

In large enterprises, having a clear picture of your data, data structures, relationships and business rules is paramount to efficient, high quality, compliant software testing and delivery.

The challenge:

- They do not have a full picture of the data and structures that exist in their organisation
- They cannot generate or subset data for testing, as they don't know what rules are in place, or where relationships exist between systems and processes
- With poor or no visibility, teams are in the dark about the potential impacts of system changes on their data and business processes, opening them up to security,

Common characteristics in enterprises that identify with this challenge:

- No clear or centralised data repository, or documentation describing data structures, relationships and business rules. This includes Database Schema relationships
- An over-reliance on cloned or production data for testing
- High failure rates that are due to data, **not** application, logic
- Siloed teams with different approaches and tools, due to no standardised process

"The average data breach costs \$4.35 million" 1

"44% of testing time is spent on is spent waiting for, finding, or making test

What impact can this have on your organisation?

- Damaging testing practices, such as teams using production data – which is often outdated and lacks variety – for their testing, increasing the risk of costly security and compliance breaches
- Testing failures and bugs in software releases, often linked to poor data coverage during testing
- **Inefficient use of resource** and significant time spent on repetitive manual tasks, delaying release speed and hindering agility



IDENTIFY RELATIONSHIPS
AND DATA PATTERNS

CREATE REALISTIC. COVERAGE-COMPLETE DATA

DATA CATALOGUE

New Data

Sensitive Data

ER Diagram

data"2

To overcome these challenges, you need the following:

- 1. Visibility of what data systems exist, the underlying data structures, any commercially sensitive and personally identifiable information you have and where it is, and the relationships that exist between your systems.
- 2. A tool to identify and scan these relationships, and utilise them in core ETD activities such as test data generation
- 3. The ability to track and maintain your data, with a structure that enables ongoing monitoring of your data, alerts when changes occur, and understanding the impact of changes on your systems and processes

How Curiosity's Enterprise Test Data® Platform can help:

Using our centralised end-to-end test data platform, we work collaboratively with you from your initial goals through to implementation, providing flexibility, expertise and deep customer understanding. With Curiosity, you can:

- Understand your data with comprehensive profiling, to discover and define relationships, build data entities and catalogue key environments
- Create a centralised repository of meta data and business rules that all teams collaborate on
- Utilise this insight to confidently find or generate test data that does not contain any PII or commercially sensitive data
- Leverage our co-pilot AI, enabling users to interact with the platform through a natural language interface, allowing for contextual question answering

What's next?

Gaining clarity on your data and structures is the first step in your test data journey. To continue evolving your testing and development practices, you can:

- Establish a Centre of Excellence from which all teams can work, removing siloes, aligning processes and tools, and creating a single source of truth for your test data
- Generate high coverage for your tests, with Curiosity's unique model-based approach to test generation, that enables you to create comprehensive test case scenarios to validate your applications, and meet your organisation's quality requirements

¹Capgemini, Sogeti (2020), The Continuous Testing Report 2020, 21.

² Ponemon, IBM (2022), Cost of a Data Breach Report 2022.