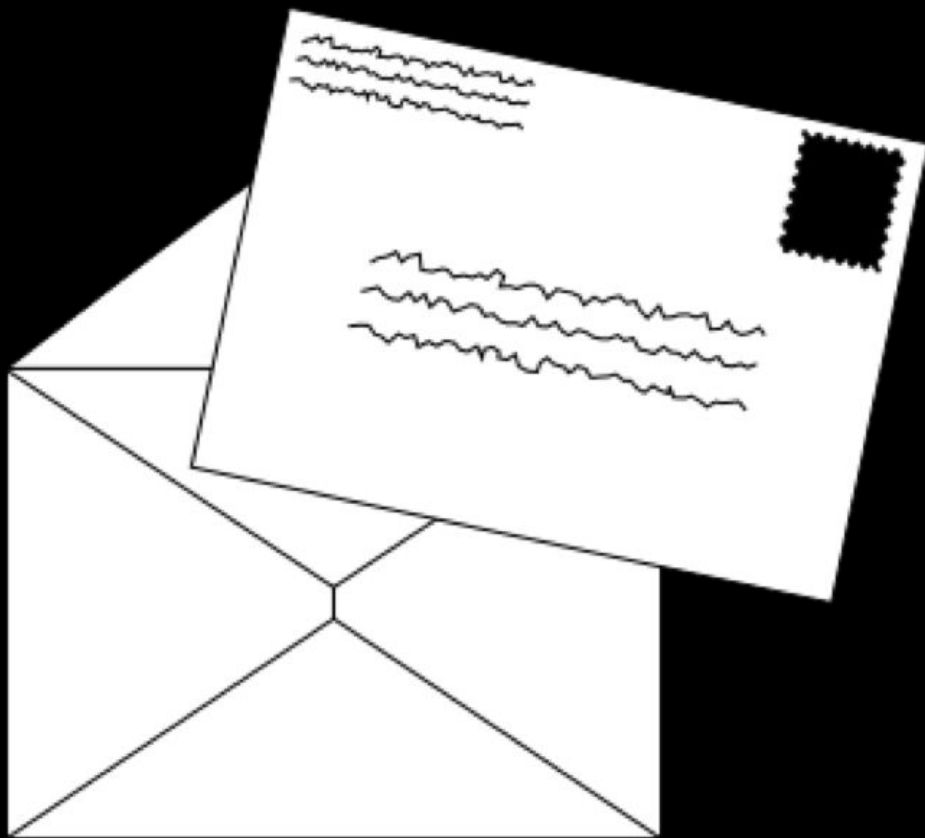


Internet Technologies, Cloud Computing



DHCP

###.

###.

