

Aiding client in managing Air Space through
Development & Support of **Air Traffic
Control Systems**



Business-to-IT Connect | Engage the Future | Execution Excellence



Abstract

Software services offered by L&T Infotech enabled our client to achieve landmark performance in delivering its product for mission critical application of Air Traffic Control with minimum time and quality, and at par with industry standards. Support at every phase of the software commissioning, namely factory acceptance, site acceptance and operational support has made our client confident of achieving faster go-live for their ATC software.

The Client

Our client is a French electronic systems major acting in areas such as aerospace, defense, transportation and security markets.

Nature of engagement

- Developing HMI for ATM Systems at multiple client locations
- Re-engineering of Data Preparation (DPR) system
- Support functions for Air Traffic Control System at Australia, Singapore, Taiwan & Abu Dhabi Air Services through onsite/ offshore model

Business Situation/Challenge

- Quick Resolution of extremely complex incidents in minimal response time, detected in operational ATC systems
- Achieving scalability in Air Traffic Generator module, having complex interfaces to all the external system
- Unavailability of in-house capacity to meet stringent end-user project delivery timelines
- Customization of baseline ATM product which involves complex enhancements having interfaces to multiple processes/systems and requires in-depth ATC domain knowledge
- Need of extensible architecture to support multiple data models with No Code changes
- Independent validation and verification of the application modules and integration points

Approach to Resolution

Technical understanding

The client as a manufacturer of mission critical software of air traffic domain required support for providing a software product that would meet their requirements in all aspects with superior quality and robustness to meet industry standards. It also wanted to provide continuous support to its already established installations with various clients. For which, the client looked forward to software services which would dedicatedly assist them for these targets.

Experts from L&T Infotech evaluated client's expectations and challenges. The Company envisioned the following technical challenges faced by the client.

- Continuous availability of technical expertise due to niche knowledge area
- Availability of dedicated team members with skills just right to take up responsibility and produce results with qualities as per the standards
- Reducing development and support costs
- Availability and maintenance of their specific customized hardware setup
- Following all process standards for delivering software with best quality

The aforementioned challenges have been met by L&T Infotech by providing a team of experienced and motivated software developers. Maintaining skilled workforce helped the client to achieve better quality products at reduced cost through the global delivery model, thus enabling client to concentrate and focus on maintaining themselves in the market.

L&T Infotech also eased client's challenges of maintaining customized setup by providing an offshore development center.

Leveraging L&T Infotech's vast experience in handling software projects, quality standards mandated by the client was readily incorporated by the team, thereby assuring the client optimum quality deliveries.

Solution

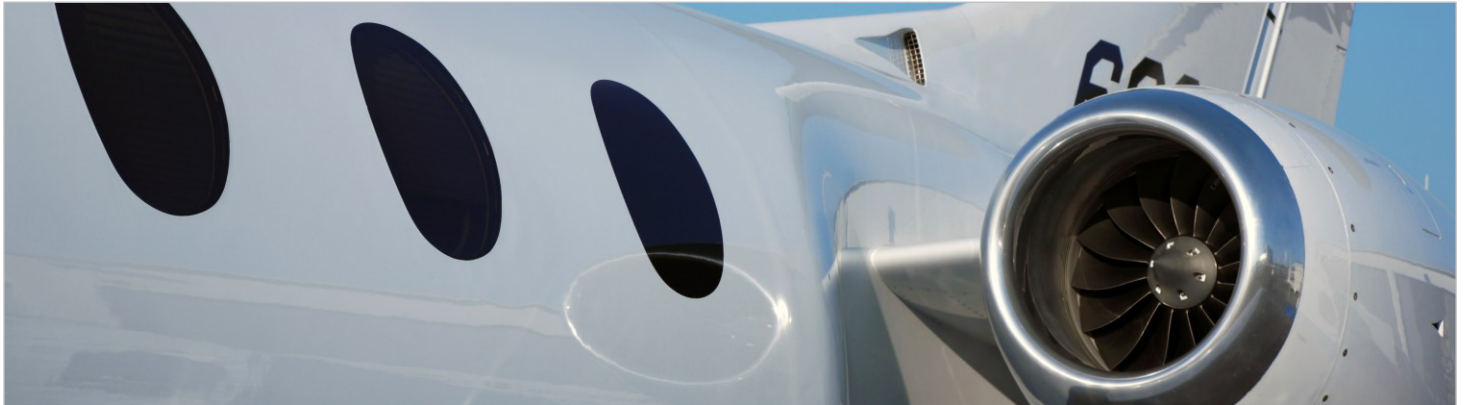
- Establishment of offshore development center equipped with fully functional testing infrastructure
- Delivering software services for software development and enhancements as well as testing services for software validation
- Team size average (onsite and offshore) - 24 (30:70)
- Tools and technology used - Legacy Technologies, ADA 83 / ADA 95, C, C++, Insure++, Interleaf, Open GL, ODS Toolbox, Motif, Java, JaxB, HyperJaxB, LUCIAD Map, ERP systems, SAP
- Nurtured the domain knowledge base required for working on this niche domain by developing and implementing training plan and knowledge documents

Products and services used

- EUROCAT for Sweden, Finland, Belgium, Abu Dhabi and Denmark locations
- TopSky – X for China, Vietnam, South Africa, Australia, Abu Dhabi, Riyadh, Jeddah and Fiji Island
- TopSky ATC for Singapore Airport
- Provided software services for L3 support during following phases of product acceptance
 - Integration Tests
 - Factory Acceptance Tests (FAT)
 - End user support during Site Acceptance Test (SAT)
 - Independent Verification and Validation (Quality Assurance)

Benefits and Results

- Cost : 40% cost reduction, Global Delivery Model
- Flexibility : Quick ramped up and down
- Time to market : Faster rollouts and implementations
- Reliability : Improved maintainability and scalability of ATM software architecture
- True Partnership : Reduced end user test cycles, cost
- Domain Experts: Created 40+ SME



Client Testimonial

"L&T Infotech team understands Air Traffic Management (ATM) business very well, which is the key to success. The team is very mature, which is beneficial to us. Testimony is the growing size of the team."

- **General Manager – (Engineering Department).**

"This is a major milestone for both the companies to take offshore outsourcing to the next level. The future is bright."

- **Offshoring Engineering Manager.**

About L&T Infotech

Larsen & Toubro Infotech Ltd. (L&T Infotech), a global IT services company, is a 100% subsidiary of Larsen & Toubro (L&T), a multi-billion conglomerate, and India's largest Technology, Engineering, Construction, Manufacturing and Financial Services organization, with global operations. L&T Infotech is ranked by NASSCOM as the 6th largest software & services exporter from India in 2014. It is differentiated by its three-pronged value proposition, encompassing Business-to-IT Connect, Execution Excellence and Engage the Future.