# **DEVOPS FOR EXECUTIVES**



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# WELCOME Logistics (breaks, facilities, lunch, etc.) Rules of Engagement Introductions Lets Get Started!

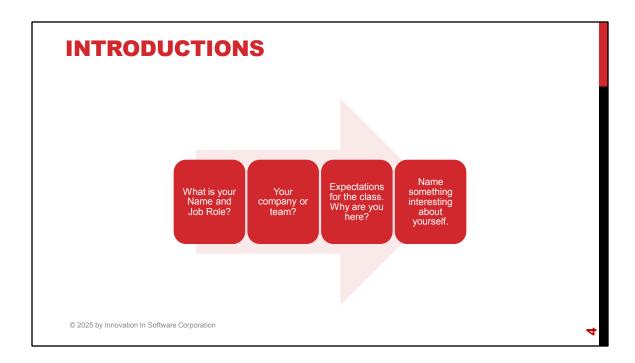
# **PRESENTER INFORMATION**

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Before diving into the material, it's important to understand who is in the room and what you want to achieve today. This will help me tailor discussions to your organization's needs.

- Name and Job Role: Helps us understand your background and how DevOps fits into your responsibilities.
- Company or Team: Learning about your organization provides insight into possible use cases and challenges.
- Expectations for the Class: Knowing what you're hoping to gain ensures we cover topics most valuable to you.
- Interesting Fact: A light way to connect and build rapport.

# **WORKSHOP GOALS AND STRUCTURE**

**Four-Hour Executive Sessions** 

**Key DevOps Principles for Leaders** 

**Blend of Practical Insights and Demos** 









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This session is designed with busy executives in mind—concise yet impactful content. Our focus will be on strategic insights and real-world examples.

- Four-Hour Executive Session: The content is streamlined to deliver the highest-value information in the time available, with minimal fluff.
- Key DevOps Principles for Leaders: By exploring frameworks like the Three Ways (Flow, Feedback, Learning), we'll link them directly to measurable organizational outcomes.
- Blend of Practical Insights and Demos: Real-world examples and live demonstrations make the concepts tangible, helping you visualize their application.

# WHAT TO EXPECT FROM THIS WORKSHOP

- Flexibility
- Conversations
- Literacy and awareness on the many principles, tools and practices associated with this thing called "DevOps"
- A priority of focus on human behavior first, technology and tools second
- A lot of talk about organizational culture
- An effort to focus on your own situations and challenges so you can act on what you learn



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This workshop isn't about rigid rules—it's about flexibility and conversation. You'll walk away with insights into how DevOps can help you tackle unique organizational challenges while building a sustainable culture of continuous improvement. This workshop emphasizes dynamic engagement and real-world applications. We'll focus on understanding both technical and human factors behind successful DevOps transformations.

- Flexibility: The session is designed to adapt to different organizational structures and challenges.
- Conversations: Active participation and case-based discussions enhance collective learning.
- Literacy and Awareness: Gain a comprehensive overview of key DevOps principles and how they fit into your business.
- Focus on Human Behavior: DevOps success begins with people and processes before tools.
- Organizational Culture: Establishing a collaborative and growth-oriented culture is crucial for sustained success.
- Actionable Insights: Leave with practical next steps tailored to your organizational needs.



We won't be prescribing rigid methodologies or offering cookie-cutter answers. Instead, we'll focus on principles that you can adapt to your business needs. Expect actionable advice, but remember—lasting change is gradual.

While we'll provide valuable insights, this workshop won't present a universal DevOps playbook. Instead, we focus on flexible, adaptive strategies.

- No Prescriptive Formulas: Every organization has different needs, and success depends on contextual adjustments.
- No Big Overnight Transformations: Effective DevOps adoption is incremental, focusing on continuous improvements.
- No Perfect Solutions: There's no magic bullet—instead, DevOps thrives on experimentation and refinement.
- No Extended Technical Deep Dives: This session is aimed at strategic decisionmakers, keeping technical discussions at a high level.

## 1: INTRODUCTION AND CONTEXT

**DevOps Overview and Executive Focus** 

- •DevOps Overview: High-level view tailored for executives
- Modern Software Delivery Challenges: Staying competitive in dynamic markets
- •Aligning Technology with Business Outcomes: DevOps as a business enabler



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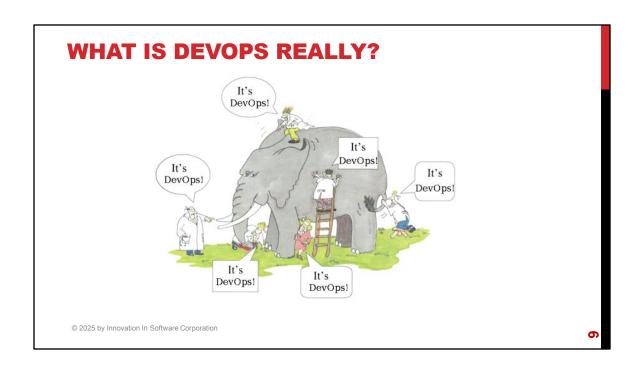
DevOps bridges the gap between technical execution and strategic leadership. Here, we highlight how DevOps can help tackle software delivery challenges while driving growth and innovation within your organization.

