

# KYC/AML QUALITY ASSURANCE IN THE CLOUD

Agile Delivery at a Top 10 Bank



LiveDataset

# Introduction

The partnership between Business and Technology is a dynamic compromise between two naturally divergent imperatives: *speed-to-market* (do it now) vs *robust design* (do it right).

This tension is often mitigated by frequent collaboration, as is the case in contexts such as Trading, Operations, Finance: tools are commoditized, requirements specified using a common language and battle-hardened “implementers” on both sides of the fence get the job done. Engineers know the business and the business are tech-savvy.

However, this is not so common in Compliance. In response to the new regulatory landscape, demand for technology has soared in this community that had no history of close interaction with engineers. In this context, it is more difficult to find the right balance between rapid progress and appropriate infrastructure.

Today, the need to innovate quickly is being accelerated further by the pandemic-driven work from home normality.

Back in 2016, though, we witnessed these tensions at a top-10 bank, as they sought to rationalize their KYC/AML Quality Assurance (QA) processes under significant pressure from the Regulators.

The challenge was the **safekeeping, sampling and QA Case Management** of up to one million compliance-related exceptions per month. Originating from some 200 different business lines (streams) distributed across the globe, we encountered a highly manual process that was not only labor intensive but open to error: each stream emailed their weekly list of exceptions using similar but different templates; stream-aligned teams would store the files in designated directories and apply the agreed statistical methodologies to sample a small percentage of the exceptions; finally, stream-specific QA scripts for each of the sampled cases would be distributed, via a file sharing channel, to hundreds of testers.

In short, swarms of data needed handling, week-in week-out, by an over-stretched team of compliance analysts. A high-volume, high-frequency, highly distributed set of processes needed a higher order of automation so it could scale, and fast. *But how?*

# The Challenge

An internal Technology program had been initiated to tackle the three main challenges:

1. Processing and storing high volumes of incoming files in different formats

2. Full automation of sampling (a must for the regulator, to ensure objectivity)

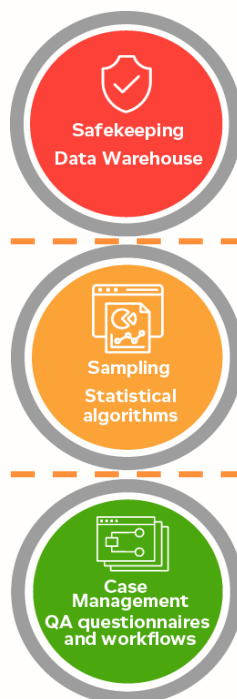
3. Efficient production and distribution of hundreds of different scripts to QA testers

It was, however, moving at too slow a pace... a multi-year, multi-million-dollar undertaking when regulatory deadlines came in the order of months. A situation where Technology and Business priorities could not be more divergent.

We characterized the problem as primarily a matter of perspective: the internal Tech team thought *vertically*, their business clients, the Compliance team, thought *horizontally*.

## Technology's *vertical* thinking

*Safekeeping, sampling and QA Case Management...* from a Technologist's viewpoint, it is perfectly legitimate to see this as three separate domains: **Data Warehousing, Statistical Algorithms, Case Management**. For each of these there are appropriate tools that can be configured to handle what's necessary, to *do it right*.

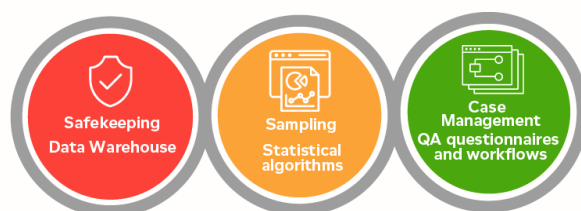


Having established this, the internal Tech team had started with the priority mandated by the regulator, namely automating the sampling. However, after the first wave of efforts configuring and tuning the sampling engines, they entered shifting sands that swallowed any momentum gathered to that point: Extraction, Transformation and Loading (ETL) of hundreds of different formats.

The issue was not ETL *per se*, as software engineers can rely on powerful tools for this; it was, instead, the fact that Technology *owned* the responsibility to configure the different formats and analytical requirements for each of the 200-plus streams, a task that was proving very laborious and time-consuming; conversely, the Compliance team, knowing that rules and formats would change from time to time, found this painful dependency frustrating: they would have much preferred being able to configure it all themselves.

To top it all, it became clear that similar “configuration ownership” challenges would apply to each of the three macro-domains of the program.

## The Business’ *horizontal* thinking



*Safekeeping, sampling and QA Case Management...* from the Business’ viewpoint these were simply **stages of a unified process** where technology should enable the QA team to administer and run their high volume and varied operation, to *do it now*.