- 10.###
- 172.16.## – 172.31.##
- 192.168.##



Settings



## Wi-Fi

### Properties

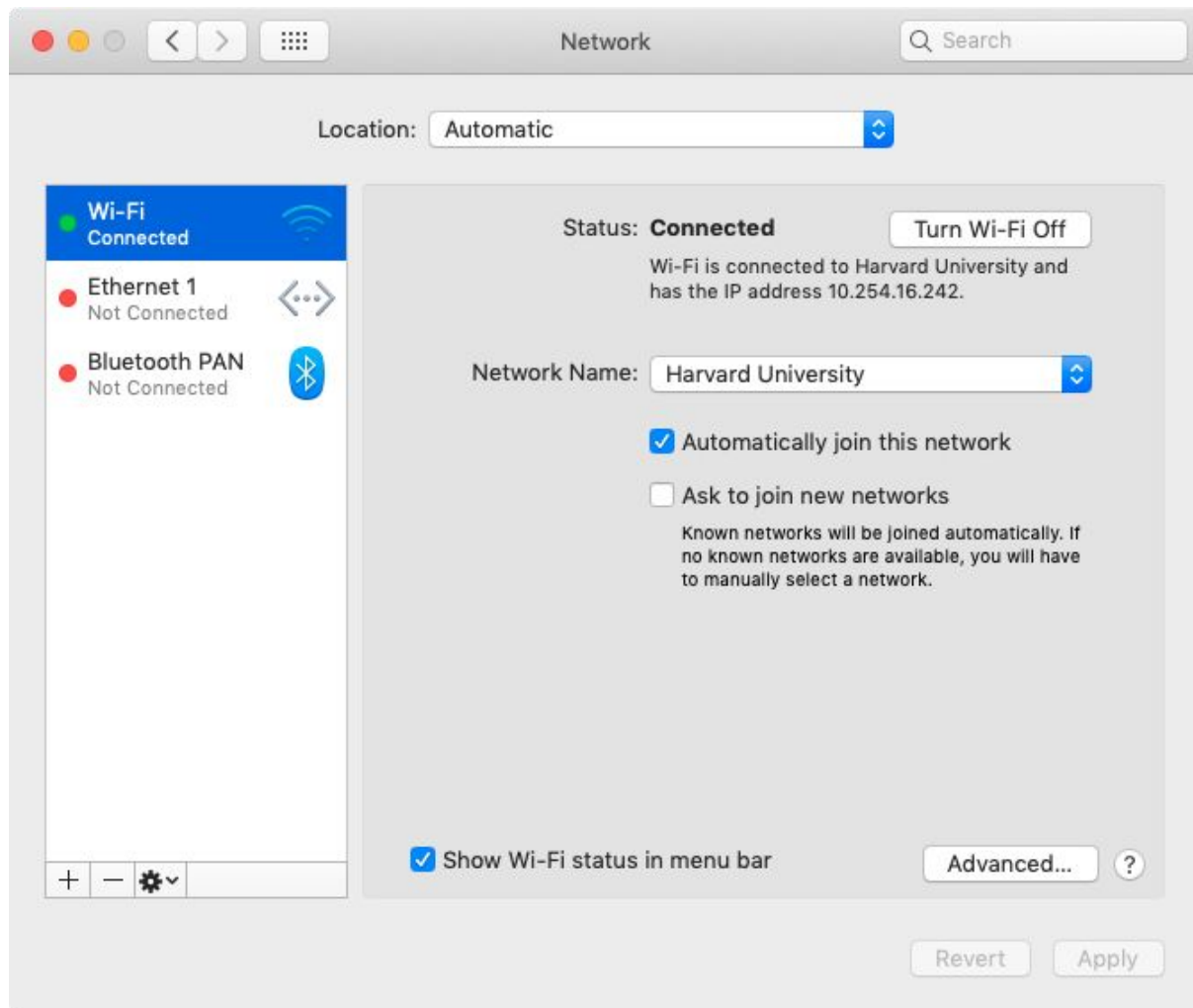
SSID:	MayakobaDDWRT_EXT2
Protocol:	802.11n
Security type:	WPA2-Personal
Network band:	2.4 GHz
Network channel:	5
IPv4 address:	192.168.1.139
IPv4 DNS servers:	192.168.1.1
Manufacturer:	Marvell Semiconductor, Inc.
Description:	Marvell AVASTAR Wireless-AC Network Controller
Driver version:	15.68.9114.29
Physical address (MAC):	B4-AE-2B-D2-52-16

