

# Italian beaches

Connecting holidaymakers: deploying beachside DAS to Italy's picturesque beaches

**COBHAM**

## Case study

The most important thing we build is trust

### Overview

Cobham Wireless and neutral host solution provider INWIT installed the world's first beach DAS system in the Italian beach resorts of Cervia and Milano Marittima. The project provides thousands of holidaymakers with voice, SMS and 4G data coverage on the beach and surrounding areas.

### Challenge

Providing sufficient 3G and 4G coverage in rural coastal areas with sporadic user profiles can be extremely expensive for wireless operators, which are at risk of falling foul of regulations around power usage and aesthetic impact in these areas.



### The Challenge

Italian rural coastal areas are notoriously difficult to provision for cellular operators, with many distant from urban areas and away from the reach of traditional RF infrastructure. Delivering the capacity required to support 4G data, or even voice, is extremely challenging in these locations. This is due to a combination of sporadic usage profiles and regulations around power consumption, and the visibility of cellular equipment.

However, high demand from holidaymakers and local day-trippers to access voice, SMS and high-bandwidth data services while on the beach means operators have little choice but to find a cost-effective way to supply these services to subscribers, even in the most remote of beachside locations.

During the busy summer season the most popular beaches can have thousands of people attempting to access network services simultaneously, looking to share images and videos on social media, make calls and contact friends while relaxing on the beach. Operators who fail to provide these services risk customer complaints and potential churn.

While the demand is there during a hot summer's day, during the night and in winter months these areas are often completely deserted, meaning traditional methods of capacity provision are not cost efficient.

To address this market opportunity, INWIT looked to deliver a solution able to provide voice, SMS and high-bandwidth 4G services to all four major operators in Italy, while meeting laws regarding power consumption and aesthetic impact for Italian areas of natural beauty.

The company identified the picturesque Adriatic resorts of Cervia and Milano Marittima as the ideal locations for initial deployments, with plans to expand this to other regions in the coming years if the first installations were successful.

At the time, Wi-Fi was provided by bars every 100m or so along the beaches in these areas, however, the coverage was poor and unable to support the high-speed traffic typically experienced here.

### The Solution

During summer 2016, INWIT selected Cobham Wireless' Fibre DAS (Distributed Antenna System) to supply voice, SMS and high-speed 3G and 4G data coverage to beach areas in both Cervia and Milano Marittima.



Cobham Wireless designed a system that used a base station hotel and optical master unit housed within existing telecoms infrastructure located 200m from the coastline. This was then connected to the remote units along the shoreline using fibre optic cables, ensuring it met the strict environmental laws in the region. The system is triple band: LTE 1800MHz, LTE 2600MHz and UMTS 2100MHz.

The DAS was configured to enable customers of all four major operators to access high quality data services with enough capacity to ensure 4G availability even during the busiest hours of peak summer activity. During these months demand for cellular services can rise 50-fold, which is well within the capable bandwidth channelled by the Cobham Wireless solution.

To ensure the deployment remained within regulated power consumption boundaries, each of the four operators are be able to access a maximum of 2.5W of power through remote units positioned in each of the three sectors in both beaches.

"Due to poor Wi-Fi coverage in the Cervia and Milano Marittima beach areas, there was a need for operators to deploy 3G and 4G," said Mike Voigt, Sales Director, Cobham Wireless. "Following the deployment Cobham Wireless tested a dedicated area on the beach and demonstrated speeds of 70mbps. It's great to know that the project has delivered on beach visitors' expectations, providing fast, reliable internet connectivity."

### The Benefit

Thanks to the modern fibre DAS from Cobham Wireless, Italy's four largest cellular providers are now able to supply customers with voice, SMS and data services while in these popular holiday resorts. Subscribers can access high-bandwidth services, including video streaming, across the entirety of the 12,000 square meters of beaches in Cervia and Milano Marittima.

In addition to enabling the complete range of cellular services for consumers, the fibre infrastructure has the facility to be upgraded to an intelligent digital DAS, which can then be tuned to share capacity with local cities and villages if demand from nearby locations increases.

This has huge advantages as capacity wasted over the winter when the beach is empty can be re-routed to serve other high-demand areas. Alternatively, where there is a high concentration of hotels, provision can be supplied to the beach during the day while in the evening when the seafront is empty, it can be moved to the leisure facilities in these hotels or other nearby locations.

"DAS is the perfect solution to meet the needs of operators in Italian coastal areas, providing their customers with the capacity and bandwidth needed to utilise the whole spectrum of cellular services" said Eugenio Chiappetta, Business Management & Operations, INWIT.

Due to the success of the deployment, INWIT subsequently signed new agreements with operators, and as a result, three additional sites further along the Cervia and Milano Marittima beach area, will receive extended coverage.

Due to the benefits delivered by Cobham Wireless' Fibre DAS, as well as the strong, positive reaction from local wireless operators, INWIT is now planning similar projects in other locations along the Adriatic coast and other popular holiday destinations within Italy.



*"DAS is the perfect solution to meet the needs of operators in Italian coastal areas, providing their customers with the capacity and bandwidth needed to utilise the whole spectrum of cellular services."*

*"Following the success of the deployments in Cervia and Milano Marittima, we are now in talks to launch similar services in other popular Italian coastal resorts."*

Eugenio Chiappetta, Business Management & Operations, INWIT