They wanted the lists of exceptions to flow seamlessly into a centralized repository. From here, these would be read and analyzed for sampling and QA Testing assignment. Testers would log in to review their queues of Cases and respond to the appropriate QA scripts.

The Compliance team, recognizing that the variety of stream-specific formats, formulae and scripts were going to be an ongoing challenge, wanted the power to administer all the necessary configurations.

# An impossible task?

Had time not been an important constraint, surely convergence would have emerged at some point to produce the desired outcomes. Looming regulatory deadlines, however, forced the business to re-evaluate the technology choices taken until then and consider external vendors.

This decision in itself deserves highlighting: anyone who has worked in Technology for some time will have witnessed programs where the company went “all-in” but ended in “too little too late”, if not outright failure.

In this situation, both the Business and the Technology department demonstrated courage in considering alternatives and being prepared to cut their losses. A courage thankfully rewarded by success when this created the opportunity for us, as a supplier, to contribute to achieving what had seemed impossible: **the successful delivery, within three months, of an end-to-end solution.**

The fact that it was cloud-based not only facilitated rapid deployment but highlighted another bold step in decision-making at the time: what today is a widely accepted option - thanks to the ubiquity and security of external hosting - used to be a “big no” for most corporate projects.

With the benefit of hindsight, it is useful to reflect on the positive forces at play that allowed our client and us, in this instance, to “do it now” and “do it right”.

# Critical Success Factors

Three equally important success factors, relevant to most projects, underlie this achievement:

1. Outcome-driven alignment of Technology and Business goals

2. Strong foundations on which to build (the right technology platform)

3. An Agile approach

## Technology and Business

Was it all a question of *Vertical* vs *Horizontal*? Not really. Different technology architectures can be suitable to satisfy the same requirements.

The show-stopping issue was how “configuration ownership” had been treated as a secondary workstream.

As this was a process involving multiple steps where stream-specific rules may govern data transformation, calculations, access rights (areas typically covered by specialist Tech support teams), enabling a team of Compliance officers to configure the environment would require a comprehensive control framework and great competence – not an easy task.

Easy or not, by the time we came into the picture, we understood it as the number one concern of the business in terms of operational viability and this guided our work accordingly.

From the beginning, we treated the end-to-end process as one, in line with the business’ horizontal thinking. At the same time, we recognized the architectural separation of ETL, data warehousing, sampling and case management components, in line with tech thinking. No big compromise, therefore, in this respect.

## The right platform

Turning well-reasoned estimates of years into months can only be achieved if you have an underlying toolset to match the task at hand, a bit like the building blocks of a prefabricated house.

**LiveDataset**, our ultra-versatile data management platform, was a perfect fit for this project. Its architectural foundation on a document-based (NoSQL) database helped us deliver the most impactful aspect of our solution, UNITY: we were able to convert hundreds of different streams into unified storage and a single process governed by configurable rules at all stages.

Whilst it is not difficult to imagine clever processing to handle centralized data warehousing and statistical sampling, delivering the necessary flexibility to hundreds of QA testers on the Case Management front was a key achievement of the flexibility afforded to us by the platform.

Unity also had a significant impact not only on timing but on the \$ baseline and the effectiveness of ongoing service.

By contrast, if ETL/Configuration, Data Warehousing, Sampling and Case Management had been individual, interoperating components, they would each have required significant investments (e.g.: licensing, infrastructure, responsive support teams); and on top, an “organizational umbrella” to make them work together (e.g.: accountable cross-component ownership, common SLAs, relationship managers).

## Agile

This methodology is talked about everywhere but does not always inform execution on the ground; its first principle is “delivering value”, incrementally and often, and this is why we always aim to deliver v1.0 of any project within a maximum of three months.

Agile involves a great degree of Trust between all the stakeholders; it’s as much about method as it is about People and, at its best, it can create the kind of momentum that allowed this Compliance challenge to turn into a success story.

# Conclusions

When Business and Technology come together – and in today's world they're often synonymous – priority and methodology conflicts may arise which seem irreconcilable. In this case study, we demonstrated that speed does not automatically compromise robust design and that significant variety may be accommodated into a unified approach: *e pluribus unum*.





**Gabriele Albarosa**  
CEO

Tel: +44 (0)7801 650 714  
gabriele.albarosa@krescendo.com  
www.livedataset.com

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**Tim Redgate**

Commercial Director  
Tel: +44 (0)7779 287 337  
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**Alberto Cellini**

Solutions Consultant  
Tel: +44 (0)7340 768 749  
alberto.cellini@livedataset.com  
www.livedataset.com

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