Galigeo and IBM: visualizing the competitive landscape

An advanced solution that combines location data and business analytics to help retailers examine data visually, generate insight and make better operational decisions

Highlights:

- Creates detailed maps using geocoded data about stores, customers, competitors and more

- Renders maps automatically and continuously based on user queries and analysis

- Integrates tightly with IBM software for business intelligence, analytics and data warehousing

- Shows maps and a variety of supporting data in a single, intuitive interface

- Improves store monitoring, site planning, marketing, territory planning and the supply chain

Retailers understand exactly how powerful data can be. Every day, they interact with data from the point of sale (POS), customer relationship management (CRM), supply chain management (SCM), enterprise resource planning (ERP) and many other sources. Whether they are applying analytics, generating business intelligence (BI) or running reports, retailers are focused on using all the available data to make better decisions, enhance efficiency and improve profitability.

But what virtually all of these sources of data fail to deliver is a geographical component — despite the fact that location is critical to understanding customers and competitors. Without the "where factor," retail data remains flat and opaque. Without knowing where various events and transactions occur in relation to one another, it becomes very difficult for retailers to visualize spatial relationships, local trends and emerging patterns.

Galigeo and IBM are solving this problem with a powerful yet intuitive location analytics solution. Designed to bring retail data to life in a real-world context, this solution combines interactive mapping technology with sophisticated analytics to help retailers improve performance and generate stronger, more actionable insight about the business.

Solution Overview

In this solution, location analytics software from Galigeo combines geographical data points with existing data from a wide range of BI applications from IBM, enabling retailers to see the precise contours of the competitive landscape for the first time.

Location analytics significantly enhance data visualization by making it easier and more intuitive for retailers to understand, predict and improve operational efficiency. Adding location context — driven by ZIP codes, addresses, travel routes, sales territories and other geocoded data sets — creates a much fuller picture than raw data ever could.

With the ability to see how the data "lives" in the real world, retailers can generate insights about the enterprise that likely would have been undetectable using traditional methods. The solution gives retailers faster, more efficient ways to analyze specific data sets and create "if-then" scenarios in a real-time map. The impact on decision making can be significant.

For example, a retailer can use the Galigeo software to select a collection of BI or predictive analytics data — from small sets to massive volumes — and pull it into the Galigeo interface where it is automatically rendered in a map. Users can then examine areas of interest and begin drilling down. Every time the user changes a variable, the software continuously redraws the map. In the same way, any changes of map data automatically update within the BI or analytics application, which helps reduce the risk of data duplication.

On a single screen, users see the map along with dashboards, graphs, charts and tables from the BI application. This comprehensive view allows users to watch query data change as they perform different analyses.

Retailers can be assured of data security. Because the Galigeo software is so tightly integrated with the underlying IBM applications, it automatically duplicates the appropriate access privileges, permissions and other controls for the specific data the user is analyzing.

The practical applications of the solution are considerable for retailers. In fact, they belong to an a larger initiative called IBM Smarter Commerce. This initiative aims to help companies in many industries better manage the value chain — including buy, market, sell and service processes — through a customer-centered approach that helps increase revenue and loyalty. The location analytics solution aligns with IBM Smarter Commerce by creating opportunities for retailers to redefine how they approach traditional issues of operations, marketing and CRM:

- **Performance monitoring** — Retailers can use this solution to monitor store performance against a spectrum of critical metrics. Mapping capabilities allow managers of multiple stores to identify unacceptable results within the territory immediately, then access a list of all customers within the underperforming area and target those customers for direct marketing. The solution also allows users to monitor sales to estimate market penetration, see a customer's total value in a defined area, and visualize areas with high income and buying potential.
- **Site selection and expansion** — Retailers can use location analytics to analyze and visualize relevant variables across any size geography, from a single neighborhood to an entire nation. Measuring the potential for any Retail Trade Area (RTA) becomes easier with the ability to overlay the map instantly with any combination of existing stores, competing stores, traffic patterns and density, parking availability, demographics and more. With this solution, site planners can make better decisions much more efficiently.

