

Case reference
Teleste Video Security and Information

**SNCF, Paris,
France**



SNCF Video Security System

The federated nationwide video security monitoring system covering the whole Paris area and the 100 biggest cities in France.

AT A GLANCE
One of the world's largest integrated IP video security systems.

Case in brief

The SNCF system consists of over 13000 cameras and more than 500 train stations interconnected in the same overall system.

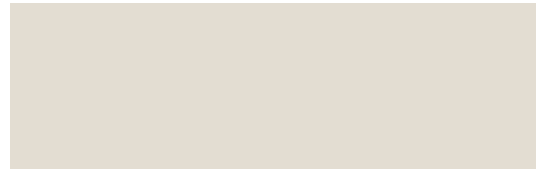
At the beginning, SNCF had integrated a regional video protection monitoring system covering the whole Île de France area, including Paris. It extended progressively in phases into the whole French territory. The video system project started at the end of 2004. Since then, the system has constantly evolved. In 2014, the IP camera and operating position deployments were in place in hundreds of stations in Île de France with over 13000 cameras and more than 500 train stations interconnected.

The system offers real time operations throughout the network. It encodes and records video streams as well as displays video content to multiple groups of users connected to the network with various hierarchical and geographical profiles. The real time video recording system has advanced functionalities, such as dynamic loop size allocation, recording failover, crisis mode and so on. The system is transparently integrated with several third party systems ranging from cameras and alarm systems to recorders.

SNCF – Société Nationale des Chemins de fer Français
SNCF (French National Railway) is a French public company. Its functions include the operation of rail services for passengers and freight, and maintenance and signaling of rail infrastructure owned by RFF (Réseau Ferré de France). It employs about 180000 people. The rail network consists of about 32000 km of track, out of which 1800 km are high-speed lines and 14500 km are electrified. About 14000 trains are operated daily.

TGV "high-speed train" (Train à Grande Vitesse). The TGV holds the record for world's fastest wheeled train speed, after having reached 574.8 km/h (357 mph) in April 2007. It is used for long-distance trips with the incredible record for the fastest scheduled rail journey with a start-to-stop average speed of 279.4 km/h.





Objectives

- To provide a full end-to-end solution, including full featured VMS, 3rd party systems and sensors, and 24/7 operation and scalability.
- To provide remote monitoring, diagnostic, support and maintenance.
- To provide transparent integration for users of third-party solutions.
- To get a solution supporting a massive number of cameras, recording loops, sites and users.
- To get a true centralized administration, supervision, arbitration and management solution.
- To get the product which has future proof connectivity.
- To get fully customized user profiles.

Solution

- Centralized administration, supervision, arbitration and management solution.
- Remote monitoring, diagnostic, support and maintenance.
- Fully automated CCTV data storage and retrieval platform.
- Evidential quality image handling and high-speed recording.
- A fully scalable solution offering RAID5 storage with an optional RAID mirror.
- A unique mixture of centralized NAS storage (45000 loops capable), and distributed DAS recording.
- True modular three-tier solution ensuring 24/7 operations and scalability.
- Multiple scenarios and SOP (Standard Operating Procedure) integrated within the GUI, per user profile.
- Built-in audit trail and four-level secure access.
- Indoor and outdoor installation sites: rail tracks, tunnels, platforms, halls, stairs, ticket offices, etc.
- Fully customized user profiles (features, rights and priorities, geographical area), with multiple stakeholders levels.
- Complete set of functionalities: live, record, display, exchange and integration capability with other 3rd party applications.
- Open standard and 3rd party manufacturer: operates more than 100 different protocols and systems (cameras, recorders, help points, analog matrices, alarm systems, SCADA, etc.
- More than 500 interconnected train stations in Île de France.
- About 100 stations equipped outside of the Paris area, all over the country.
- More than 250 operating positions, spread over six security OCC and 60 different stakeholders (operations, security, safety, emergency officers, traffic control, passenger information, etc.).
- More than 13000 live cameras in full D1 resolution, both IP and analogue.
- More than 13000 recording loops in full D1 resolution.
- About 300 PTZ live cameras in full D1 resolution.
- More than 2000 3rd party sensors integrated, with an increasing trend on new sensors.

The SNCF video security system covers the whole Île-de-France area including the city of Paris. It has further expanded into the whole French covering area with a total of over 20 million inhabitants.