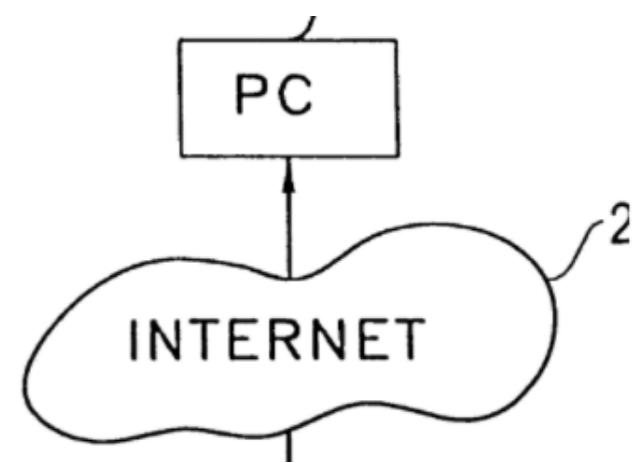
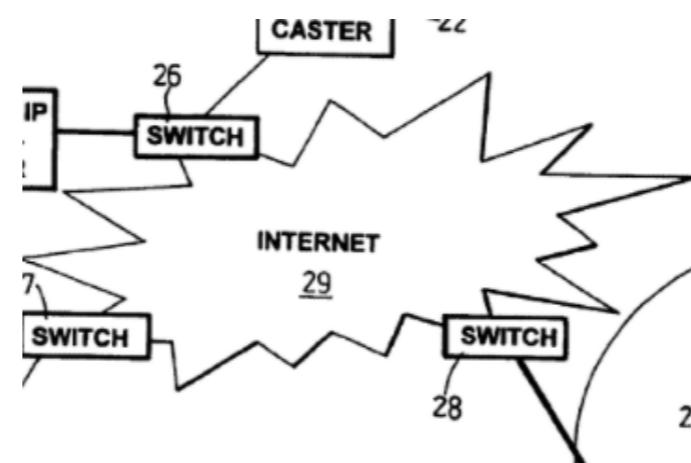
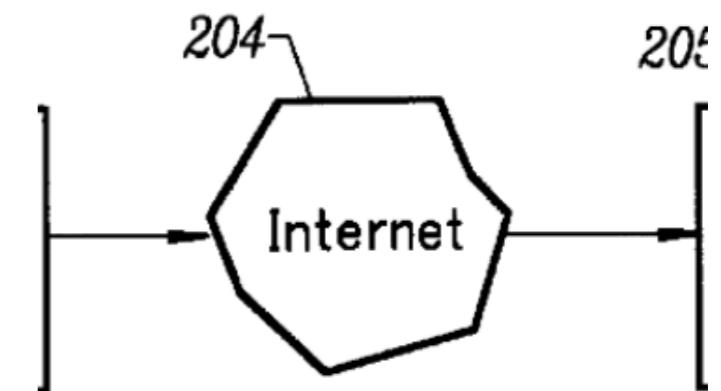
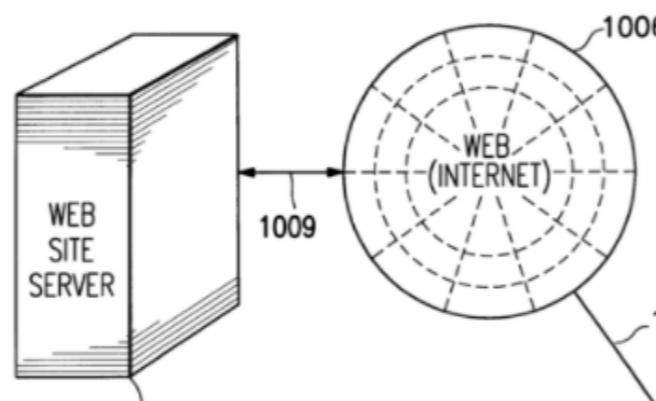
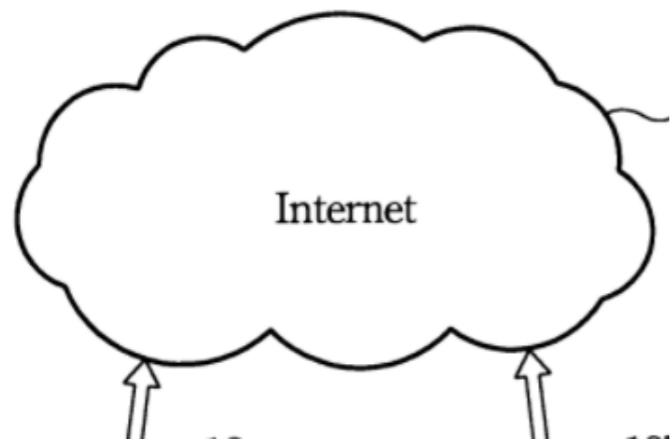
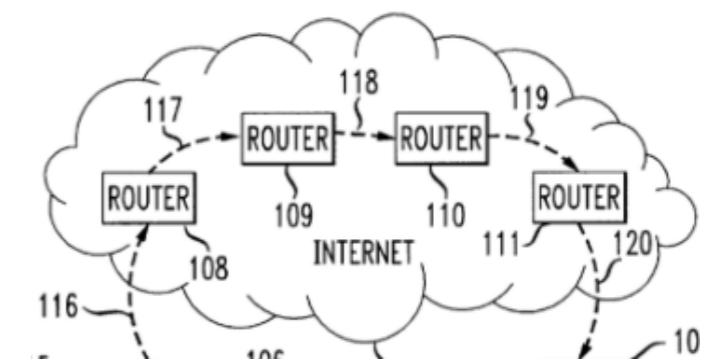