- **Target marketing** — The effect on marketing is dramatic, especially when Galigeo software is integrated with IBM applications for predictive analytics and campaign management. Detailed visualization of customers in the map helps retailers optimize campaigns, choosing more precisely where to distribute circulars, coupons and direct mailings. For example, retailers can target high-value customers who live near an underperforming store, or focus marketing resources on customers who live near a newly opened competitor's store. Ultimately, the solution gives retailers the ability to use marketing budgets much more efficiently.
- **Territory management** — Retailers can use this solution to gain a sharper understanding of the density and distribution of clients within a sales territory. Visualizing territories, customers and sales in one view helps managers identify lagging performance and determine when territories need to be redrawn. With this solution, sales management can quickly adjust resource allocation and optimize each representative's visits to reduce travel time and costs. They can balance coverage among customers and prospects, as well as manage compensation more effectively.
- **Supply chain planning** — The solution helps retailers visualize supply chain logistics, whether they need to determine the optimal port of entry or find the most efficient routes between warehousing and delivery. Location analytics can be used to optimize distribution and evaluate when to use rail and trucking. Viewing a national map of operations, a supply chain manager can spot an area of interest and immediately drill down to the state, city, district or store level.

Solution Benefits

The solution from Galigeo and IBM brings together advanced location analytics with world-class software for BI, predictive analytics, data warehousing and more. Benefits for retailers include:

- **Enhanced visualization** — Working with data in its natural state has its place, especially for experienced analysts. Adding location data, however, makes it easier for less experienced analysts and others to see exactly what is going on in the retail enterprise. For example, a time slider widget allows users to see metrics as they change throughout the year. Heat mapping makes it easy to identify which stores, sales territories or regions are trending up or down.
- **Improved decision making** — Enhanced visualization helps retailers generate important insights from existing data much more quickly, and in new ways. This leads to better decision making throughout the enterprise, enabling retailers to execute corporate strategies more effectively and reach quarterly and annual goals more easily.

- **Operational efficiency** — Insight-driven decisions based on location analytics give retailers the power to do everything more efficiently, from distributing marketing resources to deploying the sales force to monitoring performance to adjusting sales territories.

Galigeo and IBM: a closer look

The strength of the solution comes from integrating the mapping and visualization capabilities of the Galigeo software with the advanced analytics available from IBM applications. These software components may include:

- **IBM WebSphere® Application Server** — This software speeds the delivery of applications and services, enabling organizations to operate efficiently and reliably while ensuring security and control. It reduces costs and downtime by consolidating workloads, infrastructure and administrative tasks with enhanced web server load-balancing and failover.
- **IBM Cognos® Business Intelligence** — This software provides a wide range of functionality to help organizations understand their own data. It helps monitor and measure how companies are performing with business intelligence capabilities such as scorecards, dashboards, reports and realtime monitoring.

- **IBM Campaign** — This software allows organizations to target thousands — or millions — of individuals with the right message by quickly and cost-effectively designing, executing and measuring customer-driven communication strategies across every channel.
- **IBM SPSS®** — With the extensive portfolio of SPSS predictive analytics software, organizations can predict with confidence what will happen next so all stakeholders can make smarter decisions, solve problems and improve outcomes.
- **IBM Netezza® Data Warehouse Appliances** — The IBM Netezza data warehouse appliance family simplifies business analytics dramatically, by consolidating all analytic activity in the appliance right where the data resides, for fast performance. This family of data warehouse appliances eliminates complexity at every step and lets organizations drive business value.
- **IBM SmartCloud Enterprise** — This managed white-label infrastructure-as-a-service (IaaS) offering is powered by six state-of-the-art green IBM Smarter Data Centers with embedded security and isolation features, and its performance is guaranteed with industry-leading IBM service-level agreements of 99.9 percent uptime.

