

CA Continuous Application Insight



At a Glance

Today's application economy runs on complex modern applications, which are composite and fragmented. This complexity adds visibility, automation and collaboration challenges at every step of Software Development Life Cycle (SDLC). Developers and testers have to understand underlying details of end-to-end transactions, in order to determine the root cause of defects, assessing risks for test decisions, and automate testing earlier in SDLC.

CA Continuous Application Insight (CA CAI) provides end-to-end deep transaction tracing, gives visibility into application details and dependencies, and then automatically creates accurate test beds and production-like virtual services. With this actionable insight, agile teams can accelerate development and test automation, and enable quality assurance to become pervasive throughout SDLC.

Key Benefits/Results

- **End to End Transaction Discovery** enables thorough analysis by breaking down architectural and structural complexity of applications.
- **Actionable Insights** helps diagnose the right issues, so you are not solving the wrong problems.
- **Automating your Automation** automates virtual service and test case creation eliminates manual work.

Key Features

- **Automatic capture of transaction paths** across entire applications.
- **Find defects in pre-production applications** with deep insight into business transactions to analyze abnormal behavior and to identify defects in a running application.
- **Automatic creation of stateful regression test cases** that apply to an entire conversation or session, rather than one of its transactions.
- **Document your application architecture** with logical architecture diagrams aligned to the business transaction and test case.
- **Point and Click Defect ticket creation** using "alt-click" on the UI, which in turn captures detailed business transactions for the identified session and builds virtual environments for easy defect reproduction.
- **Generate Virtual Services** by simply clicking on the component of interest.

Business Challenges

In application economy, the ability to release modern applications faster with exceptional quality is paramount. However, modern application complexities prevent agility because they are fragmented components mostly without a guiding user interface. Key development and QA challenges coming with this complexity are:

Lacking transactional insight. Agile teams are heavily reliant on ad-hoc peer communication, to understand transaction structures because architecture information is mostly outdated or incomplete. This costly endeavor is inefficient, error-prone and not scalable.

Ineffective test automation. Test automation involves manual effort in base-lining, scripting, and maintenance. This defeats the automation objectives, result in less test automation and lack of test coverage.

Stub and mock problem. Lack of dynamic, intelligent and automatic creation of Virtual Services result in costly and poor practices such as stubbing and mocking.

Prolonged defect resolution. Lack of understanding the end-to-end interactions and underlying transaction details prevent determining root causes of defects prevents fast and effective defect resolution results in longer Mean Time To Repair.

Solution Overview

CA Continuous Application Insight (CA CAI) provides intelligence and the transaction-level visibility breaking down the complexity of modern applications, automates the test automation and automates virtual service creation. CA CAI automatically generates application architecture diagrams and provides a single point of truth for all cross-functional teams to collaborate and interact upon. Enabling fast feedback loops with real-time insights into defects, CA CAI improves development and testing collaboration in agile teams, by that, significantly improving overall quality and customer satisfaction. In addition, using its data analysis capabilities, CA CAI automatically generates various types of actionable assets, including reusable test cases, test automation scripts, and virtual services. In short, CA Continuous Application Insight enables your agile teams to drive the innovation your business wants through improved quality, increased delivery speed, and optimized customer experience.

Critical Differentiators

Unlike solutions that require expensive and error-prone manual efforts, CA Continuous Application Insight discovers how the composite application behaves, eliminates complexity and makes it easy to understand applications and architectures. This sets CA CAI apart in terms of ease-of-use, time-to-value and overall cost and impact of the solution. Key differentiators of CA CAI are:

- End-to-end transaction discovery, mapping the path and details of applications, providing visibility into the application architecture.
- Accurate, detailed and up-to-date architectural and transactional information as and when needed by agile teams.
- Instant availability of knowledge for bug fixes and application updates.
- CA CAI captures verbose data associated with transactions so business logic/calculation defects can be resolved faster.
- In-depth visibility into abnormal behavior to drastically improve defect resolution.
- Automated tests created from living traffic capture, production scenarios tested in pre-production with accurate test cases.
- Automatic creation of virtualized versions of real services, often in minutes.
- Automatically documenting paths and test cases to reproduce defects.

The CA Application Insight Difference

Gain insight into end-to-end transactions, create baseline for regression tests and automatically generate automated tests and virtual services.

Frame	Request	Response	Log Messages	XML	Exception
Frame Meta Values					
Frame Meta	Value				
Name	/cars-inventory/cars-inventory/12VR98AM105236900				
Tags	Not Available				
Category	REST Http				
Start Time	2015-01-22 08:26:34 951				
Wall Time	79				
ID	ab17c340-a242-11e4-b6f7-1040f9b13f68				
Parent ID	ab0c3370-a242-11e4-afae-000c29a3eca3				
Location Values					
Location	Value				
Host	tsv1				

Related Products/Solutions

CA Service Virtualization integrates and enhances service virtualization by automatically creating virtual services necessary for end-to-end development and testing of applications.

CA Application Test allows “shift left” testing by automating the creation of automated testing scripts that include and adapt to the entire transaction path.

For more information, please visit ca.com/cai

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