



# Surfing the waves and the web at the Dutch resort of Scheveningen: Keeping visitors safe and entertained with Motorola's wireless network solutions



"Our vision is to make Scheveningen a 'connected resort', deploying wireless network solutions from Motorola to deliver a range of advantages. It enhances safety – warnings about dangerous sea currents and images of children who've become separated from their parents are placed on the wireless portal – visitors and residents can connect to the internet, the region is more attractive to businesses, and local companies can promote themselves to network users. The system will pay for itself in two years, and the capabilities of the technology are being promoted to a wider audience – 16 million people visit Scheveningen each year."

– Michiel Nilsson, Manager Business Development, Skeyeopener

## The company: WiFives and Skeyeopener

Three businesses initially backed the network – Wallbrook Media, Van Den Broek Consultancy, and wireless communications specialist Selecsys – combining together to set up two companies to oversee the system. The first, WiFives, built and manages the network in Scheveningen and will do so in other regions of Holland. Secondly, Skeyeopener is responsible for developing applications and promoting the network, receiving a grant from the European Community's Living Labs foundation, which supports commercial innovation.

## The challenge

The Scheveningen area doesn't have a city IT department or 'hot-spot' type operator. However, local businesses identified wireless internet access as an increasingly important feature for major tourist destinations.

## Solution

Two of the initiators, Wallbrook Media and RBI Capital Consultancy, and wireless communications specialist Selecsys, formed a new enterprise to fund and promote the wireless network solution for Scheveningen.

## Customer profile

### WiFives

#### Company

Skeyeopener and WiFives

#### Location

Scheveningen, Holland

#### Industry

Communications

#### Motorola products

- MotoMESH Duo
- Motorola Point-to-Multipoint antenna
- Motorola Point-to-Point 500 antenna
- Enterprise WLAN RFS6000 & AP7131

#### Applications

- Provision of public wireless broadband access across the beach area of Scheveningen

#### Partner

- Selecsys

#### Benefits

- Enhancing safety: The portal to access the network is updated with warnings about dangerous sea currents and is used to post images of children who've become separated from parents
- Visitors and residents can access the web from mobile devices
- Vivid local services – the network is supporting services that include the provision of multilingual tourist information, beach-dating and gaming
- Scheveningen is more attractive as a conference venue
- Businesses in the area can advertise on the access portal
- Local hotels are evaluating the system to provide wireless broadband to residents



Selecsys designed and built the wireless network infrastructure based on Motorola Point-to-Multipoint Canopy (wireless infrastructure) and MotoMESH WiFi Access Points, which connect people around the resort to the internet using mobile devices, and Motorola Enterprise Wireless LAN RF Switches and Access Points in order to enable shoppers and retailers to access the internet securely.

#### **Business benefit**

Becoming a 'connected resort' enhances the marketability of Scheveningen as a destination for business conferences. Visitors can also access the internet at high speeds, and local businesses advertise their services on the portal. The technology is also enhancing safety. Warnings about dangerous sea currents can be posted on the portal as can photographs of children who've become separated from parents and the location of where they can be found. Wireless video cameras will also be deployed to provide a 'geo-fence' capability to warn lifeguards when swimmers have gone beyond safe areas.

#### **Making Scheveningen a 21st century destination**

Scheveningen attracts 8 million people a year to its 4-km-long beach, fun fairs, stunning scenery, fine hotels and bars and restaurants. While the area is

extremely popular, its communications infrastructure was not in keeping with a 21st century travel destination.

"Widely available internet access is increasingly viewed as a 'must-have' for modern tourist destinations, providing a means to market local businesses, attract companies to the area and enable people to keep in touch with work, search for services from hotels to restaurants and contact relatives while they're away," says Michiel Nilsson. "Also, new applications for wireless broadband are becoming available which significantly enhance visitor safety."

Although the advantages of wireless broadband are increasingly acknowledged, Scheveningen is not served by municipal IT services who could build a network.

Says Michiel Nilsson: "With this in mind, several local businesses came together to construct broadband coverage."

#### **Building the network coverage**

Three businesses, Wallbrook Media, Van Den Broek Consultancy, and wireless communications specialist Selecsys, combined to set up two companies to create the system. The first, WiFives,

has deployed and oversees the network. The second, a firm called Skeyeopener, builds applications for, and promotes, the system.

As soon as the network was mooted, interest mushroomed as Michiel Nilsson explains: "Local businesses were very interested in the technology, while we received strong support from the Hague Municipality and a grant from the EU's Living Labs organization which promotes innovative commercial ventures."

With the project taking off, WiFives set about selecting network equipment.

