

# Build and Execute an Agile-DevOps Roadmap for Transformation

NTT DATA DevOps Maturity Evaluation and Enablement Framework

## Benefits:

- Accelerate time to value while enhancing quality
- Improve the ability to innovate and respond to changing customer demands
- Enable continuous delivery through automation
- Unify IT and operations with business functions on a global scale
- Achieve a cultural shift by putting the right people, processes and tools in place for agile development and operations
- Fine-tune and scale cross-functional teams in a collaborative environment

DevOps is critical to transformation, but where do you start? While it's key to implement automation wherever consistent process patterns exist, it can be significantly more difficult to determine the scope and approach that will yield the best bang for your buck with the least amount of disruption.

NTT DATA's DevOps Maturity Evaluation and Enablement Framework assures effective definition of your digital transformation roadmap and an actionable set of risk mitigation recommendations to achieve greater business agility and ROI. Our proven framework quickly pinpoints your current place in the maturity continuum, models the future-state and details the implementation steps required to evolve your maturity to the next level and beyond.

When you embark on a DevOps maturity evaluation with NTT DATA, we design a strategic roadmap that serves as an actionable, prioritized guide for your organization — not the one down the street. And because we combine a deep understanding of how automation tools interoperate with a vendor-neutral approach that's not restricted to a specific toolchain or cloud platform, you can be assured you'll receive the right recommendation for your organization's unique culture, standards, security and regulatory compliance requirements.

Should you choose, we can also provide a full complement of capabilities to enable and execute your DevOps roadmap, including governance mechanisms, formal classroom training and onsite mentoring to ensure your teams are unified and headed in the right direction together.



# DevOps maturity demystified

Our DevOps Maturity Evaluation and Enablement Framework consists of six maturity levels across seven key aspects which include DevOps quality attributes to tangibly characterize and score your agile-DevOps capabilities. With our unique framework, we can recommend a tailored, repeatable and scalable approach for all your programs, lines of business or even your entire enterprise.

## Maturity levels

- 0 Readiness**  
Pre-emergent waterfall methodologies in use with highly-coupled monolithic applications.
- 1 Innovative**  
Iterative or agile efforts initiated as part of a pilot or proof of concept.
- 2 Early adopter**  
Workgroups have conducted agile for less than a year with under 25% continuous delivery pipeline (CDP) coverage.
- 3 Repeatable**  
Agile practices via siloed projects for 12 to 18 months with 33% to 50% CDP coverage.
- 4 Scaled**  
Program portfolio of projects practicing unified agile for over 12 months with less than 50% CDP coverage.
- 5 Transformative**  
Complete line-of-business portfolio of programs across the enterprise with multiple CDPs.

## Aspects

### Culture

People, practices, processes, organizational structure and methodologies.

### Architecture

Principles, patterns, anti-patterns, products and platforms.

### Continuous integration and build

Code analysis, branching, merging, version control, automated compilation, binary storage and coding standards security compliance.

### Verification

Functional, non-functional, performance, policy and security compliance testing.

### Continuous deployment and packaging

Code-as-configuration, containers, infrastructure-as-code and container security.

### Automation

Provider and consumer micro-cognitive events and triggers to enable orchestration across automation stages.

### Monitoring and support

Key performance metrics channels for business, technology, operations and security in real time via a dashboard utilizing DevOps telemetry.

Our objective is to ensure you have an actionable roadmap across the complete product lifecycle. This includes innovation, development, integration, testing, deployment, operations, governance and retirement. Having a roadmap provides an execution and governance playbook that helps you achieve an automated and unified product lifecycle management strategy. This is necessary if your organization is to not only remain relevant in the digital economy but excel in it.

# Navigating the transformation journey

We use a three-step process to determine which facets of our seven key aspects will help your organization achieve greater business agility and guide you to the next level of maturity:

1. Define the current-state maturity level utilizing tangible key attributes
2. Evolve a future-state vision and identify gaps, risk themes and goals
3. Map solutions to reveal a comprehensive, holistic roadmap with prioritized and actionable recommendations

Typically, an onsite assessment team comprising three to eight experts and specializing in hybrid agile-DevOps and/or native-cloud DevOps, performs the current-state assessment and produces an actionable roadmap. Our assessment covers principles, patterns, practices, people, processes, platforms and products that affect the adoption of agile, DevOps, cloud and organizational change management best practices.

This evaluation determines current-state agile-DevOps knowledge and adoption, and then identifies any existing roadblocks to optimal implementation. Your roadmap clearly identifies what must happen first. It establishes a scalable foundation that demonstrates early, visible wins, along with prioritized action items for near-term (3 months), mid-term (6 to 18 months) and long-term (1 to 5 years) goals.