FIG. 1



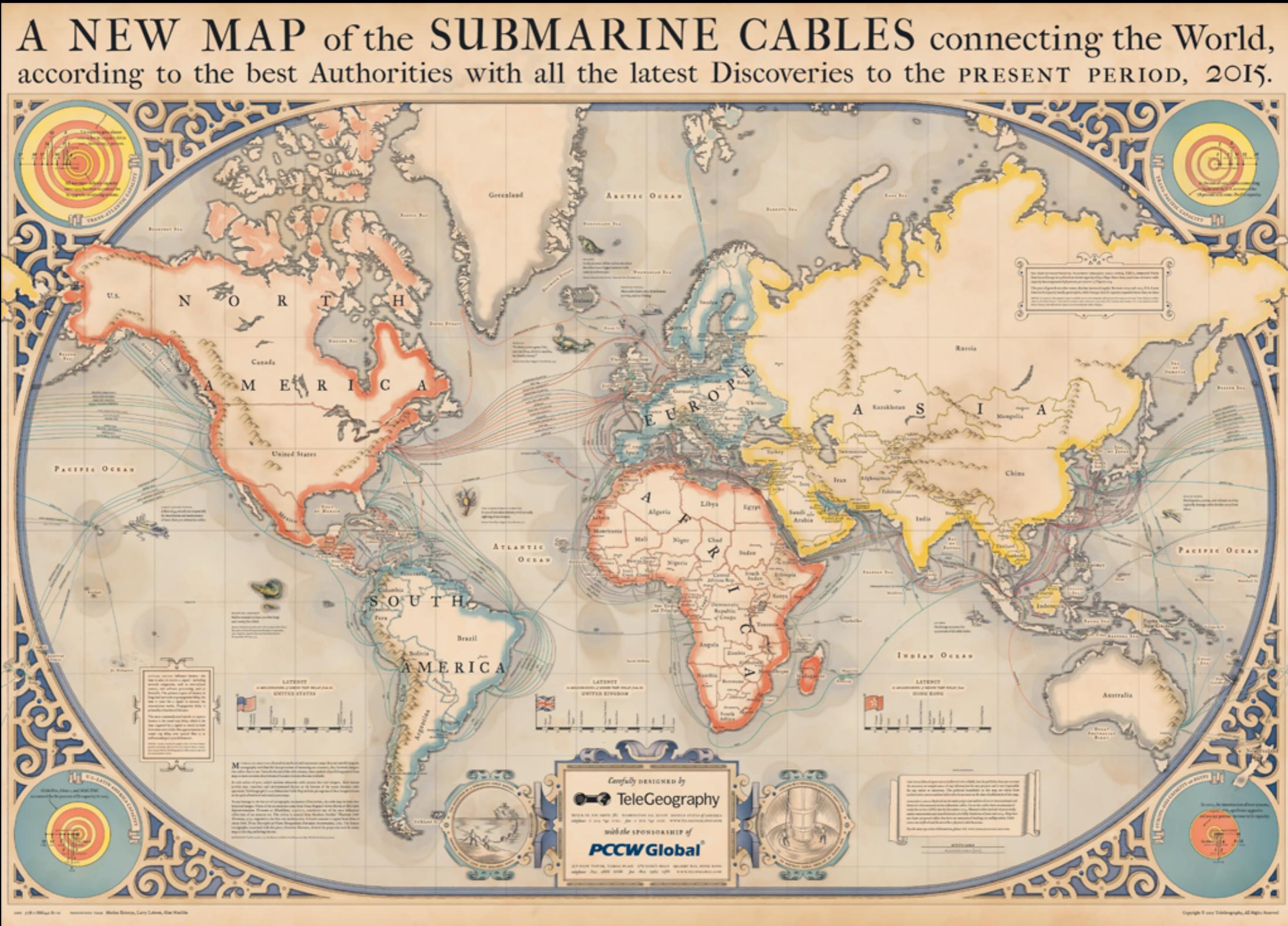
January 18, 2019

A History of the Internet

Laurel Schwulst
Art369b: Interactive Design and the Internet

