

Project reference | Tunnels under the Alps,  
Italy

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Siqura is part of TKH Security Solutions, a division of the TKH Group. TKH Security Solutions offers a wide range of systems for access control, surveillance, intrusion detection and video management.



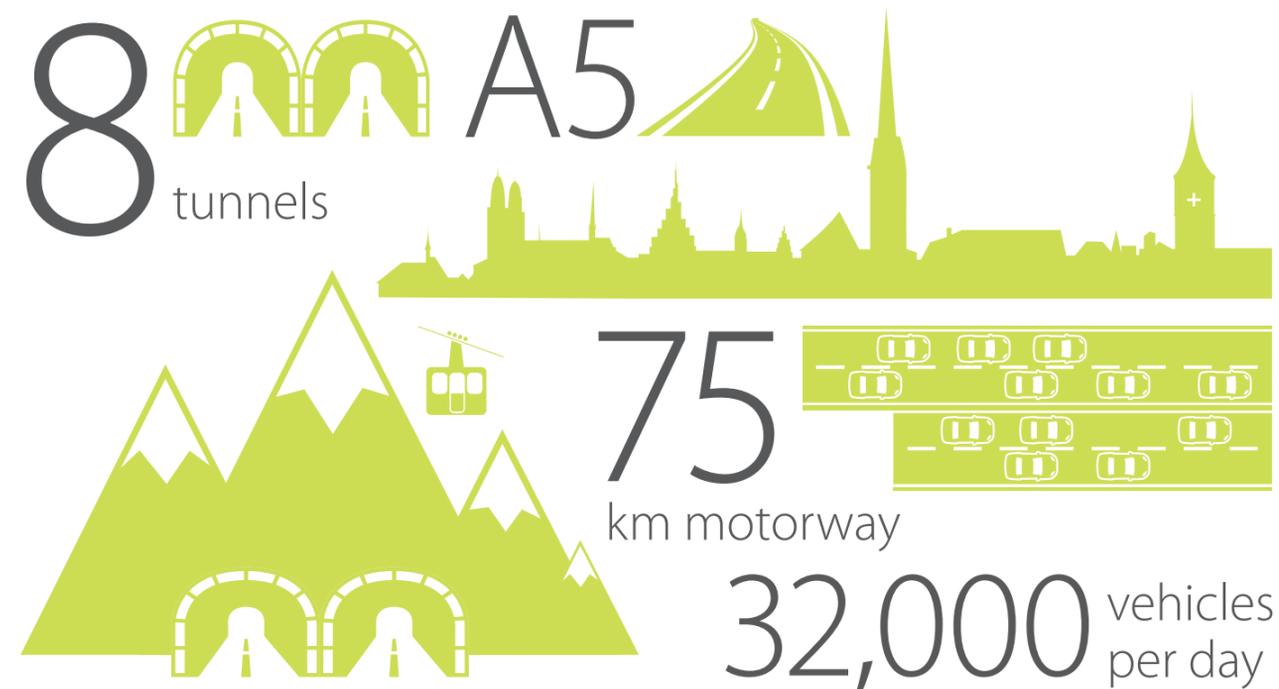
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Project  
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# Tunnels under the Alps, Italy

Valle d'Aosta may be home to some of the highest peaks in Europe, this sparsely populated region in northwestern Italy is far from isolated. In fact, the area serves as a vital gateway to neighbouring France and Switzerland. Tunnels, that's how they do it. To ensure the highest level of safety, motorway management company SAV decided to upgrade its video surveillance system with Siquira's Ethernet switches.



#### Customer

Project Automation

#### End user

SAV (Italy)

#### Systems integrator

Sinelec

#### Technology

IP-based video network

#### Market

Transportation - Traffic

#### Challenge

Upgrade SAV's video surveillance system along the A5

#### Solution

Siquira's managed switches

#### The challenge

Digging tunnels under the Alps is not the easiest job in the world. Nor is managing them. EU safety measures only came about after a series of unprecedented tunnel disasters around the turn of the century. Today, standards across Europe are very high indeed and tunnel safety has improved dramatically thanks to various technological advancements.

As part of an ongoing safety improvement program, Italian motorway management company SAV decided to upgrade its existing video surveillance system via Project Automation. SAV's primary requirement was to realise a peripheral network ring capable of collecting all IP security and CCTV streams inside the tunnels and along the motorway administered by the company (the A5 from Quincinetto to Aosta-West). Support for VLANs and the Rapid Spanning Tree Protocol (RSTP) was another key feature that SAV was looking for. The network equipment also needed to be environmentally hardened.

#### The solution

Together with Project Automation and Sinelec, two trusted integration partners, Siquira chose to implement several XSNet C4108SW rail-mount switches in the tunnels between Quincinetto and Aosta-West. These managed switches with integrated SFP slots are capable of operating in temperatures ranging from -40 °C to +75 °C. The control rooms along the motorway were fitted with XSNet S4124SW 24-port rack-mount switches with four Gbit combo ports. This setup provides logical isolation by VLAN and extra reliability through RSTP-based redundancy, while allowing SAV to connect its peripheral network ring to the WAN backbone.