

Effective Devops Building A Culture Of Collaboration Affinity And Tooling At Scale

This book is a guide for managers, Scrum Masters and agile coaches who are interested in agile organizational methods and who are planning to introduce Scrum at their own company. Scrum is not only a product development framework but can also be used to structure activities for agile and lean organizational development. Divided into five major parts, the book first introduces and defines the Scrum Culture. It explains its relevance, highlights a number of pain points typical for first encounters with Scrum, and embeds it in an introduction to organizational change. This is complemented with many real-life examples that help to apply the concepts to readers' own specific contexts. The second part describes the principles of introducing Scrum in detail, while the third part embarks on the practical application of these principles, drawing on a wealth of experience gathered in many successful introduction projects. Part four focuses on a detailed case study of a Scrum transformation before part five provides, in closing, a number of appendices offering extensive information on Scrum and its principles.

The Phoenix Project wowed over a half-million readers. Now comes the Wall Street Journal Bestselling The Unicorn Project! "The Unicorn Project is amazing, and I loved it 100 times more than The Phoenix Project..."—FERNANDO CORNAGO, Senior Director Platform Engineering, Adidas "Gene Kim does a masterful job of showing how ... the efforts of many create lasting business advantages for all."—DR. STEVEN SPEAR, author of The High-Velocity Edge, Sr. Lecturer at MIT, and principal of HVE LLC. "The Unicorn Project is so clever, so good, so crazy enlightening!"—CORNELIA DAVIS, Vice President Of Technology at Pivotal Software, Inc., Author of Cloud Native Patterns This highly anticipated follow-up to the bestselling title The Phoenix Project takes another look at Parts Unlimited, this time from the perspective of software development. In The Unicorn Project, we follow Maxine, a senior lead developer and architect, as she is exiled to the Phoenix Project, to the horror of her friends and colleagues, as punishment for contributing to a payroll outage. She tries to survive in what feels like a heartless and uncaring bureaucracy and to work within a system where no one can get anything done without endless committees, paperwork, and approvals. One day, she is approached by a ragtag bunch of misfits who say they want to overthrow the existing order, to liberate developers, to bring joy back to technology work, and to enable the business to win in a time of digital disruption. To her surprise, she finds herself drawn ever further into this movement, eventually becoming one of the leaders of the Rebellion, which puts her in the crosshairs of some familiar and very dangerous enemies. The Age of Software is here, and another mass extinction event looms—this is a story about rebel developers and business leaders working together, racing against time to innovate, survive, and thrive in a time of unprecedented uncertainty...and opportunity. "The Unicorn Project provides insanely useful insights on how to improve your technology business."—DOMINICA DEGRANDIS, author of Making Work Visible and Director of Digital Transformation at Tasktop ——— "My goal in writing The Unicorn Project was to explore and reveal the necessary but invisible structures required to make developers (and all engineers) productive, and reveal the devastating effects of technical debt and complexity. I hope this book can create common ground for technology and business leaders to leave the past behind, and co-create a better future together."—Gene Kim, November 2019

Summary Securing DevOps explores how the techniques of DevOps and security should be applied together to make cloud services safer. This introductory book reviews the latest practices used in securing web applications and their infrastructure and teaches you techniques to integrate security directly into your product. You'll also learn the core concepts of DevOps, such as continuous integration, continuous delivery, and infrastructure as a service. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology An application running in the cloud can benefit from incredible efficiencies, but they come with unique security threats too. A DevOps team's highest priority is understanding those risks and hardening the system against them. About the Book Securing DevOps teaches you the essential techniques to secure your cloud services. Using compelling case studies, it shows you how to build security into automated testing, continuous delivery, and other core DevOps processes. This experience-rich book is filled with mission-critical strategies to protect web applications against attacks, deter fraud attempts, and make your services safer when operating at scale. You'll also learn to identify, assess, and secure the unique vulnerabilities posed by cloud deployments and automation tools commonly used in modern infrastructures. What's inside An approach to continuous security Implementing test-driven security in DevOps Security techniques for cloud services Watching for fraud and responding to incidents Security testing and risk assessment About the Reader Readers should be comfortable with Linux and standard DevOps practices like CI, CD, and unit testing. About the Author Julien Vehent is a security architect and DevOps advocate. He leads the Firefox Operations Security team at Mozilla, and is responsible for the security of Firefox's high-traffic cloud services and public websites. Table of Contents Securing DevOps PART 1 - Case study: applying layers of security to a simple DevOps pipeline Building a barebones DevOps pipeline Security layer 1: protecting web applications Security layer 2: protecting cloud infrastructures Security layer 3: securing communications Security layer 4: securing the delivery pipeline PART 2 - Watching for anomalies and protecting services against attacks Collecting and storing logs Analyzing logs for fraud and attacks Detecting intrusions The Caribbean breach: a case study in incident response PART 3 - Maturing DevOps security Assessing risks Testing security Continuous security Manage Linux Servers on-premises and cloud with advanced DevOps techniques using Kubernetes KEY FEATURES ? Detailed coverage on architecture of Web Servers, Databases, and Cloud Servers. ? Practical touch on deploying your application and managing cloud infrastructure using Docker and Terraform. ? Simplified implementation of Infrastructure as Code with Vagrant. ? Explore the use of different cloud services for better provisioning, scalability, and reliability of enterprise applications. DESCRIPTION Hands-on DevOps with Linux brings you advanced learnings on how to make the