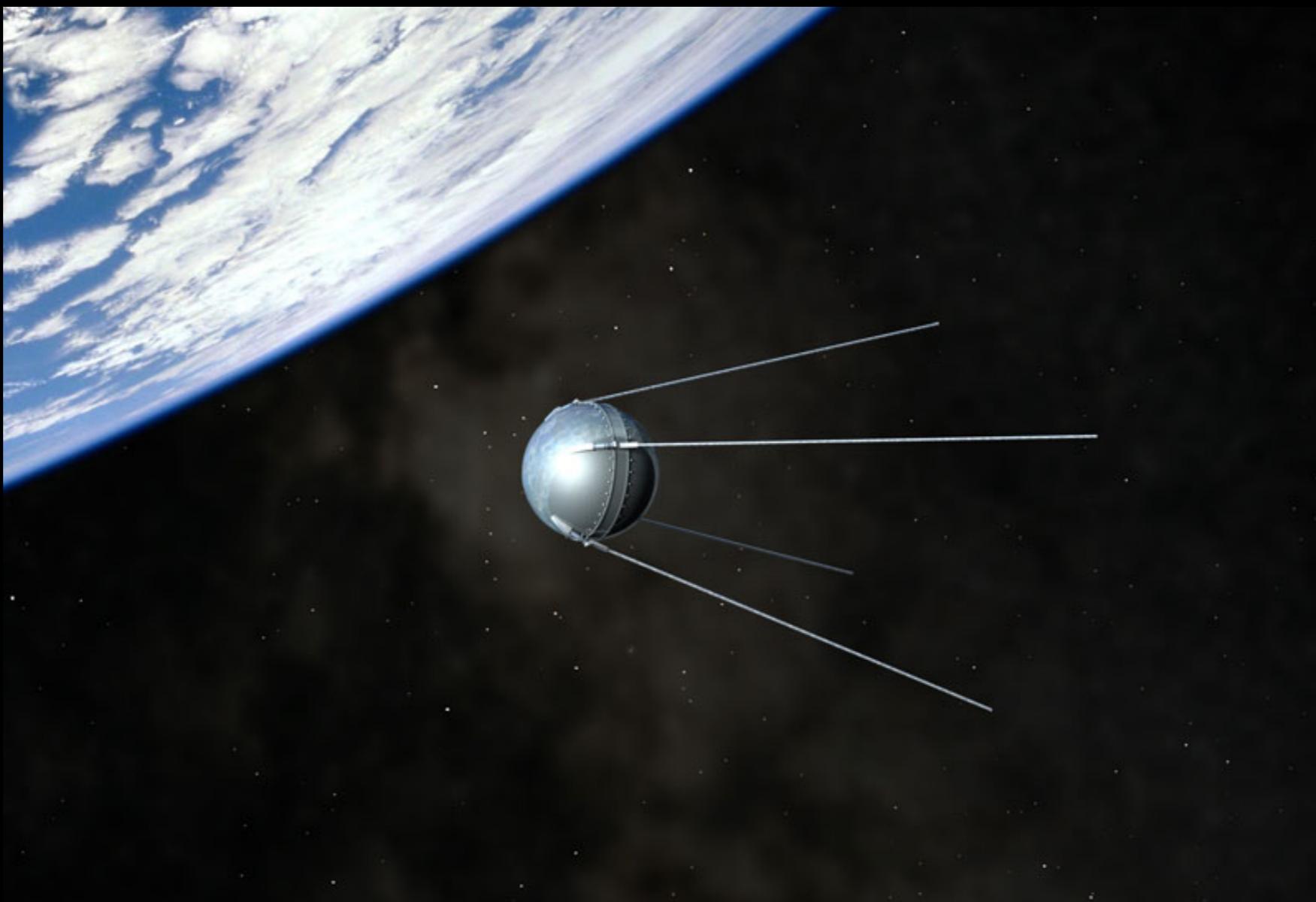


1830s-50s



First submarine cables for the telegraph

1957

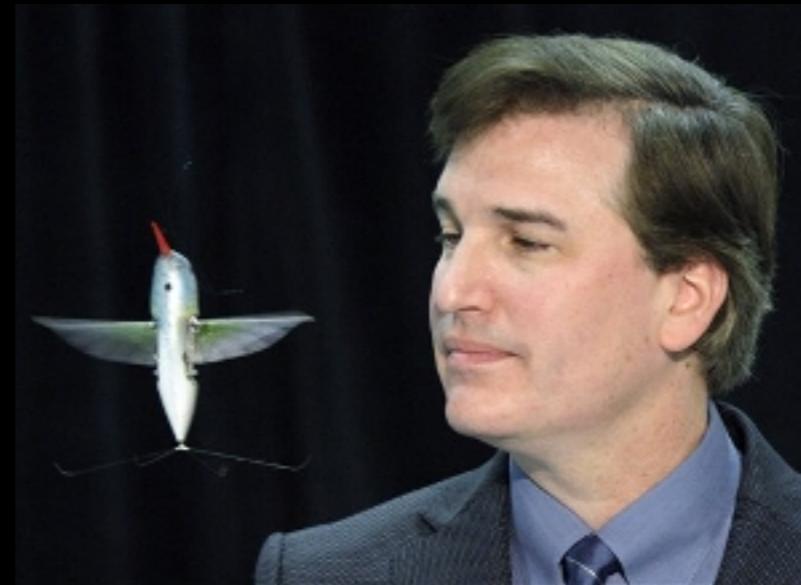


