



BOSCH

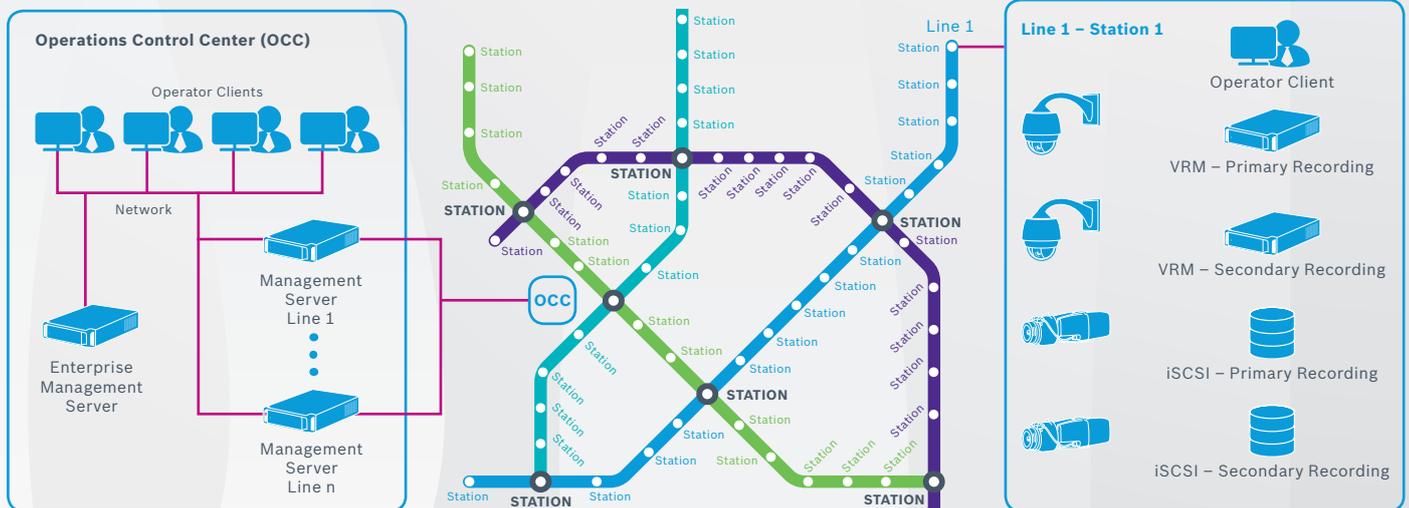
Invented for life

Bosch Video Management System

www.boschsecurity.com

Solution for metros and railways

- ▶ Video Management Solution for distributed sites such as metros
- ▶ Scalable solution with up to 200,000 cameras
- ▶ Maximum resilience with recording available even if a site is inoperative
- ▶ Access to all cameras at the Operations Control Centre (OCC)
- ▶ A fully operational station even when it is disconnected from the main system



Bosch offers a video surveillance solution that is uniquely designed and developed for distributed installations. Ideal for mass transit security, it addresses all concerns related to ground stations of metros and railways.

This truly scalable solution with up to 200,000 cameras for the entire system is also designed for maximum resilience. The resilience is built upon multiple pillars: the **Video Recording Manager (VRM)**, the **dual recording** concept and the decoupled **operator client**.

- ▶ The **VRM** assigns storage portions to the individual cameras. The cameras can then record directly on the storage systems without the involvement of VRM. This means that the recording continues even during VRM downtimes or maintenance slots.
- ▶ **Dual recording** ensures a redundant copy of the video data is simultaneously recorded on two independent storage systems that can be located in different metro stations. This ensures availability of data even if one storage system is completely destroyed at one station.

- ▶ The decoupled **operator client** means that the operator client in a station continues to display the cameras even when it is disconnected from the management server.

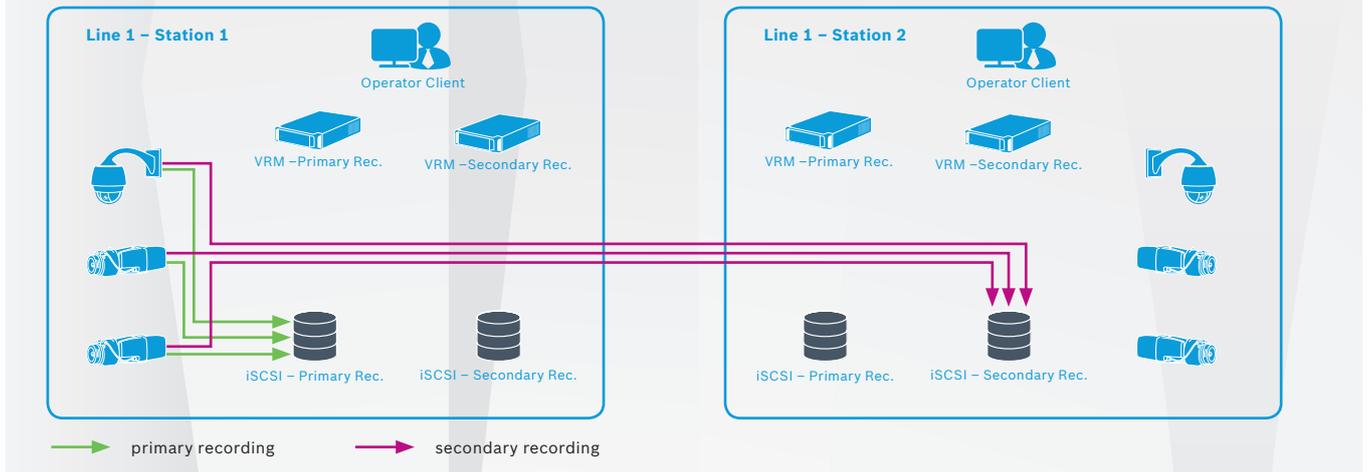
Thus, failures of important system components do not affect the monitoring within the stations and in the operations control centre (OCC). The system operates independently even when communication lines are disrupted.

Product list

Bosch Security Systems

- ▶ Bosch IP cameras
- ▶ Bosch Divar IP storage
- ▶ Bosch Video Management System 6.5 or newer

Dual recording ensures a redundant copy of the video data is simultaneously recorded on two independent storage systems that can be located in different metro stations



Key features

Central and Site Management

- ▶ The central Operation Control Center can access all cameras in all stations, configure all devices and manage alarms.
- ▶ At the same time, an individual operator client at every station ensures functionalities like alarm management and live record and playback are also available at individual stations.

Maximum resilience

Its highly resilient system architecture protects against multiple failure scenarios. Failures of important system components do not affect the monitoring within the stations and in the operations control centre (OCC). The system operates independently even when communication lines are disrupted.

Scalability

This truly scalable solution with up to 200,000 cameras for the entire system offers ample flexibility and latitude to grow as needed.

Typical system architecture for metro-, train-, bus- ground systems



The Bosch division Security Systems is a leading global supplier of security, safety, and communications products, solutions and services. Protecting lives, buildings and assets is our aim. The product portfolio includes video surveillance, intrusion detection, fire detection and voice evacuation systems as well as access control and management systems. Professional audio and conference systems for communication of voice, sound and music complete the range. Bosch Security Systems develops and manufactures in its own plants across the world. Additional information can be accessed at www.boschsecurity.com

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