

Course: CSC 8560 Computer Networks II
Date: 3/28/2009
Name: Matt White
Assignment: Research Topic

TOPIC: Wireless LAN Security

For the topic of my research project, I would like to investigate Wireless LAN Security. Specifically, I propose presenting information on the relevant IEEE standards, available security choices, known exploits, and future directions. I intend to present information on the initial approach to wireless security as implemented in the Wired Equivalent Privacy (WEP) standard, along with why it falls short, and how the Wi-Fi Protected Access (WPA) standards provide a better security solution. Time permitting, I may also present material related to common ways that people exploit WLANs.

Over the past few years, WLANs have become very widespread. It is common to find them configured in many business, schools, as well as individual residences. By default they are often not configured to take advantage of the most secure technologies available. In addition, most consumers do not understand the options available and how best to configure them. Upon a recent installation of broadband by a major local provider, I was surprised to find that the default configuration for the provided wireless-enabled router utilized WEP security. As will be discussed in this presentation WEP has multiple known and easily exploited vulnerabilities.

I would like to deliver the results of the research in the form of a presentation. The motivation for the selection of this format is driven by the hope that the material will be more widely consumed. Utilizing this format also provides for the opportunity for discussion and questions.