



Take IT to another level

The time has come for Indian construction companies to look beyond just ERP solution, says **Syed Ameen Kader**

The Information Technology (IT) has today become an indispensable tool for any construction company who aspires to become big and take up mega infrastructure projects. Though the level of IT penetration has improved over the period of last 5-7 years, the industry is still at the nascent stage when it comes to using advanced IT solution for infrastructure projects. Even if those companies realise the importance of IT, many a time, they ended up investing in wrong technology or solution.

For starter, the best way of approaching the whole issue would be to look at IT as an investment and not cost. The company first needs to analyze its own size, IT budget, type and scale of projects it's going to execute and its future target. Industry experts suggest that even if a company wants to start with ERP (Enterprise Resource Planning) solution, it should never compromise on the platform. One should go for world-class solu-

tion such as SAP, Microsoft, Oracle or IBM.

"Many times organisations opt for local solutions, because of the cost benefits. However, these solutions will have major limitations in managing business growth and adapting to technological advances in future. It is going to be difficult to changeover to world-class solution later. In long-term, this turns out to be an expensive proposition and hence it is always advisable to go for a world-class solution in first place and gearing for the future growth," says Satish Pendse, President, Highbar Technologies (An HCC Group Company).

Pendse says that many large and medium organisations are increasingly investing in world-class solutions like SAP which is almost becoming a norm now. "Even smaller organisations are willing to invest in SAP with only time being a factor before they go for it. Highbar has developed industry templates on SAP platform which address about 90% of industry requirements," he says.

Most of the higher level solutions can easily blend with such ERP platforms. They



"The business leadership is now aware of the fact that managing transformation of the workforce to IT culture is a big challenge"

Satish Pendse, President, Highbar Technologies



Real Estate firm Chintels India have gone for customized system for their projects

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Balaji Sreenivasan, CEO and Founder, Aurigo Software Technologies (P) Ltd

can also take services of System Integrators who would develop a customised solution that blends well with the functioning of the company. It can also outsource the work to implementing firms who would collect the real time data to manage its project.

Presently, majority of the construction companies in India go for implementing generic IT solutions, such as, ERP. Though ERP can help automate their horizontal functions such as HR, Payroll, Finance, etc., it is not meant to automate construction projects entirely. “There is a general misconception [only in India] among infrastructure and construction stakeholders that “ERP” is a magic wand that will automate all aspects of their businesses, including project cost estimation and contract management,” says Balaji Sreenivasan, CEO and Founder, Aurigo Software Technologies (P) Ltd who is an ISV (Independent Software Vendors), focussed on construction industry.

For this, he says, they require specialized construction management and capital project management systems in addition to their ERP platform.

His company offers CPMS (Capital Program Management System) which helps automate the entire construction project lifecycle from the stage of bidding to completion. “Aurigo

CPMS can completely automate the different facets of project management including, estimation, planning and construction management; and integrate this data into the company’s corporate IT infrastructure includ-

ing ERP, Document Management Systems and Legacy applications, enabling enterprise wide IT adoption. This helps companies streamline their processes, control costs and reduce delays,” he adds.

However, small and emerging companies who are not into big ticket projects may not like to invest in CPMS at the initial stage, mainly due to cost factor, though this will pay back in long run. Such companies prefer to work on locally-developed solutions.

Pune-based SoftTech Engineers Pvt Ltd says they offer products which are built around the objective to address the issues specific to AEC industry. The company gives solution for Construction Management, e-governance, Structural Engineering and e-Learning. Its Construction Management Solution, Opticon is a web-based ERP system exclusively for construction enterprises whereas QE-Pro is a Quantity Estimation and Project Planning Software.

“The USP of these products is the strong project management engine which is specifically developed for construction businesses and addresses to the engineering functions like tendering, estimation, subcontracting, project scheduling and monitoring. These along with robust modules on materials,

sales and finance make it a complete automation in construction lifecycle,” says Vijay Gupta, Chairman & CEO, SoftTech Engineers Pvt. Ltd.

Delhi-based real estate firm Chintels India who have recently started developing their first project says they have gone for customised system which has been economically implemented. It uses MS Project integrated with ERP system for their project financial and physical monitoring. They also use Central Management software – 8.264 Digital Video recorder software (developed by Tab Technologies) for live transmission of video of works at site into their laptops and desktops. The software runs on Windows.

“The IT allows us to provide accurate and timely follow-up to our customers, to monitor effectiveness of our business process, streamlines our procurement process and standardise financial systems,” says Prashant Solomon, Joint Managing Director, Chintels India.

But for companies who are doing multi-billion dollar capital programs that involve building hundreds of miles of highway, entire airports, shipping ports and even large SEZs, CPMS is a must. “With dozens of contractors and subcontractors, hundreds of vendors and thousands of workers spread across miles of project site, they present a unique set of challenges that more often than not lead to severe delays and serious cost overruns. Most of the bids are won on thin margins; so cost overruns and delays have a catastrophic effect. IT becomes the essential tool at the disposal of the owner and contractor to effectively deliver on the projects,” says Sreenivasan of Aurigo.

