Exploring the Tools That Make Agile Parallel Development Possible
In the application economy, speed is critical—because delivering high-quality applications to market faster can translate to a real competitive advantage. For this reason, DevOps teams must adopt a more agile development process, working in parallel instead of waiting on other teams to finish their components or for resources to become available.

It's why CA offers solutions that help your development teams virtualize the services they need, letting them work more independently, get to market faster and meet customer demand for new and better services.

Develop Higher-quality Applications and Get to Market Faster

AGILE PARALLEL DEVELOPMENT SOLUTIONS FROM CA ENABLE YOU TO:

- Minimize constraints with CA Service Virtualization
- Streamline test data management with CA Test Data Manager¹
- Accelerate software quality with CA Application Test and CA Continuous Application Insight
- Increase collaboration with CA API Management

¹ Formerly CA Data Finder and Grid-Tools Data Maker
In an increasingly complex development environment populated by composite applications and distributed teams, developers and testers often experience roadblocks as they compete for access to needed infrastructures, external services and test data.

CA Service Virtualization eliminates these constraints by creating simulations of needed systems and making them available throughout the software development lifecycle (SDLC), wherever and whenever needed.

KEY FEATURES OF CA SERVICE VIRTUALIZATION INCLUDE:

1. **Service and application emulation** – Replace fragile stubs and mocks with dynamic, robust simulations that accurately model the behavior, data and performance of needed systems.

2. **Comprehensive testing** – Automate functional, UI, mobile and performance testing with CA Application Test, a built-in test suite that helps you accelerate software quality.

3. **Seamless integration** – Leverage your existing investments in development and test tools, such as Selenium and Eclipse, thanks to built-in integrations with major testing suites.

With CA Service Virtualization, you can enable multiple development and testing teams to work in parallel, eliminating bottlenecks and concurrent demand for environments. As a result, you can accelerate delivery of innovative, new software applications at lower costs and higher quality than ever before.
Streamline Test Data Management with CA Test Data Manager

In many organizations, developers and testers must manually search for, manipulate, hack and create test data whenever downstream teams need it—an inefficient, error-prone process that increases costs and extends time to market.

CA Test Data Manager is a complete, end-to-end test data management solution that empowers teams to quickly find, design, secure and create “fit for purpose” test data whenever it’s required.

**KEY FEATURES OF CA TEST DATA MANAGER INCLUDE:**

1. **Improved compliance** – Quickly discover and de-identify sensitive data across the enterprise to help you comply with data protection requirements.

2. **Testing “shifted left”** – Eliminate critical delays in provisioning test data, shortening test cycles and resolving issues earlier—and more cost-effectively—in the SDLC.

3. **Synthetic data creation** – Enhance existing data, or build small, richer sets of production-like test data from scratch based on your data model.

4. **Central test data repository** – Store, manage, re-use and share “fit for purpose” test data between teams from one central location, reducing or eliminating critical delays to accelerate the software lifecycle.

With CA Test Data Manager, you can not only streamline the management of your test data, but also “shift left” testing, mitigate the risk of defects in production and ensure that sensitive data remains protected. All while **maximizing how quickly you can bring new applications to market.**
Accelerate Software Quality with CA Application Test and CA Continuous Application Insight

Traditional software testing happens in discrete, time-consuming steps that require lots of manual effort from testers and create significant delays for the project as a whole.

Together, CA Application Test and CA Continuous Application Insight enable teams to test continuously and in a fully automated fashion throughout the SDLC, so you can achieve accelerated, pervasive quality with your software projects.

KEY FEATURES OF CA APPLICATION TEST AND CA CONTINUOUS APPLICATION INSIGHT INCLUDE:

1. **Codeless testing framework** – Enable multiple cross-functional team members—including development and quality assurance—to rapidly design and execute automated unit, functional, regression, integration and performance tests.

2. **Complete test coverage** – Invoke/verify at every application layer, including dynamic Web UIs, mobile, Web services, ESB/JMS messages, EJB servers, Java™ objects, databases, file Sys and legacy objects.

