



**INFOTECH**

Building relationships globally



# Larsen & Toubro InfoTech, Limited

IT Solutions for the Global Oil and Gas Industry



**Microsoft**  
GOLD CERTIFIED  
Partner

**Microsoft**

## Larsen and Toubro InfoTech

Larsen & Toubro InfoTech, Limited (L&T InfoTech) is a global consulting company and IT solutions provider based in Mumbai, India and Edison, New Jersey in the USA. Since it was spun off as a 100-percent subsidiary of Larsen & Toubro Limited in 1997, L&T InfoTech has become one of India's leading software consulting companies by providing customers with high-quality services, operational flexibility, and rapid response to their requirements.

L&T InfoTech provides IT engineering, data and process integration, and Web-enabled solutions for Fortune 500 companies. From its roots in both engineering and business process support for its parent company, L&T InfoTech provides deep business acumen and technical expertise, which help its customers achieve better bottom-line results.

The company's Microsoft initiative is based at its Microsoft® .NET Center of Excellence (CoE) in Mumbai, India. This CoE works closely with the company's oil and gas CoE, where technical specialists perform research, conduct pilots and proofs of concept, and train consultants in the oil and gas domain. L&T InfoTech also maintains 10 development centers in India and a business presence in the United States, Canada, the European Union, India, and East Asia.

### Microsoft Partner Alliance

Global service delivery Partners are an important part of the Microsoft Partner ecosystem. By using a global delivery model of technologies and services, Microsoft and its Partners can use the onsite-offshore model to deliver new business capabilities, help customers accelerate legacy migration and adoption of new platforms, and enable them to achieve more cost-effective operations.

Microsoft Global Delivery Partners are a worldwide community of consulting and solution integration firms. These companies stand ready to help Microsoft enterprise customers design, install, and maintain secure networks, mobile access, and remote connectivity by using Microsoft technologies.

Microsoft Global Delivery Partners include the world's fastest-growing vendors. Like all members of the Partner community, L&T InfoTech has a proven and distinguished track record among Global 1000 customer companies and world-class capabilities based on the Microsoft platform. These capabilities are aligned with vertical and horizontal solution areas. This brochure is designed to highlight L&T InfoTech capabilities and help potential customers to better assess engagement opportunities with this Partner.





## Rich Resources of Business and Technical Expertise

The business environment of the global oil and gas industry is characterized by extremes—the complexity of its business and technical processes, the amount of capital needed to develop resources, and the value of opportunity costs lost by obsolete information, inaccurate decisions, or operational delays.

Success in this hyper-competitive environment requires discernment and good judgment—and powerful IT tools that help decision makers to make good business decisions appropriately, quickly, and effectively. Since its founding in 1997, L&T InfoTech has used its deep scientific, engineering, and process operations knowledge to deliver cost-effective IT solutions to customers in the petroleum, heavy construction, and manufacturing industries. To this expertise, L&T InfoTech adds experience gained from supporting business processes at its parent company, Larsen & Toubro Limited, to create solutions that help its customers achieve their business goals.

L&T InfoTech combines this deep domain and business process experience and the rich functionality of Microsoft development, collaboration, and Web-enabled technologies to build IT-based solutions that help oil and gas companies improve their revenue potential by:

- **Providing real-time petroleum supply and product demand data and analytical capabilities** for refinery operations to maximize the value of refined products.
- **Integrating investment portfolio data with financial back-end systems** to maximize the value of upstream and downstream assets.
- **Integrating supply chain management data and processes** to provide cost-effective, appealing retail services.



## Quick, Accurate Refinery Decisions

Optimizing refinery operations is mostly a planning process enabled by matching the types and volumes of crude oil coming to refineries through pipelines and the demand for specific types and volumes of refined products. Each crude oil shipment is a business opportunity. Maximizing the value of these opportunities requires complex analysis and access to a wide variety of crude oil distribution, product pricing, and refinery process data, which must be constantly monitored, analyzed, and displayed.

