

Compressive Study on Ethical Hacking

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Abstract:

We all know and study about hackers. Hackers may be good or bad. Good hackers are the ethical hackers who works for good thing but bad hackers are those whose may target is to destroy system and steal information. In this paper, we are going to discuss about what ethical hacking is? How ethical hackers work, some rules which they must follows, need and some limitations of ethical hacking. Also we discussed the various groups of hackers which are their in the organizations.

Keyword: White hats, Black hats, Grey hats.

I. INTRODUCTION OF ETHICAL HACKING

As population increases, the rate of growth of technology usage also increases. The number of users using internet services is also increases. As internet helps us in many ways such as economic, social, electronic commerce etc. The internet has own advantage and disadvantage. Hacker who are skilled programmer who hack the important information for others, they are called black hat hackers.[1].To prevent from the hacking scheme, the white hackers are also there. They are called ethical hackers. Ethical hackers are the skilled programmers who use their skill and help the organization from the black hat hackers. The ethical hacking is legal as they secure IP address from hackers [2]

HACKERS: Hacking can be defined as illegal things such as stealing password, organization important information. Hacking can be of many types: [2]

- White hat hackers: These types of hackers do hacking with the permission of other person or law. It is not illegal this type of hacking is called ethical hacking.
- Black hat hackers: They do hacking for the monitoring purpose or some other organization hires them for stealing important information for other organization without their permission. They harm the organization or person[1][2]

The most recent use of hijack of face book password and use the password for own purpose

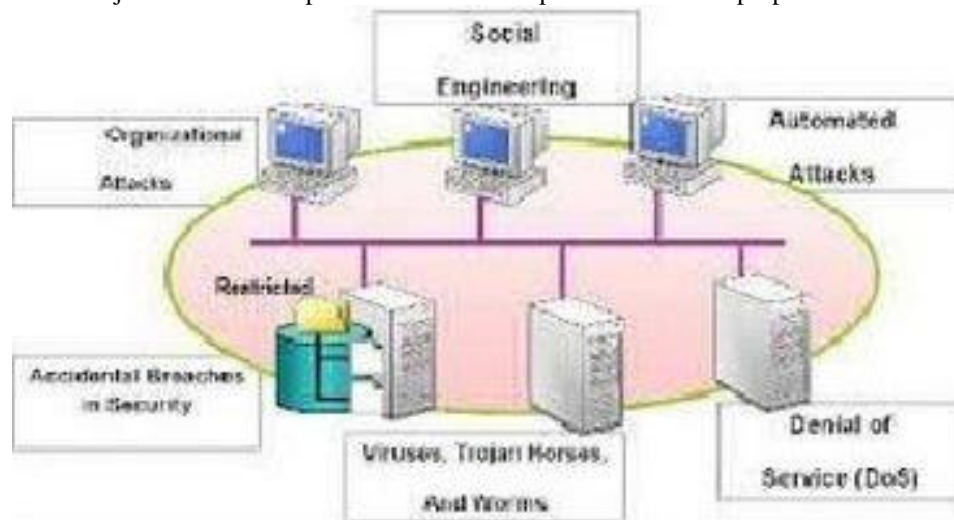
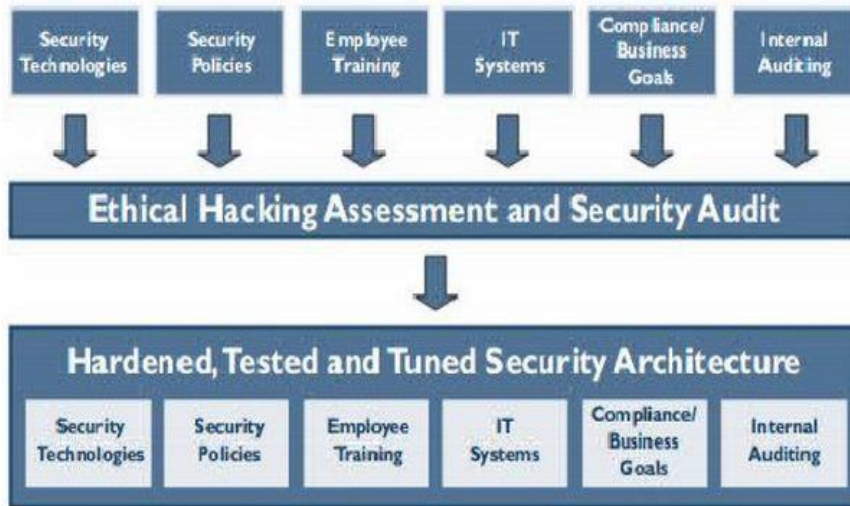


