



Best Practices for Accelerating Test Data Management (TDM)

10 ways to ensure that TDM keeps pace with the modern application lifestyle

Application development and testing cycles are too often bottlenecked by complex processes used to manage and deliver test data.

In fact, recent estimates suggest that test data delivery for Fortune 500 companies is best measured in days or weeks, instead of minutes or hours.

Best-in-class IT departments, though, are discovering new ways to overcome these inefficiencies. Through focused efforts to implement test data management (TDM) best practices combined with a new generation of tools, businesses can better keep pace with today's evolving application lifecycle. The following guidelines represent a starting point for organizations looking to advance their TDM practices towards modern standards.



01 Reduce Refresh Time

Data often grows stale in non-production environments, impacting the quality of testing and resulting in costly, latestage errors. TDM teams should aim to reduce the time it takes to refresh test environments across all stages, making the latest test data more accessible. In addition, the latest production data should be readily available in minutes in the event it's needed for triage.

02 Allow for Granular Data Recovery

TDM can become challenging when multiple datasets are required as of a specific point-in-time for integration testing. For example, testing a procure-to-pay process might require data that is federated across CRM, inventory management, and financial applications. A TDM approach should enable the provisioning of multiple datasets to the same point to quickly validate complicated functional testing scenarios.

03 Right-Size Your Test Datasets

Developers and testers must often work with test data subsets that result in missed test case outliers, increasing project costs due to data-related errors. Data virtualization technology, though, enables the provisioning of full-size test data copies in a fraction of the space of subsets by sharing common data blocks across copies. As a result, TDM teams can reduce the operational costs of subsetting—both in terms of data preparation and error resolution—by reducing the need to subset data as frequently.

04 Eliminate Manual Processes

Modern software toolsets already include technologies to automate build processes, source code management, and regression testing. However, organizations often lack equivalent tools for delivering copies of test data with the same level of effortlessness. A streamlined TDM approach eliminates manual processes—for example, target database initialization, configuration steps, and prechecks—by providing a low-touch, API-driven approach to standing up new data environments.

08 Integrate Masking and Distribution

Data masking processes should be tightly coupled with a data delivery mechanism. Instead of relying on separate workflows for masked data and unmasked data, an integrated approach lends itself to greater standardization of masking as a security precaution, and helps ensure that masked data can be delivered wherever it's needed. For example, many organizations will benefit from an approach that enables them to mask data in a secure zone and then easily deliver that secure data to targets in non-production environments.

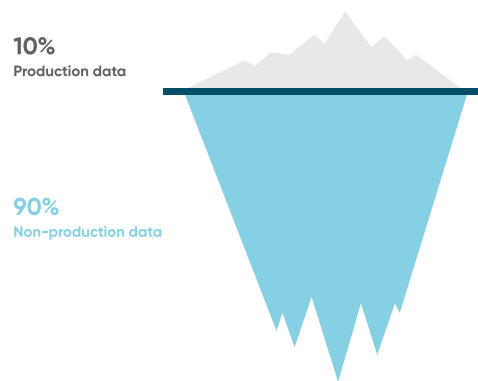


Figure 2. Masking replaces sensitive data with fictitious but realistic data, securing non-production environments that represent 90% of the surface area of risk for breach.

09 Consolidate Data Copies through Virtualization

It's not uncommon for organizations to maintain non-production environments in which 90% of the data is redundant. Modern TDM tools make it possible for organizations to curb storage costs by sharing common data across environments—including those used not only for testing, but also for development, reporting, production support, and other use cases.

10 Boost Environment Utilization

Most IT organizations serialize projects as a result of contention for environments. Paradoxically, environments often become underutilized due to the time to populate an environment with new test data. The latest wave of TDM solutions decouples data from blocks of computing resources through intelligent use of “bookmarking.” Bookmarked datasets can be loaded into environments on demand, making it easier for developers and testers to effectively timeshare environments. As a result, an optimized TDM toolset can eliminate contention while achieving up to 50% higher utilization of environments.

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