Trading platforms

Performance Analytics

Optimised levels of performance are critical for today's investment banks, providing support for key trading processes, reporting functions and ultimately the efficient running of the trading operation. Sumerian's Performance Analytics provides accurate insight into performance bottlenecks and their causes, identifying the factors and infrastructure components that contribute most significantly to poor performance and end-user experience.

The challenges

Gaining a realistic view of performance is often difficult to achieve in today's continually changing, multi-faceted environments, habitually compounded by the following issues:

- **Fragmented view of performance** – although many organisations have real-time performance monitoring tools, these are often siloed by infrastructure or application domain, making it difficult to distil into one connected view of end-to-end service performance.
- **Lack of connection to business volumes** – correlating the overall performance of IT to business volumes and the end-user experience is unattainable.
- **Multiple sources of performance issues** – the many potential sources of performance issues – from inefficient application code to configuration problems such as poorly tuned databases and connectivity makes is difficult to isolate and quantify in terms of overall performance contribution.

How our service works

Answering these challenges, Sumerian takes a unique approach to performance optimisation and its ongoing management. Using our highly powerful analytics platform, we capture, model and analyse data generated by your trading environment, establishing the inter-relationships between underlying system components and the contribution each component has on end-to-end performance. This approach supplies highly precise, repeatable analysis that reveals a connected view of your performance against your current business volumes, allowing you to understand where performance bottlenecks are occurring and how they can be resolved.

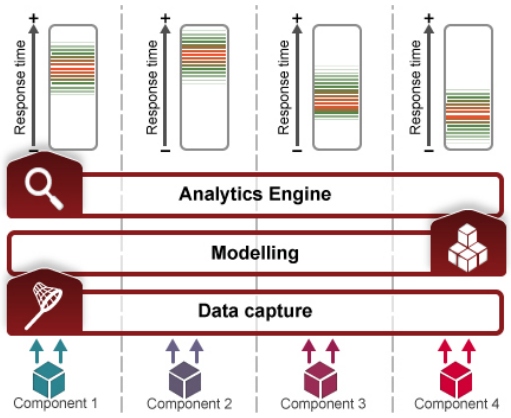

Fig.1 – Sumerian Performance Analytics methodology

- **Holistic end-to-end performance visibility** - supplies you with the insight to understand end-to-end performance in its entirety and how current levels of performance are impacting the business
- **Identifies the root causes of issues quickly** – proactively locates the specific components/application steps that are contributing most to poor performance
- **De-risks change and informs ongoing optimisation** – enables teams to understand which changes deliver the best returns and which areas to invest in for ongoing performance optimisation

Sumerian's advanced approach determines the relationships between underlying system components by calculating:

- The combined, end-to-end performance of all IT components that support a business process
- How business volumes impact this performance
- Which components (applications, network and/or infrastructure) are acting as bottlenecks, or are incorrectly configured

Armed with this insight, we can answer any number of questions surrounding your specific performance management objectives, for example:

- *How well is our system performing for our e-Trade web portal for managing share portfolios?*
- *How can we speed up our market analysis reporting to clients?*
- *How can we improve the performance of our internal report delivery?*

What you get

We deliver a fully managed analytics service, requiring minimal time from you and your team to get underway – and can deliver our initial analysis reporting in as little as 6 weeks.

Fast, secure data cleansing and integration

Using our pragmatic data collection techniques, we capture granular data from across your systems - verifying, cleansing and storing it securely in our world class data warehouse facilities. Our service can take any data, but typical data sources for capacity include:

- **Infrastructure utilisation metrics** – BMC Patrol, ProactiveNet, ITRS, TeamQuest, PerfMon, SAR,
- **Application server logs if appropriate** – Market data handlers, WebSphere, JVM logs
- **Web server logs** - Apache, IIS
- **DB utilisation and transaction logs** – such as Oracle AWR files, Statspack output
- **Network traffic profiling and performance logs** – Packeteer, Wireshark, IP SLA, Netflow, Wildpackets

Baselines IT service performance

Using our analytics platform, we build a baseline model of your system/application environment, correlating the per transaction performance of all underlying application architecture components against current business volumes being processed. By then examining the correlation between business volumes and

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performance per componenet, we quantify the contribution made by each component/application step, identifying precisely where bottlenecks are occurring and the contribution this is having on overall performance.

To enable clear understanding, Sumerian's indepth reporting employes a suite of visualisations to illustrate where issues are occuring – helping teams across the IT organisation to collaborate effectively and understand service performance in its entirity. Where components/application code is impacting performance our service will help to determine what impact this is currently having on the business and any backlog/delay in transactions/end-user experience this is generating.

Scenario modelling and forecasting
The baseline model offers a powerful platform for you to leverage and maximise further. Using sophisticated "what if?" scenario modelling, we can answer any number of questions around your performance management objectives. For example, we can assess the risk, impact and cost of any architectural/infrastructure changes or adaptions to business volumes. The advantage of scenario modelling is that it can accurately answer any number of questions that the business has around performance position, providing a "pre-sandbox" environment in which to test out and de-risk your planning.

- *How will our e-trade web portal perform if trade requests increase by 50%*
- *If we plan to grow our market analysis reporting for clients by 30%, will our database performance be impacted?*
- *We want to increase our client base by 20% over the next year - will our systems perform adequately with this increase and where should we target investment to ensure performance?*

Expert reporting – on demand, repeatable
Our insight reporting is presented to you using a variety of reporting methods, from a tailored, secure Web portal to regular reporting from our data scientists. Key to our reporting is clarity, ease of use and precision - so you can make fast decisions and drive proactive, positive improvements to your IT. Our service is very flexible and easy to re-align, we keep pace with your environment, adapting our analytics to meet your changing priorities.

The outcomes you can expect

Our services will enable your organisation to significantly advance your performance optimisation and management objectives – ensuring you deliver continually high levels for the business.

- **Holistic end-to-end performance visibility** - supplies you with the insight to understand end-to-end performance in its entirety and how current levels of performance are impacting the business.

- **Identifies the root causes of issues quickly** – proactively locates the specific components/application steps that are contributing most to poor performance.

- **De-risks change and informs ongoing optimisation –** enables teams to understand which changes deliver the best returns and which areas to invest in for ongoing performance optimisation.

Intelligent analytics, smarter decisions

Our Performance Analytics is just one of a suite we can apply to your trading platforms. Sumerian has a broad range of capabilities that may be applied to a number of your complex trading challenges. Other analytics we can supply include:

- Capacity Analytics
- Batch Analytics
- Latency Analytics
- Fill Rate Analytics
- Grid Analytics

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**

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