The role of DevOps extends beyond IT—it enables business agility, faster time-to-market, and operational efficiency.

DevOps Overview: A comprehensive approach combining culture, processes, and technology to streamline software delivery.

Modern Software Delivery Challenges: Rapidly changing markets demand faster innovation, and DevOps provides the framework to meet these demands.

Aligning Technology with Business Outcomes: Successful organizations view DevOps as a bridge between technological excellence and revenue generation.



DevOps isn't just about deploying code—it's about creating a collaborative environment where teams work together to deliver continuous value.

A Cultural Movement: Emphasizes breaking down silos and fostering cross-team collaboration.

End-to-End Optimization: Streamlines every phase of software delivery to enhance efficiency.

Business Impact: Drives measurable improvements in speed, stability, and innovation, supporting organizational growth.

#DevOps Elephant Cartoon, author unknown

# **WHY DEVOPS MATTERS**

**Faster Delivery of Features** 

**Reduced Risk and Downtime** 

**Competitive Differentiation** 



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DevOps isn't just an operational improvement—it's a competitive advantage. With faster delivery, reduced failures, and a focus on continuous improvement, companies adopting DevOps can lead the way in their industries.

- Faster Delivery of Features: Shorter lead times can help a business outpace competitors. By releasing features more frequently, organizations can adapt to market trends in near real-time.
- Reduced Risk and Downtime: Continuous testing and automated checks lower production failures, creating stability that translates to happier customers and predictable operations.
- Competitive Differentiation: Implementing DevOps effectively, companies stay ahead with innovative solutions, react swiftly to changes, and maintain a reputation for technical excellence.

# **KEY TENETS OF DEVOPS CULTURE**

**Collaboration Across Silos** 

**Continuous Learning and Experimentation** 

**Ownership and Accountability** 









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The foundation of DevOps is a collaborative, accountable, and learning-oriented culture. Organizations that master these aspects can deliver consistent results and adapt effectively to change.

- Collaboration Across Silos: Breaking down barriers between development, operations, QA, and other teams eliminates inefficiencies and encourages a shared sense of responsibility.
- Continuous Learning and Experimentation: Teams that continuously test, learn, and iterate are better equipped to innovate, detect problems early, and deliver reliable solutions.
- Ownership and Accountability: When teams take responsibility for their work endto-end, from development to deployment, it drives higher-quality outcomes and faster issue resolution.

# 2: THE THREE WAYS OF DEVOPS

## Flow \* Feedback \* Learning

- Streamlining Work from Idea to Production
- Gathering Feedback Early and Often
- Embracing Blameless Improvement Cycles



GENE KIM'S
THREE WAYS OF DEVOPS

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The Three Ways of DevOps are key principles that help organizations build a sustainable model for continuous improvement, speed, and innovation.

- Flow: Improving the flow of work from development through operations ensures faster delivery of value by eliminating bottlenecks and inefficiencies.
- Feedback: Constant feedback loops provide teams with immediate insights into performance and allow for quick adjustments to stay on course.
- Learning: Embracing a blameless culture focused on learning from both successes and failures leads to continuous growth and innovation.

# THE FIRST WAY: FLOW

# **Principles of Flow**

- Make Work Visible
- Limit Work in Process (WIP)
- Reduce Batch Sizes
- Reduce the Number of Handoffs
- Continually Identify and Elevate Constraints
- Eliminate Waste in the Value Stream



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# Gene Kim's First Way of DevOps:

#### Flow

The First Way focuses on **optimizing the flow of work** from development to operations, ensuring that products and changes move **quickly and efficiently** through the delivery pipeline. It emphasizes creating a **smooth, continuous flow of value** while minimizing handoffs, bottlenecks, and delays.

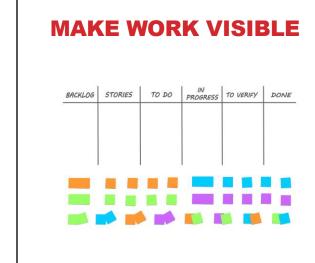
This is achieved through practices like **small, frequent releases, automated deployments, and limiting WIP**. By ensuring flow, teams can **reduce lead times, avoid context switching, and prevent large, risky releases**.