### Reviewing technology

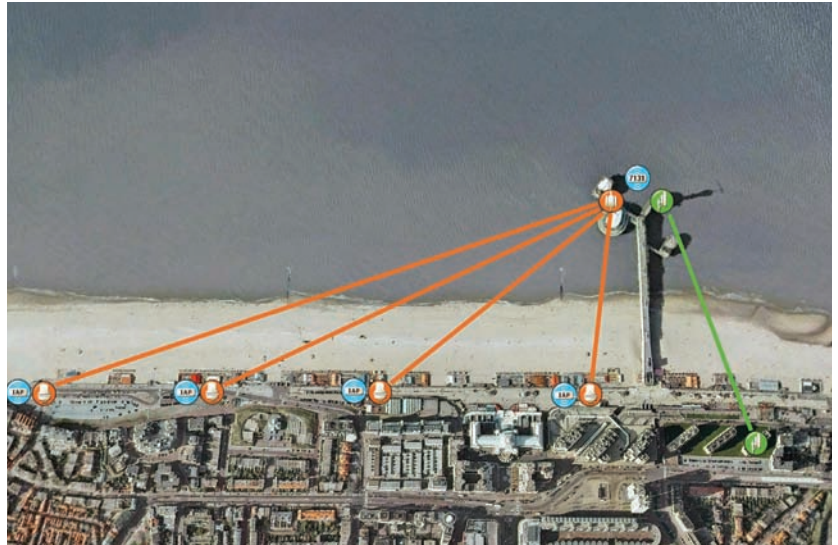
Selecsys brought its technology expertise in wireless networks to the table and recommended Motorola's wireless broadband technology to the WiFives team.

The system's profile includes a NOC developed by Azotel, which specializes in network management technology. From the NOC which is based on the main pier, a 20Mbps Canopy point-to-multipoint antenna broadcasts the broadband signal to MotoMESH Duo Access Points around the busiest part of the beach. The Access Points connect people's mobile devices to the internet. The decision to deploy Motorola equipment was based on several factors.

Observes Michiel Nilsson: "We wanted to install the network in licence-free air space and Motorola's Canopy is ideal for this. It includes smart technology which is proven to deliver excellent quality of coverage. We opted for the MotoMESH access system as the Access Points are very easy to install, self-diagnose and heal if there is a problem and are highly robust and reliable. The beauty of the network is that once installed, apart from the internet connection, there are no subscription costs to pay, it's very easy to maintain and supports an innovative range of services."

### Versatile, cost-efficient and innovative services

The technology's core application is the provision of internet access to people including residents, visitors and local businesses who can connect to the service using laptops, PDAs and smartphones. Data speeds to users average 7Mbps. The service has proven very popular, and within two years, is expected to have paid for itself by companies advertising on the portal.



The network is boosting Scheveningen's profile as a conference venue for business and is also enabling creative applications to improve visitor safety.

"In such a busy area, some children become separated from parents," says Michiel Nilsson. "Businesses are running a scheme to look after these kids and post an image of them on the broadband portal indicating where they can be found. Also, lifeguards can upload warnings on the website to let people know when currents are dangerous: around 400 swimmers needed assistance this summer and we hope to greatly reduce this number."

Due to the success of the initial network deployment, the system is expanding.

### Expanding capabilities

The network is being built out to cover the full 3km of beach with the deployment of four new Canopy antennas and 12 MotoMESH Duo Access Points. "This is easily achieved," comments Michiel Nilsson. "The equipment simply self-registers on the network." As the network is expanding data speeds will need to increase also.

To achieve this, Michiel Nilsson's team sourced quotes for taking a fibre line to the NOC on the pier. However, this was very expensive. Therefore, the decision was taken to install a Motorola point-to-point Canopy backhaul antenna – the PTP

500 – to bridge the distance from a fibre connection in a nearby building to the NOC. Says Michiel Nilsson: “The PTP 500 is an excellent way to provide backhaul – with the latest OFDM technology the signal quality is superb, smart technologies ensure that any interference is overcome, the system supports very high data speeds, and it’s hugely more cost-efficient than running fibre to the pier. So although the system is growing, we’ll still be able to provide data at 7Mbps to users.”

Wireless broadband will also be delivered to shops on the pier using Motorola’s secure and highly reliable enterprise WLAN, the RFS6000 switch with AP-7131 Access Points installed in the shopping mall. The system will enable shoppers and retailers to securely connect to high internet at high speeds. The AP-7131 is designed to meet the needs of large, distributed networks by converging the functionality of a thick Access Point and thin access port into a single device. Adaptive mode enables the deployment of a fully featured intelligent access point that is centrally configured and managed via the Motorola RFS6000 wireless switch. All traffic between the adaptive AP7131 Access Points and the wireless switch is secured through an encrypted tunnel.

In the unlikely event of a WLAN, distribution or core network failure, this fully independent configuration offers a Remote Site Survivability (RSS) feature. RSS ensures the delivery of secure uninterrupted wireless service in the remote location, offering unparalleled network resiliency for the shopping mall. Several local hotels are also evaluating using the WLAN coverage to provide internet services to their residents.

Summarizing his view on the network, Michiel Nilsson says: “The system deploys equipment from Motorola’s comprehensive end-to-end wireless technology including wireless distribution and access technologies. It’s proving to be hugely versatile: the area is more attractive for business, the visitor experience is enhanced, local companies have a new means to promote their business and it’s making the resort a safer destination – all in a system that will be self-financing. We’re delighted with the network which has also received a huge amount of positive media coverage in the Netherlands and is helping promote the capabilities of wireless broadband.”

#### About Motorola

Motorola is known around the world for innovation in communications and is focused on advancing the way the world connects. From broadband communications infrastructure, enterprise mobility and public safety solutions to high-definition video and mobile devices, Motorola is leading the next wave of innovations that enable people, enterprises and governments to be more connected and more mobile. Motorola (NYSE: MOT) had sales of US \$30.1 billion in 2008. For more information, please visit [www.motorola.com](http://www.motorola.com).



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