New technology is redefining the success of the front office

A conversation with Satyam Kancharla, Numerix's Chief Product Officer

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When numbers matter

Realizing a front office with perfectly designed components and software integrations is not some distant pipedream—it's here now. Are you interested? In this new Q&A, Numerix experts explore the transformation being defined by front office traders and how it's shaping new ways of working and doing business.

The landscape of front office technology has seen several developments over the past few years. Some of these include the increasing popularity and use of the cloud, wider use of data analytics, and the accelerated use of technologies that provide enhanced efficiency and flexibility. While the adoption of innovative, next-generation technologies for the front office has been piecemeal and gradual, the industry is certain to see these trends grow.

In a recent Risk.net webinar, Next Generation Technology and the Future of Trading, Satyam Kancharla, Executive Vice President, Chief Product Officer, Client Solutions Group, Numerix, joined contributors who discussed how new technologies are changing the ways financial institutions operate, invest and trade. The group also highlighted how firms, in their quest for increased performance, are rethinking trading infrastructures and are integrating a vast array of enabling technologies to better manage risk and improve profitability.

Jim Jockle, Executive Vice President and Numerix's Chief Marketing Officer, sat down with Mr. Kancharla and asked him to share his viewpoints on some of the key topics featured in the webinar and to further elaborate on the power of next-generation technologies to transform the front office.

James Jockle
Executive Vice President,
Chief Marketing Officer,
Global Marketing & Corporate Communications

Satyam Kancharla
Executive Vice President,
Chief Product Officer, Client Solutions Group

Front Office Cloud Adoption: Too Powerful not to Consider

Jim Jockle: Capital markets firms have been adopting cloud technologies for over a decade now, but adoption has been advancing more slowly in the front office. What gains can the front office experience with cloud technologies?

Satyam Kancharla: We have seen a lot of cloud adoption on the post-trade side, but now we are seeing increasing interest in the pre-trade and trade execution sides as well, including for RFQ analysis, quoting, order management, order execution and the related front office workflows.

A main concern for the front office is around performance. There are questions about whether a cloud-based infrastructure can provide the same degree of performance as is provided with an in-house infrastructure. Another main concern is security. How is all the information, the proprietary data and the proprietary analytics going to be managed and protected?

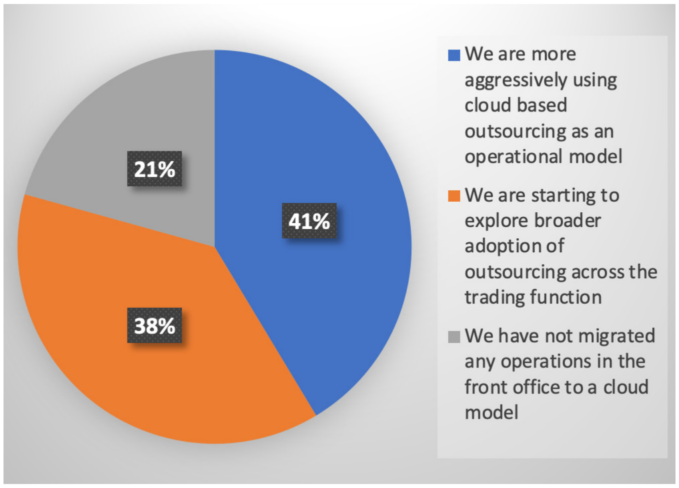
In terms of security, I think one of the reasons there is rapidly growing acceptance of cloud strategies across the capital markets industry is because there are greater assurances as to the cloud's security. In my view, the security questions have been answered. The safeguards have been figured out.

Regarding performance on the cloud, there are no constraints in terms of getting the same degree or even better performance on public cloud infrastructures versus inhouse infrastructures. The benefits of the public cloud are many, such as, to name a few, compute elasticity, greater agility, scalable data stores, artificial intelligence and machine learning (AI/ML) tools, better risk mitigation and reliable response times. On top of that, the pace of innovation that you can sustain on a cloud-based environment is much higher.

What the cloud offers is just too powerful not to use.

Risk.net Poll 1

How has your use of cloud technologies in the front office changed over the last 3-5 years as a result of technology transformation projects, market dynamics/regulatory pressures?



Source: Risk.net webinar, Next Generation Technologies and the Future of Trading, June 16, 2021; audience responses.

No One Size Fits All Approach to Cloud Adoption

Jockle: What have you seen in terms of how the front office approaches the adoption of cloud services?

