



RURAL SUPER WIFI PROJECT

OVERVIEW

In line with its commitment in achieving nationwide digital transformation, the Malaysian government has initiated the National Digital Infrastructure Plan (JENDELA) which is the core to realising the aspiration of a digital nation with the vision of shared prosperity by 2030.

Among the efforts focused is to expand Internet access, especially in rural areas. The Malaysian Communications and Multimedia Commission (MCMC) is rolling out satellite broadband access services for 839 remote locations including the Orang Asli (indigenous) settlements located far from existing telecommunication network facilities.

This project will enable residents to enjoy free Wi-Fi service with an average speed of 35Mbps.

MCMC has selected the Altai Super Wi-Fi technology which allows long range Wi-Fi coverage and Mimosa Networks Point to Point wireless backhaul infrastructure connecting the outdoor Wi-Fi access points. Deployment using Altai Super Wi-Fi and Mimosa wireless technology allows remote areas which are not reachable by conventional telecoms infrastructure to have broadband Internet access.



OBJECTIVES:

Fulfilling the JENDELA initiatives, the Super Wi-Fi solution for kampung orang asli Cameron Highlands settlements are designed based on the following objectives:

- Long range outdoor Wi-Fi coverage with at least 300m radius line-of-sight signal penetration
- High capacity 5GHz wireless point-to-point backhaul connecting the access points together from a single satellite source
- Satellite access with minimum 35Mbps capacity



THE CHALLENGE

Few challenges were presented during the initial discussion with customer in relation to the deployment of the rural outdoor Wi-Fi networks:

- **Terrain** - The orange asli settlements are located in remote jungles with challenging terrains preventing good Wi-Fi signal penetration
- **Houses distribution** - The village settlement houses are widely distributed. Some houses are obstructed by tall trees
- **Tall trees** - The dense tropical jungle trees prevent Wi-Fi signal from penetrating to designated areas
- **Manageability** - Large scaled Wi-Fi deployment requires an easily designed and managed NMS system

THE SOLUTION

With such large area of Wi-Fi signal coverage requirement, customer has selected the Altai Super Wi-Fi with smart antenna technology to resolve the challenges in fulfilling the JENDELA objectives.

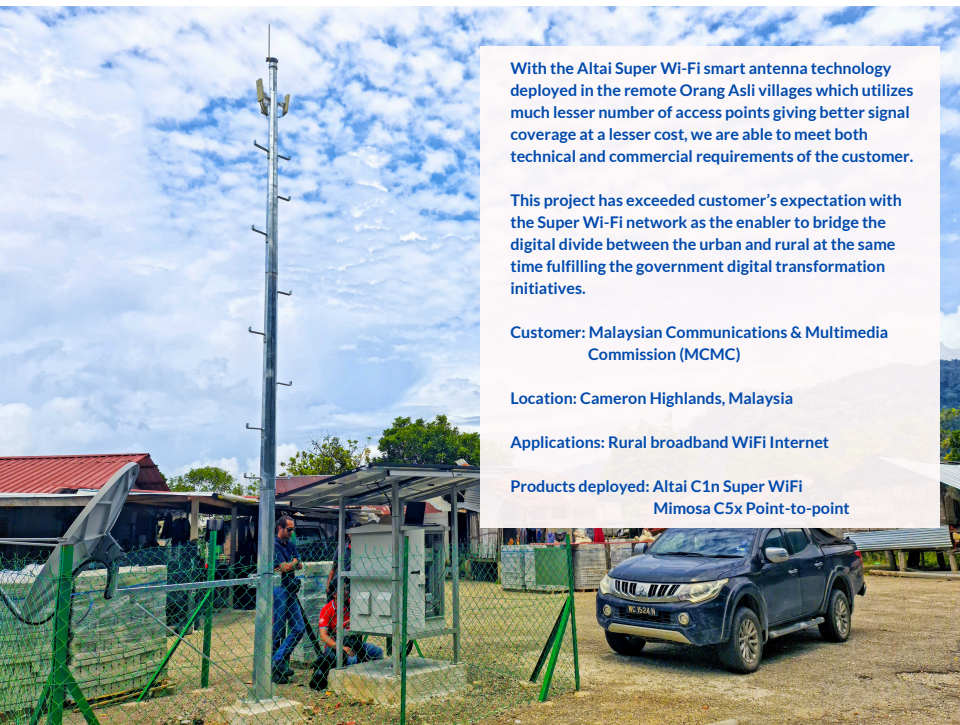
The coverage of Altai Super Wi-Fi signal is much larger than the footprint of any standard access point, therefore meeting the expectation for rural Wi-Fi network. Fewer number of access points are required to serve a large community of village houses. Deployment process can be concluded much faster.

The Mimosa point-to-point wireless solution provides high capacity backhaul eliminating the need to lay fiber optic cables at these mountainous area and also reduce the number of satellite drop points.

Together with AltaiCare, a cloud-based network management platform and controller, all Wi-Fi access points can be monitored and managed on a single architecture platform to save the cost of on-premise controllers.



THE RESULT



With the Altai Super Wi-Fi smart antenna technology deployed in the remote Orang Asli villages which utilizes much lesser number of access points giving better signal coverage at a lesser cost, we are able to meet both technical and commercial requirements of the customer.

This project has exceeded customer's expectation with the Super Wi-Fi network as the enabler to bridge the digital divide between the urban and rural at the same time fulfilling the government digital transformation initiatives.

Customer: Malaysian Communications & Multimedia Commission (MCMC)

Location: Cameron Highlands, Malaysia

Applications: Rural broadband WiFi Internet

Products deployed: Altai C1n Super WiFi
Mimosa C5x Point-to-point

ALTAI
Super WiFi

mimosa
by Airspan

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