

Optimising critical banking platforms with analytics

Analytics provides the accurate, quantified insight banks need to drive targeted performance improvements, plan capacity precisely, and manage change – based on real data.





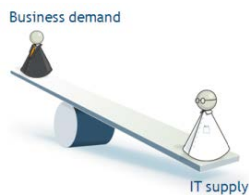
Introduction

In today's fast-paced banking landscape, the smart application of IT plays a critical role in driving bottom-line revenue, improving productivity and gaining a competitive advantage. But given its strategic importance, it is surprising to find that many IT executives are missing the key information to drive targeted optimisation improvements and capacity management. In this introductory white paper, we explain how the analysis and advanced statistical modelling supplied by analytics offers a progressive leap to smarter, quantified IT decisions and operational transparency.

Navigating today's challenges

The economic crisis continues to drive large-scale change and merger activity across the financial services community. In order to remain competitive, hold market share and comply with stringent regulatory requirements - banks have to respond rapidly to change, delivering highly performant, flexible systems that are able to support the changing business dynamics.

Faced with these challenges, it's imperative for today's banking IT executives to understand the dynamics between their infrastructure supply and the business' demand. By doing so teams can progress to a new level of competitive advantage, making incisive improvements to address inefficiencies, de-risk change and target investment where it's most needed. However, gaining reliable insight to fully understand the supply vs. demand picture is an area that many organisations have historically struggled with. The structure of today's banking environments and the information silos it creates fails to provide the joined up visibility needed to drive effective understanding and decision making.



Why an analytical approach works

Put simply, an analytical approach to informing IT decisions will deliver the accurate, quantified visibility and transparency banks need to drive targeted performance improvements, plan capacity precisely, and manage change - based on real data. It enables organisations to answer questions which, although strategic to running IT, traditionally go unanswered or, at best, are answered without the full facts, for example:

- *What business transactions can we currently support and what will be the impact of a change in transaction mix?*
- *How can we reduce latency and optimise performance in our core trading platform?*
- *How can we be sure our online banking service can accommodate our post merger customer base without impacting performance?*

Why it is needed

Given the scale, change and complexity of today's banking environments, there are several key reasons why an analytical approach offers the only real solution to today's challenges.

Cuts through complexity - an analytical approach delivers clear-cut understanding into large-scale IT environments and their interdependencies - cutting through the complexity with powerful modelling and analysis techniques that extract the real factors at play. The resulting insight reveals the underlying relationships and correlations between infrastructure components and business demand, giving unequivocal management visibility and transparency into the areas that need attention.

Criticality of IT for the business - when millisecond delays in processing could make the difference between success or failure in today's high risk, high value environments, it's essential for IT teams to have accurate, quantified information to guide them. By using analytics, organisations are armed with precision insight to make optimisation improvements that have been modelled against key business success criteria - ultimately enabling organisations to gain a performance advantage over competitors.

De-risks and manages change - whether it is overseas markets to tap, new products to launch, or simply everyday operational flux to keep up with - today's banks never rest. Managing high levels of change effectively means managing risk. By using an analytical approach to scenario model change, teams can gain access to fast, accurate insight to understand and assess the impact of change before it happens, and rapidly address post-change outcomes.

The benefits

Banks who apply an analytical approach to the optimisation of their IT environments can expect to derive a range of benefits from its use. The quantified, fact-based decision making supplied by an analytical approach enables teams across the IT organisation to apply its insight to proactive improvements:



Reduce and control costs - through quantified business consumption, performance and capacity modelling, teams can understand areas that achieve best ROI and eliminate waste and inefficiency within their IT estate.



Reduce risk and improve compliance - through precise modelling of IT services, the impact of risk from change can be quantified and effectively controlled, improving agility and compliance controls.



Improve performance and time to market - through identifying potential performance and capacity issues, support and development is targeted and improvements proactively addressed.

