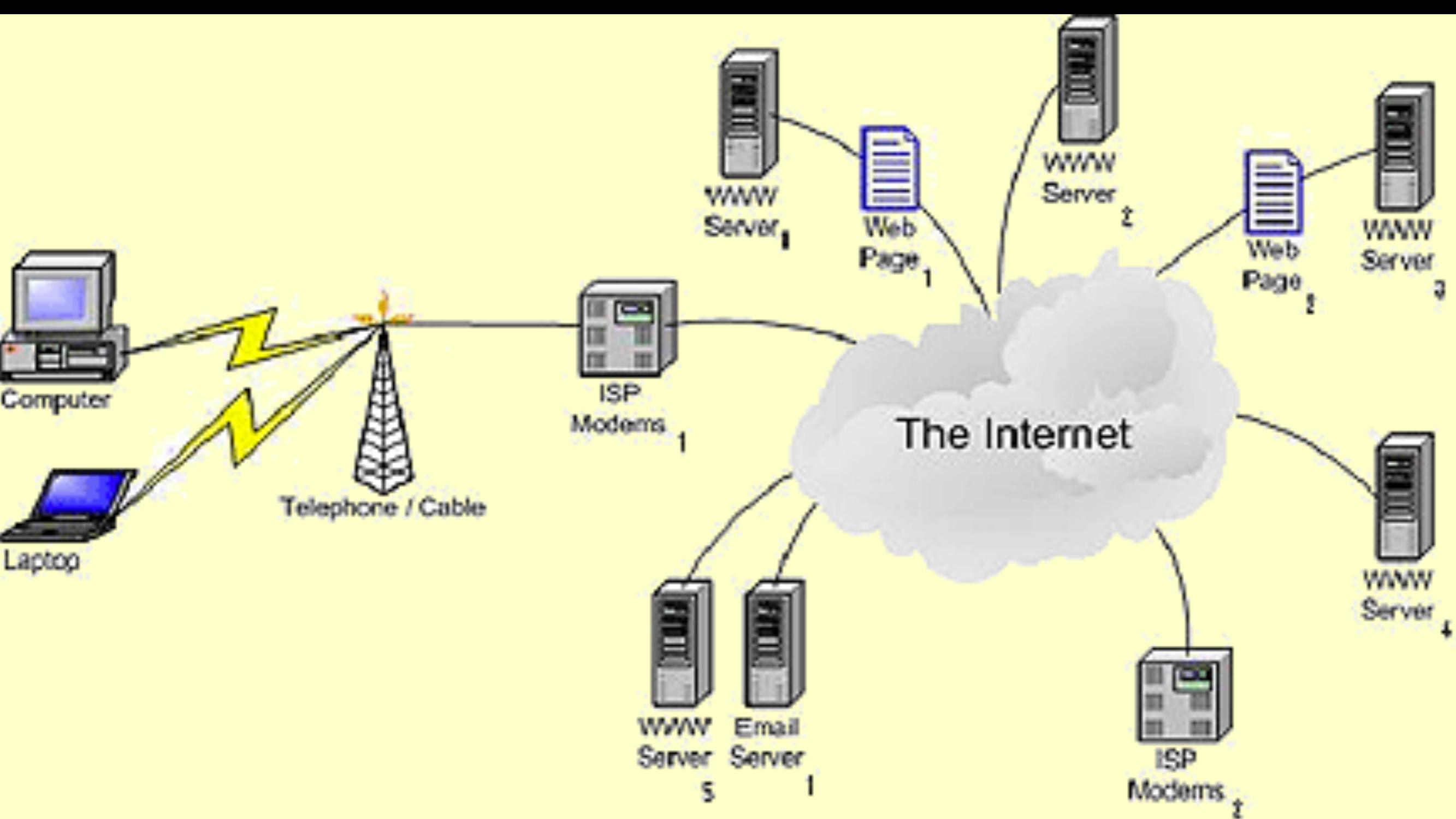
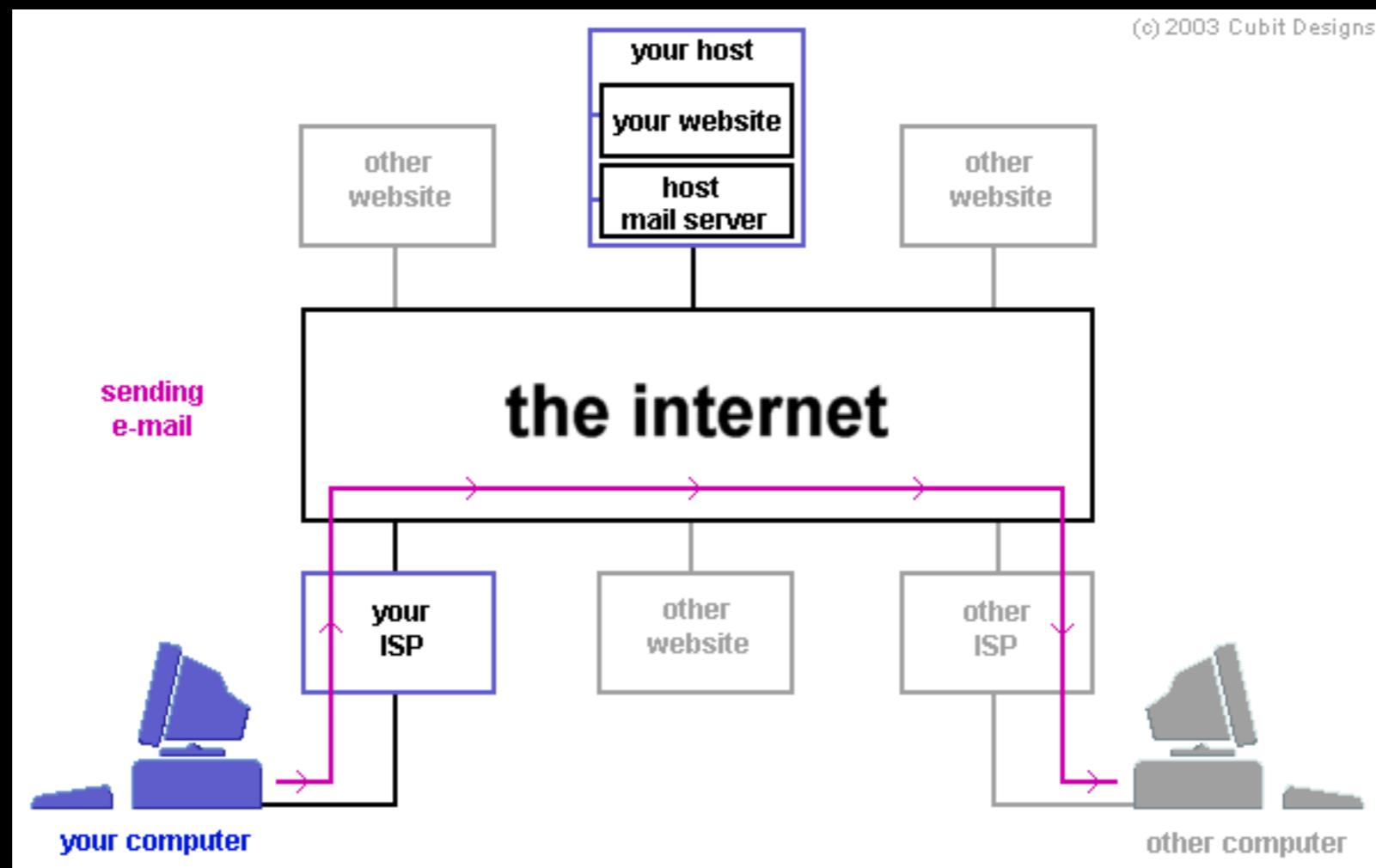
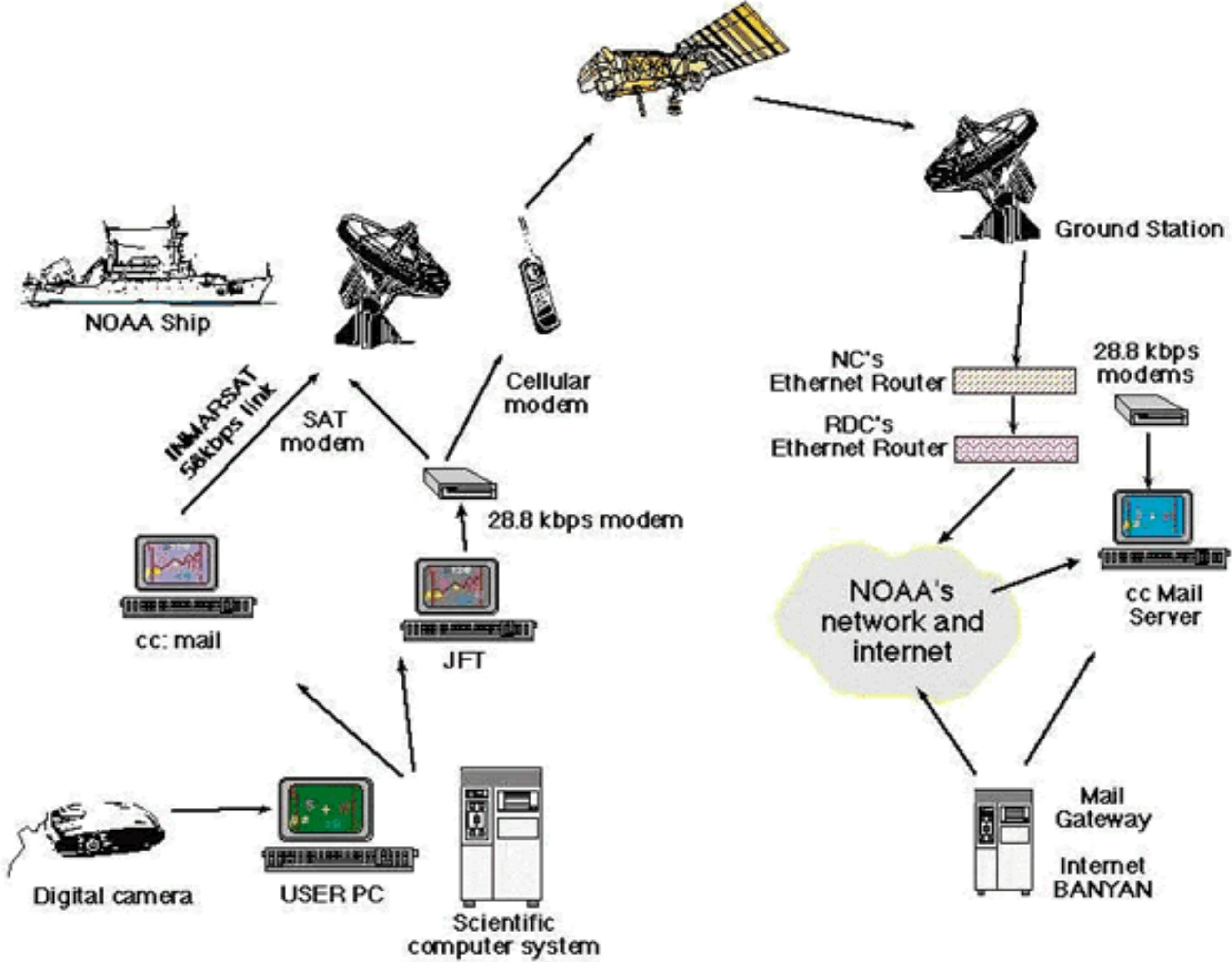


