

# IT and Intellectual Property

## Module 7

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*Teaching Notes in Notes Page View*



## Physical Security

- Security Guards
- Video Surveillance



(2006). Retrieved on August 29, 2006 from [http://en.wikipedia.org/wiki/Security\\_guard](http://en.wikipedia.org/wiki/Security_guard)

- Security Guards: A privately-employed person who is paid (directly or through a security firm) to protect property and/or people (Wikipedia, 2006)

- Usually security officers are uniformed
- Act to protect property by maintaining a high visibility presence to deter illegal and/or inappropriate actions
- Observe either directly, through patrols, or by watching alarm systems or video cameras for signs of crime, fire or disorder
- Take action and/or report any incidents to their employer as appropriate.

- Video Surveillance


- Closed-Circuit Television (CCTV) used in areas where there is an increased need for security.
- More useful in crime detection and prosecution than crime in crime prevention.

(2006). Retrieved on August 29, 2006 from [http://en.wikipedia.org/wiki/Security\\_guard](http://en.wikipedia.org/wiki/Security_guard)

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# Physical Security

- Biometrics
- Motion Detection



(2006). Retrieved on August 29, 2006 from <http://www.referenceforbusiness.com/small/A-Bo/Biometrics.html>

## -Biometrics

- A Field of science that uses computer technology to identify people based on physical or behavioral characteristics.

- Fingerprints
- Video scans

- Provides instant, foolproof identification

- Relieves people from the burden of remembering dozens of different passwords.

## -Motion detection

- Sensing, usually by electronic devices, of physical movement in a given area.

- Switch on an alarm or image recording device when triggered.

(2006). Retrieved on August 29, 2006 from <http://www.referenceforbusiness.com/small/A-Bo/Biometrics.html>

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# Cyber Security



- Digital Encryption
- Cyphers

(2006). Retrieved on August 29, 2006 from <http://sbc.webopedia.com/TERM/e/encryption.html>

- Cyber security is vital to today's global business environment. With virtual teams making it possible for an organization to work on a project around the clock, the need for secure transfer of electronic media has never been greater. According to U.S. National Information Systems Security Glossary, Information systems security (INFOSEC) consists of "the protection of information systems against unauthorized access to or modification of information, whether in storage, processing or transit, and against the denial of service to authorized users or the provision of service to unauthorized users, including those measures necessary to detect, document, and counter such threats." Recent technological advances in the areas of Digital Encryption, Firewall protection, and Intrusion Detection Systems have provided a high level of security.

- **Digital Encryption** is defined as the translation of data into a secret code. Encryption is the most effective way to achieve data security. To read an encrypted file, you must have access to a secret key or password that enables you to *decrypt* it. Unencrypted data is called *plain text*; encrypted data is referred to as *cipher text*. The industry standard for today's computerized transactions is 128 bit encryption, although 256 bit encryption is available for those who wish to have an added level of security. While digital encryption is an excellent way to ensure that information on a file that has been accessed by a third party cannot be read it is often better to keep others from accessing these files in the first place.

(2006). Retrieved on August 29, 2006 from <http://sbc.webopedia.com/TERM/e/encryption.html>

# Cyber Security



- Firewalls
- Intrusion Detection (ID)

(2006). Retrieved on August 29, 2006 from <http://www.xramp.com/>

- **Firewalls** are systems that are designed to prevent unauthorized access to or from a private network. You can implement firewalls in hardware, software, or both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks that are connected to the Internet. While there are many types of firewalls, their purpose is generally the same; they require a user to verify who they are by way of a password or digital key before allowing them to access restricted information. While digital encryption protects the information and firewalls serve as a deterrent to most unauthorized system users, sometimes breaches occur. When this happens, intrusion detection systems are a vital part of locating the breach, determining what had been compromised, and finding the physical location of the party responsible.