We have the expertise to help you achieve business agility on a global scale:

- More than 12,000 agile practitioners across the globe
- Over 20 years of experience delivering agile capabilities
- A proven, dedicated framework to evaluate and enable DevOps maturity and drive your digital transformation journey
- Ownership and accountability ensure agile-DevOps cloud excellence via our framework and roadmap offerings
- Delivery-tested processes, tools, dashboard trending and organizational change adoption capabilities
- Cloud-native DevOps partnerships with Amazon Web Services, Microsoft Azure and Pivotal Cloud Foundry

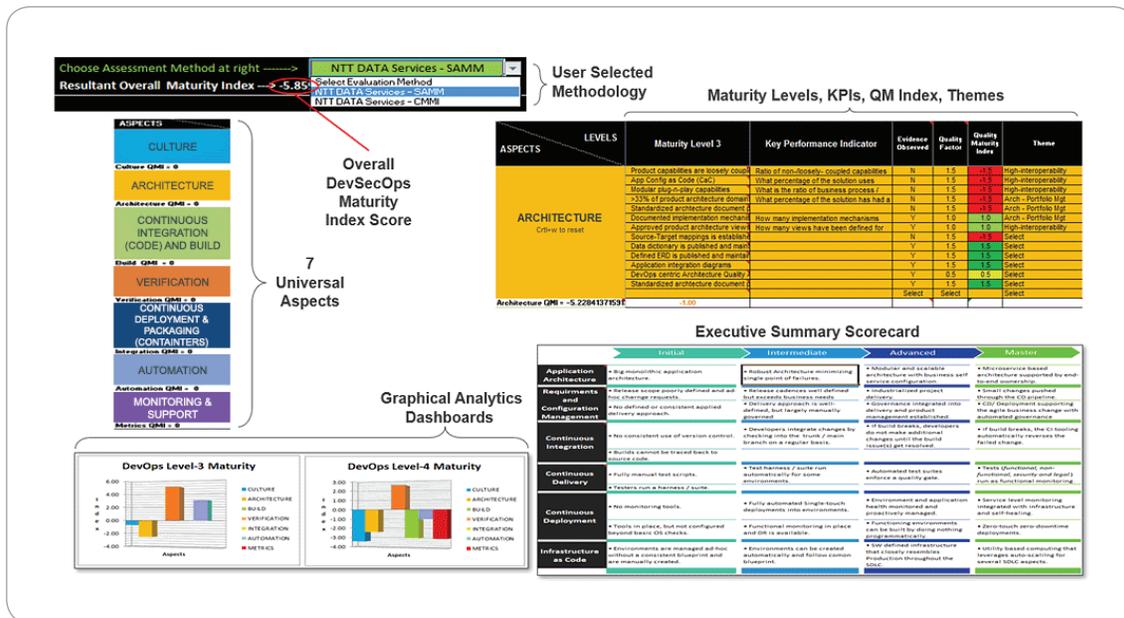


Figure 1: DevOps Maturity Evaluation and Enablement Framework console, dashboard and partial sampling of outputs.

## Put your transformation on the fast track

We also offer a DevOps Trusted Advisory Partner program, so you can fast-track digital transformation. A complement to our DevOps Maturity Evaluation and Enablement Framework, this program provides instructor led agile-DevOps Academy training and expert guidance to your agile-DevOps Center of Excellence Advisory Board and embeds with implementation teams to coach agile and DevOps practitioners in the execution of your roadmap and application of the skills and enablers acquired from the academy. We can help your organization align business, technology and operations functions for optimal collaboration and automation.

In addition to maturity evaluation, roadmap enablement and trusted advisory services, we offer:

- **Center of excellence and capability development:** Rapidly produce software products and services while improving your organization's performance with a strong pool of agile and DevOps talent or governance oversight of your vendor ecosystem.
- **Certification training:** Scale your agile-DevOps teams through tailored training programs focused on core technology skills and certifications.
- **Agile-DevOps coaching:** Work with a core team of agile coaches who provide insights, mentorship and governance, as well as facilitate strategic project execution.
- **Agile-DevOps project staffing:** Leverage a global group of experts who are driven by the demands and forecasts of your business.
- **Agile-DevOps application management:** Optimize your application portfolio and drive innovation using our proven application management capabilities.

## Optimize your operations with NTT DATA

With our comprehensive framework, established methodologies and proven track record of building global agile-DevOps teams from the ground up, NTT DATA can help you improve quality and accelerate time to market. By implementing the right combination of technologies for your organization and enabling continuous delivery through automation, we ensure you remain competitive in the global economy.

### CASE STUDY:

## On-demand, automated testing for a leading health insurance payer

### Business need

- End-to-end automation for faster regression cycles and policy-based deployment
- Standardized tools and a scalable automation framework to reduce costs and script maintenance

### Solution

- Identified critical business processes while screening object drivers and housekeeping utilities to reduce the labor involved in framework and script development
- Established framework-defining layers of abstraction, reusable actions, error handling, reporting and traceability to achieve the maximum return on investment
- Developed/deployed an automation framework for Micro Focus Unified Functional Testing and Selenium
- Automated more than 800 scenarios for systems and workflows involving commercial-off-the-shelf, custom and third-party hosted applications
- Integrated automation scripts with Jenkins Pipeline orchestration to enable CDP

### Outcomes

- Reduced tool license costs by nearly 50%
- Increased automation regression coverage to 90%
- Increased deployment frequency by 50% through a nearly 60% reduction in overall regression cycle time
- Enabled on-demand, scheduled and automated execution of smoke and regression test suites through continuous integration

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