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BACKGROUND

Over the course of the last 5 years Banks have had to look hard at the bottom line in deciding where to invest while still ensuring that delivery demands, driven by often unclear regulatory changes, are met. This desire to reduce technology costs while maintaining a high level of service has led to a reappraisal within almost every financial institution and to a series of high profile realignments in technology strategy. This paper attempts to highlight areas where cost savings can be achieved without cutting service and asks the question 'what next'?

EXECUTIVE SUMMARY

Various cost saving options already exist and there are successful examples of all of them in the marketplace. All of these can reduce costs, without reducing service, but invariably they have an element of risk associated with them.

These include, but are not limited to:

Organisational Design	Establishing shared services and factory production
Outsource/Offshore	Reduction of cost by either successful partnership with an outsource provider or establishing a captive facility
Creation/Adoption of Standards	Creation of standard components, usually supported by a Service Orientated Architecture Adoption of Industry standards - FIX, FAST, FpML, EDM Council's FIBO
Open Source	Utilisation of open source solutions - Lodestone (not established yet), Open Gamma, Marketcetera, Linux
Consortium Development	Federated ownership of a problem and associated solution by an independent but multiple bank owned entity - MarkitWire, TradeWeb

However, the big question is 'what next?'

It is a useful exercise to ask 'what would you do if you started afresh?' New entrants would almost definitely not build an investment bank in the same way as the ones we have today. Generally though while such an exercise can open up new ideas it rarely leads to radical change due to the legacy and technical debt that all established organisations have. It is a brave manager who turns his ship around 180 degrees and a lucky one who does not sink it in the process. However, in today's environment there is the perfect set of conditions to address cost issues in a more inventive way.

The major current drain on banks is regulatory demands. These demands though are largely consistent across numerous participants which opens up the possibility that meeting these regulatory demands can be federated by consortium, which could focus on:

Data - The data required and its standardisation – data is increasingly an item of real value in a bank

Adaptors - To connect to the standard solutions already present in the market to get this data - then making these adaptors available as open source, for extension, improvement and specialisation

SOA - Creation of a SOA that meets the regulatory reporting requirements associated with Risk reporting and Liquidity

Board members could easily be drawn from member banks and priorities would be set by the whole consortium. The benefits of such an approach should include:

- § The cost to the banks would be dramatically reduced
- § An improved relationship with the regulators - an 'independent' organisation will be driving forward deliveries to meet their demands, in a consistent and transparent fashion
- § The adoption by banks which are not part of the consortium would further reduce costs
- § The public perception of banks could improve – standardisation, simplicity and transparency across the industry
- § The potential to spin off once established is a high probability

ORGANISATION

The fundamental question is what role technology has to play within an investment bank. Banks are not software houses, but the amount spent on technology does make technology groups a large part of the business. When budgets were far easier to come by, it was not uncommon for each business line to have independent systems, often doing the same thing in slightly different ways. The drive for market share and time to market created enough value to afford such extravagance. In the last 5 years a lot has changed in most organisations. Multiple business lines are often trying to move onto a shared platform internally. While a simple reduction in pure Technology headcount cost has been achieved, this has generally been at the expense of an increase in project and programme management costs. The concept of having shared services is logical and is now a common theme in industry discussions. For now it is sufficient to say that the proliferation of systems in the past, often with increased complexity due to merger or acquisition, raised many technology challenges. These were sometimes addressed at a high level, establishing one system, but rarely addressed at the point where the bank holds most value - the core data.

OUTSOURCING/OFFSHORING

There are a number of alternative models for outsource/offshore and this paper will not go into detail in this area. However, there are two concepts that are worth highlighting relating to the form outsourcing/offshoring can take. The first is the traditional request for development and support of proprietary solutions, utilising the provider as pure stretch resource. In this model success hinges on the relationship between the client and provider and the quality of the resource the provider makes available.

The second is the provision of a service to the client. Here the quality is not usually an issue since specific expertise is the reason that the service exists. The downside though is usually the inflexibility of the provider. Examples range from SaaS providers through to administrators for hedge funds and risk management solutions. All these providers succeed due to knowing their domain, however a service business model means that the ability to do something different will be limited or will come at a premium that makes the bespoke service unattractive.

