

## Explained Pros and Cons of DevOps Methodology and its Principles



DevOps is a great strategy that allows the developers of various companies to experience better success with their products. With the buzz surrounding **DevOps**, it is easy to assume it is a technology solution that solves your production and quality issues. However, [DevOps](#) is more of an approach that can bring in work culture change by reinforcing collaboration and cohesiveness.

Previously, the waterfall was the approach that led developers to create robust products. However, it consumed massive amounts of time, and additionally, there was a lot of scope for improvement throughout the methodology. The primary area which needed to be bettered was that developers and operations staff members were siloed differently, and they had a tough time hammering out the differences which sprouted along the way. From bugs to source code modifications, there were a significant number of challenges that impeded the methodology.

Seeing the potential for a new approach, a group of developers got together in 2000 and penned down 'Manifesto for Agile Software Development,' which paved the way for the agile development process. The software was developed in large batches and deployed as a whole package.

The software development was broken down into smaller batches with the agile approach. This enabled the project members to develop and deploy iterative updates, which were relatively easier to modify and sported little time to market.

DevOps brings in many principles from agile. However, it is not the same as its predecessor as it [differs from agile and waterfall](#). While those differences can always be discussed, let's not digress. While penning other blogs, our team saw a disturbing observation from Gartner.

In one of their postings, Gartner predicted that "through 2022, 75% of DevOps initiatives will fail to meet expectations due to issues around organizational learning and change". Gartner also outpoints that "tools are not the solution to the cultural problem."

This brings forth a new and often ignored perspective: DevOps has its own set of flaws. While its advantages are the motivating factors for its adoption, companies should also understand that every technology comes along with its disadvantages. In this blog, we shall explore the principles of **DevOps and the pros and cons** that come along with them.

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Useful link: [Why Should You Adopt DevOps and What are the Benefits it Offers?](#)

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## Principles of DevOps



DevOps and agile are similar to some extent. However, DevOps methodology always prioritizes automation and keeps its eye on meshing together development and operations members as one unit. These benefits are pertinent in this modern-day as demands are rising, and keeping up with the changing demands, automation, and resilience are vital to staying relevant with the changing times.

While DevOps is often called a methodology or an approach, one should understand that DevOps brings a change in the organization's culture. Due to the new advantages, one can roll off the products and better the existing products as the feedback is enabled with DevOps. The perennial deployment and improvement are termed [CI/CD \(Continuous Improvement and Continuous Development\)](#). This is one of the essential principles of DevOps.

As improvement is always in the picture, testing and rectifying errors is a given as bugs must be hammered out. This brings forth the requirement for swift testing, and one principle that keeps DevOps ticking is automatic testing. This testing mode doesn't even require manual testing as bugs are detected by automatic testing, and it lends the chance to developers to fix bugs swiftly. The developers can also subject the project to load testing, giving insights into how the program will function under severe circumstances.

With this, we have covered the principles of DevOps. To sum it up, CI, CD, and automatic testing are the fundamental principles of DevOps. CI provides the inputs to the project members as to the prevalent issues with the code, and the problems commonly expected in the initial stages are detected and fixed. Automatic testing brings forth quality issues and allows the developers to fix the bugs. Finally, the final or iterative update will be easily deployed with CD. Now, with the principles summarized, let's dig into the advantages of **DevOps**.

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Useful link: [Top 10 DevOps Tools to Pick for Your Business](#)

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## Pros of DevOps



The illustration depicts a DevOps workflow. On the left, a person is climbing a ladder to reach a large blue and black sphere. Another person is sitting on the sphere, working on a laptop. Below them are several gears of different sizes. To the right, there is a bar chart with three bars of increasing height, and a magnifying glass is positioned over it. A small potted plant is also visible. The Veritis logo is in the bottom left corner.

### Pros of DevOps

- ✓ Faster Time-to-Market
- ✓ Stunted Expenses
- ✓ Seamless Workflow
- ✓ Bugs Quashed
- ✓ Better Integration
- ✓ Planning Improvised

Everything has its pros and cons. While DevOps has set out to take the agile process to new heights, it is not without its disadvantages, but DevOps has been acknowledged by many to outweigh its cons with its pros. So, let's delve into what those advantages are.

- **Faster Time-to-Market**

A completely functional software can be developed faster using the DevOps methodology. The advocated automation saves a tonne of time. Operations that once required numerous handoffs and took weeks to complete now only take a few keystrokes or the execution of a script.

- **Stunted Expenses**

With automation finishing crucial tasks, there are a few aspects that one doesn't have to be bothered about. This is primarily due to how advanced automation has become in recent times. Be it bug detection or update deployment, or the execution of mundane tasks, automation has enough in its arsenal to reduce the expenses. While automation may have its fair share of teething troubles, it brings along many benefits in the long run. On average, it was generally observed that companies could reduce their overheads by 20% with DevOps integration.