Copy

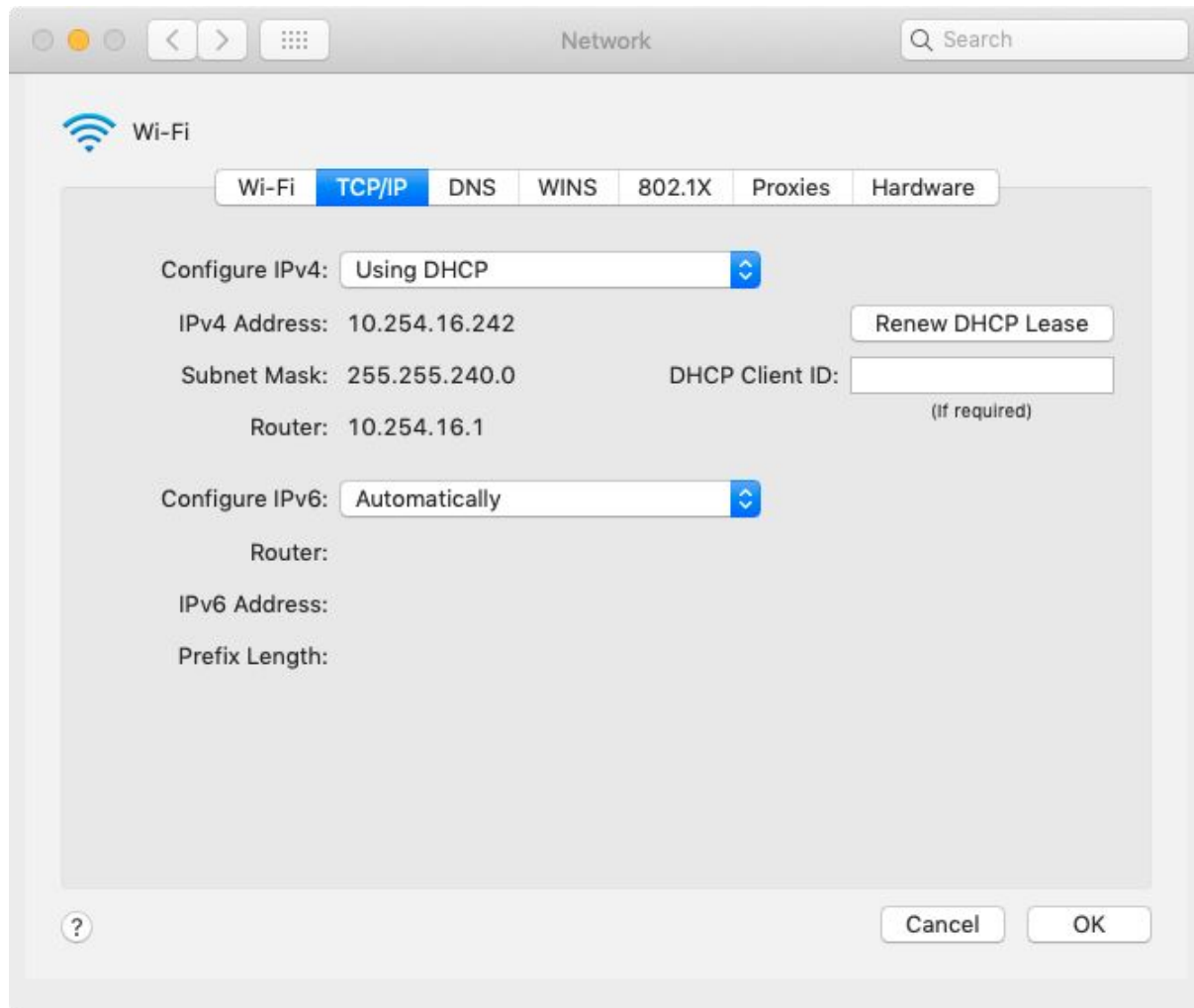


## View your network properties

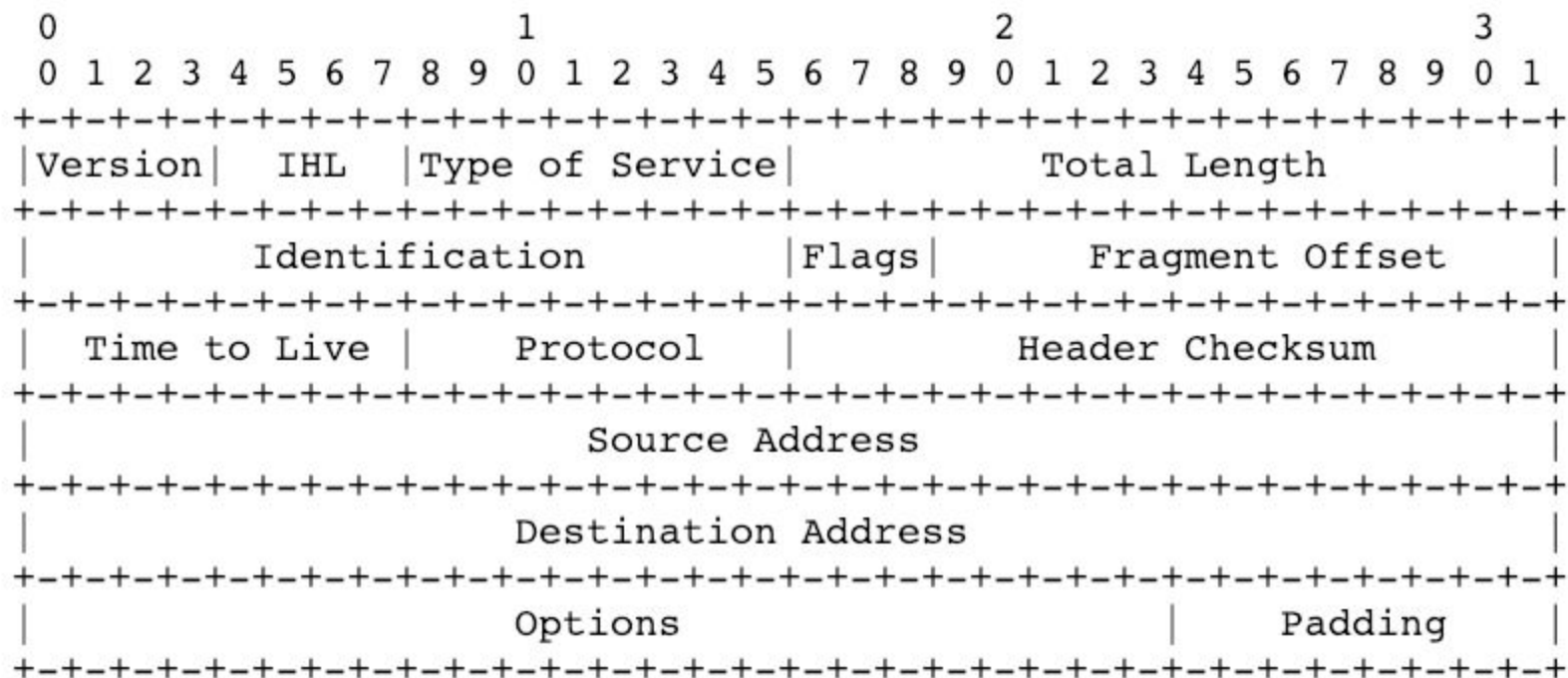
Name:	Wi-Fi
Description:	Marvell AVASTAR Wireless-AC Network Controller
Status:	Operational
Maximum transmission unit:	1500
Link speed (Receive/Transmit):	144/144 (Mbps)
DHCP enabled:	Yes
DHCP servers:	192.168.1.1
IPv4 address:	192.168.1.139/24
IPv6 address:	fe80::60b5:8c93:75ae:fd8f%19/64
Default gateway:	192.168.1.1
DNS servers:	192.168.1.1
DNS domain name:	
DNS connection suffix:	
DNS search suffix list:	







