

Intro to Internet of Things

with ESP/Arduino



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RISD ID

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Outline I

- 1 Internet
- 2 Internet of Things
Multiple columns
- 3 Device: ESP
- 4 Implementation

1 Internet

2 Internet of Things Multiple columns

3 Device: ESP

4 Implementation

What is the internet?

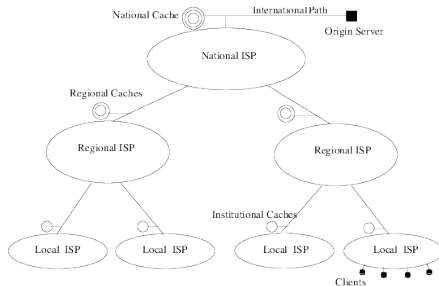
A network connecting an enormous number of computing devices.

How to operate a network like this?

- Wire them all together?
- Who connect to whom?
- How many steps to send a message?

Hierarchy+Protocol

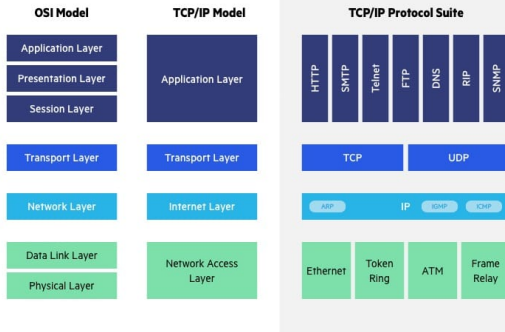
- Devices are connected by hierarchy.
- Different devices are connected via different protocols.
- Data is coded according to the layers of the internet model.



(Hu, Rodriguez, and Biersack 2000)

Layers of the internet

- 1 HTTP request
- 2 TCP port
- 3 IP address
- 4 MAC address
- 5 Wireless LAN

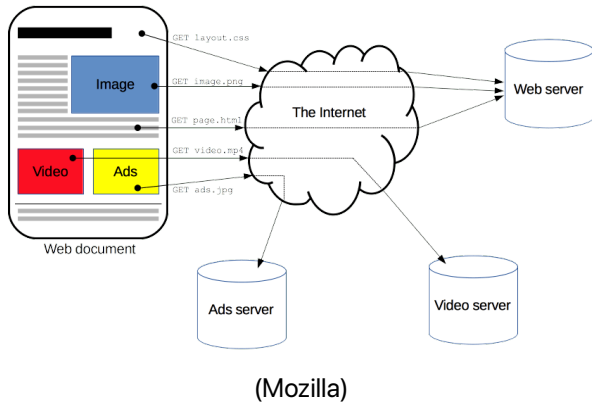


(Imperva)

(Almost) Everything is a HTTP request

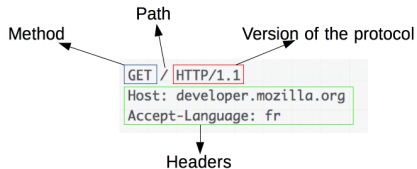
HTTP follows a client-server model.

- Client request
- Serve respond



HTTP request

- Method: GET, POST
- Path
- Header
- Body



(Mozilla)

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Frame title

Column one

Column two

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