



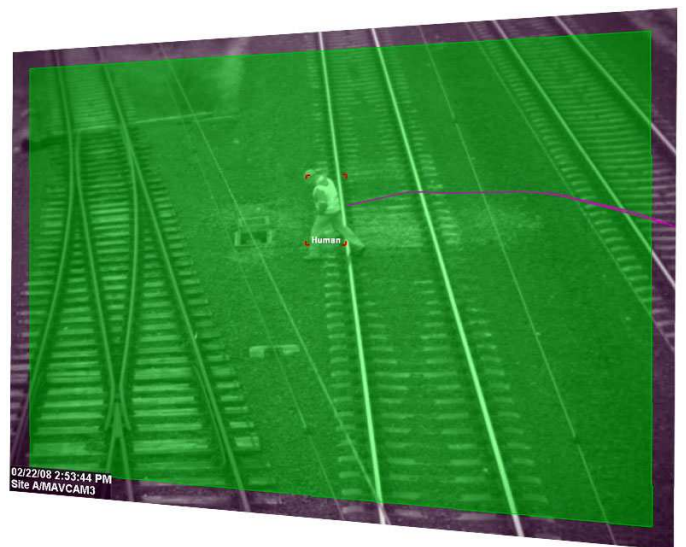
## Intellio cameras protect transport security cables of Hungarian State Railways

***Security copper cables at the most important nodes on the Vienna-Budapest international line are guarded by Intelligent IP cameras with Intruder detection on board. Security is alerted by the cameras when an intruder enters the guarded area. Transport security cable theft not only causes significant property damage but also endanger human lives.***

A crime prevention solution was needed to catch offenders in time and avoid damages. Preventing cable theft not only saves human lives but also spares hundreds of millions of forints for the railway companies.

### **Intruder detection day and night**

The new system of MÁV is completely different from the usual security solutions. The recently installed system is equipped with intruder detection, which immediately sends an alarm to the security staff in case of a security event. These megapixel resolution cameras are able to differentiate humans from animals or from other moving objects. Security guards only need to react when humans are trespassing on the observed area.





For day and night surveillance each camera is equipped with heavy-duty IR reflectors that monitor large areas.

The installed 100E intelligent cameras feature the Automatic Motion Detection (Tracker) and Intelligent Video Motion Detector services that can distinguish between animals or moving objects (e.g. train) and humans within the protected area. Cameras send an alert only when humans are seen in the protected area.

### **WLAN communication**

Standalone observation points (Intelligent IP cameras) communicate with each other through a wlan network. Both data communication and the recording of megapixel resolution streams takes place on the same wireless network. Wireless communication in railway projects was necessitated by the fact that data cables can not be installed near high-voltage railway cables.

### **3G communication**

Live monitoring and responding to alerts takes place in an off-site railway observation center. Since the monitored areas are located in outlying areas distant from the security headquarters, data transfer takes place through GSM UMTS 3G technology.

The software installed on-board the cameras record footage with full speed, therefore images are recorded with maximum framerates regardless of bandwidth.

### **The importance of alerts**

With a multi-camera system the security service is supposed to monitor all the screens and recognize any security threats. Effective monitoring becomes near impossible after a

certain period of time, so in most cases security can act only subsequent to the attacks. By then not only has damage been caused but often the recorded footage is also of a low quality making offenders unrecognizable.

Intellio's intelligent cameras send an immediate alert upon security events for security to act in time.

### **Electric power and protection**

The system is run by an uninterruptable power supply. A voltage regulator protects the system from over-potential.

### **FUNCTIONS AND DATA**

- Day and Night Intruder detection
- WLAN communication
- 3G communication
- Real time Alerts
- Electric Power Protection