

# NETWORKING PROTOCOLS

- There are some standards that allow nodes to identify and communicate each other, data format, processing methods etc.
- Very common and important protocols are below.

# NETWORKING PROTOCOLS

- TCP (Transmission Control Protocol) : -

This operates in Transport layer. It is used to segment and reassembling data, error correction etc. It will not send the next data without receiving the acknowledgement for the previous data. So, this is very slow but very accurate.

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- UDP (User Datagram Protocol) : -

This is same like TCP but more faster than that. It is connectionless and that's why is not accurate or reliable. It just sends data, without receiving any acknowledgement.

- What is Connectionless communication?

If no session is established for communication then it is called Connectionless communication.

# NETWORKING PROTOCOLS

- IP (Internet Protocol) : -

This a network protocol used to manage the data delivery and logical network number.

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- HTTP (Hyper Text Transfer Protocol) : -

This is an application layer protocol and it renders Internet Documents or Web Pages.

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- FTP (File Transfer Protocol) : -

This protocol is used for downloading and uploading

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- TFTP (Trivial File Transfer Protocol) : -

This protocol is like FTP but it is used where authentication is not required. It uses UDP rather than TCP.

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- DHCP (Dynamic Host Configuration Protocol) :-

This is an application layer protocol. It provides ip address dynamically from dhcp server to dhcp client.



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- DNS (Domain Name System) : -

This is also an application layer protocol. It resolves ip addresses from domain names.

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- SMTP (Simple Mail Transfer Protocol) : -

It is an application layer protocol. This protocol manages the forwarding operation of outgoing emails.

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- POP (Post Office Protocol) : -

This one is an application layer protocol and it is used to receive incoming emails.

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- ICMP (Internet Control Message Protocol) : -

It is a Networking protocol. It manages the feedback support for IP

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- ARP (Address Resolution Protocol) : -

This one is a Datalink layer protocol and used to resolve mac address from the ip address. It relates any particular ip address with any particular mac address.

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- Telnet : -

It is used to login into another remote device and this and this one is also an application layer protocol.

# TCP PORTS

- TCP belongs to Transport Layer so the different Application needs support from it. TCP services each Application Layer protocol by a unique service number, also called TCP port number. Without these ports TCP will be unable to which Application Layer protocol is asking for its service.

• HTTP	SMTP	POP	DNS	FTP	Telnet
↓	↓	↓	↓	↓	↓
80	25	110	53	20, 21	23



END OF DAY 6

# NETWORKING (CCNA TRAINING)

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