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Recruitment of Ethical Hackers

Management

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ABSTRACT

"Corporations and other entities are faced with the unenviable task of trying to defend their networks against various types of intrusive attacks. Although traditional methods of deterrence,(i.e. firewalls, intrusion detection devices, etc.) have their place in this battle, there has arisen the need to utilize specialists who are adopt at exploiting both known and unknown vulnerabilities in networks in order to determine the security posture of an organization. These "Ethical Hackers" have created a niche for themselves in the "Defense in-Depth" spectrum. This article seeks to various kinds of Ethical Hackers, and its process involved in the Ethical Hacking systems. Finally Ethical Hacker's qualification will be discussed".

Introduction

The explosive growth of the Internet, computer security has become a major concern for businesses. As with most technological advances, there is also a dark side: criminal hackers. Governments, companies, and private citizens around the world are anxious to be a part of this revolution, but they are afraid that some hacker will break into their Web server and replace their logo with pornography, read their e-mail, steal their credit card number, or implant software that will secretly transmit their organization's secrets to the open Internet. With these concerns and others, the ethical hacker can help.An Ethical Hacker is an expert hired by a company to attempt to attack their network and computer system the same way a hacker would. The end result is the company's ability to prevent an intrusion before it ever occurs. In India ethical hacking got relevance when RBI issued mandate requiring banks to undergo ethical hacking and check the IT infrastructure before applying for internet banking.

Hacking

The word hacking is defined as an illegal use of the other's computer system or the network resources. The actual word is "Cracking" and not "Hacking" 'Hackers' are very intelligent people who use their skill in a constructive and positive manner. Eric Raymond, compiler of "The New Hacker's Dictionary", defines a hacker as a clever programmer. A "good hack" is a clever solution to a programming problem and "hacking" is the act of doing it.

Types of Hackers

Hackers can be broadly classified on the basis of why they are hacking system or why they are indulging hacking. There are mainly three types of hacker on this basis

1. Black Hat Hacker

A black hat hackers or crackers are individuals with extraordinary computing skills, resorting to malicious or destructive activities. That is black hat hackers use their knowledge and skill for their own personal gains probably by hurting others.

2. White Hat Hacker

White hat hackers are those individuals professing hacker skills and using them for defensive purposes. This means that the white hat hackers use their knowledge and skill for the good of others and for the common good.

3. Grey Hat Hackers

These are individuals who work both offensively and defensively at various times. We cannot predict their behavior. Sometimes they use their skills for the common good while in some other times he uses them for their personal gains.

Fig. Different Kinds of System Attacks

Ethical Hacking

Ethical hacking – defined as "a methodology adopted by ethical hackers to discover the vulnerabilities existing in information systems' operating environments." Ethical hackers are the hackers employed by companies to protect their software and data against the hackers. They belong to the same group of hackers but they use their skills and intelligence not for destruction but for protection. This is basically the main difference between an ethical hacker and an unethical hacker. As an ethical hacker knows all about hacking, his skills and knowledge come out to be very handy to the companies to protect their data against any kind of hacking or leakage of data. It basically helps to boost up the security.Computer security is required because most organizations can be damaged by hostile software or intruders. There may be several forms of damage which are obviously interrelated which are produced by the intruders. These include:

1. lose of confidential data
2. Damage or destruction of data
3. Damage or destruction of computer system
4. Loss of reputation of a company

What Does An Ethical Hacker Do?

In their search for a way to approach the problem, organizations came to realize that one of the best ways to evaluate the intruder threat to their interests would be to have independent computer security professionals attempt to break into their computer systems. This scheme is similar to having independent auditors come into an organization to verify its bookkeeping records. In the case of computer security, these "tiger teams" or "ethical hackers" would employ the same tools and techniques as the intruders, but they would neither damage the target systems nor steal information. Instead, they would evaluate the target systems' security and report back to the company with the vulnerabilities they found and instructions for how to remedy them.

The Ethical Hacker influences processes and techniques in various fields namely

• **Marketing –** Sticking to ethical pricing and refraining from manipulation of networks in order to breach secured competitor databases.

• **Human Resources –** Maintaining proper balance of power between the organization and the hacker despite critical information sharing.

• **Consumer Protection –** Fairness of employment contract and adhering to privacy rules and regulations.

• **Environmental issues –** Complete online and computerized duties that require a large amount of power and electricity to run machines and data servers.

• **Corporate Ethics –** Prevention of misuse of copyrighted intellectual property of organizations

• **Globalization –** Linking the company projects and exercises to the outer world beyond the span of a country or region by placing improved security systems with a prior knowledge of prospective breaches. Issues related to terrorism and wars are globally affected by the works of ethical hackers.