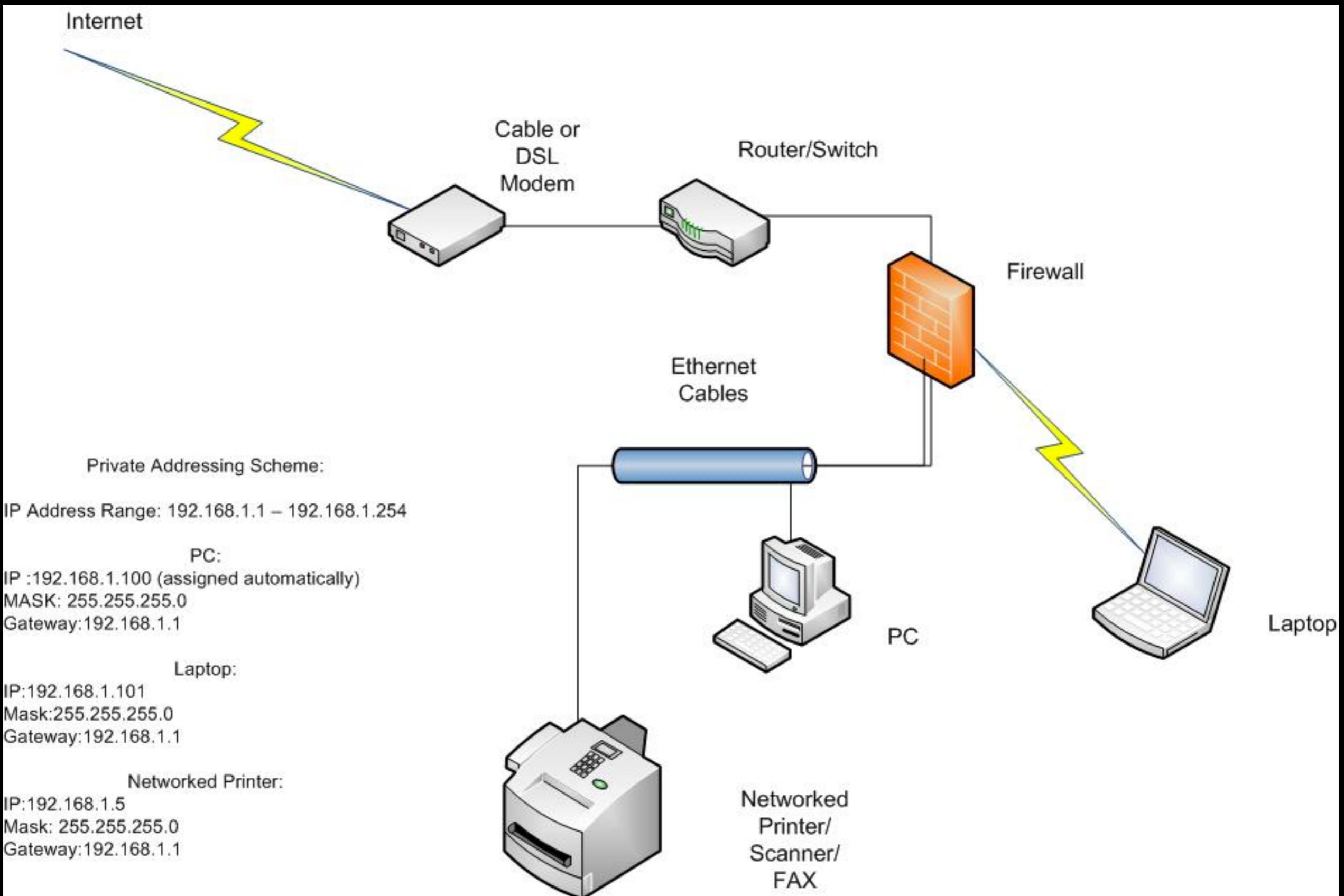
History of The Internet / and What Is It Exactly?

