#### APPROVAL

## **BLUEJACKING AS AN ADVERTISEMENT TOOL**

BY

# NOR ZURIATI ZULKEFLY 2002611179

A project paper submitted to
FACULTY OF INFORMATION TECHNOLOGY AND QUANTITATIVE SCIENCES
UNIVERSITY TECHNOLOGY MARA

In partial fulfillment of the requirement for the

BACHELOR OF SCIENCE (HONS) IN DATA COMMUNICATION AND

NETWORKING

Approved by the examining committee:

Puan Rosanita Adnan

Project Supervisor

En. Mohd Izani Mohamed Rawi

Examiner

# TABLE OF CONTENT

TITLE	PAGE
ACKNOWLEDGEMENT	ii
LIST OF TABLES	vi
LIST OF FIGURES ABSTRACT	vii viii
1.1 INTRODUCTION	1
1.2 PROJECT BACKGROUND	2
1.3 OBJECTIVES	5
1.4 PROBLEM STATEMENT	6
1.5 PROJECT SCOPE	8
1.6 PROJECT SIGNIFICANT	9
1.7 SUMMARY	10
CHAPTER 2 LITERATURE REVIEW	
2.1 INTRODUCTION	11
2.2 PAST STUDIES REVIEWS	
2.2.1 The Next Wave of Wireless: Exploring Bluetooth	
Technology	11
2.2.2 Location Aware Service: Bluetooth Enabled Audio	
Systems (BeATS)	12
2.2.3 Bluejacking as a Marketing Channel	14
2.2.4 War Nibbling: Bluetooth Insecurity	16
2.2.5 Bluetooth Security	18
2.3 STIMMARY	10

CHAPTER 3 PROJECT METHODOLOGY	
3.1 INTRODUCTION	20
3.2 PLANNING PHASE	20
3.3 ANALYSIS PHASE	20
3.4 DESIGN PHASE	21
3.5 TESTING AND IMPLEMENTATION PHASE	22
3.6 DOCUMENTATION PHASE	23
3.7 SUMMARY	23
CHAPTER 4 PROJECT DEVELOPMENT	
4.1 INTRODUCTION	25
4.2 HARDWARE REQUIREMENT	25.
4.3 SOFTWARE REQUIREMENT	25
4.4 SOFTWARE SPECIFICATIONS	26
4.5 TESTING AND IMPLEMENTATION DEVELOPMENT	31
4.6 SUMMARY	32
CHAPTER 5 PROJECT FINDINGS	
5.1 INTRODUCTION	33
5.2 THE USAGE OF LAPTOP FOR BLUEJACKING	33
5.3 BLUEJACKING USAGE FOR ADVERTISEMENT	37
5.4 BLUEJACKING SECURITY MEASUREMENT	44
5.5 SUMMARY	47
CHAPTER 6 PROJECT CONCLUSION AND RECOMMEND	ATION
6.1 INTRODUCTION	48
6.2 CONCLUSION	48
6.3 RECOMMENDATION	50

#### **ABSTRACT**

This research was about the Bluetooth application called the Bluejacking. This application is known as the activity of sending anonymous messages to other Bluetooth-enabled devices such as PDA's, Mobile Phones and Laptops within the range of the sender devices. This research focused on using this application via Laptop to bluejacked mobile phones and other Bluetooth-enabled devices with the aid of a certain tool called Meeting Point. It would also focused on making this application as an advertisement tool, to send the promotional coupon to the devices that were located in the range. Here Bluejacking is used to 'hijack' the victims' devices to transmit the messages about the sales information. Other than that, this research would also concern about the Bluejacking security issue. Since it was known as a flaw to the Bluetooth technology, then this research would focused on proving that ridiculous perception. Although this research was more into study, but there would be some data testing to show the real situation of Bluejacking.

#### CHAPTER 1

#### PROJECT INTRODUCTION

### 1.1 INTRODUCTION

In this digital era, a lot of technologies existed in managing the human races' work, making it a lot easier. Each field in our daily life has been occupied with theses technologies. From personal matters up till giant company, almost everything is fully done digitally or computerizes. Talking, meeting, everything that related to making people connected is easier due to the evolved of the technologies. But this evolves not only bring good results but also bad, such as hacking and viruses.

The technologies have also made the business fields bloomed so well in these few years. Thanks to the Internet that has successfully became the factors of such benefits. As years came, today another technology arises in this field which is called Bluejacking. From the name itself, one might already knew that it is so much related to the Bluetooth technology. So, in this research, this Bluetooth technology will become the main focus in making sales promotion for a location-based service.

Before we go further on Bluejacking, it is a must that one must know better in Bluetooth technology itself. As known by users, Bluetooth is another alternative of a wireless network technology which followed a different development path than the 802.11 wireless families. Just like other wireless technology, Bluetooth enabled the digital devices to connect to each other without needing wires and long, heavy cables. It is a technology that resides in the open specification criteria, which enabled a short-range wireless connection between devices which has its own function. Open specification here means that any manufacturers can make their own Bluetooth devices and it will of course be able to communicate with other Bluetooth devices from other manufacturers.

Bluetooth wireless technology uses 2.4 GHz frequency band, which is globally available for worldwide use and compatibility. Although known for it's flexibility in making