For decision-makers, optimizing flow means faster time-to-market, reduced costs from delays or rework, and a competitive advantage through more frequent and reliable software delivery.

Flow isn't just an operational concern—it directly impacts strategic objectives by ensuring teams can deliver business value faster and more predictably.

- Minimizing Bottlenecks: Streamlining processes reduces delays, allowing teams to release features and fixes more quickly.
- Increasing Predictability: Standardized workflows and automation create reliable delivery timelines, making it easier to plan and allocate resources.

<ul> <li>Driving Agility: Organizations with optimized flow are better positioned to respond to shifting priorities or market conditions, maintaining a competitive edge.</li> </ul>						



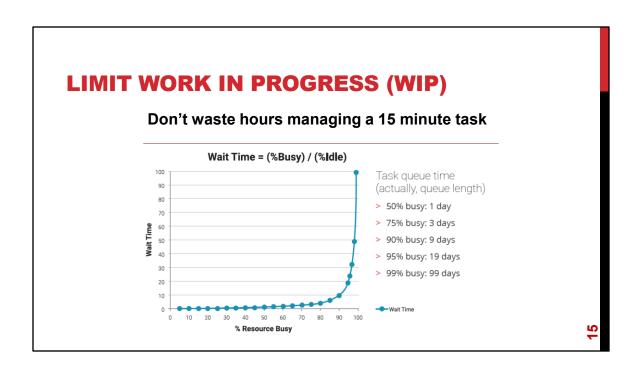
Make work visible so we all know we are on the same page.



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#### Why Make Work Visible on Kanban Boards and Tracking Systems:

Visibility improves **collaboration, communication, and accountability** by allowing team members and stakeholders to see progress and priorities at a glance. It helps **identify bottlenecks**, monitor **WIP limits**, and reduce task switching, ensuring steady delivery. By highlighting workflow patterns, teams can **spot inefficiencies and drive continuous improvement**. Visibility also promotes better **resource allocation and prioritization**, fostering smooth, efficient workflows.

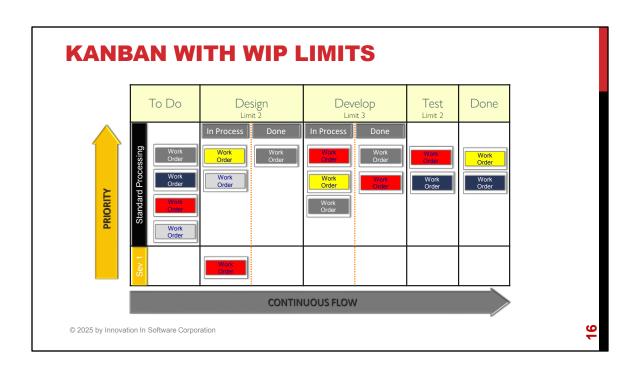


#### Limiting Work in Progress (WIP):

Limiting WIP means restricting the number of tasks being worked on simultaneously to improve flow, efficiency, and outcomes. By keeping work-in-progress manageable, teams avoid context switching, allowing them to focus on completing tasks faster and with fewer errors. This approach helps prevent bottlenecks, ensuring a steady, predictable flow of work through the system.

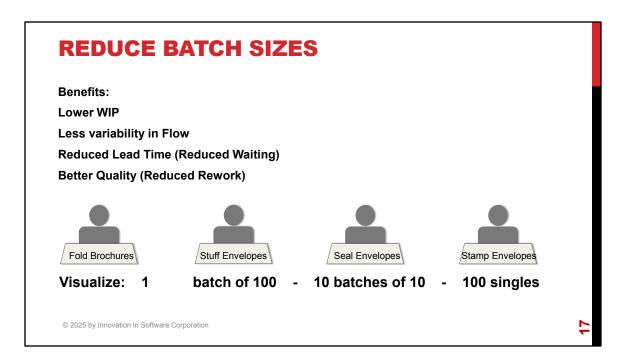
It also highlights **inefficiencies and dependencies**, making it easier for decision-makers to identify and fix process bottlenecks. Limiting WIP reduces the buildup of incomplete work, minimizes defects, and improves delivery speed. For executives, this means **reliable delivery timelines**, **better resource allocation**, **and higher ROI**, supporting **long-term scalability and sustainable growth**.

# AllAboutLean.com



A board with clearly marked columns and strict WIP limits brings immediate visibility to all the work in progress. By restricting how many tasks can be in each column at once, the team spots bottlenecks early and avoids overloading any single step (like coding or testing). This helps stabilize the flow of work so tasks move smoothly from "to do" to "done," improving overall throughput and quality.