The rich experience of L&T InfoTech consultants and engineers ensures that only the most relevant data is chosen, organized, and displayed for refinery operations managers. Microsoft technologies add to the value of these solutions by enabling companies to develop flexible, scalable applications that are easy to develop, deploy, and use. Typically, these solutions include:

- **Microsoft .NET Framework**, which provides tools and reusable Web parts to develop dashboards and customized applications that process crude oil supply and product demand data. Reusable components and services made in the .NET Framework add to the value of these solutions by enabling faster, lower-cost solution development and error-free operation on many IT platforms.
- **Microsoft Windows Server™ 2003 and Windows® XP Professional**, which provide reliable, scalable infrastructure services and secure access to refinery data from business user PCs. Solutions developed on the Microsoft Windows platform provide fast, lower-cost deployments and simpler, lower-cost management that keeps operations costs low.
- **Microsoft SharePoint™ Portal Server**, which provides a collaboration platform, from which refinery operators can view relevant data displayed on dashboards.
- **Microsoft SQL Server® Analysis Services**, which help programmers develop applications that determine whether the right type of crude is available to produce specific products and to ensure refinery process control.

The resulting portal-based solutions reduce the time needed to gather, analyze, and display refinery process data gathered by monitoring devices and to assess the potential value of each crude oil shipment.

L&T InfoTech refinery optimization solutions transform large volumes of technical data and complex processes into information and display it in a way that is easy to monitor, understand, and use. In this way, these solutions maximize the value of refinery yields and make refinery operations more agile.



## Fast, Accurate Resource Planning

In the petroleum industry, companies often manage a very diverse portfolio of upstream and downstream assets that range from offshore drilling platforms, refineries, and retail gasoline stations. Data that informs strategic asset investment and allocation decisions must be gathered, often from many locations continents away from corporate headquarters.

L&T InfoTech designs flexible asset management solutions that monitor and report financial, and operations data from each location. These solutions, which provide continuous access to large volumes of data quickly and accurately, are based on the L&T InfoTech Enterprise Asset Management System framework and these Microsoft technologies:

- **Microsoft .NET Framework**, which enables programmers to write XML-based Web services that automate resource data discovery, collection, analysis, and planning tasks and connect applications to SAP and other back-end systems. These services also enable development of user-friendly dashboards that provide views of critical asset data.
- **Microsoft SQL Server**, which provides scalable data storage in a single data and knowledge repository and virtualized database management that promotes rapid access to data originating from many locations.

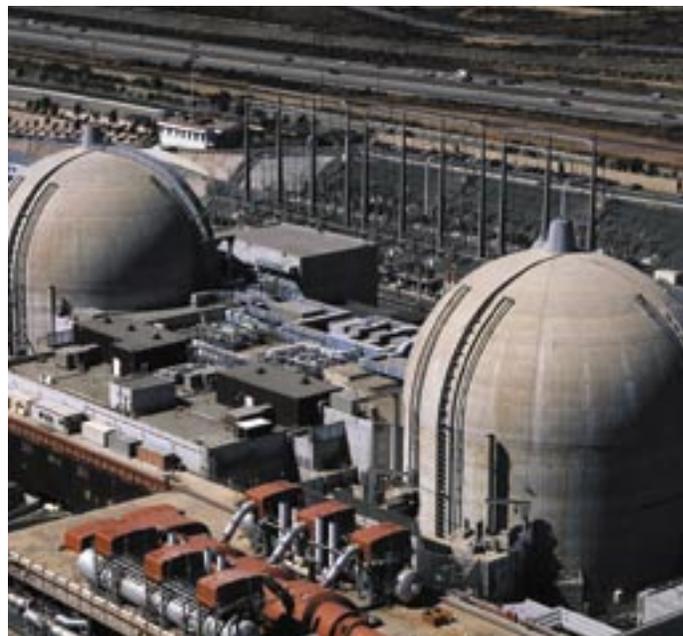
- **Microsoft Office SharePoint Portal Server**, which enables the creation of intranet portal solutions that extend enterprise resource planning (ERP) capabilities by providing a worldwide collaboration platform. Within these solutions, raw data can be monitored, and analytical results can be viewed by or shared with anyone who has access privileges.

Benefits of L&T InfoTech data access and collaboration solutions include:

- Flexible solutions that can be scaled quickly to many worldwide operations and facilities.
- Reduced development time, which enables faster time to value.
- Faster, error-free data analysis, which enables more informed business decisions and improved business agility.

By connecting data analysis capabilities to back-end systems, automating data handling tasks, and making resource information available to business users at headquarters or far away, L&T InfoTech ERP solutions improve the speed and quality of asset allocation and investment decisions.

