# Chapter 59
# Cyber Security and Business Growth

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## ABSTRACT

*Information and Communications Technologies (ICTs), particular the Internet, have been an increasingly important aspect of global social, political and economic life, and are the backbone of the global information society today. Their evolution and development has brought many benefits along with the threat of serious cyber-attacks that had been demonstrated over the past few years. Due to cybercrime business world drains huge money each year and incurs a large amount in resolving a single attack. It also damages organization's reputation and brand image, loss of intellectual property and sensitive data, loss of customer trust etc. Addressing major threats and challenges begins with setting up information security policy to ensure confidentiality, integrity and availability of company information and communication. Since telecom Sector is on its boom, a technological solution can solve the immediate challenges of identifying, investigating, and prosecuting computer- related crimes and changes required for long-term problem solving.*

## INTRODUCTION

In today's era when everything is going digital, reliance on computers and internet have deeply integrated in everyday life. Be it political, social, economic, or political interaction, the web provides a platform for a whole range of sector and services like healthcare, finance, information and communication technology, manufacturing, transportation, defence etc. In such environment, in organizations, more valuable data is being stored and processed on a large scale; information is shared, combined and linked with other information with greater frequency. In parallel to all such developments, it has given rise to cybercrime where criminals or hackers use computer technology to access personal information, business financial data, etc to cause damage and loss to organizations. Cybercrime has become a fastest growing area of

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crime, even the defence sector has come under the cyber-attack. Statistics also showed that cybercrime has risen to around 3, 00,000 in India only in 2015 which is almost double the level last year. Many cases have come into the picture which tells about the seriousness of cyber security. Last year hackers had dumped 5 million username and passwords of Gmail to a Russian bitcoin forum, Sony suffered the loss of $200 million on account of cyber-attack on movie 'the interview'. Since it has reached to such alarming stage, it becomes necessary to explore the challenges and possible security measure available to the organizations.

Cybercrime includes wide range of activities. Crime that targets computer network or devices includes denial of service attack and viruses and crime that uses computer network to advance other criminal activities includes hacking, phishing, identity theft, cyberstalking etc. Some of the cybercrimes are explained below:

- **Hacking:** It is a type of crime where a person's personal and sensitive information can be accessed without even the person knowing that his computer is being accessed from remote location.
- **Theft:** As the name suggest, this is a type of crime where person rejects the copyrights and downloads music, games etc.
- **Cyber Stalking:** This is a kind of online harassment where instead of offline stalking criminals use internet to stalk through online messages and emails.
- **Phishing:** It is a cyber-attack where criminal sends a legitimate email to gain personal and sensitive information like username, password and other details for malicious reasons.
- **Denial of Service Attack:** The type of cyber-attack where attacker sends high volume of useless traffic to a host device which is connected to internet which leads to network overloading.
- **Viruses:** This is oldest type of cyber-attack where they infect the computer by attacking to programmes or files.

Due to cybercrime a business drains almost $445 billion each year. Also average cost to resolve a single attack totaled more than $1 million. It also causes damage to the organization's reputation and brand image, loss of intellectual property and sensitive data, & loss of customer trust (see Figure 1).

*Figure 1. Attacks contributing to largest losses*