial Benefits of DevOps Practices

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INTRODUCTION

While business leaders aren't directly responsible for developing technology systems and applications, they do have the decision-making power required to provide technology engineers and architects with the right tools and resources they need to follow best practices. Executives lead the budgeting and goal-setting meetings during which DevOps teams present their initiatives and funding requests for approval.

Lack of the proper knowledge base, tools, and processes for DevOps means companies take longer to develop products and bring them to market. A lengthy development process ends up costing more, cutting into profits. Lack of attention to quality can lead to faulty products entering the market, costing more money to fix and replace.

Promoting DevOps practices and their business value helps line-of-business executives support the creation of profitable new systems and applications.

When executives are equipped with the right knowledge, they can engage in meaningful dialogue with the DevOps team. When DevOps best practices are in place, executives can streamline the development lifecycle to develop more accurate budgets and go-to-market timelines, allowing the company to outpace the competition.

This eBook explains how DevOps practices work, how they impact company profitability, and why organizations should turn to IO Connect for DevOps expertise.



How DevOps Practices Work

DevOps practices cover key areas related to building, testing, and deploying applications. They provide the tools and processes needed to speed up the system development lifecycle.

Here's an overview of DevOps best practices and what they do:

Continuous Integration & Continuous Delivery (CI/CD)

With Continuous Integration and Continuous Delivery (CI/CD), companies can rapidly and reliably build, test, and deploy applications, reducing time to market while still improving quality.

Infrastructure as Code (IaC)

Infrastructure as Code (IaC) enables companies to manage application configurations, containers, operating systems, and servers.

Configuration Management

Configuration Management automates, monitors, designs, and manages configuration processes, allowing organizations to increase agility.

Monitoring & Alert Automation

With Monitoring and Alert Automation, companies can analyze logs and automate performance monitoring of applications and infrastructure.

Cloud Services

Cloud services provide DevOps for any cloud service model to help move a business ahead, including Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS).

Microservices & Containers

Companies should be able to build and deploy a microservices architecture that breaks down systems and applications into modules using containers or serverless computing.

Serverless

With a serverless architecture, DevOps teams can focus mainly on delivering value to the business without needing substantial operational overhead.



Benefits of DevOps

DevOps practices create financial benefits for companies by accelerating the time to market for new applications and features through shorter development and testing cycles.

Eliminating Downtime During Deployment

DevOps practices take advantage of seamless application deployment strategies that eliminate downtime. For example, continuous integration and continuous delivery (CI/CD) pipeline helps to automate testing and uncover problems before deployment.

However, a zero-downtime deployment can be accomplished by manually building and releasing an application using the right strategy. Zero-downtime deployments empower your business to make changes while an application is running.

Less downtime eliminates any negative financial impact, including the cost of interruptions in production and the loss of users as they look for other options. Instead, the organization maintains a positive reputation by improving user experience and business continuity.

Supporting Quality

Automated testing and code release get products to the market more quickly while supporting quality assurance. With automation expertise, organizations are more efficient, avoid errors, and experience fewer problems with deployment.

Discovering problems after a product has been released creates huge financial and reputational repercussions for a company. Using automation to test for performance and security prevents flawed products from entering the market that would need to be recalled and recoded.

Fixing a bug costs more than preventing it. Continuous integration practices help ensure that changes to the code are manageable so that detecting issues before deployment is more straightforward.

Research by IBM reported that the cost to fix an error found after product release was four to five times as much as one uncovered during design and up to 100 times more than one identified in the maintenance phase.¹

Tracking Profitability

Establishing baseline metrics will enable you to see progress in application development and profitability over time. Starting with one application and building a DevOps team will help identify constraints and bottlenecks so an initial pipeline can be established.



How IO Connect Helps with DevOps

Even companies that have implemented DevOps practices face challenges because of skill gaps or staffing shortages. To take advantage of the benefits of DevOps processes, organizations should work with a partner like IO Connect with the [AWS DevOps Services Competency](#) status that demonstrates technical proficiency and customer success applying DevOps best practices in the software development lifecycle (SDL).

At IO Connect, we know that one size doesn't fit all. That's why we follow a DevOps philosophy based on 4 principles:

01 A culture of collaborative learning

We encourage continuous learning, combined with broad and transparent sharing of knowledge. Because having trained and qualified staff has high importance and priority in our DevOps practice, we provide our team members with educational tools and support for official certifications.

02 Automated CI/CD With Testing

Our agile methodology and lean practices provide structure and discipline to deploy business value frequently and eliminate waste. We use tools like AWS CodePipeline, AWS CodeBuild, and AWS CodeDeploy that help to implement a sophisticated and automated CI/CD pipeline in which code is pair-reviewed and unit testing and integration testing is executed in every push or code merge.

03 Feedback loops reduce time to insights

We shorten feedback loops so that adjustments can be made earlier and more economically and broaden feedback so that the entire organization has continuous access.

The communication between the different teams that participate in one delivery is crucial. The feedback flows through all the stakeholders so they are always aware of the details or adjustments of the project at any moment.

04 The whole system shapes the goals

The focus is on collaborative performance of the entire system. Business teams engage early and often with customers.

Development, test, and deployment teams collaborate to achieve shared goals. Team members assigned to the same project work together as a unit. Everyone is aware of the goals and moves forward in the same direction to reach them.

CONCLUSION

Taking a Smart Approach to DevOps

Following DevOps best practices should be part of your company's culture. Armed with knowledge about how DevOps processes benefit the company, business leaders like yourself can become advocates for optimizing application development and testing procedures.

The process of transforming your application lifecycle begins with partnering with the right DevOps expert.

IO Connect has achieved AWS DevOps Services Competency because we have demonstrated specialized technical proficiency and have a track record of customer success with key areas of DevOps practices.

AWS DevOps Services Competency enables us to leverage tools such as AWS CodePipeline, AWS CodeBuild, and AWS CodeDeploy that use automation to improve efficiency. We have all the expertise needed to ensure that your company experiences the financial benefits of adopting DevOps practices.

Find out more about how DevOps practices can financially benefit your company. Reach out to [IO Connect](#) today.



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SOURCES

1 | Six Sigma | <https://www.isixsigma.com/software/defect-prevention-reducing-costs-and-enhancing-quality/>