

Techlead Software Engineering Pvt. Ltd. – Company Profile

Techlead, since its inception in 1993, has been providing high quality IT services and solutions. By combining excellent technical skills with relevant business knowledge, we have been able to deliver a wide range of cost-effective and quality business solutions. **Our spectrum of services range from IT Strategy Consulting to Application Development, Modernization and Management.** We have a highly competent team of developers who are focussed on providing the most appropriate solution for our customers.

We are currently providing business solutions in the following areas:

Expertise:

- Image Processing
- Embedded system development
- Electronic Security (Smart Surveillance, Mobile Surveillance, Automated Access Control Systems, etc)
- Web based solutions and services

Techlead Products:

- **eTechTracker** – GPS Tracking System supporting over 25 GPS products (Vehicle, Person, Asset)
- **Active Tracker** - Tracking special operations carried out by Vehicle / Device [Partners : Magnum Opus]
- **eTechSchool – Comprehensive Educational Institute Management System** (School, College, Institute with multiple Schools/Colleges, University)
- **eTechCity** – A Product catering to a variety of applications required by City Corporation like Health (Hospital, Dispensaries, Campaigns), Garbage Disposal, Fire Audits of Building/Factories, Illegal Constructions, Public Grievances thru Mobile Apps
- **eTechOrder** – Tab/Server based product for FMCG segment (Order Taking, Delivery, Payment Collection, Bonus calculation based on Target Achievement & Organisational Rules)
- **eTechRVS – Stream the video remotely from vehicle.**

Techlead has delivered custom software solutions for number of organizations in areas such as Finance, Banking, Insurance, Airlines, Government, Retail and Image processing for select

customers across the world. Techlead offices were located in India, USA, UK, Singapore and Jamaica to support these customers.

Techlead developed the core of a Retail Execution and Management Solution. The product rights were transferred to Reflexis Systems in 2006. The Reflexis platform is now used by many leading retailers across the world to boost sales and profitability.

Major Projects/Products

eTechTracker – Vehicle Tracking System [www.etechtracker.com]

This system uses a GPS-GSM device to send a vehicle's geographical position to our servers. This data is combined with map data to display the location of the vehicle on road maps.

The system provides real-time tracking of vehicles using a range of devices. The system supports features such as Geofence, configurable alerts and various reports.

The system also accommodates the use of RFID tags to monitor individuals/assets. This system is currently being used to track students boarding or alighting school buses and such information is sent to parents.

ActiveTracker for Tracking Activities of Sonography Machines

[In Partnership with Magnum Opus]

ActiveTracker System helps Government Authorities to track illegal use of Sonography machines across India. It comprises of Hardware unit connected to Sonography machine and Web-based application.

System maintains information like Registration of the Device along with the Owner (Name of the Doctor, Clinic, Hospital etc.), Contact Mobile (Used as Registered mobile for raising Alerts), Sonography machine Details, Government Registration Details. These details are recorded under Corporation / District Collector for suitable reporting.

The system captures & records following events/information which is made available for further reporting, monitoring to Authorised Government officials:

- a. Recording of all the output video generated by sonography machine
- b. Information
 - Device Status
 - Application Status
 - Video Loss Status
 - Date & Time of the Active Tracker
 - Disc space (Used and Remaining)
 - Total no. of files per day
 - Recording only on Motion

Server application raises different types of alerts like “Device off for more than 24 hours”, “Hard disc nearly full”, etc.

System generates Reports & Graphs:

- Usage enquiry of any device for the duration
- Report for all machines for user defined duration
- Enquiry / Report for all Alert situations

eTechSchool provides a suite of applications in a fully integrated manner, to cater to the needs of large educational organizations having several institutes and multiple disciplines under each Institute, either various colleges(Arts, Science etc.) or Departments (Electrical, Mechanical etc.). It is also suitable for a single entity like Institute. The system caters to the following class of users:

A. Administrators/Management

1. Define Processes and assign responsibilities both - routine and ad hoc.
2. Set Rules & Regulations and monitor implementation and results.
3. Keep Parents informed thru several system features regarding Student Attendance, Performance, Institute Events, Fees.
4. Streamline Admission process

B. Staff:

1. Sharing Collective Knowledge & Experience by using eTechSchool as Medium of Exchange.
2. Defined Processes reduce Administrative work loads thereby creating opportunity to improve & enhance Teaching Methodologies as well as Teaching Contents.
3. Mundane tasks which are repeatedly carried out 'Year after Year' can be avoided.
4. Teachers can access all the features of the System from Home and manage their time more effectively.
5. No Overheads of maintaining MANUAL Attendance Registers, Student Logs, Staff Logs, Report Card Generation etc.
6. Leave Eligibilities & Leave Records can be viewed & tracked.
7. Attendance thru RFID cards or thru other biometric means (Finger Print) is possible; late arrivals & early departures can be tracked. Attendance is fully synchronized with Leave module.
8. Keep track of Syllabus & Topics and Day-to-day teaching, Homework and Assignments.
9. Using Question-Bank module, generate multiple Q-Papers and conduct Practice Test/Exams. Students can access to multiple answers.

