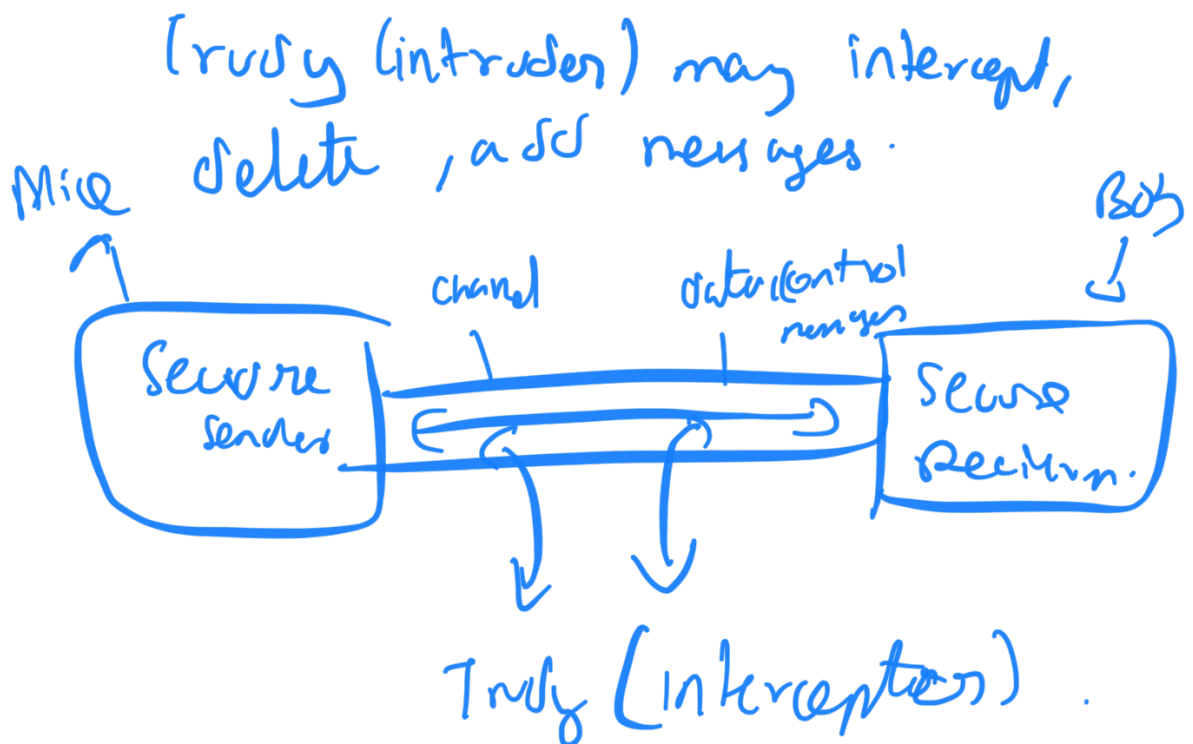# Course 2 Week 2.

Discussion of Confidentiality, Integrity
and Availability.

→

Friends and Enemies
  well-known in network security wor
Bob, Alice (Friends) want the communica
  "securely"

  (rudy (intruder) may intercept,
  delete, add messages.

Mice

Bob

channel   data/control
                messages

Secure
Sender

Secure
Recium.

Trudy (interceptor).

CIA -> Three Key Objectives of Network Security.

Confidentiality
      ↳ Preserving authorized restriction on information Access and disclosure, ..

      ↳ Loss of confidentiality is the unauthorized disclosure of information.

Integrity.
      ↳ Guarding against improper information modification or destruction

      ↳ Including ensuring information non-repudiation and authenticity.

      ↳ Integrity loss is the unauthorized modification or destruction of
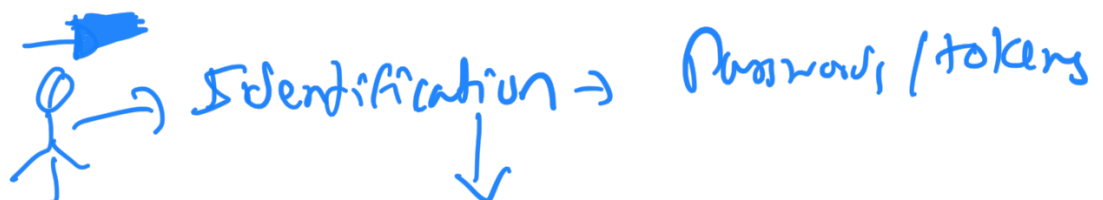
information.

Availability

→ Timely and reliable access to information

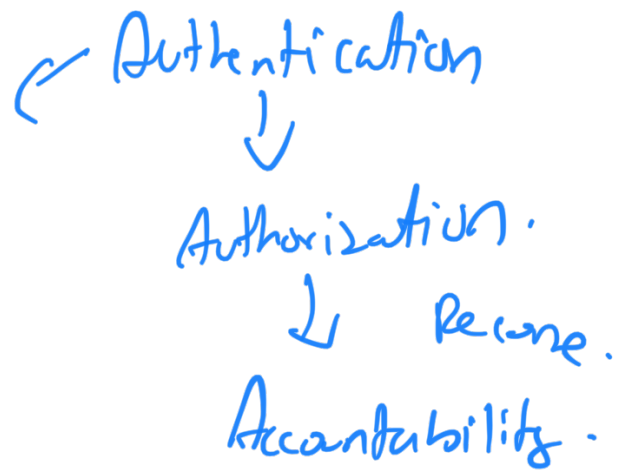→ Loss of availability is the disruption of access to an information system.

Authenticity :- Property of being genuine and verifiable.

Accountability : mapping acting to an identity.

What is AAA?

→ Identification → Passwords / tokens

$\wedge$

← Authentication
↓
Authorisation.
↓ Recone.
Accountability.

Controls.
Asmistrative
Technical
Physical.

Access Control

labelic ~ MAC → Mandatory (Access Control)
military
DAC → Discretionary Access Control
↓
Owner

Role Based Access Control.

Other Methods.
Centralized
Decentralize
→ local power.

→ SSO

→ 3As

→ Military uses[?]

Access control Physical and logical.

Physical access control methods

→ Perimetral

→ Building

→ Work areas

→ Servers and networks.

Technical uses of Physical security tools

→ ID Badges

→ Lists and logs

→ Door access control system.

→ Tokens

→ Proximity sensors

→ Tramps

→ Physical Block

→ Camera.