

# BREAKING THE EDM MOULD

A disruptive approach to enterprise data management



Empower your business people

Mark had built a real time billing system for First Telecom that was applied to big data environments serving millions of clients. The use of credits encrypted onto cards for public phone booths required lateral thinking in order to manage telephone line usage with actual card credit expenditure.

This was then followed by several years of working on Enterprise Data Management systems for the largest financial institutions. At Misato, Mark has applied his years of experience to simplify the logistics of managing data using internet-scale technologies.



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# A DISRUPTIVE APPROACH TO ENTERPRISE DATA MANAGEMENT

Regulators have been tasked by politicians to ensure the 2008 financial crisis never happens again. Their main tool in this endeavor is transparency. Regulators have ramped up transparency requirements across the industry. Initiatives such as Dodd Frank and MiFID II have and will continue to introduce new levels of transparency across many financial markets activities and players.

While the intensity of these regulatory initiatives will wax and wane over time, it's clear that the main thrust of improved transparency will continue. Global regulators are producing guidance and consultation documents at the rate of 30,000 pages per month and this is not expected to abate soon, even with the anti-regulatory rhetoric of President Donald Trump of the US.

Fines are a huge and growing risk to all financial institutions. With financial institutions falling foul of regulators due to their inability to meet their transparency obligations – in effect, to deliver accurate and credible data in the right way at the right time – eyes are turning toward improved data management for possible respite.

# A DISRUPTIVE APPROACH TO ENTERPRISE DATA MANAGEMENT

Disappointment with legacy data warehouse platforms is high among financial institutions of all types. Long-running batch processes, ETL (Extract, Transform, Load) systems that have poor audit and dependency on IT expertise are a common source of complaint. The result is a high level of frustration among business analysts who feel that IT is not keeping pace with the change projects the business demands, particularly when it comes to addressing regulatory imperatives.

Modern open source high-performance data bus technologies are providing an opportunity to upturn decades of perceived wisdom and design practices in enterprise data management. In particular, new technologies like Rabbit MQ – an Internet-scale messaging component – are opening new vistas for CTOs, CDOs and COOs long frustrated by the failure of traditional enterprise data bus technologies to make data integration seamless.

ESB (Enterprise Service Bus – famously referred to by Jim Webber as “Egregious Spaghetti Boxes”) is notoriously complex and often misses the mark widely. Instead of cramming in every sort of workflow, business intelligence, and adapter framework inside the ESB platform, modern data bus services are great at ingesting and routing lots of data. Platforms like Rabbit MQ are lightweight, fast and excel at rapid integration. This is what financial markets data managers need as they address the onerous and complex challenges posed by today’s regulatory environment.

# TODAY'S ENTERPRISE DATA MANAGEMENT CHALLENGE

Financial institutions have struggled with data management for decades. Traditional enterprise data warehouses have failed their remit to provide a 'single version of the truth' to power multiple business lines and departments. Despite decades of investment, business and data silos still prevail, inconsistencies are abundant, data costs are soaring and regulators are bearing down on poor governance.

The traditional approach of warehousing data, and then expecting the business to self-serve (via vendor-supplied adaptors or custom queries) to meet the needs of each application that consumes data, has been proven ineffectual.

## THE APPROACH HAS SEVERAL PROBLEMS...

# ...THE PROBLEMS

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### Data model centred

There is no such thing as a single data model that is best-fit for all capital markets applications. Any application supplier that also tries to provide data management as an add-on module is likely to include its own slant and bias. The best data model is the one your consuming application expects to receive. Therefore, multiple data models are preferable to a single one.



### Low agility

Data warehouses are notoriously slow, both to operate and to change. The rate of change across the industry is accelerating and a more agile approach will become mandatory for survival.



### Extreme complexity

The 'one-size-fits-all' mantra of traditional data warehousing leads to very complicated data models and flows. Wiring data to the applications that consume it can become bogged down by semantic overloading. As a result, large element of implementation projects can become understanding what the incoming data means and where to source it, rather than actual plumbing work. This requires scarce, expensive technical resource and there is often a disconnect between IT and subject matter experts.

Some financial institutions recognize that these traditional platforms are no longer fit for purpose. These innovators are eschewing data warehousing and instead opting for point-to-point integration.

Piping data directly from one application to another avoids the data model bottleneck. The complexity of such solutions, however – particularly when large numbers of applications are involved – results in extremely high cost of ownership and potential vendor lock-in. The industry tends to be especially poor at sunset of legacy applications, and so complexity often rises exponentially.

# A NEW APPROACH TO ENTERPRISE DATA MANAGEMENT

At Misato, we believe that data management is fundamentally about transit. We believe that successful data management is a logistics exercise: the right data, at the right time, to the right quality, in the right shape.

Misato Data Hub seeks to be the most agile data management platform in the marketplace. This is made possible by our unique approach to the challenges faced by today's data managers:



## Empowering the business user

Software has become simpler and business analysts have become more technically savvy over many years. The operations team knows the data best, so we aim to put them in the driver's seat.