Although Kanban boards often surface in software development, the same principles can streamline operations in nearly any department. Marketing teams might limit how many campaigns they can run at once, ensuring each gets the focus and quality it needs. Human Resources could apply WIP constraints to the hiring process—only a certain number of interviews or candidate evaluations in progress at a time—so nothing falls through the cracks and each applicant receives proper attention. Finance teams, too, might restrict how many budget reviews or invoice reconciliations they handle simultaneously, reducing errors and bottlenecks. Essentially, wherever tasks flow from initiation to completion, a board with WIP limits helps reveal where work is piling up, leading to more deliberate prioritization and smoother overall delivery.



#### **Benefits of Reducing Batch Sizes:**

Reducing batch sizes in development, manufacturing, or delivery processes means working on smaller increments of work or output at a time, rather than large batches. This approach leads to faster feedback, improved quality, and more efficient workflows.

#### 1. Faster Feedback and Issue Detection:

Small batches allow for **early testing and quicker feedback**, enabling teams to **identify and fix defects sooner** before they escalate into major problems. This improves overall **product quality** and prevents delays.

#### 2. Reduced Lead Times:

With smaller batches, work moves through the system faster, avoiding bottlenecks and long waiting periods. This enables faster delivery of value to customers and stakeholders.

#### 3. Lower Risk and Easier Troubleshooting:

Large batches make it harder to identify the root cause of issues. Smaller batches minimize risk by isolating problems to specific increments, making troubleshooting simpler and faster.

#### 4. Increased Flexibility and Adaptability:

Smaller batches allow for quicker pivots and changes in response to market

demands, customer feedback, or unexpected issues. This helps organizations stay agile and responsive.

## 5. Improved Resource Efficiency:

Large batches often lead to waste in the form of excess inventory, rework, or waiting times. Reducing batch sizes ensures resources are used more effectively, improving cost efficiency.

For decision-makers, reducing batch sizes leads to faster delivery, reduced costs, higher quality, and increased organizational agility, enabling greater responsiveness and competitiveness in dynamic markets.

# REDUCE THE NUMBER OF HAND-OFFS

#### **Handoffs**

- Increase Lead Time (waiting)
- Reduce %C/A (mistakes)

#### Reduce Handoffs:

- Cross-functional Teams
- Automation

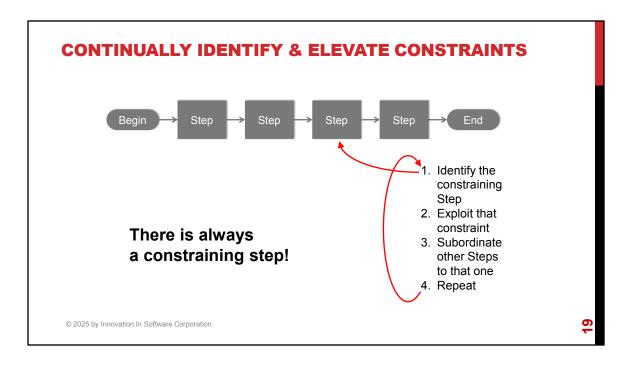


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#### **Reducing the Number of Hand-Offs:**

Reducing hand-offs in a process means minimizing the number of times work is transferred between individuals or teams. Each hand-off introduces opportunities for delays, misunderstandings, and errors, slowing down delivery and increasing rework. By reducing hand-offs, teams can maintain momentum, improve task ownership, and preserve knowledge, leading to faster and more accurate outcomes. Fewer hand-offs result in less time spent clarifying requirements or correcting mistakes, allowing work to flow smoothly and consistently. It also helps avoid bottlenecks caused by waiting for others to take over tasks. For decision-makers, this translates to shorter lead times, reduced costs from rework, and higher overall efficiency, all of which contribute to improved customer satisfaction and organizational productivity.

"%C/A" is shorthand for "Percentage of Corrective Actions." The C stands for "Corrective" and the A stands for "Action," so "%C/A" refers to the percentage of mistakes that require a post-hoc fix. In other words, it's a measure of how often the team must take corrective steps to resolve defects or issues.



- 1. The constraining step might constrain the process in various ways (adding wait time, adding processing time, adding defects, etc.)
- 2. Exploiting the constraint might mean providing more resources, automating it, or changing how it is done in some other way.
- 3. Subordinating other steps might involve de-optimizing them in order to make the constraining step more efficient, or providing more/different/better inputs for the constraining step.
- 4. After taking these actions, start over. Step 1 will tell you if the same step is still the constraint, or if there is now a different constraining step. (There will always be a constraining step!)