Sputnik

1957

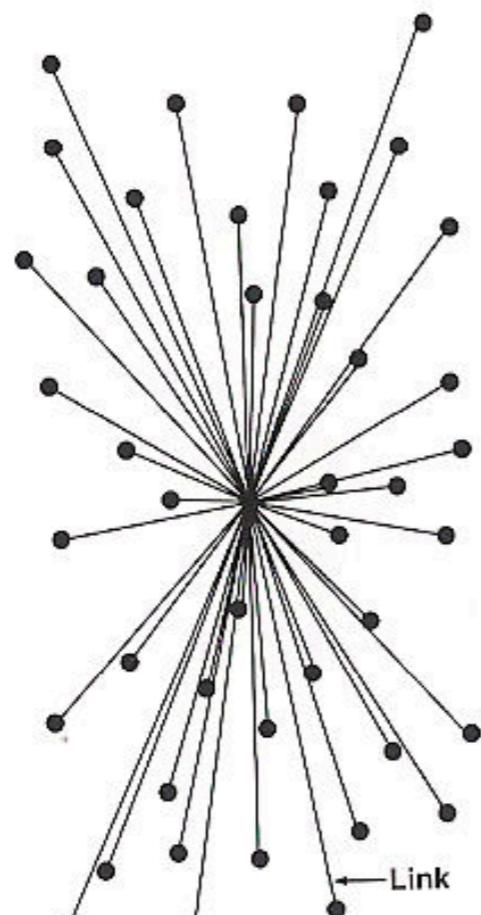


Sputnik

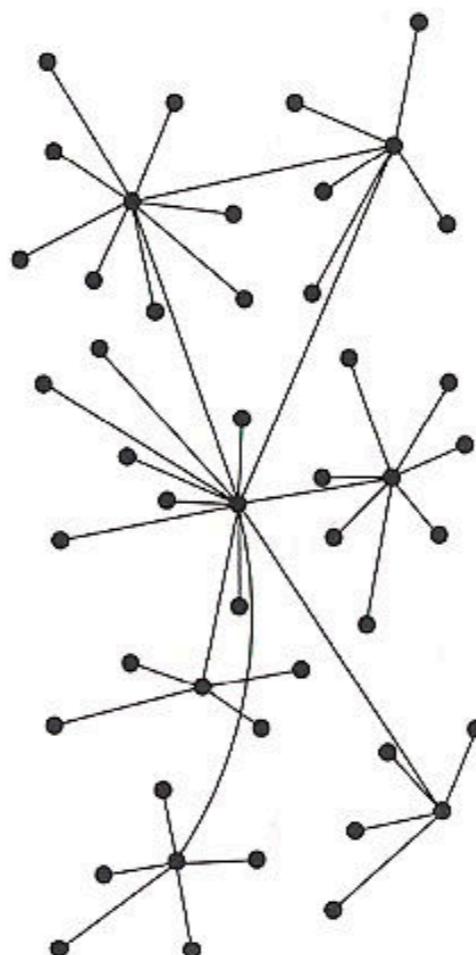


DARPA
