UNIVERSITI TEKNOLOGI MARA

UNCOMMON STANDARDS EXISTANCE COMPROMISING THE GROWTH OF WIRELESS BROADBAND INDUSTRY IN MALAYSIA

ABDUL RAHMAN BIN ABDUL RASHED

Dissertation submitted in partial fulfillment of the requirement for the degree of

Master of Science in (Computer Networking)

Faculty of Computer and Mathematical Sciences

NOVEMBER 2009

Acknowledgement

First the foremost, the author want to thank Allah the almighty for giving strength and wisdom to complete this project and everything else in life.

The author would like to express appreciation to Dr. Kamaruddin Mamat, my supervisor and Mr Farok Azamat the program coordinator of this dissertation and not to forget Mr Azani, Mr Zaidi Ismail and Mr Razzi from various firms and organization which assisted me in this project. Thank you very much for the valuable knowledge and guidance throughout the course.

Thanks to supportive colleagues Eviyanti, Mohd Hilal Muhammad, Fuzi Yunus, Ammar Abd Halim, Juhaimi Nizam Johari, Siti Khadijah Zainal Abidin, Zaidi Ismail and the list goes on to the whole class of CS778 batch 3 year 2007 and, the author had pleasant time working with you all.

Finally, I want to express my deepest gratitude towards my family, siblings for the endless support and understanding throughout my studies and during this thesis process. I love you.

Abdul Rahman Abdul Rashed

Abstract

The explosive growth in wireless broadband in Malaysia has not been very encouraging till this very moment. Even after a year and half when the governments have granted the WiMAX licenses to 4 major providers, the broadband market has yet to bloom. The STAR July 31, 2009 – "Three WiMAX warned", had further proves that the WiMAX providers seems to be facing some issue in expanding their services. What seems to be the matter? Long before WiMAX came into the market, Malaysia had already flourishing with various wireless broadband providers such as e-building, CNX, Atlas One, TIME Webbit broadband, AirZed and etc. Now most of these names are no longer exist nor appear within the mainstream ads, radios and television ads.

Is the Malaysian broadband market too small? Is the Malaysian citizens has no interest with the technology? Or are they facing some difficulties due to our climate and hash weather? Well none of us have the exact answers. For the records according to our Meteorological Department places like Subang (Selangor), Bayan Lepas (Penang) and Kluang (Johor) have a whopping 180 to 200 "thunderstorm days" (TDs) per year (the number of days that thunder can be heard at the weather monitoring stations there.

In this paper the choice of a proper earthing resistance and standards on both building earth and electrical earth is being studied and discussed. By understanding this matter the audience will understand the real situation why is the local wireless industry is not moving as planned. Unless we solve the sustainability and reliability issues for wireless broadband technology and service provision, the goal to achieve a 50% penetration rate cannot be achieved; instead of digital inclusion a new digital divide between urban and rural communities in developing countries will be created.

Table of Contents