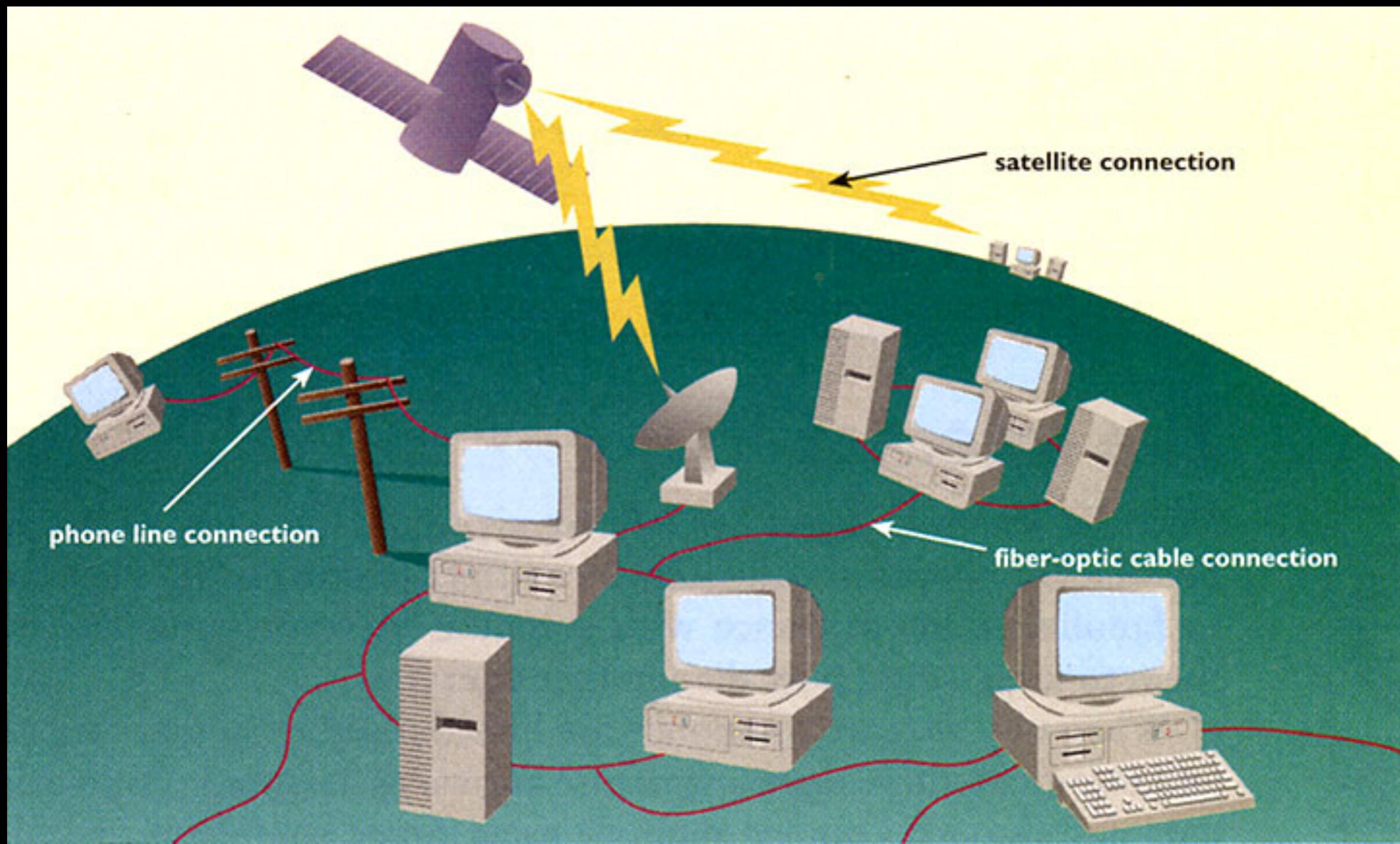


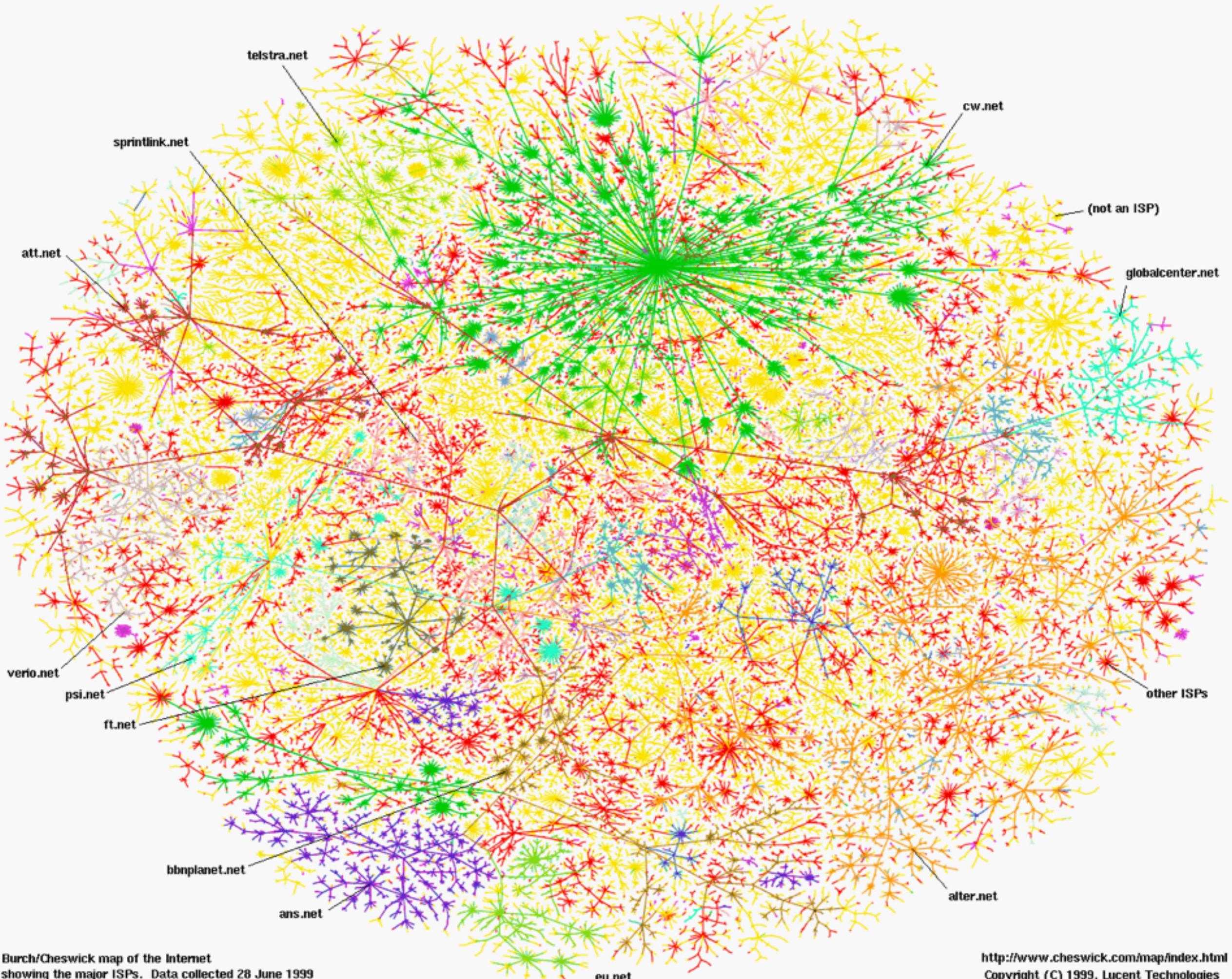
(c) 2003 Cubit Designs

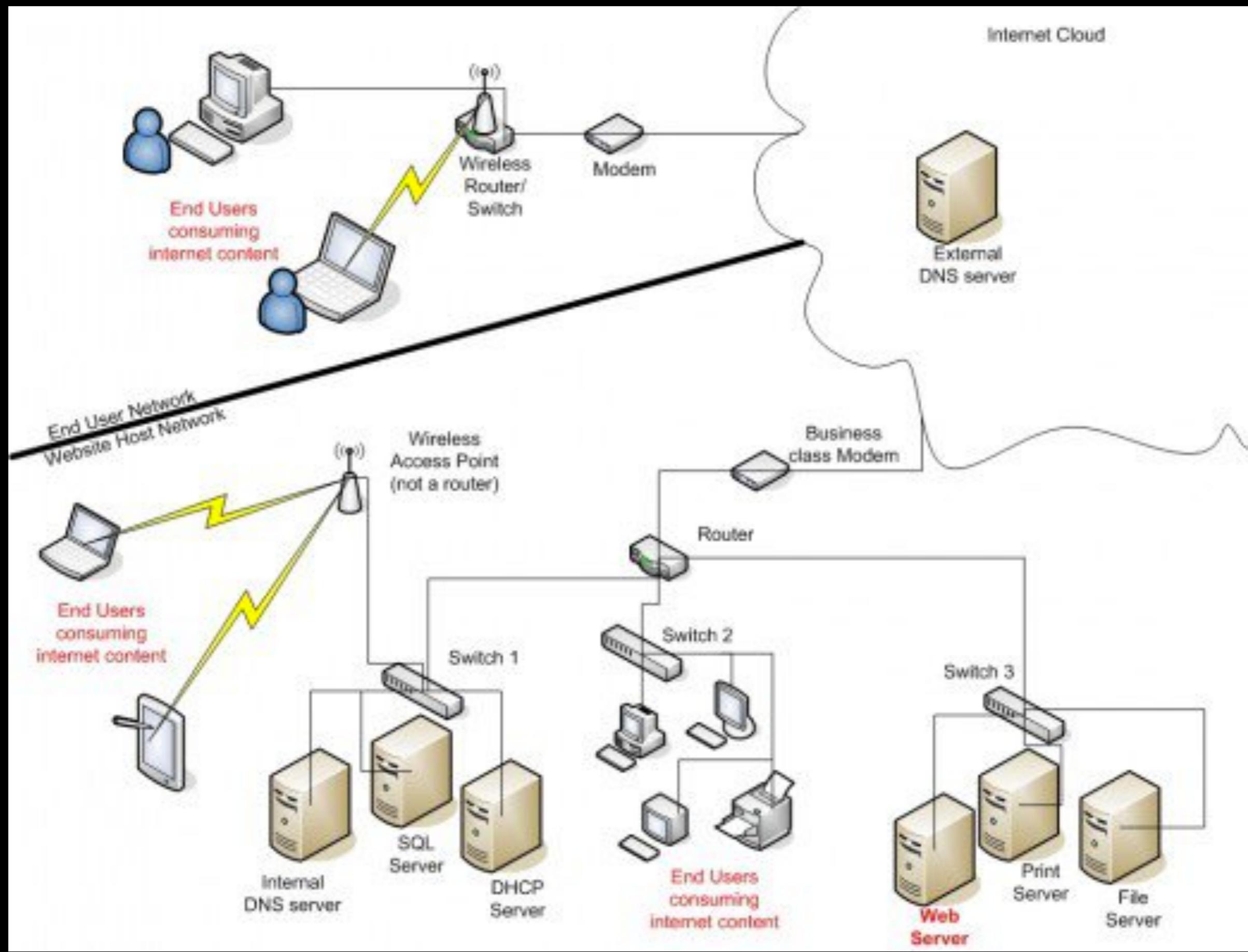












The internet's undersea world

The vast majority of the world's communications are not carried by satellites but an altogether older technology: cables under the earth's oceans. As a ship accidentally wipes out Asia's net access, this map shows how we rely on collections of wires of less than 10cm diameter to link us all together.

Fibre-optic submarine cable systems

In-service

Planned

Damaged

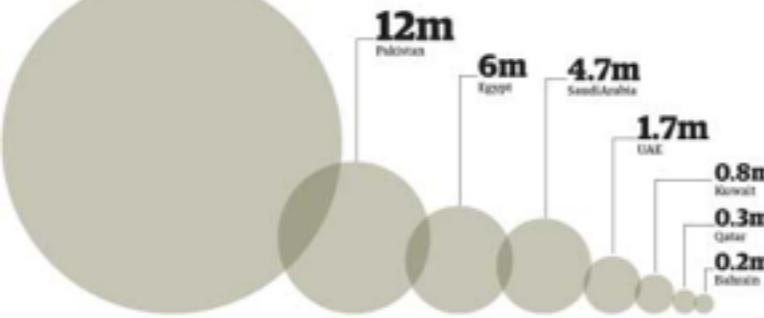
Cables with a minimum capacity of 1 gigabyte a second under construction or awaiting year-end 2007



Internet users affected by the Alexandria accident

The main countries affected in Wednesday's event

60m
India



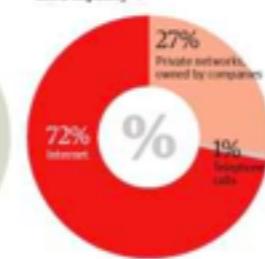
World cable capacity

Submarine cable operators light (from one) capacity on their systems to sell bandwidth to other carriers. Carriers buy extra capacity, mainly to hold in reserve. On the trans-Atlantic route 80% of the bandwidth is purchased, but only 29% is used

Capacity in terabytes a second

Total capacity
7.1 tbps
Purchased capacity
5.7 tbps
Used capacity
2.1 tbps

What makes up "used capacity"?



