



➤ **Demand more. Next generation global IT and BPO services for life sciences companies.**

Demand more. Next generation global sourcing for life sciences companies.

Can you improve operational efficiency while actually cutting costs? Do you have a strategy for managing the huge volumes of patient and safety data generated by your organization every day? How will you achieve value from your global ERP solution? Are you maximizing the effectiveness of your sales force and reaching the key opinion leaders that matter most to you? Most importantly, can your current outsourcing partners help you answer any of these questions?

At Cognizant, we can. Cognizant is a pioneer in global service delivery for the life sciences industry. As part of Cognizant's 55,000-plus person global delivery organization, our 5,000-strong life sciences practice is dedicated to solving the problems facing today's global pharma, biotech and medical device companies. With a proven track record delivering end-to-end ITO and BPO solutions, we service the most strategic aspects of your business.

Solutions aligned to the needs of your business

DISCOVERY AND PRE-CLINICAL	CLINICAL DEVELOPMENT	PHARMACOVIGILANCE	MANUFACTURING AND OPERATIONS	SALES AND MARKETING
<ul style="list-style-type: none"> Sample and Compound Management Assay Results Management LIMS Discovery Decision Support Analytics & Data Visualization Pre-Clinical Data Warehouse IM-KM Services IP Support Services 	<ul style="list-style-type: none"> Clinical Trial Management Clinical Trials Supplies Management Clinical Data Management Clinical Data Repository EDC Product Configuration Biostatistical Programming and Analysis Scientific and Medical Writing Coding and Dictionary Management Lab Data Operations 	<ul style="list-style-type: none"> Adverse Event Contact Center Product Contact Center SAE Reconciliation Case Processing and Reporting Aggregate Reporting Safety Data Repository AERS Implementation Signal Detection Systems 	<ul style="list-style-type: none"> SAP/Oracle Implementation & Maintenance CAPA Management Product Complaint Systems Warehouse Management System (WMS) Supply Chain Optimization Logistics Planning Forecasting & Manufacturing Systems ePedigree & Serialization 	<ul style="list-style-type: none"> Enterprise Customer Master Territory Alignment CRM/SFA Implementation & Maintenance Commercial Data Warehouse Sales & Brand Analytics Sample Optimization Sales Operation Support Data Governance & Stewardship KOL Reporting

GLP

GCP

GMP

PDMA

21CFR Part 11 & CSV

Transforming strategic sourcing for competitive advantage

With today's heavy focus on cost cutting and productivity improvement, life sciences companies are seizing the opportunity to transform IT functions and business processes. Many aspects of the business previously deemed "core" are now considered candidates for outsourcing. While the challenges are many, the right partner can help in surprising ways:

- Drug development pipelines are under pressure, with fewer "blockbuster" drugs on the horizon and increasingly lengthy and more expensive clinical trials putting a strain on the bottom line.
 - Cognizant works with customers to increase discovery process productivity with better IT tools. We also help improve drug development efficiency and cost effectiveness through outsourced clinical data management services and technology platform improvements.
- Revenue challenges are forcing the industry to optimize existing sales activities through better customer targeting and improved sales tools.
 - Cognizant is an industry leader in providing innovative CRM solutions. We help clients deploy global sales force automation solutions complete with advanced analytics capabilities. In addition, our marketRx® team can provide outsourced analytics services to assist with everything from territory alignment to target market segmentation. The net result is that your best sales people are optimizing the time they spend with the right buyers and influencers.
- Regulatory requirements are becoming increasingly stringent, placing stress on existing systems and processes. Rigorous validation of software, application changes and supporting documentation is an ongoing drain on your resources; fines for non-compliance can run into the millions.
 - Cognizant has a dedicated Office of Regulatory Affairs & Compliance (ORAC) to ensure compliance with relevant industry regulations and guidelines. Moreover, all of our life sciences associates undergo a full training program. We have a proven track record of delivering validated systems and even offer validated software testing as a stand-alone service to many of our clients.