IP

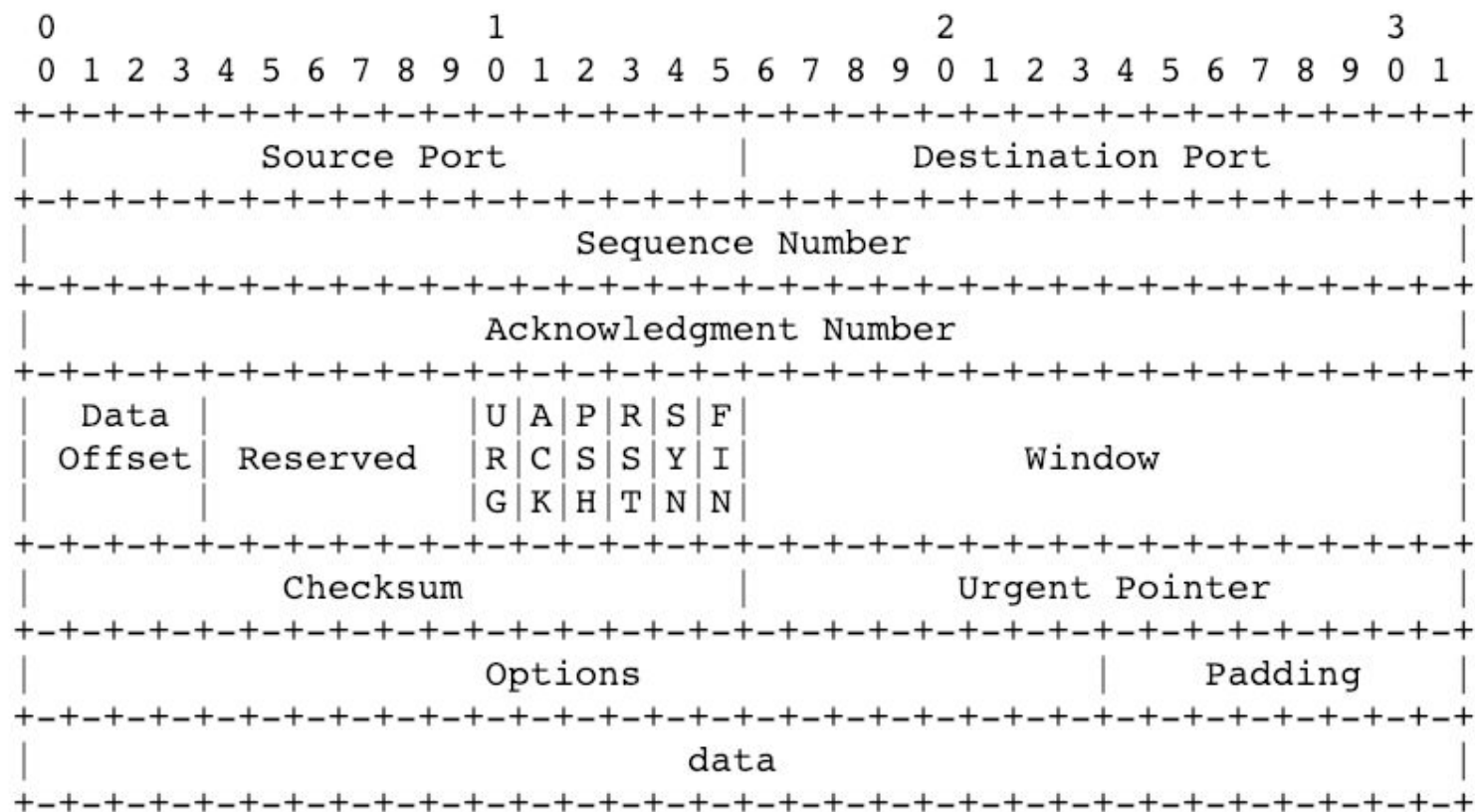


Example Internet Datagram Header

TCP

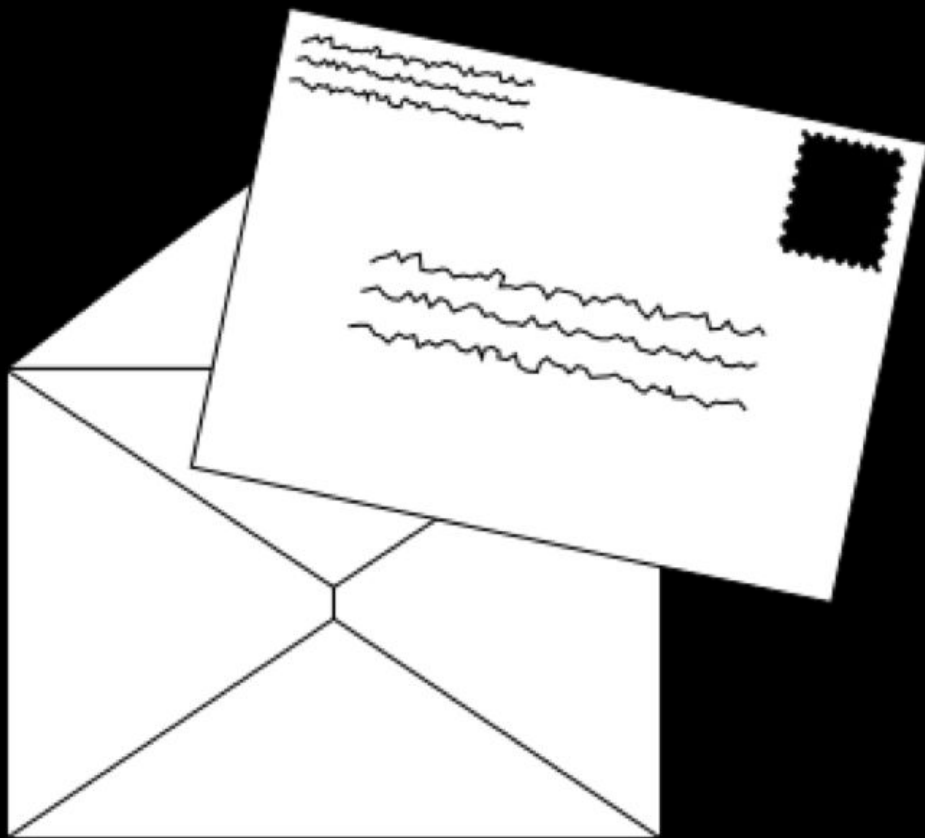
# Ports

- HTTP (80)
- HTTPS (443)
- IMAP (143, 993)
- SMTP (25, 465, 587)
- SSH (22)
- ...



