

INNOVATION WITH RELEVANCE IS THE KEY

K Singh
 Chairman and Managing Director
 Rolta India LTD.

What do you envision for the geospatial industry? What is the role that Rolta plays in achieving this vision?

When we started over 25 years ago, geospatial technology was in an adolescent stage. It stood as a separate entity and was treated by many as akin to computerised cartography or CAD. It was an era of unix boxes and the term 'PC' had just been coined. This technology has evolved through the establishment of many of the underlying concepts and procedures paving the way to what is today ubiquitous. I will go a step further and say that this science and technology has lost its individual identity and has joined the mainstream.

Somewhere in the late 90s, we evolved from a technology which gave just descriptive queries about maps to an intelligent system capable of giving prescriptive analysis. Today, geospatial technology lies embedded in fields as diverse as telecom to medical image and defence to agriculture. This is a technology that impacts the development and lifestyle of all on planet Earth.

The reason behind we developing and adopting any technology is the progress it brings to mankind. Companies that develop



and deliver products and services in the geospatial domain have selected their domain of specialisation based on local and global business intelligence as well as demand. They use their expertise in specific application of this technology. At the end of the day, all of us work for the betterment of mankind and we do not work in isolation. If we are to look at the holistic picture and speak about the future, GIT will bring better insight to all our users. It will speed up decision making, which is the key to success.

Future is all about seamless integration of all technologies, including geospatial. Only then will an enterprise environment truly evolve, speedup and impact the decision making process. We have worked towards bringing disparate databases, spatial content from various sources, diverse business systems and various documentation formats into an inte-

grated framework. This can be achieved by focussing all the technologies and intellectual property that we have developed over the last quarter century towards the 'integration of information from disparate sources in real time'. It is all about 'fusion'. It is all about silos collapsing and barriers to a free flow of data and information due to different architectures being broken down. As these typically diverse and isolated information sources are converged, new relationships emerge, new patterns and trends are visible and new levels of real-time operation decisions are made possible.

In our physical world, a huge impact can be created when a sufficiently large object travelling at a high speed is focussed on a target. Our products and services provide such an impact for business and governments. Spatial and business information convergence amplifies the insights that can be visualised and the speed of decision making is accelerated because of our integration technologies.

What is the ideal environment for the 'geospatial vision' you have just spoken about to fructify?

A better environment for innovation is what we need. Innovation can prosper

only when there are no road blocks. Innovation with relevance is the key to success. We have the advantage of being a democracy. We have more entrepreneurs than China, and that is our strength. We may soon lose it if we do not remove the barriers. We have today moved from ordinary governance to good governance in the last 50 years and the environment is getting better. Geospatial data plays a vital role in India, underpins the nation's domestic economic activities, aids our international competitiveness and supports a large array of Central, State and local government initiatives for providing socio-economic services to the citizens of our nation.

In India, we presently have a 'Map Policy' inherited from pre-independence days. The industry has been demanding a change. What we need is an emulation of the thoughts and policies that changed our telecom sector. The sea change in the last decade from the sector being almost nothing to being one of the most evolved and penetrative telecom sectors in the world happened because of right policies. The capital has come from the private sector and the market. All that was done was putting in place a regulator. Common man has benefitted from this. It all amounts

Future is all about seamless integration of all technologies, including geospatial. Only then will an enterprise environment truly evolve, speedup and impact the decision making process

to framing policies that are conducive to innovation. Innovation can be brought about by entrepreneurs and they will join the process only on an open playing ground. We did have a small change in our National Map Policy. Such small changes will not help. The policy changes have to be sweeping and all pervasive to achieve the best. The role of the government has to be that of the 'regulator'. They should not have regulations against activities like aerial photography, high resolution satellite imaging, mapping etc. The moment these road blocks are removed, we will have a multitude of entrepreneurs jumping into the field and striving to develop and deliver what millions of Indian users want. The usual blame game on who is responsible for the present scenario will cease when a billion people think innovatively. With the excellent education system our country has in place, we have had no dearth of bright minds who have done exceedingly well globally in all fields of science and technology. If we are to benefit from our own 'human resource', we have to put in place proper policies and we have to do it now. Opportunities will be lost as time goes by and as the global economic trends





change. A people-friendly national geospatial policy will definitely go a long way towards bettering the lives of the citizens. This is achievable by facilitating a coordinated exchange of geospatial information on natural resources, environment, land ownership, land use, transport, communication, demography, business and economic indicators amongst various stakeholders within the country. The Indian Geospatial Industries Association is trying hard to get a totally 'open geospatial policy' in place and we are very optimistic about it.

What is the research oriented work being presently carried out at Rolta?

A. We have setup large development centers in Canada, US (Denver, Chicago) and in India. About 500 people are working on developing IP for specialised applications in photogrammetry, image processing, LiDAR and geospatial environments, which in turn have application in defence, agriculture, medical imaging, meteorology, mineral prospecting etc. Our research teams are also working on further evolving an interface module or layer with which we achieve geospatial fusion. It is a layer which fits

on any environment. For example, an organisation could be using multiple geospatial environments like ESRI, Intergraph, AutoDesk and SmallWorld. Then, it could also have various commercial database environments like Oracle, IBM, SQL and Excel, and have systems like SAP and ERP, added to it are asset management systems. Achieving compatibility among them can result in long delays. The middle layer as I prefer to call it – the fusion layer, does this work. We have done what a customer wants. Our research and development teams have delivered a unique solution where 'silo walls' no longer exist. It is truly a 'FUSION' which we have achieved by synergistically using our considerable IP generated through the last quarter century.

What role do you envisage Rolta will play in the development of India's NSDI?

We have created a system which will create and manage an information superhighway. It can link various government bodies like the Planning Commission, various ministries, State administrations all the way down to the munic-

ipal bodies in a seamless fashion where the blockades due to data and systems incompatibility from the past no longer exist. Our patented technology is innovative and has been developed by investing over 1000 man years of development effort based on world-class technologies that we have developed in house and from companies and divisions that we have acquired, over the years. Unlike other solutions which may need to be built from ground up, our solution is almost ready-to-deploy with minimal customisation to meet the specific requirements of NSDI, enabling the Department of Science and Technology (DST) to be able to quickly take advantage of their investment and efforts.

The configurable multi-lingual support - e.g. from English to most of the local languages with a flexibility to switch languages in real-time, makes our solution truly compliant with the rich Indian linguistic diversity. If NSDI uses our geospatial 'Fusion' architecture, just as it has been used around the world, the goals of NSDI will be more easily achievable.

What is the role that we (GIS Development) can play in making the geospatial community go Higher-Faster-Stronger?

GIS Development is doing a good job in India as well as other regions of the world like the Asia-Pacific, Africa and Middle East. I feel you should now focus on GIS education. Today, we do not have a single university for geospatial studies. Setting up such an institution will add to the much required capacity building efforts which we desperately need. With the flood of opportunities just waiting to happen, the requirement of human resource will also be large and capacity building is the need of the hour. ■