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SYSTEMS LTD.

An Empowered Systems' Case Study



Headquartered in London, HSBC is one of the largest banking and financial services organisations in the world. HSBC's international network comprises around 9,500 offices in 85 countries and territories in Europe, the Asia-Pacific region, the Americas, the Middle East and Africa

The Challenge

In order to calculate their Basel II capital requirements and deliver the regulatory reports required in 2010 by the FSA in UK and Federal Reserve Bank in USA, banks have developed large central customer databases, bringing together customer data and hierarchies from multiple systems.

This presents a major ongoing challenge from a data integrity stand point, particularly for large international institutions and those having undergone recent mergers. In many cases data quality is severely compromised, with missing, duplicated or erroneous records leading to a lack of visibility of exposures and incorrect legal entity hierarchies.

These data problems have necessitated the use of conservative credit grade assumptions, in turn resulting in an expensive overstatement of capital requirements, of particular significance with the current pressures on capital. This is further compounded by the regulators, who continue to set higher individual capital guidance until they are convinced the data is reliable.

In order to alleviate this challenge, HSBC wished to consolidate, analyse and cleanse its master dataset. This initiative needed to group together common customers accounts that may not currently be linked, verify their accuracy and completeness against "golden source" information and ensure their credit and risk metrics were being accurately aligned and consolidated to the correct Parent Entity.

Where the above process uncovers inaccuracies, incompleteness or misalignment, it must proactively alert the correct bank personnel and facilitate the remediation of this information, maintaining an audit trail of any corrections and amendments, by capturing who/when/what data granularity

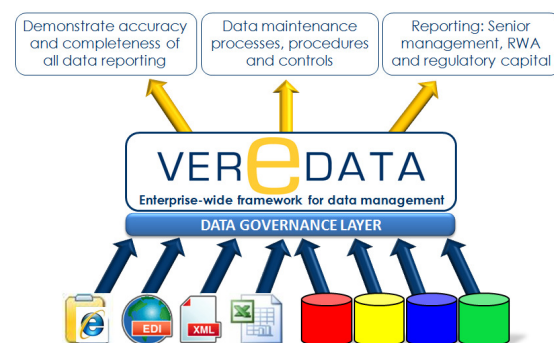
For the Bank, this challenge is not only a one-pass activity of the many of millions of corporate customers, but it must also be able to maintain

the same data quality standards on an ongoing basis, in other words be a robust and repeatable process in Business as Usual (BAU) operation. Only in this way, could the Bank hope to maintain the data quality that is delivered on first implementation.

The solution must therefore be built in such a way that it can deal with regular updates (e.g. Mergers & Acquisition activity) from both internal data management systems and "Golden Source" (e.g. OneSource/BvD) verification sources – external and internal to the organisation

In addition, it is required to match all the facilities data including ALL approved, actual and undrawn limits, utilisation data and collateral to evidence secured and unsecured lending. The Bank also wished to have available a Business Intelligence (BI) suite of functions that would allow "slice and dice" and "multi-dimensional" analysis. This would provide them with views by Sector, Facility Type, Country – or any other permutation thereof.

With all the correct, clean and normalised data in one place it is required to produce reports detailing daily exposure metrics and capital requirements from a trusted and validated source.



The Solution

In response to these challenges, Empowered Systems has developed an automated and flexible data management, cleansing and reporting VEReDATA portal. In contrast to the common large scale data standardisation projects, a toolset is used that has minimal impact on day to day

operations, with a proven return on investment that can be measured in weeks or months rather than years.

The portal applies client defined logic and fuzzy matching techniques to the customer record data, in order to identify duplicates and group together common customers who may currently be stored as unlinked and/or totally independent records.

Once grouped and matched to an internal verification source, these groupings are then fuzzy matched to an external “Golden Source”, in order that their correctness/completeness can be verified by reference to a 3rd party legal entity hierarchical. Not only will this verify the grouping and provide the opportunity for data quality improvement and enrichment, it also verifies that the risk metrics associated with these customers records are being correctly consolidated to the correct Ultimate Parent entity. A key requirement of ensuring the accurate reporting Risk Weighted Asset (RWA) information to the Regulators (e.g. Financial Services Authority)

The in-built workflow within the portal allows for easy review, update, approval and verification of data by the appropriate owners, before updating the internal master system, automatically were possible. Using a portal ensures that location is not a barrier, so, for example, customers can be grouped according to geography for local review and validation.

Having accurate customer hierarchies and credit grades will ensure that capital calculations are more accurate and not based on conservative default credit grades, delivering significant capital savings, with commensurate reductions in Expected Loss.

Empowered Systems is successfully rolling out this portal at HSBC for over 4,000 corporate customer groups with over 2,500,000 records from over 200 bank systems.

The Approach

The approach focuses on establishing a set of processes to clean key customer data and hierarchies, supplying the tools to do this, and putting appropriate resources and process in place to ensure that the data stays clean and up to date as part of BAU.

The project starts with a proof of concept, using a small set of readily available data to establish a clear business case in a matter of weeks.

Key Steps

- Identify all potential sources of data
- Determine the primary internal data
- Identify stakeholders and beneficiaries
- Agree processes and workflow
- Define business rules and reports
- Configure and test the tool
- Plan BAU process to keep data clean

The Benefits

VEReDATA uses a flexible import API to manage multiple sources of data from many systems both internally and from independent legal entities (such as a Golden Source feed).

By building a process and workflow around the basic data comparison exercise at relatively low cost, VEReDATA enables clients to make immediate tangible capital savings and gain credibility from regulators, as well as ensuring that they can price business and make risk based decisions using accurate data.

The mapping of the Enterprise structure into VEReDATA allows multi-dimensional reporting along any desired reporting lines in real time, pulling together the most accurate customer account data available in the bank.

By combining internal risk ratings on customer record data with equivalents from external sources (e.g. Standard & Poors, Moody's from the Financial Times FTID feed), the portal delivers an ability to identify mismatches and to proactively alert internal credit officers when relevant upgrades/downgrades are posted by the external rating agencies.

The benefits of clean and complete hierarchy data extend to the individual business lines that are better able to target cross-selling opportunities from the existing client base of other businesses. To the extent that other internal systems can be updated with accurate data and hierarchies, there will be commensurate improvements in risk based calculations such as pricing and economic capital.

Empowered Systems Limited

Empowered Systems helps customers increase the transparency of strong governance in their control environment to stakeholders and regulators.

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