Absolute Security System

Developed by

Qazafi Mahmood

Supervised by

Arshad Ali

A report is submitted to the department of Computer Sciences, Bahria Institute of management and Computer Sciences, Islamabad

In the partial fulfillment of the requirement for the degree of MCS

Department of Computer Sciences
Bahria University, Islamabad.

Department of Computer Sciences,

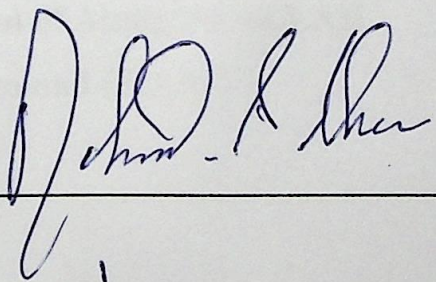
Bahria University, Islamabad.

Final Approval

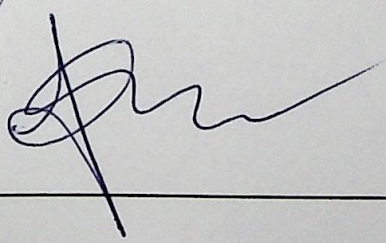
It is certified that we have read the project report submitted by **Qazafi Mahmood** and it is judgment that this project id of sufficient standard warrant its acceptance by Bahria University, Islamabad for Master degree in Computer Science.

COMMITTEE

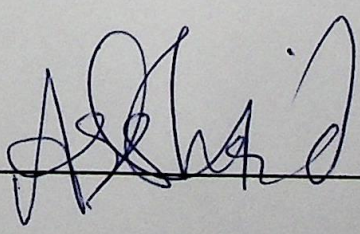
4. **External Examiner:**
   Dr. M. A. Khan



5. **Internal Examiner:**
   Fazal-e-Wahab



6. **Supervisor:**
   Arshad Ali



Dedicated

To

The greatest and the Holiest man ever born

The last Prophet of Almighty ALLAH

Muhammad (S.A.W)

Acknowledgement

All Praise to be Allah Almighty, the most Merciful, the most Gracious, without his help and blessing I was unable to complete the project.

This effort wouldn't have materialized into a reality had there not been the contributions of so many people. I would like to pay my thanks to my teachers for the valuable contributions, which enable me to be a part of Computer Science world.

Many words of thank for my supervisor **Mr. Arshad Ali.** He kept me encouraging all the time and provided guidance whenever I was in need of. He is the person who bailed me out of all the intricacies of research and I owe him the most heartfelt of my gratitude.

I want to pay my sincere thanks to my Project Partner Misbahullah for his valuable supervision, guidance, constant encouragement and personal involvement, which enable me to complete this challenging task.

Finally I would like to pay my deep gratitude to my loving parents my sisters and brothers for their good wishes and encouragement, without which I would have been unable to accomplish any thing worthwhile.

Qazafi Mahmood

Project in Brief

Project Title:	Absolute Security System
Organization:	Department of Computer Sciences,
	Bahria University, Islamabad
Undertaken By:	Qazafi Mahmood
Supervised By:	Mr. Arshad Ali
Tool Used:	Microsoft Visual C++ 6.0
	ATL COM
Operating System:	Windows NT, Windows 2000.
System Used:	IBM Compatible
Date Started:	1st, Jan 2002.
Date Completed:	10, Sep 2002.

Abstract

Security systems today are built on increasingly strong cryptographic algorithms that foil pattern analysis attempts. However, the security of these systems is dependent on generating secret quantities for passwords, cryptographic keys, and similar quantities. The use of pseudo-random processes to generate secret quantities can result in pseudo-security. The sophisticated attacker of these security systems may find it easier to reproduce the environment that produced the secret quantities, searching the resulting small set of possibilities, than to locate the quantities in the whole of the number space.

Choosing random quantities to foil a resourceful and motivated adversary is surprisingly difficult. This underlying software, *Absolute Security*, implements the five pseudo random numbers generators and one pure random numbers generator and different methods for encryption. The system also provides a facility for storing and manipulating the keypad of random bits. It also provides the dial-up connectivity to the remote user for data transmission on the secure channel.

The data to be transmitted may include Audio, Video, and text. The user would only have to select different options among many options provided to identify the required service category. The system would then encrypt the selected data according to the algorithm selected. The connection would be established with the number selected by the user and the encrypted file could be sent easily to the destination.

TABLE OF CONTENTS

TABLE OF FIGURES

LIST OF TABLES