Center of Excellence at In Time Tec
DevOps

DevOps leads to faster delivery and higher quality. DevOps isn't just about creating new, efficient, and better apps; it's about building and using a delivery pipeline to focus on delivering business value.

DevOps is an intersection of development and operational aspects in a software development lifecycle. The In Time Tec DevOps team emphasizes the collaboration and communication of both the software developers and other information-technology (IT) professionals while automating the process of software delivery and infrastructure changes. We aim to establish a culture and environment where building, testing, and releasing the software can happen rapidly, frequently, and more reliably.

1. Core Competencies

In Time Tec's expertise in the areas below enables our partners to bridge the gap between ongoing development and operations.

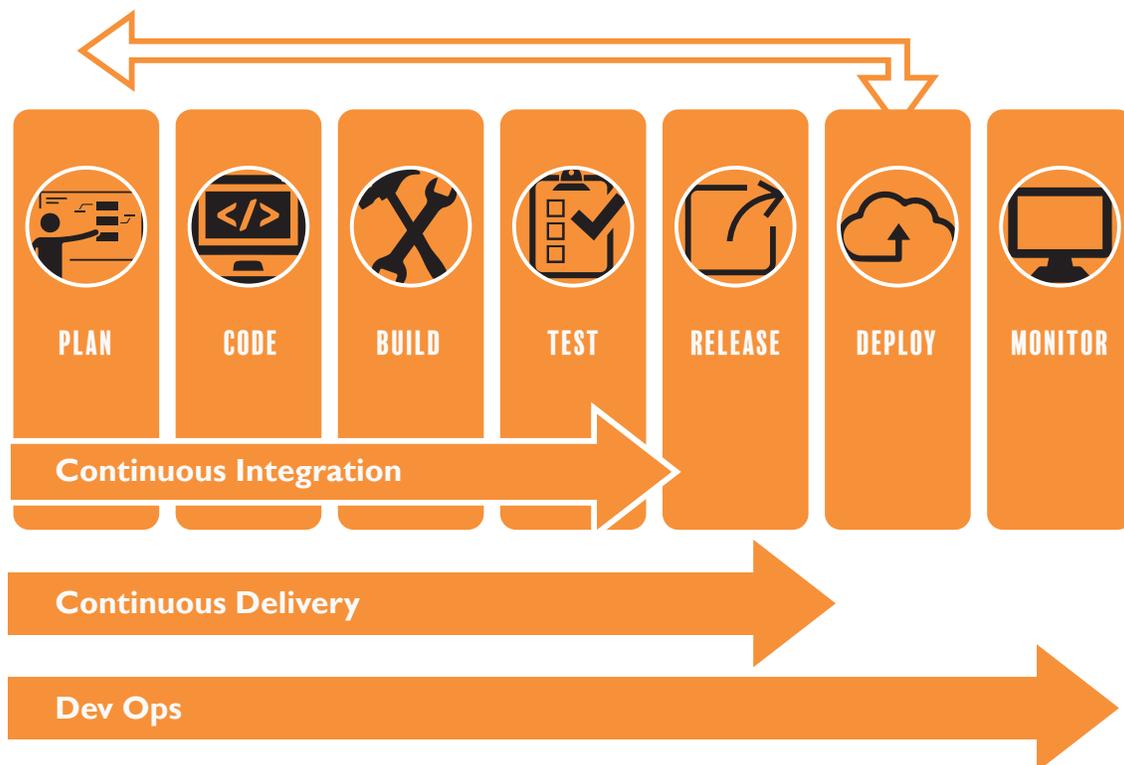|	
Continuous Integration/ Deployment	git · gerrit Gerrit Code Review · Jenkins · TFS
Automated Machine Configuration	PowerShell DSC · VAGRANT · Fabric · Chef · TERRAFORM · PACKER
Virtualization	docker · vmware · amazon web services · XenServer Open Source Virtualization · Microsoft Azure
Test Automation	Selenium Se · Protractor · behave · Cucumber · sf · Coded UI Test
Scripting Environment	PowerShell · BASH · python · Ruby · Groovy
Infrastructure Management	Active Directory · DNS/DHCP · IIS Internet Information Services · Apache · Apache Tomcat · NGINX · Linux · mongoDB · Networking · SQL Server · System Center Configuration Manager · Windows · MySQL

2. Need for DevOps

The implementation of a DevOps framework brings significant changes to the technology, process, and support culture of an organization. Introduction of automation challenges the existing control mechanisms across the enterprise. The decision to adopt DevOps for an application development has a notable impact on the underlying infrastructure environment.

- The need for collaboration between development and operations teams.
- A greater need for simultaneous deployment across different platforms.
- Pressure from the business to release apps more quickly to meet customer demands or enter new markets.
- The increasing need to develop or deploy cloud based applications.
- An increasingly complex IT infrastructure that is partly physical, partly virtualized, and partly cloud.
- The need to reduce IT costs.

PLAN   CODE   BUILD   TEST   RELEASE   DEPLOY   MONITOR

Continuous Integration

Continuous Delivery

Dev Ops

3. Customer Success Stories

Delivery of Weather and Disaster Alerts:

In Time Tec helped automate an environment creation to be used for development, test, or production purposes. Prior to our engagement, the entire process was ad hoc and lacked consistency, and the customer faced challenges and delays in getting continuous feedback. Our team helped reduce the time required for this process. We set up a CI/CD pipeline to enable continuous integration and deployment to test/dev/staging production stacks and automated the entire development workflow. The automation of test/dev/production stacks was performed in the AWS environment using AWS CloudFormation, and the automation of machine configuration was done using Powershell DSC. With this implementation, developers' productivity increased rapidly. Our use of Auto Scaling also helped the software to cater to the growing demands of customers while ensuring optimal resource utilization.

Multiple Identical Environments:

We helped a digital marketing company by creating multiple, identical environments rapidly. We ensured that the environments created were consistent in order to assist the development workflow. We automated the creation of test/dev/staging/production environments using Azure Resource Manager templates, and we automated machine configuration with Powershell DSC. This implementation helped reduce costs and delivery times. Our team made sure that the defect cycle time is reduced, with an increased ability to reproduce and fix defects.

Increase Virtualized Environments Utilization:

Our team helped a leading imaging and printing company increase virtualized environments utilization. By automating the test/dev/staging production stacks in AWS environment using Terraform, automating the machine configuration via Powershell DSC, and automating the deployment using Packer, we increased quality and ensured consistency in the deployment process. This, in turn, reduced the cost and time to release software. With an ability to perform quick rollbacks, deployment related downtime was reduced.