



The Truth About Test Data Management and its Impact on Agile Development

K2VIEW >> *Data without delay.*

The Truth About Test Data Management and its Impact on Agile Development

Despite the agile methods and automated functionality you've adopted, testing is still a major constraint that holds your new solutions hostage. *But it doesn't have to be this way.*

Introduction

Agile development is a requirement in today's business environment but the word "agile" is ironic when you consider how software testing is actually done in most organizations.

It takes weeks (or even months), and requires an army of people and tons of expensive infrastructure hardware to make it happen. It's clearly painful for enterprises—especially given the competitive pressure to stay on top of the growing demand for applications and web services that drive the digital economy.

And while various companies have invented "testing automation" solutions to help the testing process, they're all just nibbling around the edges of the problem. Most enterprises still cannot move to a truly agile, continuous deployment (DevOps) environment.

Why? Because the management of the data that is critical to the testing process is still largely a manual process. That is, until now.

K2View attacks the heart of the problem with our test data management solution, K2View TDM. It streamlines or eliminates much of what makes testing so cumbersome, expensive, and slow. It makes development truly agile with a faster, more flexible testing environment based on our patent-pending method for organizing data.

This whitepaper outlines the nature of the test data management problem and explains how K2View TDM solves it to provide you with a competitive advantage.

Traditional testing methods: So last century

Modern TDM means better data in less time

The logical solution to the TDM problem

K2View is your competitive advantage

What sets K2View TDM apart from other solutions

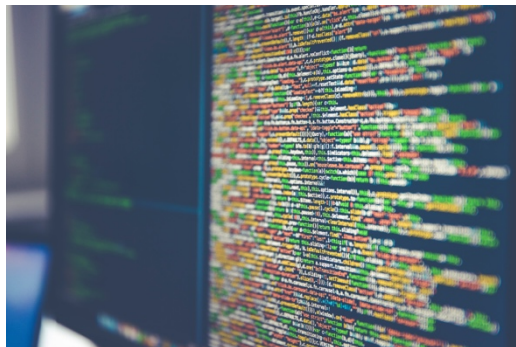
Become a K2View channel partner

Traditional testing methods: So last century

Cloning production datasets. Manually creating data samples for ad hoc testing. These and other traditional testing methods are too slow for the 21st century's digital economy.

A continuous stream of application development needs faster turnaround times. Developers need to test applications and release new services in days—not months or years. This need for speed has caused testing budgets to skyrocket to almost 40 percent of overall IT spend, according to industry research.

Test data management (TDM) is an expensive part of the process because even with current levels of automation, it's still time consuming and labor intensive. There are also problems with data quality and security that have costs due to risk and make testing less effective than it should be.



Problems with traditional TDM:

- Test data accuracy: It's difficult to attain accurate test data that reflects real-life use cases of applications being tested.
- Complex extraction: Multiple production systems and data silos make it complicated to extract valid test data.
- Environment outage: Production and testing environments are often subject to downtime while test data is being gathered.
- Time consuming: It's a lengthy process (typically spanning days) to match, extract, scramble, and load test data.
- Append data functionality: There is no seamless way to move data from production to the target environment.
- Security: Copying production data means increased risk of data violation and may infringe upon security and privacy regulations.

Modern TDM means better data in less time

The key to better TDM is the ability to easily, quickly, and securely generate relevant and accurate testing data. It's how an enterprise can shave valuable time from the production cycle and lower costs.

Think about DevOps and quality assurance (QA) teams being able to test against production-like data provided in milliseconds (as opposed to days)—having the power to see more accurately how an application behaves and performs well before it's ready for deployment.



This is what K2View TDM provides. Our solution transforms time-consuming, inefficient, archaic TDM processes because it's based on our revolutionary model for retrieving and storing data.

Most data management systems store data based on type—customer data, financial data, location data, device data, etc. This translates into massive tables that must be queried using complex joins every time a user needs access to business data. It's cumbersome and tiresome.

In contrast, K2View stores and retrieves data based on business logic. Our unique “business entity” approach means that the base schema of our TDM solution can be designed easily based on a company's needs, rather than trying to fit them into a pre-defined structure.

