



Microsoft Dynamics Customer Solution Case Study



Overview

Country or region: India

Industry: Healthcare

Customer Profile

Set up in 1949, Dr Lal PathLabs (LPL) has emerged as one of the highest accredited laboratories in the country, serving more than 6 million customers per year. It has a pan-India presence with state-of-the-art technology and highly skilled personnel.

Business Situation

With tremendous growth and geographical expansion, LPL faced automation and integration issues with existing line-of-business applications. Delayed reporting and scalability issues led the management to look for a scalable, secure and integrated business solution.

Solution

With the help of IL&FS Technologies, Microsoft® Business Partner, LPL deployed Microsoft Dynamics® AX 2009 to strengthen internal controls, manage increasing transaction volume with precision and ensure reporting capabilities with anytime-anywhere analysis.

Benefits

- Annual saving of INR 6 crore
- Facilitates competitive business gains
- Enhances patient convenience

Indian Pathology Lab Saves 2.4 Percent of Revenues Annually

Saves INR 6 Crore (U.S.\$ 1.34 Million), Reduces Turnaround Time by 50 Percent

“We serve about 15,000 patients per day which is a huge leap from 4,500 patients a day earlier. This results in more than 45,000 tests per day.”

Arun Mathur, Chief Information Officer, Dr Lal PathLabs

A pioneer in diagnostic services, Dr Lal PathLabs (LPL) has state-of-the-art technology and equipment to carry out over 1,650 different tests. With expansion plans to create a pan-India footprint, there was a clear need to integrate all collection centers and labs to integrate clinical processes with the business. With futuristic approach towards services and technology, it decided to implement Microsoft Dynamics® AX 4.0, which was upgraded to AX 2009. IL&FS Technologies (ITL) deployed the solution to enhance productivity and efficiency; resolve business expansion and management issues; and ensure anytime-anywhere reporting and analysis. The solution now ensures better services with improved and quicker communication. With annual savings of INR 6 crore, Dr Lal PathLabs expects to lower the cost of operations significantly over the next five years. The organization has already recovered the implementation cost.

“Turnaround time for customers is reduced from 6 to 8 hours to 3 to 6 hours.”

Arun Mathur, Chief Information Officer, Dr Lal PathLabs

Situation

Founded in 1949 by Dr. S. K. Lal as a blood-testing centre, today Dr Lal PathLabs (LPL) is one of the largest and most respected diagnostic service providers in India. With a proven record of accomplishment of more than six decades for strict adherence to international standards and benchmarks, it offers quality services to its customers in the form of more than 1,650 types of tests.

From 4,500 patients per day in 2006 across 15 Labs, it has spread rapidly to 80 state-of-the-art labs across the country including the National Reference Lab (NRL) in Delhi, satellite labs in national capital region (NCR) and small labs across the country; visited by 15,000 patients every day. Its touch points include 1,000 collection centers and 2,500 pick-up points throughout the country. Its employee strength of over 1,800 people, serves over 6 million customers every year. It is growing at a compounded annual growth rate (CAGR) of 40 percent. The annual revenue of the company in 2010-11 was INR 250 crore (US \$60 million) approximately.

Dr Lal was an ardent technology-enthusiast. For the first time in the healthcare industry in 1998, he used FoxPro based reports when its competitors were using typewriters to type out reports. Since then, the organization has seen repeated upgrades in IT infrastructure. The tech-savvy management is always in the process of enhancing its technology infrastructure to extract as many benefits as possible.

In the last two decades, LPL management had significantly invested in multiple standalone automation applications. Line-of-business (LOB) applications on multiple platforms included IBM's AIX based solution, Tally for financial accounting, ERP from Ramco for purchase and inventory management, and an in-house designed application for payroll. In 1990, when the

number of daily samples started to cross 800 per day, it deployed Triple G's Ultra, Laboratory Information Management System (LIMS), for the management and automation of all areas of the clinical laboratories and report generation.

Lack of integration led to business issues as well as IT challenges, limiting business growth. Accurate and on-time patient reports are one of the most important facets adversely impacted by disparate applications. This affected customer service level. Multiple versions of the same information existed across the organization, which resulted in perpetual need for reconciliation. “Limitations on scalability and integration became a big hindrance in our growth,” says Arun Mathur, Chief Information Officer, Dr Lal PathLabs.

Business growth with geographical spread and increasing transaction volumes led the management to reconsider its IT infrastructure. Arun Mathur with his prior, hands-on experience on various ERP solutions took on an initiative to deploy an ERP solution. He identified online reports, messaging services and connected labs were key requirements, and the current market demands. To fulfill these requirements in an expanding organization, there was the need for a centrally deployed, secure, scalable and easy to use business solution, to manage high transaction volume with clinical precision.

