



Application Report

Maintenance of national roads Remote monitoring made easy

Partner Office for the Operation of National Roads
Area Transport and traffic technology

Transport and traffic technology

Monitor

Alert

Control

Partner

Since 1.1.2008, the Office for the Operation of National Roads (AfBN), with its headquarters in Flüelen, has been responsible on behalf of the Swiss federal government for the operation and minor structural maintenance of the A2 and A4 national roads between Airolo - Küssnacht - Beckenried and the Gotthard Pass.



ComatReleco Products in use

- Messaging System CMS-10R

Travelling in Alpine regions often requires a considerable amount of time. This is especially true for remote areas. And yet motorists expect tunnel facilities and even minor roads to be always perfectly available. It is not possible to physically monitor and maintain an extensive road network in a timely manner. Technical solutions are needed for this.

Electronic servants help

The Office for the Operation of National Roads maintains roads, tunnels, and ancillary facilities in the canton of Uri on behalf of the federal government. Some control systems are in remote places and are not integrated into the internal communication network. To be able to report and rectify faults as quickly as possible, the AfBN relies on the ComatReleco messaging system.

Cloud as a triage point

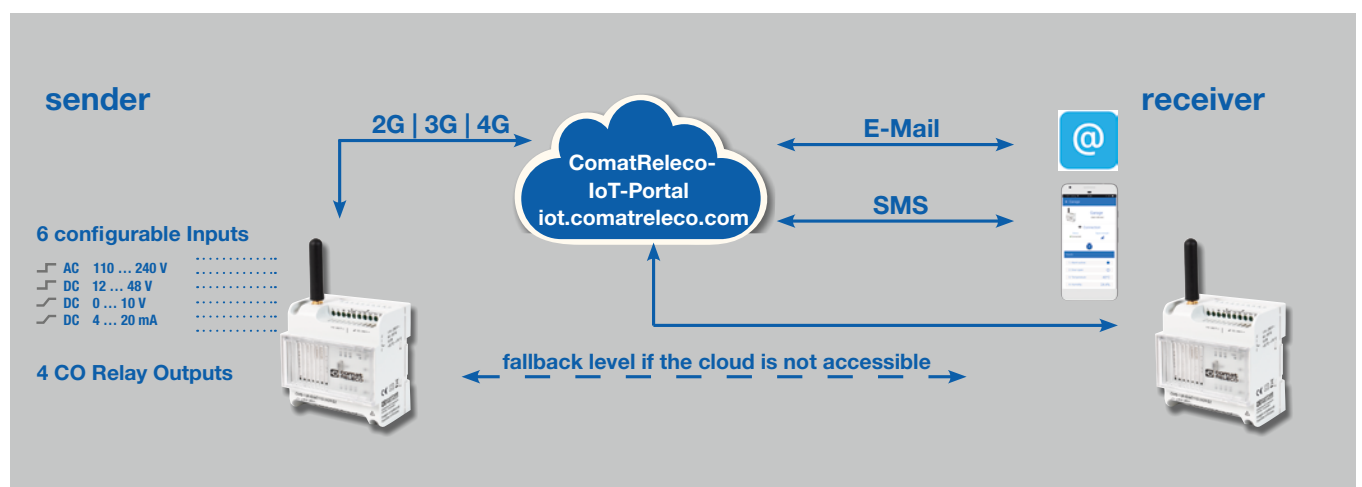
Transmitter modules are positioned at decentral located monitoring points in road or tunnel sections. In the event of an incident, these send an SMS via the GSM network to one or more specific recipients. The SMS contains a predefined and unique text tailored to the incident, which reaches the receiver module in the control centre in Flüelen via the ComatReleco IoT portal. The module evaluates the message, executes the corresponding command, and generates a fault message in the control centre. Each transmitter module has four outputs and can thus be designed for four different types of error messages. The IoT portal takes on the function of a distribution centre via which e-mails, SMS and push messages can be sent and received. Thanks to the use of ComatReleco's IoT portal, many different sites can be easily monitored and maintained. Maintenance team members only

need to go on site if fault messages cannot be resolved online.

Simple handling thanks to the app

Via the ComatReleco app, the status of each individual module can be checked on a mobile phone or via the web interface, and troubleshooting is simplified. It is also possible to issue certain commands for system control via the app. For example, the fan in a rarely used gallery can be switched on with the mobile phone to remove mine gases before maintenance work is carried out.

Thanks to the CMS-10R messaging system, the management of the installations is user-friendly and possible remotely from the office.



Communication channels from sender to receiver via the Cloud as interface