Important DevOps Terms

Agile Software Development
Group of software development methods in which requirements and solutions evolve through collaboration between self-organizing, cross-functional teams.

Velocity
Measure of the quantity of work done in a pre-defined interval.

Scrum
A simple framework for effective team collaboration on complex projects. Scrum provides a small set of rules that create "just enough" structure for teams to be able to focus their innovation on solving what might otherwise be an insurmountable challenge.

Product Backlog
Prioritized list of requirements

Lean (production)
Philosophy that focuses on reducing waste (muda) and improving the flow of processes to improve overall customer value

Lean IT
Appling the key ideas behind lean production to the development and management of IT products and services

Flow
How people or products move through a process

IT Service Management
Implementation and management of quality IT services that meet the needs of the business

DevOps
A cultural and professional movement that stresses communication, collaboration and integration between software developers and IT operations professionals while automating the process of software delivery and infrastructure changes

CALMS
DevOps Values
Culture
Automation
Lean
Measurement
Sharing

Organizational Culture
The values and behaviors that contribute to the unique social and psychological environment of an organization.

Change Fatigue
General sense of apathy or passive resignation towards organizational changes by individuals or teams

High-trust Culture
Organization that encourages good information flow, cross-functional collaboration, shared responsibilities, learning from failures and new ideas

Collaboration
People jointly working together towards a common goal

Constraint (bottleneck)
Step in a process that limits total capacity

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The First Way – Understand and increase the flow of work (left to right)

Practices include:

Continuous Integration
Development practice that requires developers to integrate code into a shared repository on a daily basis

Continuous Delivery
Methodology that focuses on making sure software is always in a releasable state throughout its lifecycle

Continuous Deployment
Practices where every change that passes automated tests is automatically deployed

Value Stream Mapping
Lean tool that depicts the flow of information, materials and work across functional silos with an emphasis on quantifying waste.

Kanban
Method of work that pulls the flow of work through a process at a manageable pace

ChatOps
An approach to managing technical and business operations through a group chat room

DevSecOps
A mindset that "everyone is responsible for security" with the goal of safely distributing security decisions at speed and scale

Theory of Constraints
Methodology for identifying and then improving a limiting constraint

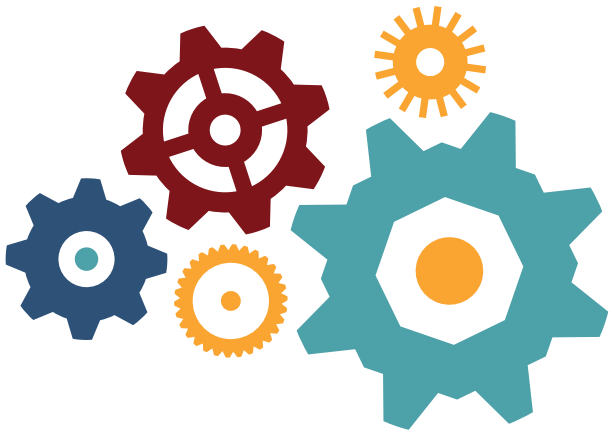
The Second Way – Shorten and amplify feedback loops (right to left)

Practices include:

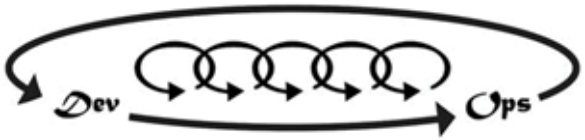
- Automated testing
- Peer review of production changes
- Monitoring
- 'At a glance' dashboards
- Production logs
- Process measurements
- Post-mortems
- Shared on-call rotation
- Change, Incident, Problem and Knowledge Management data

Understand and respond to the needs of all customers – both internal and external.

Create and embed knowledge where needed.



Source: The Phoenix Project: A Novel about IT, DevOps, and Helping Your Business Win



The Third Way – Continual experimentation and learning

Practices include:

Experimentation and learning
Using feedback to answer the question *"Should this product be built?"*

Plan, Do, Check, Act (PDCA)
Also known as the Deming Cycle
Methodology that enables incremental improvement

Improvement Kata
Structured way to create a culture of continuous learning and improvement

1. Understand the long-term vision or direction
2. Grasp the current condition
3. Establish the next target condition
4. PDCA/experiment toward the target condition

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