*L&T InfoTech designs flexible asset management solutions that monitor and report financial, and operations data from each location.*



## Real-Time View of Sales, Services

Fierce price competition squeezes the margins of retail gas distributors. To stay competitive, these businesses must keep strict control of their operating and distribution costs and attract more customers to their retail outlets. Under these circumstances, companies that provide more efficient and attractive customer services will have a competitive advantage.

The L&T InfoTech gStation™ solution framework provides companies with quick startups and the specialized functional capabilities that can answer the challenges of retail gasoline station operation. Solutions based on the gStation framework combine L&T InfoTech business experience and technical resources with these Microsoft technologies:

- **Microsoft Visual Basic® .NET** to develop process integration applications and render them on the Internet.
- **Reusable XML-based Web parts**, which enable automated handling and integration of product delivery and sales data, credit card transactions, and other data from retail gasoline stations and convenience stores into back-end systems within and between customer and supplier companies.
- **SharePoint Portal Server** collaboration platform, from which petroleum product supply-chain operations personnel can view the delivery and sale of gasoline at any pump and other products and services in real time from browser-based dashboards.

The results are efficient, cost-effective extranet portal solutions that automate the data handling tasks and integrate the business processes needed to provide retail petroleum products and customer services at retail gas outlets.

Benefits include:

- Rapid, trouble-free data exchange between companies and their customers, suppliers, and business partners.
- Reduced IT and operations costs and faster time to market enabled by faster design and setup of new customer services.
- Lower inventory costs made possible by faster delivery of needed products and supplies.
- Additional revenue enabled by faster, more flexible response to changing customer needs.

*L&T Infotech offers a wide range of consulting, applications development, customization, implementation, maintenance, and support services...*

## Oil and Gas Software Solutions

L&T InfoTech solutions and services are based on the company's deep engineering and business support experience and the rich functionality of Microsoft development, collaboration, and Web-enabled technologies. To help your customers realize significant return on investment (ROI) from its solutions, L&T InfoTech offers a wide range of consulting, applications development, customization, implementation, maintenance, and support services to upstream and downstream segments of the global oil and gas industry.

In addition to the refinery optimization, asset management, and retail integration solutions described previously, L&T InfoTech also provides additional solutions and consulting services.





share data related to petroleum exploration and production assets, processes, and operations. Solutions include:

- Upstream process and asset knowledge management
- Remote oilfield operations management
- Asset utilization, maintenance, and value maximization

Upstream oilfield operations offerings are typically based on the following Microsoft technologies:

- Microsoft Visual Studio.NET
- Microsoft SQL Server
- Microsoft Internet Information Server

L&T InfoTech also provides the oil and gas industry with the following horizontal solutions and IT services:

- ERP application development, implementation, and support
- Enterprise application integration
- Data warehousing and business intelligence
- Web services and service-oriented architecture (SOA)
- Engineering

## Supply Chain Management Solutions

Supply chain management solutions enable companies to control costs, make processes more efficient, and reduce risk by planning, scheduling, and tracking the costs of goods and services through their supply chain. Specific solutions include:

- Demand Forecasting and Planning
- Supply Chain Optimization
- Logistics Planning and Order Management
- Fleet Management and Terminal Management

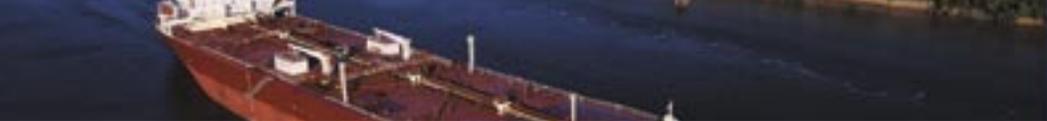
L&T InfoTech supply chain management solutions are typically based on the following Microsoft technologies:

- Microsoft Visual Studio.NET
- Microsoft SQL Server
- Office SharePoint Portal Server
- BizTalk Server
- Content Management Server, Commerce Server, and Host Integration Server

## Digital Upstream Oilfield Operations Solutions

Digital upstream oilfield solutions enable technical specialists and managers to gather, analyze, display, and





To contact Larsen & Toubro InfoTech, visit [www.Lntinfotech.com](http://www.Lntinfotech.com) or call the sales office nearest you.

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