3. **Automatic capture of transaction paths** – Find defects in pre-production applications with deep insight into transactions to analyze abnormal behavior and identify defects in a “live like” environment.

4. **Automating your automation** – Automatically generate actionable assets, including reusable test cases, test automation scripts and virtual services, as needed.

With CA Application Test and CA Continuous Application Insight, you can condense software release cycles and lower development and QA costs, while ensuring the quality of your applications meets users’ ever-growing expectations.
Increase Collaboration with CA API Management

Digital business initiatives are at the forefront of enterprise growth strategies, and APIs create the connectivity required to share data and empower developers to collaborate and create innovative, new applications.

CA API Management is a platform designed to help you quickly deploy, scale and manage APIs in support of your digital business programs.

**KEY FEATURES OF CA API MANAGEMENT INCLUDE:**

1. **Comprehensive integration** – Expose legacy systems and applications through APIs and integrate your digital projects onto one flexible, future-ready platform, so you can keep up with evolving technologies and standards.

2. **Developer collaboration** – Provide API access to developers while managing them through marketing, onboarding, collaboration and testing—and analyze which projects perform best against your business goals.

3. **Enterprise security** – Protect your brand and maintain compliance with end-to-end, military-grade security on a CSO-approved platform, and control which specific data your partners and developers can access. The platform also integrates with your existing enterprise identity and access management (IAM) system, for SSO across and beyond the enterprise, and includes threat detection and message content filtering policies.

4. **API monetization** – Plan business models and generate revenue for the use of your APIs, while analyzing and reporting on API activity.

With CA API Management, you can accelerate the business value of new digital initiatives, while **easily managing and protecting** the APIs and data you choose to share with developers and partners.
Why Agile Parallel Development from CA?

CA customers have experienced notable benefits since adopting Agile Parallel Development solutions, including:

**CA SERVICE VIRTUALIZATION**

- **3.5 Saved mos.**
  - Union Bank cut total application development time by 3.5 months.²

- **Reduced cost 75%**
  - A wireless telecom provider reduced infrastructure and development costs by 75% and $200K over a 10-week period, respectively, by simulating system dependencies.

**CA TEST DATA MANAGER**

- **Reduced time 95%**
  - A large UK financial institution realized 95% reduction in time needed to provision ‘fit for purpose’ test data for 700 automated tests, realizing ROI in 3-4 runs.

- **Reduced time 90%**
  - A large financial services organization experienced a 90% reduction in time to create data for one transaction.

² MUFG Union Bank video case study
Why Agile Parallel Development from CA?

CA customers have experienced notable benefits since adopting Agile Parallel Development solutions, including:

**CA APPLICATION TEST AND CA CONTINUOUS APPLICATION INSIGHT**

- **ALMOST 90%** KPN increased the availability of some testing platforms.¹

- **INCREASED 500X** Con-way increased load and performance testing throughput from 100 to 50,000 bills/hr.⁴

**CA API MANAGEMENT**

- **20+** The Advisory Board Company published more than 20 APIs to improve data sharing and integration for patients and providers across health systems.⁵

- **DAYS → MINUTES** By connecting APIs with payment partners, Orlando Utilities Commission was able to reduce the time from customer payment to service activation from days to minutes.⁶

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¹ KPN case study
² Con-way case study presentation at CA World, December, 2014
³ The Advisory Board Company case study
⁴ Orlando Utilities Commission case study
Are You Fighting Your Own “War on Slow?”

This ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) white paper explores the challenge of under-automated testing and how service virtualization can facilitate comprehensive testing of complex integrated and hybrid systems at speed and scale.

DOWNLOAD THE WHITE PAPER

CA Technologies (NASDAQ: CA) creates software that fuels transformation for companies and enables them to seize the opportunities of the application economy. Software is at the heart of every business, in every industry. From planning to development to management and security, CA is working with companies worldwide to change the way we live, transact, and communicate—across mobile, private, and public cloud, distributed and mainframe environments. Learn more at ca.com.