<https://www.darpa.mil>

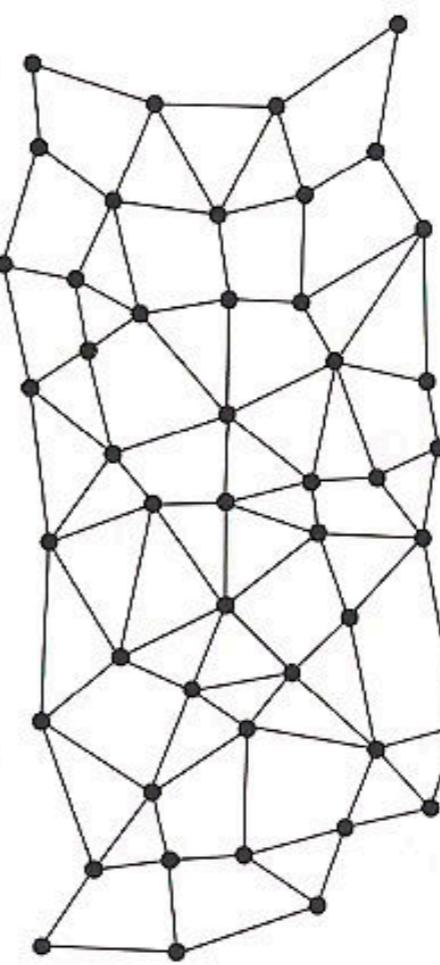




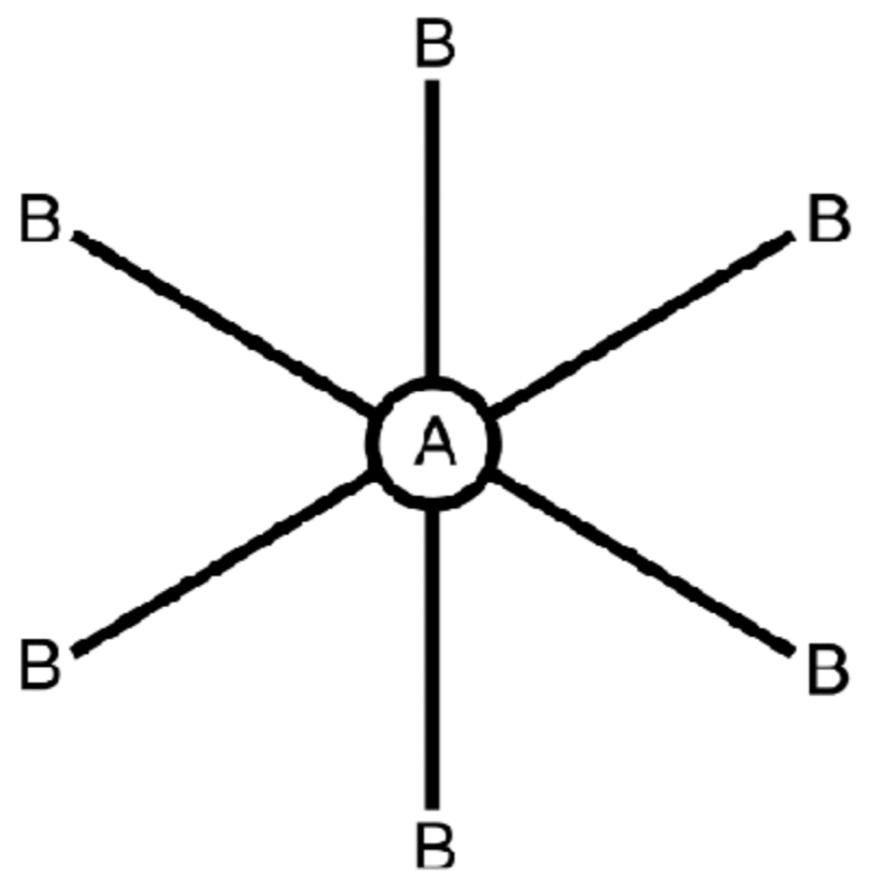
CENTRALIZED
(A)



DECENTRALIZED
(B)

