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# DevOps Leadership

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## Topics

- Introduction to DevOps Leadership
- What is Leadership?
- What does it mean to lead?
- Key Principles of DevOps
- Review: What is DevOps?
- The DevOps Full Stack
- Key Principles of DevOps
- 15 Essential DevOps Practices
- Leveraging Technology & Automation
- Leading the Organization through Transformation
- Lewin's Model for Change
- Continual Improvement
- A Clear 20/20 Vision for Transformation
- The 20/20 Change Model
- Clarifying & Aligning the DevOps Transformation to Value Delivery
- Establish the need for urgency for DevOps
- The IT Value Delivery Problem

- Drivers of Change
- Technology Adoption & Change
- Complexity Creates Fragility & Debt
- The Need for Standardization
- Standardization vs. Complexity
- Gleicher's Formula for Change
- Clarifying & Aligning Business Objectives
- Review: What is Business Value?
- What Happens Without Value Alignment?
- The Importance of True North
- Establish True North Values & Principles
- Defining Mission vs. Vision
- Building a True North Alignment System
- Example of Business Objectives
- The Planned Enterprise Backlog
- Unplanned Work & the Team Backlog
- Sources of demand
- Building Visibility into All Work Types
- Case Study of True North
- Planning & Approaching the DevOps Transformation
- Creating a Vision & Strategy for Transformation

- The importance of vision
- The evolution of a DevOps transformation
- Bi-Modal or Variable Speed IT
- Patterns for scaling DevOps Teams
- Communities of Practice to Bridge Silos
- Clarifying your current state
- Systems Thinking
- Iceberg Model
- Example of Current state
- Current State Assessment
- Example of Future state for the DevOps transformation
- Mental models and structures for DevOps
- Identifying & Influencing the Vital Stakeholders
- Map the critical stakeholders in the DevOps transformation
- The stakeholder management process
- Key considerations when identifying different groups of stakeholders during DevOps transformation
- Ways to overcome resistance and influence critical stakeholders to participate fully in developing the vision and strategy for DevOps in your organization.
- Estimating Stakeholder Support
- Engaging & Implementing the DevOps Full Stack
- Leading a Culture of Self-Organized, Cross-Functional Teams
- Breaking Down the Wall of Confusion

- Pathological culture, Bureaucratic culture and generative culture
- Task Specialization vs. Cross-Functional
- The importance of cross-functional teams
- Enabling Self-organization
- Agile Scrum Teams
- Agile vs. DevOps Teams
- Leadership and Team Authority
- The importance of balancing generalists and pure specialists within DevOps teams
- Phases of evolution in DevOps teaming
- The structure of a functional silo with platform and product teams
- Teaming Changes
- Cultural and Structural Changes
- Trust-Ownership Model
- Knowledge and Skills Planning
- Knowledge and Skills
- Workforce & Talent Management
- Skills & Knowledge Matrix Development
- Published IT competence frameworks: ECF and SFIA
- Gathering, Broadcasting & Implementing Feedback
- Inputs for Identifying the Future State
- Value as the VOC & CTQ

- Measuring Critical to Quality
- Variation Indicates Control
- Customer Engagement Roles - Delivery
- Product/Service Owner Considerations
- Role of the Relationship Manager
- Engagement Roles & Build
- Enabling Flow Across the Value Stream
- Complexity Impacts Flow & Time
- The Three Types of Lean Work
- A Strategic Perspective on Standardization
- Complexity & Impact of Unplanned Work
- Value Stream Improvement Phases
- Value Stream Mapping
- Waste in a Process
- Metrics - What Should It Measure?
- Leader's Use of Visual Management
- Examples of Visual Management
- Kanban with Scrum ("Scrumban")
- Making Unplanned Work Visible
- The importance of creating common communication channels
- Communication & Transparency Solutions

- Communication Considerations
- Breaking Work into Iterations to Accelerate Learning & Experimentation
- Agile vs. Waterfall Project Management
- Iterative Product Management
- The Pillars of Agile & Scrum
- Scrum - A Leadership Perspective
- Enabling the Shift Left with Agile XP
- Agile XP Practices
- Visualizing Velocity Improvement
- Leadership for Continuous Delivery
- Requirements for Automation
- Continuous Delivery
- Applying Continuous Delivery at Scale
- Continuous Testing
- Component Testing
- Subsystem or Application Testing
- End-to-End enterprise system testing
- Isolated feature branch
- Continuous Integration
- The importance of Continuous Improvements
- Trunk Management & Gated Commits

- Release & Deployment Cadences
- Trunk Management & Release Strategies
- Blue-Green Deployment
- The importance of understanding the capabilities and role of each tool in the DevOps toolchain
- Features of DevOps Toolchain
- Orchestration & Integration
- Advantages and disadvantages of Open Source software
- The Larger Tool Ecosystem
- Automation & Tooling Strategies