

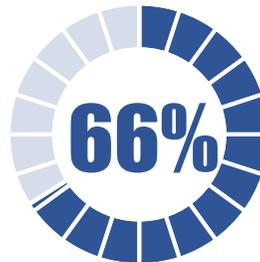
The Business Case for Test Data Management

Businesses are moving faster than ever before. With that comes growing demands that the technical side of the house keep pace -compelling IT leaders to introduce new approaches and tooling to increase their velocity. This is putting a strain on their budgets. A large part of the typical IT budget is QA. According to Statista, in 2018 QA accounted for nearly 26% of the IT budget. If you consider the related infrastructure to support QA and testing that number would probably grow to near 40%.

Why is that number so high? According to the Capgemini 2019 World Quality Report (WQR), changes in test data management and test environment management are lagging and hindering agile development:



Using Copy of Production Data



Using Spreadsheet to Generate



Manually Generating Test Data

This means a couple of things:

- a tremendous amount of manual effort is being spent on provisioning test data, and
- test environments are sized to accommodate production copies

Why TDM?

Implementing a TDM solution can address the challenges in provisioning test data. When done correctly - with the right tool selection - the result is substantive cost savings across the IT organization.

	Savings/		Savings/	
Infrastructure	Productivity	Amount	Productivity	Amount
Hardware	15%	\$ 1,111,500	25%	\$ 1,852,500
Software	15%	\$ 1,287,000	25%	\$ 2,145,000
Personnel				
Quality Assurance	25%	\$ 430,950	35%	\$ 603,330
Infrastructure	15%	\$ 198,900	30%	\$ 397,800
Support	15%	\$ 238,680	20%	\$ 397,800
Development	10%	\$ 649,740	15%	\$ 974,610
Total	10%	\$ 3,916,770	16%	\$ 6,371,040

(Based on an average mid-market Financial Services firm: \$780 million revenue; \$39 million IT budget; and 102 IT employees).

The projected on-going, annual savings generated by a TDM investment can range from 10 to over 15%. Those savings do not come without an investment. By picking the right tool and having a solid implementation strategy, your investment will create a very favorable return.

Infrastructure Savings: In complex technical environments, where there are multiple core systems that are integrated with one another, test environments must obviously mirror production. Given the typical inherent complexity of the integrated system environment (and the noted lack of automated solutions), most will copy the entire data set down to their test, integration, UAT/training regions. The net result is bloated lower regions with unnecessary servers, license and storage costs.

TDM allows you to leverage your production data to create quality test data without copying your production data (and avoid data breach risks in the process). TDM also allows you to create and load very specific test data sets with ease – removing the need for loading (and reloading) that billion-record production database into each lower environment.

The net result is that the footprint of your lower environments can be greatly reduced. And because you are not dealing with the complete production-sized database, you greatly reduce costs around: Servers, Storage; Licenses; and, Personnel.

Personnel Savings: According the same WQR, the lack of test environments and data is the number-one challenge in applying testing to agile development, and they are the second biggest bottleneck in greater QA and testing maturity. By using TDM to provision of test data, you eliminate three more problems:

1. Developers and Testers searching for or creating test data (or waiting on someone else to do that)
2. Developers waiting on test environments to be reset
3. Time spent remediating issues (in dev or production) caused by the wrong or stale test data

If your teams are spending time creating test data, waiting on test data to be provisioned or waiting on environments to be reset (or freed up), then they are not writing code or testing code. **You end up over- hiring - probably by 10%** - due to the inefficiencies of the QA process.

Example: Let's use the average mid-market financial services firm as an example to demonstrate the potential savings generated by implementing a TDM solution to provision test data.

The average mid-market firm in Financial Services generates annual revenues of \$780 million; has \$39 million in IT spend; and 102 IT employees (source Discoverorg.com). Based on Forrester Research Brief Findings 19% of the budget would be allocated to HW and 22% to software.

In this example, implementing a TDM solution could generate savings and productivity gains between 10%-16% (actual savings and productivity gains will vary from organization to organization based upon the particulars of each technical environment.). The TDM tool will also have a large impact on savings and productivity gains. It is assumed that the tool selected has a robust subsetting engine that will allow the organization to create small, focused subsets that can load quickly to meet their particular testing needs. It also assumes that the obfuscation engine is fully featured allowing the organization to leverage its production data without fear of breach.

Conclusion

The business benefits of adopting a TDM solution are substantial and will far outweigh the investment. Organizations that employ TDM will see greater efficiencies in testing, turn test cycles faster, use less resources and reduce testing costs from anywhere from 10% - 20%.