

# COMPLEX EVENT PROCESSING AND BI

## A Symbiosis in the Lurch

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The army of Nazis was brought to a crushing defeat in the winters of Russia. Adversarial moves were all accounted for but the army still lost, notably to the harsh Russian winter than the Russian army. Yet again, elaborate planning lost out due to the ignorance of on-the-ground reality and timely adaptability. History repeats itself, albeit lacking the war drama, in today's banking IT environment in the form of silo approaches to insight delivering Business Intelligence (BI) tools and real-time action oriented Complex Event Processing (CEP) Engines. In isolation, either it is sub-optimal but together, they complement each other. This symbiotic relationship is obvious. A step back helps us appreciate this, especially in the context of Retail Banking.

Today, BI as a solution falls short in two different areas. The shortfalls are as much a function of products designed in the space as is the relevance of the value that the BI paradigm promises. In the knowledge economy where activities are being driven through insights and knowledge more than ever, the imperative of BI is a given. However, the value of information and insights comes with the caveat of a window of opportunity usually bound by time. Hence, what could have been empowering information at a certain point of time, becomes 'aha' moments, if only, in hindsight.

The second and perhaps more important insight as to the pitfall

of BI is associated with the consumption of the solution itself. The phenomenon of big data is on us and the volumes of data involved are mind boggling. Ease of use and bringing data to real life is much needed now than before. Consuming this large amount of data is in itself a challenge but there is now a second dimension which involves effective presentation of this information in a user-friendly manner so that it can deliver insights. This is where traditionally designed software are struggling now as the amounts of information that are getting electronically assimilated is way too big in every dimension to lend itself naturally to a 'dashboard' delivery except when exceptionally designed.

In the same vein, CEP on its own lacks lustre in two complementary ways. The immense value offered by CEP engines is agility which it provides by using immediate facts and time-based trends. The importance of reaction time is important but the imperative to stay real-time does not accommodate a holistic outlook. That being said, the solution itself has a tendency to favour the power user. The level of investment to become a power user itself is a luxury few can afford.

But together BI and CEP complement each other. So while focus of CEP remains on 'now' and that of BI on 'past' the inter-linkage and enrichment of 'now'

with wisdom of 'past' is a marriage waiting to happen. In the future, one can envisage that technology will be able to provide a solution that is capable of bringing the best of both worlds together in one solution. In some ways, this trend has already taken off, while some CEP engines are embracing analytical capabilities akin to its high end BI counterpart, a lot of momentum is picking up in the real-time BI space. The upcoming space of Customer Experience Management or CEM tries to address this very space but powering interactions with real-time, intelligent insights. The opportunity in question is immense. Making carpet bombing approach towards marketing obsolete, increasing per employee productivity and greater customer loyalty are just some of the benefits. The objective is true customer engagement.

Banking has traditionally been the highest tech spender as well as an early adopter of IT innovation. This is particularly true in retail banking which is interaction and channel intensive thus requiring complex IT setups. Arrival of social media has literally put enterprises including banks in the spotlight where good news spreads fast but bad news even faster. An unsatisfied customer just has so many more avenues to vent out frustration and in turn, destroy hard earned brand reputation in seconds. While the spectrum of software utilised in retail banking has increased manifold, the underlying premise

of using the data in right way at the right time still eludes most.

In today's competitive landscape, chances are that a customer has been lost if opportunities are not acted upon immediately. On the flipside, with increasing frauds in banking, real agility when coupled with instant insights are just as effective and essential in

preventing frauds as well. To summarise, quality and timing of customer interactions are both essential to enterprise decision making and the solution lies in the merging of complementary solutions of BI and CEP. Who can argue that this could have very well rid the German army's chink had it been available to them at the right time? ■

## IN BRIEF

**Last month, NSE announced the certification of FlexTrade Systems, which is a broker-neutral multi-asset algorithmic trading systems specialist. The Asian subsidiary of the New York-based firm, has now been registered as a Foreign Independent Software Vendor (FISV) in the capital markets segment and futures & options segment of the NSE. The vendor will now provide its clients with a live feed to NSE for trading equities, options and futures. The vendor, which opened its Mumbai office earlier this year, believes that this certification will assist them in expanding their business in the Asian region. The Mumbai office joins FlexTrade's primary sales and operations centre in Singapore and a sales office in Hong Kong. The surge in growth of high-frequency trading (HFT) solutions is primarily because of the recent announcement made by Sebi, which is looking into the possibility of interoperability between the country's two main stock exchanges, NSE and BSE. This will facilitate aggregated clearing and bring down the cost of trade significantly in the next two-three years.**

Thomson Reuters has launched Elektron at NSE. Elektron, a cloud connectivity product, will offer trading firms low latency access to data required to formulate and speed up algorithmic trading strategies. The new solution, implemented to deliver high speed connectivity to the exchange's data is based at the NSE's co-location facility in Mumbai. Analysts estimate that volumes of algorithmic cash equity trading in India are expected to be more than 20 percent of the overall trading volumes in the Asia Pacific region by the end of 2012.

New technology developments are bound to drive the uptake of algorithmic trading in the country. The service will connect traders to NSE data at high speed and provide trading firms with access to data on stocks, bonds and other financial instruments. Additionally, the Elektron data service will also supply machine-readable news. The NSE is now a part of the Elektron community, which has more than 80 premium low latency venues available through direct exchange connectivity, and over 350 markets available through its real-time feed solutions.



### Biography

*Rivi Varghese co-founded CustomerXPs after a long stint in the IT products industry. He spent over 15 years perfecting the end-to-end art of conceiving, delivering, marketing and selling new products. Rivi has significant international experience across 20 plus countries - a good mixture of advanced, emerging as well as the Middle-east. He has interacted with senior management of more than 200 banks and was instrumental in opening new markets for these products.*

*During his stint at Infosys' Finacle as Head, Product management - Delivery channels - he conceptualized and delivered 12 new-to-the-world products which are being used by leading banks globally - leading to some banks winning global awards for the same. As a multi channel expert, he has enabled banking in all possible channels. At Microsoft, as product manager, he was responsible for the developer tools business for India, which also included management and fostering the software marketing channel sales end-user ecosystem in the country. Rivi holds an MBA from IIM-Bangalore and B-Tech from IT-BHU.*