Kancharla: Many of our clients go through phases of adoption. Phase one, for example, is called the "lift and shift," which means migrating an exact copy of an application or workload from the on premise environment to the cloud just to see how things work. Clients then start taking more advantage of what the cloud uniquely offers through a next set of phases, often multiple phases. Those phases, interestingly, never end because there is just a lot that the public cloud offers that is simply not available on on-prem.

Jockle: Generally, how aware is the front office of the cloud's capabilities and tools? And do clients have a wish list of what they want?

Kancharla: Awareness falls on two points on a spectrum. There are those in the front office who are highly technical and really steeped in cloud technology and data science, and they know exactly what they want. Then there are those who may not have that level of technical knowledge, but they intuitively know what the technology has to offer.

Personalization is an important theme. Traders don't all have the same books. They don't have the same counterparties. They may cover completely different sectors. Traditional technology, however, is just too unwieldy to provide any sophisticated type of personalization. This is where we introduce the aid of AI/ML.

We can use AI/ML to vastly improve the trader user experience by providing better personalization capabilities. We can tailor and tweak the user experience they are getting in terms of the information they are receiving on their screens, the sort of dashboards they are seeing, the data they are getting regarding behavioral patterns, the timings of trades, and so on—all with the objective of helping traders make more informed and better decisions.

Considering AI and Cloud Capabilities for Risk Management

Jockle: How much impact does AI and big data analytics have on improving pre-trading in terms of risk management compared to post-trade risk management?

Kancharla: One of the core principles of financial risk management is the multiple lines of defense concept. Trading is the first line of defense, risk management is the second line, and then audit, compliance, and regulations represent the third line of defense.

Having capable second and third lines of defense can require significant investment and can come with high computational costs, such as for calculating VaR, and can require complex governance and compliance management. So, the objective should be to do as much as you can in the first line of defense so you can worry less about the second and third lines of defense. That means providing insights to the front line of defense as close as possible to the trading decision time, not at the end of the day or at the end of the quarter.

Now with the convergence of big data and AI, we can more completely and effectively leverage large, diverse data sets and advanced analytics to pull out high value, detailed insights and provide front office teams with greater clarity and understanding of the many factors and indicators that could influence their trading business and trading decisions—and do so close to the point of trade.

Jockle: Risk is certainly an increasingly complex challenge for a financial business, so what are the benefits of the delivery of risk services through the cloud?

Kancharla: One cloud model that a growing number of firms are embracing are the multiple benefits and solutions offered by leveraging Risk as a Service (RaaS).

A RaaS outsourcing model offers access to a range of services that can have a direct impact on risk management performance. Such a model could cover use cases to address all major risk types, such as market risk, counterparty/credit risk and liquidity risk, as well as cover every asset class. A diverse collection of capabilities can also be accessed, such as: risk identification and analysis; assessment and monitoring; risk reporting and generating reports for regulators; operations risk and governance, performing complex XVA calculations with optimal efficiency; trade lifecycle management; automation and auditing of business workflows; derivatives pricing; market data management and data enrichment.

In short, taking the delivery of risk services remotely through a RaaS model allows organizations to have significantly greater options and functionality to choose from, including superior flexibility, versus settling into the high cost and efforts of either building inhouse a sophisticated risk management functionality or outright buying one.

Data Management Should Be a Top Priority

Jockle: A poll question featured in the webinar asked the audience what their firm's top priority would be if it were to explore a transformation of its front office trading solutions/operations. While 31% selected better data management capabilities, which was the top answer, it still seems like a low percentage. What is your viewpoint?

Kancharla: Yes, it may be a bit surprising to see this response, but I believe that if this poll were to be conducted again next year, I think the response percentage would be much higher. All financial institutions have some level of data management, but now many are saying they want to do more—apply more and better analytics and capabilities, and have it in real time.

