



IN CONVERSATION WITH **BILL FEARNLEY, JR.**

Senior Analyst, Securities & Investments, Celent

Social, Mobile, Analytics and Cloud (SMAC) has been one of the buzzwords across the IT industry. In this exclusive interview, Bill Fearnley, Jr. – Senior Analyst with Celent’s Securities and Investment group, talks to Wipro about the adoption, trends, success stories, and the road that lies ahead for Capital Market firms when it comes to SMAC technologies.

I. How has been the adoption of SMAC across the capital markets industry?

“ The capital markets industry has been increasing its use of SMAC and many firms use them in day-to-day business. Indeed, there has been steady activity in all four domains.

We see an increasing amount of social media activity in financial services. For example, capital markets professionals are networking through LinkedIn as the sell side and buy side use it to keep in touch with colleagues and counterparts. However, tracking social media and personal emails to customers can be difficult for the risk and compliance managers to track. Some firms limit access to personal email on company provided devices in an effort to reduce customer communications outside of company email and messaging systems as well as increase employee usage of approved systems.

In mobile technologies, many sell side firms have apps for customers that let them access research notes and reports on smart mobile devices, especially tablets. Increasingly, sell side

firms are also adding alerts to their research apps based on client interests in specific asset classes, tickers and segments. To help executives and managers access data and reports, many firms have released internal apps to give employees access to trading and risk management data as well as reporting systems from mobile devices.

Big data and analytics is gaining momentum as firms look to add new sources and types of unstructured data to their quantitative and qualitative analytics models. For example, risk management firms are using new types of data to discover insights that improve their operational and reputational risk monitoring. In the front office, firms are looking to process advanced analytics more quickly to support electronic and program trading.

Capital market firms continue to embrace cloud computing and many have established private clouds. Going forward, we expect more firms to expand their investments in private and hybrid clouds to support the delivery of software and data as a service.

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2. What are the challenges that are holding back capital market firms from adopting this technology stack?

“ Security and integrity of customers as well as company data continues to be a concern for firms that are considering or deploying SMAC technologies.

In social media, firms are monitoring and analyzing comments about their companies, brands and competitors as part of their monitoring of reputational risk. Many firms are increasing their investments in social media analytics to help separate out the important information and actionable ideas from all of the “noise”. For example, some firms have deployed analytics to help them track the accuracy of social media commentary in an effort to determine the most valuable sources of data because most postings are often made under a screen name.

In mobile, the major challenge is generating a target return on investment (ROI) from the content made available through the app as well as the app development costs, especially development on multiple OS platforms. Aggregation of data from disparate systems to deliver information with low latency can be a challenge especially for transaction systems. However, despite these challenges, capital market employees and customers expect access to data and information through mobile apps that are as good if not better than other apps users have on their

devices. As a result, we expect mobile device support and app development to remain a priority in capital markets.

Data analytics can be complex and is often an iterative process. Many firms are looking to continue building teams that have a combination of skilled technologists and subject matter experts (SME) from the business side of the firm. For some, expanding their analytical capabilities is a challenge because of competition for staff from other financial services firms and other industries as well. Capturing and gathering new data sources, especially unstructured data, has been a challenge but this is getting easier and less expensive with the combination of open source software tools and commodity hardware.

When deploying cloud solutions, Capital Market firms will remain concerned about security especially in multi-tenant (public) deployments. Most firms are deploying private clouds although we do see increased demand for market data feeds from third-party providers that use the public cloud. Over time we expect an increase in hybrid clouds although many firms will need to gain more experience in dealing with the complexity of negotiating service level agreements (SLA) and working with third-party providers.



3. What trends do you see in the adoption of SMAC by capital market firms in the medium to long term?



The future view is positive as security tools mature, related fears are allayed and SMAC becomes more pervasive in our daily lives both – personally and professionally.

I expect interest to grow in the use of social media and regulations are worth watching as they are updated to address issues such as disclosures. For example, detailed disclosures are easy to add to written notes and reports but impossible to add to Twitter given the limited number of characters. We expect regulators to develop more detailed guidelines as the investment community looks to do more in social media. For investment analysis, an increasing number of firms are using analytics to evaluate the editorial value and accuracy of specific Twitter accounts in an attempt to track the “trustworthiness” of the content. Despite these challenges, investment firms are increasing their analysis of social media.

