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TeliaSonera

The leading telecommunications company in the Nordic and Baltic region (with presence in 19 other countries) strives to provide the industry's highest quality telecommunications services.

TIBCO Spotfire Enterprise Analytics Helps TeliaSonera Maintain Market Leadership in Telco Services

For TeliaSonera, providing the best quality products and customer service is what it's all about to maintain its leadership position in the market.

The company is continually looking for ways to expand its service offerings in existing and new markets and is determined to lead the migration to new mobile and Internet-based services. At the same time, providing excellent customer service is imperative, especially with the first impression – the point of purchase and installation.

In late 2007 TeliaSonera selected TIBCO Spotfire enterprise analytics platform to help it monitor its end-to-end order provisioning process in Sweden and Finland. Gunnar Fagerstedt and Eva Skoog, IT Solutions Managers with TeliaSonera Sweden recently shared their experience using TIBCO Spotfire®.

With the analysis and resulting reports, the E2e team can document and present to higher management some problem areas that – intuitively – they knew existed, but were never able to visualize before. And if management has additional questions – with Spotfire®, it is easy to satisfy their requests immediately.

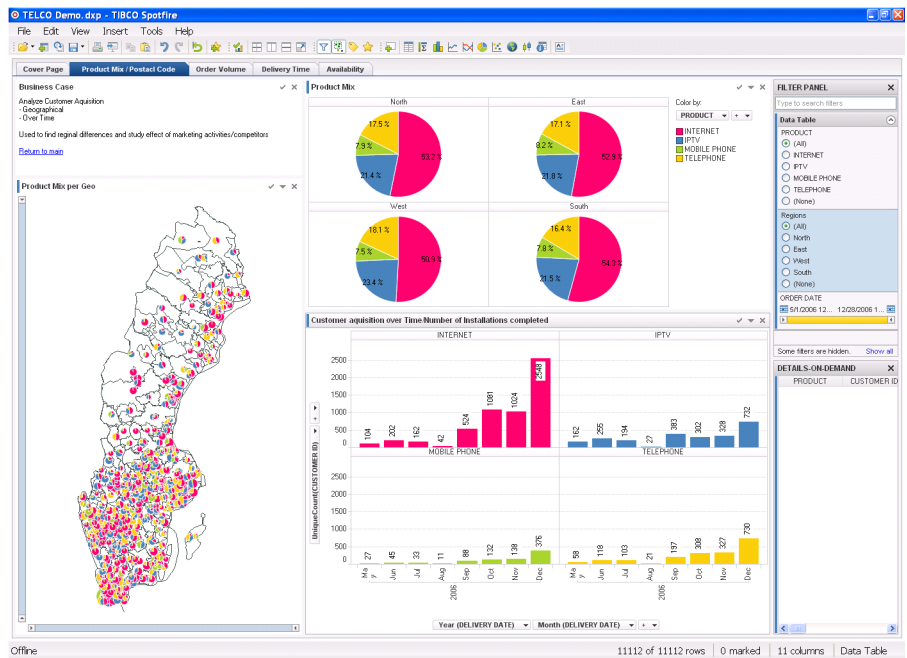
BUSINESS CHALLENGE

As services like telephone and Internet access become commodities, TeliaSonera strives to excel in quality of service – delivering what the customer wants, when they are promised it. That’s the best way it can truly differentiate itself and charge a premium for its products. In fact, the company tout its “easy-to-install, easy-to-use” positioning as a strategic advantage over other telco operators. To achieve this, TeliaSonera is continually looking to improve on the installation of services ordered, both in terms of precision and lag time from order placement to installation.

TeliaSonera’s End-to-end (E2e) management team is tasked with monitoring performance at the points of product ordering and service installation, specifically for the bundled services of broadband and digital TV. Its multiple product ordering systems and sales channels (via website, by phone with customer service or purchase in a

retail shop) generate a large volume of data feeding into a host of IT systems, presenting a daunting challenge to identify problem areas so that they can be addressed in a timely manner. For example, a broadband connection order may involve six or seven different IT systems that need to interact. Data is collected from each system into a data warehouse, but the E2e team lacked an integrated way of accessing it on a day to day basis to look at the whole picture of order processing.

TeliaSonera had some reporting applications in place. For analysis however, the E2e team was confined to using a home-built system and manually manipulating the data in a series of Excel spreadsheets in an attempt to measure service performance. The team spent many days trying to perform meaningful analysis but never achieved satisfactory results.



"Since we started using Spotfire the team was keen to use it from the start, given how easy it is to learn and see immediate results. And the support from the Spotfire team has been superb."

**Eva Skoog, TeliaSonera
IT Solutions Manager**

"I [particularly appreciate] its simplicity and intuitive interface. I can drag an Excel spreadsheet right into Spotfire, then join it with another spreadsheet from another data source and immediately start working with the information."

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IT Solutions Manager**

SOLUTION

"We knew that we needed a new analysis tool; we had talked about it a lot," recalls TeliaSonera IT Solutions Manager Eva Skoog. "Someone else in TeliaSonera became aware of Spotfire, showed us the tool and we said 'yes, let's try it.'" The E2e team decided to do a proof of concept and immediately liked what they saw in the visual data analysis platform. They came up to speed quickly – after only two days of training, some additional hand holding and quick resolution of some initial support issues. No custom development was required in order to start using Spotfire enterprise analytics.

"For the first time, we have a tool that enables us to analyze data quickly and easily pinpoint problems and look for trends," observes Gunnar Fagerstedt, also a TeliaSonera IT Solutions Manager. "With Spotfire we can see them in real-time. Without Spotfire it is almost hopeless for us to do that." For example, using Spotfire enterprise analytics, the E2e team spotted a problem with the fulfillment of bundled products.