The longest submarine cables

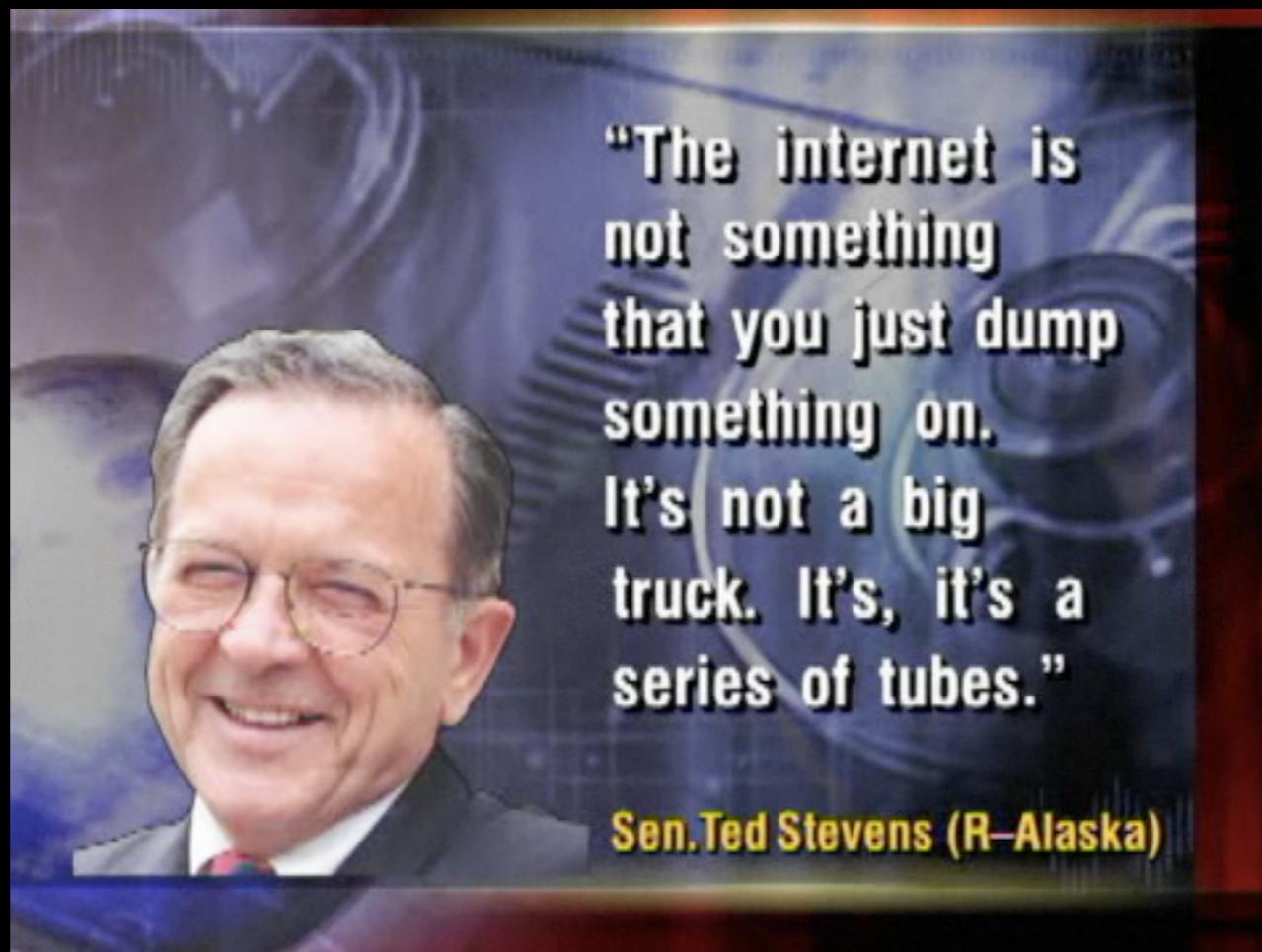
The Seabone-2 system from Norden in Germany to Keijo, South Korea connects 32 different countries with 39 landing points

Seabone-2	39,000 km
Southern Cross	30,500 km
China-US	30,476 km
FLAG Europe-Asia	28,000 km
South America-3	25,000 km

The world's cables in bandwidth

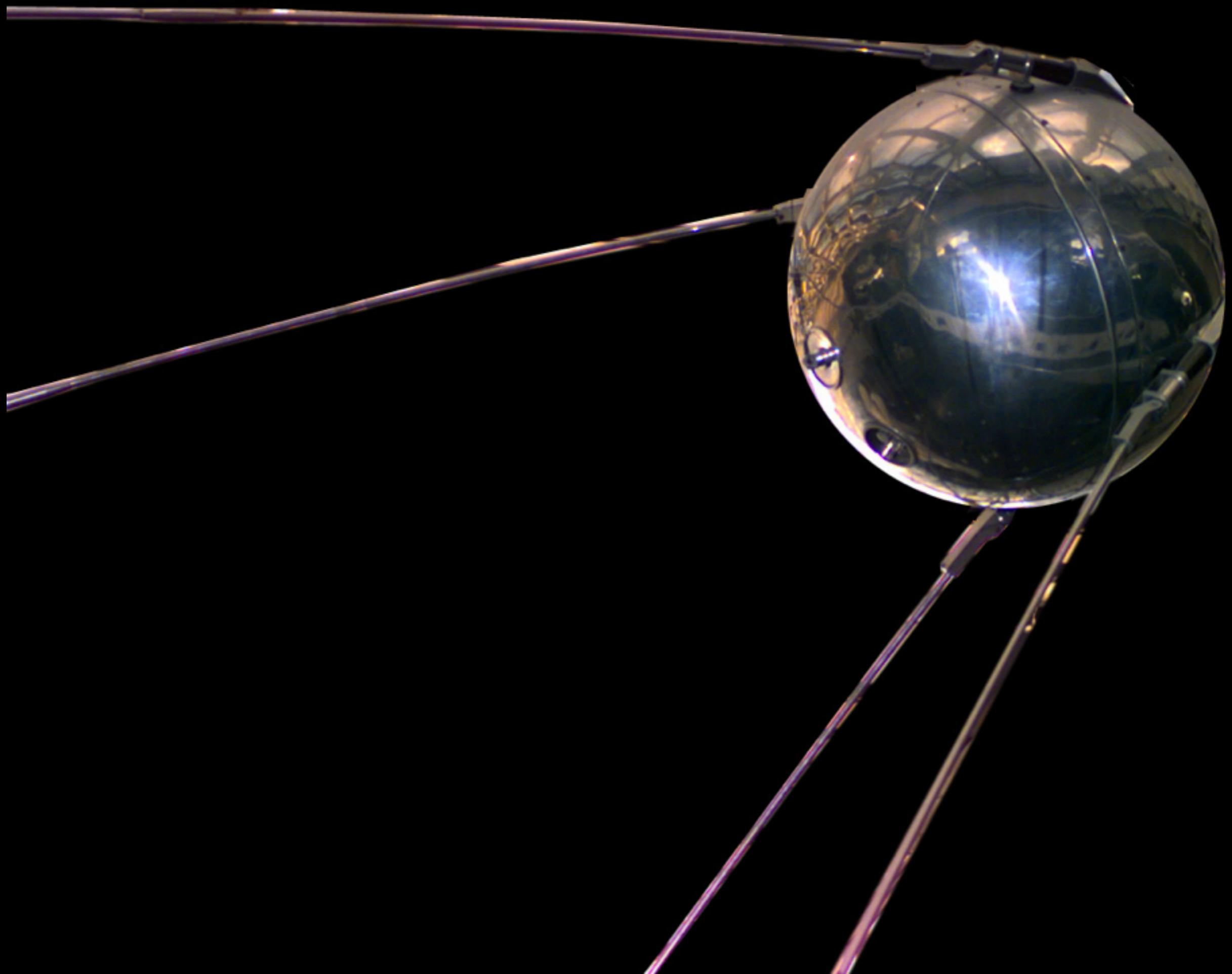
The first inter-continental telephony submarine cable system, TAT-1, connected North America to Europe in 1958 and had an initial capacity of 640,000 bytes per second. Since then, total trans-Atlantic cable capacity has soared to over 2 trillion bps





**"The Internet is
not something
that you just dump
something on.
It's not a big
truck. It's, it's a
series of tubes."**

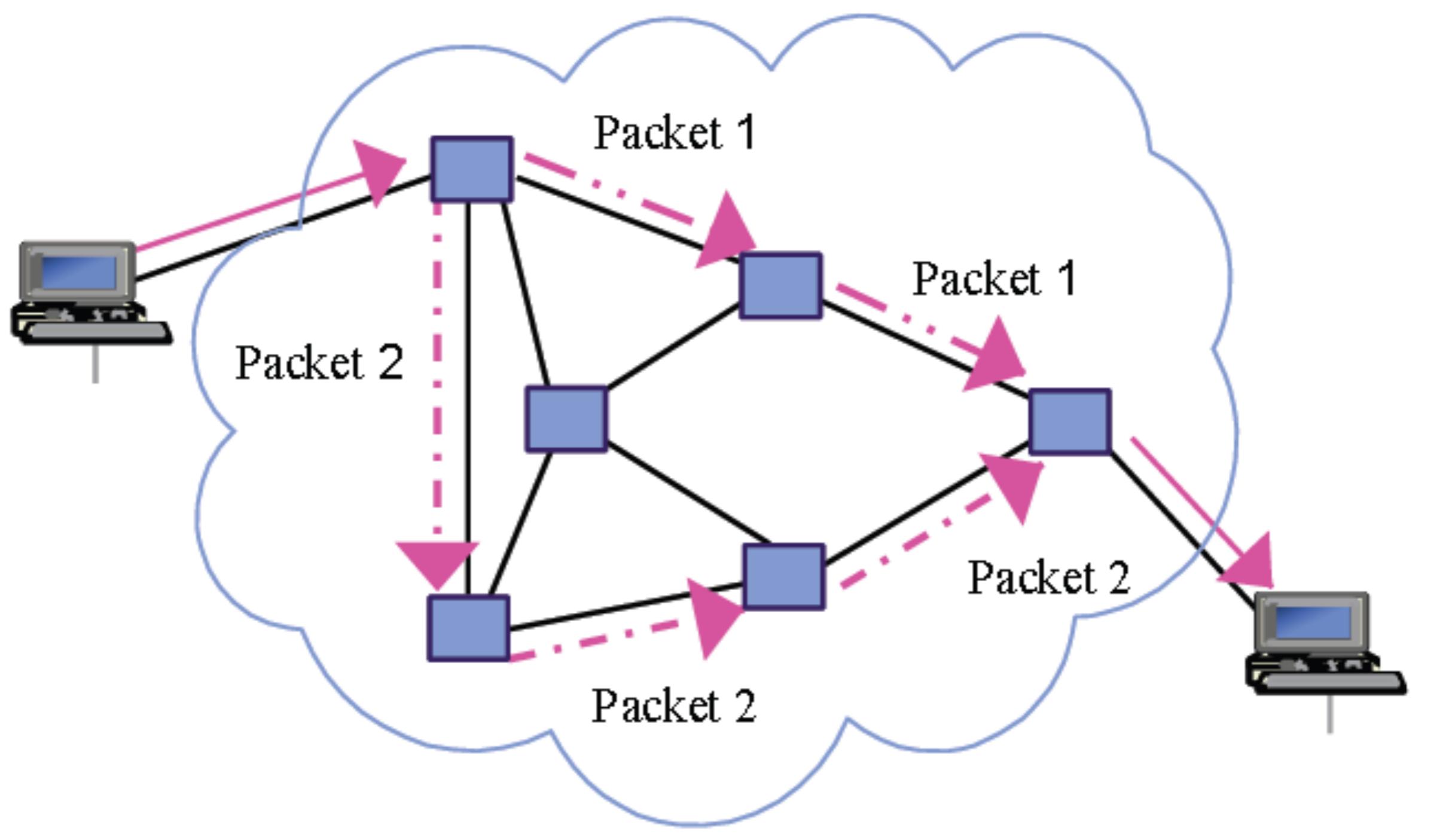
Sen.Ted Stevens (R-Alaska)





