

Altai Connects Tembisa in South Africa



Situated in the north eastern part of South Africa, Tembisa is one of the largest townships in South Africa and has a population of over 500,000. e-Mbizo, the leading wireless internet service provider in South Africa, planned to provide wireless connectivity using a

less expensive alternative to fiber, DSL or cable connection for the area.

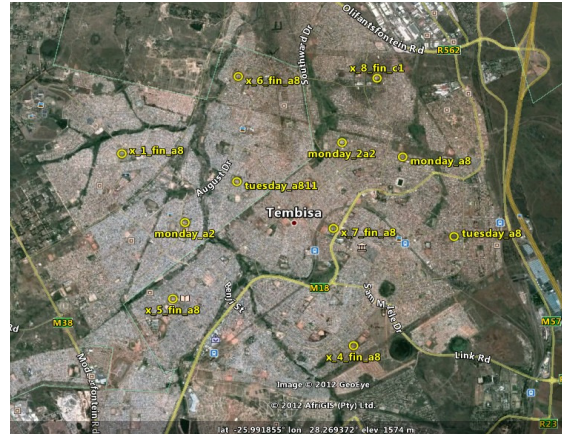
After a lengthy and in-depth research of numerous wireless technologies, e-Mbizo identified Altai Technologies as its technology partner due to Altai's superior quality of service and broad flexibility in terms of scalability.

In Tembisa, e-Mbizo has deployed the Altai A8 Super WiFi Stations to provide large area outdoor WiFi as well as the C1 Super WiFi CPEs to provide indoor coverage and extend the outdoor coverage. Furthermore, it has deployed the Altai A2 for backhaul links across the town.

The wireless network covers the major areas of Tembisa to provide high speed and affordable WiFi connectivity throughout the district.

The A8 base stations were installed on the rooftop of buildings to provide large area coverage. The network now blankets 42 sq.m. of the town to provide WiFi services on a prepaid basis. For just round US\$1, users can enjoy a maximum speed of 1Mbps for 24 hours within Tembisa.

e-Mbizo is now planning for a network expansion. The new network is expected to be rolled out by first half of 2013.



Problems & Challenges:

- Site acquisition was difficult as there were not many tall buildings in the district
- To provide signal coverage in the major areas at minimal cost
- The network must be highly scalable for future expansion to accommodate high user capacity

Solutions:

- Utilized patented wireless technologies to optimize for maximum coverage from a minimum number of installation sites without requiring complicated network protocols
- All A8's were mounted on poles and installed on building roof tops. Altai C1's were installed on each building to extend the outdoor signal to indoor for full coverage
- Complete end-to-end solution including service control, billing and pre-paid card systems