

Seeing is believing

Piloting a new type of weather service

Before you set off for the day – would you like to see a reindeer on your cross-country skiing track? Weather at your boat harbor? Traffic at a busy crossing? The Vaisala weather camera service helps you do just this, and more.

Vaisala has started a pilot weather camera service with its first pilot customers. The service consists of high resolution picture and weather information delivered to the customer's Internet site. The weather information includes temperature, relative humidity, wind speed and direction, barometric pressure, wind-chill factor and rain. In addition, a counter can be activated for example at cross-country skiing routes to calculate the number of daily users of the track. All data is updated every five minutes. The pilot services are available throughout the year but in some applications, like cross-country skiing, the service is contracted for the duration of the skiing period.

The City of Oulu and Northern Lapland Tourism Ltd. in Finland have been using the Vaisala weather camera services for the past few months.

Real-time regional weather information for the City of Oulu

The City of Oulu in Finland, located 600 kilometers north of the capital Helsinki, has launched a local weather camera service and weather observation network in the city and its surroundings. Weather data such as temperatures, wind speed and humidity can be accessed via the Internet.

The weather service network offers accurate local information to citizens

and companies, and promotes research and innovation activities. For example, changes in local weather can be followed based on developments in wind and temperature conditions. These parameters also enable the calculation of the wind-chill factor.

The weather camera service utilizes Vaisala Weather Transmitters WXT510 and outdoor cameras. The data produced is made available in Oulu's unique wireless technology environment. Project partners include the City of Oulu, Nokia, VTT Technical Research Centre of Finland, Oulu University of Applied Sciences, University of Oulu, Vaisala, and Oulu Innovation.

Many businesses and organizations use the network for research and development purposes. Software developers are also involved in building applications and services where weather data produced by the network can be utilized.

"The goal is to harness new technologies for use in both top-level product development and the everyday lives of citizens. For example, weather data available for mobile devices is so light that one does not need a 3G phone to access it," says the 'father' of the project, Olli Lukkari from Oulu Innovation.

Innovations to benefit individuals and businesses

For Vaisala, the Oulu project offers a significant chance to pilot new weather information service concepts. The goal is to investigate the benefits and opportunities offered by this kind of weather and environmental information to both companies and individuals.



Vaisala weather camera captured an image of a reindeer on the skiing track on February 5, 2007.

"The Oulu project is the first weather services network where different actors come together to discover new ways to use environmental data. The project nature and scope is slightly different from that of the Helsinki Testbed research project, where we work together with the Finnish Meteorological Institute and partners. The Oulu model for networking, which brings together both research institutes and companies, functions very well, and we are convinced it will produce new innovations to benefit both individuals and businesses," says Vaisala Business Development Manager and project coordinator Irma Ylikangas.

Improving customer communications

Saariselkä, located in Northern Lapland, is a versatile tourist centre and a lively village offering a wide variety of services. The Urho Kekkonen National Park extends all the way from the village to Koilliskairas, where locals and visitors explore the park's unforgettable nature.

Saariselkä provides exceptionally good opportunities for cross-country skiing. The illuminated tracks, versatile terrain in the fells and long skiing season offer the skiers a variety of alternatives to choose from. The wild nature of Lapland next to the Fell Resort gives cross-country skiers an excellent



An innovative weather service network benefits the everyday lives of the inhabitants of the City of Oulu. Photo by Juha Sarkkinen.

opportunity to acquaint themselves with the environment.

Sanna Kortelainen, Managing Director of Northern Lapland Tourism Ltd., is very pleased with Vaisala's weather camera service: "For Saariselkä, Vaisala's weather camera service has been a significant step in improving customer communications. The holidaymakers in this area are often active outdoor people, particularly in the winter as there are a lot of cross-country skiers."

The local tourism information center receives several calls daily inquiring about the condition of the 240 km skiing track. Also the weather at the mountain fells is of great interest. Accurate and real-time weather information is important, because it is a matter of customer safety. Weather conditions should always be checked before a skiing trip, and precautions taken for changing weather conditions.

"We were looking for a solution that would enable us to better serve our customers regarding weather information. Vaisala's weather camera images help in luring the skiers onto the tracks. The weather camera pages are viewed almost 100,000 times per month, and we have received a lot of feedback. For example, people are thrilled to spot reindeers and

hare on the tracks," Ms Kortelainen says. The pilot was closed in spring 2007.

Close co-operation enables developing future services

The weather camera pilots provide a good example of the importance of customer relationships. Without such pilot programs, it is very difficult to see the strengths and weaknesses of potential new services. Close communication and immediate feedback from customers teaches Vaisala to respond to requests even faster. This is vital information for us when developing our services. ■

Further information:

Oulu weather cameras (Finnish only) - www.ouka.fi/index_saa.asp (click the red dots on the map)

