Computer Security

What is Computer Security?

- is a branch of computer technology
- known as "*Information Security*"
- applied to computers and networks
- the objective is to protect information and property from theft, corruption, or natural disaster

Risks & Threatening

- Malware

- Social Engineering

Malware

Consists of programming designed to:

- disrupt or deny operation
- gather information that leads to loss of privacy or exploitation
- or gain unauthorized access to system resources

Examples of Malware

- Virus
- Trojans
- Bots and botnets
- Spyware

Virus

- programs that alter the functioning of our computer without our knowledge obtaining or destroying information
- spread by direct contact or sharing the same medium

Trojans

- viruses disguise as programs that supposedly do something but actually open a door on our computer so it can be accessed from outside
- his name comes from ***The Trojan Horse***

Bots or Robots

- is a type of trojan that use our computer to connect to other infected computers (***zombies***)
- the goal is create ***botnets*** or *zombie networks*
- enables to send mass mailings without be detected

Spyware

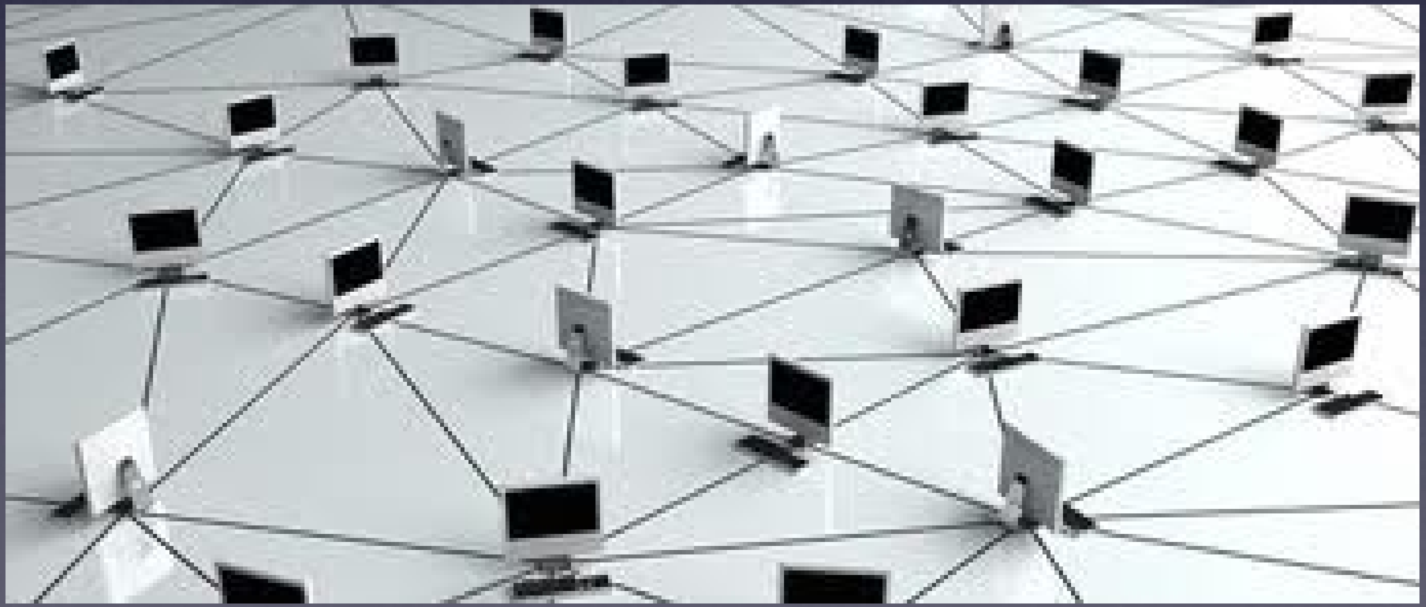
- collects small pieces of information about users without their knowledge
- search for email adress, IP address, pages visited,...
- the presence of spyware is typically hidden from the user, and can be difficult to detect

What is the propose?

How to get money?

- **directly**: getting our bank access: phising

- **indirectly**: renting zombie networks for illegal purposes



Social Engineering

- The art of manipulating people into performing actions or divulging confidential information.

