

Course 2 Week 2

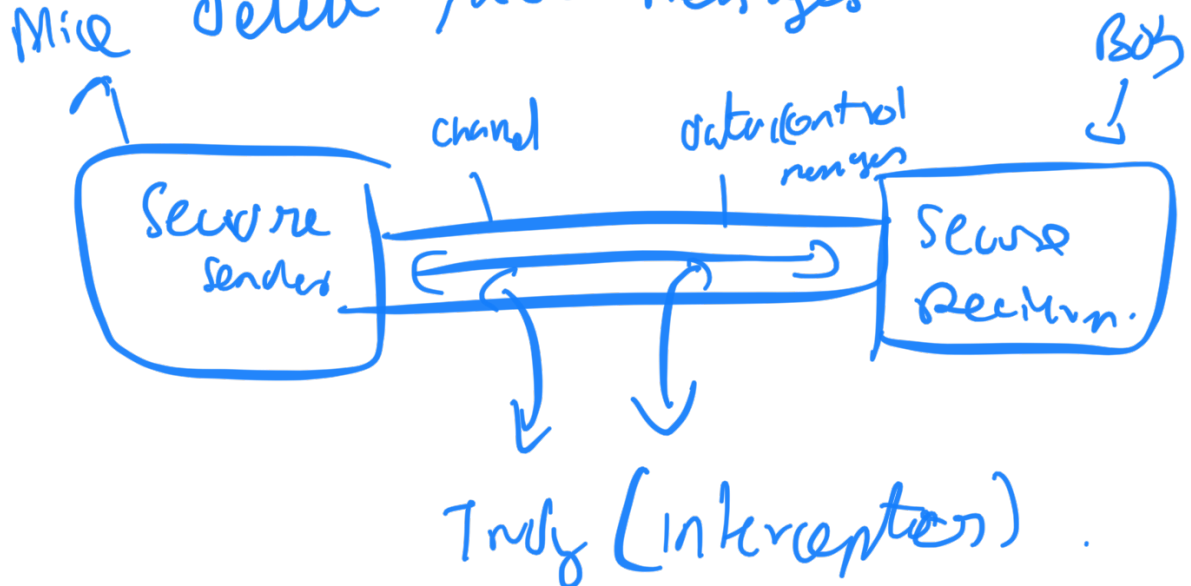
Discussion of Confidentiality, Integrity and Availability.



Friends and Enemies

Well-known in network security was
Bob, Alice (Friends) want the communication
"securely"

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



CIA → Three Key Objectives of Network Security.

Confidentiality

- ↳ Preserving authorized restricting 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

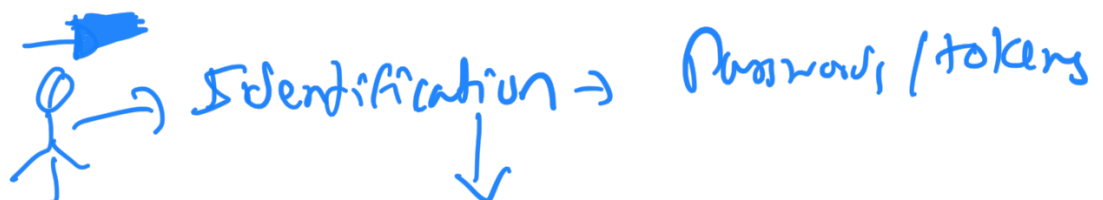
↳ Timely and reliable access to information

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

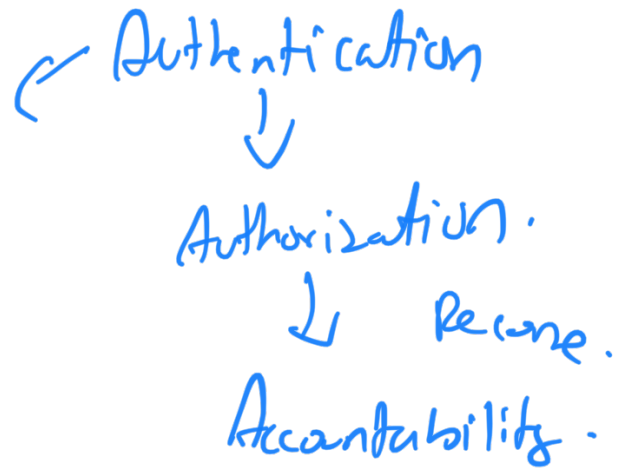
Authenticity :- property of being genuine and verifiable.

Accountability: mapping action to an identity.

What is AAA?



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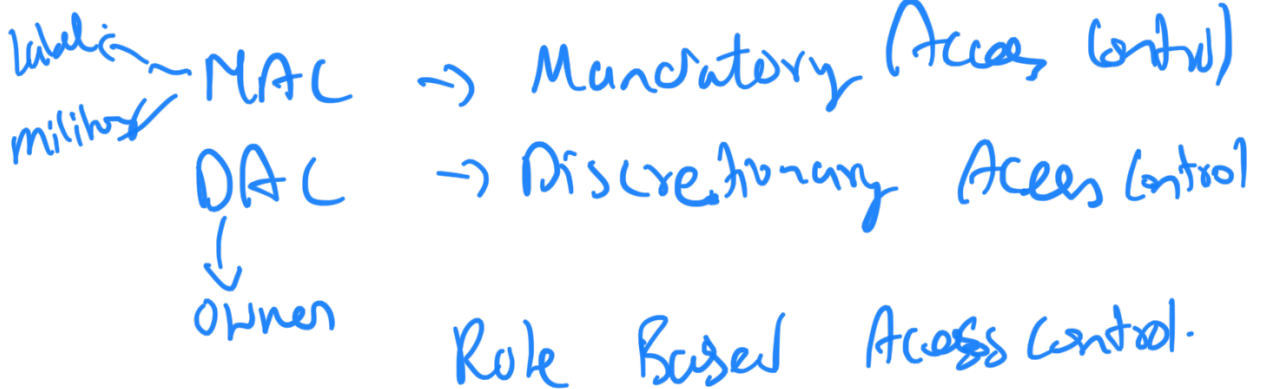
Controls:

Administrative

Technical

Physical.

Access Control



Other Methods.

Centralized

Decentralized
-> local purr.

→ SSO

→ 3As

→ Military uses it

Access control Physical and logical.

Physical access control methods

→ Perimeter

→ 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.

