

networking

protocols

rules of communication

layers to network stack

https://en.wikipedia.org/wiki/OSI_model

packet switch network

every packet has a destination

HTTP

TCP

IP



http request anatomy

domains mapped to ip addresses
translated via dns routers

dig google.com

run that at the terminal

buying a domain name

google domains
or other places

whois

find out who owns a domain

http headers

golang.org

Appa Backmarks ReCSS Tabs Go Web Util Theology Laithart.com | The Ace of Spades HQ Simple Made Easy

The Go Programming Language

Documents Packages The Project

Try Go

Pop-out

```
// You can edit this code!
// Click here and start typing.
package main

import "fmt"

func main() {
    fmt.Println("Hello, 世界")
}
```

Go is an open source
that makes it easy to
efficient software.

Elements | Network | Sources | Timeline | Profiles | Resources | Audits | Console

View: Options: ☐ Preserve log ☐ Disable cache

Filter

golang.org

style.css

jquery.treeview.css

jquery.min.js

jquery.treeview.js

jquery.treeview.edit.js

playground.js

godocs.js

ytEkHepK0Sc

share.png

frontpage.png

ytEkHepK0Sc

ga.js

Headers Preview Response Cookies Timing

Request Method: GET

Status Code: 200 OK

Response Headers

view source

Alternate-Protocol: 80:quic,p=0

Cache-Control: private

Content-Encoding: gzip

Content-Length: 2988

Content-Type: text/html; charset=utf-8

Date: Mon, 13 Jul 2015 21:56:50 GMT

Server: Google Frontend

Request Headers

view source

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8

Accept-Encoding: gzip, deflate, sdch

Accept-Language: en-US,en;q=0.8

Connection: keep-alive

Cookie: __utma=110886291.646772179.1425735470.1425735470.1425736214.2; __utmc=110886291; __utmz=110886291.1425736214.1.1.1

curl golang.org

```
curl -v golang.org
```

```
curl -I golang.org
```

http

tcp

tcp is the layer below http

tcp

tcp is the layer below http
tcp provides a reliable connection
puts packets in order

wireshark

software that shows you tcp activity

tracert google.com

shows route to a website

distributed systems

we're writing software today
that needs to run on distributed systems

distributed systems

client / server architecture

P-2-P architecture