## Focusing on consumption

We do data management "backwards". By focusing on how data is consumed by applications and then working backwards, we can reduce the amount of translations and physical movement of data required to feed them.



## Using Internet scale components

The availability of high-performance data bus technologies has provided a way out from traditional ETL and data warehouse approaches. Data transit throughput previously impossible or prohibitively expensive is now commoditised.



# USE-CASE: A GLOBAL ASSET MANAGER'S APPROACH TO REGULATORY DATA MANAGEMENT

A \$700bn Tier 1 global asset manager with offices in New York and London needed to produce quarterly regulatory filings across both regulatory jurisdictions. Supervisors mandated the classification of positions and identification of securities that were required to be declared to each body to meet the requirements of the SEC Form PF filing and the EU's Alternative Investment Fund Manager Directive (AIFMD).

In the EU, the European Securities Markets Association (ESMA) requires held securities to be classified five different ways into one of hundreds of categories. In the US, meanwhile, the SEC has a different set of classification schemas. As a result, the asset manager found the same position in the same fund may or may not be reportable in both jurisdictions, and even if they were, may each need to be presented and accounted for differently.

Meanwhile, the definition of NAV (Net Asset Value) is a notoriously nuanced calculation. Regulators have defined the concept of RAUM (Regulatory Assets Under management) to mean the valuations of positions covered by legislation according to a defined formula. This is certainly different to the actual valuations used by the back-office each day.

Making adjustments to the fund accounting system to calculate AUM and RAUM can be extremely expensive. Even if it were possible, it was unlikely that all the positions would be located in one system. The asset manager was running three order management systems across two offices with three portfolio management systems.

Additionally, the asset manager had a complicated history of acquisitions that had left a large legacy IT footprint. The firm's regulatory team was operating two different reporting systems in both offices to produce each filing and wished to consolidate on a single reporting platform. However, the scale of data required to produce both filings was beyond the capacity and capability of the home-grown data warehouse.

## USE-CASE: A GLOBAL ASSET MANAGER'S APPROACH TO REGULATORY DATA MANAGEMENT

The data sources required to support both regulatory filings were complex and numerous. Alongside all the databases inside these systems of record, two third-party administrators (in this case Citibank and State Street) sent dozens of spreadsheet reports in varying layouts containing information that required expert interpretation.

Today, Misato Data Hub sits at the ingress point of the reporting system and embeds this expert know-how in its rules engine. The hub gathers, cleanses and delivers the required data so that the friction of operating the new reporting system is much reduced.

Misato has also delivered superior agility. Changes to data sourcing and semantics are handled by Misato and changes to filings or calculations are handled by the reporting system. Each system is maximising its core competencies, which makes changes less onerous.

# MISATO DATA HUB: SOLVING REGULATORY DATA CHALLENGES

Misato Data Hub can be applied to a host of regulatory data management challenges. Two use-cases have emerged as pressing issues for many financial institutions:

## REGULATORY DATA AGGREGATION FOR SMALL AND MID-SIZED ASSET MANAGERS

Small to medium-sized buy-side institutions operating in the US and EU markets are poorly served by the legacy vendors. AIFMD and Form PF are the two primary regulatory reporting regimes across EU and US, respectively.

These firms are increasingly interested in deploying managed services. Indeed, migrating middle- to back-office and other operations initially to the cloud and then to a managed service offering may emerge as a core requirement over the next five years.

All managed service providers tend to have the same issue – they require clients to provide timely, accurate data into a template in order to be serviced. Misato Data Hub, as a lightweight, delivery focused platform, can be deployed as the on-premises container that connects clients to the managed service providers, and ensures data integrity for mission-critical applications as they are migrated to the new environment.

## MIFID II TRANSACTION REPORTING

Financial institutions based or operating within the EU are currently scrambling to address the game-changing Markets in Financial Instruments Directive II (MIFID II) reform program across EU. MiFID II, building on the 2008 MiFID I regulation, dramatically ramps up oversight and transparency in the EU capital markets.

A small, yet critical piece of this reform is the requirement to report trades in an intra-day fashion to each national competent body in each EU country. In practice, this means that every two hours – or even more frequently depending on the classification of parties to the transaction – each trade must be identified, its security classified and its counterparty uniquely defined.

In total 65 attributes are required for each trade, from both sides. Some of these attributes are difficult to source and require integration outside the order management system. For example, the trader's passport or social security number must be declared on each trade. This is a big change in traditional month-end or quarterly filings usually prepared by the back-office team.

# CONCLUSIONS

Financial institutions need a more agile and lightweight solution to their growing and changing data management needs, particularly in light of emerging complex regulations.

Traditional legacy solutions have failed to deliver on the promise of making clean, accurate, timely data available to all applications across the financial enterprise when they need it.

By leveraging modern Internet-scale technologies, suppliers like Misato Data Hub can streamline data flows and ensure consuming applications take delivery of data that is fit for purpose, whether for business or regulatory reporting.

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