best use of Linux commands in managing the DevOps infrastructure to keep enterprise applications up-to-date. The book begins by introducing you to the Linux world with the most used commands by DevOps experts and teaches how to set up your own infrastructure in your environment. The book covers exclusive coverage on production scenarios using Kubernetes and how the entire container orchestration is managed. Throughout the book, you will get accustomed to the most widely used techniques among DevOps Engineers in their routine. You will explore how infrastructure as code works, working with Vagrant, Docker and Terraform through which you can manage the entire cloud deployment of applications along with how to scale them on your own. WHAT YOU WILL LEARN ? Create Infrastructure as Code to replicate the configuration to your infrastructure. ? Learn best methods and techniques to build continuous delivery pipeline using Jenkins. ? Learn to Distribute and scale your applications using Kubernetes. ? Get insights by analyzing millions of server logs using Kibana and Logstash. WHO THIS BOOK IS FOR This book is best suited for DevOps Engineers and DevOps professionals who want to make best use of Linux commands in managing the DevOps infrastructure daily. It is a good handy guide for Linux administrators and system administrators too to get familiar with the use of Linux in Devops and advance their skillset in DevOps. TABLE OF CONTENTS 1. Getting started with Linux 2. Working with Bash 3. Setting up a service 4. Configuring a reverse proxy with Nginx 5. Deploying your application using Docker 6. Automating your Infrastructure as Code 7. Creating your infrastructure using cloud services 8. Working with Terraform 9. Working with Git 10. Continuous integration and Continuous Delivery using Jenkins 11. Deploying and scaling your application using Kubernetes 12. Logs with open source Tools

Practical, Proven Tools for Leading and Empowering High-Performing Agile Teams A leader is like a farmer, who doesn't grow crops by pulling them but instead creates the perfect environment for the crops to grow and thrive. If you lead in organizations that have adopted agile methods, you know it's crucial to create the right environment for your agile teams. Traditional tools such as Gantt charts, detailed plans, and internal KPIs aren't adequate for complex and fast-changing markets, but merely trusting employees and teams to self-manage is insufficient as well. In Agile Leadership Toolkit, longtime agile leader Peter Koning provides a practical and invaluable steering wheel for agile leaders and their teams. Drawing on his extensive experience helping leaders drive more value from agile, Koning offers a comprehensive toolkit for continuously improving your environment, including structures, metrics, meeting techniques, and governance for creating thriving teams that build disruptive products and services. Koning thoughtfully explains how to lead agile teams at large scale and how team members fit into both the team and the wider organization. Architect environments that help teams learn, grow, and flourish for the long term Get timely feedback everyone can use to improve Co-create goals focused on the customer, not the internal organization Help teams brainstorm and visualize the value of their work to the customer Facilitate team ownership and accelerate team learning Support culture change, and design healthier team habits Make bigger changes faster This actionable guide is for leaders at all levels—whether you're supervising your first agile team, responsible for multiple teams, or lead the entire company. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

Learn to design, implement, measure, and improve DevOps programs that are tailored to your organization. This concise guide assists leaders who are accountable for the rapid development of high-quality software applications. In DevOps for Digital Leaders, deep collective experience on both sides of the dev-ops divide informs the global thought leadership and penetrating insights of the authors, all three of whom are cross-portfolio DevOps leaders at CA Technologies. Aruna Ravichandran, Kieran Taylor, and Peter Waterhouse analyze the organizational benefits, costs, freedoms, and constraints of DevOps. They chart the coordinated strategy of organizational change, metrics, lean thinking, and investment that an enterprise must undertake to realize the full potential of DevOps and reach the sweet spot where accelerating code deployments drive increasing customer satisfaction, revenue, and profitability. Digital leaders are charged to bridge the dev-ops disconnect if their organizations are to survive and flourish in a business world increasingly differentiated by the degree to which dynamic application software development harmonizes with operational resilience and reliability. This short book applies the DevOps perspective to the competitive challenge, faced by every high-performance IT organization today, of integrating and automating open source, cloud, and enterprise tools, processes, and techniques across the software development life cycle from requirements to release. What You Will Learn: Remove dependencies and constraints so that parallel practices can accelerate the development of defect-free software Automate continuous delivery across the software life cycle to eliminate release bottlenecks, manual labor waste, and technical debt accumulation Generate virtualized production-style testing of applications through real-time behavioral analytics Adopt agile practices so operations teams can support developer productivity with automated feedback, streamline infrastructure monitoring, spot and resolve operations issues before they impact production, and improve customer experience Identify the DevOps metrics appropriate to your organization and integrate DevOps with your existing best practices and investment Who This Book Is For: IT leaders in large companies and government agencies who have any level of responsibility for the rapid development of high-quality software applications. The secondary readership is members of development and operations teams, security professionals, and service managers. In Team Topologies DevOps consultants Matthew Skelton and Manuel Pais share secrets of successful team patterns and interactions to help readers choose and evolve the right team patterns for their organization, making sure to keep the software healthy and optimize value streams. Team Topologies will help readers discover: • Team patterns used by successful organizations. • Common team patterns to avoid with modern software systems. • When and why to use different team patterns • How to evolve teams effectively. • How to split software and align to teams.