ARPANET

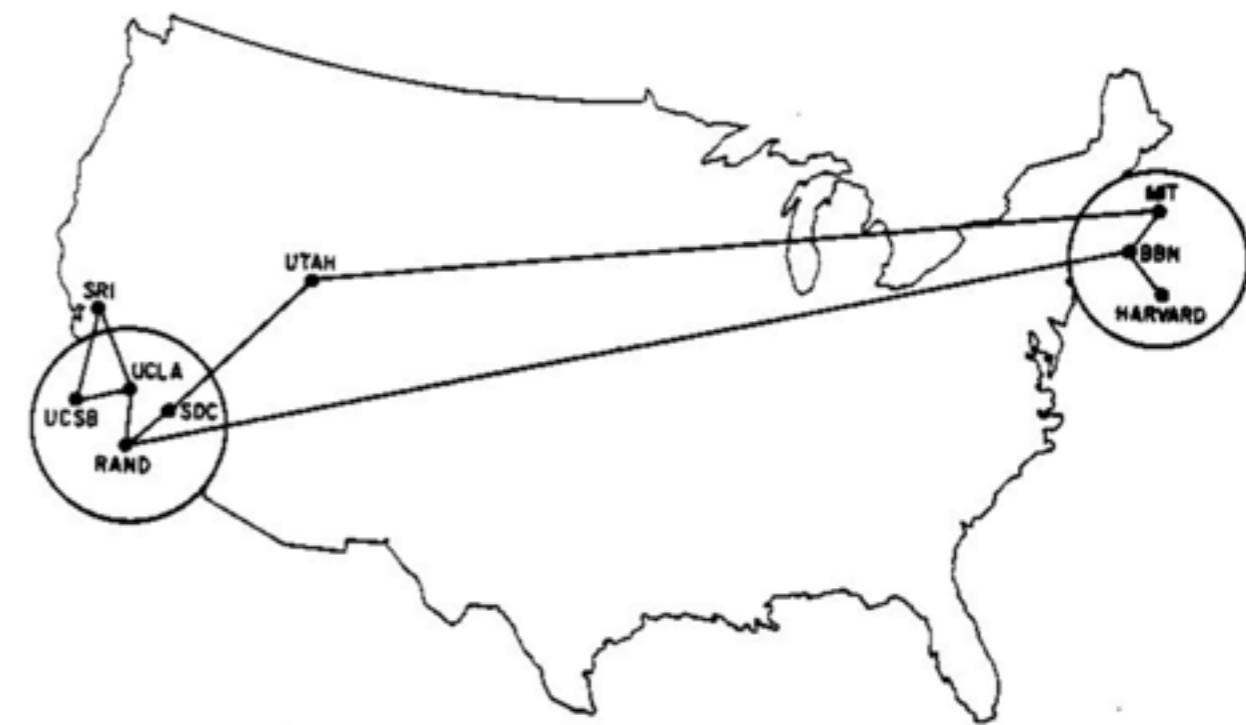




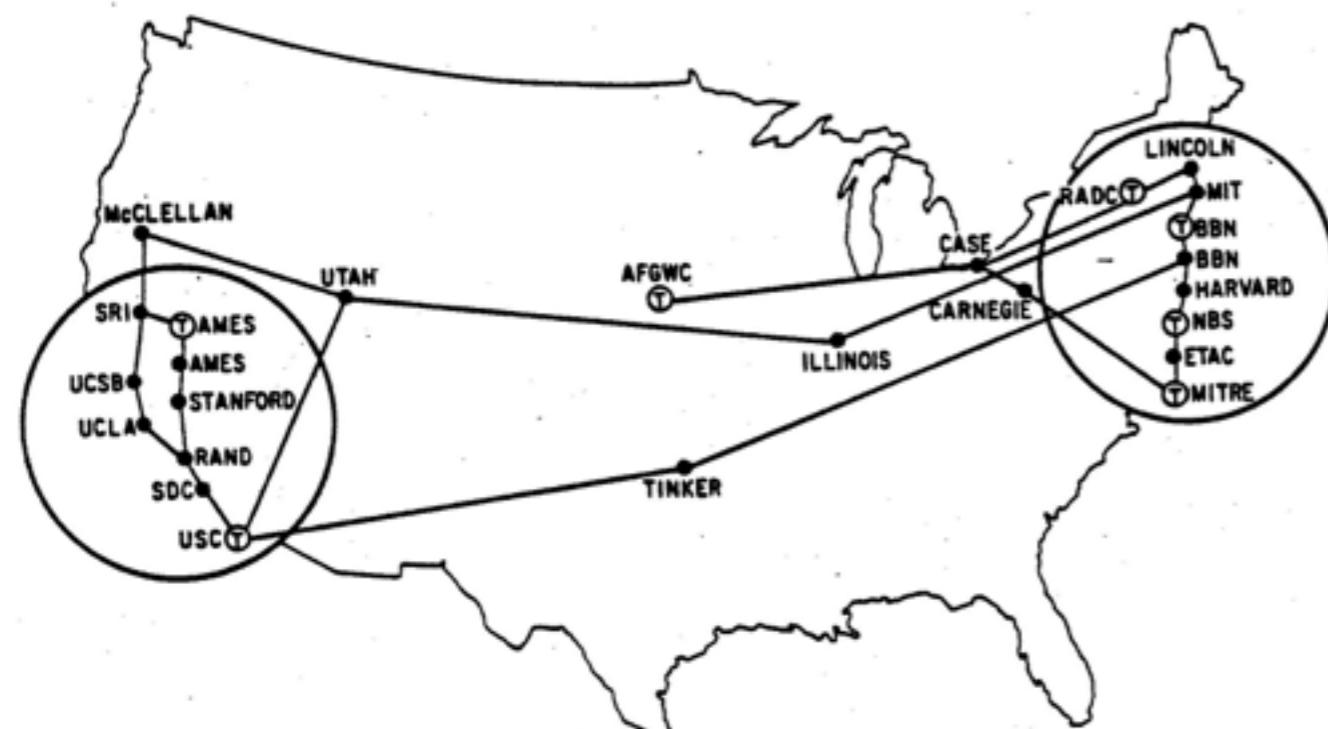
29 OCT 69 2100	LOADED	OP. PROGRAM	(SK)
	EDIR BEN BARKER		
	BBN		
22:30	TALKED TO SRF HOST TO HOST		CSIC
	LEFT OP. PROGRAM	(SIC)	
	RUNNING AFTER SENDING A HOST DEAD MESSAGE TO IMP.		



