'Operational Location Intelligence is critical'

Dr. Ahmed Abukhater, Global Director of Product Management at Pitney Bowes, defines himself as a GIS person at heart. In an exclusive interview with Geospatial World, Ahmed talks about how "Operational Location Intelligence" has been a differentiator for Pitney Bowes:

Dr. Ahmed Abukhater
Global Director of Product Management
Pitney Bowes

What are the geospatial or location enabled products offered by Pitney Bowes?

We have several globally successful location intelligence products and solutions as part of our "Enterprise MapInfo Suite". MapInfo Professional is our flagship desktop product. Spectrum Spatial is our spatial server solution. We have Stratus and Web mapping software also. When it comes to geolocation intelligence, these products are our point of differentiation. We have data cleansing, data management, data quality products such as Spectrum that helps organisations take advantage of their "big data" and integrate it within the business ecosystem and their workflow. This helps organisations turn their data into knowledge and insight which is critical to drive and grow their business and ensure their customers' success and satisfaction.

Does Pitney Bowes consider itself as a GIS company or a software company today?

Customers come to Pitney Bowes because the integration of location intelligence software and data helps businesses grow. We enable our clients to build a 360 degree view of their customers and know their likes and dislikes. By developing and understanding an accurate profile about customer's previous purchases, businesses can deliver relevant content and services. It enhances customer communication and satisfaction. For example, with over one billion users worldwide, Facebook uses Pitney Bowes geocoding solutions (Spectrum Spatial) to increase usability of their mobile platform by connecting people, places and things.

What trends or challenges has Pitney Bowes Software noticed in the market, and how are you getting ready to adapt to those trends?

Our customers are grappling with how to derive insights from vast amounts of structured and unstructured data. Big data analysis is here and it presents phenomenal opportunity for executives at large organisations, provided they have the right strategy, tools and talent. Organisations want to streamline their business processes and workflows to take advantage of all kinds of data whether it is structured, unstructured or even semi-structured data. A broader trend that has been impacting our clients is that of increasingly empowering business users to engage with the data. User friendly tools will allow executives to work on more complex tasks.

Location intelligence is a key area where business users could be more involved. Operational Intelligence is a concept where we help our customers introduce GIS to the rest of the organisation and integrate it as a critical part of the business ecosystem. By making GIS mainstream and putting the power of location in the hands of the business users, they can make decisions and drive measurable growth.

Until recently, GIS had been widely viewed and used by many as a specialty technology platform, separate from the wider organisational strategy, business needs and objectives. This led to isolation of GIS knowledge in one department, the compartmentalisation of business data, segregation of operations and workflows, massive inefficiencies and the inability to collaborate. Consequently, there is a growing need to integrate the analytical and computational capabilities that GIS technology offers into the wider enterprise to boost a more effective and efficient decision making process.

How is Pitney Bowes Software working with the big data?

We believe that big data is all about volume, velocity, and frequency of data. When it comes to volume, lack of data is never the real issue. The real problem is that many organisations house data in disparate systems, making it hard to identify trends within those datasets. Value is a function of relevance and reliability (including authoritativeness, accuracy, quality and compatibility), and use (the ability to access and integrate data into business workflows). All business data has a location element and can be better understood with location technology. So we need to think of all data as GIS data and think of GIS data as simply data.

Large organisations need comprehensive solutions to support business operations. Traditional GIS vendors provide software alone. When we work with large organisations with a large amount of data, we not only provide the data management platform but a platform which is geospatial too.

When you say that you are handling huge data with data management and cleansing capabilities, you are in an advantageous position in terms of selling not just to the traditional GIS users but also to other domains that you are working in. How are you doing that?

A:Not everybody is a GIS expert, but that doesn't mean they don't understand the value of location data. Senior executives know they have a business challenge for which they need a solution. For example, an insurance underwriter may want to know where a particular property is located. Is the property in a floodplain area or is it out the floodplain area? How close is it to a floodplain area or other natural hazards? The underwriter may not know much about GIS. This is where "operational location intelligence" is so critical. Organisations need to bring together critical business data, data management, customer communication and geospatial solutions, alongside traditional GIS tools.

Which other sectors are you focusing on?