STANDARDS

The adoption or creation of standards is invariably the easiest way to reduce costs within an environment over the long term but one of the hardest to get right. Standards can be considered in two ways:

1. Those relating to the nomenclature and specification of data, interaction and use. Examples can include taxonomy of a grid solution, ISDA's product taxonomy (if you agree the categories you have specified the differences), through to the adoption of FpML as the standard for OTC representation. The difficulties here are having a standard that is universally understood and adopted within a bank or across the industry and controlling the spin-off/start-up of new ventures, which typically reproduce a different and competing set of standards.

Here the role of an architect is well understood, giving this function enough gravitas to police the standards is the difficult part. Successful standards do exist and include FpML, FIX/FAST and XML. However, there are others that are not widely known or are ignored. Examples include MDDL, EDM Council's FIBO and ISO20022 FIBM. They are often worthy solutions but lack general awareness. Many organisations are very insular and will claim they do not have the time or capacity to adopt or keep in touch with developments but generally a big driver is the "not invented here" issue. The drive of financial institutions to have better solutions than their competitors is also one of the reasons why standards have not been that quick to roll out across the industry. However, the right investment even inside a bank in this space can ensure that duplication and conflict is avoided and reuse is maximised. If this was done correctly across the industry as a whole then major savings could be achieved.

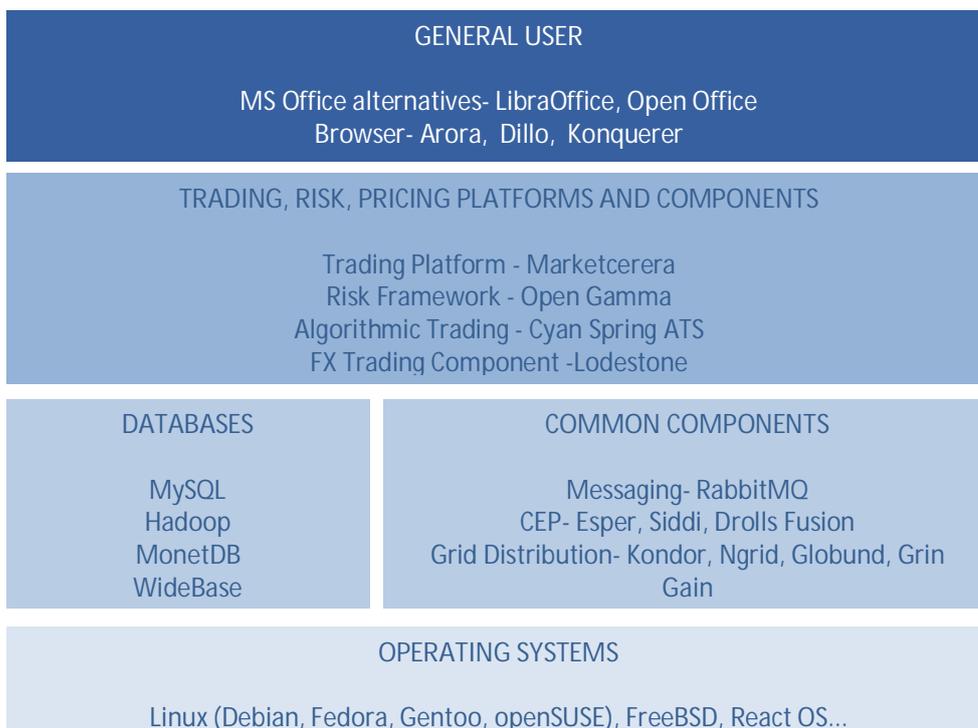
- Standards related to the components themselves. These do not have to be proprietary. If there is a solution that can be utilised for a well-defined problem, and not reinvented across the enterprise then there is the potential for cost reduction. This may be by contract extension and re-negotiation or simply by ensuring money is not spent developing and maintaining numerous competing in-house solutions. This is not 'rocket science' but it is interesting to see the number of banks that struggle with this. The rise of SOA and Cloud architectures has improved visibility in this area, but generally far more can be done.

At this point it is worth looking briefly at data, as it is strongly bound to standards. The data of an organisation is increasingly recognised as its life blood. It is the information required to manage and generate profit for the organisation. Unfortunately, it is a common trend to see multiple versions of the same data and no clear golden source available. This is a particular problem in areas such as counterparty information and market data, especially when looked at from a global perspective. When you consider the cost involved in supporting multiple formats of the same data and the potential for errors when translating between these formats especially as they change, it is clear that having standards that are rigorously upheld and understood can be critical to the success of an operation.