The result is a business-oriented structure containing tables and objects from as many systems as needed. (For example, a “customer” business entity might include three tables from the CRM system running on MySQL and five tables from the billing system residing on Oracle.)

This schema is used every time data needs to be copied or synthetically generated in K2View TDM. Using embedded migration (ETL) capabilities, the data is processed, masked, stored, and distributed simply and quickly.

Managing data as logical, compressed, encrypted mini-databases enables incredible performance, enhanced security, high availability and customizable data synchronization.

The logical solution to the TDM problem

K2View TDM enables faster application delivery at a fraction of the cost because our unique solution makes it easier and more efficient to take data from any source (without impact) or to create synthetic test data, and provide it to any type of downstream environment.

Our customers report tangible benefits that include:

- Substantial reductions in headcount supporting testing
- Elimination of redundant testing environments and corresponding hardware and software costs
- Improved SPI compliant data protection
- Zero impact on current systems and operations
- Dramatically reduced test duration and improved time to market

Unlike other solutions that automate an antiquated process, we create an "endstate" of the data that provides the power, flexibility and simplicity needed to enable testing to keep pace with your business. Then we wrap it with a complete set of capabilities starting with the continuous sourcing of the data, the masking, modification and generation of test data, and ending with simple and secure access to the data for testing.

We didn't set out to solve all of your testing problems—just the one that would make the biggest difference.

K2View covers every phase of the TDM lifecycle:

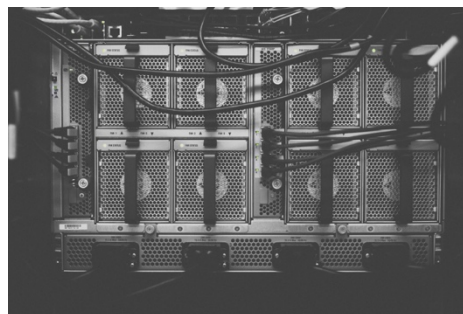
- Defining and sourcing: Relevant data for TDM is done through a simple GUI and can be enhanced at any time
- Refreshing and synchronizing: Sync strategies and refresh rates for test data is granular to each and every element of the business entity, allowing full control over test data
- Cloning and subsetting: Simply select the relevant business entity; as the most atomic subset it allows for on-the-fly correction of data inconsistencies—even when data is coming from multiple sources
- Masking and securing: Data is masked centrally so even data from multiple sources is consistent and the most complex rules can be implemented simply and efficiently; each defined business entity is encrypted with a different key, allowing even more protection of your data

- Synthetic data creation: When defining a business entity schema, you define a pathway to synthetic data creation: generating synthetic data is as easy as generating synthetic business entities, whose definition can be enhanced to cater any requirement
- Provisioning: TDM hinges on the proficiency to move data from many to many systems; because K2View TDM is executed in memory, on a truly distributed environment, at the level of the most basic business entity, provisioning test data happens in seconds using embedded tools and role-based administrative functions

K2View is your competitive advantage

Our unique, modern approach to data management helps our channel partners save time and money for data-driven companies.

Every other data solution today is designed from an old point of view, created to cope with legacy systems and processes. This amounts to unnecessary baggage in digital world: Baggage that costs an insane amount of money in an otherwise agile development environment.



