

ShowCase

Siemens measures lightning and MarcanT transmits lightning fast

Products

BLIDS: Siemens Lightning Information Service

Results

Connection of antennas with the measuring center without being dependent upon wired Internet.

Project Details

The lightning information service for Europe, BLIDS: "Blitz-Informationsdienst von Siemens", consists of measuring stations and antennas across Europe and a data processing center in Germany.

Introduction

Siemens operates a lightning information service for Europe (BLIDS: "Blitz-Informationsdienst von Siemens" [Siemens Lightning Information Service]) with 40 stationary measuring stations across Europe and antennas distributed in Germany, Poland, Switzerland, Great Britain the Benelux countries, the Czech Republic, Slovakia and Hungary. This makes it possible to precisely locate lightning strikes within a radius of 200 meters. Meteorologists require information about lightning to draw conclusions about the development of the clouds and weather fronts.

The data is collected, analyzed and processed at the headquarters so that storm warnings can be relayed to the population.

In addition to the use for meteorologic purposes, the data is also very valuable for companies of various economic sectors. Energy suppliers can more easily locate the sources of interference to overhead lines or high voltage lines. The industry can optimally adjust the lightning protection of their systems. Even athletes benefit from BLIDS, be it golfers on the green or parachutists in the mountains. Detailed information about lightning and storms can save lives.

Challenges

Siemens' wish was to network all measuring antennas with the headquarters. To fully harness the potential of the information system, it is essential that data get transmitted as fast as possible.

The antennas are situated so that they are not affected by external interference, such as from high buildings. This way the data can be measured particularly accurate. The challenge was now to connect the antennas to the measuring center without a wired internet connection.

Solution

This challenging wish is where MarcanT M2M technology is used. Since it is technically not possible to directly query the station in the mobile network over the Internet, MarcanT offers its IP-Mobile product.

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Using IP mobile and a SIM card, Siemens is now able to access the data from measuring antennas via a mobile router, which is assigned a fixed IP address via the Internet. But not only that: The measuring stations can also be managed with the MarcanT-Communication Control Portal (M-CCP), developed and interconnected by MarcanT.

In this case, the MarcanT computer center is connected to the BLIDS measuring center via a secure network, so that the data can be transmitted to the MarcanT system via mobile communications. The MarcanT-Communication Control Portal M-CCP also monitors the costs incurred here and helps maintain a constant overview with a variety of managed measuring stations.

References