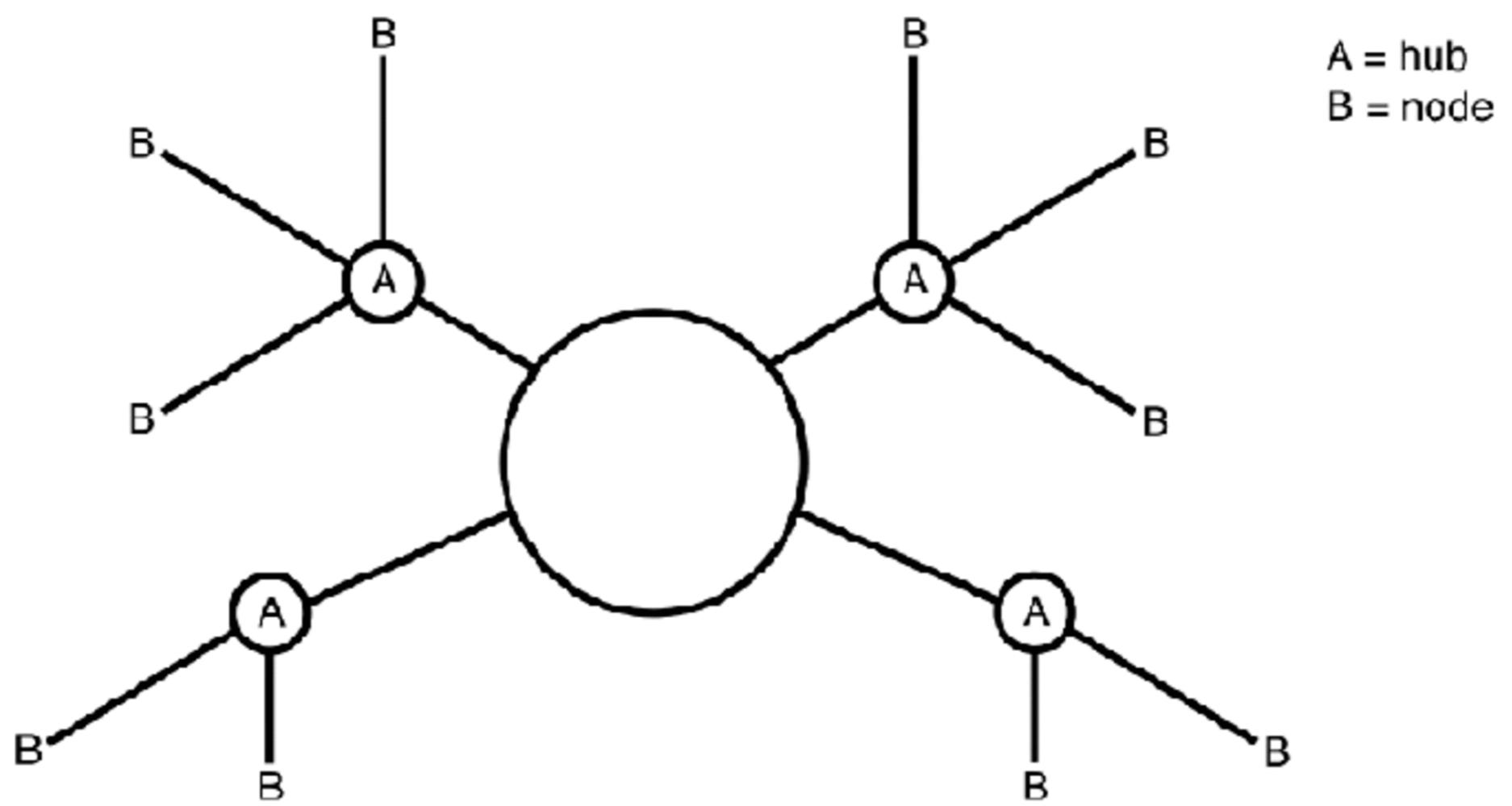


DISTRIBUTED
(C)

