

Aerospace

Aircraft Cabin Electronics System Software for an European Aircraft

Manufacturer

Executive Summary : Wipro has successfully applied its Embedded Software and Hardware expertise to the Avionics field as demonstrated in the project on the full lifecycle of software development for a Cabin Electronics System that Wipro delivered for a leading Aircraft manufacturer. Wipro's large and diverse skilled resource pool provided project planning flexibility to the client, thus providing faster time-to-market in the highly competitive global aerospace market.

Client : A leading European Aircraft Manufacturer

Business Issue Addressed :

Single software provider to handle the complete lifecycle of development of all the software modules in the system, including defining the architecture, interfaces and drivers for the system.

How Wipro helped :

The following functionalities and interfaces were designed and implemented by Wipro:

- ✓ Cockpit interface for Audio and Emergency situations
- ✓ Illumination and Lighting
- ✓ Lavatory lights and signaling
- ✓ Safety signaling like No-Smoke, Fasten Seat-Belt etc
- ✓ Emergency evacuation signaling and crew signaling
- ✓ Interface smoke detection
- ✓ Air-conditioning control
- ✓ BITE functionalities
- ✓ Ice protection
- ✓ Redundancy switch-over
- ✓ Electrical load management
- ✓ Audio control between cabin and cargo area (handset, loud speaker)
- ✓ Communication interface between cargo area and service attendants

Wipro handled the full lifecycle of this software development project from Planning, Requirements, Analysis, Design, Implementation to Testing.

Key Achievements / Deliverables

- Developed the DO-178B compliant application using strict process compliance methodology and practices
- Faster time-to-market

Tools Used:

- Analysis & Design: Artisan Realtime Studio
- Requirement Management: DOORs
- Testing: RT Tester from Verified Systems with proven full decision coverage
- OS: VxWorks
- Configuration Management: ClearCase, ClearQuest

Company Profile

Wipro' Product Engineering Solutions (PES) group works with leading technology companies across their product life cycle value chain of product design → development → testing → sustenance and support. The PES group is 13,500+ engineers strong, and provides engineering services to companies across domains like Telecom, Computing Systems, Storage, Semiconductor, Automotive Electronics, Consumer Electronics, Industrial Automation, Printing & Imaging, Aerospace, Satellite, Software Products and Medical Devices.

Wipro is the world's largest independent R&D services provider

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