UNIVERSITI TEKNOLOGI MARA

QUALITY OF SERVICE (QoS) ON AUTO FREE CHANNEL DISCOVERY USING METAGEEKS WI-SPY 2.4x SPECTRUM ANALYZER

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ABSTRACT

For many businesses these days, keeping a wireless network up and running is mission critical and being able to find the source of interference and the ability to do something about it is an essential element of wireless network management in business environments. Instead of doing a localized version of war walking around business and manually running though all the wireless channels in different locations, the easiest and quickest way to get an overview of what is happening with the wireless network is by using a spectrum analyzer. A spectrum analyzer can give a visual representation of the complete wireless network spectrum, showing which channels are being used by nearby wireless access points and which frequencies are subject to interfereñce from nearby electronic devices, such as Bluetooth, cordless phones and microwaves. This research comes out with an objective aim to optimize auto free channel discovery on Metageeks Wi-Spy 2.4x spectrum analyzer at Business Information Technology (M) Sdn Bhd. Experimentation design and methodology are also addressed. It is also discussed about the research method and preliminary study. Specifications of hardware and software requirements also been stated, as well as the installation and setups. Then implementation is done where the data of frequency is collected in BIT. The most critical phase is the analysis phase where analysis of signal strength and comprehensive grade to be achieved. Optimization is performed based from the analysis results. Finally, a better channel from three access point is created with good receiving signal strength based from the analysis results.

ACKNOWLEDGEMENT

TABLE OF CONTENT

CHAPTER 3

METHODOLOGY