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Useful link: [Security Integration – A Secret of Successful 'Secure DevOps'](#)

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- **Seamless Workflow**

Let's face it; waterfall siloed the team members quite rigidly. DevOps brings together the team in a much more effective way. Coordination is the key to productivity, and DevOps principles ensure coordination and collaboration pave the way for a seamless workflow.

- **Bugs Quashed**

Automatic testing, one of the principles of DevOps, allows the project members to fix the bugs fast. As a result, the quality standards are met with DevOps faster.

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- **Better Integration**

Automation helps you deploy updates faster than before. As DevOps brings along automation, project members would have the time to develop solutions which can support a variety of devices. The automation advantage lends the opportunity to schedule the updates for automatic rollouts which wicks away the worrisome aspects of deploying the solutions.

- **Planning Improved**

As DevOps breaks down the delivery of the project as iterative updates, the project leads can create a practical roadmap of the deliverables, which includes important aspects such as development, testing, deployment. The roadmap decides the life cycle of the solution and every key player, including the stakeholders should be included at this stage.

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Useful link: [DevOps Adoption Challenges Businesses Must Overcome](#)

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### Cons of DevOps



DevOps cons are more challenges that need to be overcome. However, as we opined before, these cons are outweighed by pros. So, let's dig into the disadvantages without further ado.

- **Complexity**

The complexity of a firm's IT environment can frequently rise due to the [implementation of DevOps](#). Companies can create a more complicated production environment that is challenging to manage and troubleshoot by integrating many tools and technologies into the software development process. DevOps can also force businesses to spend more money on hardware and software resources, which raises complexity and expenses.

- **No Standardized Version**

DevOps is currently not standardized across the entire industry. As a result, DevOps companies need to develop their unique workflows and toolkits, which can be time-consuming and expensive. Additionally, a deficiency of uniformity may cause uncertainty among staff members regarding the best ways to apply DevOps principles.

- **Teething problems**

A lack of skilled [DevOps engineers and specialists](#) has resulted from the increased adoption of DevOps. As a result, corporations are frequently forced to hire inexperienced workers or consultants as they scramble to integrate DevOps in the initial phase. Unfortunately, this hotchpotch execution leads to software issues and quality degradation.

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Useful link: [Future of DevOps: Top 6 DevOps Trends in 2022 and Beyond](#)

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- **Early Adoption Overheads**

[DevOps adoption](#) can frequently result in higher expenditures for enterprises. Enterprises can see a considerable increase in their IT costs by needing to invest in extra hardware and software resources and hire skilled DevOps specialists.

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Furthermore, the sophistication of a DevOps system frequently causes issues with the performance and dependability of applications.

- **Technical Dissonance**

DevOps also brings with it a slew of technological difficulties. The need to standardize and automate procedures and technologies throughout the business is one of the most pressing. This may be challenging, especially in firms with several apps and platforms. Another difficulty is incorporating DevOps into a current system without sacrificing safety or speed.

- **Operational Impediments**

Finally, the DevOps approach might be difficult to implement from an operational standpoint. Managing deployments and rollbacks in a regulated and safe manner is one of the most difficult tasks. It may be challenging, especially in a big and complicated manufacturing setting. Monitoring and logging are also important for **DevOps success**, but they can be difficult to set up and manage.

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Useful link: [DevOps Market To Be Worth USD 17 Billion By 2026!](#)

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### Capping it off



As DevOps is an iterative process, firms should anticipate making several modifications and tweaks along the way. Companies can guarantee that their **DevOps implementation** can adapt and evolve as the demands of the business change by being ready to iterate.

The DevOps team should uphold the principles which foster communication and collaboration. By encouraging a sharing culture, businesses may guarantee that information is transmitted quickly and effectively between programmers and operational employees. Furthermore, encouraging two-way communication within the team will aid in developing trust and mutual respect.

Both the business and the DevOps team have expectations that must be managed. By defining reasonable goals and timetables, companies may guarantee that their **DevOps deployment** does not become overwhelming or unmanageable. Furthermore, keeping the company informed about the DevOps team's success is critical so that objectives may be adjusted properly.

One of the most difficult aspects of implementing DevOps is convincing staff to adopt the new processes and technologies. Therefore, organizations should teach their staff the fundamentals of **DevOps practices** to succeed. In addition, businesses should guarantee that they fully realize the benefits of DevOps by teaching their personnel how to use these new tools and procedures.

With these challenges in place, most organizations opt for an MSP to handle the DevOps implementation. Having scored the [Stevie Award in DevOps solution](#), Veritis is the obvious choice for various companies. Be it Fortune 500 or budding companies; we have the expertise enough to create customized wonders which shall help you realize your DevOps ambitions.

A blue rounded rectangular button with the word "Services" written in white, bold, sans-serif font.

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