Jeff Lawson, software developer turned CEO of Twilio, creates a new playbook for unleashing the full potential of software developers in any organization, showing how to help management utilize this coveted and valuable workforce to enable growth, solve a wide range of business problems and drive digital transformation. From banking and retail to

insurance and finance, every industry is turning digital, and every company needs the best software to win the hearts and minds of customers. The landscape has shifted from the classic build vs. buy question, to one of build vs. die. Companies have to get this right to survive. But how do they make this transition? Software developers are sought after, highly paid, and desperately needed to compete in the modern, digital economy. Yet most companies treat them like digital factory workers without really understanding how to unleash their full potential. Lawson argues that developers are the creative workforce who can solve major business problems and create hit products for customers—not just grind through rote tasks. From Google and Amazon, to one-person online software companies—companies that bring software developers in as partners are winning. Lawson shows how leaders who build industry changing software products consistently do three things well. First, they understand why software developers matter more than ever. Second, they understand developers and know how to motivate them. And third, they invest in their developers' success. As a software developer and public company CEO, Lawson uses his unique position to bridge the language and tools executives use with the unique culture of high performing, creative software developers. *Ask Your Developer* is a toolkit to help business leaders, product managers, technical leaders, software developers, and executives achieve their common goal—building great digital products and experiences. How to compete in the digital economy? In short: *Ask Your Developer*.

The overwhelming majority of a software system's lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE's day-to-day work: building and operating large distributed computing systems

Management—Explore Google's best practices for training, communication, and meetings that your organization can use Failure is inevitable and a postmortem analysis, conducted in an open, blameless way, is the best way for IT techs and managers to learn from outages and near-misses. But when the "root cause" is determined to be "human error" (or worse, particular humans), the real causes and conditions are lost. In this insightful book, IT veteran Dave Zwieback shows you an approach for making postmortems blameless, so you can focus instead on addressing areas of fragility within systems and organizations. If you're involved with assessing why something goes wrong on a project or at your company—as a system administrator, developer, team manager, or executive—the concrete steps in this guide will help you find a real solution that works. Recognize and mitigate the effects of stress during outages Learn how to communicate effectively in a charged, high-stakes postmortem conversation Collect the necessary data before the postmortem begins Focus on determining the actual causes and conditions of an outage Learn techniques for writing up a postmortem for either internal or external use

Leading the Transformation is executive guide, providing a clear framework for improving development and delivery. Instead of the traditional Agile and DevOps approaches that focus on improving the effectiveness of teams, this book targets the coordination of work across teams in large organizations—an improvement that executives are uniquely positioned to lead.

Over a half-million sold! The sequel, *The Unicorn Project*, is coming Nov 26 “Every person involved in a failed IT project should be forced to read this book.”—TIM O'REILLY, Founder & CEO of O'Reilly Media “The Phoenix Project is a must read for business and IT executives who are struggling with the growing complexity of IT.”—JIM WHITEHURST, President and CEO, Red Hat, Inc. Five years after this sleeper hit took on the world of IT and flipped it on its head, the 5th Anniversary Edition of *The Phoenix Project* continues to guide IT in the DevOps revolution. In this newly updated and expanded edition of the bestselling *The Phoenix Project*, co-author Gene Kim includes a new afterword and a deeper delve into the Three Ways as described in *The DevOps Handbook*. Bill, an IT manager at Parts Unlimited, has been tasked with taking on a project critical to the future of the business, code named Phoenix Project. But the project is massively over budget and behind schedule. The CEO demands Bill must fix the mess in ninety days or else Bill's entire department will be outsourced. With the help of a prospective board member and his mysterious philosophy of The Three Ways, Bill starts to see that IT work has more in common with a manufacturing plant work than he ever imagined. With the clock ticking, Bill must organize work flow streamline interdepartmental communications, and effectively serve the other business functions at Parts Unlimited. In a fast-paced and entertaining style, three luminaries of the DevOps movement deliver a story that anyone who works in IT will recognize. Readers will not only learn how to improve their own IT organizations, they'll never view IT the same way again. “This book is a gripping read that captures brilliantly the dilemmas that face companies which depend on IT, and offers real-world solutions.”—JEZ HUMBLE, Co-author of *Continuous Delivery*, *Lean Enterprise*, *Accelerate*, and *The DevOps Handbook* ———— “I'm delighted at how *The Phoenix Project* has reshaped so many conversations in technology. My goal in writing *The Unicorn Project* was to explore and reveal the necessary but invisible structures required to make developers (and all engineers) productive, and reveal the devastating effects of technical debt and complexity. I hope this book can create common ground for technology and business leaders to leave the past behind, and co-create a better future together.”—Gene Kim, November 2019

Simplify your DevOps roles with DevOps tools and techniques Key Features Learn to utilize business resources effectively to increase productivity and collaboration Leverage the ultimate open source DevOps tools to achieve continuous integration and continuous delivery (CI/CD) Ensure faster time-to-market by reducing overall lead time and deployment downtime Book Description The implementation of DevOps processes requires the efficient use of various tools, and the choice of these tools is crucial for the sustainability of projects and collaboration between development (Dev) and operations (Ops). This book presents the different patterns and tools that you can use to provision and configure an infrastructure in the cloud. You'll begin by understanding DevOps culture, the application of DevOps in cloud infrastructure, provisioning with Terraform, configuration with Ansible, and image building with Packer. You'll then be taken through source code versioning with Git and the construction of a DevOps CI/CD pipeline using Jenkins, GitLab CI, and Azure Pipelines. This DevOps handbook will also guide you in containerizing and deploying your applications with Docker and Kubernetes. You'll learn how to reduce deployment downtime with

blue-green deployment and the feature flags technique, and study DevOps practices for open source projects. Finally, you'll grasp some best practices for reducing the overall application lead time to ensure faster time to market. By the end of this book, you'll have built a solid foundation in DevOps, and developed the skills necessary to enhance a traditional software delivery process using modern software delivery tools and techniques