Examples of Social Engineering

- Spam
- Hoax
- Phising

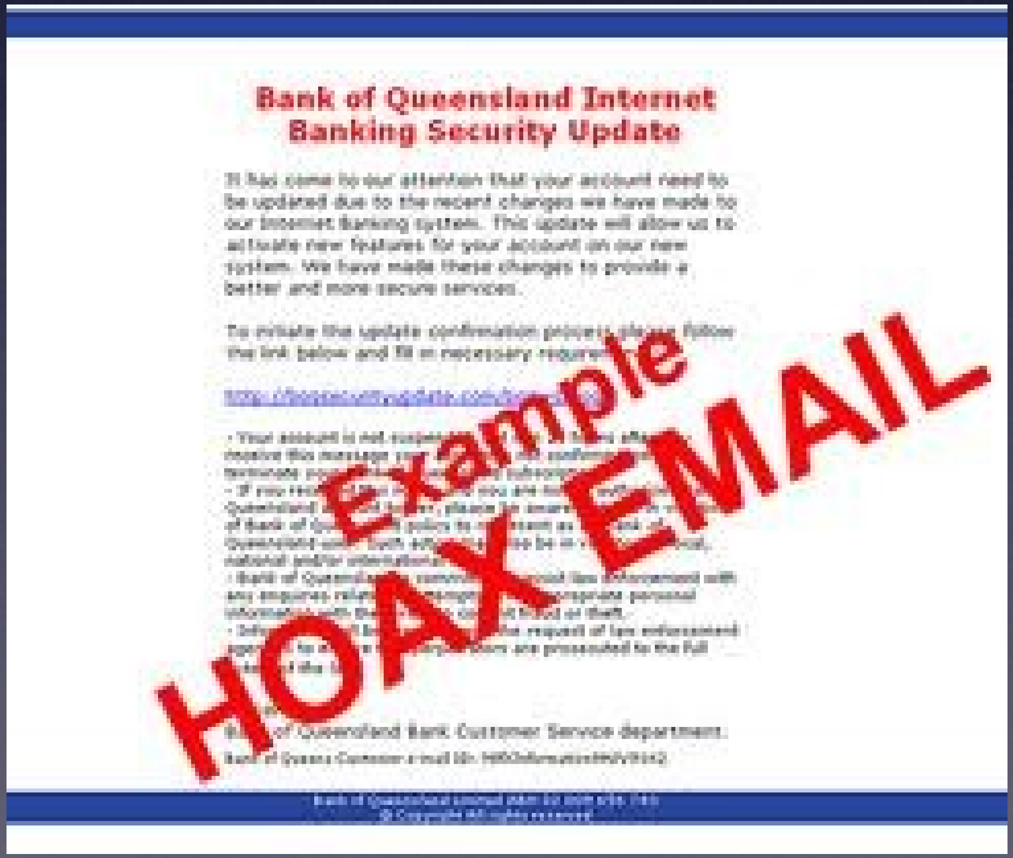
Spam

- is the use of electronic messaging systems to send unsolicited bulk messages indiscriminately
- the most widely recognized form of spam is e-mail spam

Shoulder
Pork
hAM

Hoax

- is a message warning the recipient of a non-existent computer virus threat
- the message is usually a chain e-mail
- are usually harmless



Bank of Queensland Internet Banking Security Update

It has come to our attention that your account need to be updated due to the recent changes we have made to our Internet Banking system. This update will allow us to activate new features for your account on our new system. We have made these changes to provide a better and more secure services.

To initiate the update confirmation process, please follow the link below and fill in necessary requirements.

[illegible]

- Your account is not [illegible]
- If you [illegible] Queensland [illegible] of Bank of Queensland policy [illegible] Queensland [illegible] national and/or international [illegible]
- Bank of Queensland [illegible] any enquiries [illegible] appropriate personal information [illegible] fraud or theft.
- [illegible] request of law enforcement [illegible] are prosecuted to the full [illegible]

Bank of Queensland Bank Customer Service department.

[illegible]

[illegible]

Phishing

- a way of attempting to acquire information such as usernames, passwords, and credit card details by masquerading as a trustworthy entity in an electronic communication

HowTo defend against Social Engineering?

"If something seems too good to be true, it probably isn’t"

- don’t share relevant information
- ensure that access the site you want
- change the password regularly

Safe Passwords

There are two rules to enforce good passwords:

- easy to remember
- not a word in the dictionary

Safe Passwords

How to create passwords easy to remember

- find a personal “*algorithm*” for generating obscure passwords
- use sayings, poems or famous quotes

Safe Passwords

Example:

Kill Two Birds With One Stone

take the first letter of each word and change the numbers in figures:

K___ 2 B____ W___ 1 S____

“**k2bw1s**”

Safe Passwords

Other examples:

“2habt1”	*Two Heads Are Better Than One*
“1ysm7yw”	*One year's seeding makes seven years weeding*
“2icb3iac”	*Two is company but three is a crowd*
“abithiw2itb”	*A bird in the hand is worth two in the bush*
“str&stc”	*Spare the rod and spoil the child*
“w&pup4ure”	*Walnuts and Pears You Plant For Your Ears*