India Software Labs, IBM Global Services, Golden Enclave, TISL, Tower, Airport Road, Bangalore 560 017 India

India Software Labs: The winning architecture

With talent as foundation and technology as pillars, we architect excellence!
Beginning as a small group in 1992, IBM India Software Labs (ISL) was formally established in February 2001 at Bangalore and Pune. Today ISL has grown into a world-class development center playing a key role in the delivery of best-of-breed products and solutions to IBM and its customers globally.

ISL collaborates with IBM labs in other parts of the world to develop, test, and support IBM software products spanning the IBM Software Group, IBM Systems Group, and cutting-edge technologies critical to the IBM Corporation.
ISL works on the entire product lifecycle which includes product design, development, maintenance and test for key IBM software group products and key technologies.

Product Development


ISL has successfully handled several product development releases in multiple National Language Versions (TN3270) including Lotus Organizer 6.1, WebSphere Commerce v5.4, WMQ v5.0 etc.

ISL capabilities

ISL's unmatched portfolio includes development and support of all IBM Software Brands. Today, ISL owns product components across key IBM offerings.

Dedicated Development Center

ISL is home to Dedicated Development Centers (DDC) for many of IBM Product families such as:

- Hurley (OC), dealing with the Triniti, WebSphere MQ Products, IBM's Java SDK and CICS Transaction Gateway.
- WBI Adapters DDC.
- Linux Technology Center involved in Kernel scalability & RAS for enterprise Linux, developing embedded software for Linux, Watchguard (Linux on Waltham) and PDA.
- OS/2 DDC, specializing in OS/2 Operating System and Networking.

Worldwide support for diverse IBM products in areas such as:

- Web Application Servers (WebSphere)
- WebSphere Business Integration (WSB)
- Middleware Technologies (WebSphere Business Components, WebSphere MQ, Triniti and Jawa SDK)
- Office Automation products (Lotus Workplace and SmartSuite)
- Distributed File Systems (DFS/AFS)
- Operating Systems (Linux, OS/2, AIX and z/OS)
To forge ahead in the marketplace and retain the vantage position, it is imperative to keep pace with technology developments around us. The Technology Incubation Center at ISL does just that by scanning the market for emerging technology areas such as Autonomic Computing, Grid Computing, Life Sciences and Business Integration and nurturing innovation in these areas. The main objective of doing so is to achieve thought leadership and mind share in the respective community. Also, through Technology Incubation, ISL delivers effective support to IBM's e-Business on Demand initiative on critical technology segments.

ISL's team is today focused on scanning and building proof-of-concept prototypes for technologies such as Web Services, Enterprise application integration, Pervasive technologies, Software Agent technologies, Life Sciences and Grid Computing. These innovations have resulted in patentable disclosures, reusable assets and prototypes.

Here is a sample of the offering:

**Business Integration (BI)**
- WebSphere BI Industry Adapters and Collaborations for Retail (UCCNet), electronic (RosettaNet, BOM), Chemical and Petroleum

**Autonomic Computing**
- Development of Log/Trace for IBM products and AC Toolkit which includes e.g. Integrated System Console Solution Install and SMF in the first release.

**Grid Computing**
- Using the Globus Grid for hosting complex business problems, development of PC-Grid, Grid Toolbox.

**Life Sciences**
- On demand collaborative workplace for Life Sciences using the Globus Grid. Engaged in other complex problems such as protein folding and Personalized Medicine.
- Development of PubMed wrappers for IBM DiscoveryLink as well as domain expertise in Computational Biology.
In addition to continuing its focus on product development, ISL is also geared to leverage the in-depth competencies the team has acquired across the wide range of IBM products & technologies to work closely with customers in India to provide in-depth product knowledge, design & develop proof of concepts and architected solutions to meet the customers’ immediate & strategic business needs using IBM Software Group products.

Through the Solutions Architecting Group, customers in India will have access to IBM India Software Labs’ vast pool of experts who have in-depth expertise on IBM SWG product design & development, who can work with them to understand, apply & customize IBM SWG products to ensure optimal returns to the customers’ IT investments.

**Domain expertise** - For more accurate and complete understanding of user business requirements, ISL is currently focusing on domains such as Telecom, Banking, Retail and Life Sciences.