What you will learn

- Become well versed with DevOps culture and its practices
- Use Terraform and Packer for cloud infrastructure provisioning
- Implement Ansible for infrastructure configuration
- Use basic Git commands and understand the Git flow process
- Build a DevOps pipeline with Jenkins, Azure Pipelines, and GitLab CI
- Containerize your applications with Docker and Kubernetes
- Check application quality with SonarQube and Postman
- Protect DevOps processes and applications using DevSecOps tools

Who this book is for

If you are a developer or a system administrator interested in understanding continuous integration, continuous delivery, and containerization with DevOps tools and techniques, this book is for you.

Much has changed in technology over the past decade. Data is hot, the cloud is ubiquitous, and many organizations need some form of automation. Throughout these transformations, Python has become one of the most popular languages in the world. This practical resource shows you how to use Python for everyday Linux systems administration tasks with today's most useful DevOps tools, including Docker, Kubernetes, and Terraform. Learning how to interact and automate with Linux is essential for millions of professionals. Python makes it much easier. With this book, you'll learn how to develop software and solve problems using containers, as well as how to monitor, instrument, load-test, and operationalize your software. Looking for effective ways to "get stuff done" in Python? This is your guide.

Python foundations, including a brief introduction to the language

- How to automate text, write command-line tools, and automate the filesystem
- Linux utilities, package management, build systems, monitoring and instrumentation, and automated testing
- Cloud computing, infrastructure as code, Kubernetes, and serverless
- Machine learning operations and data engineering from a DevOps perspective

Building, deploying, and operationalizing a machine learning project

Operations Anti-Patterns, DevOps Solutions shows how to implement DevOps techniques in the kind of imperfect environments most developers work in. Part technology tutorial, part reference manual, and part psychology handbook, this practical guide shows you realistic ways to bring DevOps to your team when you don't have the flexibility to make sweeping changes in organizational structure.

Summary

Operations Anti-Patterns, DevOps Solutions shows how to implement DevOps techniques in the kind of imperfect environments most developers work in. Part technology tutorial, part reference manual, and part psychology handbook, this practical guide shows you realistic ways to bring DevOps to your team when you don't have the flexibility to make sweeping changes in organizational structure. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

About the technology

To some extent, all organizations—even yours—suffer from poor development practices, garbled communications, and outdated legacy systems. The good news is DevOps can help you improve your processes. First, however, you'll need to recognize the core issues holding you back. This book empowers you to deliver DevOps with limited resources while navigating the office politics and entrenched mindsets that are all too common in actual workplaces.

About the book

Operations Anti-Patterns, DevOps Solutions offers clear steps for transforming development and communication. Using jargon-free language, this book describes incremental techniques that pay off immediately. Streamline your workflow, manage unplanned time, and build operational metrics. Whatever your issues, this book holds the keys to organizational success.

What's inside

Turn failure into opportunity

- Drive change through culture
- Break down knowledge silos
- Settle middle management turf wars

About the reader

For team leaders and managers.

About the author

Jeffery D. Smith has been in the technology industry for over 15 years. He has managed DevOps transformations at the ad-tech firm Centro and the online ordering platform Grubhub.

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Some companies think that adopting devops means bringing in specialists or a host of new tools. With this practical guide, you'll learn why devops is a professional and cultural movement that calls for change from inside your organization. Authors Ryn Daniels and Jennifer Davis provide several approaches for improving collaboration within teams, creating affinity among teams, promoting efficient tool usage in your company, and scaling up what works throughout your organization's inflection points. Devops stresses iterative efforts to break down information silos, monitor relationships, and repair misunderstandings that arise between and within teams in your organization. By applying the actionable strategies in this book, you can make sustainable changes in your environment regardless of your level within your organization. Explore the foundations of devops and learn the four pillars of effective devops

- Encourage collaboration to help individuals work together and build durable and long-lasting relationships
- Create affinity among teams while balancing differing goals or metrics
- Accelerate cultural direction by selecting tools and workflows that complement your organization
- Troubleshoot common problems and misunderstandings that can arise throughout the organizational lifecycle

Learn from case studies from organizations and individuals to help inform your own devops journey

Winner of the Shingo Publication Award

Accelerate your organization to win in the marketplace. How can we apply technology to drive business value? For years, we've been told that the performance of software delivery teams doesn't matter—that it can't provide a competitive advantage to our companies. Through four years of groundbreaking research to include data collected from the State of DevOps reports conducted with Puppet, Dr. Nicole Forsgren, Jez Humble, and Gene Kim set out to find a way to measure software delivery performance—and what drives it?using rigorous statistical methods. This book presents both the findings and the science behind that research, making the information accessible for readers to apply in their own organizations. Readers will discover how to measure the performance of their teams, and what capabilities they should invest in to drive higher performance. This book is ideal for management at every level.

