

# THE ICELANDIC ROAD TRAFFIC DIRECTORATE

## Surveillance in remote areas

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The rough terrain and harsh weather conditions in Iceland make driving difficult. The Icelandic Road Traffic Directorate works continuously to improve and develop safety measures to help road users stay safe on Iceland's road network. In Iceland, temperatures can fall to around minus 20 degrees Celsius, and the low temperatures combined with strong winds create great problems on the roads. The surveillance of remote areas is therefore an important part of efforts to make life as safe as possible for road users in Iceland.

### ANALOGUE SOLUTION WAS TOO SIMPLE

"We had had the same analogue surveillance solution for more than ten years when we started to consider whether it was time to replace the system. The technology in these cameras was not very complicated and as the surveillance market has developed significantly in recent years, we felt that this was the right time to upgrade the system," explains Nicolai Jonasson, Head of Traffic Information Development at the Icelandic Road Traffic Directorate.

But finding a solution that could meet the challenges of placing surveillance cameras in dark, windy and cold areas was difficult. The Icelandic Road Traffic Directorate therefore chose to spend almost two years testing various solutions - and only Mobotix was able to live up to the requirements after nine months of testing.

**LOW VOLTAGE SYSTEM NEEDED**  
The key factor for the Traffic Directorate was finding a low voltage system able to deliver high resolution pictures and endure the harsh weather conditions.

The options were limited, as access to the power net and telephone connection are very poor in areas where the monitoring is needed most. In most areas there is no direct electricity at all, and the system runs on electricity from wind mills and solar cells combined to fuel cells and, in some cases, small diesel-powered generators.

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"The Traffic Directorate tested the Mobotix cameras for nine months in a location 30 km outside of Reykjavik. After the test period they were impressed with the picture quality, durability and the power consumption of the cameras. They decided to install around 30 Mobotix D12 surveillance cameras in 14 deserted areas around the country. In some locations old analogue cameras were replaced, while others received surveillance for the first time," explains Hafliði Jónsson, Sales Manager from Securitas.



### THE CAMERA REBOOTS ITSELF

The remote highlands where most of the cameras are set up experience inevitable power outages. With the old cameras The Traffic Directorate spent a lot of time on maintaining and repairing the cameras after power outages - and sometimes it took a very long time to get them up and running again, as weather conditions often made it impossible for technicians to travel to the sites.

"The beauty of the Mobotix system is that even though power failure happens, the cameras just start up on their own when the power comes back on. This means that we don't have to send a technician to reboot the camera and set it up again, and that saves us a lot of working hours," explains Nicolai Jonasson.

### SURVEILLANCE IN POOR LIGHT

After the trial period, it turned out that the Mobotix D12 cameras could actually run on such a small amount of power that there was power left over which could be used to light the roads in these remote areas.

"We are talking about locations that are pitch black in the winter time - there is no light at all. So we decided to use the excess power to

attach infra red light to the system. In this way the roads can be lit up to monitor the conditions there in order to determine whether it is safe for road users to go there," states Hafliði Jónsson.

"This saves us a lot of working hours and makes it easier to allocate the resources to the right areas"

"The light is only turned on when the cameras take a picture to economise on energy consumption. The system is set up to take a picture every 15 minute from each of the three angles - left, right and down on the road - which gives us a picture every 5 minutes from each camera installed. Although we have upgraded the Internet connections in some of the areas, the slow connection still makes it impossible for us to do live streaming," clarifies Nicolai Jonasson.

### SAFE ROADS ARE A TOP PRIORITY

"On www.road.is all users can log on to see surveillance footage from the cameras that we have installed all around the island. It is a safety precaution for people to see the conditions of the road before they

take off from home. At the same time our personnel in charge of road safety can also sit at their offices and determine whether snow ploughing or salting is necessary in remote areas. This saves us a lot of working hours and makes it easier to allocate the resources to the right areas," states Nicolai Jonasson.

### DETAILED AND CLEAR IMAGES

The staff at the Traffic Directorate is very satisfied with the new Mobotix installation that provides them with clearer and more detailed images of the monitored areas, as this allows them to perform their jobs much better.

The Traffic Directorate hope to have more of the old cameras replaced with Mobotix cameras in the near future in order to have the same reliable and robust surveillance solution all over the country.

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