CA Test Data Manager

At a Glance

The application economy is driving massive digital transformation. As a result, organizations are increasingly under pressure to continuously deliver valuable and high quality applications faster than ever before. Yet, the quality of an application depends on the quality of the data for testing, and creating the right test data, to the right place, at the right time, remains a significant challenge.

CA Test Data Manager can help organizations find, create and provision the data needed for testing—automatically and fast. Test data constraints, which routinely compromise application quality, can be eliminated, accelerating application delivery to market, on time and within budget.

Key Benefits/Results

Improve quality. Providing the right data for testing can reduce defect creation by up to 95 percent.[1]

Improve testing efficiency. Eliminate data constraints and reduce the time and resources required to provision data by 50 percent.[1]

Reduce costs. Creating accurate subsets of data can reduce infrastructure cost by up to $50,000/database.[1]

Key Features

Synthetic data generation. Create rich synthetic data which covers 100 percent of possible tests.

Data masking. Secure millions of rows of data in minutes using automated data profiling and high performance masking engines.

Data subsetting. Clone specific subsets of data into target environments.

Coverage analysis. Measure exactly how much of a system data can test.

Test data allocation. Reduce the time and resources to provision data by 50 percent using automated data discovery to request and receive exact data sets, linked to test cases.

Test data warehouse. Store data pools as re-usable assets in a central repository and test multiple versions and releases in parallel.

Virtualization. Create realistic virtual data for service virtualization.

Business Challenges

The importance of customer experience is driving the demand for a new approach to continuously deliver inspiring applications. The challenge is that up to 70 percent of application testing is done manually, while up to 50 percent of testing is wasted finding the right data or creating it by hand. This laborious and inconsistent process creates costly delays in delivering test data to dependent teams.

Poor test coverage. Production data is massive and costly to maintain. Typically covering just 10-20 percent of the tests needed, it does not contain the negative results, future scenarios or outliers needed for effective testing. Defects are detected later in the software development lifecycle (SDLC), where they require more time (and cost) to fix.

Testing bottlenecks. Manually copying production data is slow and error-prone so that test data is out of date and unavailable in parallel. In fact, a massive 20 percent of the average delivery lifecycle is wasted waiting for data, finding it or creating it by hand when none exists.

Risk of a data breach. Production data contains sensitive data, increasing the risk for compliance violations and significant fines.

Solution Overview

CA Test Data Manager can help organizations model their data and identify exactly the data they need for rigorous testing using sophisticated visualization and coverage analysis. By synthetically generating data, testers can get the smallest amount of data needed to attain 100 percent functional coverage. This reduces infrastructure costs and the cost to fix defects as they are detected earlier in the SDLC.

Data is linked directly to test cases and is stored as re-usable assets in a test data warehouse. As it is provisioned, it is cloned and fully versioned allowing teams to work on multiple versions in parallel. Bottlenecks are removed, and testers no longer waste time waiting for data or creating it by hand. They can request and receive data in minutes using a web-based portal, drastically increasing their productivity.

High-performance data masking can aid compliance efforts by mitigating the risk of a data breach. Automated data profiling finds sensitive data across systems, while native masking engines de-identify millions of rows of complex data in minutes.

[1] Metrics collected from CA Technologies' implementation experience

Critical Differentiators

Test oriented. Data is linked to specific test cases and automatically synchs up with changing requirements.
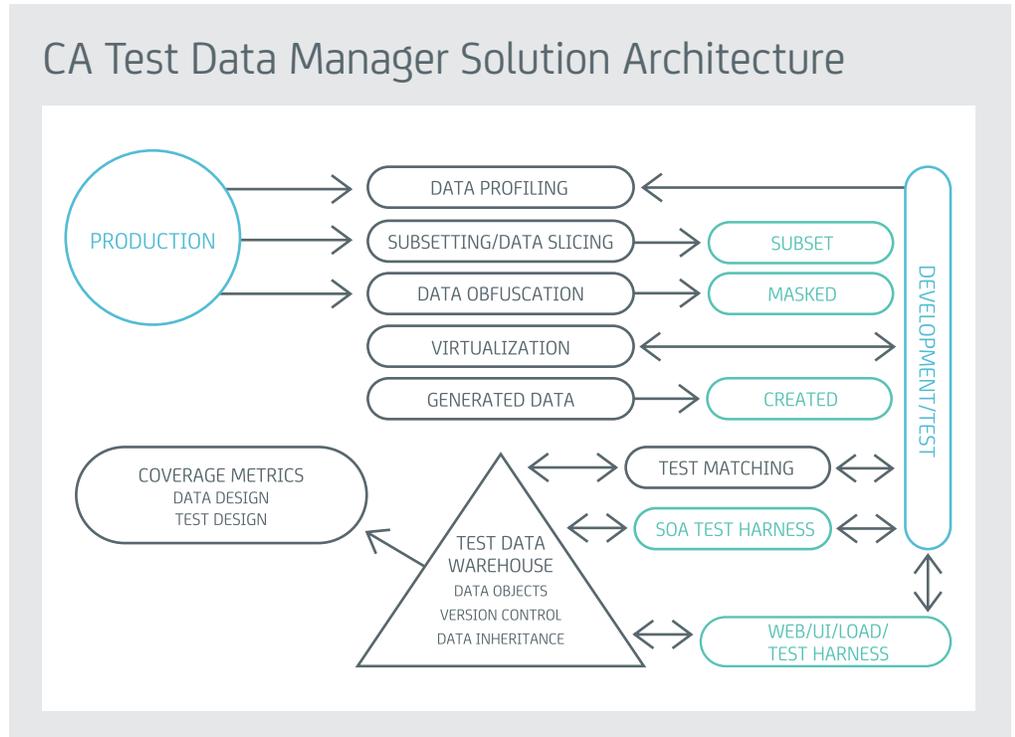
Built for re-usability. The model-based test data generation approach enables re-use of testing assets, while new test data can be built upon existing components.

Fully automated. Not just another ETL tool that runs off scripting, manual tasks associated with data masking, data generation, cloning and provisioning are automated for increased efficiency.

Parallel work streams. Version control of the data itself, data inheritance, test matching and data cloning allow testers to work on multiple releases in parallel without disrupting each other's data.

Sophisticated coverage analysis. Coverage analysis and data visualization unlock exactly what data attributes exist, how they relate to each other and what new data needs to be created for testing.

Versatile data generation. CA Test Data Manager provides a comprehensive list of combinable SQL functions, seed tables and default and system variables. It can create data for all major RDBMs as well as complex file structures and types.

CA Test Data Manager Solution Architecture

Related Products/Solutions

CA Test Case Optimizer. A complete requirements definition, test case design and automation solution, which allows users to define a model of every test case needed to fully test a system, generating the data and virtual assets needed to execute them.

CA Service Virtualization. Automatically creates the virtual services necessary for the end-to-end development and testing of applications, eliminating system constraints.

Customer Success

A multinational bank. Improved test data quality and efficiency by 60 percent within three months of adopting the tool.[1]

A large financial institution. Reduced the time taken to locate the right data by 95 percent.[1]

A large insurance company. Masked over 750 million rows of data in under eight minutes.[1]

A government agency. One million pounds[1] per year return on investment for the adoption of the database compare feature alone.

A financial services organization. Cut data creation time from 20 hours per transaction to two to three hours.[1]

For more information, please visit **ca.com**

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[1] Metrics collected from CA Technologies' implementation experience