Figure 1:Ways of hacking

Ethical hacking: It is defined as expert programmer who understands the system vulnerabilities and tries to correct them. So that no black hat hackers harm the system. The system and network security is most important concern to prevent them from hacking. Ethical hacker is hired for some time.

II. WORK OF ETHICAL HACKERS

As discussed above, ethical hackers have major concern to prevent the computer system and network from the illegal hacks. There are number of weak points or loop hole where virus, worms can send to the system. By sending worms on the system, the hacker control whole system and use your important information for their own purpose and gain. As in hospital want to secure their patient information, engineer wants to secure their important database, code and so many things.[2]



III. RULE OF ETHICAL HACKING

The main steps to be followed for ethical hacking are:-

1. Obey the ethical hacking rule or law: Every ethical hacker must follow the basic rule and principal. If they do not follow the basic rule then good things turn into bad things. And result of that is dangerous.
2. Ethical working: As working must be ethical or the person must have their moral values or he must be trust worthy. There must be no hidden motive of worker. The important information misused must not be allowed.
3. Privacy: The important information which they obtain during their testing must be kept private because their misuse can be dangerous or illegal.
4. Not allowed to crash the system: As tester perform many testing and implementation which come under the result of system crash. This is the result of poor planning the tester team has no right to crash the system without the organization acceptance.
5. Execute plan: For ethical hacking time and patience is most important.[2]

IV. NEED OF ETHICAL HACKING

- To prevent the defense military because they send their encrypted information which is most important information for the country and this information cannot be leaked by anyone that's why ethical hackers are hired which try to fix up the vulnerability
- To prevent financial data from the high loss
- To protect the client's confidentiality.
- To validate risk assessment
- Banker hire the ethical hackers for protecting the financial data
- To stop the hacking process or not to fulfill the hacker motives, ethical hacker is required.
- To create the security awareness at all levels
- To maintain the business functionality and confidentiality[2][3]

V. GROUPS OF HACKERS

There are basically three groups in which hackers are divided:

- **White hats:** These are good guys. They are ethical hackers who use their skills for protective purpose. They use their skills when required to solve some cases or for government use.
- **Black hats:** These are bad guys. They are the hackers who hack the systems illegally. They destroy vital data, deny legitimate services etc.
- **Grey hats:** They may work offensively or defensively, depending on the situation.[4]

VI. DRAWBACKS OF EHTICAL HACKING

As in every aspect there are some good sides and also some bad sides. So some drawbacks are also in ethical hacking:

- The person involved in ethical hacking may become dishonest towards their organization.
- They may allow the crucial details to be seen by some unauthorized persons.
- Ethical hackers may send some malicious code or virus to the system which can destroy the whole network.[5]

VII. BENEFITS OF EHTICAL HACING

The benefits of ethical hacking are as given below:

- The fight against terrorism and security issues.
- They prevent the malicious hackers to gain access to the crucial data.
- It is a prevention measure for the security breach.

VIII. CONCLUSION

As the technology increases, everyone becomes machine dependent. They start saving their whole crucial data in their personal gadgets like mobile phones. But with this the fear of data loss also increases. We all know about the hackers. In layman language, the hacker is the person who enters into the system without any permission through internet and destroy system. But we have basically three groups of hackers, white, black and grey hat hacker. White hat hackers are the ethical hackers who helps the organization to protect their systems from any malicious attack. But as every coin has two sides, there are also some benefits and limitations of ethical hackers. One must use the technology as they are made for human convenience but use with precautions so that this technology will not get you into trouble.

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