C. Students

For lower Standard Students:

1. eTechSchool helps create 'Low Stress' environment for Students and hence for the Parents!
2. Access to Q-Bank & related Tools can make learning enjoyable by looking at multiple 'Model Answers' for various Questions and also Hints
3. Student can use existing Tests/Exams and practice at Home.

4. Student can identify weak areas and spend time on 'Wrongly Answered' questions.
5. Student can view Performance in Home-works/Assignments, Test, Exams.

D. Parents

1. Parents are always kept up to date regarding Student Attendance, Performance, Institute Events and Fees.
2. Parents can keep track of Home-works assigned, Test / Exam schedules and use their time more effectively for child's education. They get Alerts for important events and emergencies.
3. Whenever convenient they can look at the analysis of Child's performance in absolute terms and also in comparison with the rest of the Class.

eTechSchool Modules

eTechSchool covers a wide spectrum of operations of an Educational Institute and is made up of the following modules:

1. Main Module
2. Admission
3. Academic Year, Holidays, Vacations
4. Attendance for Students & Staff
5. Staff Leave Accounting
6. Time Table & Calendar based Subject Teaching Schedule
7. FEES Collection & Accounting
8. Rules & Disciplinary Actions
9. Question Bank
10. Exams/Assignments/Submissions and Evaluation
11. Homework & Assignments
12. Self-Test & Auto Evaluation
13. Co-curricular Performance Evaluation
14. Library
15. TASK – Setting Up, Allocation and Monitoring
16. Schedule Meeting, decide list of participants, monitor attendance & record minutes.
17. News, Events, Notifications and Circulars
18. Issuance of Certificates & Letters using pre-defined Templates
19. RFID Module
20. ALERT – SMS, e-mail, System Function/ Logged-In Page
21. System Data & Parameters setup
22. User Access & Functional Security
23. Error Reporting & User Support

eTechCity

eTechCity provides a suite of applications in a fully integrated manner, to cater to the needs of large City Corporation / Local Body where corporation authorities have to deal with Public, Public Utilities, Statutory Requirements, Health Campaigns and Public Grievances of varied nature. The system provides interfaces with Tabs & Mobile Apps on several platforms:

- **Health** – Ex. Diabetes Detection, Monitoring & Treatment thru several Hospitals, Dispensaries
- **Fire & Safety Audits** of Buildings and Factories (Notices, Certificates, Re-Audit, Scheduled Audits)
- **Illegal Construction** Tracking, Issue of Notices, Monitoring and taking suitable Actions (Legal, Demolition, etc.)
- **Garbage Disposal** – Vehicle Tracking including “Collection & Disposal” activity log
- **Sewage Disposal** Pumping Units – Monitoring of key parameters of the remote units and tracking routine maintenance requirements
- **Public Grievances** thru Call, web service, Mobile Apps – Tracking, Resolution and Updating the Complainant regarding the “Action Taken”
 - Road, Traffic Problems
 - Illegal Construction / Encroachment
 - Garbage Disposal related complaints
- **Registers of Properties** (Owners, Transfer of Ownership – Heir/sale, Tenancy, Transfer of Tenancy)

System provides, “**Event**” based functionality to generate & allocate tasks to Corporation staff / hired contractors using pre-defined Process-Flow for various work-categories. These tasks are tracked, monitored and escalated to higher authorities depending on the Rules set by the Corporation. In the process System also keeps track of Heavy Equipment deployed directly by Corporation or thru designated Contractor.

Tasks are also generated using pre-defined schedules for routine activities.

eTechOrder

eTechOrder is designed & developed to address the specific needs of Organization involved in sale of various products typically in FMCG sector.

Field based Sales Force can use Tab or Android based mobile to capture Orders, record Deliveries and collect Payments. Each sales person is assigned Geographic Area catering to several “Delivery Locations/shops/kiosk/booths” across registered Customers. (“Walk-in” Customer concept is also implemented.)

Powerful SYNC functions are provided so that Orders / Payments are kept track of independent of Real Time connectivity with the Server. Full Payment Accounting as against allocation to

Orders Values is carried out. Each Sales person can be given Targets (Monthly / Quarterly / Annual) either in terms of “Total Sale Amount” or “Item wise Sale Quantity” and also “Collection %”. Organisational Rules regarding Bonus Calculation (Sales Target or/and Collection Target) can be set. Each Sales person can keep track of his Achievements as against the set Targets. Calculation Rules can be applied to convert Bonus Points to Bonus Value.

Orders can be directly placed by Customer for “Delivery Location” thru web-application.

Backend – consolidated item orders can be generated for bulk procurements and distribution thru sales work force.

System extensively uses SMS / e-mail facility for prompts and Alerts.