We serve several major industries. The first and the most obvious one is public sector, i.e. state and local government. We also serve organisations in the telecommunications, retail, insurance, public safety, banking and financial services and natural resources and geosciences sectors. In addition, we offer horizontal solutions in supply chain, HR/Pay, logistics, social, CRM, business intelligence and online BtoC.

What kind of solutions do you provide to the public sector?

We offer various solutions for public sector. It is our stronghold. With today's urbanisation patterns and processes, managing massive development projects can get incredibly complex. We have a partnership with computer aided design software firm Autodesk, which was created because we realised that in the local and state government space (especially in relation to infrastructure development projects) there is a marked delay from the time any project is designed and planned to the time it is implemented. That delay is estimated to be about 7 to 10 years, which can cost big money. There are many factors behind such delays. One of these factors is the long and tedious permitting and approval process, the hard task of bringing all stakeholders and the public together, and getting them to collaborate. Technology interoperability is another challenge. Different solutions are used to support different stages of the project life cycle, which for the most part lacks compatibility (GIS solutions for planning and analysis and BIM - Building Information Modeling - solutions for design and construction). Government and community development professionals simply need more efficiency to expedite the project lifecycle, which is more than just cutting cost and consolidating resources. They need a process with which they can eliminate redundancy and foster collaboration and bidirectional public feedback throughout the whole project lifecycle.

With the Pitney Bowes and Autodesk partnership, we are able to offer a complete, end to end solution to support infrastructure development on various scales. We made our offering interoperable so that planners and designers can better manage their projects by utilizing the same data through a centralised operational and execution system so that they are integrated throughout the whole enterprise from start to end. This offering integrates GIS and BIM workflows to eliminate replication of data and efforts, promote efficient management of location intelligence assets, and foster a collaborative decision making process across different components of the project lifecycle. This is where GIS meets BIM and analysis meets design. The bottom line is to streamline and expedite the planning and development process, save resources and be more productive and efficient.

Is Pitney Bowes also looking at social media platforms to push its products?

Social media provides a platform to grow and augment our offerings. When we talk about social media we are trying to connect the dots and bring the data to life and take advantage of the social (unstructured) data. We make sure that the map is at the centre of everything because at the end of the day the map really shows spatial patterns and connections. We can discover and unravel nuances that cannot be understood with methods of conventional science. A map brings all of it together. It ties certain groups of people to certain places and activities. For example, through Facebook you can understand different interesting patterns and trends about the data. It tells a story of where people are located or where they 'checked-in' and help us associate these activities with certain populations. We can discover anomalies about the data and also unique characteristics such as associations of certain activities and places with specific age groups and demographics – all interconnected and understood with location as the common denominator. That's why we see social media as the next frontier for a smarter customer experience and community planning.

E-commerce is a huge market today. For example, Amazon has a tremendous amount of transactions which translates into huge amount of data. They should find geolocation very exciting because all the parcels need to be posted somewhere. Are you looking at e-commerce?

So much shopping now takes place online, making accurate deliveries critical. By understanding associations with the location of the customer and time of the day (along with information such as their preferences, likes and dislikes, buying habits, demographics and psychographics), we can actually identify what customers are likely to buy next and be able to deliver the right message to the right customer at the right time. This helps online retailers establish a better understanding of how to engage with their dispersed customer base.

Applications such as geocoding, which takes an address and returns its geographic coordinates, and also reverse geocoding, can help ensure highly accurate delivery of goods, improving the customer service and reducing returns. Furthermore, sales tax jurisdiction is a big issue for retailers that sell to different geographies. Jurisdictions and municipalities often change rates and sometimes also shift boundaries, so it is imperative to be able to pinpoint precisely where the end customer is located. Otherwise retailers can end up charging too much or too little tax and this can cause major problems during an audit.

E-commerce is certainly a business model that is heavily reliant on exceptional location intelligence technology.

In which regions or countries do you see potential business for Pitney Bowes Software?

We have been providing GIS solutions for over 25 years with customers in more than 100 countries around the world. We have a strong customer base globally and in all regions. Emerging economies are a potential market for us. Coming

together with Autodesk will definitely help us strengthen our reach because of the strength our partnership provides to our customers in state and local government as well as AEC industry in various regions, including North America. We complement each other in various markets and regions to better serve our customers.

Share and Discuss: