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"Cloud computing is gaining prominence in life sciences industry"

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Known as one of the leading software services companies in India, few are aware that the healthcare and life sciences industry segments actually contribute upto 26.3 percent of Cognizant's revenues. Cognizant offers a number of services in the domain of pharmacovigilance, supply chain management and solutions for drug discovery. Cognizant was recently adjudged the leader in the recent IDC MarketScape evaluation of drug safety services providers in the life science industry.

Q: How important are the operations for the pharma/life sciences industry at Cognizant?

We are a leading service provider to the life sciences industry, working with 27 of the top 30 global bio-pharmaceutical companies, nine of the top ten biotech companies, and three of the top 10 global medical devices companies. Our comprehensive and diverse solution offerings address the needs of the customers across the dimensions of plan, build and operate through our consulting, BPO, ITO and IT IS services. In 2012, the healthcare and life sciences industry segments together contributed 26.3 percent of Cognizant's revenues.

Q: Can you talk about Cognizant's work vis-a-vis Indian clients? What services do you provide to the Indian pharma industry?

We have increased our focus on the India market in the recent years and are working with quite a few leading companies. We are seeing a strong focus on benchmarking processes, standards and adherence to constantly changing regulatory demands. This has created several consulting opportunities where we have been able to streamline processes, benchmark to standards and provide an IT roadmap. Some of the popular demand areas are QC systems (such as Laboratory Information Management System), SAP (Enterprise Resource Planning),Product Lifecycle Management (PLM), Manufacturing Execution Systems (MES), safety and regulatory operations and commercial operations.

Q: Could you also elaborate on how cloud computing is being used in the pharma and life sciences segment?

Cloud computing is gaining a lot of prominence in the life sciences industry segment. Within R&D, discovery and translational medicine are some of the key areas which are driving demand. Next Generation Sequencing (NGS) is obviously a key application area that requires both storage and compute resources. Other areas such as molecular modeling and predictive modeling are also being moved to the cloud. Translational medicine is another area which, given its multidisciplinary nature, is adopting cloud, again for both storage and compute. One of the leading industry initiatives for translational medicine, tranSMART is on the Amazon cloud.

Security continues to be the top concern for adoption of public clouds, but there are several instances of private cloud for addressing the needs of the life sciences segment. With cost pressures and the need to reduce capital expenses, cloud adoption is gaining momentum across the life sciences value chain and is not limited to R&D functions such as sales force automation, sales effectiveness services, brand management and analytics, and so on.

Q: What is the Pistoia Alliance and could you elaborate a bit about your work for it?

Cognizant has delivered a conceptual cloud-based platform as part of the Pistoia Alliance to facilitate access to public and proprietary sources of gene sequence data. The Pistoia Alliance's sequence services working group aims to define and document an externally hosted service for securely storing and mining both proprietary derived gene/sequence information and public domain genomics/genetics databases. This platform developed by Cognizant enables working group companies to securely share their bioinformatics resources among simultaneous, registered users in a secure, encrypted environment, while leveraging the flexibility, scalability, and cost-efficiencies of a cloud-based Software-as-a-Service (SaaS) platform.

Cognizant has leveraged its domain-intensive global resources, deep understanding of drug development processes and cloud computing models, and global program management and delivery capabilities to build and manage a platform that supports the Pistoia Alliance's aim to lower barriers to innovation by improving the interoperability of business processes, data, and technology interfaces in the life sciences research industry.

Q: Can you give any case examples of how solutions for discovery and preclinical studies have been used?

Discovery usually comprises several disparate and small systems that grow both organically and inorganically adding to both license costs and maintenance overheads. Cognizant's solution offering for discovery and preclinical studies covers the breadth of consulting, development and support spectrum. Portfolio rationalization helps consolidate both the processes and the tools. In the area of preclinical studies, we have worked with our customers across process harmonization and product selection for areas such as animal welfare management system.

One of our core solution offerings is implementation of Electronic Laboratory Notebooks (ELN), Laboratory Information Management Systems (LIMS), Chromatography Data Management Systems (CDS) and Scientific Data Management Systems (SDMS). We have serviced several customers in ELN and LIMS implementations, and have also developed several solutions ground up in areas such as compound management, reagent management, preclinical data warehouse, and so on.

Our "SEND in a Box" solution was launched recently to address the upcoming FDA mandate for submitting non-clinical data in the CDISC SEND format. SEND is similar to SDTM for submitting clinical data. We support several customers in managing and maintaining their lab and discovery portfolio of applications. This is a managed service offering and outcome-based. In addition, we have also mobile-enabled some of the key use cases within a lab by integrating with a LIMS application. We now have a strong focus on translational research and are working with our customers to understand and define their strategy since these are still early days.

Product development, manufacturing and supply chain are key elements of Cognizant's Life Sciences portfolio. Through these areas, we cover the entire technical operations space, including quality, compliance and CMC regulatory compliance.

Q: Do you see any trends in the pharmacovigilance segment in the last year?

We see an increasing trend in partnering on the end-to-end process of pharmacovigilance. Several activities considered core earlier are currently being outsourced, including activities such as signal detection and aggregate reporting. We see a trend where companies are engaging in strategic consulting and looking to transform benefit risk management of their safety operations. This clearly follows the earlier trend that started with outsourcing medical contact center, followed by case

management operation.

We are also seeing the impact of Social, Mobility, Analytics and Cloud (SMAC) on safety. Delivery models are evolving to leverage the cloud and moving towards the "as-a-service" model, specifically business process-as-a-service. Considering the growing interest in tracking and reporting adverse events from social media, we have made significant investments around safety transformation and tools for automating aggregate reporting and social media tracking and reporting of adverse events.

Q: Have you introduced any new services in the recent past, keeping in mind any market trends such as Quality by Design requirements by FDA, or specifically for biosimilars/vaccines?

We constantly add new services to proactively address any market trend or regulatory requirement/ change. The solution portfolio outlined earlier is a mix of established and new services. Solutions that enable robust product development and help achieve operational excellence by enabling automation and improving compliance are established service offerings. Those aimed at building an advanced planning framework, and transforming distribution network by using a service-based approach are relatively new offerings, responding specifically to serialization and pedigree demand, and planning and cost optimization respectively.