



Ethical Hacking: A Security Technique

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Abstract: *Today, state of internet security is major problem. Ethical hacking is a security technic and also a type of hacking. Hacking is not specific term, it's an activity in which hacker can identified weakness in computer system and exploiting weakness to gain access is termed as hacking. Almost all the work is done over the internet crucial data are sent over the web and other information is placed over internet. While all the data is available online, there are many type of users who interact with data some of them for their need and others for gaining knowledge that how to destroy the data without the knowledge of the owner. There are various techniques used for protection of data but the hacker (or cracker) is more intelligent to hack the security, basically there are two categories of hackers that are different from each other on the basis of their intensions. The one who has good intensions are known as ethical hackers because they ethics to use their skill and techniques of hacking to provide security to the sensitive data of the organization.*

Keywords- *Ethical Hacking, Security, Hacking, Hacker, Crucial Data, Cracker*

I. INTRODUCTION

The vast growth of Internet has brought many technological advances like electronic commerce, email, easy access to vast stores of reference material etc. In the other side the hackers secretly steal the organization's information and transmit it to the open internet. These types of criminal hackers are called black hat hackers. So, to overcome these major issues, another category of hackers came into existence and these hackers are termed as ethical hackers or white hat hackers. So, in case of computer security, these tiger teams or ethical hackers would employ the same tricks and techniques that hacker use but in a legal manner. They would neither damage the target systems nor steal information. Instead, they would evaluate the target system's security and report back to the owners with the vulnerabilities they found and instructions for how to remedy them.

This paper will define ethical hacking, working of ethical hacking, tips for securing data and system, advantages of ethical hacking.

II. WHAT IS ETHICAL HACKING

Ethical hacking provides a way to determine the security of an information technology environment –at least from a technical point of view. First to understand what is “ethical hacking” we required to know what is “hacking”. Hacking means to identify a weakness of computer/network and exploiting weakness to gain access called hacking. Ethical has a very positive touch. Ethical hacking: Ethical hacking describes the process of attacking and penetrating computer systems and networks to discover and point out potential security weaknesses for a client which is responsible for the attacked information technology environment. Ethical hacking can be categorized as a security assessment, a kind of training, a test for the security of an information technology environment. An ethical hack shows the risks an information technology environment is facing and actions can be taken to reduce certain risks or to accept them. We can easily say that Ethical hacking does perfectly fit into the security life cycle shown in the below figure.



III. WORKING OF ETHICAL HACKING

3.1. Rules of ethical hacking

- Obeying the ethical hacking command- Every ethical hackers must follow few basic rules. If they does not follow bad things can happens .Most of the time there rules get ignored when planning or executing ethical hacking test.This is very dangerous when we not followed any rule.
- Working ethically- The work ethically can be done when hackers can follow the rules .Whether you are performing ethical hacking test against your own system or against any other system there is a must to follow the rules.
- Respecting privacy –All information you obtain during test it is necessary to kept private.
- No crashing your system- One is the biggest mistake is done when hacker try to hack system is poor planning .Because of poor planning system get crack.
- Execute plan- In ethical hacking time and practice is important be careful when you are performing your ethical hacking test.

3.2. Tips for securing data and system

- Install and use anti-virus
- While installing OS like windows XP give admin password
- Make backups
- Use strong password and change it regularly as you change your toothbrush

IV. HOW TO UNDERSTAND OUR COMPUTER SYSTEM IS HACK

- Computer password have changed
- Increased network activity
- Unknown programs requesting access
- Security program uninstalled
- Computer is doing things by itself
- Internet browser homepage changed

V. AFTER HACK WHAT CAN I DO

- Change your password. Make them tricky and hard to guess
- Take a close look at the “hacked ” account
- Get your account back normal status
- Tell friends and family you’re been hacked
- Keep an eye on your financial or credit accounts
- Scan your computer for viruses and malware
- Reinstall your operating system and backup data
- And also called the police

VI. ADVANTAGES OF ETHICAL HACKING

Ethical hacking nowadays is backbone of network security. Each day its relevance is increasing.

- To catch a thief you have to think like a thief.
- Helps in closing the open holes in the network.
- Provides security to banking and financial organization.
- Prevents website defacements.
- An evolving technique

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