Collaborating with a specialist provider

Although organisations can undertake an analytical approach to inform their IT decision making in-house, there are a number of skill, process and resource challenges that can often make it difficult to set-up and maintain on an ongoing basis. By collaborating with a specialist analytics service provider like Sumerian, organisations can take advantage of the dedicated skills, investment and expertise that have been built up over a number of years across a broad range of clients and challenges.



Sumerian's analytics

Sumerian offers a unique range of analytics subscription services that inform IT decision making and optimisation. Using a platform that combines advanced automated analysers with data scientist expertise, the service supplies advanced reporting and deep "actionable insight" into the working dynamics of critical banking and trading platforms - helping teams to concentrate on taking positive, practical action to drive business advantage. Sumerian works with clients to identify the right mix of analytics to supply the insight they need – whether it be improving network throughput, latency reduction, online banking performance, capacity management, cost reduction – right up to datacentre consolidation for mergers and acquisitions.

The Sumerian approach works by connecting and relating layers of granular systems and business data that exist within banking environments - from low-level infrastructure components right up to business processes, transactions and end-users – to make the IT supply/business demand relationships tangible and quantifiable. Sumerian's proven methodology can be applied to virtually any infrastructure domain, service or business process:

1. We **capture** systems generated data from the domain, service or business process under examination.

2. We create a baseline **model** of the current performance, capacity, consumption and cost.

2. We apply cutting-edge analytical and scenario modelling techniques to **analyse** the modelled data.

3. We deliver impartial, repeatable analysis and reporting to **inform** decision making and optimise IT on an ongoing basis.

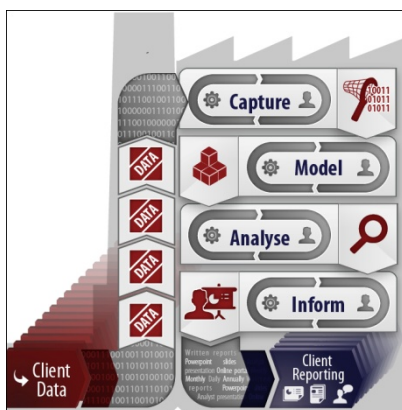


Fig. 1 – Sumerian IQ service model

Applying analytics

Whatever your level of operational maturity, an analytics approach can add value and get you on a firm footing to advance your banking platforms. To demonstrate how its techniques can be applied throughout the IT estate, this section takes a journey through its practical adoption, starting with an example of how capacity and performance analytics can be applied to optimise a domain area such as the network. Moving up the maturity curve we then illustrate how this can be expanded to cover an end-to-end banking service, and, finally, how it can be applied to board-level innovation and strategic growth targets. Each section provides a real world case study snapshot from analysis Sumerian has performed for both retail and investment banks.

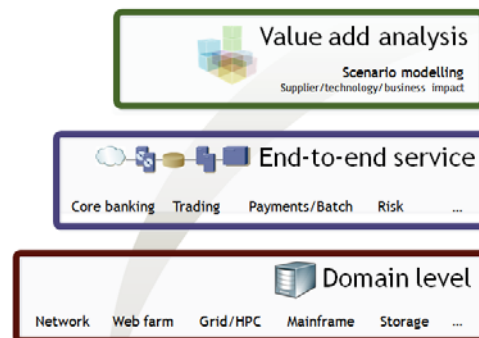


Fig. 2 – Modelling and analysing data: the growing coverage and capabilities of IT Analytics

1. Domain level performance optimisation and capacity

At a domain level, such as the network, analytics delivers actionable insight that builds upon the discrete monitoring toolsets many organisations typically have installed. Although toolsets provide up-to-the-minute performance information, this real-time monitoring doesn't connect the findings into a longer-term, strategic view that enables true capacity planning and performance optimisation to be possible. Addressing this, the analytics approach captures utilisation data for each link across the network, and by populating these metrics into a star schema hierarchy and OLAP (online analytical processing) cube, creates a baseline model of the network's current utilisation. This baseline model enables multiple, pertinent questions to be answered around the capacity and performance of the network, such as:

- What is the current usage across all links in the network?
- What is the Kbps throughput on each link?
- How does this vary over time - hourly, daily, monthly?

