What is Information Security? #

The protection of information and its critical elements, including systems and hardware that use, store, and transmit that information

Includes information security management, data security, and network security C.I.A. triad

Is a standard based on confidentiality, integrity, and availability, now viewed as inadequate?

Expanded model consists of a list of critical characteristics of information

Key Information Security Concepts (1 of 3) #

Access

Asset

Attack

Control, safeguard, or countermeasure

Exploit

Exposure

Loss

Protection profile or security posture

Risk

Subjects and objects of attack

Threat

Threat agent

Threat event

Threat source

Vulnerability

Critical Characteristics of Information #

The value of information comes from the characteristics it possesses:

Availability

Accuracy

Authenticity

Confidentiality

Integrity

Utility

Possession

Components of an Information System #

Information system (IS) is the entire set of people, procedures, and technology that enable business to use information.

Software

Hardware

Data

People

Procedures

Network

Balancing Information Security and Access #

Impossible to obtain perfect information security—it is a process, not a goal.

Security should be considered a balance between protection and availability.

To achieve balance, the level of security must allow reasonable access, yet protect against threats

ISO 7498/2 Information Security Services #

Identification and Authentication

Authorisation

Integrity

Confidentiality

Non-repudiation or Non-denial