Imagine you have a multi-step workflow—perhaps producing financial reports or coordinating a product launch—and one specific phase is slowing everything down. That step is your constraint. By pinpointing it, you can concentrate on fixing or streamlining that bottleneck, for instance by assigning more resources, automating key tasks, or redesigning the workflow. At the same time, the other stages in the process might need to adjust so they don't overload the constrained step or introduce unnecessary errors that cause rework. Once you've addressed that bottleneck, you look again to see if the constraint remains in the same place or has

moved to a different step. This continual cycle of identifying and relieving the constraint keeps the entire process running more smoothly—and it works just as well for finance teams as it does for software groups.

#### **ELIMINATE WASTE IN THE VALUE STREAM**

Toyota's Muda, Muri, Mura & the 8 Wasters



#### **Eliminating Waste in the Value Stream:**

Muda, Muri, Mura, and the 8 Wastes (Lean and Toyota Principles)

Eliminating waste is a core part of **lean practices**, rooted in Toyota's principles of **Muda (waste)**, **Muri (overburden)**, **and Mura (unevenness)**. **Muda** refers to any activity that doesn't add value, **Muri** highlights the strain or overloading of resources, and **Mura** focuses on inconsistencies or fluctuations in production that disrupt flow. Toyota's **8 types of waste** include **defects**, **overproduction**, **waiting**, **non-utilized talent**, **transportation**, **inventory**, **motion**, **and extra processing**. Identifying and reducing these wastes optimizes the value stream, **streamlining production while reducing costs and delays**. By balancing workloads (Muri), ensuring even flow (Mura), and eliminating non-value-added activities (Muda), organizations can **deliver value faster**, **improve quality**, **and achieve sustainable efficiency**. For decision-makers, this means **higher profitability**, **better resource allocation**, **and improved customer satisfaction**.

The Goal by Eliyahu Goldratt is an excellent book (especially the audio version) about LEAN and removing waste from a system

# "8 Wastes of Lean" graphic, adapted from the Toyota Production System and

commonly referenced by The Lean Way (theleanway.net) and the Lean Enterprise Institute (lean.org).

# THE SECOND WAY: FEEDBACK

**Working Safely Within Complex Systems** 

# **Principles of Feedback:**

- · See Problems As They Occur
- Swarm and Resolve Problems to Build New Knowledge
- · Keep Pushing Quality Closer to the Source
- Optimize for Downstream Work Centers





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# Gene Kim's Second Way of DevOps: Feedback Loops

The Second Way focuses on **creating fast and continuous feedback loops** between teams to quickly detect and correct issues before they escalate. It emphasizes **shortening feedback cycles** from downstream processes (e.g., testing, production) back to upstream teams (e.g., development). This enables teams to **identify defects**, **security issues**, **or bottlenecks early**, promoting a culture of continuous learning and improvement.

Key practices include **automated testing**, **real-time monitoring**, **and collaborative review processes**, ensuring issues are fixed promptly. For decision-makers, the Second Way ensures **higher-quality products**, **faster incident resolution**, **and reduced risk**, fostering **reliable and sustainable development pipelines**.

Refer to Chapter 3 of The DevOps Handbook.

# **SEE PROBLEMS AS THEY OCCUR**



Getting Feedback Early and Often helps provide Data to make Informed Decisions to deliver more Business Value to the Customer

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Early Defect Detection: This bullet clarifies that short iteration loops spot problems promptly, mitigating large rework costs and ensuring stable product releases.

Data-Driven Decision Making: This bullet emphasizes how continuous telemetry and performance metrics empower leaders to make informed choices regarding features, resources, and timelines.

Enhanced Customer Satisfaction: This bullet illustrates how faster updates and more reliable systems lead to better user experiences, reinforcing brand loyalty and market share.

Fast feedback and feed-forward mechanisms with pervasive telemetry for constant visibility

#### **SWARM TO SOLVE PROBLEMS & BUILD KNOWLEDGE**

#### **Benefits of Swarming:**

- Fix the problem sooner when it is easier and less expensive to repair
- Prevent the introduction of more errors
- Organizational learning from problems

# **Toyota Andon Cord**



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The **Toyota Andon Cord** is an essential element of lean manufacturing and the Toyota Production System, designed to ensure **real-time quality control and issue resolution**. Workers can pull the cord or press a button to **halt the production line** when they detect a problem, such as a defect or safety risk. This triggers an **alert system with visual or audible signals**, notifying team leaders to **immediately address the issue**. The Andon system supports **jidoka (autonomation)** by emphasizing **stopping to fix problems at their source** before they escalate. It fosters **employee empowerment**, allowing any worker to signal issues, and promotes **continuous improvement and waste reduction** by encouraging problem-solving and analysis. This process is a key reason for **Toyota's high efficiency, product quality, and operational success**, with many companies adopting similar systems.

