CASE STUDY

UBS and Synthesized

UBS

How UBS leverages Synthesized to advance data privacy and operational excellence

SYNTHESIZED

Overview

UBS, one of the world's premier financial institutions, continues to lead the way in innovation, operational excellence, and compliance with stringent regulatory standards. With operations spanning investment banking, wealth management, and asset management, UBS faces the ongoing challenge of managing and leveraging vast amounts of structured data effectively. Synthesized, a cutting-edge test data automation and management platform, partnered with UBS in 2022 to address these challenges through the creation of high-quality, synthetic test data that mirrors real-world data in quality and behavior without exposing sensitive information.

Background

Synthesized's platform employs machine learning and AI to learn complex relationships within production data. This enables the automatic generation of new, realistic test data at scale, preserving the quality and utility of the original data while ensuring complete privacy. Unlike traditional de-identification methods, synthetic test data is entirely new and derived from statistical learning, addressing a critical gap in compliance and usability for financial services.

Synthesized's operations span North America, the UK, and Europe, aligning with UBS's global reach. The partnership supports UBS's ADA Data Mesh initiative by addressing key data access challenges posed by regulatory constraints. UBS also gains direct influence on Synthesized's product development, ensuring tailored solutions for its unique requirements.

In 2024, Synthesized received an additional strategic investment from UBS. This funding supports Synthesized's next phase of growth and reinforces UBS's commitment to scaling innovative technologies that align with its strategic vision. Dr. Nicolai Baldin, Founder and CEO of Synthesized, remarked, "This UBS investment will enable Synthesized to grow and evolve our mission of providing high-quality, privacy-preserving training and test data for application development, AI/ML, and analytics."

Test data challenges at UBS

REGULATORY DATA COMPLIANCE

Accessing sensitive data for analytics, development, and testing posed significant compliance risks under GDPR, FINMA, and other regulations.

TIME-TO-MARKET DELAYS

Data provisioning processes at UBS were slow, often taking weeks to months, delaying development cycles and new product rollouts.

DATA SILOS AND ACCESSIBILITY

Different units within UBS struggled to access unified, compliant datasets, hampering innovation and efficiency.

EXPERIMENTATION AND INNOVATION BLOCKAGES

Rapid experimentation with new technologies required datasets that were often unavailable due to approval and compliance processes.

Solution

Synthesized's platform addressed UBS's challenges with the following capabilities:

COMPLIANT TEST DATA ACCESS

By generating synthetic test datasets that mirror the statistical properties of original data, Synthesized provided UBS with regulatory-compliant test data for analytics and development.

ACCELERATED DEVELOPMENT CYCLES

Engineering teams gain immediate access to test and training data, drastically reducing time-to-market for new applications.

EASE OF USE

The platform's intuitive, no-code interface allowed non-technical users to access and generate synthetic data, democratizing data access across the organization.

USE CASE ENABLEMENT

Synthesized supported various strategic use cases, including:

[1] Data mesh integration: Allowing data owners to create synthetic versions of their datasets for faster approvals and broader usability.

[2] Experimental landing zones: Facilitating rapid experimentation with innovative technologies using synthetic data.

[3] Test data pipelines: Automating the delivery of high-quality test data directly into development environments.

Implementation

01 Discovery and assessment:
UBS collaborated with Synthesized to define key performance indicators, map existing data workflows, and identify high-priority use cases.

02 Proof of Concept (PoC): Initial PoCs focused on demonstrating Synthesized's capabilities in generating compliant synthetic data and accelerating project timelines.

03 Deployment and training: Following PoC success, Synthesized's platform was incorporated into UBS DSP Platform, with dedicated training sessions to ensure adoption.

04 Continuous feedback: UBS's teams provided ongoing product feedback, enabling Synthesized to fine-tune features for maximum relevance and impact.

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Use cases

Synthesized's platform has been applied to multiple scenarios within UBS, including:

ACQUIRED SYSTEM INTEGRATION

Streamlining the integration of acquired systems by generating synthetic versions of legacy and newly integrated datasets, ensuring seamless interoperability while maintaining compliance.

CLOUD MIGRATION OF EXISTING SYSTEMS

Supporting the migration of UBS's systems to the cloud by creating compliant, production-like datasets to validate processes and ensure successful transitions without exposing sensitive information.

NEW APPLICATION DEVELOPMENT

Accelerating the development of new applications by providing engineering teams with instant access to high-quality, compliant test data tailored to application-specific requirements.

Operating model

To maximize the partnership's effectiveness, Synthesized and UBS established an operating model based on the following pillars:

CENTRALIZED DATA SYNTHETIZATION PLATFORM (DSP)

- The DSP serves as a centralized hub for managing synthetic data generation across UBS.
- The platform ensures uniformity, compliance, and quality control while scaling synthetic test data capabilities across divisions.

GOVERNANCE

- A joint committee oversees the strategic direction and alignment of the Synthesized platform with UBS's goals.
- Clear accountability frameworks define roles and responsibilities between UBS, and Synthesized's implementation teams.
- Key stakeholders include Claus Hagen, Terry Smith, and Rick Carey, who provide oversight and strategic direction.

DISTRIBUTED SDK

- A Synthesized Software Development Kit (SDK) allows teams to locally generate and manipulate synthetic data while maintaining alignment with DSP standards.
- The SDK supports tailored use cases such as localized model testing and development without reliance on centralized resources.

INTEGRATION

- Seamless integration with UBS's existing DevOps pipelines and cloud environments ensures operational continuity.
- Self-service capabilities empower UBS teams to independently generate and access synthetic datasets.

SUPPORT

- Dedicated Synthesized support teams provide training, troubleshooting, and updates to UBS users.
- On-demand resources are available to address specific challenges as they arise.

COLLABORATION

- Regular workshops ensure continuous knowledge exchange and alignment of product roadmaps.

Results

- Regulatory assurance: Synthesized's compliance-first approach eliminated the risks associated with handling sensitive customer data.
- Operational efficiency: UBS significantly reduced test data provisioning times, accelerating development cycles and innovation.
- Cost savings: Automated processes reduced resource overheads, enabling UBS to allocate teams to higher-value initiatives.
- Innovation enablement: Experimental landing zones and platform integrations fostered rapid experimentation

Future directions

UBS plans to expand the use of Synthesized's platform with initiatives such as:

- Real-time testing: Enabling real-time validation of updates using synthetic production-like datasets.
- Data productization: Developing new data products optimized for internal and external use cases.
- Cross-divisional collaboration: Enhancing data sharing and innovation across UBS's global units.

"UBS Next, our strategic venture and innovation unit, has made an investment in Synthesized, a leading data generation and provisioning platform. We look forward to working with Synthesized on growing their capabilities and efforts to solve data access and provisioning challenges."

–
Mike Dargan, Group Chief Operations and Technology Officer, Member of the Group Executive Board, UBS

Conclusion

The partnership between UBS and Synthesized highlights the transformative potential of test data in financial services. By combining innovative technology with deep domain expertise, Synthesized has empowered UBS to overcome critical data challenges, accelerate innovation, and maintain its position as a leader in the global financial landscape. Together, UBS and Synthesized are shaping the future of compliant, efficient, and impactful data management.

With Synthesized, automate the provisioning of your test data while maintaining compliance. Securely generate, subset, mask, and anonymize data, enabling shift-left testing and ultimately delivering a better product.

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