**DevOps Key Principles**

Changes call for innovation, and innovation leads to progress. This is the tried and tested method and the key to building a successful organization. Time and again the software industry is hit by a wave of challenging demands to match the market standards. And to keep up with the changing trends, organizations have started adopting new processes. One such method is **DevOps**.

**What is DevOps?**

The principal idea behind DevOps is to bring the two loosely connected ends i.e. the Development and Operations team together. The methodology focuses on adopting novel practices, philosophies, and tools over the conventional process of software development. This results in faster delivery, better end product, and great user satisfaction.

The benefits of DevOps are innumerable in comparison to ongoing practices in the market. However, the main challenge is to make the transition from the existing process to adopting DevOps.

Here is a list of key points that the organization needs to keep in mind in order to make a smooth and effective shift.

**1.**     **Customer First**

‘Customer always comes first’ is the motto of DevOps and the organizations need to take the necessary measures to ensure the same. The organizations need to innovate and transform continuously if they go wrong with a plan of action.

The team should not only rely on data and market parameters but also need to keep a keen eye on user requirements. The team must strive to achieve the right balance between the changing market trends and customer demands.

**2.**     **Inculcate the ‘We’ factor**

Prior to DevOps the dev team and QA team used to work in tandem, and the fully working code would then be handed over to the Operations. The perfectly running code of developers on the dev server would mostly go haywire as soon as pushed on the real-time server. The blame game would then start as the respective teams try to be defensive and prove that there is no blunder from their side. This tug of war would ultimately result in the poor quality product and in turn, adversely affects the organization’s reputation.

The teams in the traditional sense are considered two ends which hardly meet. But the practice of DevOps works in collaboration right from the start and focuses on bringing the team to work as a unit.

**3.**     **Cultivate the concept of ‘Cradle to Grave’**

The second most important factor of DevOps methodology is to take ownership of the product as a team. All the teams are involved from the pilot to deployment and post that providing the services and maintenance. The involvement of the teams from the beginning brings the sense of working in the same unit.

**4.**     **Effective decision making**

The team members should not only have sound technical expertise but also try to make the decisions in their purview. The team management takes the business-related decisions, but a good DevOps practice highly encourages the team to take localized decisions. This method avoids the congestion in the whole process.

**5.**     **Learn and Evolve**

One of the most important pillars of DevOps is continuous improvement. The software market is quite dynamic and to keep up with the pace, the organizations need to learn and evolve. Just by changing the culture or adopting the process won’t help, but embracing the new market trends, adapting the technology and customer needs is the need of the hour.

**6.**     **End-to-end automation**

Conventionally, the automation process would come in the picture only during the testing phase. The QA team would automate the test cases to check the code functionality and the Ops team would manually configure the server requirements. That was pretty much the case, but DevOps employs automation right from the time the code gets checked in. The code builds, running the test cases, and finally releasing the code for release happens automatically. That is how the entire lifecycle of DevOps is automated.

## 7. Right set of tools

One of the fundamental pillars of DevOps is automation. To enable automation and get the maximum benefit out of it one requires the right tools. Let’s take look at the most popular tools:

* **Jenkins:**  It is an open-source automation server. Helps to build, test, and deploy in a single tool.
* **Git:** The version control system repository makes code readily available across the team.
* **Selenium:** Enables QAs to test the web application and write test scripts.
* **Docker:** Open source technology. Packages the application in such a way that it can be used on any platform.
* **Nagios:** It is an open-source monitoring tool.

## 8. Continuous Feedback

DevOps is all about taking a customer-centric approach and to enable the same, feedback from end-users is essential. The only way to solve this issue is to concentrate on user requirements and bridge the gap between end-users and DevOps.