#### **KEEP PUSHING QUALITY CLOSER TO THE SOURCE**

Inefficient/Ineffective

Manual checks by a separate team that could be automated for the source team

Approvals by distant authorities who lack detailed knowledge

Detailed documentation that will quickly become obsolete

Sending large batches to special committees & waiting for processing or approval

**Efficient & Effective** 

Enabling teams to find problems in their own work

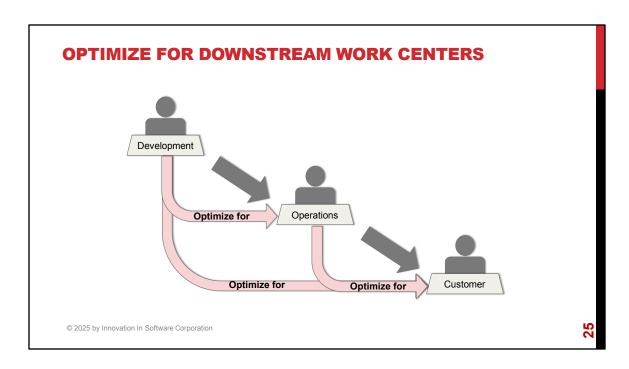
**Use Peer Reviews** 

Automate quality checks where possible

Make Quality each person's job

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In many organizations, quality is often assessed by distant authorities or at the end of long processes. This approach leads to inefficiencies like manual checks that could be automated, approvals from people who may not have the full context of the work, and outdated documentation. You might also have situations where large batches of work are sent off to special committees, and you end up waiting for approval or processing. Instead, we can make quality a part of everyone's responsibility from the start. Enabling teams to identify issues in their own work—whether through peer reviews or automated checks—makes the process faster and more precise. When everyone owns the quality of the work they create, problems are found and addressed immediately, preventing them from snowballing into bigger issues later in the process. One approach tries to manage quality with manual checks by separate teams or approvals from distant authorities who lack firsthand knowledge, often creating delays and outdated documentation. A more effective way is to give each team the responsibility and tools for spotting errors in their own work. Automated checks, peer reviews, and ongoing attention to quality at the source ensure that issues are caught early, workloads move faster, and everyone remains accountable for delivering higher-quality outcomes.



# Why Optimize Flow for Downstream Workcenters, Not Locally:

Optimizing flow ensures that all processes work in sync rather than focusing on maximizing individual workcenter output. Local optimization often leads to bottlenecks, excess inventory, and uneven workloads downstream. Flow optimization reduces waste, minimizes WIP, enhances overall efficiency, and ensures consistent quality by addressing problems early. It supports continuous improvement by identifying system-wide inefficiencies instead of isolated gains that may harm the overall process.

#### THE THIRD WAY: CONTINUAL LEARNING AND EXPERIMENTATION

**Principles of Continual Learning and Experimentation** 

- · Enable Organizational Learning and a Safety Culture
- Institutionalize the Improvement of Daily Work
- Transform Local Discoveries Into Global Improvements
- · Inject Resilience Patterns Into Our Daily Work
- · Leaders Reinforce a Learning Culture

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# Gene Kim's Third Way of DevOps:

#### **Continuous Learning and Experimentation**

The Third Way emphasizes fostering a culture of **continuous learning**, **experimentation**, **and improvement** throughout the organization. It encourages **innovation**, **risk-taking**, **and rapid experimentation** by creating an environment where failures are seen as learning opportunities rather than setbacks. Key practices include **blameless post-mortems**, **knowledge sharing**, **and regular retrospectives** to learn from successes and failures. Teams are encouraged to **experiment with small**, **controlled changes** and quickly iterate based on feedback, promoting **ongoing process improvements**.

For decision-makers, the Third Way drives **organizational resilience**, **adaptability**, **and innovation**, ensuring long-term success by **staying competitive and continuously improving workflows**, **products**, **and services**.

Refer to Chapter 4 of The DevOps Handbook.

# **BUILDING A CULTURE OF LEARNING**

Failure is not a cause for blame, it is a vehicle for change, learning, and improvement.

If you don't fail sometimes...
You're not innovating!



Adapting Through Retrospectives: This bullet shows that regular reflective practices uncover root causes and identify next steps, fostering constant improvement in organizational processes.

Embracing Hypothesis-Driven Approaches: This bullet underscores how forming hypotheses, implementing minimal viable changes, and measuring outcomes create a scientific approach to software and process changes.

Growing Internal Communities: This bullet highlights how Communities of Practice encourage continuous learning, knowledge-

sharing, and best-practice dissemination across the entire enterprise.

