How Organizations are Hopping on DevOps Bandwagon to Accelerate Operational Efficiency

Rising customer expectations and cut-throat competition are creating a strong need for organizations to adopt DevOps practices and tools to accelerate operational efficiency. There's a great deal of buzz around DevOps as it can integrate the development and operation teams of organizations. DevOps enables formerly siloed roles – development, IT operations, quality engineering, and security to coordinate and collaborate and deliver software products with greater speed and efficiency.

The growing need for collaboration across IT teams, increasing digitization of organizations to automate business processes, rapid adoption of cloud technologies, and enhanced deployment of agile frameworks will only increase the importance of DevOps in times to come.

Key Steps to Implementing DevOps

Prepare for a Cultural Shift

Organizations must realize that cultural shift is the backbone of DevOps as it integrates people, processes, and tools. The DevOps movement must start with top management and run through even entry-level staff – development and operation teams must be made aware of the value each brings to the organization. This cultural shift can be expedited by identifying people who can motivate team members and ensure a smooth transition to DevOps.

Create a Vision Statement

Organizations adopting a DevOps strategy got to ensure their DevOps vision is aligned with their business vision and people are empowered to act on the vision. Some aspects of the vision such as reduced process complexities etc must be ingrained into the organizational culture.

Build a Continuous Integration & Delivery Platform

In a DevOps setup, it is imperative for organizations to provide accurate, up-to-date information about the production environment to development teams for appropriate deployment planning. This enables developers to adopt a coordinated "build and run" approach, wherein the developer who builds a product or service "owns" that product or service till the production stage. This "ownership" can be extended for a set period to address any major bugs before the handoff. Further, the DevOps team will touch all points of the service lifecycle, right from requirements to planning, deployment, and maintenance. This team will also troubleshoot problems that traditionally fall on ops.

Build a Continuous Testing Environment

Unlike the traditional software development process which is time-consuming and less reliable, testing is an integral part of development in DevOps, wherein Quality Assurance people are part of the DevOps team. Testing (be it manual or automated) is performed continually throughout the delivery pipeline. In fact, every change is treated as a potential release candidate, and the objective is to ensure the time between check-in and release is as short as possible.

Putting in Place a Continuous Deployment System

Forming a continuous deployment system can help organizations quickly deliver new features and updates while proactively making product changes. A well-designed delivery pipeline ensures organizations don't have to sweat over losing control over the code in production. Continuous deployment should be backed by continuous monitoring and feedback. With prompt feedback, developers are aware of what features are useful to end-users, which helps them focus on the features that matter most, thus saving time and effort.

Challenges in Implementing DevOps

Although DevOps promises a lot for the software industry, implementing it has its share of challenges. The biggest challenge lies in getting the development and operations teams on the same page – both teams have their own goals and priorities to focus on and adopting DevOps means that both teams have to focus on a common goal, which is never a smooth exercise. Another challenge is in coping with increasing complexities and security requirements owing to various technologies being leveraged across businesses – integrating DevOps tools from different domains as well as working with outdated systems are some other challenges associated with adopting DevOps.

Benefits DevOps Brings to the Table for Organizations

Elevated Customer Experience

DevOps can propel customer experience to the next level by helping organizations improve their deployment frequency by 200x, reduce downtime by 24x, and lower change failure rates by 3x. DevOps can help organizations automate their entire delivery pipeline, which ensures the reliability and stability of an application after every new release and eliminates the time-consuming, cumbersome as well as error-prone manual processes. The flawless performance of any application enables organizations to deliver a great customer experience, which will only serve to improve revenue and profits.

Silos – A Thing of the Past

The changing market dynamics are creating a need for development teams to break down their inter-departmental silos. DevOps will ensure the siloed approach of earlier times is a thing of the past as it facilitates increased interaction across teams comprising developers and operations guys, thus driving a significant amount of transparency across teams.

DevOps can breach the typical IT barriers and eliminate old linear processes while driving the newer more organized processes. It has been generally observed that working in silos can cause a great deal of resentment as well as misunderstanding across different teams with little transparency on either side. DevOps addresses such concerns and drives swift execution of projects through an agile process and reduces bottlenecks.

Faster Deployment

Taking the DevOps route can help organizations drive a faster and more efficient software development process by its principles of automation, continuous delivery, and prompt feedback. It drives faster deployment because organizations can put new processes, systems, and applications at a rapid pace. DevOps enables organizations to deliver desired results as employees require lesser development and deployment time to complete when they are working together.

Accelerated Collaboration

Another exciting feature of DevOps is that it drives a collaborative culture of fast-paced, continuous feedback that ensures timely resolution of any technical issues. DevOps drives mutual collaboration, communication, and integration across globally distributed teams that go a long way in improving business agility. It empowers different teams such as development and operations to understand each other's workflow. At the end of the day, all team members are collectively responsible for meeting the quality and timeliness of deliverables.

Shorter Software Release Cycles

Adopting a DevOps-based approach can go a long way in assisting organizations to drive shorter software release cycles. Shorter software release cycles help organizations effectively manage the planning and risk management as the progress is incremental, which also reduces the impact on system stability as well as helps in responding to evolving customer needs.

Conclusion

Organizations are fast realizing the importance of DevOps. According to a study by Grand View Research Inc., the global DevOps market size is expected to reach $12.85 billion by 2025, posting an 18.60% CAGR during the forecast period. Organizations taking the DevOps route can better respond to evolving customer needs and achieve business goals faster. Surely, adopting a DevOps strategy holds the key for organizations as their future success depends on it!