His objective was to transform the business solution infrastructure and align it with the long-term business goals to maintain 40 percent CAGR for the next five years. Arun continues, “We needed an adaptable and flexible business solution which would help us build and evolve our processes. Along with our growth, we wanted our processes to mature to deliver greater value.”

“Integration of heterogeneous solutions on varying technologies enables end-to-end process automation resulting in operational efficiency and savings.”

Dr. Om Manchanda, Chief Executive Officer,
Dr Lal PathLabs

Solution

After the decision was taken to deploy an ERP solution, the management considered various competitive ERPs available in the market. LPL decided to go for Microsoft Dynamics AX. “Microsoft Dynamics AX has the advantage of a user-friendly interface that doesn’t require domain expertise by users,” states Arun Mathur, Chief Information Officer, Dr Lal PathLabs. “This perfectly suited us for we needed a solution that would mostly be accessed by our lab technicians.”

Microsoft Business Partner, IL&FS Technologies Ltd (ITL) was shortlisted as the implementation partner for its experience in deploying solutions in the healthcare industry. LPL first deployed Microsoft Dynamics AX 4.0 in 2004. In July 2009, LPL upgraded to AX 2009 to take advantage of the latest features and functionality available in the new version of Dynamics AX. ITL facilitated the smooth transition so that it was business as usual for LPL employees.

The simplicity of the solution resulted in LPL rolling it across labs and Patient Service Centers (PSC) in India. Today, it is deployed at approximately 100 locations for over 200 concurrent users. Currently, 800 people in the organization are using the solution. Modules deployed include Accounts Receivable, Accounts Payable, General Ledger, Asset Management, Purchase, and Inventory, Patient Registration and Billing along with multiple interfaces with LOB solutions.

It was amongst the first ERP implementations in pathological labs in India. ITL guided LPL with the integration of Microsoft Dynamics AX with the existing applications. This extends the application to all departments to derive maximum benefits. ITL tailored the solution to integrate all specialized solutions such as Lab Information Management System (LIMS), Document Management System (DMS) and

Business Analytics in combination with ERP. This combines clinical processes with corporate business. The solution enabled the organization to automate and simplify business processes and strengthen internal control.

LIMS is the backbone for LPL’s laboratory and information management system. It supports laboratory operations from managing raw test data, final test results as well as to set and record quality parameters with respect to equipment, tests and turnaround time (TAT). After customization, Microsoft Dynamics AX allows real time integration with LIMS, through HL-7 (Health Level 7) protocol, a standard for exchanging information between medical applications to ensure effective control on quality, capacity and consumption.

Information from a patient’s Test Requisition Form (TRF) is fed into Microsoft Dynamics AX, and passed to LIMS to identify the tests required. The samples are bar-coded and go to analyzers connected to LIMS where pathologists validate and publish final reports on the web site.

Microsoft .NET 2.5 based DMS is integrated with Microsoft Dynamics AX to improve service standards and minimize TAT. For logistics, the sixteen centers in Delhi, Mumbai and Kolkata are installed with high-speed scanners. 30 data entry personnel at NRL ensure all the required information from TRF and the doctor’s prescription is already processed by the time courier team reaches the lab with physical samples. This saves travel and processing time which could be somewhere between an hour to 3 hours, thus avoiding any delays which in turn avoids coagulation or degeneration of blood samples. The information can be retrieved even after years from document repository or archives using the unique lab number.

“In the first year itself, we managed to save 2.4 percent of our revenues. This level of value and efficiency will propel us towards higher growth and expansion.”

Hemant Sultania, Chief Financial Officer, Dr Lal PathLabs

A CRM module within Microsoft Dynamics AX simplifies communication with external and internal users. For collection centers, Microsoft Dynamics AX Enterprise Portal enables users to access or enter information remotely. Collection centers sometimes prefer paper-based entries to online registration. Hence, the courier team carries samples with registration information to the nearest lab, where data is fed into the system via Dynamics AX Enterprise Portal. All labs are connected via Multiprotocol Label Switching (MPLS) virtual private networks (VPN) to a single server. Data from the server can be accessed from anywhere in the country.

The solution has also incorporated computer telephony integration (CTI) for patients to register via phone using caller line identification (CLI). This information is automatically routed to the database, according to pre-defined business rules.

Microsoft Exchange Server 2007 is integrated with the solution to facilitate automated emails to patients where as third party software is used for SMS integration.

