

Introduction, history, cybersecurity today and basic terminology

Computer Security - The protection of computer systems against adversarial environments

1 Terminology

Assets - Something of value to a person or organisation

Vulnerability - Weakness of a system that could be accidentally or intentionally exploited to damage assets

Threat - Potential danger of an adversary exploiting a vulnerability

Risk - Asset x Threat x Vulnerability

Adversaries - An agent that circumvents the security of a system

Attack - An assault on system security

Countermeasure - Actions/processes that an owner may take to minimise risk of a vulnerability

Confidentiality - Ensuring assets are only available to those who should be allowed

Integrity - Ensuring consistency, accuracy and trustworthiness of data

Availability - Ensuring that assets are always available

Accountability - Recording actions so that users can be held accountable for their actions

Reliability - Ensuring that a system can progress despite errors