

TM 18 – Wireless LAN Measurements

Samuel Ngai 3020142

Peter Lo 3019472



Summary

There are various causes of transmission errors in 802.11 wireless networking. A statistical model of the occurrence of these errors is useful in optimising the performance of wireless networks. Our research aims to verify causes of wireless transmission errors, and collect experimental data in order to develop a statistical model of wireless transmission errors.

Objectives

- Develop software
- Conduct experiments
- Analyse data and build statistical model

- Improvements on previously conducted work
 - Succeed in development of statistical model
 - Comprehensive experimentation
 - Test a wider range of parameters, in various environments

Resources

- 802.11b wireless adapters
- 802.11b wireless access points
- 2.4GHz omnidirectional and directional antennae
- Software
 - Modified 802.11 drivers
 - Custom client/server testing programs
 - Ethereal – packet collection and analysis
 - Netstumbler – radio signal analysis
 - Statistical analysis applications