Taking this up a level, because analytics creates a baseline model of the network, it can start to add more data inputs (dimensions) into the cube - such as the number of users at each location, the current cost of the network, and architecture topology - enabling an even higher level of sophistication to the questions that can be answered, such as:

- How many more users can we add to the network and what are the associated costs?
- Is our supplier billing us accurately for our network and communications use?
- What will be the impact on network performance if we upgrade WAN links

Case study - Sumerian analyses UK bank's outsourced communications network, identifying £6 million discrepancy

- Outsourced supplier network communications billing required investigation.
- Sumerian's analytics transformed network utilisation data into intelligence.
- Our analysis uncovered £6.3 million pound discrepancies which the bank could then recover.
- In addition, the bank gained visibility into voice and data service for improved ongoing management and contract negotiation.

By capturing and combining data from across the IT estate, business objectives and running costs, analytics establishes a “big picture” model (see Fig. 4) of the current working environment, exposing the hidden correlations that indicate where change will bring about the most benefit from a cost savings, risk and business impact perspective.

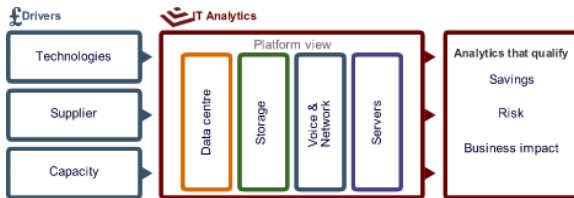


Fig. 4 – Modelling multiple dimensions to inform the most beneficial changes and investments (quantifying cost savings, risk, business impact)

The advantage of scenario modelling is that it can safely answer any number of “what if?” questions around initiatives and change – essentially providing a “pre-sandbox” environment in which to test out ideas before they are given the green light for implementation, answering questions such as:

- *What potential savings can we make by migrating some of our storage resources to a private/hybrid/public cloud?*
- *How can we reduce our overnight batch processing time and where in our infrastructure should we focus attention to improve it?*
- *What cost and environmental savings can we make from consolidating our datacentre resources and switching to virtualisation?*

As with all analytics analysis, modelled scenarios can be quantified against any important business related criteria – enabling initiatives to be effectively assessed against the business’ specific requirements. Once initiatives have been put into action, analytics can track their relative progress against the desired outcome, enabling interventions to be made where necessary and ensuring targeted ROI is achieved. The following case study illustrates how this powerful capability can be applied to gain improved control of costs and identify consolidation opportunities.

Case study – Sumerian helps Swiss retail bank improve IT visibility and identify 10% annual savings in outsourcing

- *Sumerian established baselines of current demand for IT services, comparing these against supplier cost model.*
- *Identified 10% annual savings by reducing allocated resource through consolidation to match measured baselines and demand forecasts.*
- *Provided the bank with quantified visibility into the reasons for high costs, for example, end of month development increasing mainframe MIPS costs, and very low utilisation across certain server clusters.*

Maximising optimisation, delivering value

Today’s tough economic climate, complex environments and high levels of change have resulted in an unprecedented set of conditions for today’s banks. Gaining visibility into the IT supply vs. business demand dynamic is vital for effectively addressing the complex relationships and interdependencies resident in large-scale critical banking platforms. By using Sumerian’s analytics services for informing IT decision making, from individual domains, to end-to-end services, right up to strategic changes and investments, organisations can be sure to continually identify inefficiencies and target investment where it presents the best gains - supporting business growth and competitive advantage now and for the future.

More information

For further information on Sumerian or to arrange a demonstration of our services, contact us on 0141 229 7580, e-mail us at info@sumerian.com or visit our Web site at www.sumerian.com