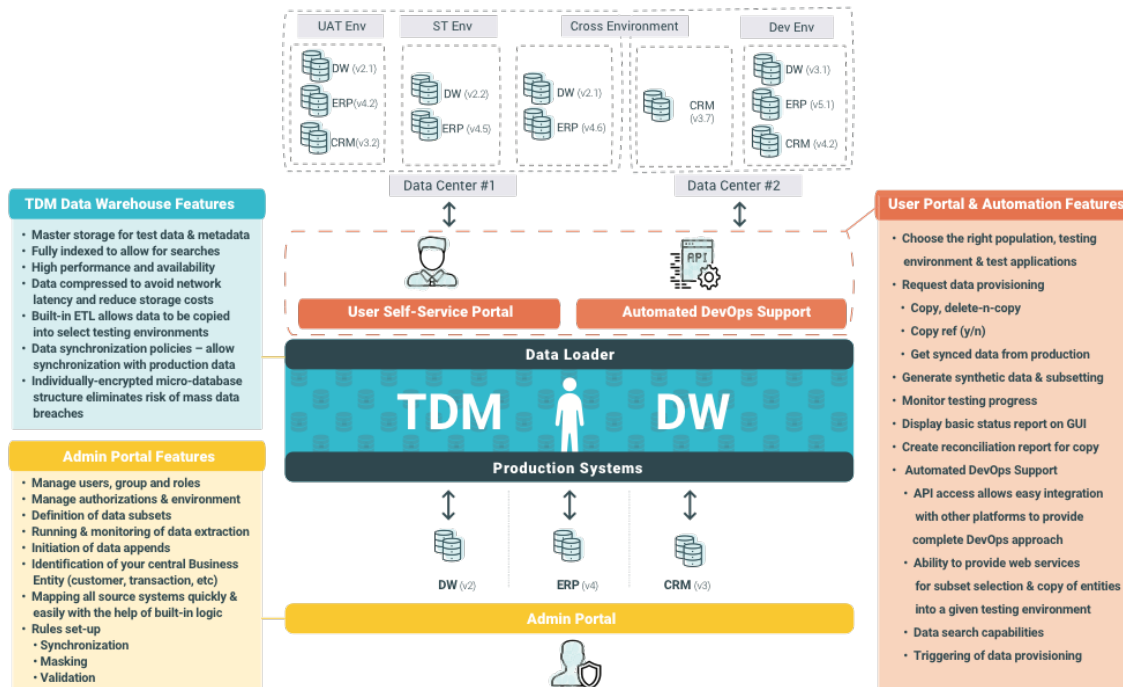
old point
of view
the
time and
money

We started K2View to stop the insanity of using a 20th century perspective to develop modern data solutions. Our approach is based on the way data actually is and how it will be used.

We use business logic to define business entities that can be anything—a customer, product, marketing campaign, or any segment of data you choose. It includes all the information you know about that data segment and it's contained in its own micro-database, with multilayer encryption for optimal security.

What sets K2View TDM apart from other solutions

K2View TDM is simple, fast, and efficient. Performance can be hundreds or thousands of times faster than conventional TDM approaches.



Our solution does certain things really well:

- Makes it easy to set up, administer, and manage test data with user-friendly controls and an intuitive self-service portal
- Speeds up the testing process (and delivery of applications) by retrieving data in real time; in-memory masking happens on retrieval and provisioning in minutes—not days or weeks
- Automates cumbersome legacy processes and eliminates manual workarounds, which lowers IT costs. It offers optimal visibility, agility, and security compared to other solutions on the market:
- Any data source—a traditional RDBMS, a big data environment, a flat file, a web service, a cloud application—can be integrated in our model
- Users can see and correct data errors when they consolidate data into a schema, before it impacts testing
- A full-SQL enabled distributed data layer allows users and application to access test data without having to copy it to test environments
- Subsetting is simplified by the business entity's granularity—even for the most complex and scattered data
- Massive Parallel Processing enables 100% linear scalability, making K2View TDM the fastest solution on the market—our provisioning happens without the need to process massive amounts of data in bulk
- Data is processed in memory and encrypted at the subatomic level when stored, making massive data breaches virtually impossible
- Deployments and system modifications require no system downtime, with migrations simplified and 10x faster

Sound too good to be true? It's true anyway.

Let us show you. Give us a couple hours of your time, and if you qualify we'll invest 2 weeks to show you our Test Data Management solution can accelerate your development cycles.

Contact us to learn more:

- www.k2view.com
- Phone: 1-855-4K2VIEW
- Email: info@k2view.com

Become a K2View channel partner

Benefit from our logical approach to test data management. Save your customers time and money by partnering with K2View. Contact us to learn more:

- www.k2view.com
- Phone: 1-855-4K2VIEW
- Email: info@k2view.com