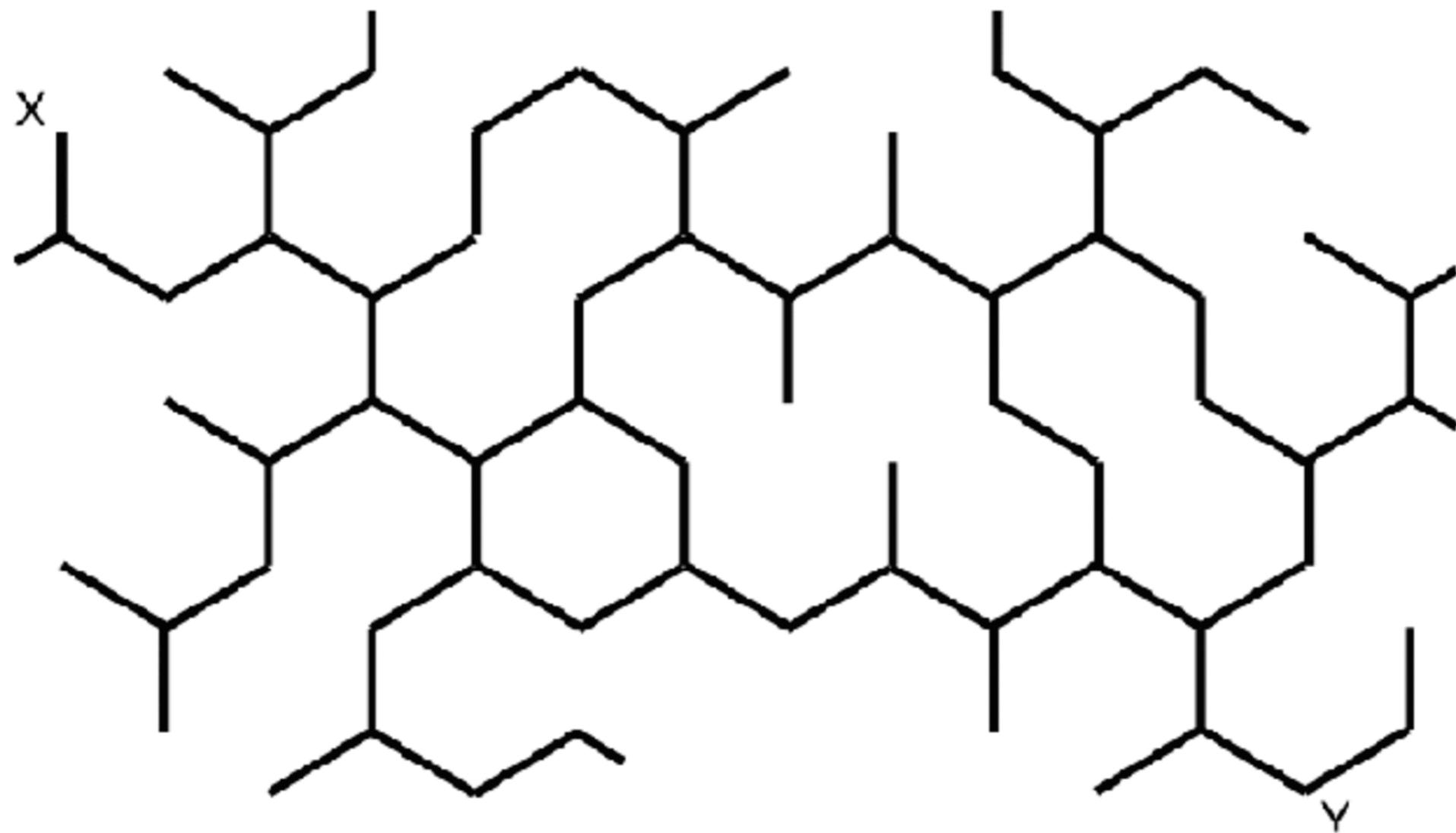


A = hub
B = node

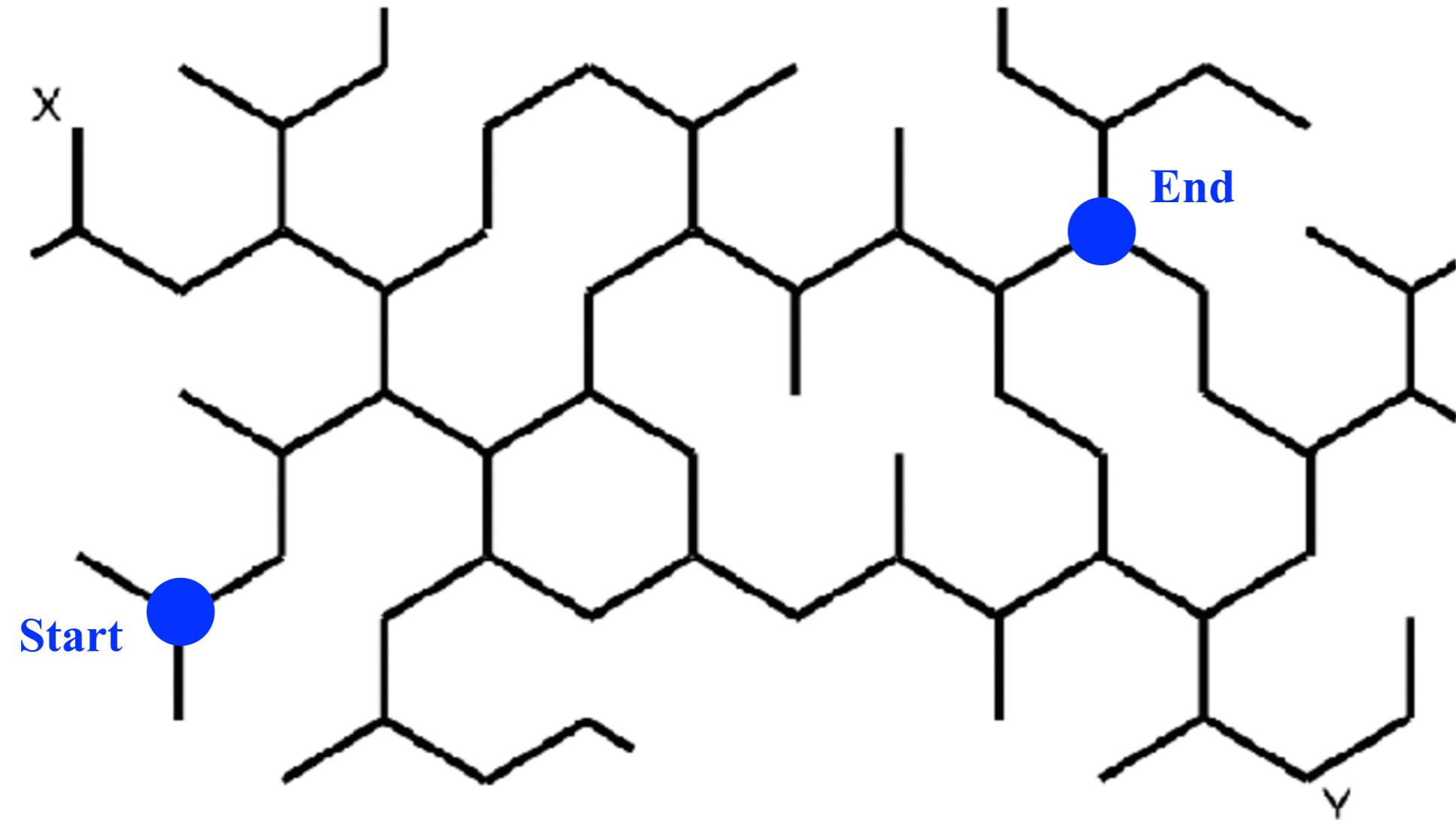