OPEN SOURCE DEVELOPMENT

There has been significant market discussion recently around the use of open source, most obviously with the Lodestone project sponsored by Deutsche. Again there are many models associated with open source development and maintenance, but all try to eliminate the access cost associated with a solution. The cost of ongoing maintenance is reduced by the user community improving the initial product, adding extensions and finding/fixing issues. The initial development still needs to be paid for and this is the most difficult area to address, though this can be solved by having a patron or business sponsor for the initial work. In the case of Lodestone, Deutsche Bank, with other interested banks, would bear that initial cost. In another example, Open Gamma, investors have provided that funding to build an open source risk solution, with Open Gamma expecting to make its revenue from providing an integration and maintenance service to the users of the solution. The success of these endeavours will be measured by the interest of the user community. If a strong user base can be established, such as that enjoyed by Linux, then there is no doubt that open source solutions are very good at providing a first class product. Having many minds look over a code base will always improve on the initial solution created by a single team. However, if there is not that strong user base then the solution is effectively like any vendor or in-house solution, admittedly with a different philosophy and commercial structure, but with a similar level of intellectual input. The success of an open source endeavour will be driven by the number of parties looking for that solution. Here Lodestone, launched to fulfill a need put forward by Deutsche, which may/or may not be in line with the rest of the industry, may find traction problems - only time will tell.

The following diagram shows a number of open source solutions that together could cover the majority of an investment bank's needs.



It would be interesting to gauge how much is either used, or known about, by the industry – the suspicion is relatively little. There are of course many reasons for not adopting open source solutions:

- § Lack of control
- § Lack of enterprise support
- § Difficulty of integration
- § Perceptions of proprietary system competitive advantages
- § Security considerations

However, if you are predisposed to finding (or sponsoring) an open source solution, there are plenty to choose from.

CONSORTIUM DEVELOPMENT

Consortium development is a method that has been used several times, very successfully, within the finance industry. MarkitWire and TradeWeb are two prime examples. A group of banks came together to establish an independent company to build a solution for the industry. In many ways the advantage of reduced cost of access is achieved in a similar way as in the open source model. The main difference is that the company behind the solution is there to guarantee ongoing maintenance and support. The downside to date is that the end solution has not actually been open source, and for this reason the benefits of having a community extending, improving and refining the solution has not been possible. However, in the cases where this approach has been used, the solutions provided have been more than adequate and, due to the large uptake of the end product, the drive to improve has generally been managed via Managing Board requests.

WHAT NEXT?

To date the finance industry has focused on specific issues. For example MarkitWire aimed to reduce mismatches between counterparties, whilst Lodestone focused on not reinventing the FX trading components. What has lacked real traction and proved difficult for banks to really push forward with is the one thing that is most valuable to them - what to do with data. FpML has had some traction due to use by MarkitWire, but even this is not universally accepted. Much more can be done in this area. If addressed consistently and correctly, ensuring that change is accounted for, a key foundation will be in place that ensures order and makes it easy and intuitive to build and maintain.

An approach, using either open source or via a consortium, that looks initially at this data layer is long overdue. We need to look specifically at those areas where regulation is driving conformance. The reasons for this are clear:

- § It is an area impacting every bank – no matter what size or footprint
- § Regulatory response spend is not a game changer for a bank. It is a cost that must be borne, managed and hopefully minimised - banks need to use that necessary spend to achieve positive outcomes
- § The requirements across the industry will always drain a vast amount of available investment and, if addressed on a more collective global basis, will minimise spend across the industry
- § It will aid, improve and smooth the relationship between the industry and the regulators by providing transparency and consistency
- § It should help improve the public perception allowing the industry to point to a focus on transparency and regulatory conformity
- § The timing is right - the rise in business requirements, and the level of standardisation now being requested, driven by the various pushes around Exchange trading and RWA reporting is a significant catalyst

Once data has been addressed - with appropriate adaptors made available to move into or out of this data format from the current standard set of 3rd party systems - attention can then be given to providing a platform that is adaptable enough to provide any regulatory reporting requested going forward.

This would result in an end solution that provides a common and effective set of components for static, market and trade data for all regulatory reporting in an open source, extendable way to all.

Adsatis Limited
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