# WHAT IS ? DevOps Leader •

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# The DevOps Transformation

What is DevOps? Is it an organizational and cultural movement? Is it technical practices and tools? While there are many definitions of what DevOps is, they all share a common theme. DevOps' focus is on enabling organizations to achieve better value outcomes, faster and more safely.

Easier said than done. In reality, embarking on a DevOps transformation is a massive undertaking that requires organizations to adopt new ways of thinking and working.

Is it worth it? According to the **DORA Research Program**:

- High performing IT organizations are able to develop and deliver software quickly *and* are able to deliver availability assurances
- Improved software delivery and operational (SDO) performance leads to improved organizational performance

According to the **Accelerate: State of DevOps Report**, these organizations perform better in the industry-standard four key metrics:

 More frequent code deployments

Better value outcomes, faster and more safely.

- Faster lead time from commit to deploy
- Faster mean time to recover (MTTR) from downtime
- Lower change failure rate

So, what sets organizations that have adopted DevOps practices apart from traditional IT?

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### The Difference Between Traditional IT and DevOps IT

DevOps organizations operate differently in several areas including:

- Planning and organization
- Performance and culture
- Measures

They are organized differently. They embrace different cultural norms. They use different measurements.

The differences are significant which explains the need for transformational leaders.

### **Transformational Leadership**

According to the *2020 State of DevOps Report*, which focused on transformational leadership, the positive (or negative) influence of leadership flows all the way through to IT performance and organizational performance.

**Transformational leadership** is a model in which leaders inspire and motivate followers to achieve higher performance by appealing to their values and sense of purpose, facilitating wide-scale organizational change.

Transformational leaders demonstrate five measurable characteristics:

- Vision
- Intellectual stimulation
- Inspirational communication
- Supportive leadership
- Personal recognition

The influence of transformational leaders is seen in their support of their teams' work, both in technical practices and in the teams' product management capabilities.

Transformational leadership is essential for establishing the cultural norms and for implementing the technologies and practices that correlate with high performance. Transformational leadership supports effective communication and collaboration between team members, supports team experimentation and innovation to create and implement better products faster, and enables working across organizational silos to achieve strategic alignment in pursuit of organizational goals.

It should come as no surprise that according to the 2017 State of DevOps Report, high-performing teams reported having leaders with the strongest behaviors across all dimensions: vision, inspirational communication, intellectual stimulation, supportive leadership, and personal recognition. In contrast, low-performing teams reported the lowest levels of these leadership characteristics.

Important as transformational leaders are, the same study found evidence that the presence of leaders with transformational characteristics is not enough to achieve high DevOps outcomes. This is because leaders cannot achieve DevOps outcomes on their own. DevOps success also depends on a suitable architecture, good technical practices, use of lean management principles, and a myriad of other factors.

#### **Becoming a DevOps Organization**

Successful DevOps organizations understand that the faster code can be moved from the hands of the developer to the customer, and the faster the customer can provide feedback, the more value can be realized by both.

When comparing DevOps organizations to traditional IT, DevOps policies and practices will typically differ from those of traditional IT along the following eight key dimensions:

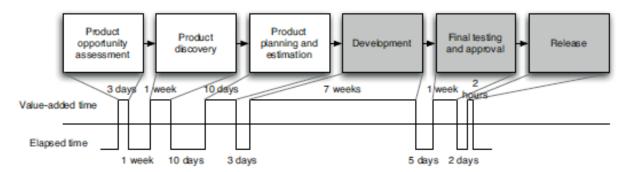
| Dimensions         | Traditional IT      | DevOps                       |
|--------------------|---------------------|------------------------------|
| Batch Size         | Large               | Micro                        |
| Organization       | Skill-centric silos | Autonomous, dedicated cells  |
| Scheduling         | Centralized         | Decentralized and continuous |
| Release            | High risk event     | "Like breathing"             |
| Information        | Disseminated        | Actionable                   |
| Culture            | Do not fail         | High trust, fail early       |
| Metrics            | Cost and capacity   | Flow (value and time)        |
| Definition of Done | "I did my job"      | Value outcome realized       |

Successful DevOps organizations also understand how value outcomes are realized and the flow of value across value streams. This requires putting the customer front and center and ensuring that all stakeholders are working towards shared goals.

## Value Stream Mapping

**Value stream mapping** is a lean-management method for analyzing the current state and designing a future state for the series of events that take a product or service from its beginning through to the customer. A value stream map is:

- A time diagnostic of your software delivery lifecycle
- A flow-based representation of how end-to-end work is currently done
- A tool that is used to evaluate processes to identify bottlenecks, waste and ultimately improvement opportunities



Value stream maps help reduce the time required to bring value to the customer.

Value stream mapping is an important initial step but it doesn't end there. Value stream mapping is an ongoing exercise and you never get to a stable future state. You have to keep identifying where the waste is and where the constraints are and then figure out as a team how to remove or reduce them.

It's the most important 'continuous' of all...continuous improvement.

The most successful DevOps organizations aim for a kaizen approach where continuous reflection and improvement are cyclical and embedded throughout the value stream, not just at the end of product delivery.

# **Organizational Models**

The structure of an organization sets the hierarchy for responsibility and creates the various levels of communication within an organization. Organizational structure has a huge impact on how work gets done and can have a direct effect on productivity.

Any organization that designs a system (defined broadly) will produce a design whose structure is a copy of the organization's communication structure.

Traditional IT teams are typically organized in silos which can lead to a number of problems.