Galigeo and IBM Solution Architecture
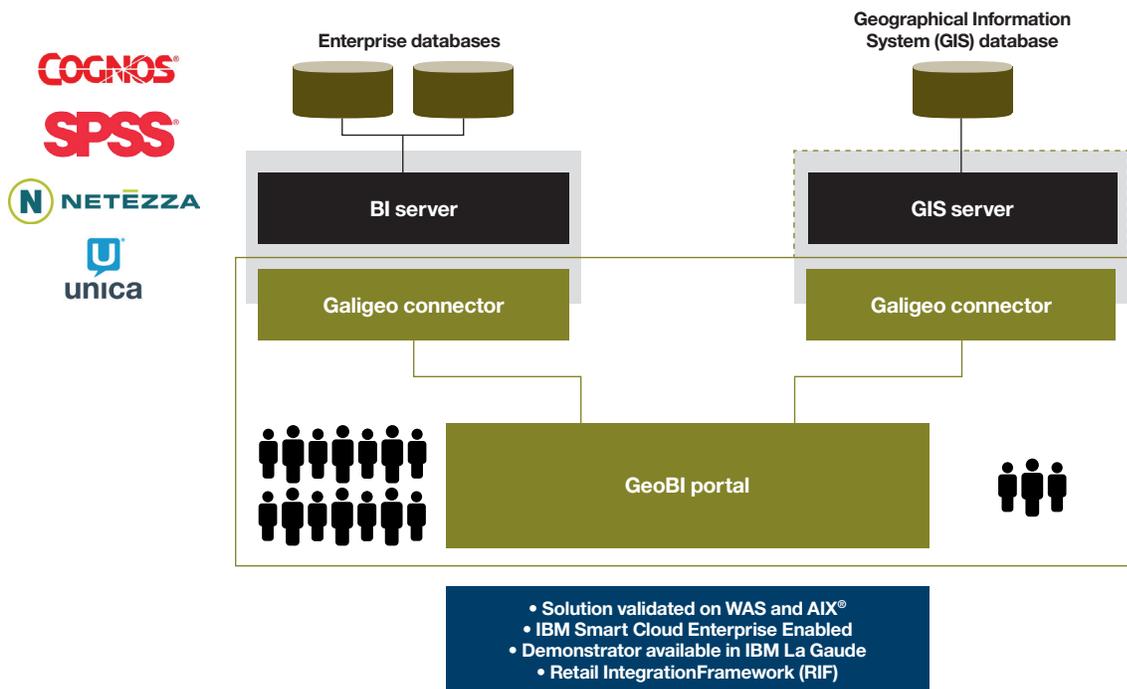
The location analytics solution from Galigeo and IBM gives retailers a faster, easier way to visualize the business, which drives better decisions, more efficient operations and more effective sales and marketing.

Galigeo and IBM: bringing location to life

Galigeo

Since 2001, Galigeo has been paving the way in Location Intelligence. By combining geographic and location-related data with other business data residing in business intelligence applications, Galigeo enables organizations to gain critical insights, make better decisions and optimize business processes and applications. Galigeo's consistent investment in innovation has been recognized through multiple awards for its vision and disruptive technology. In fact, IBM recognized Galigeo with the Smarter Commerce Validated Business Partner Award for the company's integration efforts.

IBM

IBM Smarter Commerce integrates industry-leading capabilities and offerings from its software, services and systems portfolio to help organizations increase the value they generate for their customers, partners and shareholders. Smarter Commerce integrates and transforms how companies manage and adapt their buy, market, sell, fulfill and service processes, putting the customer at the center of the value chain. It increases differentiation, customer loyalty, revenue and margin growth.

For more information

To learn more about the IBM approach to Smarter Commerce, contact your IBM sales rep or visit:
ibm.com/smarterplanet/commerce

To learn more about Galigeo, please visit:
www.galigeo.com

Galigeo Solutions

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