Today's IT workers are drowning in nonstop requests for time, days filled to the brim with meetings, and endless nights spent heroically fixing the latest problems. This churn and burn is creating a workforce constantly on the edge of burnout. In this timely book, IT time management expert Dominica DeGrandis reveals the real crime of the century—time theft, one of the most costly factors impacting enterprises in their day-to-day operations. Through simple solutions that make work visible, DeGrandis helps people round up the five thieves of time and take back their lives with timesaving solutions. Chock-full of exercises, takeaways, real-world examples, colorful diagrams, and an easy-going writing style, readers will quickly learn effective practices to create high-performing workflows within an organization.

DevOps is as much about culture as it is about tools

When people talk about DevOps, they often emphasize configuration management systems, source code repositories, and other tools. But, as Mandi Walls explains in this Velocity report, DevOps is

really about changing company culture—replacing traditional development and operations silos with collaborative teams of people from both camps. The DevOps movement has produced some efficient teams turning out better products faster. The tough part is initiating the change. This report outlines strategies for managers looking to go beyond tools to build a DevOps culture among their technical staff. Topics include: Documenting reasons for changing to DevOps before you commit Defining meaningful and achievable goals Finding a technical leader to be an evangelist, tools and process expert, and shepherd Starting with a non-critical but substantial pilot project Facilitating open communication among developers, QA engineers, marketers, and other professionals Realigning your team's responsibilities and incentives Learning when to mediate disagreements and conflicts Download this free report and learn how the DevOps approach can help you create a supportive team environment built on communication, respect, and trust. Mandi Walls is a Senior Consultant with Opscode.

Use this book as your one-stop shop for architecting a world-class DevOps environment with Microsoft technologies. .NET DevOps for Azure is a synthesis of practices, tools, and process that, together, can equip a software organization to move fast and deliver the highest quality software. The book begins by discussing the most common challenges faced by developers in DevOps today and offers options and proven solutions on how to implement DevOps for your team. Daily, millions of developers use .NET to build and operate mission-critical software systems for organizations around the world. While the marketplace has scores of information about the technology, it is completely up to you to put together all the blocks in the right way for your environment. This book provides you with a model to build on. The relevant principles are covered first along with how to implement that part of the environment. And while variances in tools, language, or requirements will change the needed implementation, the DevOps model is the architecture for the working environment for your team. You can modify parts of the model to customize it to your enterprise, but the architecture will enable all of your teams and applications to accelerate in performance. What You Will Learn Get your .NET applications into a DevOps environment in Azure Analyze and address the part of your DevOps process that causes delays or bottlenecks Track code using Azure Repos and conduct acceptance tests Apply the rules for segmenting applications into Git repositories Understand the different types of builds and when to use each Know how to think about code validation in your DevOps environment Provision and configure environments; deploy release candidates across the environments in Azure Monitor and support software that has been deployed to a production environment Who This Book Is For .NET Developers who are using or want to use DevOps in Azure but don't know where to begin

Increase profitability, elevate work culture, and exceed productivity goals through DevOps practices. More than ever, the effective management of technology is critical for business competitiveness. For decades, technology leaders have struggled to balance agility, reliability, and security. The consequences of failure have never been greater—whether it's the healthcare.gov debacle, cardholder data breaches, or missing the boat with Big Data in the cloud. And yet, high performers using DevOps principles, such as Google, Amazon, Facebook, Etsy, and Netflix, are routinely and reliably deploying code into production hundreds, or even thousands, of times per day. Following in the footsteps of The Phoenix Project, The DevOps Handbook shows leaders how to replicate these incredible outcomes, by showing how to integrate Product Management, Development, QA, IT Operations, and Information Security to elevate your company and win in the marketplace.

Pro Puppet is an in-depth guide to installing, using, and developing the popular configuration management tool Puppet. The book is a comprehensive follow-up to the previous title Pulling Strings with Puppet. Puppet provides a way to automate everything from user management to server configuration. You'll learn how to create Puppet recipes, extend Puppet, and use Facter to gather configuration data from your servers. Puppet is a must-have tool for system administrators, and Pro Puppet will teach you how to maximize its capabilities and customize it for your environment. Install and configure Puppet to immediately start automating tasks and create reporting solutions Learn insider tricks and techniques to better manage your infrastructure Become a Puppet expert! Learn, understand, and apply people-, process-, and technology-related practices to make OpenShift and DevOps adoption a success within your organization.

In 2016, Google's Site Reliability Engineering book ignited an industry discussion on what it means to run production services today—and why reliability considerations are fundamental to service design. Now, Google engineers who worked on that bestseller introduce The Site Reliability Workbook, a hands-on companion that uses concrete examples to show you how to put SRE principles and practices to work in your environment. This new workbook not only combines practical examples from Google's experiences, but also provides case studies from Google's Cloud Platform customers who underwent this journey. Evernote, The Home Depot, The New York Times, and other companies outline hard-won experiences of what worked for them and what didn't. Dive into this workbook and learn how to flesh out your own SRE practice, no matter what size your company is. You'll learn: How to run reliable services in environments you don't completely control—like cloud Practical applications of how to create, monitor, and run your services via Service Level Objectives How to convert existing ops teams to SRE—including how to dig out of operational overload Methods for starting SRE from either greenfield or brownfield