Organizations adopting DevOps strive to break down the silos in an effort to reduce bureaucracy, improve communication and collaboration, and provide people opportunities to grow.

Organizations achieve these objectives in a variety of ways ranging from assigning Ops liaisons to Dev teams to creating cross-functional product (vs. project) teams. The Spotify squad and tribe model allows teams in large organizations to behave like startups and to be nimble.

Tribe Leads

The structure of this model is made up of:

- Tribes collections of squads that work in a related business capability area
- **Squads** autonomous, self-directed, independent teams organized around a business capability
- Chapters small families of people with similar skills
- **Guilds** communities of interest

**Tribe leads** are responsible for ensuring that squads have all the support and autonomy that's needed to be successful. They work together with:

- **Product owners** ensure squads are building the right thing and are aligned with tribe and product direction
- Agile coaches help teams master Agile development and DevOps practices
- **Chapter leads** line managers in the Spotify model responsible for traditional people management duties

Conway's Law

Spotify's organizational model is layered on top of Spotify's corporate culture and so may not work for every organization. What each organization must do is evolve to a structure or approach that meets its current needs and circumstances.

# **Managing Culture Change**

**Organizational culture** represents the values and behaviors that contribute to the unique social and psychological environment of an organization. The social and psychological aspects of the definition relate to how people interact and feel about their workplace environment, both of which affect the quality of their work as well as their commitment and loyalty.

In the context of DevOps, culture is one of the top predictors of IT and organizational performance.

High-trust organizations encourage good information flow, cross-functional collaboration, shared responsibilities, learning from failures and embracing new ideas; all hallmarks of a generative (performance oriented) and high-trust cultural (<u>as defined by R Westrum</u>).

Culture change is never easy and involves:

- Shifting or transitioning individuals, teams and organizations from a current state to a desired future state
- Managing the people-side of change to achieve the required business outcome(s)

The most successful organizations understand that achieving culture change, particular when the initiative involves changes to the organizational structure, it's best to make the changes in increments (vs. taking a 'big bang' approach).

# **Becoming a DevOps Leader**

A DevOps Leader:

- Creates vision
- Empowers people to participate
- Drives evolutionary change
- Coaches behaviors
- Uses and shares tools

A core function of a DevOps Leader is to use and provide tools to help people discover more about themselves and the system in which they operate. In this context, we are not referring to software application tools. Rather, we are referring to cultural, behavioral and communication tools such as those shown in the image below.

These tools can be used to encourage advanced thinking and collaboration. Leaders must determine which tools support their current goals, needs and circumstances. They must also determine when the time is right to leverage these tools as a part of ongoing continuous improvement.

| Tools and Techniques                       |                                    |  |  |
|--|------------------------------------|--|--|
| Dimensions of Transformational Leadership  | Training from the Back of the Room |  |  |
| Goleman's Six Styles of Leadership         | World Café, Conversation Café      |  |  |
| The Golden Circle                          | Cumulative Flow Diagram            |  |  |
| Lean Strategic Change Canvas               | StoStaKee and other fun retros     |  |  |
| Project Aristotle's Key Characteristics of | Change Leader Development Model    |  |  |
| High-Performing Teams                      | Wilber's Quadrants                 |  |  |
| Bateson Stakeholder Map                    | Karpman Drama Triangle             |  |  |
| Kolb's Learning Styles                     | SCARF Model                        |  |  |
| Value Stream Mapping                       | Lean Business Case                 |  |  |

#### **Summary**

A DevOps Leader is an individual who helps design, influence, implement and motivate the cultural transformation proven to be a critical success factor in DevOps adoption.

A DevOps Leader understands:

- How DevOps organizations operate
- The characteristics of transformational leadership
- The role of psychology and neuroscience
- The basics of value stream mapping
- DevOps target operating and organizational models
- How to foster a learning culture

#### People will follow an individual who inspires them.

#### Lead the transformation!

# Make a Difference!

DevOps practices will continue to evolve through communities of practice. Seek out opportunities to collaborate with others and to share what you've learned.

Change related to DevOps initiatives will affect organizational culture. Effective communication plans, training, and clear policies and procedures are all needed to achieve the desired performance outcomes and enable collaboration between the many stakeholders involved in DevOps.

Contribute to your organization's DevOps effort by expanding your knowledge of DevOps principles and practices and by using what you learn to lead improvement activities.

#### **BE A CHANGE CHAMPION!**

Culture change and progress cannot happen without the support of people like you.

**Take action!** 

#### Want to Learn More?

Training helps organizations build and maintain their capabilities. Training also provides individuals the knowledge, skills and information needed to fill their role(s) in an organization or achieve their career goals, along with a place to test and develop the confidence to use these skills in the workplace.

ITSM Academy's <u>**DevOps Campus</u>** provides the courses you need to build a solid foundation and sharpen your skills as a DevOps practitioner.</u>



For modern IT organizations, we believe that continuous improvement is achieved by leveraging and integrating the practices of multiple methods and frameworks.

<u>Click here to learn more about our portfolio of DevOps courses.</u> <u>Visit our website for our full class catalog and public class dates.</u>

Contact us to schedule time with a subject matter expert.

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#### **Additional Resources:**

- ITSM Professor Blog a WEALTH of knowledge published weekly since 2008
- <u>Webinar Archives</u> Monthly since 2007
- ITSM Academy Resource Center

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...educate and inspire is not just our corporate slogan, it speaks to our core mission and goal.

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