Smart mobile device sales remain strong and we expect to see more Capital Market firms supporting Bring Your Own Device (BYOD) programs as more employees look to use their personal devices to access the firm’s information and systems. To reduce the risks

from lost or stolen devices, we expect firms to continue to restrict what types of information can be accessed or stored on employee owned devices. Firms continue to develop new apps to provide new access points as well as new data and information on smart phones and tablets. For example, UBS is making more of their systems data available to employees on smart mobile devices, especially tablets.

In analytics we expect to see an increased focus on predictive and prescriptive analytics as more projects move from the pilot stage to departmental or enterprise wide deployments. Getting more sophisticated analytics into the hands of business users is a goal of both capital market firms and technology providers. In addition to better and more business user-friendly tools, education and training can help business users to access and leverage advanced analytics. Increasingly, firms are using sophisticated analytics to glean new and actionable ideas from new and diverse data sets such as web content, contracts, social media, filings and transcripts.

Cloud deployments by Capital Market firms are likely to see steady growth. Although firms remain concerned about data security they are also looking to the cloud to take advantage of cloud computing benefits including: scalable capacity, improve system availability and disaster recovery (DR).



4. Can you share some of the SMAC success stories within the capital markets space?



Despite some of the concerns about these new technologies, many have been deployed at leading firms and have also spurred investments in acquisitions and partnerships.

In social media, an increasing number of firms have been using social media to announce company updates as well as a new marketing channel. For example the CEO of Netflix posted a comment about reaching a subscriber milestone on Twitter and we have also seen some hedge funds make comments about their investments in social media as well.

In mobile, many Capital Market firms including J.P. Morgan, Goldman Sachs and UBS have multiple apps covering sell side research, marketing strategy and other reference tools for investors. Firms have also made investments in mobile technology. For example, J.P. Morgan

has invested in GoPago a mobile payments developer and UBS has invested in a mobile platform developer, Framehawk.

Analytics is gaining momentum as well and many firms have made investments and improvements in their Big Data and Analytics capability. For example, Citibank is leveraging Big Data and Analytics for regulatory reporting and Goldman Sachs has developed Gigabus, a proprietary data management platform.

Many firms have deployed cloud-based solutions, and most have deployed private clouds and have benefited from data center redesigns and consolidations. Examples include Credit Suisse and their deployment of hosting platforms for computing and database capacity. Going forward, we expect many Capital Market firms to move an increasing amount of their compute capacity to a platform and services model. In addition, firms are using detailed analysis and zone-based data centers to reduce latency in cloud deployments.



5. What are the specific opportunities for IT and Outsourcing partners such as Wipro?



Increasingly, SMAC technologies are being deployed and these deployments are being integrated with existing systems. IT companies such as Wipro are equipped to work with these technologies and integrate them as well. As a result, they are one of the providers well positioned to help capital market users make the best use of SMAC technologies.

In social media, outsourcing providers can perform analytics on Twitter feeds and blog postings to provide sentiment scoring and accuracy analysis. Providers can help analyze whether social media comments are being posted by investors trying to influence news to affect investment performance? What is the accuracy of previous comments by this user?

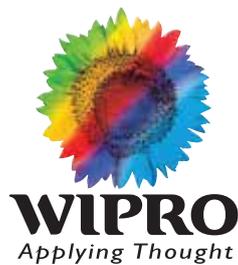
In mobility, there is an increasing desire to transform smart mobile devices into digital assistants. For example, after a mobile user leaves a series of meetings or steps off a flight, they want their device to provide and prioritize their most important alerts, e-mails, and

voicemails when they look at their device. Another opportunity is developing search and alert capabilities for news/events that are of interest to analysts, traders and risk managers.

Outsourcing firms working in the analytics space can organize trainings and workshops to help employees at Capital Market firms get up to speed on the latest in data analytics, visualization tools and processes. Other opportunities exist in the development of “actionable analytics” that can help firms improve their customer and prospect marketing efforts as well as improving next best action analysis to improve customer service and retention. Increasingly, firms are looking to develop new business rules and procedures through the deployment of new Big Data and analytics tools. Many are turning towards third-party providers for advice and help.

In the cloud, opportunities for providers include data center consolidation and migration services. Also, providing data management services to address governance, regulation and compliance (GRC) challenges, for firms that are especially operating in international markets.





About Wipro's Securities and Capital Markets Practice

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