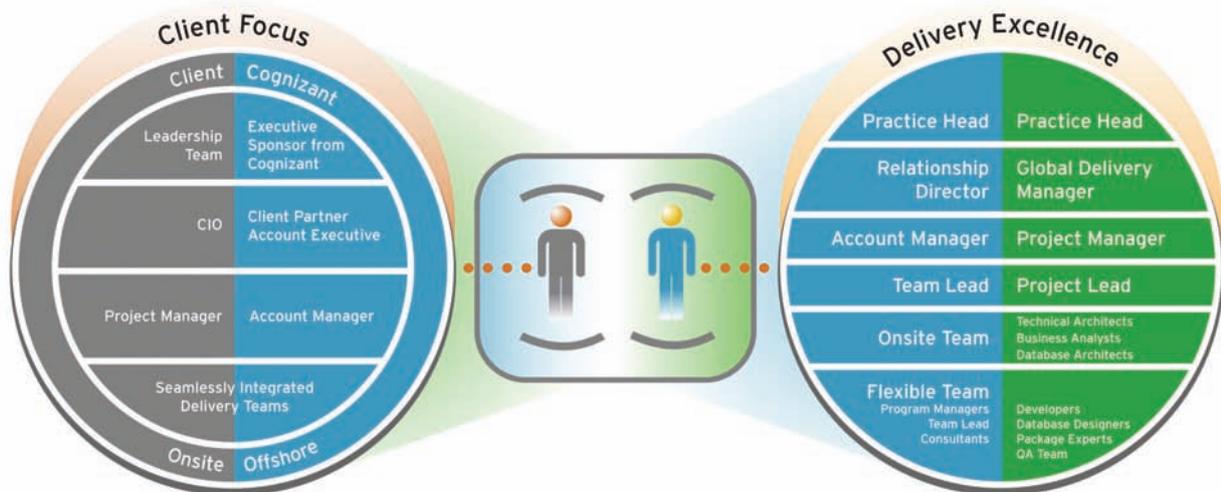
- Drug safety, while always a major focus for life sciences firms, has taken on new significance in recent years. Providing early and more accurate signal detection, while lowering the costs associated with pharmacovigilance (PV), has become a top priority.
 - Cognizant offers its clients both the business process and development support they need to better manage product safety. Whether we are running an adverse event call center, developing and deploying an enterprise AERS platform, or building an integrated clinical data repository (CDR), our team understands how to drive PV improvements that also deliver bottom-line impact.
- Globalization is dramatically changing the way your company operates. As U.S. growth slows, Europe and Japan take on new significance. Emerging markets - especially China and India - present new growth opportunities as well as attractive centers for drug development and manufacturing.
 - Cognizant is a truly global partner with significant presence in the geographies that matter most to you. With major delivery centers in India and China, we can seamlessly integrate with your existing international operations. And with experience deploying business and IT solutions across the Americas, EU, Japan, and other regions we understand the nuances of working across cultural and regulatory boundaries.

The Cognizant difference

What makes us different? By combining our deep domain expertise across the value chain with our proprietary “two-in-the-box™” onsite/offshore client relationship model, Cognizant is able to achieve unprecedented business benefits while dramatically reducing your operating costs. Whether we

are providing outsourced clinical data management services or delivering a global sales force automation solution, our team always includes experienced industry professionals who understand your business and the unique challenges of operating in a highly regulated environment.

Cognizant's unique operating model



Deep relationship aligned with the client organization

Empowered organization with focus on value addition in domain and technology

To ensure that we consistently deliver industry-leading solutions, Cognizant's life sciences practice invests significantly in expanding its knowledge capital. Through over ten years of solving the industry's toughest problems, our team has built a massive repository of best practices, tools, and frameworks - each optimized to accelerate solution development and lower costs. For example, our RFID solution provides a ready-built framework for implementing your ePedigree strategy. In addition, our ASPIRE

solution offers a blueprint for building an integrated Clinical Data Repository (CDR).

With specialized offerings covering business process outsourcing, software testing, infrastructure services, application development and maintenance, CRM, ERP, data warehousing, and analytics, our team is ready to help you gain a competitive advantage.

