Cisco Continuous Deployment and Automation Framework

Customer spotlight: Cisco and Rakuten co-development and innovation

Cisco® Customer Experience spearheaded true innovation for Rakuten Mobile Network (RMN), a wholly owned subsidiary of Rakuten, Inc. to build a fully virtualized, 5G-ready, cloud-native mobile network through the implementation of the Cisco Continuous Deployment and Automation Framework (CDAF). This is an automated Continuous Integration and Continuous Deployment (CICD) test framework that enables agile software development and delivery for software-defined networking.

Benefits

- **Reduction in defect density** by focused and comprehensive testing
- **Agile software package delivery** from vendors by using customizable tools
- **Improved code quality** from scheduled and automated 24/7 testing and real-time reports
- **Increased feature velocity** from agile processes
- **Productivity improvements** through process automation
- **Reduced Operating Expenses (OpEx)** due to automation of software processes
Accelerate end-to-end software automation

The industry is transforming from a traditional hardware-centric architecture to a software-driven, cloud-native environment based on microservices and open-source applications. Organizations are under immense pressure to navigate this technology landscape with agility and efficiency, while reducing complex labor-intensive tasks. Software automation, from networking to data center to cloud, helps simplify IT complexity, streamline business processes, and develop and deploy software consistently while ensuring quality code and continuous testing.

Cisco Customer Experience is introducing Cisco CDAF, an industry-first, fully-integrated, cloud-native DevOps platform for automated software deployment. The framework provides end-to-end CICD for multiple vendors to co-develop and test software concurrently, for enabling zero-downtime software upgrades and providing real-time feedback for vendors. It offers real hyper automation of critical processes involved from development to integration to pre-production environments. These critical, automated processes include scope management, development, testing, defect tracking, release management, and governance and deployment, thus helping customers increase efficiency, reduce OpEx, deliver quality software code, and drive faster innovation.

Automate everything, everywhere with Cisco CDAF

Cisco CDAF serves as a one-stop-shop where multiple vendors’ software can be delivered, tested, certified, and deployed through automation and test innovation. Based on years of experience, IT best practices, and AI/ML-driven insights, the framework delivers increased code quality and ease of use across the software lifecycle.

Some core attributes include:

- **Microservices-based architecture** with open-source tools (GitHub, Artifactory, Jenkins, CA Rally, etc.), which are easy to deploy and integrate
- **Agile software lifecycle management for co-development** between multiple vendors and Cisco
- **AI/ML-based software release management** deploying multiple package version releases and tracking
- **Process automation** with co-development and implementation with multiple vendors
- **Agile defect tracking and resolution** from direct access to customer on-premises resources to BU development

“Cisco and Rakuten engineers have deployed this industry-first, 5G-ready CICD solution in our R&D and Product Certification Lab. This has helped deliver improved code quality, accelerate multivendor co-development, and speed up innovation. We are looking forward to seeing higher cost savings in testing and certification without compromising quality.”

Tareq Amin
CTO, Rakuten Mobile Network
With Cisco CDAF, we offer a complete lifecycle of services capabilities:

**Advisory services** performs a readiness assessment workshop, reviews software delivery methodologies, identifies architectures and go-to-market challenges, conducts CICD maturity assessment, and helps determine infrastructure, automation, and architecture strategy through our onsite consulting capabilities.

**Implementation services** helps with the on-premises deployment of CDAF, conducts training and enablement of the capabilities, onboards users, and assists with integration of DevOps toolsets.

**Optimization services** are subscription-based services with our Business Critical Services offer that helps develop and operate predefined, customized, and enhanced automation pipelines on the CDAF platform. It enables upgrades and patch fixes, provides pipeline enhancements, offers platform customization (UI changes and other integrations), and Test Manager for test automation integration (optional capability).

**Solution support** provides 24/7, centralized support for Cisco CDAF with solution-level technical services. We manage your case from first call to final resolution and act as the main point of contact working with multiple vendors simultaneously. You could experience up to 24 percent fewer issues working with solution experts, helping you maintain business continuity and get faster return on investment for your new Cisco deployment.

Call to action

For more information, contact your Cisco or partner representative to get started today: [Click here](#).