

## DevOps for the Agile Enterprise

In this two-day course, you'll gain an understanding of the role of DevOps in an Agile organization. Unlike other training that focuses only on the mechanics of DevOps, Icon's DevOps for the Agile Enterprise course explores the role of DevOps in the context of the entire IT value stream, and prepares you to successfully plan and implement DevOps capabilities that significantly extend the benefits of Agile transformations. This includes understanding the full-spectrum software delivery ecosystem, where Agile transformations typically are and are not effective; how Agile and DevOps are "better together;" and what people, processes, and technology must be aligned throughout the organization, to achieve true enterprise agility.

### Objectives:

- < Understand prevailing industry definitions of DevOps
- < Define DevOps in the context of your enterprise
- < Describe the benefits of DevOps and the metrics used to measure them
- < Describe the 5 stages of the deployment pipeline
- < Understand how DevOps and Agile work together to achieve continuous delivery
- < Understand key DevOps roles and responsibilities
- < Identify deployment challenges and opportunities in your environment
- < Build and prioritize a DevOps transformation backlog
- < Launch a DevOps action plan that extends the benefits of Agile

### Audience:

Intended primarily for Development, Operations, QA practitioners, and Leaders charged with improving software time-to-market and quality. This course is also appropriate for those in peripheral roles such as Security, Architecture, Product Management, Program Management, and Portfolio Management who desire a foundational understanding of the critical role of DevOps in the Agile enterprise. Attendees typically include:

- < Development: Developers, Scrum Masters, Product Owners
- < Operations: Configuration/Release Managers, System Administrators, DBAs
- < QA: Testers
- < Others: Release Train Engineers, Architects, InfoSec, Product Management, UI/UX



### Prerequisites:

Students should be familiar with Agile principles and practices (e.g., Agile Manifesto, Lean, Scrum, XP) and the people, processes and technology used in building, testing and deploying software in their environment.

### Duration:

2 days

### Related courses:

Students who take this course will benefit from the following courses:

- < SAFe for Teams with SP Certification
- < Leading SAFe with SA Certification

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## Outline:

### **DevOps Fundamentals**

1. What is DevOps?
  - Brief history
  - Industry definitions
  - Icon's Philosophy
  - Additional Resources
2. Why DevOps?
  - Software is eating the world
  - Rampant transformation
  - Dev vs Ops: opposing forces
  - The Agile paradox
  - The DevOps promise
3. DevOps Benefits
  - Time to market
  - Quality
  - Efficiency
  - Customer Satisfaction
  - A new IT culture
4. DevOps Core Values (CALMS)
  - Culture
  - Automation
  - Lean
  - Measurement
  - Sharing

### **The DevOps Pipeline**

5. The Big Picture
  - The IT value chain
  - Continuous Delivery
  - Pipeline Overview
6. The BUILD Stage
  - Continuous builds
  - Enabling Technology
  - Key Metrics
7. The INTEGRATE Stage
  - Continuous integration
  - Enabling technology
  - Metrics that matter
8. The VALIDATE Stage
  - Continuous testing
  - Enabling technology

- Metrics that matter
9. The DEPLOY Stage
    - Continuous deployment
    - Automated provisioning
    - Enabling technology
    - Metrics that matter
  10. The MONITOR Stage
    - Continuous feedback
    - Enabling technology
    - Metrics that matter

### **Implementing DevOps**

11. Agile/SAFe Touchpoints
  - Team level
  - Program level
  - Portfolio level
  - Spanning concepts
  - Critical roles & responsibilities
12. Building a DevOps culture
  - The Three Ways
  - Defining objectives
  - Establishing a baseline
  - Mapping the strategy
  - Plan-Do-Check-Adjust
  - Key success factors
  - Next steps