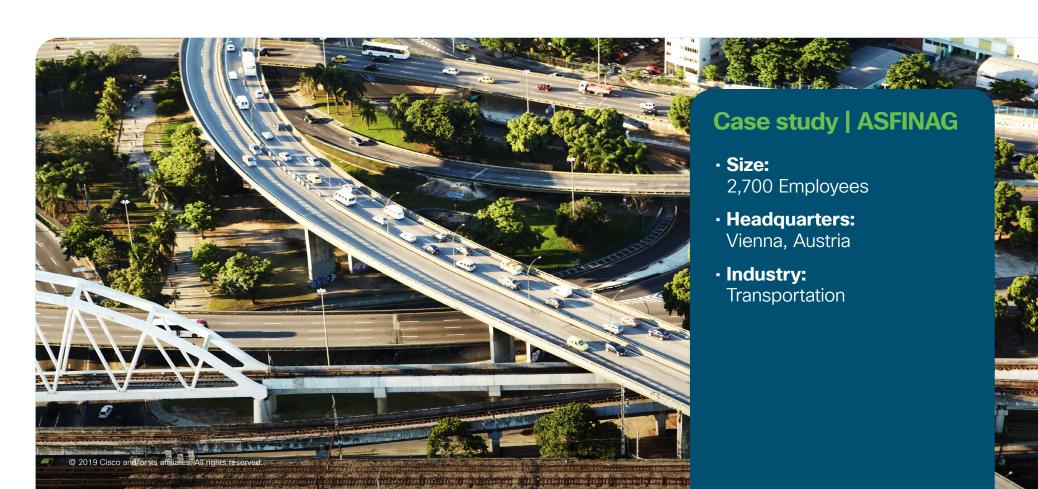CISCO

A Higher Technical Standard for the Austrian Autobahn

ASFINAG connects drivers and transportation officials with a nationwide network built around Cisco® Connected Roadways solutions and the Internet of Everything.

Case study | ASFINAG

- **Size:**
  2,700 Employees

- **Headquarters:**
  Vienna, Austria

- **Industry:**
  Transportation

Challenges

- Gain data on road, traffic, and weather conditions
- Communicate accurate information to drivers
- Connect thousands of cameras and sensors

Solutions

- Connected thousands of sensors through a powerful Cisco network of ruggedized switches and routers
- Deployed Cisco IPICS for centralized and fast communications with authorities via different radio standards

Results

- Reduced need for investment through better road utilization
- Connected roads, drivers, and authorities nationwide
- Exceeded EU standards for road transport

Imagine a smart highway that clears traffic jams before they happen. By connecting thousands of sensors, ASFINAG is making this a reality in Austria.

A state-owned company since 1982, ASFINAG, with its more than 70 branches, oversees the planning, building, maintenance, and operations on the 2,200 kilometers of roadways in Austria. More than a decade ago, ASFINAG came up with a visionary plan to build a fibre-optic network along the highways to connect technical equipment along the roads. Thousands of sensors were installed to route the data through a central system and on to nine traffic management centers. The sensors monitor accidents and road and weather conditions around the country.

"We connected more than 70,000 sensors and 6,500 traffic cameras over fibre optic networks," says Bernd Datler, managing director of the tolling company at ASFINAG. "This give us live feedback on our roads to help route emergency vehicles and provide drivers with up-to-date information."

Already exceeding the standards implemented by the European Union Intelligent Transport Systems directive, the company is determined to continue leading the EU in transportation technology by expanding on its network with Cisco Connected Roadways solutions.

Through the internet of everything, we're getting the data we need for smoother roads nationwide.

Delivering a wide range of technologies

"Our use case is unique, with thousands of kilometers of roads and more than 400 kilometers of tunnels," says Datler. "Cisco provides a complete range of industry-leading solutions, and A1Telekom Austria is an invaluable partner who understands our needs."

Improving road utilization and investments

Through the Internet of Everything, we're not just connecting sensors and cameras; we're connecting drivers. Lowering speed limits ahead of slowmoving traffic, for example, prevents traffic jams so that everyone has a smoother drive. This type of enhanced traffic management maximizes road utilization, which means less investment in new or expanded roads.

Communicating with all systems

The Cisco IP Interoperability and Collaboration System (IPICS) helps us communicate information to any device or system from a central console. This means that in an emergency in a tunnel, we can quickly direct rescuers and police to the site of an accident, getting victims the help they need and clearing the roads for other drivers.

Between our app and free wireless access at rest areas, we're communicating more information to drivers.

Professional truck drivers, who have little possibility to communicate due to expensive international roaming, take full advantage of the rest stops to communicate with families, check in with their companies, and verify that their loads and tolls are being recorded accurately.

Connecting cars, predicting traffic

We're looking at more ways to use data analytics and technology like Cisco Connected Mobile Experiences (CMX) to learn more about customers.

"Using the data from our networks, we want to provide travel times and even predict traffic issues for a smoother travel experience," says Datler.

For more information

To learn more about the Cisco IoT solutions, visit: www.cisco.com/go/iot

Products and services

Routing and switching

- Cisco Industrial Ethernet 3000 Switch
- Cisco 7609, 7201, 3845 Series Routers
- Cisco 3925 Integrated Services Router
- Cisco ME 3400, 3750 Series Ethernet Access Switches
- Cisco Catalyst® 2955, 3560, 3750, 2960 Series Switches
- Cisco Nexus® Switches

Security

- Cisco ASA 5500 Series Adaptive Security Appliances

Voice and IP communications

- Cisco IP Interoperability and Collaboration System (IPICS)

Data center

- Cisco (Cisco UCS®) Servers

Wireless

- Cisco Wireless Access Points

"By connecting roads and drivers, we can get people the information they need for a smoother and safer drive."

Bernd Datler
Managing Director, Tolling Company at ASFINAGH