# Qognify VMS secures public transport in Munich

Munich Transport Company | *Germany*

"Trust us!" That's the motto of Munich City Utilities (Stadtwerke München, or SWM), and it's an important part of its corporate culture. SWM, as the holding company of Munich Transport Company (Münchner Verkehrsgesellschaft, or MVG), is also responsible for the safety of 544 million passengers each year.

Ensuring that safety means maintaining a railway network with more than 100 kilometers of track as well as a pool of vehicles with about 300 buses, more than 100 trams and about 600 underground coaches that need to be watched 24 hours a day and kept in good condition.
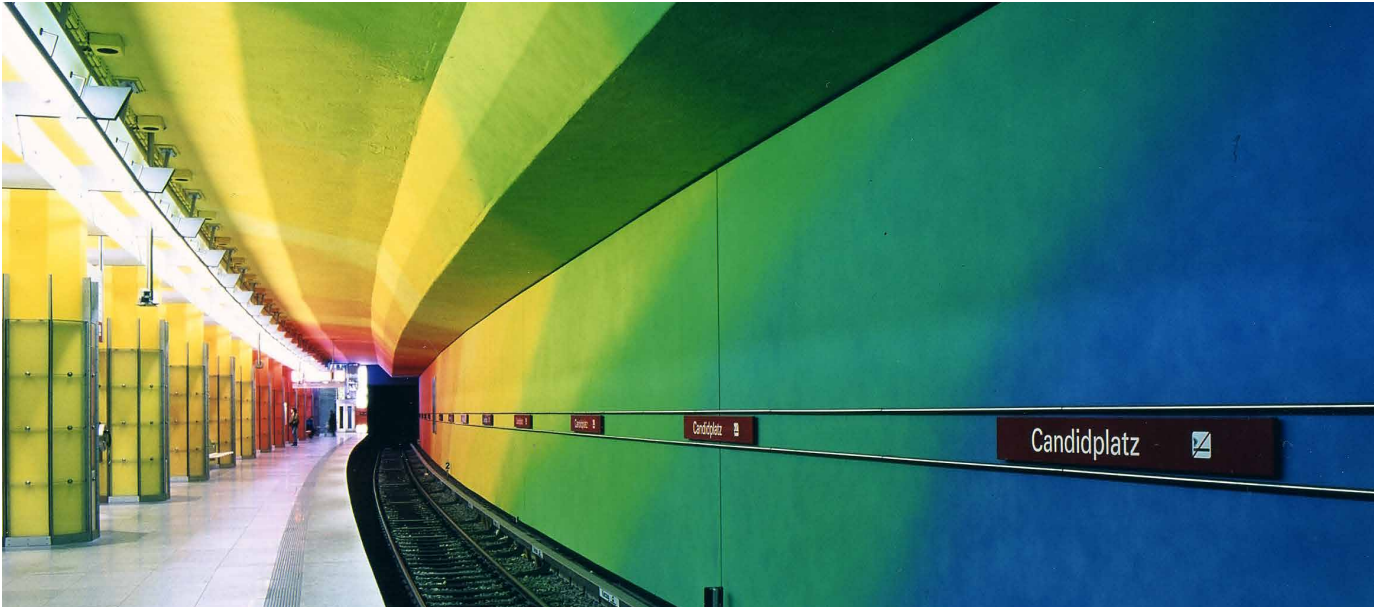
The challenge

As a modern and sustainability-minded public transport company, MVG attaches great importance to the safety and cleanliness of its subway stations, depots and storage facilities. But passenger security is the highest priority, and to that end, trained guards operate day and night at critical intersections. In addition, a video system records events on the track so the security crew in the MVG operational center can monitor occurrences in real time.

MVG's facilities have always been equipped with the latest technology to cope with the high demand of meeting its safety and quality standards. The analog camera inventory, for example, was replaced by IP-based cameras and devices with higher image quality to improve functionality. Still, the system eventually reached its limit because of the large number of cameras in operation.

To maintain the expected level of performance, MVG's video management division published a new tender in 2013 with the intention of securing the best possible price-performance ratio via a fresh investment. When SWM released the EU tender, it included specific requirements.

First, the existing camera portfolio was to be completely reintegrated into the new video solution, but still be capable of future development. Additionally, the platform had to be open and manufacturer-independent so that it could build upon the existing network and be capable of combining diverse hardware and software. To ensure consistent recording, the system also needed to be highly reliable.

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>
> **Patrick Chuh**
> Project Manager
> MVG

Fast facts

Vertical market
Municipal transport

Products
Qognify VMS

The solution

After issuing its catalog of requirements, MVG opened a multilevel competition. Telent GmbH, a euromicron affiliate, was awarded the system integration contract and took over the lead for the renewal and extension of the video system, both hardware and software.

"The extensive and future-proven monitoring of the railroad stations was an ambitious project, which we were only able to realize with reliable partners," said Robert Blum, chief executive officer at telent GmbH. "As an official and certified Qognify VMS partner, we were lucky to have an excellent solution ready to use."

With the help of Hexagon's solutions , all of MVG's requirements were met. The new system's modular approach can be adapted to individual customer needs and allows for customized solutions. The software can also incorporate add-on modules and interfaces to third-party systems — even for a network as complex as MVG's.

The result

The new installation, with Qognify VMS as a video management solution, was officially launched after a short period — only six months — of implementation, installation and testing. More than 2,000 existing and new cameras, which are in use at railway and underground stations, have been integrated into the system.

The resulting video is monitored at different locations by up to 10 people, 24 hours a day. Several control rooms can review recordings from all the operating sites and each of the cameras. Using network monitoring and system status messages, the technical staff keeps an eye on the functional state of the entire widespread installation.

The whole system runs on two identical mirrored servers, which house data streams delivered by multicast-enabled cameras. Storing the material on both systems creates redundancy, ensuring maximum reliability — if one server breaks down, all recordings continue, and the crew can still operate the system without any limitations.

"Powerful products are offered by many providers on the market. Most important to us was the fact that the new system was able to guarantee today that future growth wouldn't be a problem," said Patrick Chuh, the project manager responsible for video planning at MVG. "Additionally, we were looking for a license model that wasn't so complex as to be discouraging. This transparent license model allows for easy modification of the license range without reinstallation."

Not only are MVG's employees able to screen the live images, but local police and fire stations also have access. Each authorized group has different user permissions as necessary, and they're finely tuned according to various specifications. Predefined external users, for example, are able to see camera images, but they may not change the system settings.

The customer

"The open Hexagon solution shows our customers that we live our motto — we use the software intensively to prevent danger and avoid escalations," said Chuh. "Our conclusion after three months of practical experience is positive overall. The increased usability and the high system reliability were especially convincing."

The video management system not only works for operating control systems, but also serves as documentation when damage or crime occurs. Several small incidents have been solved and the offenders caught with the help of proof in the form of recordings. This is especially true in areas that are less frequented and during peak hours — for example, during Oktoberfest or after football games.

In these areas of increased demand — and, occasionally, increased mischief — the system provides measurable relief for MVG's security staff.