Development of an Airborne Communication Server for a New, Secure Connected Aircraft Solution

Enea Global Services provides software engineering expertise to deliver a complete air-to-ground communications system.

Overview

▸ The customer partnered with Enea for development of an airborne communication server for a new air-to-ground data transmission system

▸ To speed product development, the customer augmented in-house engineering with external resources provided by specialized and qualified experts from Enea's Global Services Division

▸ Enea's engineers were included in the customer's agile scrum development process and provided support for all phases of the software development life cycle

Benefits

▸ Acceleration of strategic, specialized product development

▸ On-time and cost-effective delivery of a complete communications system thanks to Enea's expertise in embedded software development and proven experience in aerospace, complemented by a value-added "bridged services" approach, agile management skills, and competitive pricing

▸ Enea's specialized technical knowledge including Rational Dynamic Object-Oriented Requirements System (DOORS), Linux Networking, Linux Socket Programming, HTTP/HTTPS/SSL, (s)FTP, WiFi, GSM.

The Customer

Based in the USA, the customer is a global supplier of avionics equipment, systems and services to civil and military aerospace manufacturers and system operators. Among the company's flagship products are electronic flight instruments, aircraft flight control systems, connected aircraft solutions and communication servers for airborne applications. The customer also offers custom software development and system integration services for avionics applications.

The Challenge

The customer's new air-to-ground communications system is a complete connectivity platform. Designed for aircraft operators and featuring a modular architecture, it securely protects critical avionics systems, and enhances operational and maintenance efficiency through seamless wireless data access and easy data transmission and management.

To accelerate the overall development schedule of its new communications system, the customer decided to augment its in-house engineering resources with external qualified experts specialized in software and system development for a key module of the complete system, an airborne communication server.

The customer required external development support for key functionalities in the server, in particular: avionics system security, aircraft connectivity, data management and off-boarding process, mobile device integration.

The Solution

The customer partnered with Enea Global Services to augment internal resources with specialized engineering staff who provided support for system and software specification, design and development of a new airborne communication server.

Strengthening Internal Engineering Resources

Acting as an extension to the customer's development team, Enea engineers provided specialized software engineering support to all phases of the software development life cycle. In particular, they developed Linux-based connectivity and data security software functions, bringing expertise in a wide range of technologies including Rational Dynamic Object Oriented Requirements System (DOORS), Linux Networking, Linux Socket Programming, HTTP/HTTPS/SSL, (s)FTP, WiFi, GSM.

Agile Scrum Project Management

Accompanied by an on-site engineer, Enea's teams were fully involved in the customer's agile scrum development process, delivering the highest level of synergy and responsiveness to ensure the project's successful execution and completion. They were in daily contact with the customer's lead engineers and project managers, and took part in weekly scrum meetings for task assignments. Each task had a specific charge number provided by the customer and associated with requirement, design, and coding categories.

The Benefits

The customer benefited from Enea's in-depth expertise in embedded software development and Linux services as well as proven experience working on complex technical aerospace projects for major aerospace companies. As a result, Enea's engineers were able to rapidly master the development processes of the customer's critical systems, and meet the company's stringent engineering requirements.

The project leveraged Enea Global Services' flexible and value-added Bridged Services approach. Engineering resources were provided on-site at the customer's premises in the USA, supported by a team of expert engineers based in Europe.

Collaboration with Enea enabled the customer to boost product development. While Enea's software experts took responsibility for specifying, designing and developing the system and software components of the airborne communication server, the customer could focus internal engineering resources on critical tasks and developments related to other key components of the complete communications system.

Enea's embedded software development expertise, proven experience in aerospace technologies, value-added "bridged services" approach, agile management skills and competitive prices combined to provide the customer with an unbeatable, added-value service package for the on-time, cost-effective delivery of their new communications system.

Enea Global Services

Enea's professional service offering is based on flexible engagement and delivery models for all phases of a software life cycle, from feasibility and specification, to development, testing, integration, deployment, maintenance, support and training. Services range from on-site experts, to complete outsourcing of R&D activities.

Find out more on the Enea website!

ENEA

Enea develops network software for the connected society. We provide solutions for mobile traffic optimization, subscriber data management, network virtualization, traffic classification, embedded operating systems, and professional services. Solution vendors, systems integrators, and service providers use Enea to create new world-leading networking products and services. More than 3 billion people around the globe already rely on Enea technologies in their daily lives. For more information: www.enea.com