



## Overview

The Manantali Dam is located in the Senegal River basin of Mali in Africa. In order to fully utilize the dam's potentials, a hydroelectric plant was established next to the dam in 1997. The two facilities are serving for multiple beneficial purposes until now.

Altai's partner, Imperis Sarl, was approached for a project to deploy a full Wi-Fi network covering the plant and the 4,500+ workers' living areas, including both indoor and outdoor areas, occupying almost 100 hectares in total. During the site survey, it was found that the residences are mostly made with metal containers, scattered around the area that is more than 2 km away from the plant. All buildings of the residence area are located in rural areas surrounded by gradient landscapes and trees, which are the worst obstacles for radio signals.

The deployment team had to overcome the gradient slopes in between to extend the Wi-Fi signal from the plant area to the residence areas. Relying upon Altai products' outstanding and reliable performance, the deployment was finally completed with satisfaction, resulting in a high speed, low latency Wi-Fi network for 100% indoor and outdoor coverage.

### Customer Name:

Manantali Dam and its associated hydroelectric plant  
Imperis Sarl (Distributor)

### Deployment Location:

Kayes Region, Mali  
Africa

### Application:

Wi-Fi network covering the whole working and living areas for all workers

### Products used:

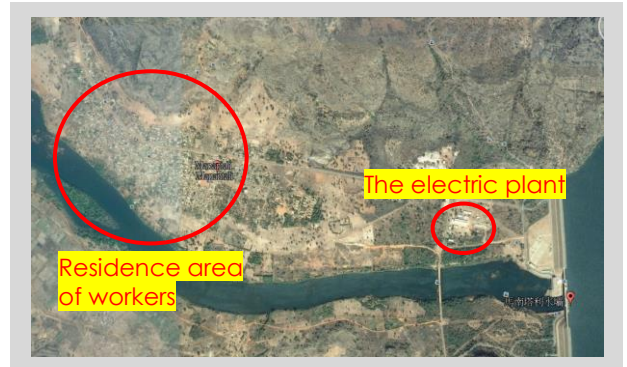
A8n, A2-Ei, A2, C1n

### Result:

All workers in the hydroelectric plant can now enjoy Wi-Fi network no matter they are in the workplace or having private time in their living area. With Altai's super Wi-Fi solution, even at the farthest corner of the residential area, the workers can still enjoy carefree web surfing or any online services.

### The Challenges

- Large area of coverage for a total area of almost 100 hectares
- Tall trees and slopes surrounding the field become natural obstacles for Wi-Fi signals
- Residences consist of metal containers which make it difficult for Wi-Fi signal to penetrate indoors



### The Solution

After a thorough site survey and careful selection of deployment sites, a mix of Altai's indoor and outdoor products were adopted in the deployment.

With precise calculation, Altai's flagship product – A8n was used for long range access in order to maximize its ability of large area coverage, and further reduced the no. of sites required to the minimum. A2 was chosen to serve as wireless backhaul for the Wi-Fi base stations, and C1n series was used for indoor connectivity. This arrangement formed an array that allowed all devices to reach their best performance.

### The Result

The whole deployment was completed in a professional manner. By adopting Altai's patented super Wi-Fi technology, a satisfying outcome was achieved. All workers in the hydroelectric plant can now enjoy Wi-Fi network whether they are in the workplace or having private time in their living area. With Altai's super Wi-Fi solution, even at the farthest corner of the residential area, the workers can still enjoy carefree web surfing or any online services.

### About Altai

Altai Technologies is a leading supplier of carrier-grade Wi-Fi products and technologies with a distribution network reaching 100 countries. Altai Super WiFi is the leading solution for vertical industrial markets, covering over 200 container ports globally.

The Altai Super WiFi Solution includes a complete portfolio of indoor and outdoor products for carriers, WISPs, and enterprises to support a wide range of applications such as mobile data off load, public access, WLAN access, and backhaul.

Utilizing patented smart antenna technology, as well as a cloud-based management system called AltaiCare, the Altai Super WiFi Solution is designed from the ground up to deliver WiFi networks that have unprecedented performance, reliability, scalability, and manageability.

### Contact Us

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