

DevOps Implementation Boot Camp

4 Days

Course Description

For decades there have been big disconnects between the different roles of the IT shop. We struggle with inherent barriers between development projects and the stable infrastructure needed to deploy and run products. Applications get completed and tested in insulated internal environments without adequate collaboration between production IT staff and infrastructure administrators. Unforeseen challenges plague the production environment, wreaking havoc with deadlines, deliverables, and ultimately the business mission. Security is often a wet blanket at best, and an afterthought at worst. In the meantime, huge backlogs of work and technical debt pile up, chronically eroding the efficiency and agility of the business' IT capability.

This three-day DevOps Implementation training class is loaded with practical real-world tools and techniques. From the nation's largest agile development trainers comes a comprehensive program to get you started on the road to DevOps success. You will leave this course fully literate in the whole array of available DevOps tools and lessons, ready to select what's right for you and chart a path to holistic long-term IT success in your own organization.

Course Objectives:

- Learn to leverage infrastructure automation using configuration tools
- Chart a path to continuous IT operations
- Learn how to spot positive feedback loops in IT work and capitalize on them
- Get real-world techniques for implementing agile concepts into infrastructure management
- Learn how to continuously monitor capacity and operations
- Map and visualize IT workflow to eliminate bottlenecks and streamline capacity
- Learn techniques to effectively communicate the progress and results of your DevOps efforts to management
- In-class discussion on the state of IaaS and PaaS, and expert updates on which cloud capabilities you should be aware of or considering
- Implement a plan for leadership participation and transformation of the IT mentality
- Transform IT from an unpredictable cost center to a strategic source of business value and competitive advantage

Who Should Attend:

- Anyone in an IT Leadership role
- CIOs / CTOs
- System Administrators
- IT Operations Staff
- Release Engineers
- Configuration Managers
- Anyone involved with IT infrastructure

For more information, please contact us at (866)543-0520 or info@velocityknowledge.com



- Developers and Application Team leads
- ScrumMasters
- Software Managers and Team Leads
- IT Project & Program Managers
- Product Owners and Managers

Course Outline:

Part 1 – What is DevOps Really?

- 1. Establishing expectations for the next three days**
- 2. Understanding the anatomy of DevOps**
 - What DevOps is not
 - Beginning to define what DevOps is
 - Context from DevOps history
 - Organizations leading the way
 - The goals of a DevOps practice
 - What to expect from a DevOps practice
 - Business outcomes of DevOps maturity

Exercise: Alignment of mission

- 3. DevOps and Continuous Delivery enablement**
 - How CD and DevOps impact IT roles
 - Gauging your CD and DevOps maturity
 - Continuous IT workflow

Part 2 – The Cultural Components of DevOps

- 1. State check: an Agile review**
- 2. Examining typical misalignments**
 - Siloes of job function vs. alignment of mission
 - The change management challenge
 - Understanding institutionalized blame
 - The Agile “dev disruption”
- 3. Cross-functional work**
- 4. Culture and continuous delivery**
 - The deployment pipeline
 - A new way of testing
 - The role of automation
 - Shifting towards CD culture

Exercise: Culture and continuous workflows

- 5. Cultural typologies**
 - Studies on culture
 - Individual vs. organizational culture
 - Lessons from Agile
 - Cultural development tools

Exercise: Tying cultural findings to action

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6. Blame and failure

- A tale of two corporate ethics
- Impacts on engineering practices
- Examples from testing
- Reversing the dynamic
- 7 deadly DevOps sins

7. Getting to generative

- Building failure into the business
- Kaizen and continuous improvement

Part 3 – Implementing the DevOps Way of Work

1. The anatomy of a DevOps mentality

2. A proposal: 9 steps to DevOps Implementation

- Pilot projects
- Applying Agile beyond development
- DevOps phases and priorities

3. Configuration Management

- Principles of configuration management
- Applying configuration management
- Tools for configuration management

4. Infrastructure as code

- Infrastructure: history and complexity
- Goals and benefits of treating infrastructure as code
- Bringing agility to infrastructure and the enterprise
- Scrum teams
- Done vs. Acceptance

Discussion: Infrastructure as code

5. Cataloging and eliminating waste

- The manufacturing analogy
- Toyota waste principles
- TIMWOOD and the categories of waste
- Finding bottlenecks

6. Visualizing and managing workflow

- Kanban
- Work in Progress (WIP)
- Visualizing work in your own situation

7. Security overview

- Why it's not working
- Application security: the weakest link
- Security and DevOps
- Starting security early

Discussion: Security

Part 4: DevOps Tooling

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1. Contemporary DVCS version control

- Git and Github
- Mercurial

2. Automation

- What to expect from automation
- The disruptions of automation

8. Monitoring and Measurement

- Hard KPIs for M&M
- Visibility and M&M
- Alerts
- An overview of common tools

3. Common DevOps toolsets

- Configuration management
- Continuous integration
- Deployment
- Process monitoring
- Containerization
- Collaboration

Part 5: Charting your course

1. Revisiting continuous delivery & operation
2. Clarifying expectations
3. DevOps in the enterprise
4. Scaling DevOps
5. DevOps resources: the Techtown tools glossary
6. 12 steps to better code