# anonymous management cartoon # Netflix Netflix/Chaos Monkey

#### **INSTITUTIONALIZE THE IMPROVEMENT OF DAILY WORK**

The choice (processes never remain the same):

Degradation

**Entropy** 

Workarounds

**Growing Technical Debt** 

Trying to avoid disaster

Improvement

Reserve time every day:

- Pay down Technical Debt
- Fix defects
- Refactor problematic things

#### Kaizen Blitzes

· Attack bigger problems

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Processes never remain the same—they either degrade over time or improve through intentional action. "Institutionalize the Improvement of Daily Work", consistently set aside resources and focus on making things better every day. On the left, you see the consequences of inaction: Degradation, Entropy, Workarounds, Growing Technical Debt, and Trying to Avoid Disaster. These factors gradually weaken systems and erode productivity if left unchecked. On the right, you see a contrasting approach: Improvement by reserving time each day to address defects, pay down technical debt, refactor problematic areas, and occasionally organize "Kaizen Blitzes" to tackle bigger issues. By adopting a mindset of continuous, small improvements, teams can prevent the natural decay of processes, keep technical debt in check, and maintain a healthier overall system.

#### **INJECT RESILIENCE PATTERNS INTO OUR DAILY WORK**

Normal daily work

(not in response to failure)

**Reduce Lead Times** 

Increase test coverage

Improve productivity

#### Refactor for resilience

- · Systems & Applications
- Processes & Methods

**Special Exercises** 

"Game Day"

Rehearse large scale failures

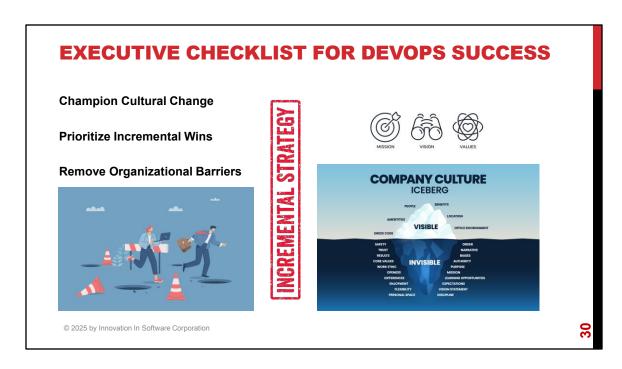
Inject faults

(e.g. Chaos Monkey)

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When everyone shows up to work each day, it's not just about keeping the lights on; it's also about continuously strengthening our digital environment. Rather than waiting for something to break, we can proactively reduce the time it takes to deliver features, expand test coverage, and refactor parts of our systems for greater resilience. That way, our baseline processes and applications become sturdier with each commit. In addition to these everyday improvements, we also conduct structured drills—sometimes called "Game Days"—to rehearse how we'd handle large-scale disruptions. By injecting simulated faults (like "Chaos Monkey"-style events), teams gain crucial practice in recovery skills, ensuring that if something does go wrong, we're prepared and confident in our ability to respond swiftly and effectively.



Champion Cultural Change: This bullet stresses that leadership must advocate collaboration, experimentation, and transparency to transform entrenched silos into DevOps-capable teams.

Prioritize Incremental Wins: This bullet notes that focusing on small, tangible successes builds momentum, encourages adoption, and secures broader buy-in across different teams.

Remove Organizational Barriers: This bullet details how executives should streamline procurement, compliance, and bureaucratic hurdles that often slow or stall DevOps initiatives.

# **QUESTION 1**

What is the primary purpose of the 'First Way' of DevOps?

- A. Continuous learning and improvement
- B. Efficient flow of work from development to production
- C. Automated decision-making
- D. Eliminating feedback loops

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This question focuses on the core concept of the 'First Way' of DevOps, which is critical for improving delivery pipelines. The First Way emphasizes optimizing the flow of work to avoid delays, reduce handoffs, and streamline the value stream from development through to production. Understanding this concept is vital for executives to ensure smoother, faster delivery of software with minimal disruptions.

What is the primary purpose of the 'First Way' of DevOps?

- A. Continuous learning and improvement
- B. Efficient flow of work from development to production
- C. Automated decision-making
- D. Eliminating feedback loops

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Correct answer is from Slide 13. The First Way focuses on creating a smooth, efficient flow from development to production by reducing handoffs, bottlenecks, and work-in-progress, leading to faster and more predictable deliveries.

Why is reducing batch sizes important in DevOps practices?

- A. It reduces collaboration
- B. It leads to faster feedback and issue detection
- C. It increases lead times
- D. It decreases efficiency

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This question relates to the importance of small batch sizes, a key practice in optimizing flow. Small batches enable faster feedback, which allows teams to identify and correct issues before they escalate. For decision-makers, reducing batch sizes is important for achieving quicker releases, lower costs, and continuous improvement.

Why is reducing batch sizes important in DevOps practices?

