DevSecOps

Description

Continuous Integration, Delivery and Deployment

Being one of the pillars of the DevOps philosophy, Continuous Integration (CI), Delivery and Deployment (CD) conform the core of the software delivery pipeline towards a final product. Altogether, the set accomplishes the automation of code building, sharing and control among the different stakeholders (e.g., operations and developers) of a project, while ensuring the proper quality assurance and business continuity and traceability at any time during the product lifecycle.

Automated testing

Having a robust, rigorous and well architected automated testing process is a fundamental tenet of the IT automation strategy. Testing at all levels (unit testing, integration, scenario testing, user-acceptance, production, chaos, and regression testing to name a few) with proper checks, balances and visibility become one of the most powerful tools to ensure continuous improvement and reduce cost of poor software and infrastructure quality by detecting problems early in the software development lifecycle.

Major Vendors:

Containers / Microservices (e.g. Dockers, Podman)

Kubernetes Orchestration (e.g. GKE, AKS)

CI / CD (e.g. Azure Pipelines, GitLab, Jenkins

Case Study:

Migrating E-commerce Architecture from Monolithic COTS to Microservices Platform

The 'SEC' in DEVSECOPS

Integrating Security as code as well as closer collaboration between security and release engineers brings an answer to the ongoing bottlenecks observed in organizations trying to balance IT automation with secure delivery of solutions. Vulnerabilities, and violations of security rules, or information policies are quickly identified and resolved.

Application

Putting all together...Cloud Engineering

Through the application of engineering disciplines to cloud computing, software and infrastructure engineers apply a systematic approach to concerns of commercialization, standardization, and governance of cloud computing applications. In practice, software and infrastructure teams leverage collaborative methods and tools in conceiving, developing, testing, migrating, operating and maintaining cloud computing systems and solutions. It is about the process of designing the systems necessary to leverage the power and economics of cloud resources to solve business problems, factoring both functional requirements as well as capabilities such as performance, capacity, reliability, security, maintainability, operability, among others.

How to Get Started

DevSecOps involves more than just tools and processes for software development and delivery automation. For some companies it implies an organizational and cultural shift towards a more collaborative, transparent, and traceable environment. Before jumping on the DevSecOps bandwagon, and to avoid the temptation to start selecting technologies, processes, and cloud operators prematurely, it is strongly recommended to assess and prioritize opportunities to improve the software development and delivery process and the appropriate role of DevSecOps.

Cimphoni has the experience to conduct this assessment, uncover opportunities to improve the time-to-market, quality, cost, reliability and security of new technology-enabled solutions and define the business case (cost and benefits) related to the implementation of DevSecOps. We are agnostic with regard to the tools and platforms that support DevSecOps and work with our clients to select the most relevant technology for their IT environment. We are also cognizant of the impact that culture has on the success of a DevSecOps implementation and we promote collaboration, visibility and alignment of infrastructure and development teams around a common set of goals (e.g., shorter release cycles, improved software reliability).

Our Services

Business Agility	Digital Transformation	Customer Experience
Advanced Analytics	Artificial Intelligence	IT Performance Improvement
Technology Architecture	Interim CIO, CDO & CTO	Critical Initiative Leadership

About Cimphoni

Cimphoni is built on the premise that technology, when properly applied and led, can deliver innovative solutions that transform businesses. The Cimphoni team is comprised of technology, operations and business consultants with a thirst for innovation and a passion for leveraging emerging technologies to deliver exceptional, measurable results for our clients. Founded in 2012, Cimphoni serves customers throughout the United States from its headquarters in suburban Milwaukee. More information can be found at cimphoni.com