

Cultural alignment

Objectives

Key objectives of this chapter

- Leading the Charge
- Core Values and Mission
- Communication
- Collaboration
- Value Stream Mapping
- Behavioural Patterns
- Cultural Assessment

1.1 Leading the Charge

- Make the case for DevOps
- Show benefits across roles and teams
- Start small and grow from success

1.2 Leading the Charge (cont.)

- Make the case for DevOps:
 - ◇ Lead with answers to “why” and “why now”
 - ◇ Be convincing by using stories and data
 - ◇ “Puppet labs research shows high performance DevOps teams”...
 - Deploy 30 times more often
 - Have lead times 200 times shorter
 - Have 60 times fewer failures
 - (for example)

- ◇ Pick stories and data relevant to your organization

1.3 Leading the Charge (cont.)

- Show benefits across roles and teams
 - ◇ Developers
 - Faster feedback (improve faster)
 - Faster deployment (see value sooner)
 - ◇ Operations
 - Active role in deployment, troubleshooting
 - Deeper understanding of applications and business
 - Improved speed, better reliability
 - ◇ Business
 - More responsive to business needs
 - Smaller, more nimble projects
 - Focus resources on adding value, not fixing defects

1.4 Leading the Charge (cont.)

- Start small and grow from success
 - ◇ Start with the right project
 - Not too many uncertainties

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- Not so large that failure would tarnish DevOps
- Not so small that success is seen as trivial
- Celebrate success
- ◇ Change culture in small steps too
 - Pick an initial team with the right attitude
 - Include a skeptic; winning them over is a powerful message
 - Celebrate the cultural change

1.5 Core Values and Mission

- CAMS - Culture, Automation, Measurement, Sharing
- Observed behaviour:
 - ◇ Working together
 - ◇ Taking responsibility instead of blaming
 - ◇ Merging of functional areas to address problems
 - ◇ Monitoring all things
 - ◇ Painful things done more often
 - ◇ Deployments happening faster and more often

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1.6 Core Values – Culture

- Culture is the “way of life” of the organization
- Culture is pervasive and enduring
- DevOps culture is expressed by
 - ◇ Understanding motivations of other groups
 - ◇ Trust, elimination of blame
 - ◇ Embracing failure as necessary for improvement
 - ◇ Focus on process and bottlenecks
 - ◇ Elimination of unplanned work
 - ◇ Emergence of dedicated cross-functional teams
 - ◇ Love of transparency and measurement

1.7 Core Values – Automation

- Automation
 - ◇ Allows focus on value-adding activities
 - ◇ Reduces errors
 - ◇ Makes processes explicit (and versionable)
- Automation is not a goal – it is a means to an end
 - ◇ Wrong automation is worse than no automation
 - ◇ Automation is a tool to improve process performance and consistency

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- Effective automation requires understanding of end-to-end processes

1.8 Core Values – Measurement

- “If you can’t measure it, you can’t improve it.” – Peter Drucker
- Measure all things – within reason
- Define key performance indicators (KPIs)
 - ◇ KPIs should never be viewed in isolation - always interpret in the context of other KPIs
 - ◇ KPIs for DevOps should measure performance across departments or functions
 - ◇ Define the business question first before defining the KPI

1.9 Core Values – Sharing

- Sharing closes feedback loop across functions, teams, departments
- Sharing enables continuous learning and improvement
- Consider knowledge-sharing culture of organization:
 - ◇ How knowledge is captured, disseminated and propagated
 - ◇ Is knowledge shared collaboratively or is maintained by individuals or within teams
 - ◇ Are repositories of knowledge formal and maintained, or ad-hoc and prone to decay over time

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1.10 Communication

- Challenges to communication
 - ◇ Organizational silos, physical location
 - ◇ Differences in concerns and priorities
 - ◇ Formal mechanisms like change requests, service tickets
- Improve communication through
 - ◇ More frequent interactions
 - ◇ Appropriate tools (email, IM, Slack, ...)
 - ◇ Less formal process, more collaboration

1.11 Collaboration

- Development-to-operations lifecycle is a single end-to-end process
- End-to-end process may be assembled from more focused processes
 - ◇ Agile for software development
 - ◇ ITIL for deployment and operations
- Support collaboration with unified tooling
 - ◇ E.g., Jenkins or GoCD for continuous integration and delivery
 - ◇ E.g., Infrastructure as code with Puppet, Chef, or similar
 - ◇ E.g., Single source repository across entire process
- Support collaboration through team structure
 - ◇ One team

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- ◇ Or several closely connected teams with a common objective

1.12 Value Stream Mapping

- Method for analysis of current practices, design of new practices
- “Practices” are sequence of activities that meet needs of customers
- Based on process view of organizations, treating the organization as a system of interlinked processes
- Each process has inputs, transformations, and outputs
- Value Stream Mapping provides framework for formally designing future state of software delivery process

1.13 Behavioral Patterns

- 7 Habits of Highly Effective DevOps Experts *
 - ◇ Think culture
 - Culture → People → Process → Tools
 - ◇ Love automation
 - ◇ Shift left
 - ◇ Promote visibility
 - ◇ Standardization is your friend
 - ◇ Design compliance in
 - ◇ Unify collection and management of assets

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1.14 Cultural Assessment

- Assess culture in context of what is important to your organization
- Candidate cultural indicators:
 - ◇ Openness to change
 - ◇ Feelings about failure
 - ◇ Stress level and optimism (or lack of)
 - ◇ Degree of sharing
 - ◇ Existence of multi-disciplinary teams
 - ◇ Team organization is around projects, not skills
 - ◇ Existence and use of metrics

1.15 Summary

- Make a case for DevOps, start small, build on success
- CAMS – Culture, Automation, Measurement, Sharing
- Value Stream Mapping as tool for designing end-to-end processes
- Behavioural patterns support DevOps practices

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