Cognizant's solutions frameworks for the life sciences industry help accelerate effective service delivery

- **Enterprise Customer Repository™** - Providing a single view of enterprise customer intelligence.
- **ASPIRE eClinical Framework™** - Enabling the creation of an industry standard integrated clinical data repository and statistical reporting platform.
- **CDISC Gateway™** - Automating the conversion of proprietary data sets into a CDISC standard format.
- **Regu-Lite™** - Enabling Computer Systems Validations in accordance with guidelines on electronic data in pharma R&D.
- **deCiFeR** - Providing a comprehensive snapshot of compliance-related issues and used for eLearning and consulting purposes.
- **RFID Framework** - Supporting the creation and certification of official ePedigree documents and the transfer of ePedigree to trading partners.
- **Clinical Trial Registry** - Ensuring all clinical trials are registered, publicly declared and identifiable.

Industry leading capabilities

When you partner with Cognizant, you partner with a leader. Our life sciences practice has long been a pioneer in global service delivery. For example, we were among the first companies to provide offshore clinical data management services. We were also one of the earliest firms to implement a CDISC-compliant clinical data repository.

But being first doesn't matter if you're not the best. Cognizant's life sciences practice sets the bar for the rest of the industry:

- **We work with the best - and the best work with us.** We have relationships with 27 of the world's top 30 pharmaceutical companies, nine of the top 10 biotech and three of the top five medical device companies -- covering such areas of their businesses as application development, support and maintenance, CRM, EDMS, CDMS, CTMS, ERP, DW/BI, integration & infrastructure, business process outsourcing, PV Biometrics, regulatory compliance and validation support across all GxPs, business technology consulting, strategic consulting (thought leadership) and a full range of software testing.
- **Our experienced team knows your domain.** Our practice boasts over 5,000 professionals focused exclusively on IT and BPO solutions for the life sciences industry. The team includes hundreds of physicians, clinicians, marketing analytics consultants, business analysts, and other specialists. We invest heavily in growing new talent as well; Cognizant has established the first-of-its-kind clinical data management degree program in partnership with Manipal University in Mumbai.
- **Compliance is our passion.** Our dedicated Office of Regulatory Affairs & Compliance (ORCA) ensures that all GxPs and other guidelines are adhered to across all IT and BPO operations - see page 7.
- **We understand validated systems.** Our mature, proven validation methodology is 21 CFR Part 11 compliant and easily integrates with your own validation processes. So whether we are implementing a new system, maintaining existing platforms, or providing independent software testing services, you can be assured that we are fully aligned with your existing quality processes.



- **Innovation drives our delivery.** Our team has developed a comprehensive set of tools, frameworks, and best-practices covering all aspects of the value chain. When we see new trends emerging in the market, we invest ahead of the curve to meet the demand. For example, our SMART solution provides a framework for providing integrated sales and marketing analytics.
- **Our strategic partnerships are aligned with your needs.** Our strategic partners ensure that we can provide deep competencies to service the unique needs of the life sciences industry. This is especially important for clinical safety, clinical trial management, EDC, LIMS, ERP, document management, business process automation, sales force automation and analytics. Our strategic partners include:

■ BEA	■ Pegasystems
■ Business Objects	■ PhaseForward
■ Cognos	■ SAP
■ Documentum	■ SAS
■ Labvantage	■ Siebel
■ Medidata	■ Spotfire
■ Microsoft	■ TIBCO
■ Oracle	

Our proven approach delivers results

CASE STUDY

Enterprise AERS solution for a leading European pharma

A leading European pharmaceutical company was faced with spiraling costs due to maintaining and licensing multiple, heterogeneous Adverse Event Reporting Systems (AERS) across geographies and business units. In addition, the fragmented platform did not easily support global safety regulatory and reporting processes. Overall productivity was low due to the inconsistent user interfaces.

After evaluating both internal and third-party options, the company turned to Cognizant to design and develop a new enterprise AERS to service its global user base. Replacing an existing mix of proprietary and third-party solutions, this end-to-end integrated solution has delivered immediate business benefit through active workflow controls and more streamlined case handling.

Key highlights of the solution include:

- Dramatically improved user interface and workflow management
- Robust, secure, scalable architecture capable of handling nearly 1000 concurrent users and millions of cases
- Full compliance with all regulatory requirements
- Centralized transactional database containing all adverse event information.

CASE STUDY

Streamlining software quality for a pharma giant

Our client was spending millions of dollars on decentralized software testing efforts spread throughout its enterprise. Ad-hoc staffing, inconsistent testing procedures, heterogeneous tools and persistent test environment management issues led to protracted software testing timelines and significant cost overruns.

