Real-time network analytics tools help network operators to harness the value of big data and successfully monetise their data assets.

Polystar helps operators monetise on big data

Erik Couture: Having a big data strategy in place becomes vital for communication service providers not only to run their operation better, but also to find new ways to drive revenues and grow their business

"Polystar provides turnkey, end-to-end solutions from data capture to business analytics"

Social networking, machine-to-machine services, real-time consumer behaviour, location-based services and mobile commerce drive the need for advanced real-time data visualisation.

The telecoms industry might be the richest segment when it comes to data collection and data handling. Billions of records are handled every day by the operators with massive quantity of extremely valuable data being transacted.

Customer data and behaviour patterns are extremely valuable assets that communications service providers possess. However, the benefits for using this data are sometimes underappreciated. Operators across the globe are starting to realise the huge potential of the data they have at their fingertips. They are extremely well positioned to determine customers' preferences and capture new business opportunities, as they own this data. The masses of data passing through the telecoms networks help operators run their business more efficiently, if analysed and evaluated properly.

Several recent industry studies indicate the growing necessity for the operators to reconsider their business models and the need to better adapt to new market challenges. Continuous decreases in margins caused by market saturation and increased competition, low average revenue per user (APRU), high costs for new customer acquisition and the massive investments involved in rolling out new technologies are all motivating factors for operators to search for innovative ways of running their businesses.

To gain a competitive edge, network operators need to fully exploit big data and use it to provide value-added, and customised services to their end-customers.

"Big data is a new buzzword, but it's an old concept," says Erik Couture, who is executive vice president for global sales and marketing at Polystar, a supplier of service assurance, network monitoring and test solutions for the telecoms industry.

"If you follow the generally accepted definition for big data, Polystar has been in this space for long, even before big data was known as a topic."

Unstructured data

For years, Polystar has been using unstructured data coming from the network and presenting it in a meaningful and simple way. "The concept is to extract, convert, store and report the data to get business benefits out of it. We've been doing this for years with respect to one specific function — network performance — and now there is an opportunity for us to use all our knowledge and experience — and the same data — for other purposes."

It's a very new field, Couture concedes, "but we have the solution already in place that brings immediate value from big data to the service providers."

Polystar's suite of solutions includes tools that help operators and manufacturers provide the best possible customer experience to their subscribers. Its innovative product portfolio supports the complete lifecycle of new services and technologies offered by the communication service providers.

Using its data-gathering and monitoring functionality of OSIX together with its visualisation technologies of Jupiter, Polystar allows operators to gain

terns, provide precise information on their location, devices and services they are using and pinpoint root cause for deeper investigation.

Finding and fixing issues more promptly leads to higher call quality, more profitable service and in the end, increased customer satisfaction and reduced churn.

The real time view also helps operators optimise the usage of their network that translates into substantial savings, as the network is a very valuable and expensive asset and its optimisation means millions of dollars in savings.

Quality of service

Finally, because of Polystar's ability to display views all the way down at the transaction level, operators can also assess the quality of service down to the individual subscriber's level. With that, they can be more efficient in resolving issues when a support call is placed at their call centres, for instance. This obviously brings all sorts of business benefits.

"About 85% of the world's data is unstructured now, and it is growing faster than the 15% that is structured data," says Couture.

> # "It is still early days in the cycle of the big data market. There's a growing vision about what big data can do. Big data is a mind-shift, a big cultural change."

the business intelligence they need to meet constant market changes and remain competitive.

Big data analytics tools enable service providers to move from reactive to more proactive use of the data, turning this into actionable business intelligence. Proactive network analysis allows companies to predict problems and correct them before they impact the end-customers.

Improving the customers' experience and service level is absolutely necessary to stay in the game. Being able to predict customer behaviour is key to maintain and increase customer loyalty.

New service offerings

It costs five to 10 times the original investment to gain a subscriber back. In order to understand market and behaviour trends, data scientists and marketers need to have continuous access to the raw data. And that is where big data comes into play. Service providers can discover new service offerings and even new markets by looking inward at the data they already own which is running on their network.

Polystar has been very successful in analysing what has happened in the past and what is happening in real-time on the operator's network. With real-time network analytics, quality issues can be identified in minutes, rather than days.

Nowadays, historical business reports on activities that occurred back in the past are no longer the option. This has been replaced by capturing and analysing trends in real time.

By analysing unstructured data coming from the network, analytics tools can grant a comprehensive view on the subscribers' activities and behaviour pat-

Polystar' solutions have been enabling service providers to collect and manage these massive amounts of unstructured data that are difficult to analyse and handle using common database management tools.

Typical challenges in that area include capture, transformation, storage, search, analysis and visualisation of the unstructured data sources in order to ultimately get business value out of it.

Basically, this is exactly what Polystar does. Polystar's systems "capture billions of records every minute — that's big data. It's instant, it's massive", he says.

Not only can Polystar provide an end-to-end solution for network operators' marketing and operations departments, but it can also feed other systems and be a source of enriched data for third-party solutions or home grown applications.

The xDRs — the transaction detail records — provide service providers with enriched network information, including both signalling and user data metrics. The xDRs created by Polystar's solution provide added value for third-party applications such as customer experience management, fraud, roaming management, revenue assurance, interconnect billing reconciliation and OTA systems.

The xDRs are used in correlation with other types of sources in order to feed and support the operators' big data strategy.

"It is still early days in the cycle of the big data market," Couture points out. "There's a growing vision about what big data can do. Big data is a mind-shift, a big cultural change. Polystar possesses the tools to address this opportunity and deliver immediate value to network operators both on the operation or on the marketing side." ■