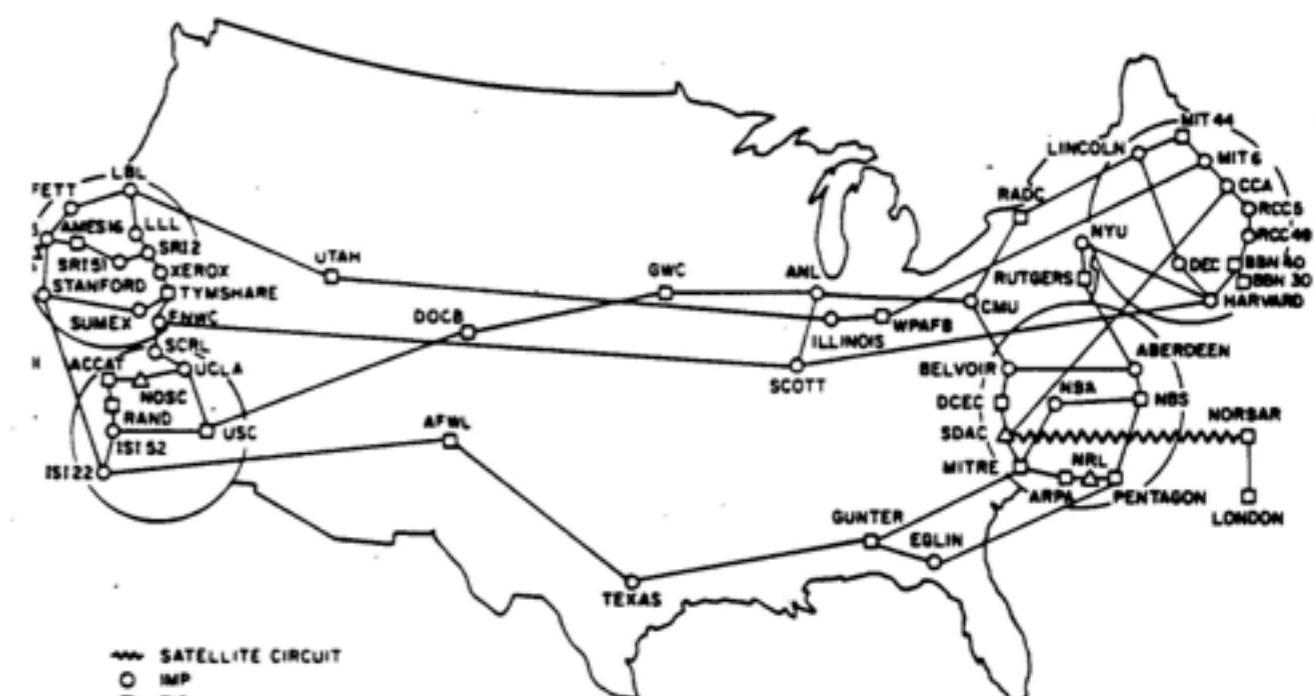
Dezember 1969



Juni 1970



März 1972



— SATELLITE CIRCUIT

- IMP
- TIP
- △ PLURIBUS IMP

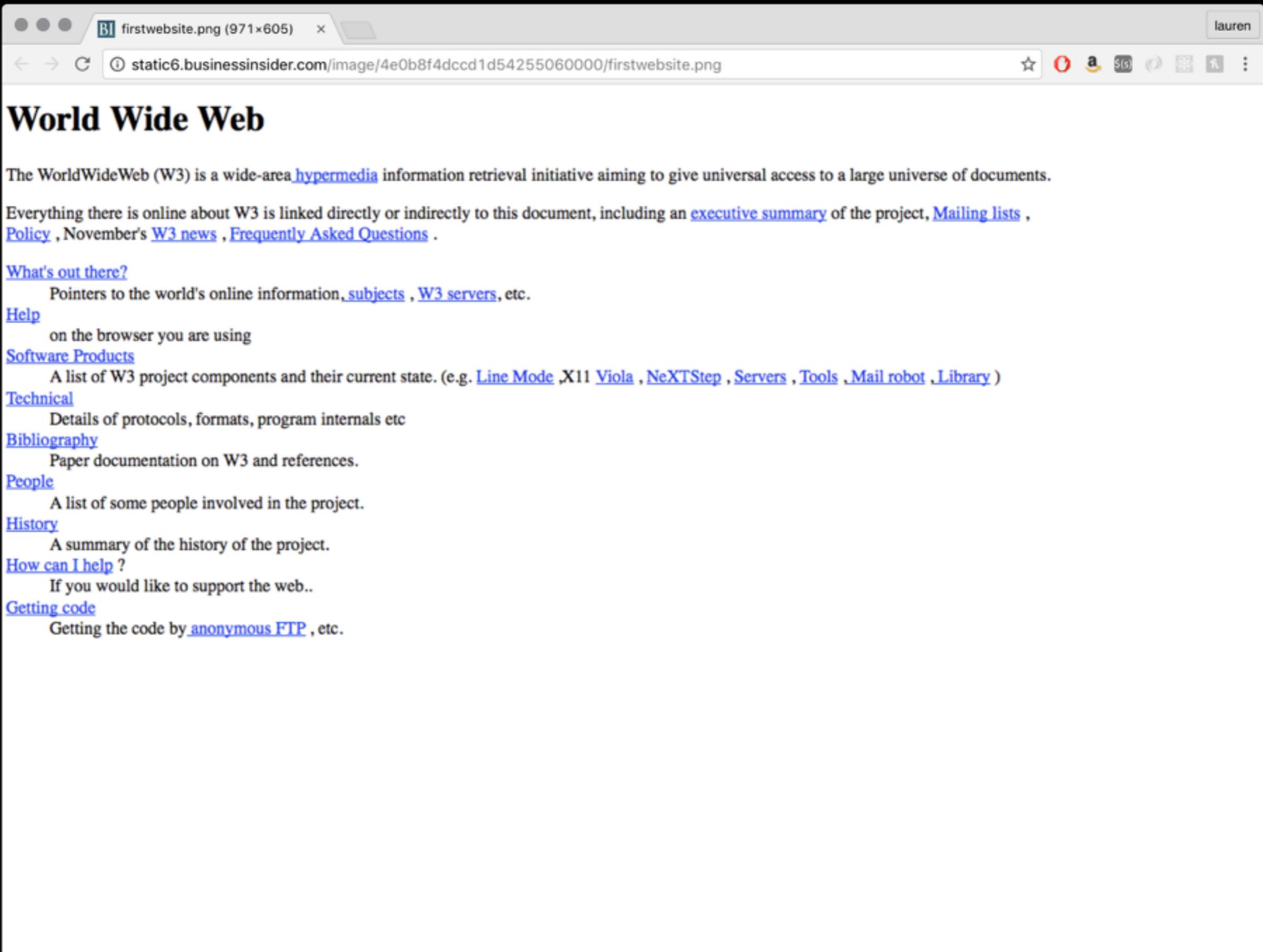
(NOTE: THIS MAP DOES NOT SHOW ARPA'S EXPERIMENTAL
SATELLITE CONNECTIONS)

NAMES SHOWN ARE IMP NAMES, NOT (NECESSARILY) HOST NAMES

Juli 1977



Tim Berners-Lee NeXT Computer, 1991



WORLD WIDE WEB

The WorldWideWeb (W3) is a wide-area hypermedia[1] information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an executive summary[2] of the project, Mailing lists[3] , Policy[4] , November's W3 news[5] , Frequently Asked Questions[6] .

What's out there?[7] Pointers to the world's online information, subjects[8] , W3 servers[9] , etc.

Help[10] on the browser you are using

Software Products[11] A list of W3 project components and their current state. (e.g. Line Mode[12] ,X11 Viola[13] , NeXTStep[14] , Servers[15] , Tools[16] , Mail robot[17] , Library[18])

Technical[19] Details of protocols, formats, program internals etc

<ref.number>, Back, <RETURN> for more, or Help:

eBay - Your Personal Trading Community - Netscape

File Edit View Go Communicator Help

eBay

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- [Dolls, Figures](#) (99138)
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- [Pottery & Glass](#) (991042)
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M Jordan Basketball*From The Restaurant* Pic
Gorgeous Genuine Sapphire 1 Carat Nice Blue
Erica Elz' Omega Constellation Two-Tone Watch

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fun stuff

[cool happenings...](#)
[Joe DiMaggio](#)

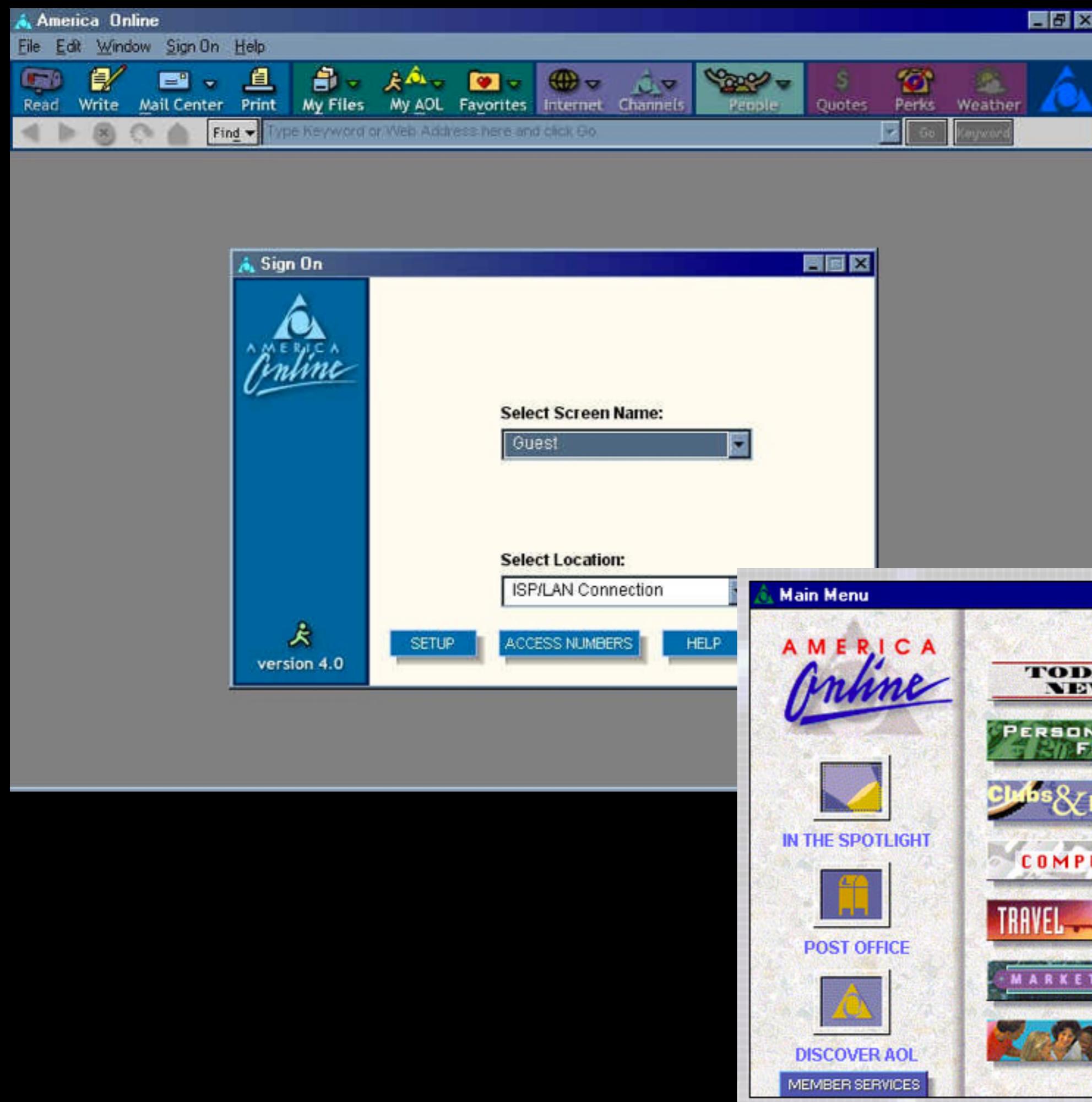
Welcome back Rossie! Bid on items to benefit the [For All Kids Foundation](#).