He says that a study amongst Aurigo's customers conducted by a third party research agency has revealed that CPMS investments can help infrastructure stakeholders compress time schedules by up to 12% and cost reductions by up to 7%. The costs of such IT investments are typically between 2- 3% of their revenues.

Another IT major, Autodesk, who has invested significantly in creating the Building Information Modeling (BIM) platform, says that they have seen a significant increase in the interest levels amongst customers in India as they realize the benefits and ROI. "BIM is an integrated process that allows architects, engineers, contractors, and owners to explore a project's key physical and functional characteristics digitally—before it's built. On a project that takes advantage of BIM, information is coordinated and consistent, spurring efficiencies throughout the project lifecycle," says Manideep Saha, Head AEC, Autodesk, India & SAARC.

Autodesk has recently launched its 2012 portfolio of software for the AEC industry. The company says the portfolio supports BIM process by offering comprehensive software solutions to help architects, engineers, contractors, facility managers and owners meet today's business challenges. It also announced two new design suites for building design, construction and infrastructure professionals.

"The new Autodesk Building Design Suite and Autodesk Infrastructure Design Suite provide a comprehensive set of tools to help

users address a variety of workflow needs, from project design, visualization and simulation to documentation and construction. The visualization technology offered by the suites helps improve efficiency by making visualization and integral part of the entire design process. Each suite offers a cost-effective way to respond to changing business requirements, providing access to the latest design and visualization tools through a single, economical and convenient purchase," adds Saha.

Moving forward, as internet usage increases, there is going to be demand for web-based platform which gives clients freedom to access any date from anywhere. Also, at a time, when big construction companies have project sites spread across different parts of the country or sometime in the world, web-based solution becomes a necessity. Most IT companies are coming up with such platform or solution. "We are in the final stages of launching a project collaboration and document management solution entirely on the cloud (web) that will help project managers, construction managers, facility managers and their teams respectively compile information and access this from any place. The goal is to eliminate the chaos and confusion associated with large projects and help them complete their projects faster," says Sreenivasan.

Supreme Infra who has implemented Aurigo CPMS to manage all its construction projects says: "The system allows us to use mobile computers like Laptops and iPads to collect data from project sites. Data collection is




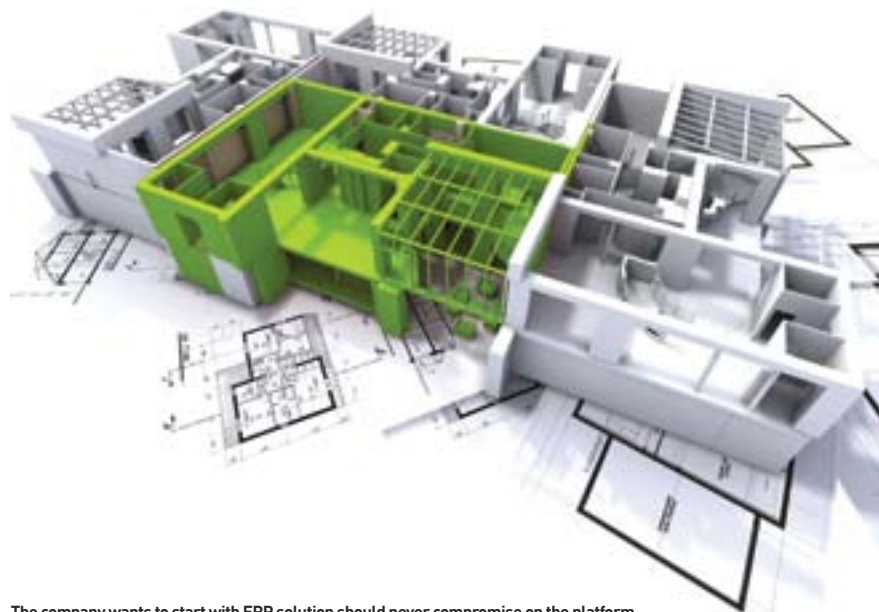
"The key issues challenging IT/BIM adoption in Indian construction space revolve around costs, software, hardware and training"

Manideep Saha, Head AEC, Autodesk, India & SAARC

accurate and reporting is instant, anytime and anywhere. This software integrates seamlessly with our ERP Platform and Project Scheduling application (Microsoft Project)," says Vikas Sharma, whole time Director, Supreme Infra.

UK-based Aconex who provides online collaboration platform for managing the large volume of information, says their system enables all the parties involved in a project to access, distribute and track their documents in real time from any location. "This reduces the time and cost of information management, while reducing the risk of disputes and delays. We currently service US\$260 billion worth of projects in 70 countries and are still seeing strong growth in India and worldwide," says Andy Lake, GM Aconex Asia.

Since India is passing through a very exciting phase, the construction companies have to foresee the opportunities and keep themselves ready for the future challenges. "The competition is so hot at the global level that companies should either adapt to the situation or quit. Some of the large and visionary firms in India are investing in technology to improve the way they work. The smaller businesses are still uncertain. Those organizations that get their act together and adopt IT will prosper to become world-class players while the rest will perish or at best remain small players," concludes Sreenivasan of Aurigo. 



The company wants to start with ERP solution should never compromise on the platform