Improve Test Data Coverage and Application Quality with CA Test Data Manager

CA Test Data Manager provides the capability to quickly design, find, create and provision 'fit for purpose' test data for efficient, cost-effective test cycles needed to deliver valuable applications sooner. You can enhance the quality of your production data, or fill gaps in your coverage, based on an optimal minimum set of test cases to fully cover your requirements. Using innovative functionality to find and match existing data to specific tests, or generate synthetic data, some organizations have reported as much as a 90-95% reduction in the time taken to provision high quality test data. CA Test Data Manager helps ensure that teams receive the 'right' data, in the 'right' place, at the 'right' time to shift defects to the left in the software development lifecycle (SDLC) and reduce time-to-market.

Business Challenges

Creating 'fit for purpose' test data and provisioning it to the 'right' place, at the 'right' time is a big challenge due to factors including:

- **Finding usable data** - Using production data, as well as synthetic data, may help ensure more complete testing coverage.

- **Risk of data breach** - Data protection and privacy legislation can limit the ability to use production data in testing and development.

- **Poor test coverage** - Production data typically offers only 20-30% of the functional coverage required to fully test an application. This increases the risk of defects in production and the costly rework needed to resolve them.

- **Delays in delivering data** - Developers and testers have to manually search for, or create, the data they need to satisfy their test cases. This is a slow, inefficient process that delays the flow of data to downstream teams.

Test Data Management Strategy

Short Term Strategy	Medium Term Strategy	Long Term Strategy
• Data Privacy • Governance and Compliance	• Managing complex architectures • SOA development and test • Accelerating app delivery • Reducing cost • Moving to the cloud	• Improving IT-Business communication • Moving to Agile
• Masking, Sub-setting	• Data Analysis and Coverage • Synthetic data creation • Test data repository • Test Matching • Data Design	• Complete Test Data Management across enterprise • Agile Services

Key Features

- Synthetic data generation
- High performance data masking and data sub-setting
- Coverage techniques
- Test matching
- Central test data repository

Key Benefits and Results

- Improve time to market for revenue generating applications
- Reduce defects during the application development process
- Reduce the time required to provision and create test data
- Improve testing coverage
- Reduce costs of storing datasets for testing

Marquee benefits yielding **$2.2M** per year in savings are detailed on the reverse side of this document in order to show examples of business value achievable through this CA Test Data Manager approach

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For more information, please visit https://www.ca.com/us/products/ca-test-data-manager.html

Business Value Estimations

CA Test Data Manager benefits can be quantified via a wide range of benefit scenarios. A selection of these is listed below to show common areas measured.

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Business Value Proposition	Business Value Enabler	Specific Measurement	Key Resources Affected	Impact [1] Range	Average [2] Resource Value	Projected [3] Savings / yr
Reduction in test data creation and test data provisioning costs	• test data warehouse creates stored data pools as re-usable assets • model-based test data generation approach enables re-use of testing assets • automated data discovery to request and receive exact data sets, linked to test cases. • ability to use synthetic data when production data does not provide adequate coverage.	cost reduction in test and QA resource labor	test data FTEs	30 - 50%	10	$520,000
Reduction in test data storage and database costs	• synthetic data creation techniques to generate smaller, richer sets of test data	cost savings in unnecessary storage and database sets	storage and database infrastructure costs	10 - 30%	$150,000	$30,000
Savings from shifting defects to the left in the SDLC	• production data typically offers 20-30% of the functional coverage required to fully test an application. • access to additional data, including synthetic data, may enhance test coverage	cost reduction in defect remediation	bug fix support FTEs	20 - 30%	10	$325,000
Reduction in QA costs from test automation failures	• elimination of bad data conditions, which account for 50% of test failures through better and more accurate test data	cost reduction in QA and testing costs	QA FTEs	5 - 15%	10	$130,000
Improved Time to Value for Revenue Generating Applications	• faster development through all phases of the software development lifecycle	revenue stream from early release	revenue related to new application releases	10 - 30%	$5,000,000 [4]	$1,000,000
Reduction in regulatory compliance costs and/or potential fines	• data protection and privacy legislation, such as GDPR (General Data Protection Regulation), can limit the ability to use production data in testing and development. • secure millions of rows of data in minutes using automated data profiling and high performance masking engines or generate new test data from scratch	cost reduction in audit / compliance costs	audit and compliance costs	10 - 30%	$1,000,000 [5]	$200,000

This table shows some **key benefits** of **CA Test Data Manager**. Your Broadcom representative can also share additional and more detailed ROI business case examples for this solution by engaging the Broadcom Business Value Analytics Team. This team works with Broadcom's customers to develop and analyze a comprehensive set of assumptions and environment specific metrics in order to build customized projective business cases.

1. The **Impact Ranges** shown above are estimations derived from the analysis of benchmark data which is a composite of data derived from industry analyst published information, interviews with subject matter experts and experiential data from prior projective analyses.

2. The **Average Resource** column shows resource values representative of those used in business case analyses by the Broadcom Business Value Analytics Team.

3. The **Projected Savings** may be representative results for organizations whose Average Resource values are similar to those in this table. Labor rates for all FTEs are assumed to be $65/hour. Actual calculations may include additional parameters. Your Broadcom representative can provide detailed benefit calculations for values in this column. The values expressed in this table are not a guarantee of achievable results and will vary depending upon your current infrastructure, people, and processes as well as the appropriate, effective implementation, adoption, and use of the solution.

4. The assumption is based on 0.5% of annual revenue, based on a $1B organization.

5. The assumption is based on 0.1% of annual revenue, based on a $1B organization.