 Hot off the press - [eBay Magazine](#)! Get your subscription now!

 Go Local! Now you can [search within your region!](#)

stats

3,090,394 items for sale in 2,201 categories now!
Over 1.5 million page views per month!





Search the web using Google!

10 results



Google Search

I'm feeling lucky

Index contains ~25 million pages (soon to be much bigger)

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Welcome to Thefacebook!

[Welcome to Thefacebook]

Thefacebook is an online directory that connects people through social networks at colleges.

We have opened up Thefacebook for popular consumption at **Harvard University**.

You can use Thefacebook to:

- Search for people at your school
- Find out who are in your classes
- Look up your friends' friends
- See a visualization of your social network

To get started, click below to register. If you have already registered, click [here](#) to log in.

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twitter

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What are you doing? Characters available: 140

[Update](#)

IM is down at the moment. We're working on restoring it. Thanks for your patience!

[Archive](#) [Recent](#)

What You And Your Friends Are Doing

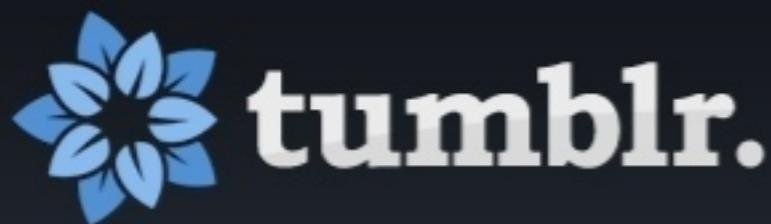
 [Kierstenster](#) isn't sure she wants to move in with Liz and Alana. She will miss Babar, Niki, and some more Babar. [39 minutes ago](#) from web

 [carolliline](#) just did a great call with Lloyd Alter for my green marketing story! [about 2 hours ago](#) from [twitternific](#)

 [aprilini](#) I'm back at the office. Yeah, that's right. You heard me. Working. What an idea. I didn't say I was happy about it. [about 2 hours ago](#) from web

 [marshallk](#) watching Natalie Del Conte's Textra.Podshow.com - it's ok. Anybody else able to point me to their favorite video blogs? [about 5 hours ago](#) from web

Welcome back, [Blake Robinson](#)
Currently: Is back in NOLA and ready looking to move.
6 Direct Messages
0 Favorites
4 Friends
4 Followers
29 Updates
Send Notifications To:
C im C phone C web-only
Find by name, email, phor 

[factoryjoe.tumblr.com](#) «

[Log out](#) «

[Help](#) «

[Dashboard](#)

[Feeds](#)

[Settings](#)

[Goodies](#)

Add a new...



[Text](#)



[Photo](#)



[Quote](#)



[Link](#)



[Chat](#)



[Video](#)

"80% of success is showing up."

— Woody Allen



[factoryjoe](#)

[Change my photo](#)

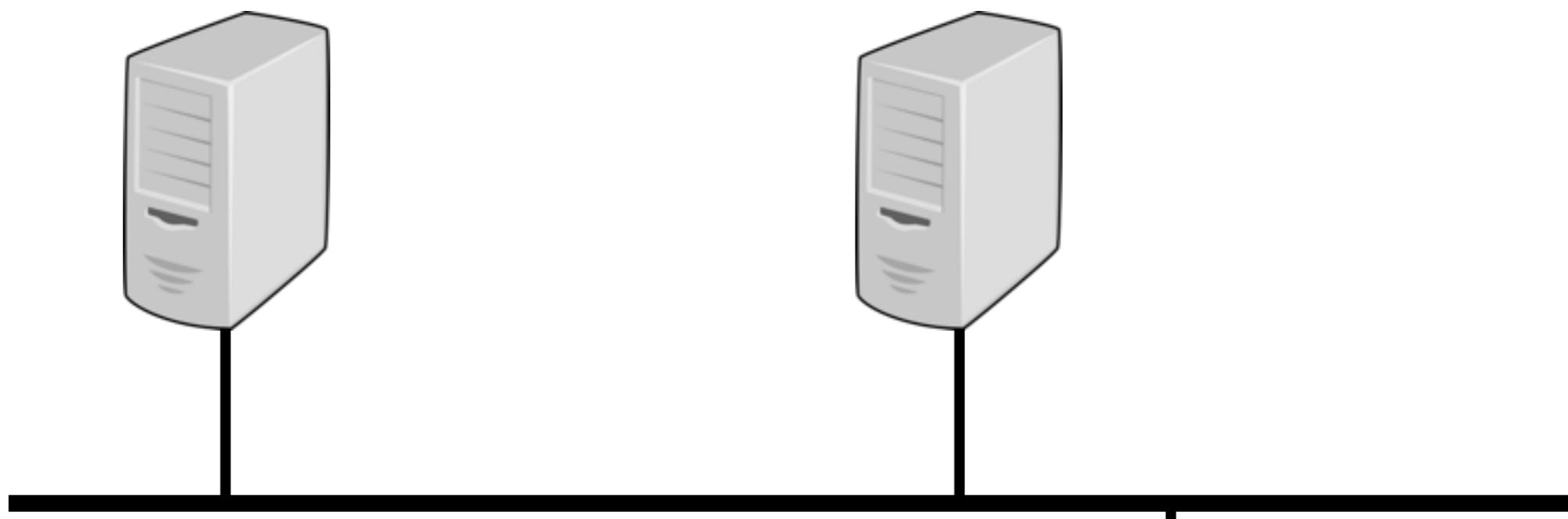
"Hybrid apps are no longer the future—they're now."

— [Brent Simmons](#)

[Twitter] Just realized how ineffective a

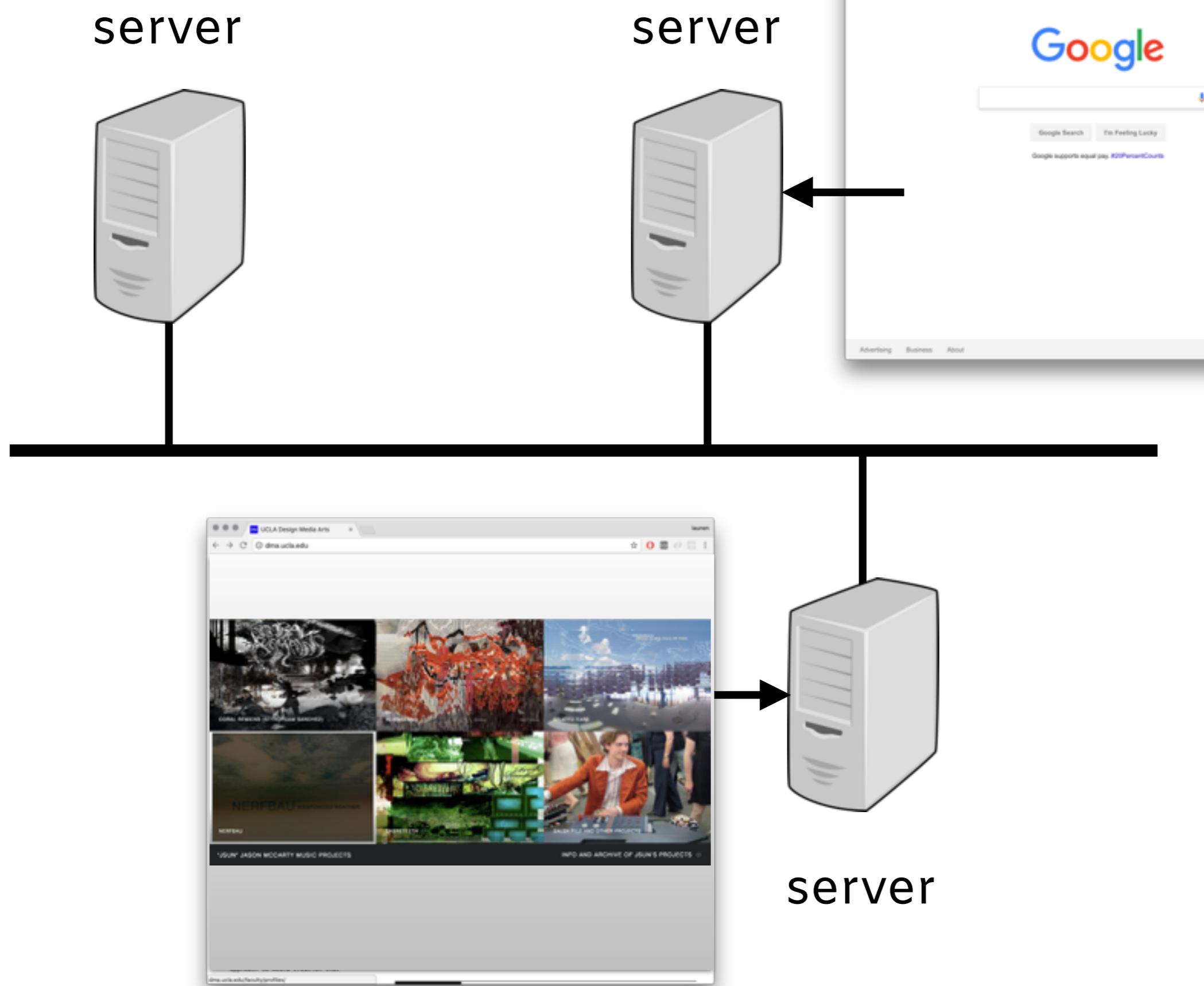
The image shows a composite of two screenshots. The top screenshot is from a Tumblr dashboard. It features a dark header with the 'tumblr.' logo and navigation links for Dashboard, Feeds, Settings, and Goodies. Below the header is a section titled 'Add a new...' with six buttons: Text, Photo, Quote, Link, Chat, and Video. Two posts are visible: one by 'factoryjoe' with a quote from Woody Allen, and another by 'kevin' with a quote from Brent Simmons. The bottom screenshot is from an Instagram feed. It shows a grid of photos under the heading 'Popular'. On the left, there's a post by 'bill' from 'Philz Coffee' showing an outdoor cafe scene. On the right, there's a profile for 'Kevin Systrom' with 337 photos, 54 followers, and 61 following. A large, semi-transparent Instagram interface is overlaid on the bottom half of the image, obscuring some of the Tumblr content.