TCP Header Format

TCP/IP





DNS



Settings

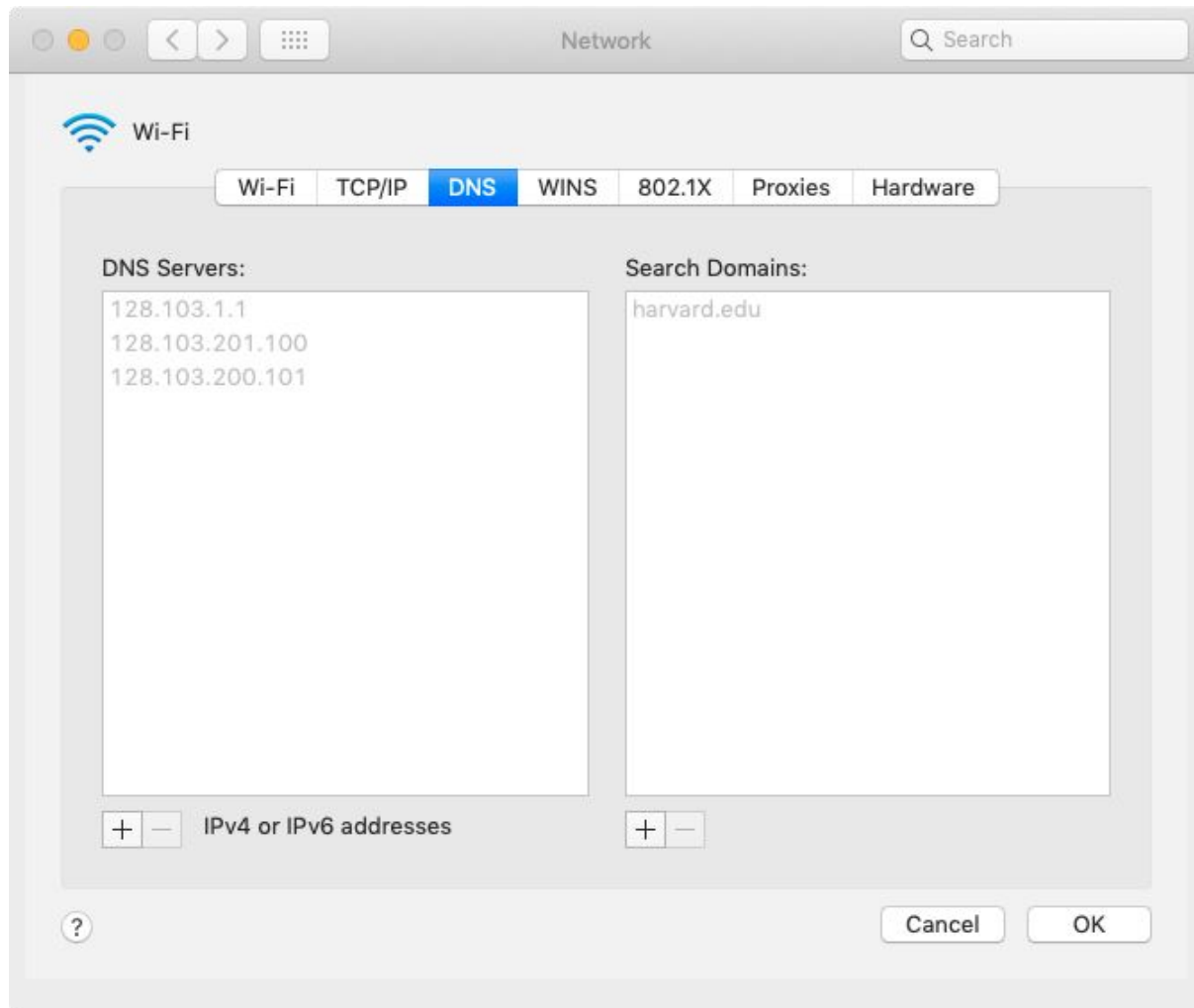


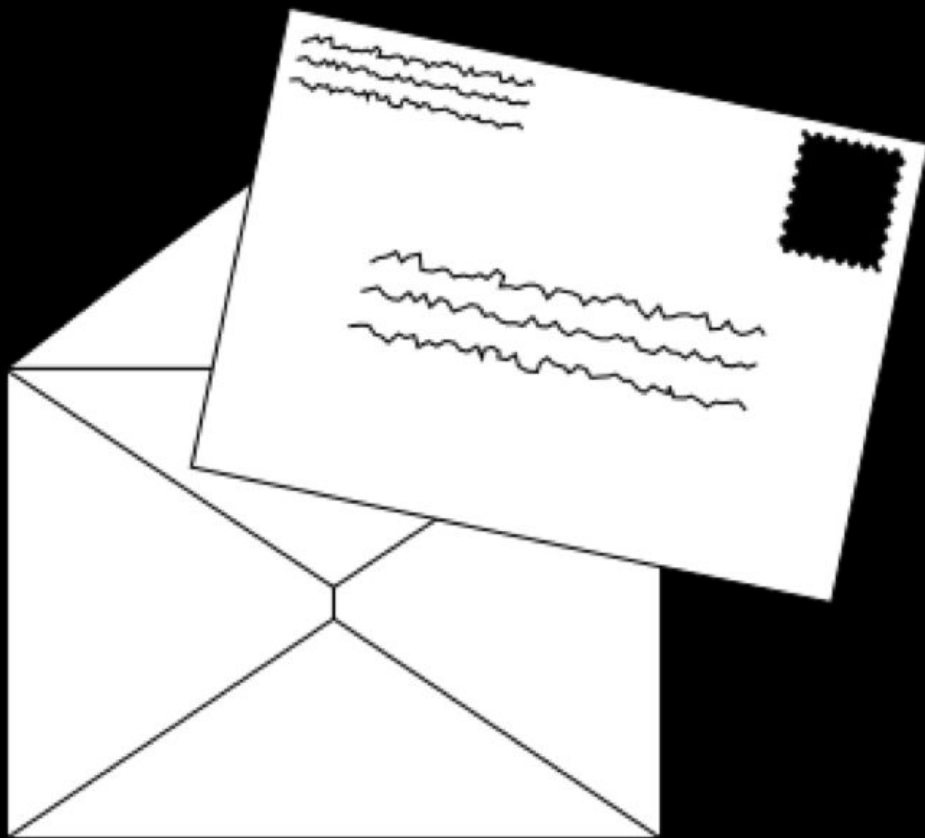
## Wi-Fi

### Properties

SSID:	MayakobaDDWRT_EXT2
Protocol:	802.11n
Security type:	WPA2-Personal
Network band:	2.4 GHz
Network channel:	5
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Manufacturer:	Marvell Semiconductor, Inc.
Description:	Marvell AVASTAR Wireless-AC Network Controller
Driver version:	15.68.9114.29
Physical address (MAC):	B4-AE-2B-D2-52-16

Copy





<http://www.example.com/>

<http://www.example.com/>

<http://www.example.com/>

<http://www.example.com/>



<http://www.example.com/>

<http://www.example.com/index.html>

<http://www.example.com/>

HTTP

GET / HTTP/1.1

Host: www.example.com

...

GET /index.html HTTP/1.1

Host: www.example.com

...

HTTP/1.1 200 OK

Content-Type: text/html

...

GET / HTTP/2

Host: www.example.com

...



