6- Protocols

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protocols

set of rules and messages that form an Internet standard.

ARP - Address Resolution Protocol
FTP - File Transfer Protocol
SMTP - Simple Mail Transfer Protocol
HTTP - Hyper Text Transfer Protocol
SSL - Secure Sockets Layer
TLS - Transfer Layer Security
HTTPS - HTTP secured with SSL/TLS

DNS

- **!** dns - Domain Name System

Every Host needs **four** items for internet connectivity

IP address	Host's Identity on the internet.
Subnet mask	Size od Host's network
Default Gateway	Router's IP address
DNS Server IP(s)	Translate domain names to IP's

DHCP

- **!** dhcp - Dynamic Host Configuration Protocol

DHCP Server provides IP/ SM/ DM/ DNS for clients

- Set of **rules** and **messages** that form an **Internet standard**
  - **DNS** – Domain Name System
  - **DHCP** – Dynamic Host Configuration Protocol
    - DHCP Server provides IP/SM/DG/DNS for Clients

FTP Server
84.68.31.41

SMTP Server
john @ email.com

Web Server
http://site.com
https://site.com

DNS Server
8.8.8.8

Discover   *(or any other device)*

Offer

DHCP Server

9.1.1.1

```
IP:    9.1.1.11
SM:    255.255.255.0
DG:    9.1.1.1
DNS:   8.8.8.8
```