SECURITY FOR RAIL TRANSPORT
Protecting your customers, staff and assets

Whether transporting people or goods, you want to be sure you are protecting them to the best of your ability. As managers of urban transit, main-line passenger and freight networks, you also want to assure the security of your valuable rail assets.

In the face of today’s increased security concerns, preparedness is the answer. Experts can assess the risks of crime, fraud, assault and terrorism in your specific context and devise the best measures against them, using the most advanced proven technology. Well chosen, high performing IT equipment can play a crucial role in your transport security—in arming you with the real-time information, warnings and pre-configured instructions you need to act fast and effectively.

A focused response

As manufacturers of rolling stock, signalling systems and rail infrastructure, as well as systems integrators, we truly get the big picture. Alstom experts draw from years of experience across the board and around the world to develop the technology required in real-life situations. We have the technology and expertise to capture risk-related data in all rail contexts (trains, stations, track and tunnels, depots and control centers) and transform it into useful information for security management and operations without affecting the flow of passengers. Our extensive engineering and security consulting services with local-content suppliers can assist in your security project.
A COMPLETE SECURITY SOLUTION IN AN INTERMODAL STATION

Six reasons to always consult Alstom for Security solutions

1. Experience and expertise: our core activities cover every rail environment: trains, stations, track & tunnels, control centers and depots.

2. A single shared architecture and IT platform to integrate 4 functional sub-systems:
   - Control & Monitoring
   - Passenger Information
   - Security
   - Networks & Telecoms

3. Full modularity: our IT systems are designed for easy integration and upgrading.

4. Solution-oriented: by only manufacturing key IT equipment we optimize performance & cost.

5. Security focus: 100% rail — our sole interest is public transport applications.

6. Advanced technology for all needs: our security solutions can be tailored to any make of train or OEM equipment in stations, control centers or depots.
Alstom offers operators of urban transit, mainline passenger and freight trains, fixed installations (stations, depots, track & tunnels) and the mobile agents, offering complete visibility throughout the transport site and relay risk management information to the appropriate staff. The equipment in an Alstom Security system is either designed and manufactured in-house or sourced from reliable suppliers. All of our rolling stock is designed with a standard-based, train-borne security system covering all rail sites with functions beyond Security. Our train-borne security system includes interior and exterior CCTVs with in-cab viewing, emergency intercom, electronic video and audio recorder. It is fully interoperable with Public Address and Passenger Information equipment for emergency event notifications.

The system is scalable and configurable to an expanding rail network. The system is modular and upgradeable, offering customers multiple options; an operator may choose to equip a single environment and later equip others, or deploy one of the four functions and interface it with other functional areas already at work, knowing that a migration path exists for a fully integrated system solution.

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security solutions at work

train-borne & trackside equipment

MLO (Metro Lausanne Ouchy) set its project for a new driverless metro in motion in 1999, when it chose Alstom to provide its rolling stock, automatic CBTC train control, track construction and line electrification. In 2005, when it came to systems engineering and project management for the 6 km, 14-station line, MLO again selected Alstom. The aim: assuring passenger safety and security via control center monitoring. Our solution: real-time CCTV monitoring and alarms in trains and on platforms, integrated with a Passenger Information system within URBALIS CBTC, our driverless train control solution with high-speed data transmission.

station-based equipment

The 2002 challenge was two-fold: the deadline and the technology. Ergose needed to build a new 40-km suburban main line of double track between the airport and the Olympic stadium in Athens in time for the July 2004 competition—an objective attained. Alstom designed, made and integrated the signalling, communications system and station utilities, including ticketing, Passenger Information and security equipment on platforms. Equipment included CCTVs, alarms, fire detection, emergency call, public address and intercom.

wide-band radio network for video image transmission

To improve security aboard its fleet of 55 regional trains, FGC decided to install a wide-band radio network that would transmit real-time video images from existing CCTV cameras on trains to its operation control center. In recognition of our expertise in this field, and the openness of our standard-based architecture, Alstom was chosen in 2007 to perform this contract.

operation control center with incident management

Improving security across the board was a key aim of the “Société de Transport de Montréal” (STM) when it contracted Alstom in June 2003 to modernize its metro control center. Our first step was to familiarize ourselves with the customer’s analysis of their existing rail operations, which included the management of security incidents and emergency response procedures. This led to the definition of a new, innovative software program for Operations & Management to be integrated with ATS and SCADA functions in an Alstom ICONIS control center system. It is designed specifically to optimize security management at every step, from incident detection to successful resolution, by integrating CCTVs, access control, fire and intrusion detection. Its functions support coordination of staff and activity management. This Public Transport security system - with the capability to manage over 200,000 input/outputs - will be the result of a unique collaboration between a visionary transit operator and Alstom.
A COMMON NETWORK & STANDARD INTERFACES

Our Security solutions use the same network and data transmission platforms as our Passenger Information & Entertainment range, facilitating immediate integration or later upgrades. All can be easily integrated into one of our complete rail control systems or one supplied by a third party.

ADVANCED TRAIN CONTROL & AMENITIES

Our trains are built with the electronic infrastructure required by advanced systems for operational control and passenger amenities. We carry out homologation of all types of train technology and equipment. Your security solutions are implemented efficiently and effectively, because we are experts in rail transport.

Station equipment. Our staff has years of experience in integrating and optimizing station equipment, a broad range of utilities that includes platform screen doors, elevators/escalators, ventilation and ticketing systems.

Track laying and signalling. Alstom has key references worldwide in track laying and signalling. We also install catenary and power substations for open rail lines and in tunnels.

Fleet and infrastructure maintenance. We know depots because we design, build and manage them as part of our comprehensive lifecycle maintenance service offer, which equally covers fleet maintenance of Alstom-built or 3rd party rolling stock.

Control centers. Along with Security & Passenger Information systems, we also link train-control and remote-maintenance systems to control centers via networks and telecoms.

Software and hardware. For train traffic control and network safety, power management (SCADA) and operations supervision, we provide modular software and standard hardware for rail control centers.

LIFETIME SUPPORT

We offer our customers maintenance services for all the systems and equipment we supply in trains, stations and control centers.

Through its know-how and the excellence of its products, Alstom is shaping the future of energy and transport infrastructure and contributing to improving the living and working conditions of people throughout the world. Today, more than 65,000 people in 70 countries are making an active contribution to the growth and development of its business.