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IT in the life sciences

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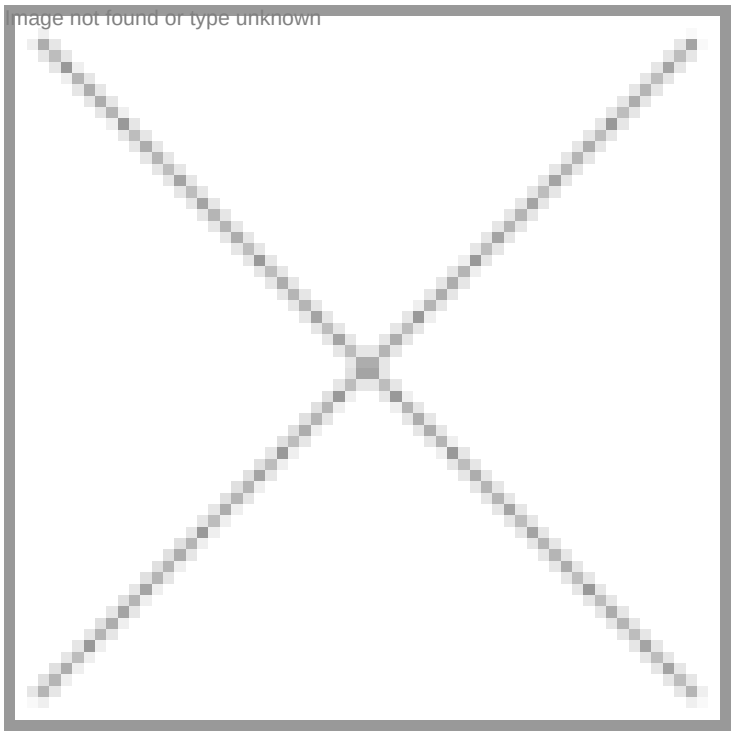

IT in the life sciences

For most of the IT software and services companies today, life sciences is a high growth vertical.

The IT software and services sector in India in 2004-05 was Rs 98,959 crore, according to the leading IT magazine, Dataquest. The industry has been growing at the rate of 37-40 percent and for most of the IT services companies, the banking and financial industry, telecom, manufacturing, and government sectors are the most lucrative segments for most of the IT services companies. However, what is lesser known is that most of the companies today have a life sciences sector focus.

Apurva Chamaria, head, marketing, life sciences vertical, HCL, said, "HCL focuses on the biopharmaceuticals and CRO space in the life sciences segment. It focuses on the hospitals (providers), biopharmaceutical companies and drug device manufacturers (players), and the CROs (service providers). Started about four years back, this is the fastest growing vertical at HCL. This venture was set up seeing a lot of client interest for solutions in the life sciences arena, especially in the area of clinical trial data management, regulatory compliance software etc. Since HCL was not the first mover in this area, it imbibed things, hired domain experts, built up competencies and thus has a more complete range of products now."

The company's vertical is called the "Global Life Science and Healthcare Practice". Since its clientele is spread across the globe in Japan, the US and the Europe, it has tie-ups with institutes and companies spanning different countries - Tokushina University, Japan, IIT Delhi, India, Synchron, a CRO. Even the company's workforce working in this segment is spread across

different continents - America, Europe and Asia.

The focus of several IT software companies has spread to the life sciences vertical as they realize that that the global life sciences industry today is entangled between pricing pressures and the spiraling costs of drug discovery. Dr Joachim Kreuzburg, Group CEO, Sartorius Group, said, "The biotech revolution, which began in the labs about 15 years ago, now hits the production phase. And process optimization becomes a key driver for further growth. Also the patent expirations and the expanding market for low-cost generics have heightened competitiveness in the marketplace. Also stringent regulatory measures are making it harder for companies to bring new drugs to the market, safety issues are leading to product withdrawals. The greatest need is to escalate productivity and cost-effectively."

These are some of the basic reasons for the Indian IT services companies to have focused on this sector. Take for example, Tata Consultancy Services (TCS). It is offering an entire gamut of solutions to the life sciences industry - from bioinformatics to clinical trials. It provides customized and cutting-edge solutions in the areas of clinical trials and US FDA compliance requirements to significantly reduce the effort and costs involved for pharmaceutical companies in the R&D process.

TCS in September 2005 announced an agreement with Congenia, a biotechnology start-up promoted by Italy's Genextra Spa group to provide advanced fragment-based lead optimization solutions for drug discovery. In fact it is believed to be the first of its kind for an IT company. The life sciences R&D division of TCS will work on "P66", a target protein identified by Congenia as a key protein involved in several age-related diseases and will develop optimized drug leads based on this.

