

DevOps Transformation Guide

> Assess Coach Train

Transformation Through Learning

Transformation comes from many small improvements, some highly visible and dramatic, while others may be harder to see. But it doesn't happen overnight, and it can be a complicated process. When the steps of that process are correctly arranged, and progress is measured and celebrated, that is when capabilities grow and benefits mount.

Our experts will use a series of questions and tools to evaluate your practices in order to paint a picture of your organization, that provides visibility into your greatest constraints and helps to prioritize the most immediate obstacles and pain points. The more constraints you address, the more transformative your cumulative capabilities become.

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DevOps Adoption & Culture

- DevOps Foundations
- DevOps Implementation Boot Camp (ICP-FDO)
- DevOps for Executives
- Implementing Site Reliability Engineering
- Design Thinking Boot Camp
- Lean Product Management & Development
- Lean IT Management
- Value Stream Mapping Guided Workshop
- Agile Boot Camp

CI/CD & Pipeline Automation

- Git & GitHub Boot Camp
- Continuous Integration Workshop
- Continuous Delivery Workshop (ICP-IDO)
- Jenkins User Boot Camp
- JFrog Artifactory
- Ansible Configuration Management Boot Camp
- BitBucket for Version Control
- Introduction to Using Puppet
- Chef Essentials Workshop
- Chef Intermediate Topics

Containers/Architecture

- Red Hat OpenShift Development & Administration
- Agile Introduction and Testing
- Configuration Management
- Kubernetes
- Containerization/Ansible Overviews
- Big Data Bootcamp
- EXCLUSIVE: DevOps in the Data Center

Testing & Quality

- Test-Driven Development Boot Camp
- Test Automation Boot Camp
- Fundamentals of Test Data Management
- Selenium Test Automation Boot Camp
- Automating Tests with Cucumber
- Fundamentals of Software Testing
- Agile Testing (ICP-TST)
- Acceptance Test-Driven Development / Behavior
 Driven Development Workshop

Data Analytics & Measurement

- Introduction to Data Analytics
- Data Analysis Boot Camp
- Tableau Boot Camp
- Splunk Boot Camp
- Introduction to R
- Artificial Intelligence Implementation Boot Camp
- Machine Learning & Predictive Analysis Boot Camp
- Tensor Flow for Intelligent Applications

Data Engineering

- Big Data Boot Camp
- Apache Spark Big Data Boot Camp
- MongoDB Development Boot Camp
- Apache Kafka for Real Time Big Data

Integrating Security

- Practical Cybersecurity Boot Camp
- DevSecOps Boot Camp
- Fundamentals of Secure Application Development

We Guide Your Transformation with Assessing, Coaching & Training Your Teams on New Practices & Tools.

Follow our ACT Model

Our focus is on your business outcomes. The ACT model uses organizational assessments to provide a custom training program, and coach your teams to success.

What is the ACT[™] Model?

The ACT[™] Model stands for Assess, Coach, Train. Each step of the approach is critical to help you get the most out of your transformation. Our focus during each step is your business outcomes. We tailor programs around what success means to you to help achieve your goals whether that is all three of the steps, or only one.



Through the ACT model, we use organizational assessments to quickly recognize gaps in the system, communication failures, and technology limitations that might keep your organization from reaching its full potential. After an initial assessment, our subject matter experts and training advisors work with you to create a training program that is best suited to the needs of your organization.

Once your training program is complete, or throughout the program based on your needs, our expert coaches guide you through your enterprise transformation. Our coaches are veteran practitioners ready to share their practical, hands-on experience. They work onsite or virtually to guide your teams, provide feedback, and foster enterprise-wide, continuous improvement and innovation. Our goal is to help transform your company into a collaborative and highly functional organization, embrace change in culture, and adopt new practices and tools.

DEVOPS ADOPTION & CULTURE



Lead & Nurture the Transformation

The cultural and technical concepts of DevOps have expanded into a well-developed toolbox of principles, processes, and skills that transform the work of anyone who relies on technology. Despite growing support for these transformations, big disconnects remain in how leadership, enterprise management, and teams understand DevOps. If your organization does not have the right mindset or culture to foster DevOps, you will not succeed. The focus areas below provide expert guidance on widespread adoption, and the shared cultural understanding that is critical for successful DevOps implementation.

Cultural evolution, reduced fear, and better-aligned incentives are the DNA of system-wide improvement to:

- Create a baseline of vocabulary and concepts for various teams and roles
- Create an understanding of how value flows through the organization
- Ensure leaders know what to expect and what to support
- Address the human factors needed for success with DevOps practices
- Break down siloes and encourage dialogue across roles and teams



CI/CD & PIPELINE AUTOMATION



Optimizing the Flow: CI/CD & Pipeline Automation

In today's workforce, the same trends that revolutionized manufacturing in the 20th century are transforming enterprise technology. For technology products and services, a combination of connectivity, automation, and reusable assests increase delivery speed and consistent quality, translating to competitive advantage. Our assessments and coaching, combined with the workshops below, teach practices and tools necessary for success with enterprise CI/CD pipelines.