server

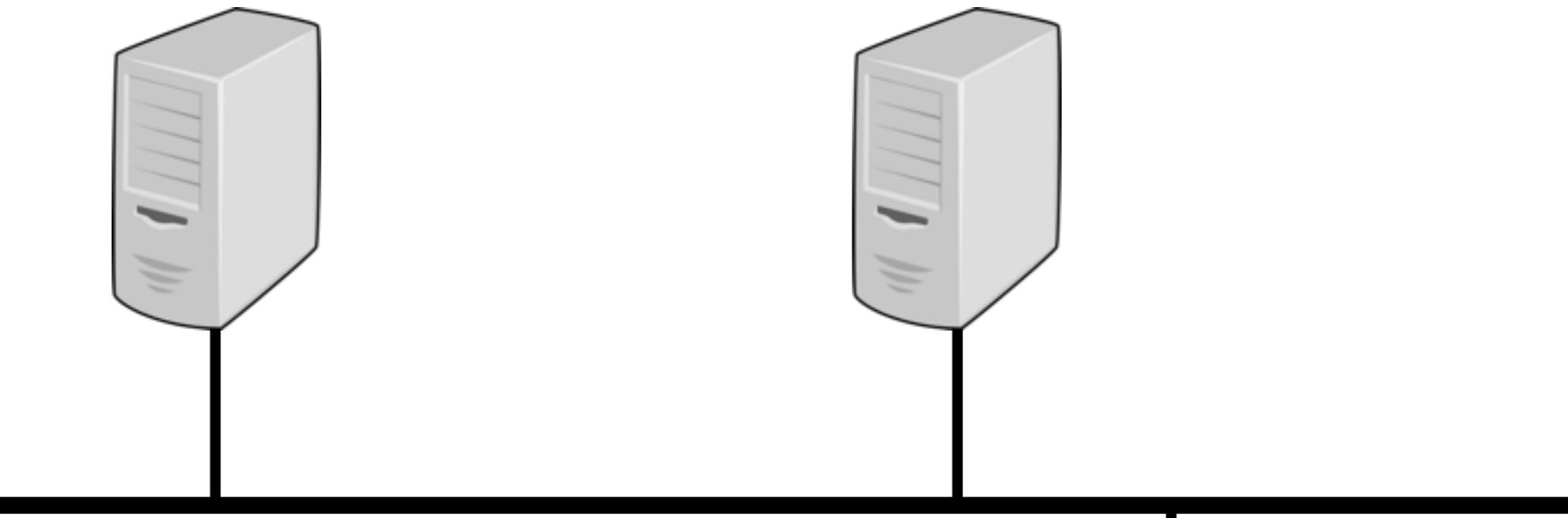


server

server



72.14.205.100
google.com



209.191.88.254
yahoo.com

69.63.176.140
facebook.com

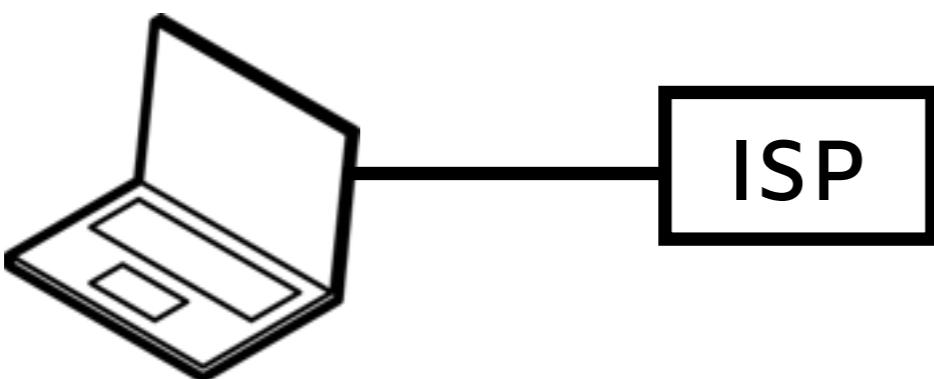
72.14.205.100

google.com



209.191.88.254

yahoo.com



client

69.63.176.140

facebook.com



72.14.205.100

google.com



209.191.88.254

yahoo.com



client

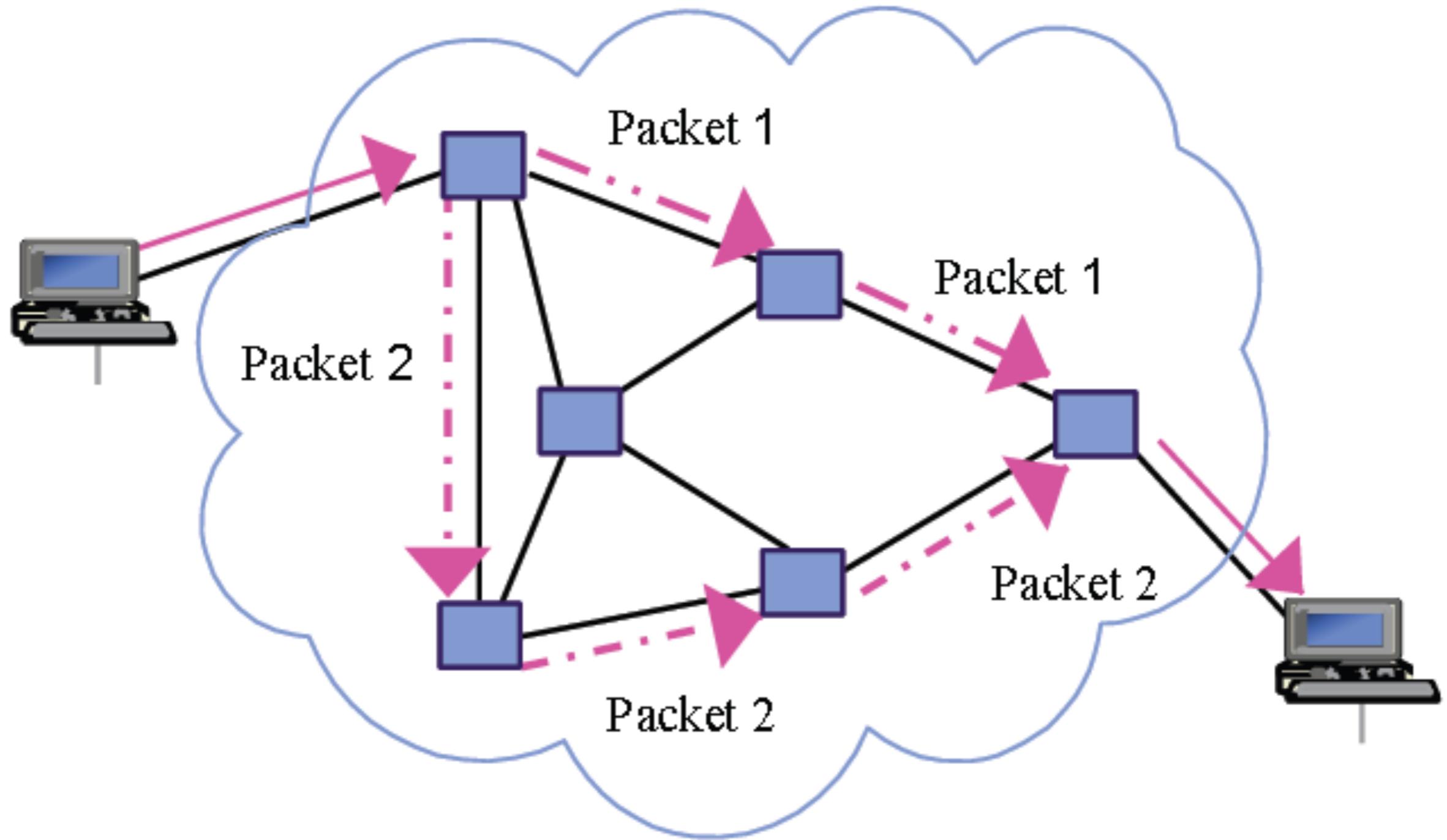
ISP



69.63.176.140

facebook.com





72.14.205.100

google.com



209.191.88.254

yahoo.com



client

ISP

69.63.176.140

facebook.com



URL =
protocol + server + (path) + (filename)

HTTP vs HTTPS

<https://sidewaysdictionary.com/#/term/secure-socket-layer>

.com

.org

.edu

.net

.gov

.info

etc

.com

.us

.org

.uk

.edu

.de

.net

.au

.gov

.jp

.info

.fr

etc

etc

.com

.us

.xyz

.org

.uk

.beer

.edu

.de

.lgbt

.net

.au

.ninja

.gov

.jp

.pizza

.info

.fr

.guru

etc

etc

etc

hypermedia

many-to-many
networking

database

live / time-shifted

location / device-
independent