Scale gracefully and maintain outstanding performance with your AWS-based infrastructure using DevOps principles About This Book Implement DevOps principles to take full advantage of the AWS stack and services Take expert look at solving problems faced by real developers and operation teams and learn to overcome them Learn from expert insights of the author who has worked with Silicon Valley's most high-profile companies Who This Book Is For This book is for developers, DevOps engineers and teams who want to build and use AWS for their software infrastructure. Basic computer science knowledge is required for this book. What You Will Learn Find out what it means to practice DevOps and what its principles are Build repeatable infrastructures using templates and configuration management Deploy multiple times a day by implementing continuous integration and continuous deployment pipelines Use the latest technologies, including containers and serverless computing, to scale your infrastructure Collect metrics and logs and implement an alerting strategy Make your system robust and secure In Detail The DevOps movement has transformed the way modern tech companies work. AWS which has been on the forefront of the Cloud computing revolution has also been a key contributor of this DevOps movement creating a huge range of managed services that help you implement the DevOps principles. In this book, you'll see how the most successful tech start-ups launch and scale their services on AWS and how you can too. Written by a lead member of Mediums DevOps team, this book explains how to treat infrastructure as code, meaning you can bring resources online and offline as necessary with the code as easily as you

control your software. You will also build a continuous integration and continuous deployment pipeline to keep your app up to date. You'll find out how to scale your applications to offer maximum performance to users anywhere in the world, even when traffic spikes with the latest technologies, such as containers and serverless computing. You will also take a deep dive into monitoring and alerting to make sure your users have the best experience when using your service. Finally, you'll get to grips with ensuring the security of your platform and data. **Style and approach** This is a practical, hands-on, comprehensive guide to AWS, helping readers understand AWS in a step by step manner.

How well does your organization respond to changing market conditions, customer needs, and emerging technologies when building software-based products? This practical guide presents Lean and Agile principles and patterns to help you move fast at scale—and demonstrates why and how to apply these paradigms throughout your organization, rather than with just one department or team. Through case studies, you'll learn how successful enterprises have rethought everything from governance and financial management to systems architecture and organizational culture in the pursuit of radically improved performance. Discover how Lean focuses on people and teamwork at every level, in contrast to traditional management practices **Approach** problem-solving experimentally by exploring solutions, testing assumptions, and getting feedback from real users **Lead** and manage large-scale programs in a way that empowers employees, increases the speed and quality of delivery, and lowers costs **Learn** how to implement ideas from the DevOps and Lean Startup movements even in complex, regulated environments

This is a story of reinvention. Jim Whitehurst, celebrated president and CEO of one of the world's most revolutionary software companies, tells first-hand his journey from traditional manager (Delta Air Lines, Boston Consulting Group) and “chief” problem solver to CEO of one of the most open organizational environments he'd ever encountered. This challenging transition, and what Whitehurst learned in the interim, has paved the way for a new way of managing—one this modern leader sees as the only way companies will successfully function in the future. Whitehurst says beyond embracing the technology that has so far disrupted entire industries, companies must now adapt their management and organizational design to better fit the Information Age. His mantra? “Adapt or die.” Indeed, the successful company Whitehurst leads—the open source giant Red Hat—has become the organizational poster child for how to reboot, redesign, and reinvent an organization for a decentralized, digital age. Based on open source principles of transparency, participation, and collaboration, “open management” challenges conventional business ideas about what companies are, how they run, and how they make money. This book provides the blueprint for putting it into practice in your own firm. He covers challenges that have been missing from the conversation to date, among them: how to scale engagement; how to have healthy debates that net progress; and how to attract and keep the “Social Generation” of workers. Through a mix of vibrant stories, candid lessons, and tested processes, Whitehurst shows how Red Hat has blown the traditional operating model to pieces by emerging out of a pure bottom up culture and learning how to execute it at scale. And he explains what other companies are, and need to be doing to bring this open style into all facets of the organization. By showing how to apply open source methods to everything from structure, management, and strategy to a firm's customer and partner relationships, leaders and teams will now have the tools needed to reach a new level of work. And with that new level of work comes unparalleled success. **The Open Organization** is your new resource for doing business differently. Get ready to make traditional management thinking obsolete.

Virtualization, cloud, containers, server automation, and software-defined networking are meant to simplify IT operations. But many organizations adopting these technologies have found that it only leads to a faster-growing sprawl of unmanageable systems. This is where infrastructure as code can help. With this practical guide, author Kief Morris of ThoughtWorks shows you how to effectively use principles, practices, and patterns pioneered through the DevOps movement to manage cloud age infrastructure. Ideal for system administrators, infrastructure engineers, team leads, and architects, this book demonstrates various tools, techniques, and patterns you can use to implement infrastructure as code. In three parts, you'll learn about the platforms and tooling involved in creating and configuring infrastructure elements, patterns for using these tools, and practices for making infrastructure as code work in your environment. Examine the pitfalls that organizations fall into when adopting the new generation of infrastructure technologies **Understand** the capabilities and service models of dynamic infrastructure platforms **Learn** about tools that provide, provision, and configure core infrastructure resources **Explore** services and tools for managing a dynamic infrastructure **Learn** specific patterns and practices for provisioning servers, building server templates, and updating running servers Enterprises are learning that a large measure of success for adopting devops is the spirit of collaboration it instills among teams. While companies introduce devops to solve technical issues and shorten the development life cycle, many soon realize that people working together is a key part of the process. This practical report provides managers with practices and strategies for fostering collaboration within their organizations. Authors Jennifer Davis and Ryn Daniels (**Effective DevOps**) explain how collaboration among development and operations teams is about building trust, empathy, and psychological safety. You'll learn how to promote these essential building blocks and help teams apply them through each stage of your development lifecycle. Discover how to empower employees, create more productive and innovative teams, and build a respectful workplace. **Build** durable, long-lasting relationships with colleagues by instilling trust, empathy, and team psychological safety **Promote** effective communication to increase understanding, assert influence, give recognition, and build community **Strengthen** engineering effectiveness by putting collaboration principles into practice throughout the development lifecycle **Get** actionable advice for promoting effective collaboration during your product's discovery, development, and production phases.