A. It reduces collaboration

#### B. It leads to faster feedback and issue detection

- C. It increases lead times
- D. It decreases efficiency

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Correct answer is from Slide 17. Reducing batch sizes ensures faster feedback loops, making it easier to detect defects and correct them early. It also minimizes the risk of large-scale failures and improves overall quality.

What is a key reason for limiting work in progress (WIP) in DevOps?

- A. To encourage task switching
- B. To increase the time needed for each task
- C. To improve focus and reduce lead times
- D. To increase bottlenecks

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This question is about managing work effectively by limiting WIP, a fundamental DevOps principle. Keeping WIP limited helps teams focus on completing tasks rather than constantly starting new ones, reducing context switching and improving efficiency. Decision-makers should understand how controlling WIP directly impacts delivery speed and overall project success.

What is a key reason for limiting work in progress (WIP) in DevOps?

- A. To encourage task switching
- B. To increase the time needed for each task
- C. To improve focus and reduce lead times
- D. To increase bottlenecks

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Correct answer is from Slide 15. Limiting WIP allows teams to focus on fewer tasks at a time, reducing delays, improving quality, and minimizing context switching, which leads to faster, more predictable deliveries.

Why is visibility of work important in DevOps practices?

- A. To reduce transparency
- B. To enable better collaboration and identify bottlenecks
- C. To discourage team communication
- D. To increase workload unpredictability

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This question highlights the importance of making work visible, often implemented through tools like Kanban boards. Visibility ensures that all team members and stakeholders can monitor progress, identify delays, and address bottlenecks quickly. Without visibility, teams may experience misaligned priorities and inefficient processes.

Why is visibility of work important in DevOps practices?

A. To reduce transparency

#### B. To enable better collaboration and identify bottlenecks

- C. To discourage team communication
- D. To increase workload unpredictability

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Correct answer is from Slide 14. Making work visible helps teams collaborate effectively, track tasks in progress, and quickly identify areas of concern, ultimately leading to smoother workflows and better resource allocation.

What is the purpose of reducing handoffs in DevOps workflows?

- A. To increase delays and errors
- B. To improve task ownership and reduce lead times
- C. To encourage waiting for approvals
- D. To create more dependencies

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This question examines how reducing handoffs can optimize DevOps workflows by minimizing delays and errors. Every handoff introduces risks, such as misunderstandings and bottlenecks, so reducing them helps teams maintain momentum and deliver faster results.

What is the purpose of reducing handoffs in DevOps workflows?

A. To increase delays and errors

#### B. To improve task ownership and reduce lead times

- C. To encourage waiting for approvals
- D. To create more dependencies

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Correct answer is from Slide 18. By minimizing handoffs, teams can improve task ownership and flow efficiency, leading to faster, more reliable software delivery with fewer errors.

What is the 'Second Way' of DevOps primarily focused on?

- A. Continuous feedback loops
- B. Efficient automation
- C. Large batch processing
- D. Siloed team structures

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This question explores the Second Way of DevOps, which is centered on creating continuous feedback loops between development and downstream processes. Feedback loops allow teams to identify problems early, correct them, and continuously improve.

What is the 'Second Way' of DevOps primarily focused on?

- A. Continuous feedback loops
- B. Efficient automation
- C. Large batch processing
- D. Siloed team structures

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Correct answer is from Slide 22. Continuous feedback loops enable quick identification and resolution of issues, fostering a culture of continuous improvement and higher-quality products.

What does the 'Third Way' of DevOps emphasize?

- A. Static processes
- B. Continuous learning and experimentation
- C. Avoiding failure at all costs
- D. Limiting innovation

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This question covers the Third Way of DevOps, which focuses on fostering a learning-oriented culture where teams continuously experiment and learn from successes and failures. This approach encourages innovation and adaptability.

What does the 'Third Way' of DevOps emphasize?

- A. Static processes
- **B.** Continuous learning and experimentation
- C. Avoiding failure at all costs
- D. Limiting innovation

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Correct answer is from Slide 27. The Third Way promotes continuous learning through experimentation and reflection, enabling organizations to adapt and improve continuously.

What is the role of leadership in creating a successful DevOps culture?

- A. Promoting isolated teams
- B. Championing collaboration and transparency
- C. Avoiding organizational change
- D. Increasing bureaucratic approvals

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This question focuses on the critical role that leadership plays in fostering a successful DevOps culture. Leaders must encourage collaboration, innovation, and continuous improvement while removing barriers to adoption.

What is the role of leadership in creating a successful DevOps culture?

A. Promoting isolated teams

#### B. Championing collaboration and transparency

- C. Avoiding organizational change
- D. Increasing bureaucratic approvals

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Correct answer is from Slide 30. Leadership is essential in breaking down silos, promoting collaboration, and driving cultural change, which are all key to successful DevOps adoption.