Working in collaboration with the firm's software quality organization, Cognizant adapted its Managed Test Center model to establish an offshore Testing Shared Services Center (SSC). The Cognizant-run and staffed Testing SSC provides on-demand software testing services throughout the enterprise. Utilizing standard tools and methods aligned with the client's existing SOPs and validation guidelines, Cognizant has greatly accelerated software testing efforts while dramatically cutting costs.

Best of all, Cognizant's flexible resourcing and workload management ensure that the client only pays for exactly the staffing it needs, when it is needed. Important services provided by the Testing SSC include:

- Test environment management and configuration support
- Manual functional testing (including test case creation)
- Test automation and performance testing.

CASE STUDY

Breakthrough productivity gains in end-to-end Clinical Data Management (CDM)

Over a two-year period our client's global drug development organization had explored limited tactical outsourcing of discrete CDM activities. While this approach led to some near-term cost savings through offshore labor arbitrage, the approach was not ideal for achieving sustained efficiencies.

Cognizant leveraged its experience with the client's CDM operations to propose an end-to-end, SLA-driven service delivery model. Cognizant assumed full responsibility for comprehensive CDM services covering study set up, dictionary services, data acquisition, clinical data management, safety data management and statistical/analytical programming.

Through a collaborative partnership, Cognizant transformed CDM operations, delivering significant cost savings while driving big productivity gains, including:

- Study set up time cut by over 50 hours per study
- Productivity improved by 70% for e-publishing
- 20% reduction in quality control time for submitted data sets.



A passion for compliance

Our dedicated Cognizant Office of Regulatory Affairs & Compliance (ORAC) is the only one of its kind offered by an offshore company and we insist that all senior associates are certified.

- ORAC monitors the regulatory environment and drives changes based on the regulations
- ORAC ensures:
 - 100% training of all Cognizant life sciences associates
 - Compliance with regulatory requirements and client SOPs
 - Ongoing industry partnerships address new and emerging regulations such as CDISC, PAT, ePedigree, PhRMA
- ORAC publishes opinions and white papers on regulatory standards and implications on IT systems and business process
- Audits in partnership with sponsors are a key feature of ORAC:
 - Cognizant has been audited by 7 of the top 10 Pharma, CROs and EDC vendors
- ORAC members are required to be Regulatory Affairs Certified (RAC) Consultants:
 - Professional Certification Program Organized by RAPS
 - Dedicated teams are focused on specific geography-related regulations in US, EU and Japan

TAKE THE FIRST STEP TO ACHIEVE MORE TODAY

Isn't it time you demanded more from your outsourcing partner? We think so. And with proven capabilities in delivering technology solutions and business process across the life sciences industry, Cognizant is the natural choice to help you meet the critical challenges of cost, compliance, product safety, skills shortages and speed to market.

So when you're ready to demand more, our single-minded passion for making our clients' businesses stronger will deliver more.

For a FREE consultation on how we can work with you to make your business stronger, contact us today.

Please contact us at <http://www.cognizant.com> or contact inquiry@cognizant.com.

About Cognizant

Cognizant (NASDAQ: CTSH) is a leading provider of information technology, consulting and business process outsourcing services. Cognizant's single-minded passion is to dedicate our global technology and innovation know-how, our industry expertise and worldwide resources to working together with clients to make their businesses stronger. With more than 35 global delivery centers and over 55,000 employees as of December 31, 2007, we combine a unique onsite/offshore delivery model infused by a distinct culture of customer satisfaction. A member of the NASDAQ-100 Index and S&P 500 Index, Cognizant is a Forbes Global 2000 company and is ranked among the top information technology companies in BusinessWeek's Info Tech 100, Hot Growth and Top 50 Performers listings. Visit us online at www.cognizant.com.



Cognizant

World Headquarters

500 Frank W. Burr Blvd.
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
TollFree: +1 888 937 3277
Email: inquiry@cognizant.com

European Headquarters

Haymarket House
28-29 Haymarket
London SW1Y 4SP UK
Phone: +44 (0) 20 7321 4888
Fax: +44 (0) 20 7321 4890
Email: infouk@cognizant.com

India Operations Headquarters

#5/535, Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060
Email: sdcc@chn.cognizant.com