Develop faster with DevOps DevOps embraces a culture of unifying the creation and distribution of technology in a way that allows for faster release cycles and more resource-efficient product updating. **DevOps For Dummies** provides a guidebook for those on the development or operations side in need of a primer on this way of working. Inside, DevOps

evangelist Emily Freeman provides a roadmap for adopting the management and technology tools, as well as the culture changes, needed to dive head-first into DevOps. Identify your organization's needs Create a DevOps framework Change your organizational structure Manage projects in the DevOps world DevOps For Dummies is essential reading for developers and operations professionals in the early stages of DevOps adoption.

A web application involves many specialists, but it takes people in web ops to ensure that everything works together throughout an application's lifetime. It's the expertise you need when your start-up gets an unexpected spike in web traffic, or when a new feature causes your mature application to fail. In this collection of essays and interviews, web veterans such as Theo Schlossnagle, Baron Schwartz, and Alistair Croll offer insights into this evolving field. You'll learn stories from the trenches--from builders of some of the biggest sites on the Web--on what's necessary to help a site thrive. Learn the skills needed in web operations, and why they're gained through experience rather than schooling Understand why it's important to gather metrics from both your application and infrastructure Consider common approaches to database architectures and the pitfalls that come with increasing scale Learn how to handle the human side of outages and degradations Find out how one company avoided disaster after a huge traffic deluge Discover what went wrong after a problem occurs, and how to prevent it from happening again Contributors include: John Allspaw Heather Champ Michael Christian Richard Cook Alistair Croll Patrick Debois Eric Florenzano Paul Hammond Justin Huff Adam Jacob Jacob Loomis Matt Massie Brian Moon Anoop Nagwani Sean Power Eric Ries Theo Schlossnagle Baron Schwartz Andrew Shafer

Achieve streamlined, rapid production with enterprise-level DevOps Awarded DevOps 2017 Book of the Year, The DevOps Adoption Playbook provides practical, actionable, real-world guidance on implementing DevOps at enterprise scale. Author Sanjeev Sharma heads the DevOps practice for IBM; in this book, he provides unique guidance and insight on implementing DevOps at large organizations. Most DevOps literature is aimed at startups, but enterprises have unique needs, capabilities, limitations, and challenges; "DevOps for startups" doesn't work at this scale, but the DevOps paradigm can revolutionize enterprise IT. Deliver high-value applications and systems with velocity and agility by adopting the necessary practices, automation tools, and organizational and cultural changes that lead to innovation through rapid experimentation. Speed is an advantage in the face of competition, but it must never come at the expense of quality; DevOps allows your organization to keep both by intersecting development, quality assurance, and operations. Enterprise-level DevOps comes with its own set of challenges, but this book shows you just how easily they are overcome. With a slight shift in perspective, your organization can stay ahead of the competition while keeping costs, risks, and quality under control. Grasp the full extent of the DevOps impact on IT organizations Achieve high-value innovation and optimization with low cost and risk Exceed traditional business goals with higher product release efficiency Implement DevOps in large-scale enterprise IT environments DevOps has been one of IT's hottest trends for the past decade, and plenty of success stories testify to its effectiveness in organizations of any size, industry, or level of IT maturity, all around the world. The DevOps Adoption Playbook shows you how to get your organization on board so you can slip production into the fast lane and innovate your way to the top.

A successful digital transformation must start with a conversational transformation. Today, software organizations are transforming the way work gets done through practices like Agile, Lean, and DevOps. But as commonly implemented as these methods are, many transformations still fail, largely because the organization misses a critical step: transforming their culture and the way people communicate. Agile Conversations brings a practical, step-by-step guide to using the human power of conversation to build effective, high-performing teams to achieve truly Agile results. Consultants Douglas Squirrel and Jeffrey Fredrick show readers how to utilize the Five Conversations to help teams build trust, alleviate fear, answer the "whys," define commitments, and hold everyone accountable. These five conversations give teams everything they need to reach peak performance, and they are exactly what's missing from too many teams today. Stop focusing on processes and practices that leave your organization stuck with culture-less rituals. Instead, unleash the unique human power of conversation.

Automating the Continuous Deployment Pipeline with Containerized Microservices About This Book* First principles of devops, Ansible, Docker, Kubernetes, microservices* Architect your software in a better and more efficient way with microservices packed as immutable containers* Practical guide describing an extremely modern and advanced devops toolchain that can be improved continuously Who This Book Is For If you are an intermediate-level developer who wants to master the whole microservices development and deployment lifecycle using some of the latest and greatest practices and tools, this is the book for you. Familiarity with the basics of Devops and Continuous Deployment will be useful. What You Will Learn * Get to grips with the fundamentals of Devops* Architect efficient software in a better and more efficient way with the help of microservices* Use Docker, Kubernetes, Ansible, Ubuntu, Docker Swarm and more* Implement fast, reliable and continuous deployments with zero-downtime and ability to roll-back* Learn about centralized logging and monitoring of your cluster* Design self-healing systems capable of recovery from both hardware and software failures In Detail Building a complete modern devops toolchain requires not only the whole microservices development and a complete deployment lifecycle, but also the latest and greatest practices and tools. Victor Farcic argues from first principles how to build a devops toolchain. This book shows you how to chain together Docker, Kubernetes, Ansible, Ubuntu, and other tools to build the complete devops toolkit. Style and approach This book follows a unique, hands-on approach familiarizing you to the Devops 2.0 toolkit in a very practical manner. Although there will be a lot of theory, you won't be able to complete this book by reading it in a metro on a way to work. You'll need to be in front of your computer and get your hands dirty.