The system can be integrated with **eTechTracker** for enhanced functionality like “optimum / pre-set path” for vehicle/sales person within geographical area (sales area) along with standard **eTechTracker** functionality.

Retinal Image Construction & Retinopathy

We have developed this solution for the ophthalmic industry, specifically to help an ophthalmologist view the entire retina to assess the onset or progression of retinal diseases.

The human retina is imaged with a fundus camera which captures successive but overlapping fields of view. The Ophthalmologist however requires to view the entire retina. We have developed efficient and innovative algorithms to analyse, transform and merge multiple images to create a combined retinal field of view. Multiple images captured over time can also be geometrically matched and compared. This is essential to assess the progression of diseases.

The application currently provides the following features:

- Creation of a panorama from multiple images to form a combined retinal field of view
- Matching multiple captured images over time
- Stereo image reconstruction
- Optic Disc/Cup analysis
- Blood vessel analysis
- Glaucoma detection

Retail Execution and Management System

Techlead developed the core of a Retail Execution and Management System, **Reflexis**, for the Retail industry. The web-based system enables execution excellence in the areas of Merchandising Operations, Store operations, Vendor Operations and Execution Support.

Techlead transferred the rights to this product to Reflexis Systems in 2006. The Reflexis platform is now used by many leading retailers across the world to boost sales and profitability.

Integrated Crew Management System

Techlead worked with ICL, Singapore, to develop this system for Singapore Airlines. It is a complex application involving automatic roster generation conforming to IATA and company rules, port rotation, allowance balancing, operational limitations, crew qualifications and user-defined masking requirements. The rosters are published to crew, real time data is maintained and a new roster is opened for planning. The system also produces team rosters which are then exploded to individual rosters for what-if analysis of individual and team rosters for future planning and staffing.

Platform: IBM RS6000, AIX, Xwindows/Motif, Oracle, ICL DDS, Custom Propagation Architecture, Memory mapping and online data interchange using MQ

Company Registry System

Techlead developed ACORN (Anguilla's Commercial On-Line Registration network) for the Government of Anguilla, a tax-free jurisdiction in the Caribbean. ACORN is a web-enabled Company registry application which allows online 24 hours by 7 days company registration, document submission and filing. The system conforms to stringent, british Government enforced financial regulations. The system allows on-line creation of several types of companies, tracks their financial returns and other complaines requirements. There is also an on-line accounting module that assists in settlement of payments between the Government of Anguilla and their international agents spread across the globe. The system uses digital certificate authentication and digital signature facilities to provide security.

Platform: SUN Solaris, Windows NT, Oracle, IIS, ASP, VBScript, ActiveX.

Credit Card Application

Techlead developed this application for Caricard, a premier IT service provider in the Caribbean. The application caters to credit card applications, approvals, management of cards including embossing, merchant maintenance, authorisation of card transactions, account maintenance, billing and receivables, delinquency processing, interface to Mastercard/VISA. The system is required to be operational round the clock with appropriate backup procedures built in.

Platform: ICL DRS6000, SUN Solaris, ICL DRS-NX Unix.

Knowledge Worker Management System

Techlead developed the Knowledge Worker management System (KWMS) for National Commercial Bank, Jamaica. The system focuses on the most valuable resource in any organisation, its people, and effectively manages the intellectual capital and competencies of the enterprise. The applications provides extensive features like Applicant Processing, Employee tracking, Manpower Planning, Performance Appraisal Processing, Career Planning and Employee Development, Compensation and benefits Administration, Pension Processing, Leave Administration, Training management, Grievances and Disputes management and Comprehensive Audit Trail.

Platform: ICL DRS systems, Windows NT, SQL Server, Visual Basic.

Major Clients

Techlead Clients

Government of Anguilla
Board of Inland Revenue, Government of Trinidad & Tobago
Caribbean Development Bank, Barbados
Singapore Airlines, Singapore
Cathay Pacific Airlines
National Commercial Bank, Jamaica
National Water Commission, Jamaica
Caricard Services, Barbados
Caribbean Development Bank (World Bank, Barbados)
CitiBank, London
Nidek Co., Japan
Sangli Police Department, Maharashtra, India
Collector Office Kolhapur
Several Transport Companies in India
Active Tracker Project tracking Sonography Machines in several states in India (Government)
Mumbai Municipal Corporation – Modules of eTechCity, Mumbai, India

Reflexis Clients

Home Depot
Staples
Sears
Toys R us
Kohls
Barnes&Noble
Marks & Spencer
B&Q
Tesco

eTechTracker Clients:

Traveltime, Pune
Bafna Motors
Relcon
JKD Enterprise
Dynamix Contructions
MCGM
Sangli Police
Kolhapur Police

Collector Office Kolhapur

Ushaprabha Roadlines

3s India

Abc Logistics

Clincy Construction

Credit Suisse

Cognizant

KR Constructions

Mahaveer Infrastructure

Max Trans Corporation

Paliwal Transport

RMC India