Dr M Vidyasagar, executive vice-president and head of TCS' Advanced Technology Centre, Hyderabad, which houses the life sciences R&D division along with other activities, said, "This is a historic occasion for TCS and the first contract where the deliverable is not software code, but a set of molecules. We are proud to partner with the Genextra group, a biotech pioneer in Italy." TCS is committed to putting in place a complete suite of offerings in the life sciences segment, spanning genomics and proteomics, database integration, drug discovery, and preventive healthcare, Dr Vidyasagar added.

"The life science sector has been identified as one of TCS' growth engines for the future. We have invested in developing competencies and research collaborations over the last few years and it is good to see that our investments are yielding significant results," said S Ramadorai, CEO and MD, TCS.

India has been a major resource. Wim Cypers, vice president, product management, Aris Global, a global leader in the area of pharma safety software, informed, "The company's successful position in the pharma and biotech industry, where it counts over 120 customers, can be attributed to Aris' sole software development center in Bangalore that houses over 370 employees." Aris Global has plans to expand its product development center in Bangalore. The company started this center here as early as 1987. "We have products in four domains - pharma drug safety, regulatory compliance, clinical trials and medical communications," added Cypers.

In the life sciences arena, the IT companies are focused on software products and services related to drug discovery, drug development, regulatory compliance, manufacturing, IT systems, marketing and sales. HCL has eight of the 15 global pharmaceutical companies as its clients.

Infosys, another leading player in the country, has a dedicated practice for the vertical. It has drug discovery informatics solutions to accelerate target and lead identification, a streamlined clinical development solution to reduce the time and cost of clinical trial programs, and pharma regulatory compliance solutions. It has Connect solution to help collaborate effectively and enhance workflow efficiency.

"We are bullish about our life sciences segment growing," said Vibhav Garg, principal-business development, Mascon Life Sciences. Mascon Life Sciences, a division of Mascon Global Ltd, was set up to provide solutions requiring combination of expertise in biotechnology and information technology. The bioinformatics center was set up in November 2001, by combining the synergies of its IT consulting experience with the domain expertise of Mascon Life Sciences and the bioinformatics center at Jawaharlal Nehru University, New Delhi. "We aim to provide world-class products and services in bioinformatics and seek to establish Mascon as a world-renowned center for research and development in computational biology," added Garg.

"The healthcare and life sciences are important growth areas for Mascon Global Ltd. We have started with bioinformatics, which is our entry into this arena. We are planning to enter the global arena of bioinformatics services like offshore support for drug discovery in the in silico area and may also tie up with some wet labs," he informed.

Persistent Systems has a suite of data management solutions for biomarker discovery encompasses the whole spectrum - from laboratory-based solutions to provision of real-time information to scientists working with real-life problems. It offers both

services and solutions. Its services include data curation, management, warehousing and visualization, custom-built applications and web-based portals and solutions like microarray portal solution, LIMS for proteomics, microarray and sequence data, analyses tools, post-genomic data warehouse and gene annotation tools.

Similarly, Cognizant has been delivering solutions for the life science industry for a decade. Its association with IMS has helped it to gain in-depth understanding of the pharmaceutical industry. It provides solutions like application management for legacy systems, e-Business, data portals, ERP implementation, upgrade, and maintenance services, prescriber behavior analysis and insight, longitudinal prescription data management systems, clinical trial solutions, and 21CFR11 assessment solutions.

Mphasis has become an outsourcing partner in the field of bioinformatics developing software solutions that address requirement in combinatorial chemistry, visualization tools for genomic studies, micro-array analysis and plant genomic data analysis. It has been offering services such as analytical instrumentation, molecular informatics (data analysis), data management, image analysis, algorithm development, compliances, agro biosciences and document management system.

Satyam's pharma and life sciences practice offers a wide range of IT solutions for pharmaceutical companies, CROs, medical equipment manufacturers and biotech organizations. Satyam has also launched its Grid Computing Practice.

Oracle, to the life sciences industry, offers more than 30 products to address the specific issues that pharmaceutical and medical device companies face. Oracle's life sciences applications are focused on products that can manage resources and costs across discovery, development, manufacturing, and marketing teams and also accelerate and optimize the discovery pipeline, reduce risk, and streamline sales and marketing efforts.

Sun Microsystems has set up a dedicated Center of Excellence (CoE) for bioinformatics with the Centre for DNA Fingerprinting and Diagnostics - Sun Microsystems Medical Bio-informatics Center of Excellence in Hyderabad to address this vertical. Clearly for these IT companies, healthcare and life sciences sector is a very important focus area.

Ch. Srinivas Rao with Rolly Dureha and Narayan Kulkarni