Need For Ethical Hacking

Indian corporation should invest in ethical hacking and penetration reviews of IT infrastructure:

- To prevent defacement of corporate websites with vulgar images and obscene text.
- To protect confidential client or financial data from being compromised.
- To prevent IT assets from being used as launch pad for virus attacks.
- To comply with industry and other IT regulatory frameworks.
- To validate risk assessment.

There have been different types of organizations which exemplifies the need for ethical hacking:

- Medical institutions contain private data which needs to be protected from getting hacked.
- Government organizations like defense, telecom, and railways have large chunks of data which needs to be protected from being stolen and also there is a need to prevent this data from getting manipulated.
- Ministry sites which have become constant source of getting hacked in recent times have shown potential interest for ethical hackers so that these can be protected which is of national importance.
- There are many organizations like banks and other consumer sites which store important personal information that needs to be safeguarded and are of interest for intruders.

The Ethical Hacker's Process:

As an ethical hacker, follow a similar process to one that an attacker uses. The stages you progress through will map closely to those the hacker uses, but you will work with the permission of the company and will strive to "do no harm." By ethical hacking and assessing the organizations strengths and weaknesses, you will perform an important service in helping secure the organization. The ethical hacker plays a key role in the security process. The methodology used to secure an organization can be broken down into five key steps.

• **Assessment—** Ethical hacking, penetration testing, and hands-on security tests.

• **Policy Development—** Development of policy based on the organization's goals and mission. The focus should be on the organization's critical assets.

• **Implementation—** the building of technical, operational, and managerial controls to secure key assets and data.

• **Training—** Employees need to be trained as to how to follow policy and how to configure key security controls, such as Intrusion Detection Systems (IDS) and firewalls.

• **Audit—** Auditing involves periodic reviews of the controls that have been put in place to provide good security. Regulations such as Health Insurance Portability and Accountability Act (HIPAA) specify that this should be done yearly.

Required Skills of an Ethical Hacker

The Certified Ethical Hacker is a professionalcertification provided by the International Council of E-CommerceConsultants (EC-Council.) . An ethical hacker is usually employed by an organization who trusts him or her to attempt to penetrate networks and/or computer systems, using the same methods as ahacker, for the purpose of finding and fixing computer security vulnerabilities.

An Ethical Hacker is someone who is

- Programming and networking skilled
- Installation and maintenance skilled
- System management skilled
- Knowledgeable
- Hardware and software
- Completely trustworthy
- Discrete
- Patient, persistent and methodical
- Certified Ethical Hacker

Conclusion

Many companies are of the opinion that investing in ethical hacking is waste of time and money but reality is that is ignorance can cost company millions of dollars. There is a dire need for system being checked by experts so that system can be rendered secured and prevents information from getting leaked into unwanted hands. Ethical hackers make sure that any of these vulnerabilities are fixed and problems plugged to protect data from fraudulent use. Intruders hack files of the employees, customers and other stakeholders and upload viruses that can corrupt the entire network. This can lead to loss of not only important information but can also cost company many of its clients who stop company trusting with important information. Managers in organizations take this issue on a priority basis and appointment of ethical hackers must be done after a proper due diligence process. The past history of the hacker should also be taken into consideration to check for any unethical incident and verify his credibility. Hackers should be well infused with "Business Ethics" rules and standards of Honesty, Integrity, Transparency, Accountability and Responsibility. Ethical hackers should be loyal to their employers in form of data security and information transfers through the network of the organization.

REFERENCE

The first use of the term "ethical hackers" appears to have been in an interview with John Patrick of IBM by Gary Anthens that appeared in a June 1995 issue of ComputerWorld. | P. A. Karger and R. R. Schell, "Multics Security Evaluation: Vulnerability Analysis", ESD-TR-74-193, Vol. II, HeadquartersElectronic Systems Division, Hanscom Air Force Base,MA (June 1974). | S. M. Goheen and R. S. Fiske, "OS/360 Computer Security Penetration Exercise", WP-4467, The MITRE Corporation, Bedford,MA (October 16, 1972). | R. P. Abbott, J. S. Chen, J. E. Donnelly, W. L. Konigsford, and S. T. Tokubo, "Security Analysis and Enhancements of ComputerOperating Systems", NBSIR 76-1041, National Bureau of Standards, Washington, DC (April 1976). | W. M. Inglis, Security Problems in the WWMCCS GCOS System, "Joint Technical Support Activity Operating System" Technical Bulletin 730S-12, Defense Communications Agency (August 2, 1973). | D. Farmer andW.Z. Venema, "Improving the Security of Your Site by Breaking into It," originally posted to Usenet (December 1993) | www.google.com | www.hackforums.net | www.ankitfadia.co.in | www.seminarprojects.com | www.appinonline.com | www.democratichackers.in | www.mbaskool.com |