Many organizations are facing the uphill battle of modernizing their legacy IT infrastructure. Most have evolved over the years by taking lessons from traditional or legacy manufacturing: creating a production process that puts the emphasis on the process instead of the people performing the tasks, allowing the organization to treat people like resources to try to achieve high-quality outcomes. But those practices and ideas are failing modern IT, where collaboration and creativeness are required to achieve high-performing, high-quality success. Mirco Hering, a thought leader in managing IT within legacy organizations, lays out a roadmap to success for IT managers, showing them how to create the right ecosystem, how to empower people to bring their best to work every day, and how to put the right technology in the driver's seat to propel their organization to success. But just having the right methods and tools will not magically transform an organization; the cultural change that is the hardest is also the most impactful. Using principles from Agile, Lean, and DevOps as well as first-hand examples from the enterprise world, Hering addresses the different challenges that legacy organizations face as they transform into modern IT departments.

Scale and maintain outstanding performance in your AWS-based infrastructure using DevOps principles

Key Features

- Implement continuous integration and continuous deployment pipelines on AWS
- Gain insight from an expert who has worked with Silicon Valley's most high-profile companies
- Implement DevOps principles to take full advantage of the AWS stack and services

Book Description

The DevOps movement has transformed the way modern tech companies work. Amazon Web Services (AWS), which has been at the forefront of the cloud computing revolution, has also been a key contributor to the DevOps movement, creating a huge range of managed services that help you implement DevOps principles. *Effective DevOps with AWS, Second Edition* will help you to understand how the most successful tech start-ups launch and scale their services on AWS, and will teach you how you can do the same. This book explains how to treat infrastructure as code, meaning you can bring resources online and offline as easily as you control your software. You will also build a continuous integration and continuous deployment pipeline to keep your app up to date. Once you have gotten to grips with all this, we'll move on to how to scale your applications to offer maximum performance to users even when traffic spikes, by using the latest technologies, such as containers. In addition to this, you'll get insights into monitoring and alerting, so you can make sure your users have the best experience when using your service. In the concluding chapters, we'll cover inbuilt AWS tools such as CodeDeploy and CloudFormation, which are used by many AWS administrators to perform DevOps. By the end of this book, you'll have learned how to ensure the security of your platform and data, using the latest and most prominent AWS tools. What you will learn

- Implement automatic AWS instance provisioning using CloudFormation
- Deploy your application on a provisioned infrastructure with Ansible
- Manage infrastructure using Terraform
- Build and deploy a CI/CD pipeline with Automated Testing on AWS
- Understand the container journey for a CI/CD pipeline using AWS ECS
- Monitor and secure your AWS environment

Who this book is for

Effective DevOps with AWS is for you if you are a developer, DevOps engineer, or you work in a team which wants to build and use AWS for software infrastructure. Basic computer science knowledge is required to get the most out of this book. Gain in-depth insight into DevOps relative to your field of expertise and implement effective DevOps culture and processes within your organization

Key Features

- Packed with step-by-step explanations and practical examples to help you get started with DevOps
- Develop the skills and knowledge you need to tackle the deployment of DevOps tools
- Discover technology trends such as FinOps and DevSecOps to get more value from DevOps

Book Description

DevOps is a set of best practices enabling operations and development teams to work together to produce higher-quality work and, among other things, quicker releases. This book helps you to understand the fundamentals needed to get started with DevOps, and prepares you to start deploying technical tools confidently. You will start by learning the key steps for implementing successful DevOps transformations. The book will help you to understand how aspects of culture, people, and process are all connected, and that without any one of these elements DevOps is unlikely to be successful. As you make progress, you will discover how to measure and quantify the success of DevOps in your organization, along with exploring the pros and cons of the main tooling involved in DevOps. In the concluding chapters, you will learn about the latest trends in DevOps and find out how the tooling changes when you work with these specialties. By the end of this DevOps book, you will have gained a clear understanding of the connection between culture, people, and processes within DevOps, and learned why all three are critically important. What you will learn

- Understand the importance of culture in DevOps
- Build, foster, and develop a successful DevOps culture
- Discover how to implement a successful DevOps framework
- Measure and define the success of DevOps transformation
- Get to grips with techniques for continuous feedback and iterate process changes
- Discover the tooling used in different stages of the DevOps life cycle

Who this book is for

This book is for IT professionals such as support engineers and systems engineers and developers looking to learn DevOps and for those going through DevOps transformation. General knowledge of IT and business processes will be helpful. You'll also find this book useful if you are in a business or service role within technology such as service delivery management. Basic familiarity with DevOps and transformational methods such as value streams and process are needed to get the most out of this book.

Effective DevOps Building a Culture of Collaboration, Affinity, and Tooling at Scale"O'Reilly Media, Inc."

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