



# NIS (Network and Information Security) & SIC (Security In Computing)



# Last Time

- ▶ What is Sniffing
- ▶ What is Packet Sniffing
- ▶ What is Spoofing
- ▶ What is spoofing Email
- ▶ What is URL Spoofing
- ▶ What is Man in Middle Attack
- ▶ What is Replay
- ▶ What is TCP/IP Hijacking



# Information Security

- ▶ Information is a resource fundamental to the success of any business  
information is a combination of following three parts:-
  1. **Data:-** It is a collection of all types of information which can be stored and used as per requirement.  
For example:- personal data, medical information, accounting data, etc.
  1. **Knowledge:-** It is based on data that is organized, synthesized or summarized and it is carried by experienced employees in that organization
  2. **Action:-** It is used to pass the required information to a person who needs it with the help of in format
- ▶ Information is a important asset and need to be protected all the time



# Information Classification

- ▶ The main reason for classifying information is that all data or information of organization will not have the same level of criticality. Some information or data may be important for some people in organization like senior management for strategic decisions.
- ▶ Some data like formulae, secret of trade, product information etc. are important because of such information will harm the organization in many ways like organization's goodwill, market etc. Hence, classification of information will be beneficial for organization to decide level of security.
- ▶ The main aim of the organization is to improve Confidentiality, Integrity and Availability (CIA) of information and to reduce the risk related to information.
- ▶ Another reason of classification may be because of privacy laws and legislations or any other compliance.



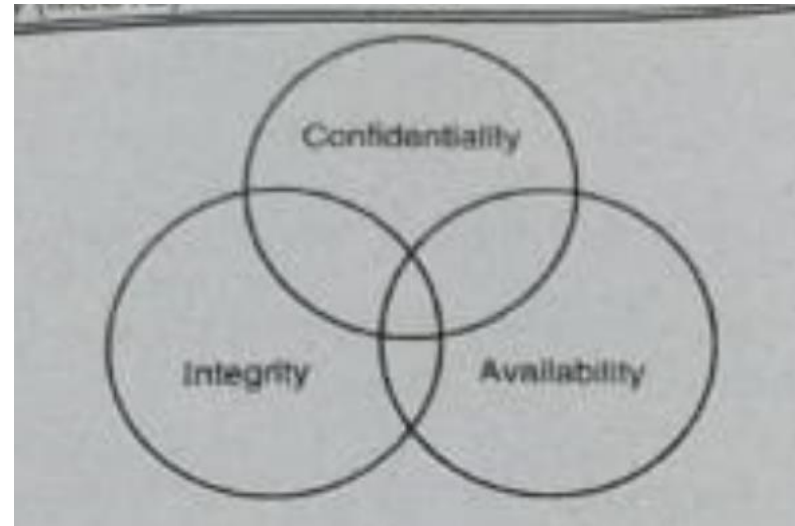
# Information Classification

- ▶ Advantages of information classification are as follows:-
- Information classification is a commitment to the organization for security protection.
  - Information classification will help organization to identify which information is critical and more sensitive.
  - Information classification supports CIA - Confidentiality, Integrity and Availability.
  - Information classification will help organization to decide what type of protection is applied to which type of information.
  - Information classification Will fulfill the legal requirement to legal mandates, compliance and regulations.



# CIA Triad

- ▶ CIA Triad is a well-known security model used for the development of security policies



- ▶ **Confidentiality:-**

- ❑ Confidentiality means that only the authorized individuals or systems can view sensitive or classified information
- ❑ The data being sent over the network should not be accessed by unauthorized individuals
- ❑ Attacker may try to capture the data using different tools available on the Internet and gain access to the sensitive information

# CIA Triad

## ► Integrity

- ❑ Integrity means that the data has not been altered in an unauthorized way.
- ❑ Main goal of integrity controls is to block the ability of unauthorized people to make changes to data, and to provide a means of restoring data back to the original state.
- ❑ Corruption of data is a failure to maintain data integrity

## ► Availability

- ❑ Availability means that the data should be readily available to its users when needed. This applies to systems and to data.
- ❑ Availability can be ensured by implementing high-availability or continuous service controls on computer networks, and storage, making regular upgrades, having a plan for fail over like backups etc. and prevent bottleneck in a network.



Thank you for Hearing with Patience