CI/CD pipelines foster system-wide improvement that:

- Help avoid long feature branches and integration phases
- Help build reusable assets for integration, testing, and deployment
- Coordinate distributed teams and large code bases
- · Protect against and reduces technical debt
- Shrink batch sizes of work for faster, lower risk delivery



CONTAINERS & ARCHITECTURE



Decouple Tight Dependencies, Refactor Monoliths, and Build Antifragile Systems

CI/CD comes into play when adopting containers and modernizing architecture. Whether your organization is making a commitment to microservices, or simply needing to update legacy systems for security and speed, our experts will determine the best combination of assessment, coaching, and/or the workshops below to help you do it. Your organization's systems underpin and enable all the other technology practices presented in the guide.

Better engineering with containers and services enables you to:

- Allow different backend technologies to interoperate at the service layer
- Promote refactoring of legacy architecture and services
- Migrate and/or improve cloud infrastructure and services
- Loosen tightly coupled dependencies
- Allow orchestration of small services and automation



TESTING & QUALITY FIRST



Building Quality In: Testing & Quality First

Delivering valuable products into the hands of users or customers increasingly depends on integrating the functions of QA and testing much closer to the origin of products and code - without separating them into a functional department. These suggested focus areas will help you adopt tools for automating testing, maintain test-in-dev and repositories of test code with Agile practices, and make common automated tests available across teams using distributed version control.

Quality improvement and better test coverage foster system-wide improvement that will:

- Automate safeguards, change management, and deployment gates
- Increase test coverage and improve test results •
- Permit design cycles for testing to keep step with application life cycles
- Build quality in at the source: when products and services are created
- Encourage collaboration between quality champions and the rest of the organization



DATA ANALYTICS & MEASUREMENT



Seeing, Understanding, Deciding: Analytics & Measurement

Data analysis influences every position in the enterprise. Turning data into understanding and value isn't just for statisticians, data miners and engineers. Everyone from marketers to accountants needs the ability to adeptly analyst data. The following focus areas empower people in all levels of your enterprise to use business intelligence, data analytics and data visualization.

Better analytics and machine intelligence empower your people to:

- Build feedback and learning into business processes
- Add an intelligence layer to your applications
- Investment in better decisions right from the start
- Empower humans to understand and act on lessons from machine data
- Use machine data to predict outcomes and prevent disasters



DATA ENGINEERING



Developing Solutions From Your Information & Infrastructure

It is critical your teams have the technical skills and strategic enablement to organize, analyze, and interpret your many sources of big data and information. The workshops and expert assessments presented below provide your teams skills they need to discover insights required for analyzing critical factors such as risk, performance, quality, forecasting, estimating, simulation, business process improvement, and much more.

Better data infrastructure improves system optimization by:

- Integrating data assets throughout applications and services
- Leveraging tools to manage big data and data streams
- Using better-designed architectures for speed and utilization of data
- Encouraging higher integrity and organization of data for better performance at the service layer
- Enabling adoption of more robust, modernized database infrastructure



INTEGRATING SECURITY



Building Security In: From Policy to DevOps

Now more than ever, Information Security is top priority. Your customers expect their data to be secure and protected from vulnerabilities. Our workshops teach highly effective security best practices and standards for your existing processes, technology assets, and management. Workshops, assessments and coaching engagements focus on security strategy and policy, certification, and application security.

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Security improvement is critical to system-wide improvement and allows you to:

- Build security in at the source
- Invest in lowering risk when it's fastest and cheapest
- Nurture a "security first" mindset among developers and product owners
- Mitigate the most common technology vulnerabilities and risks
- Map governance and policy to engineering practices



DEVOPS ASSESSMENT

Assess Your DevOps Practice, Leave with an Action Plan

Introducing an outside expert's perspective into your technology practices can be a dramatic and eye-opening event.

Our experts thoroughly assess your DevOps practice to help you discover, visualize, and navigate your road to DevOps maturity. The DevOps assessment begins with an 85 question survey that analyzes your core strengths and challenges based on your responses. Our experts then take your teams' results onsite and conduct a series of interviews to learn more about the inner workings of your organization.

After the onsite visit, you will have a detailed action plan enabling you to immediately implement and increase speed and agility for your teams.





We assess these core areas of your technology practice:

- Development
- IT Operations
- Quality/Testing
- Security
- Data Practices
- Architecture

Using the information we collect from assessing your practices, we provide specific guidance for improvement based on a real-time picture of your:

- Cultural health
- Technology systems
- Work in Process
- Planning practices
- Security vs. risk
- Collaboration
- Employee empowerment