

E-Commerce Attacks and Its Impacts

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Abstract—As the The success of the revolution of the E-commerce continuing over recent years , There are notable huge increase in the economic losses that have never seen before in the history, since millions of money easily been stolen with single click. This definitely leads to great impact to not only to the economy but also to the trust in the society

Index Terms—key words in alphabetical order, separated by commas.

Abstract

Despite the success of the E-commerce, The E-commerce Attacks and Rubbing has done great impact t the economy , The Impact can be direct or indirect , The direct way is through the stolen money and the indirect way is the money that is spent into the security to prevent this attacks.

I. INTRODUCTION

THE E-commerce is a new way that the Market can satisfy the customer needs electronically, by replacing its products over the internet and performing the transactions electronically. The E-commerce is going through great growth which definitely implys the success of this type of trading .The reasons behind the success of the E-commerce is that it offers easy way and verity of different products all over the world so that the costumer can buy from any market in the world on any time by a single click from his house. However, E-commerce is like any business is built on trust between the costumer and the vendor . Since the customer should trust the vendor from not being fake or having good security for their information .However, This trust is harder to gain than normal commerce because as it seems so easy to transact and purchase ,it is also easy to be tricked and rubbed By smart attackers

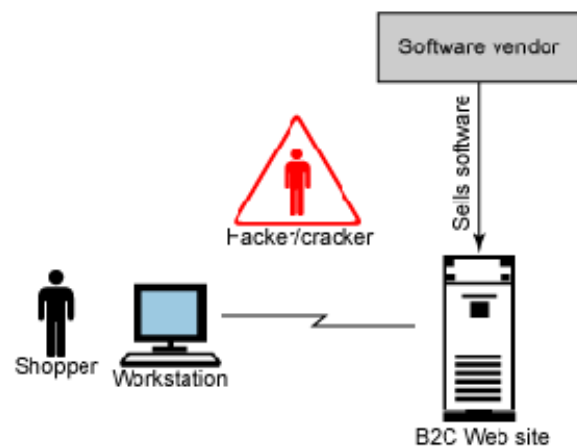
To insert images in *Word*, position the cursor at the insertion point and either use Insert | Picture | From File or copy the image to the Windows clipboard and then Edit | Paste Special | Picture (with “Float over text” unchecked).

II. DANGER OF E-COMMERCE ATTACKS

The Question is Why the E-commerce is the most target spot for the attackers? And Why the increase of the number of attacks over the years? . Symantec reported that the number of phishing incidents increased to 33 million attack per week .since this field considered to be attraction to top talents .also, E-commerce robbing considered to be a bargain compared to the other ways of robbing opportunities. Since, E-commerce robbing is easy and hard to track , and If one stolen a penny from each major accounts in the Ecommerce site will end up more than millions dollars without any one noticed .However, the normal robbing needs alots of recourses ,for example, gun , car , plan ,...itc attackers can Rob an ebank in onother contry ..So, Companies and the consumers need to take great attention to whom are dealing with, otherwise, someone may wake up in the morning and has been stolen million dollars from his credit card.

III. METHODS OF ATTACKS

There are four player in The E-commerce system. The first one is the shopper who brows the site and make purchases. Second player is E-commerce site that sell products to the shopper. The third one is the software vendor that the site work on .The fourth is the hacker , As you can see In the figure(a)



Figure(a)

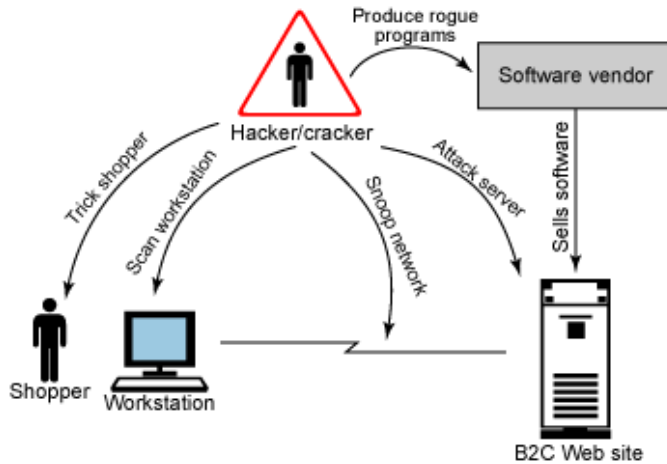
The four players in the E-commerce

The attacker can targets five ways to attack and rob .The first one is the shopper him self by tricking him,which considered the easiest one and the more profitable. The second

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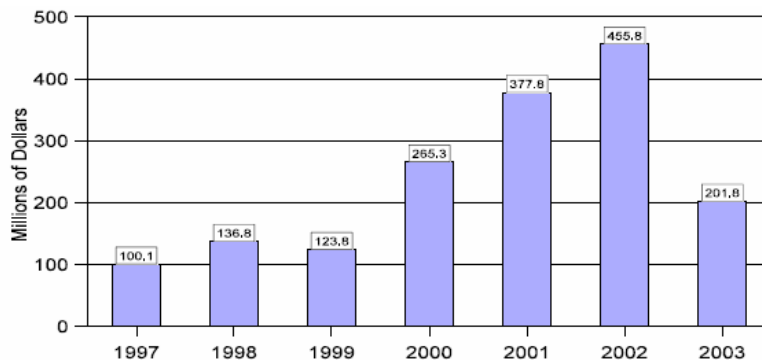
target is the shopper computer by snooping it .The third target is the network between the shopper and the site by sniffing it. The Fourth target is the web server ,for example, guessing the passwords and DDoS (Distributed Denial of Service) .The fifth target is the software vendor see figure(b).



Figure(b)
The five targets of the attackers

IV. ATTACKS IMPACT THE ECONOMY

It would be impressive if we look at how could the attacks affect the economy in resulting huge loss. According to CIA/FBI survey That the cost of loss of computer crime has increased from 100 million in 1997 to reach its highs of 455.8 millions as it seen on the figure(c).This loss is result of two factors that is caused by the attacks ,one is direct and indirect factors. The direct factors which are loss due to the decrease of the products prices due to the attack, Server recovery , upgrading and investing in the security of the software and losing costumers who have being Robbed through the website .The indirect factors are losing the reputation and losing valuable information of the company.



V. CONCLUSION

It been obvious now how the danger of the E-commerce attack become vital and main concerns in the future and how could it affect the economy ,As times goes by the number of attackers will increase more which need more investment in the security .

ACKNOWLEDGMENT

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REFERENCES

- [1] Darshanand Khusial, Ross McKegney, *The E-commerce Security*http://www.ibm.com/developerworks/websphere/library/techarticles/0504_mckegney/0504_mckegney.html.
- [2] CRS Report for the congress.
http://www.cisco.com/warp/public/779/govtaffairs/images/CRS_Cyber_Attacks.pdf
- [3]