

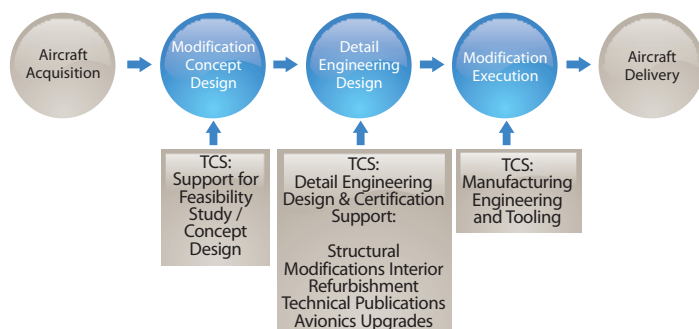
# Engineering Solutions for Aircraft Modification and Conversion Engineering and Industrial Services

As you try to cater to your customers' specific needs in modifying and converting aircrafts, Tata Consultancy Services (TCS) partners with you to enhance efficiencies. Engineering Solutions for Aircraft Modification and Conversion supports you with a broad set of cost effective services, including those required in Engineering. These, along with our proven aerospace engineering expertise and relationship with global partners, bring you a definite edge. Our engineering solutions will help you in exceeding your customer's expectations.

## About Completion, Modification and Conversion for Aerospace Industry

Many changes and challenges define today's airlines modification industry. To emerge with profits to your name, you need to collaborate with established engineering partners; who, with their skilled resources will help you meet increasing demand levels, in reduced time spans. Since a wide range of skills and experience across various aircraft platforms is mandatory in this business, a single partner who addresses all your different requirements in engineering solutions, after-market support, IT, etc. will bring you further efficiency and ease of operations.

Providing you with much-needed solutions is our offering for this industry. Strategically positioned to address the talent dearth existing in the industry, our strong and expanding domain consulting and engineering teams provide you with all the answers under one roof. Our proven business model helps you derive cost benefits; as our successful delivery model, ensures on-time delivery of quality engineering services. All this is made possible due to our experience of engaging with multiple aircraft OEMs, tier suppliers, completion centers and airlines for their Engineering and IT requirements, mature processes, and expertise in technology tools.



## Why TCS

At TCS, we promise you solutions that address your unique challenges. Our sole aim is to provide you business agility, emerging from faster delivery cycles and scalable solutions. Having proved the efficacy and success of our delivery model, we aim to be your enterprise's single support for engineering and IT needs. This is made possible due to the following:

- **Centers of Excellence (CoEs).** Our Structures, Interiors, Avionics, and Technical Publications CoEs play a vital role initially for feasibility studies, and then in defining the scope of modification and certification requirements.
- **Domain experience.** Our aerospace domain team as well as our consulting team, with their years of experience in this domain, offer you the best and most reliable solutions.
- **Global presence.** Our presence in major modification geographies like APAC, ME and Ibero America apart from presence in US and Europe endow us with the required experience and expertise to provide you robust solutions in this space.
- **Unique offerings and high rate of success.** We've successfully provided engineering solutions to freighter and passenger aircrafts, VIP and business jets. Our distinct offerings which help in 'passenger-to-freighter' conversions to VIP modification equip us to meet varied and specific needs.

## Engineering Solutions for Interior Refurbishment

### Passenger Cabin Layout

- Creation of passenger cabin configuration in different classes, seating galley, stowage and lavatory arrangement

### Detail Design for Installation of:

- Seating system
- Bins, Stowage, Galley, Lavatory
- Floor and side panels
- Wiring harness
- Ducting and Routing
- Structural reinforcements

### Commodity Integration

- Creation of DMU
- Creation of:
  - Assembly requirement model
  - Installation requirement model Development
- Spatial integration of commodities
- Clash analysis and resolution

### Certification Support

- Weight and CG report
- Stress reports
- Hand calculation documents
- Creation of Acceptance Plans and Procedures

### Technical Publications

- Aircraft manuals like AMM, IPC, SRM
- Component Maintenance Manual (CMM) and Service Bulletins

## Engineering Solutions for Modification and Conversion

### Modification Feasibility Study Support

#### Design Support – New Configuration

- Structural re-design
  - Reinforcements
  - Bracket for mooring
  - Blanking of windows
- Door modification
- System installation modification

#### System Re-design

- Cabin system modification
  - Oxygen system
  - Cockpit modification
- Electrical
  - Harness re-routing
  - Lighting & smoke detection

#### Manufacturing Support

- Tool design
- NC support

#### Technical Publications

- Tool design
- NC support

#### Avionics Upgrade

- H/W S/W integration
- System Testing and preparation of test reports/ PR/CR
- Flight test data analysis support

#### Certification Support

## Benefits

Our Engineering Solutions for Aircraft Modification and Conversion help you sustain competitive advantage by ensuring the following benefits:

- Engineering solutions across the product lifecycle of the aircraft;
- Availability of experts in structural design and analysis, interiors, avionics and technical publications;
- Quality engineering solutions with cost advantage;
- On-time delivery.

## About Tata Consultancy Services (TCS)

Tata Consultancy Services is an IT services, business solutions and outsourcing organization that delivers real results to global businesses, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled services delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development.

A part of the Tata Group, India's largest industrial conglomerate, TCS has over 160,000 of the world's best trained IT consultants in 42 countries. The Company generated consolidated revenues of over US \$6.3 billion for fiscal year ended 31 March 2010 and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at [www.tcs.com](http://www.tcs.com)

## Contact us

To know more about TCS Completion, Modification and Conversion for Aerospace Industry offering, contact us at [corporate.engineering@tcs.com](mailto:corporate.engineering@tcs.com)

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