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Previously the E2e team was limited to being able to view individual static reports from each of the systems an order passes through before it is complete. For the first time, Spotfire enterprise analytics enables the solutions managers to accurately rate performance and isolate problem areas because the software automatically rolls up all of the data from the website, CRM and multiple delivery systems in one common database where it can be easily accessed and analyzed.

Two different types of users interact with Spotfire software in the IT solutions group. Managers like Skoog are not technicians and look to colleagues like Fagerstedt to set up new data links to the various data sources. But once that's done (a quick process), Skoog can interact with the data however she wants to make her reports, proving that you don't need to be a technical person to make the most of Spotfire software's analytic capabilities. That would have been impossible with the old manual process. Now they have a simple tool that enables them to concentrate on what they want to look at, without having to be technicians. "For many on our team it has made a huge difference – it's much easier to isolate and drill down into problem areas," says Skoog.

The E2e team is now delivering data to top management every month in the form of interactive reports with their comments attached. They're even delivering analyses to the data people themselves – the data warehouse group. Lots of people throughout TeliaSonera are interested because the visual reports are so compelling.

What Spotfire enterprise analytics capability does E2E-Solution Manager Fagerstedt appreciate most? "It's simplicity and intuitive interface," he says. "I can drag an Excel spreadsheet right into Spotfire, then join it with another spreadsheet from another data source and immediately start working with the information." Skoog appreciates Spotfire software's filter panel that enables her to select and deselect criteria and easily visualize trends across disparate data scales by enabling independent scaling per Y-axis in scatter plots and line charts. She can toggle scaling per color, trellis panel or line and set scale properties for each individual axis.

RESULTS

Overall the E2e management group is really impressed with the ease-of-use of Spotfire enterprise analytics and the business benefits they are achieving with it by finally having real insight into service delivery issues. Of huge importance is the ability to quickly slice and dice information to spot and alert the organization to specific problems being experienced by the interaction of IT systems.

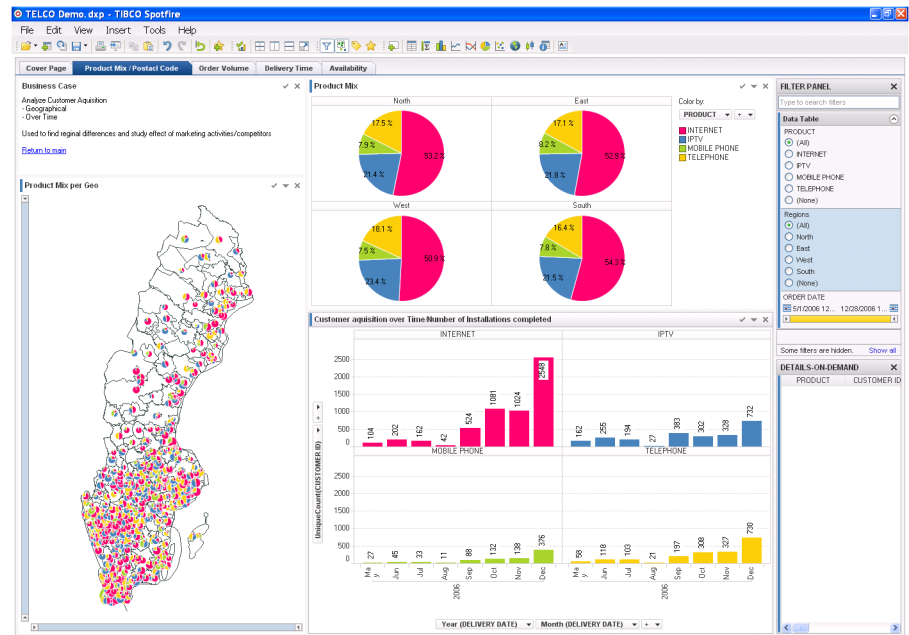
What's more, with the analysis and resulting reports, the E2e team can document and present to higher management some problem areas that – intuitively – they knew existed, but were never able to visualize before. And if management has additional questions – with Spotfire enterprise analytics, it is easy to satisfy their requests immediately. One of the reports TeliaSonera is most interested in shows installation rates across channels and presents graphs depicting the amount of days elapsed between order placement and installation, how many orders were installed in time vs. not in time and of the orders not installed in time, the average number of days the installation was delayed.

The CFO measurement group and the rest of top management are so impressed with the interactive reports and the E2e team's new insights that it has added Spotfire software analyses to their management objectives. "Management has come to expect more from us as a

result of having Spotfire in our arsenal of tools and there are plans for us to apply it to new areas of analysis, such as VoIP and datacomm service delivery," notes Fagerstedt.

Looking at service delivery by geographic area is also planned for future analysis in Spotfire enterprise analytics, to further refine installation precision. This is something that TeliaSonera now has implemented for the Finnish market. For example TeliaSonera relies on

independent contractors to install services in many areas. Spotfire enterprise analytics will help them filter the installation rate data geographically to see if there are trends in certain regions where commitments aren't being honored. Spotfire enterprise analytics will also be useful for the TeliaSonera marketing group because they'll be able to concentrate marketing campaigns in particular areas that are under served or cross-sell services in areas of high penetration based on Spotfire software's analyses.



TeliaSonera's E2e team uses Spotfire enterprise analytics to analyze the installation time of its bundled products across channels. With the click of a mouse they can quickly drill down to see installation performance in each channel, as well as consumer vs. business customer broadband installation.



TIBCO Software Inc. (NASDAQ: TIBX) is a leading independent business integration software company and a leading enabler of real-time business, helping companies become more cost-effective, more agile and more efficient. TIBCO has delivered the value of real-time business, what TIBCO calls The Power of Now®, to thousands of customers around the world and in a wide variety of industries.

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