

Moodule 3

Rules:

For the network protocol to sucessfully deliver a message there needs to be:

Identified sender and receiver

Common language

Speed and timing of delivery

Protocols

Functions of a protocolo

- Addressing: Identifies the sender and the receiver
- Reliability: Provides guaranteed delivery
- Flow control: Ensures the data dflows at an efficient rate.
- Sequencing: Labels each transmitted segment of data.
- Error detection: Determined if data is corrupted when transmitted.

Internet organizations

ISOC → Promotes the open development of the internet.

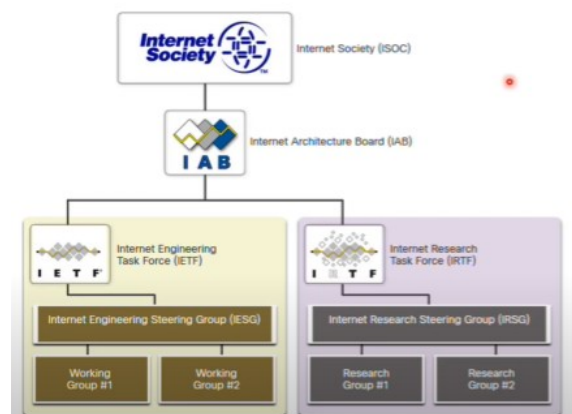
IAB (Internet architecture board)

IETF → Soporte de tecnologias.

IRTF → LT research of tech.

ICANN

IANA: Dominios, ip públicas.



Suites de protocolos

Conjunto de protocolos que en su conjunto se emplean para establecer comunicaciones entre dos o más dispositivos.

¿Qué tipos de suites de protocolos existen?

TCP/IP → mantenido por → IETF

OSI (Open Systems Intercommunication) → mantenido por → ISO

Apple talk

Novell Networks

Modelo por capas

OSI	TCP/IP
Application Presentation Session	Application
Transport	Transport
Network	Internet
Data Link Physical	Network Access

- Provides a common language to describe networking functions and capabilities
- Prevents innovation in other layers to invalidate one layer
- Fosters competition
- Asists in protocol design

Data encapsulation

Segmentation of a message: Process of breaking messages into smaller units.

- Increases speed
- Increases efficiency

Multiplexing: Intertwine the segments of a message or messages.

Problema: El proceso de multiplexación tiene un coste de tiempo.

Sequencing: Numbering the segments so that the device can put them back together

Data address:

Is composed of:

Source and destination layer 2 address: Its only to comm between NIC

Some hex values are the manufacturer of the NIC

Some hex values are to name the specific device

*The MAC address only works on the LAN. It changes when leaving the network.

Layer 3 logical address:

- Source IP
- Destination

IPv4

IPv6