- **Intrusion Detection (ID)** is a type of security management system for computers and networks. An ID system gathers and analyzes information from various areas within a computer or a network to identify possible security breaches, which include both intrusions (attacks from outside the organization) and misuse (attacks from within the organization). ID uses *vulnerability assessment* (sometimes referred to as *scanning*), which is a technology developed to assess the security of a computer system or network

(2006). Retrieved on August 29, 2006 from <http://www.xramp.com/>

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# Intellectual Property

- Patents
- Copyrights



Fritzsche, D. J., (2004). Business Ethics: A Global and Managerial Perspective. Online edition. Retrieved August 27, 2006 from <https://ecourses.purdue.edu/webct>

-Intellectual Property (IP) - Intellectual Property is an idea, process, invention, formula or program in which a company profits from. Since a company profits from these they need to protect them from other companies trying to profit from their ideas

#### Patent

- A patent is a 20 year contract giving the inventor “exclusive rights to make, use, and sell his invention in return for making the invention public by giving the government certain information about it.” (Mallor 2006)

- What can be patented

- Machine
- Ornamental design for a product
- Manufacture or product
- Composition of matter
- Process
- Improvement to an existing product/process
- New plant produced from asexual reproduction

Fritzsche, D. J., (2004). Business Ethics: A Global and Managerial Perspective. Online edition. Retrieved August 27, 2006 from <https://ecourses.purdue.edu/webct>

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# Intellectual Property

- Trade Secrets
- Corporate Espionage



(2006). Retrieved on August 29, 2006 from <http://www.copyright.gov/title17/92chap3.html#301>

## Copyrights

-The Copyright Act gives exclusive rights to the author of the work. A copyright lasts for the lifetime of the author plus 70 years.

- Copyrights cover compositions, books, movies, music, art, periodicals, computer programs, and lectures

## Trade Secrets

-- A Trade Secret is a valuable asset giving them a competitive advantage over other companies. A trade secret is an original method, program, formula, technique, process, or useful business information.

(2006). Retrieved on August 29, 2006 from <http://www.copyright.gov/title17/92chap3.html#301>

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## International Convention for the Protection of Industrial Property

- Paris Union
- Signed on March 20, 1883 in Paris
- Has been revised seven times
- Was one of the first Intellectual Property treaties
- World Intellectual Property Organization

### International Convention for the Property of Industrial Property

Signed on March 20, 1883 in Paris

It was signed by eleven countries, including Belgium, Brazil, France, Guatemala, Italy, the Netherlands, Portugal, Salvador, Serbia, Spain and Switzerland.

Has been revised seven times

The last revision was on September 28, 1979

Was one of the first Intellectual Property treaties

Intellectual Property is an [umbrella term](#) used to refer to the object of a variety of laws, including [patent law](#), [copyright law](#), [trademark law](#), [trade secret law](#), and [industrial design law](#).

A group of countries trying to fight others against stealing their information and ideas.



Now is sometimes called the Paris Convention for the protection of Industrial Property

Now is comprised of 169 contracting member countries

It is administered by the World Intellectual Property Organization (WIPO), based in Geneva, Switzerland

(2006). [World Intellectual Property](http://www.wipo.int/portal/index.html.en) Organization. Retrieved August 25, 2006 from <http://www.wipo.int/portal/index.html.en>.

(2006). Paris Convention for the Protection of Industrial Property. Retrieved August 25, 2006 from <http://en.wikipedia.org>.

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## Organizations and Piracy

- Piracy
- Protection
  - Patent
  - Trademark
  - Copyright
- Compliance with the Law

Organizations and the protection of their intellectual properties.

Piracy

The stealing of information or items without the permission of the owner is the number one problem facing companies and their intellectual properties

Methods of protection

Patent

Is a set of exclusive rights granted by a state to a person (usually the inventor) for a fixed period of time in exchange for the regulated disclosure of the method or process to make the item/info

Trademark

Is a name or symbol used to show that a product is made by a particular company and legally registered so that no other manufacture can use it

Copyright

Is the legal rights of artists or publishers to control the use and reproduction of their original works

Complying with State Government Regulations and Laws

Difficulty stopping piracy of material that is often free to the public  
 After 9/11, Homeland Security has caught more than half of piracy going on while doing inspections for terrorist and their weapons.

(2006). Department of Commerce. Retrieved August 25, 2006 from <http://www.commerce.gov/>.

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## Most Common Offenders

- China
- Developing Countries
  - Asia



### Countries with most Piracy

#### China

Doubles the amount of counterfeit product than the next highest offender

Well known for filing copycat copyrights, patents, and trademarks

Countries that are between the highly developed nations and the least developed States

(2006). References for Businesses. Retrieved August 25, 2006 from

<http://www.referenceforbusiness.com/small/Inc-Mail/Intellectual-Property.html>.

(2006). Department of State. Retrieved August 25, 2006 from

[http://usinfo.state.gov/ei/economic\\_issues/intellectual\\_property.html](http://usinfo.state.gov/ei/economic_issues/intellectual_property.html).

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