Mike DeSanti
LightPoint

Mike DeSanti is president and CTO of LightPoint Financial Technology. He began working with leading-edge technology 40 years ago, and since the early 1990s his focus has been on applying the best of emerging technology to trading, risk and compliance platforms. He has been a pioneer for many technology firsts on Wall Street, including the early adoption of grid computing and distributed data fabrics, and building the first derivative trading platform to utilise distributed pricing. DeSanti's continued technology vision is reflected in LightPoint's product roadmap.

Empowering business users

Mike DeSanti of LightPoint discusses the continued evolution of the 'virtual workplace', and how LightPoint's technology supports its clients in this journey.

Since our last *HFM* publication in May, the need for remote work has continued, and most of our customers agree that many of the changes they have implemented will be permanent. While the future may involve a partial return to corporate offices, the need for effective solutions for a remote workforce will remain.

This has led to LightPoint's continued focus on expanding our offerings to address the unique challenges of a remote workforce. In our 26 May *HFM* article, we discussed our Workbench as a Service (WaaS), which provides our customers with LightPoint Core capabilities without the need to migrate from their legacy systems. In this article we will introduce LightPoint BAP, our business analysis platform.

LightPoint BAP addresses our customers' feedback that their business users needed to become increasingly self-sufficient while working remotely. The disparate sources of information that firms require for analysis - spreadsheets, reports, dashboards, etc. – was a source of frustration even when support staff were sitting in the same offices as business users. The situation has become untenable in the new environment, and frustration levels are running high. Even firms that have consolidated information with data warehouse solutions are facing difficulties; in many cases, they are reliant on vendors for changes, and turnaround time is not responsive enough to meet their needs. Extending their data warehouse with user-defined fields and new derived computations is time-consuming and costly. Displaying the data in a graphical dashboard requires expensive add-on products. Frequently, data is updated on a T+1 basis, so analysis is delayed by 24 hours. To address these problems, LightPoint extracted our data warehouse out of LightPoint Core. We combined this data warehouse with Microsoft's Power BI environment to provide an open architecture business analysis platform (BAP) that can work alongside a fund's existing systems to provide a cloud-native, open and extensible platform for doing time-series portfolio performance analysis on a hedge fund's data.

The LightPoint BAP is updated from the client's existing OMS and accounting systems. This data is fed into LightPoint's transactional schema in real time. This data provisions the LP data warehouse, which is a bi-temporal star schema that can be updated every 15 minutes, giving a firm near-time intraday information throughout the trading day. This data is stored in an in-memory tabular SSAS model and a multi-dimensional OLAP model for maximum performance, flexibility and extensibility.

Users can access the data in these models by using various Microsoft products. Spreadsheets can be populated using MDX, a query language that is a simplified form of SQL with the ability to perform calculations on the data before it is loaded into Excel. SQL Server Reporting Services (SSRS) is used to produce tabular or graphic reports for email distribution or on demand. Power BI is used for dashboards and views. These are built using Microsoft's data analysis expressions (DAX) language, an intuitive query and formula language. Pre-built LightPoint dashboards are also available. Power BI, SSRS reports, and LightPoint dashboards are viewable on desktops and mobile devices so portfolio managers and traders can access business analysis tools wherever they are.

The OLAP and tabular models are available to end users so they can create user-defined tags, fields and calculations using formula languages similar to Excel. The product leverages Power BI, so on-line training and consulting are available, either through LightPoint or from other vendors. This provides our customers with maximum flexibility when it come to their data analysis needs.

If our customers would like to see their data tick live, they can leverage our Workbench as a Service (WaaS) portfolio analysis product, which supports either SIX or Bloomberg market data. A portfolio manager's user interface enables them to navigate through their fund structure and view detailed data in a customisable pivot table view on the same screen. This view will show all the relevant performance and risk metrics for the fund ticking in real time.

To get more information on any aspects of LightPoint's technology or to schedule a demo, please contact Brandi Gatlin (bgatlin@lightpoint.com).