HTTP/2 200

Content-Type: text/html

...

<http://harvard.edu/>

GET / HTTP/1.1

Host: harvard.edu

...

HTTP/1.1 301 Moved Permanently  
Location: <https://www.harvard.edu/>  
...

HTTP/1.1 404 Not Found  
Content-Type: text/html

...

- 200 OK
- 301 Moved Permanently
- 302 Found
- 304 Not Modified
- 401 Unauthorized
- 403 Forbidden
- 404 Not Found
- 418 I'm a Teapot
- 500 Internal Server Error
- ...

GET / HTTP/1.1

Host: safetyschool.org

...

GET /search?q=cats HTTP/1.1

Host: www.google.com

...

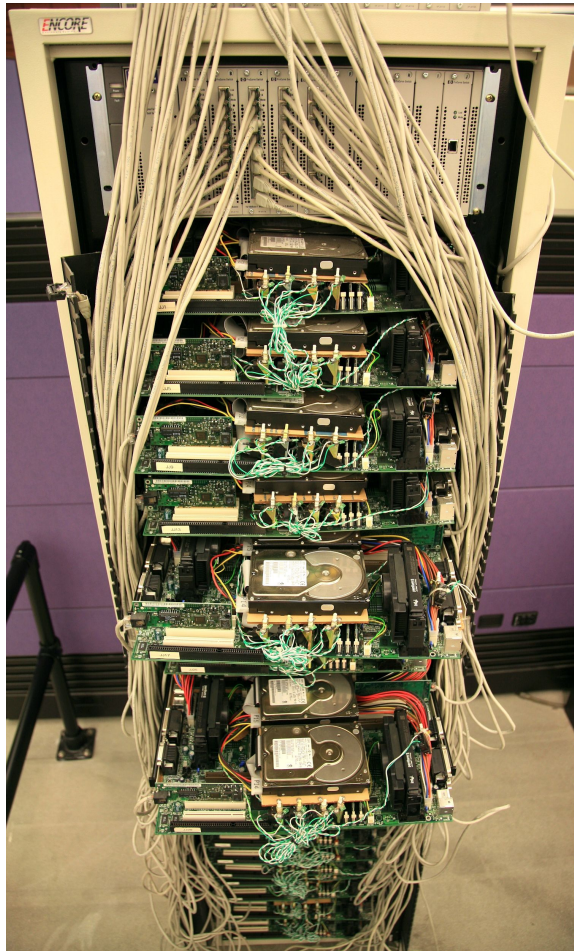


vertical scaling

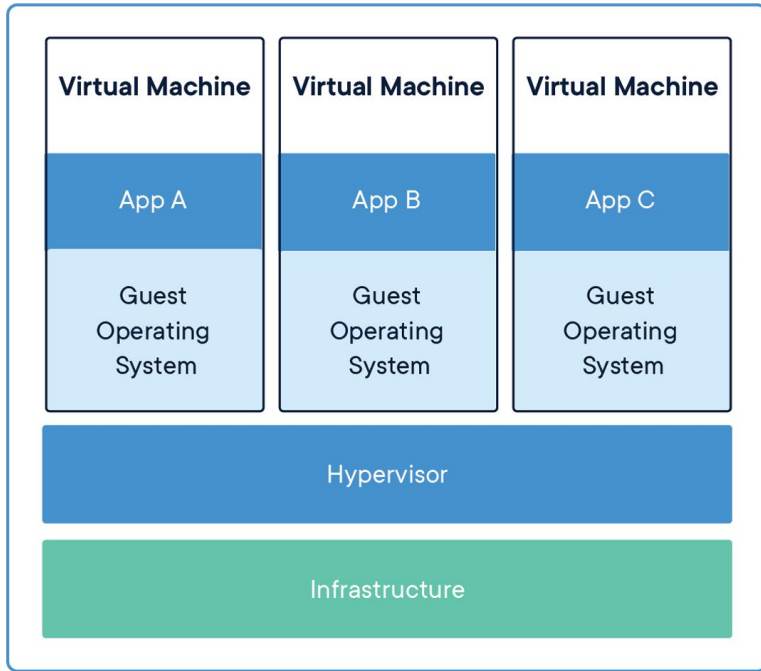




horizontal scaling

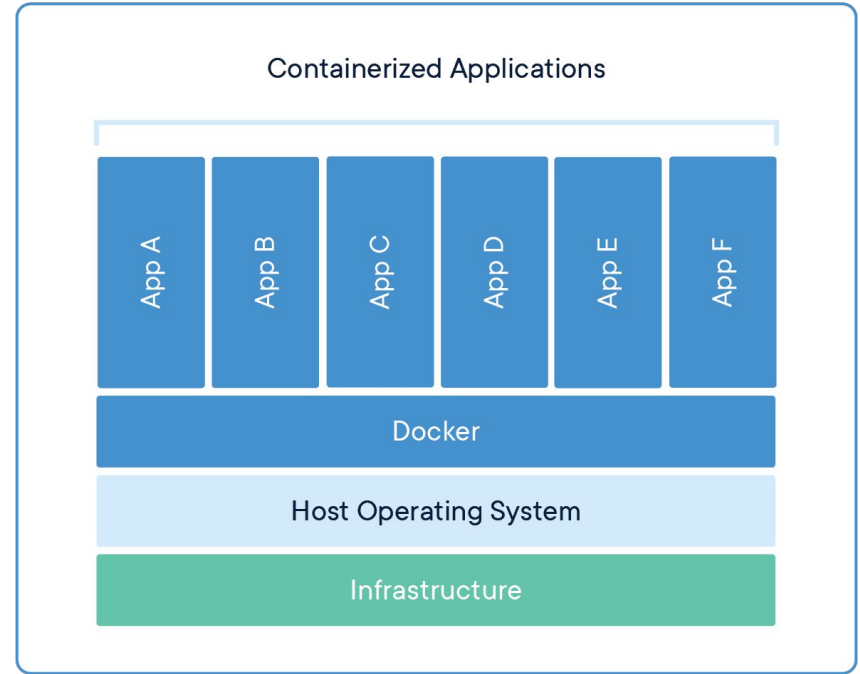


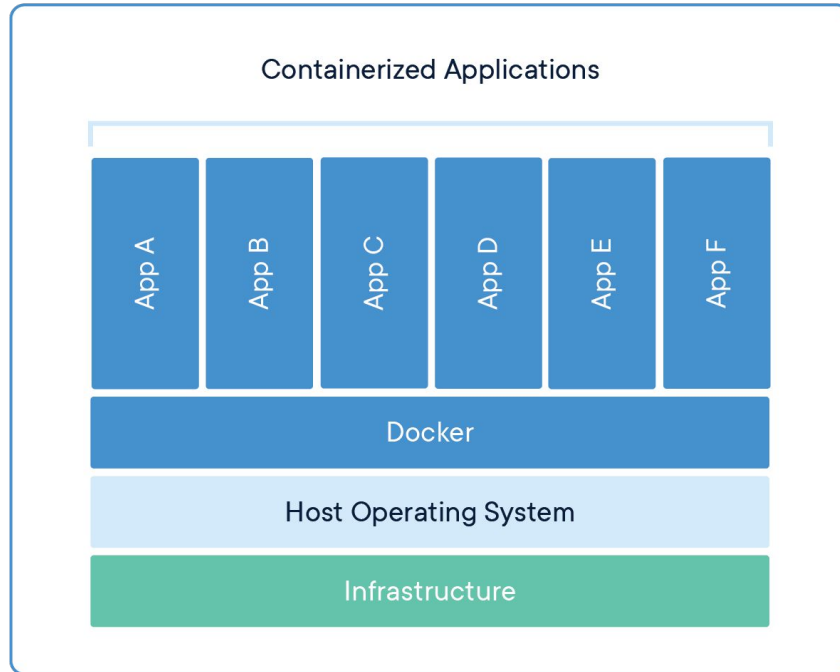
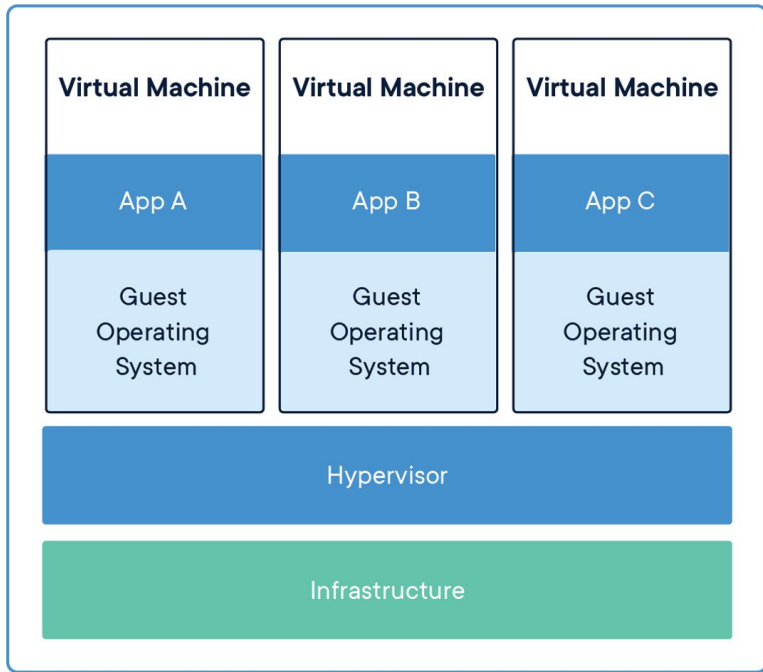
virtualization



containerization







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