

Connectivity

Intelligent Systems / Altran



Enabling the Connected World

The world we live in is increasingly connected, with an extensive mesh of connected machines and devices estimated to grow to 50 billion in 2020. The ubiquitous access to information and data available on the Internet is paving new ways for people to interact and for companies to do business and generate revenues.

The rise of intelligent systems is highly linked to this connectivity trend – enabling new services, taking advantage of new data, exploring seamless ways of interacting with devices.

With growing diversity of usage, new emerging challenges like increased reliability, security, interoperability, and profitability need to be addressed holistically, while ensuring the best user experience and differentiation in an increasingly crowded space.

Intelligent Systems / Altran helps clients in all industries to meet these challenges, and manage the complexity of new products and associated business models. Our global connectivity business has a focus to:

- Enable and improve communications between machines (machine2machine)
- Drive improvement in the usage and desirability of human-machine interfaces (human2machine)
- Create cross-sector fertilisation by taking the different advances in each industry and making them rapidly available to our clients in all sectors

We offer

We provide our clients with:

- **Industry and market insight** through cross-fertilisation between applications and industries
- **Prototyping solutions** to rapidly transform ideas into fully functioning proofs-of-concept
- **Engineering solutions** to develop end-to-end intelligent systems
- **Expertise and technical consultancy** on topics such as network architecture, performance and protocols integration
- **Product engineering services** including the development and maintenance of product variants

Our packaged offers are:

Advanced user experience: enabling ergonomic multimodal human interaction with connected devices.

Prototyping lab: developing fully functioning samples of your next generation intelligent system.

Connectivity technology and performance: we select, implement, deploy and validate the right connectivity technology for your business needs.

Communication stack integration: developing and integrating new protocols that adhere to common standards.

Connected product engineering: design and development of hardware, software, user interface and service implementation.

Device test: functional, interoperability, stability, performance, usability and application level testing.

Intelligent logistics: optimisation through intelligent identification, localisation and tracking of items.

Automotive networking tools and technology: design, simulation, implementation and test using CAN, LIN, K-line, Flexray, MOST and automotive Ethernet.

Automotive Ethernet: migrating in-car networking to an IP based infrastructure to support higher bandwidths for ADAS and IVI.

Civil aviation

- Cabin connectivity: developing in-flight entertainment and cabin operation systems
- Electronic Flight Bag: an iPad application for airline pilots
- Flight management: advanced solutions for air traffic management, flight control, aircraft operation and maintenance

Connected X

- Car: expertise in IVI, demonstrated by fully integrating our connected car platform into a series production car
- TV: from provider solutions for content creation and provisioning to consumer device development and integration
- Health: developing intelligent medical devices and integrated systems for hospitals, clinics and medical care centres
- Home: solutions for smart metering and home automation

You benefit from

Connectivity engineering across the complete ecosystem

Intelligent Systems / Altran is able to solve complex connectivity problems in virtually all networking technologies while focusing on simplicity, ease of use and a truly satisfying user experience.

Expertise across industries

We apply our expertise from multiple industries and practices, providing end-to-end development of connected intelligent systems that are feasible, desirable and profitable.

Local presence with access to global capability

Our comprehensive understanding of market challenges and opportunities along with our international footprint allows us to offer clients global delivery combined with local support.

Success Stories

Open & Connected Car

| Objective:

Demonstrate the vehicle-specific use of connected services in the car environment.

| Results:

Intelligent Systems / Altran developed a Connected Car Platform offering a rich connection and interaction with the outside world including application download and CE device connectivity. The platform is based on a GENIVI compliant open-source software stack and has been fully integrated into a series production car, including the use of the vehicle's audio subsystem and steering wheel controls.

Automated Inventory, Localisation and Tracking of Items in Warehouses

| Objective:

A logistics company wanted to optimise inventory operations in warehouses for items with high variance on shape and type.

| Results:

Intelligent Systems / Altran developed and deployed a scalable and modular platform based on collaborative sensor networks using RFID and computer vision, allowing for real-time tracking, identification and localisation of every incoming item.

Remote Healthcare

| Objective:

Development of a remote healthcare system geared towards the TV and set-top box environment.

| Results:

Intelligent Systems / Altran developed an application and user interface allowing patients to access remote healthcare services from their home. The application is suitable for integration into a connected TV or set top box and allows operators to offer new services to their subscribers.

intelligent-systems.altran.com

Contact: intelligent-systems@altran.com

© 2013 Altran All rights reserved

Altran Technologies – Public Limited Company – share capital: € 87,286,212

Registered office: 54-56 avenue Hoche - 75008 Paris

Registration number: 702 012 956 RCS Paris

Photo credit: © pixbox77 - Shutterstock – graphic design: luce théry

Intelligent
Systems

ALTRAN