



ATT: Anthony MUYEPA {Director of ICT, College of Medicine & Technical Specialist, MAREN)
Project Name: **Malawi Research and Education Network and one link it BT-ZA-Mangochi using wireless**

From: DNC, Yokohama Japan, Chomora MIKEKA, Founder

Consulting on: “Mikrotic vs. WiMax,” what is better suited for use in the above named project?

DNC Response on this date, 13th July, 2007:

Abstract

Mikrotic is a WiFi high speed IEEE 802.11a/b/g offering upto 54Mbps deliverable in LOS environment and rated highly above all WiFi hardware, while WiMax is an IP-based network, offering high data rate (>75Mbps), equipped with adaptive modulation and coding (AMC), versatile in NLOS (Orthogonal Frequency Division Multiplexing) and cell-sector roamable (OFD Multiple Access) mobility, a revolution of the circuit switched 3G but not a blue print. Clearly, WiFi and WiMax are different standards and have best potential in different applications.

Points to Consider in the evaluation of WiFi and WiMax

1. Mikrotik may be lower in cost than a rival WiMax hardware. Visit <http://www.mikrotik.com/comments.php> for user positive experiences with Mikrotic and ask SDNP for problems associated with Mikrotic OS router, since they have deployed such gear in Malawi.
2. WiMax is best suited for long range broadband wireless backbone (limits of 10Km +) with faithful handling of downloadable media content, IM and Web browsing, media streaming, VOIP and interactive gaming. These applications suffer less jitter, latency, and are highly reliable on WiMax than its rival standards.
3. WiMax is not portable, PDAs, NotePC etc are equipped with WiFi and not WiMax, so you can not dream a WiFi hotspot from WiMax Base Station. WiFi integration techniques MUST be considered.

Conclusion: We have at best shown that WiFi or WiMax are application specific, while we note that WiMax is best suited for long overhaul links upto 100Km, but we do not guarantee interoperability with WiFi. Move on and give us feedback on the progress of the project.

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