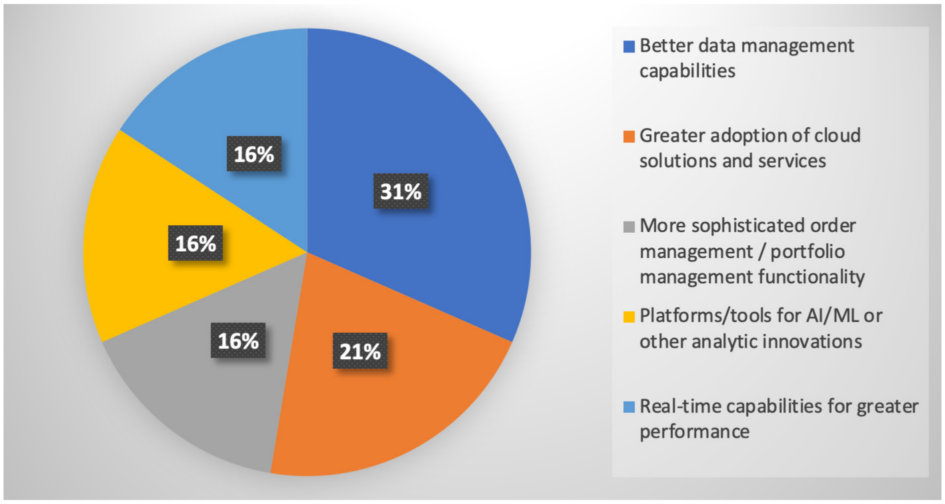
The current environment is a major driver of this focus on real-time data management. Amidst the global pandemic and associated economic turmoil, financial institutions are looking to improve profitability by making better trading decisions and making them faster. At the center of this objective is the need for real-time data, which requires a high-performance database that delivers, for example, millisecond response times and that can store data from multiple data sources.

At the same time, there is no question that risk management is increasingly dependent on data and the importance of embedded powerful data analytics has only grown over the past few years. Firms find themselves under pressure to deploy updated risk models and to be able to run calculations for analysis more frequently—and on more data—for more accurate and optimized risk management.

Now the question is, where does the market sit when it comes to the deployment of modern data analytics platforms? Is it better to build or buy? For those institutions that can make the investments for an inhouse build, then they certainly should do so. For those institutions that cannot make that kind of investment, or don't want to take on the costs of inhouse deployment and the cost of time related to it, then perhaps a shift to data analytics in the cloud represents a solution.

Risk.net Poll 2

If your firm is exploring a transformation of its front office trading solutions/operations, what is your top priority/driver in doing so?



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Next Gen Quant Tools Deliver Improvements to the Front Office

Jockle: While on the subject of technology innovation, let's close by commenting on quantitative research and development, known in the industry as QuantTech, which is quickly growing in popularity. Why are financial institutions exploring QuantTech?

Kancharla: In the world of quantitative finance, quantitative research and development help drive an institution's strategy to the cutting-edge of "what's next." What does this mean? As innovation and creativity are the driving forces behind success, QuantTech can be leveraged to increase productivity and efficiency, as well as modernize trading and risk platforms to help manage risk, enhance profitability and accelerate time to market.

By investing in quant development environments and platforms, firms can address numerous challenges, gain multidimensional flexibility and experience new levels of productivity as they seek to build tailored solutions to address what are uniquely their own business needs and requirements. That's the power of QuantTech.

James Jockle, Executive Vice President, Chief Marketing Officer, Global Marketing & Corporate Communications

As Executive Vice President and Chief Marketing Officer of Global Marketing & Corporate Communications, Mr. Jockle leads the company's global marketing and corporate communications efforts, spanning a diverse set of solutions and audiences. He oversees integrated marketing communications to clients in the largest global financial markets and to the Numerix partner network through the company's branding, electronic marketing, research, events, public relations, advertising and relationship marketing.

Since joining Numerix in 2008, Mr. Jockle has launched the organization's award-winning thought leadership program, bringing to light challenges and insights from Numerix market experts. Mr. Jockle also hosts the Numerix Video Blog to tackle the challenges pressing the derivatives markets—from regulatory issues to trading strategies.

Prior to joining Numerix, he served as Managing Director of Global Marketing and Communications for Fitch Ratings. During his tenure at Fitch, Mr. Jockle built the firm's public relations program, oversaw investor relations and led marketing and communications plans for several acquisitions. Prior to Fitch, Mr. Jockle was a member of the communications team at Moody's Investors Service.

Satyam Kancharla, Executive Vice President, Chief Product Officer, Client Solutions Group

Mr. Kancharla, as Executive Vice President, Chief Product Officer, is responsible for corporate strategy and currently heads the Client Solutions Group at Numerix. This group is responsible for Product Management, Financial Engineering and Business Analysis. Prior to this, he has served in various roles in Quantitative Software Development, Financial Engineering and Client Services at Numerix. Before transferring to Numerix in New York City, he was the CTO for Numerix Japan LLC in Tokyo, heading the Pre-Sales and Financial Engineering teams for Asia.

Prior to joining Numerix in 2003, Mr. Kancharla also worked with Merrill Lynch and GE Capital in Quantitative Finance and Product Development roles.

He holds an MBA degree from New York University's Stern School of Business, an MSc degree in Applied Statistics and Informatics from Indian Institute of Technology, Bombay and a BScin Mathematics and Computers from the University of Mumbai.

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