Information Security Systems EC-615-F

Lecture No 1

Topics To be Covered

❖Basic concepts of Information Security

❖Security Tools

Introduction

**Information security is defined
as methods and technologies
for deterrence (scaring away hackers),
protection, detection, response, recovery and
extended functionalities**

Generic Security Principles
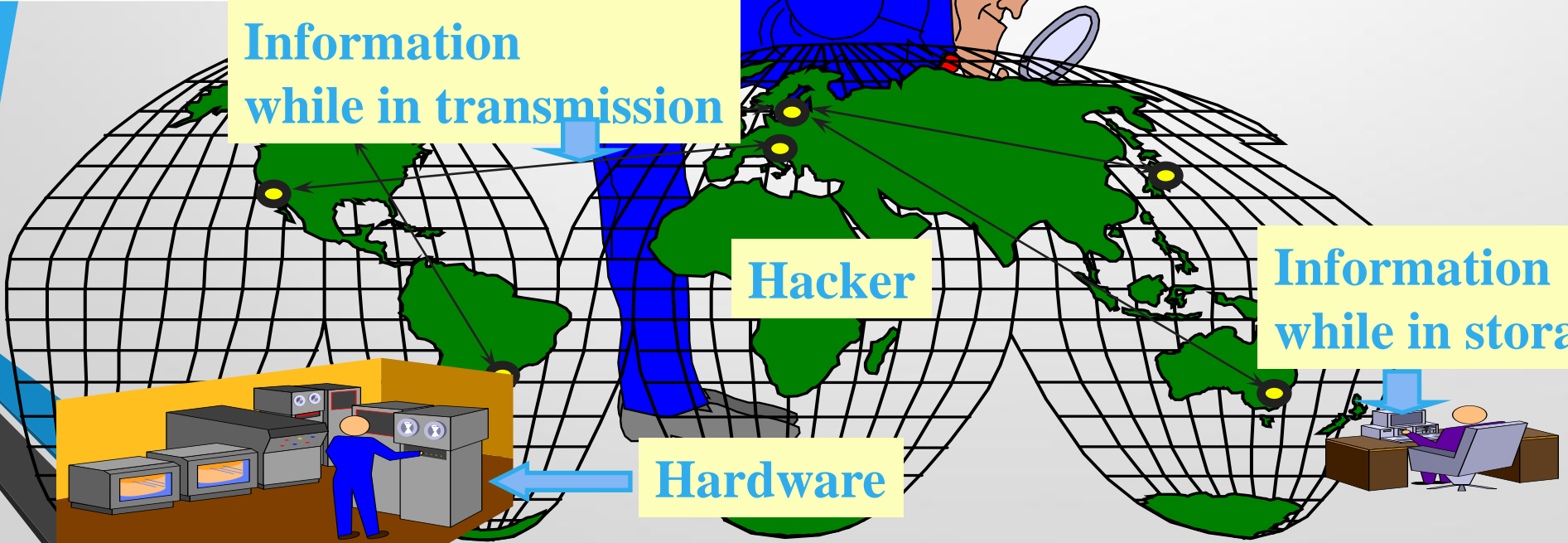
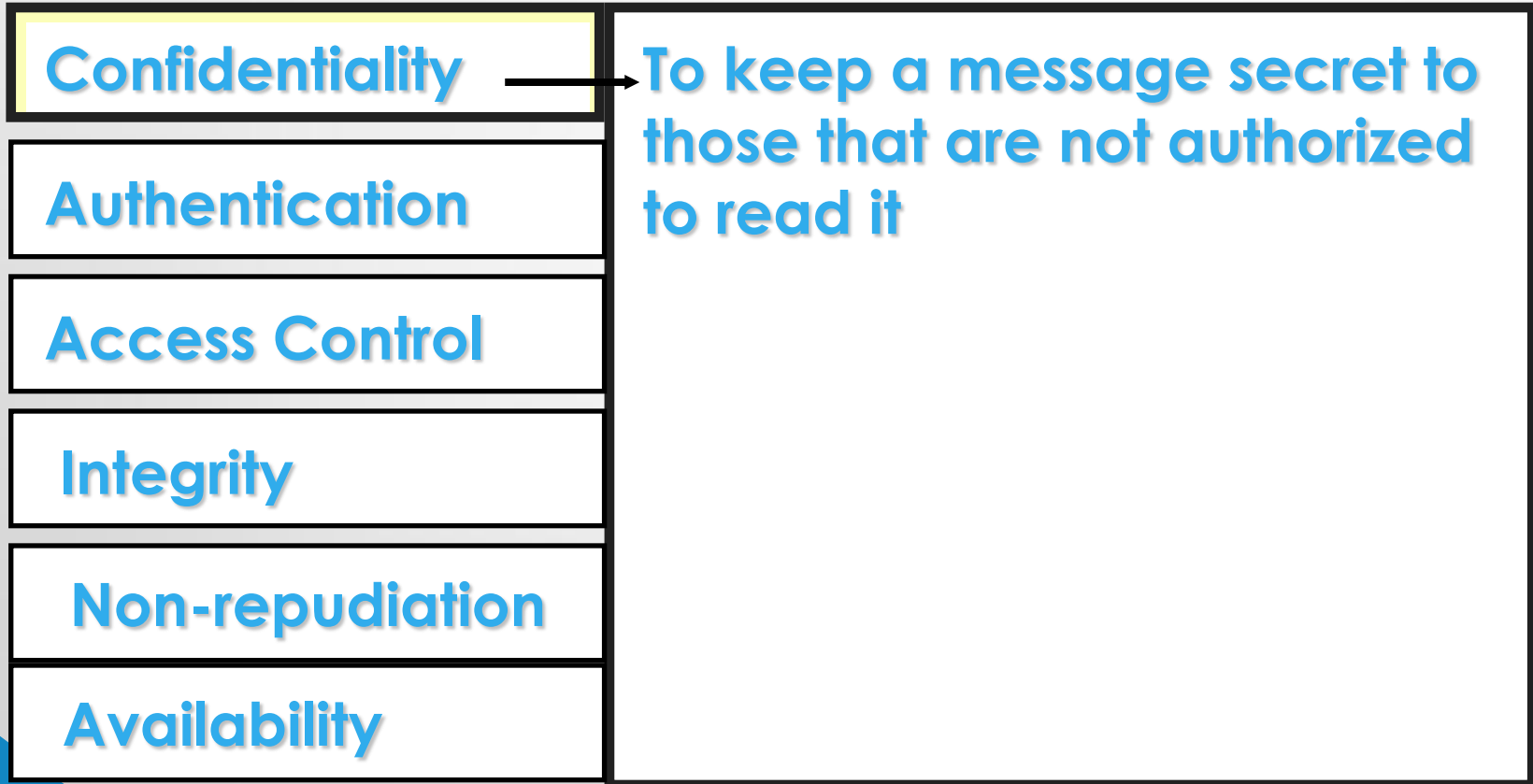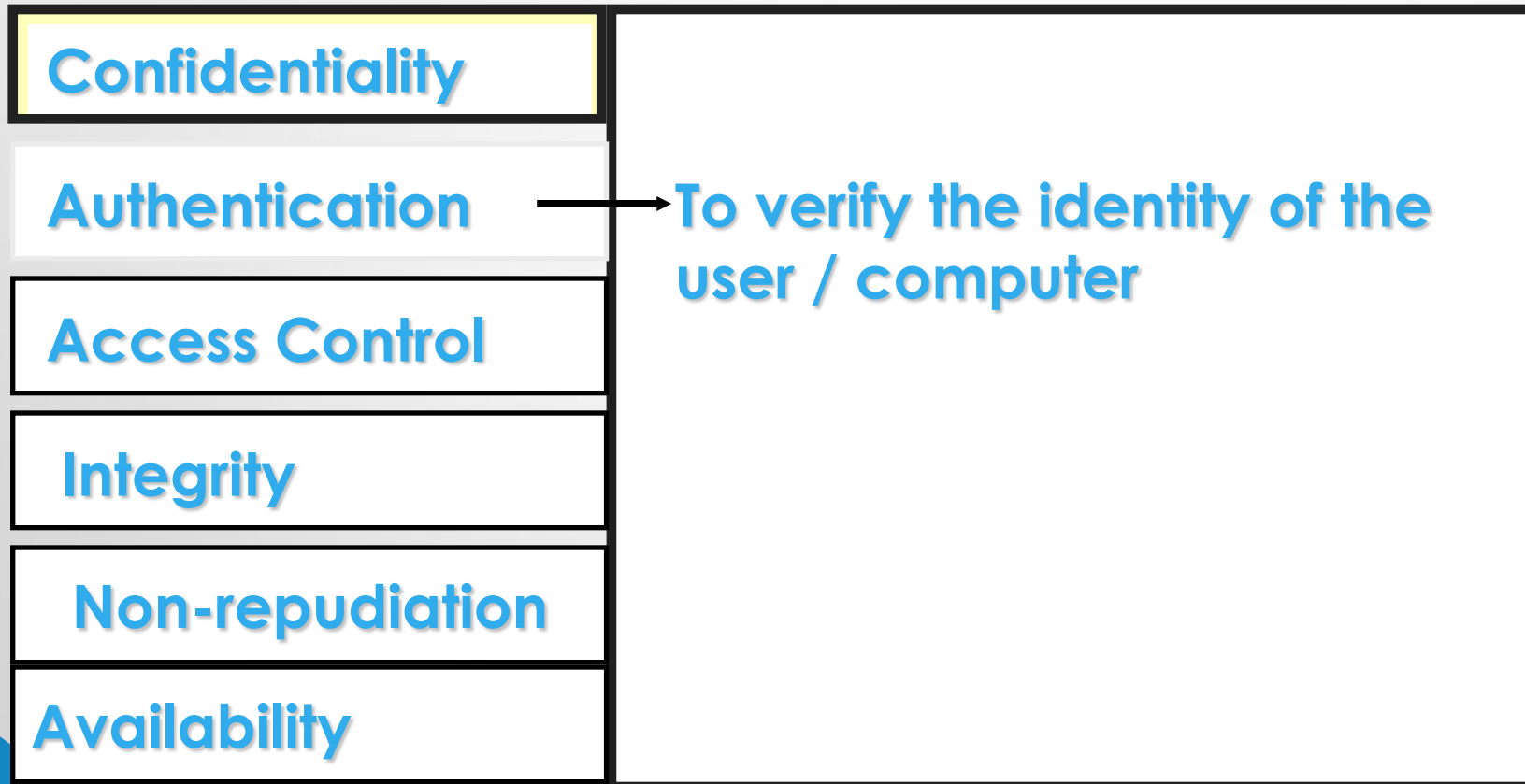# Security Tools

