GIM INTERNATIONAL INTERVIEWS PREETHA PULUSANI

India's Leapfrog Geospatial Industry

An Indian geospatial magazine in April 2008 released a survey demonstrating how, although still adolescent, the Indian geospatial industry showed immense potential. The survey pegged the overall 2006-07 worth of the industry within India at Rs6830 million (USD139,50 million), with the services segment contributing 51%. Minister for Science and Technology and Earth Sciences Kapil Sibal was moved to declare that the industry would outperform the country's IT and telecoms boom. It's an enthusiasm shared by geospatial information systems expert Preetha Pulusani, who was appointed joint managing director of Indian multinational Rolta in March this year. We spoke to her about factors driving development of the industry, and the highlights of 2008.

What advances have characterised 2008?

One of the most promising developments in India's geospatial industry has been the opening up of mapping data and information by the state. This is enabling government bodies and the private sector to actively participate in the advancement of the industry.

In the past mapping data was seen as highly sensitive, classified information. However, the Government of India has now passed a bill to make this information available to commercial organisations, allowing government agencies such as Survey of India and the Department of Space (which have generated a massive amount of geospatial information) to share selected layers with other public-sector organisations and industry. This will enhance private-sector opportunities to develop more innovative applications.

Coupled with this recognition that geospatial information needs to be open and shared goes an equally important acknowledgement of the need for each organisation to maintain control of its data, a factor which calls for well-managed and executed security protocols. Solution providers such as Rolta are cognisant of the need for deployment of geospatial solutions that involve secure sharing of information at national, state and local level. There is also a growing use of web-based GIS, and we expect mobile technologies to follow. Predictions are that by 2012 almost one in two people in India will own a mobile phone, many of which come equipped with geospatial solutions. As a result, mobile will become an increasingly important medium for, among other things, communication, emergency management, and location-based marketing. Various public-sector organisations are opting for Linux as their platform of choice, based on both short- and long-term cost considerations. Therefore solutions that work in a hybrid environment comprising both Windows and Linux will be required, positioning the country for deployment of service-oriented architectures.

Is the industry in India (and the rest of Asia) driven by research and development, or is it service-oriented?

The expectations are that prospects and clients will primarily seek turnkey solutions. These are made up of both geospatial and non-geospatial information. Database and geospatial products, technologies and services must therefore be built on a clear understanding of the customer's needs and pain points, and in-depth analysis of the problems to be solved. Solution implementation will demand a high degree of domain expertise from providers. Customers will demand complete solutions, not products or tools. Geospatial technology has traditionally been imported from the USA and deployed here; today Indian companies are making significant investments in extending the benefits of traditional GIS products into new areas of innovation and differentiation.

Is the region a good place for western companies to outsource to, and why?

Yes. Other than the cost benefit, western companies can take advantage of the wide availability of skilled technical resources. Rolta alone has over two thousand employees who create geospatial databases for outsourcing clients.

What are the side effects of the western credit crunch and the looming recession?

It's hard to imagine that global companies will cease to outsource to India. If anything, the pressure to control expenditure may lead more companies to choose to optimise operations and take advantage of the cost-saving advantages of outsourcing. Before this happens, however,

I believe there will be a natural slowdown in new business, as companies and governments try to figure out what the financial crisis means for their particular organisation.

The overall economic issues are complex enough for skilled economists, let alone the rest of the public. I imagine a number of people taking a 'wait and see' approach to initiatives that they might otherwise have been ready to commence. This includes outsourcing, but for those already procuring services from India I do not expect much impact, as these organisations have already reaped the benefits.

What is driving development of the industry?

In India development is being steered by recognition of the value of geospatial information for decision support in the public sector, and market development in the private sector. It is used in a variety of applications, in combination with demographic data, in areas such as resource management, town planning, urban and rural infrastructure development.

It's also a rapidly developing industry in this region, with mature players having marketed the benefits of geospatial information over the past two decades. India's reputation as an outsourcing destination has also played a role, enabling the country to develop significant technical expertise in the geospatial arena.

Is there a role for the geospatial industry in the overall development of Asian and African countries? If so, how do you envisage that role?

Absolutely. The quantity and quality of public-private partnerships will play a fundamental role in any efforts to bring about sustainable development. For the public sector the benefits would include the effective and efficient use of geospatial technology to solve pressing issues related to poverty, economic development, water and other natural-resource management, environmental impact assessment and zoning, crop monitoring and infrastructure development, among many, many other areas.

For the industry it would mean broadening and deepening the reach of useful and successful geospatial deployment in regions of the world that are still developing but offer great opportunities for future expansion.

What lies ahead for the geospatial industry in the coming decade?

In the public sector I see increasing investment in spatial data infrastructure (SDI) at various levels of government. This will pay great dividends, as these SDIs are used in decision-support applications, many of which have not yet even been conceived.

In the private sector geospatial information will be regarded as a natural component of variously deployed solutions. Geospatial information will be widely available (witness Google Earth and Virtual Earth); the resolution of this data will continually improve and related non-spatial data or attribute information in various forms will be collected and highly valued.

There will be little differentiation among users between 'product', 'technology' and data. Web services-based and mobile applications will be pervasive, and data and application standards will be universally applied. Most companies in this field will compete in the innovative and efficient solutions they can provide to various industry sectors, rather than in sub-components of the solution, such as the technology, product features or data quality. Domain knowledge and expertise will therefore become an intrinsic competitive differentiating feature and thus highly valued.

Do you have a message for global western companies?

Geospatial providers in the western world have made significant investments to provide technology and solutions for the developed world. The developing world presents different challenges, but just as significant to them and to the industry. It would be a mistake to ignore or have the developing regions of the world play second fiddle. In the deployment and use of geospatial solutions developing countries have one advantage: coming late to the game, they can leapfrog others, skipping a few steps to get to where they need to be by learning from the experiences of the west. In today's global village, outreach and shared experience become important for
the overall development of the industry.

Preetha Pulusani

Based in Mumbai, India, Preetha Pulusani was appointed joint managing director of multinational Rolta in March 2008. Born in Bangalore, she has a BSc in accounting and an MSc in computer science from the University of Alabama in Huntsville, USA.

Prior to joining Rolta she spent 25 years with Intergraph, holding various senior management positions, including president of its Security, Government & Infrastructure Division with annual revenue of over $400 million. In this role she was responsible for global strategic direction and worldwide business operations, serving several market segments including military and intelligence, state and local government, utilities and communications, and public safety. Pulusani subsequently served as CEO and president of AdeptMedia Corporation, a marketing technology firm based in Alabama, USA.

As joint MD of Rolta, she is responsible for accelerating the company's growth and scale of its operations in the domestic and international markets.

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