The ASTS challenge in railway security

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We can act as General Contractor or partner of a Lead Contractor.

Supplier of track works for metros & railways.

Primary area of focus of Transport Systems BU

Power supply, Telecommunications, Supervisory Control Data Acquisition (SCADA), etc.

Primary area of focus of Signalling BU

Security means to get efficient and secure protection of networks, assets and users in both Rail & Transit systems.

PROTECTRAIL Kick-Off meeting – UIC 6.10.2010
The ASTS background

- In more than one century of his history, ASTS has gained great experience in all the safety related activities, as
  - risk analysis, assessment and mitigation
  - safety related high integrity systems
  - management of upset and emergency situations
  - command and control rooms
- These knowledge and skills
  - are directly transferable to security applications and
  - coupled with the long-lasting experience on system integration will give ASTS a competitive advantage in railway security applications
The existing ASTS EU initiatives

- Started with a preparatory action ...
  - TRIPS “Transport Infrastructures Protection System”
- ... passing through an integrated project ...
  - PROTECTRAIL “The Railway-Industry Partnership for Integrated Security of Rail Transport”
- ... and nowadays a demonstration project in negotiation ...
  - SECUR-ED “Secured Urban Transportation - European Demonstration”
• Everything started with ...
  – PASR 2005 initiative TRIPS “Transport Infrastructures Protection System”
    • a preparatory action on the enhancement of the European industrial potential in the field of Security research
    • successfully completed with a demo at SNCF premises
Also thanks to the experience gained in EU projects, ASTS has been able to deliver security contracts in 2008-9 as:

- The security control rooms for the Italian railway infrastructure (RFI) together with ElsagDatamat
- The security system for Metro Campania
- The security system for Circumvesuviana
Security control rooms for RFI (with ElsagDatamat)

- Security information handled on 3 levels:
  - 250 railway assets
  - 13 regional control rooms
  - 1 national control room (Rome)
Security system for Metro Campania

- **ANTI-INTRUSION SYSTEMS**
  - 200 dual technology volumetric detectors
  - 40 sound-based vibration detector cables
  - 20 active infrared barriers

- **SOUND DETECTION SYSTEMS**
  - 100 high sensitivity microphones
  - 20 server with automatic detection of non conventional sounds

- **SECURITY SYSTEM**
  - **ANTI-INTRUSION SYSTEMS**
  - **SOUND DETECTION SYSTEMS**
  - **ACCESS CONTROL SYSTEM**
  - **INTELLIGENT VIDEO-SURVEILLANCE SYSTEM**

- **ACCESS CONTROL SYSTEM**
  - 250 proximity badge readers

- **INTELLIGENT VIDEO-SURVEILLANCE SYSTEM**
  - 500 videocameras (Night/Day, Megapixel, IR, PTZ)
  - 60 redundant DVR
  - 5 videoanalysis server
Cityringen Copenhagen

Kolkata Metro Rail Corporation Ltd
- East West Metro Project

by means of:

- CCTV
- Video Analytics
- IDS/ACS
- Security Control Center

Honolulu High-capacity Transit Corridor Project

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HLS global market overview

Market keeps growing...

... mainly located in USA (2010)...

... ground transportation is 2% of total (2010)

Note:
NA (North America), WE (Western Europe), ME (Middle East), ASAP (Asia Pacific), SA (South America), EE (Eastern Europe).
Other: Intelligence & law enforcement (39%), Bioterrorism prevention (12%), Emergency response (10%), Physical security (8%), Cyber security (8%), Border security (6%), Nuclear prevention (2%).
Ground transportation security includes all modes (road, railway, mass transit).
Global market includes personnel training, canine detection, security inspectors.
Overall accessible market value ~ 800 $M (Year 2011)

Global market value
~ 800$M

NAFTA (30%)
~ 240$M

RoW (70%)
~ 560$M

Emerging Markets:
• China
• India
• Russia
• Turkey
• S. America

Europe (40% tot)
~ 320 $M

ASAP - ME (25% tot)
~ 200$M
The need for the evolution of the railway security market

- Industry can provide
  - fundamental technologies
  - architectures
  - integration of smart security solutions
  - software tools
  - training
- ... but needs ...
  - clear strategies and requirements from stakeholders to generate adequate public investments
  - architectural standards to ensure interoperability
- i.e. a successful completion of PROTECTRAIL ...
- ... and ASTS is proud to lead the first example of cooperation between stakeholders and industries in the field of railway security
I wish you a successful project!

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