Arun says, “Microsoft Dynamics AX is an application which we can never regret, for it not only provides us with flexibility but has also successfully connected all the existing interfaces in the organizations to derive optimal efficiency.”

“Based on the industry experience and solution roadmap, we expect the life of the project to be 6 to 8 years. We have already recovered the cost of the project. We plan to deploy Microsoft SharePoint Server to build our intranet for policy documents, bulletin boards and knowledge management,” explains Arun. “In the future, to improve patient convenience and operational efficiency, we are actively evaluating integration options with handheld devices.”

Benefits

Microsoft Dynamics AX has become a strategic enabler for growth and fuels efficiency. The new business solution integrates all the clinical processes with commercial transactions for efficient, accurate and timely delivery of test reports to patients.

Allows Annual Saving of INR 6 Crore

LPL estimates savings of approximately INR 6 crore from increase in efficiency across the organization. LPL has overcome accuracy challenges. This enhances team productivity, as well as, reporting and analysis efficiency. The new business solution manages accounting, procurement and billing. It equips the finance team to accurately capture revenue details and cut down on inappropriate operational cost.

Collection management is far more effective and faster, making teams proactive and adding to the profits. “In the first year itself, we managed to save 2.4 percent of our revenues. This level of value and efficiency will propel us towards higher growth and expansion”, comments Hemant Sultania, Chief Financial Officer, Dr Lal PathLabs.

Facilitates Competitive Business Gains

LPL is seeing exponential business growth across the country. Easy-to-adopt, and quick to deploy, Microsoft Dynamics AX facilitates expansion with strong internal controls. “Integration of heterogeneous solutions built on multiple technologies enables end-to-end process automation resulting in operational efficiency and savings,” states Dr. Om Manchanda, Chief Executive Officer, Dr Lal PathLabs. Dynamics AX manages procurement, inventory and consumption at more than 75 major locations and maintains optimal efficiency.

Scales Business Processes without Adding More Employees

The new business solution manages patient registrations and billing for individuals and corporate clients along with day-to-day receivables management. The transaction volume has grown by over 400 percent. This includes an increase in the number of labs from 16 to 80 across the country. “We have managed to support this increase with only a marginal expansion in the operations team,” states Arun. “We serve about 15,000 patients per day which is a huge leap from 4,500 patients a day earlier. This results in more than 45,000 tests per day.”

Enhances Patient Convenience

Integrated processes resulted in reduction of TAT in delivery of report to patient mostly by 50 percent. “Turnaround time for customers is reduced from 6 to 8 hours to 3 to 6 hours,” explains Arun. “Moreover, the self service capability enables patients to access online test reports, saving them a visit to their collection centre.”

Simplicity of the solution helped in faster adoption. “Today 98 percent of the organization is dependent on IT, with Microsoft Dynamics AX being end-to-end enabler,” concludes Arun. “It helps service our business needs, our patients and business partners.”

For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: www.microsoft.com

For more information about Dr Lal PathLabs, call (91)(124) (3016 500) or visit the Web site at: www.lalpathlabs.com

For more information about IL&FS Technologies products and services, call (91) (124) (4716400) or visit the Web site at: www.ilfstechologies.com

Microsoft Dynamics

Microsoft Dynamics is a line of integrated, adaptable business management solutions that enables you and your people to make business decisions with greater confidence. Microsoft Dynamics works like familiar Microsoft software such as Microsoft Office, which means less of a learning curve for your people, so they can get up and running quickly and focus on what's most important. And because it is from Microsoft, it easily works with the systems that your company already has implemented. By automating and streamlining financial, customer relationship, and supply chain processes, Microsoft Dynamics brings together people, processes, and technologies, increasing the productivity and effectiveness of your business, and helping you drive business success.

For more information about Microsoft Dynamics, go to: www.microsoft.com/dynamics

About IL&FS Technologies

IL&FS Technologies Limited (ITL) is a complete end-to-end technology solutions company offering consulting, software development, systems integration, data digitization and management service and solutions, performance tuning solutions and IT infrastructure management services to global customers. It is part of IL&FS Group, one of the largest infrastructure and financial conglomerates in India. ITL is currently working in the Indian, South East Asia and the Middle East Markets.

Software and Services

- Microsoft Dynamics
 - Microsoft Dynamics AX 2009
- Microsoft Product Portfolio
 - Microsoft SQL Server 2005 Enterprise Edition
 - Microsoft Exchange Server 2007

Hardware

- Database Server: Dell Rack Mount 910, Hexa Core X7460 2.66 GHz, 32GB memory
- AX Server: Dell Rack Mount 710, Quad Core X5570 2.93 GHz 4 M, 16 GB memory