**Technology expertise** - To understand customers’ existing IT investments, enterprise needs and growth requirements.

**Product expertise** - To leverage existing deep skills in all product lines to provide value support in using IBM software products.
ISL’s Quality Management System (QMS) is a set of processes and procedures developed, implemented and monitored to ensure that the processes used to develop products and to provide services meet customer expectations consistently in the most efficient, cost-effective way. QMS helps comply with ISO, CMM and IPD in an integrated manner. The Quality Management System is constantly monitored and enhanced to absorb the best practices of various software engineering models prevailing in the industry.

IBM India Software Labs is also the only product development lab in India assessed at Maturity Level-5 of Capability Maturity Model (CMM), People Capability Maturity Model (PCMM) and CMMI by Software Engineering Institute, Carnegie Mellon University. ISL is also certified as ISO 9001:2000. India Software Labs has been assessed at Integrated level of Integrated Product Development (IPD) by IBM Corporate IPD assessors in April 2003. IPD is a management system designed to optimize the development and delivery of successful products.

Maintaining satisfactory control posture is an integral part of daily operations at ISL. Few business control focus areas for ISL include compliance with ITCS 344 guidelines for IT Security & ITCS 349 guidelines for Workplace security. As business recovery gained focus post 9/11, India Software Labs was among the first few organizations to document and test Business Continuity Plan in April 2003.
ISL's IT and communication infrastructure is the strong foundation on which rests the successful growth of ISL. A state-of-the-art development center equipped with the necessary communication facilities; hardware, software and tools facilitate high quality deliveries. Collaboration across IBM Worldwide is achieved through:

- IBM Intranet Backbone with P9 MPLS connectivity of over 17 Mbps.
- Voice Over IP Tie Lines for IBM worldwide connectivity.
- Video Conferencing facility on ISDN Lines to enable Distant Learning and conferences.
- Internet connectivity and project specific VPN Links.
- Wireless LAN at office premises for mobility.

The LAB setup consists of:

- IBM and OEM servers. The IBM servers comprise of x-Series, p-Series, i-Series and z-Series Uni and SMP servers. The OEMs include Sun, Dell and HP servers.
- A wide variety of IBM and partner software platforms that include OS/2, OS/400, AIX, Solaris, HP-UX, Windows, Linux etc. A wide variety of tools are employed on these operating systems to successfully execute and manage projects.
- The vast amount of project data is stored on systems like Shark storing 2 TB. The data is backed up by Linear Tape Open (LTO) archives powered by Tivoli Storage Manager (TSM) and HACMP RAID configuration for high availability and redundancy. The data archives are maintained at an off site location for contingencies.
IBM has a long history of setting the rules that define the IT industry. What sets IBM apart from the rest of the industry is its relentless pursuit of fostering innovation in every part of the organization across the world.

In consonance with the parent’s focus on innovation & inventions, ISL encourages its teams to contribute to IBM's patent leadership actively. Having created a core team of experienced technology and research leaders, ISL has the requisite knowledge and expertise.

Unmatched expertise in various technologies and products has been made possible for ISL to develop razor-sharp skills among the ISL team. The IBM world-class training programs and continuous individual development works to ensure that ISL engineers are skilled in legacy as well as cutting-edge technologies.

ISL has a comprehensive skills development program and individual development program. The skill details of each ISL team member is captured in a database for planning, tracking and analysis. Skills planned for individuals are closely linked with IDP and PBC. Continuous learning and planned training are the key factors propelling ISL's success.

**sharpening skills**

**ISL & innovation**

IBM has a long history of setting the rules that define the IT industry. What sets IBM apart from the rest of the industry is its relentless pursuit of fostering innovation in every part of the organization across the world.
In addition to equipping the team with technical skills and engineering capabilities, ISL lays special emphasis on creating a conducive people-oriented work culture - a high-performance talent-driven atmosphere. The focus is to build a team capable of adapting to its diverse range of projects. There is also an emphasis on consolidating operations and offering the freedom of choice for technical or managerial career paths, introducing a formal mentoring plan and building a pipeline of technical leaders to handle the challenging tasks ahead.

ISL had drawn up a three-pronged talent plan which aims to:

- Attract the best talent from the industry.
- Strategic focus - on career planning & growth, identifying, mentoring, and encouraging the talented.
- Retain the achievers at the same time attempting to restrict the manpower turnover way below the industry average.

The secret of our innovation -
Team ISL.
For more information on ISL's products and services, contact:

Director,
India Software Labs, IBM Global Services,
Golden Enclave, TFL, Tower,
Airport Road, Bangalore 560 017
India

Phone: +91-80-509-6547, TL: 665-2547,
Fax: +91-80-527-7374
Email: indiasof@in.ibm.com
Visit ISL Intranet at http://isl.in.ibm.com