Protocols

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What is a protocol ?

- **A protocol is a set of rules that governs the communications between computers on a network.**

- **Every protocol governs the way a certain technology works.**

TCP

- **Transmission Control Protocol**
- **It is used for communication over a network.**
- **It is a connection based protocol.**
  - It requires a logical connection to be established between the two processes before data is exchanged.
- **The data is broken in to smaller data packets and then sent to the destination.**
- **It functions at the transport layer of OSI model.**

HTTP

- **Hypertext Transfer Protocol.**
- **It is used for transmitting and displaying information in the form of web pages on browsers.**
  - used to download files, media, text etc. from the server in a secured way.
- **It ensures any intermediator cannot decipher the encrypted data while data tranfer over the internet**
- **It works on application layer and uses TCP protocol for the purpose of transfer of data.**

FTP

- **File Transfer Protocol**

- **It is used for file transferring (uploading & downloading of files) over the internet.**

- **It works at the application layer of the OSI model.**

POP

- **Post Office Protocol**

- **It is used for receiving e-mails.**

- **This protocol is used in email applications for downloading emails from the server.**

SMTP

- **Simple Mail Transfer Protocol**
- **It is used for transmission of emails over the network.**
- **SMTP is able to transfer emails between different networks too.**

Ethernet

- **Ethernet is used for LAN communications.**
- **It transfers the information in digital packets.**
- **If any computer wants to use this protocol, it must contain Ethernet Network Interface Card.**
  - This card provide a unique address code.

Wi-Fi

- **Wi-Fi is the name of a popular wireless networking technology.**

- **It uses radio waves to provide wireless high-speed Internet and network connections.**

IP

- **Internet Protocol**

- **It is an addressing protocol.**

- **The IP addresses in packets help in routing them through different nodes in a network until they reach their right destination.**

- **IP protocol was developed in 1970.**

UDP

- **User Datagram Protocol**
- **It works at the transport layer of the OSI model.**
- **It is a connectionless protocol.**
- **It provides speedy transfer of data.**

Gopher

- **Gopher is implemented for searching, retrieving as well as displaying documents from sites.**

- **It works on the client / server principle.**

Telnet

- **Telnet is used for remote login i.e. connecting one system with another remotely.**

- **The computer which requests for the connection is the local computer.**

- **The system which accepts the connection is the remote computer.**

Thank You !!

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