- Security Services

- Overview of Existing Security Tools

Security Services : Confidentiality

Confidentiality

Authentication

Access Control

Integrity

Non-repudiation

Availability

To keep a message secret to those that are not authorized to read it

Security Services: Authentication

Confidentiality

Authentication → **To verify the identity of the user / computer**

Access Control

Integrity

Non-repudiation

Availability

Security Services: Access Control

Confidentiality
Authentication
Access Control
Integrity
Non-repudiation
Availability

To be able to tell who can do what with which resource

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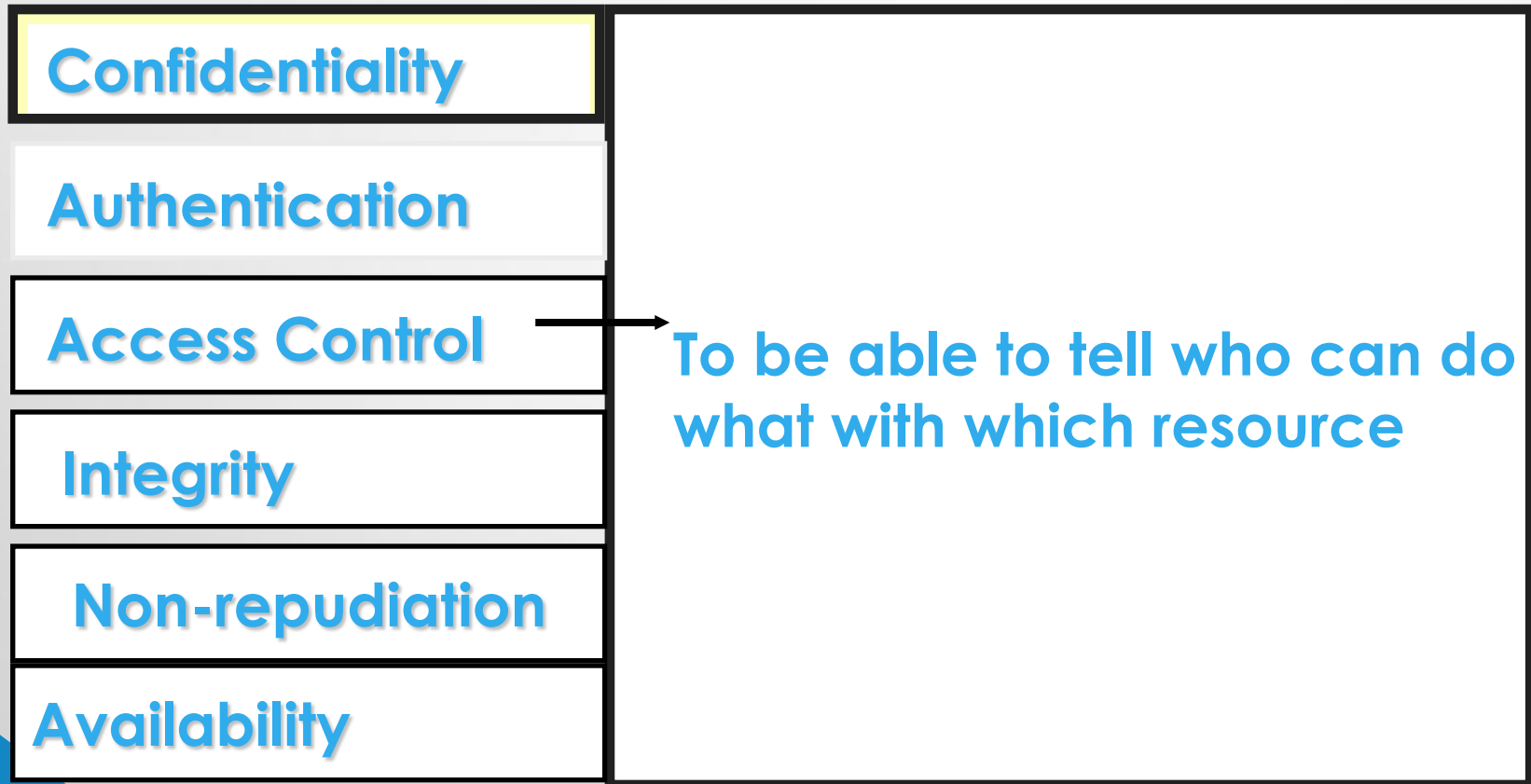
Security Services: Integrity

Confidentiality

Authentication

Access Control

Integrity ⟶ **To make sure that a message has not been changed while on Transfer, storage, etc**

Non-repudiation

Availability