Centralized network diagram



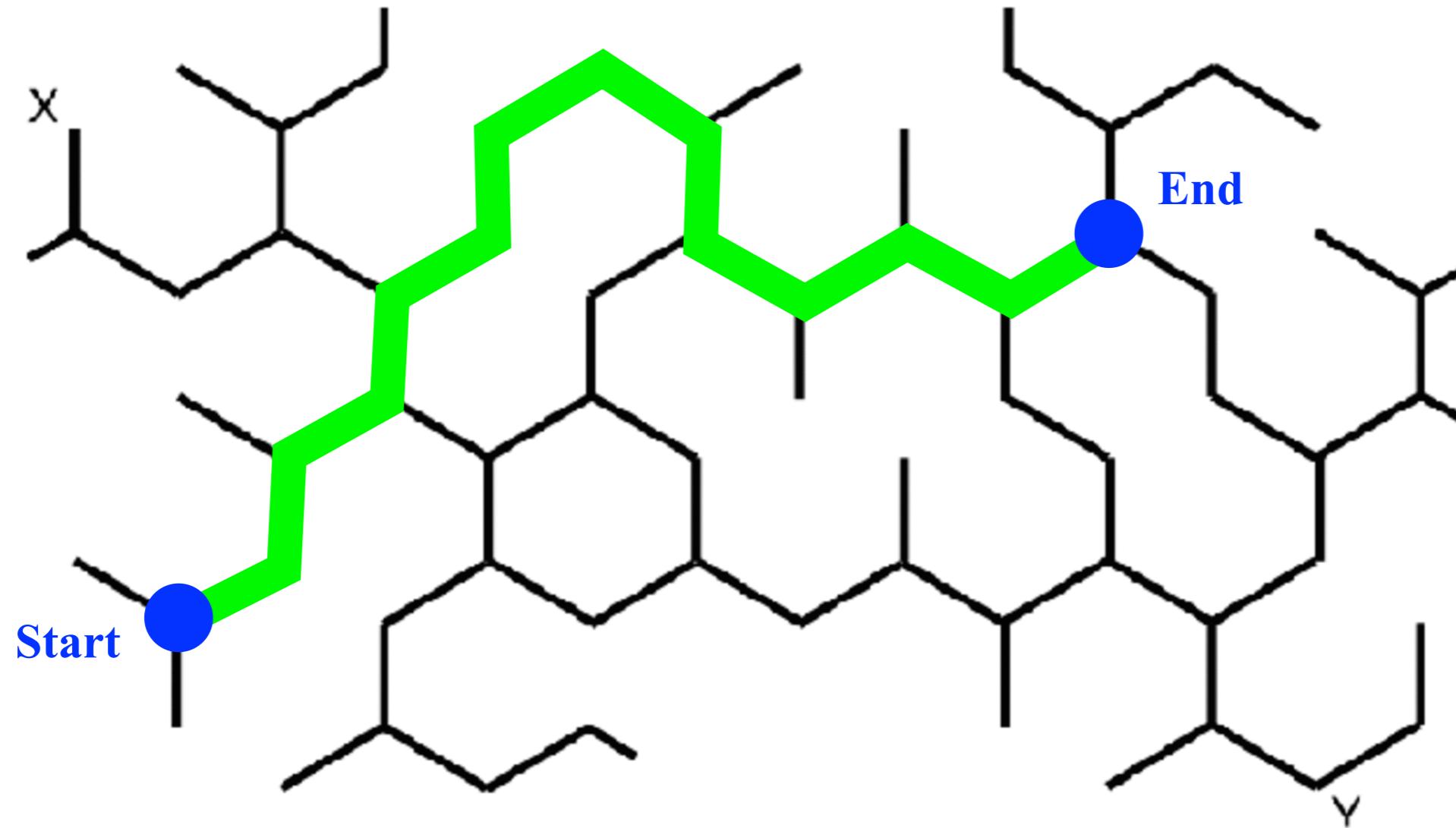
Decentralized network diagram



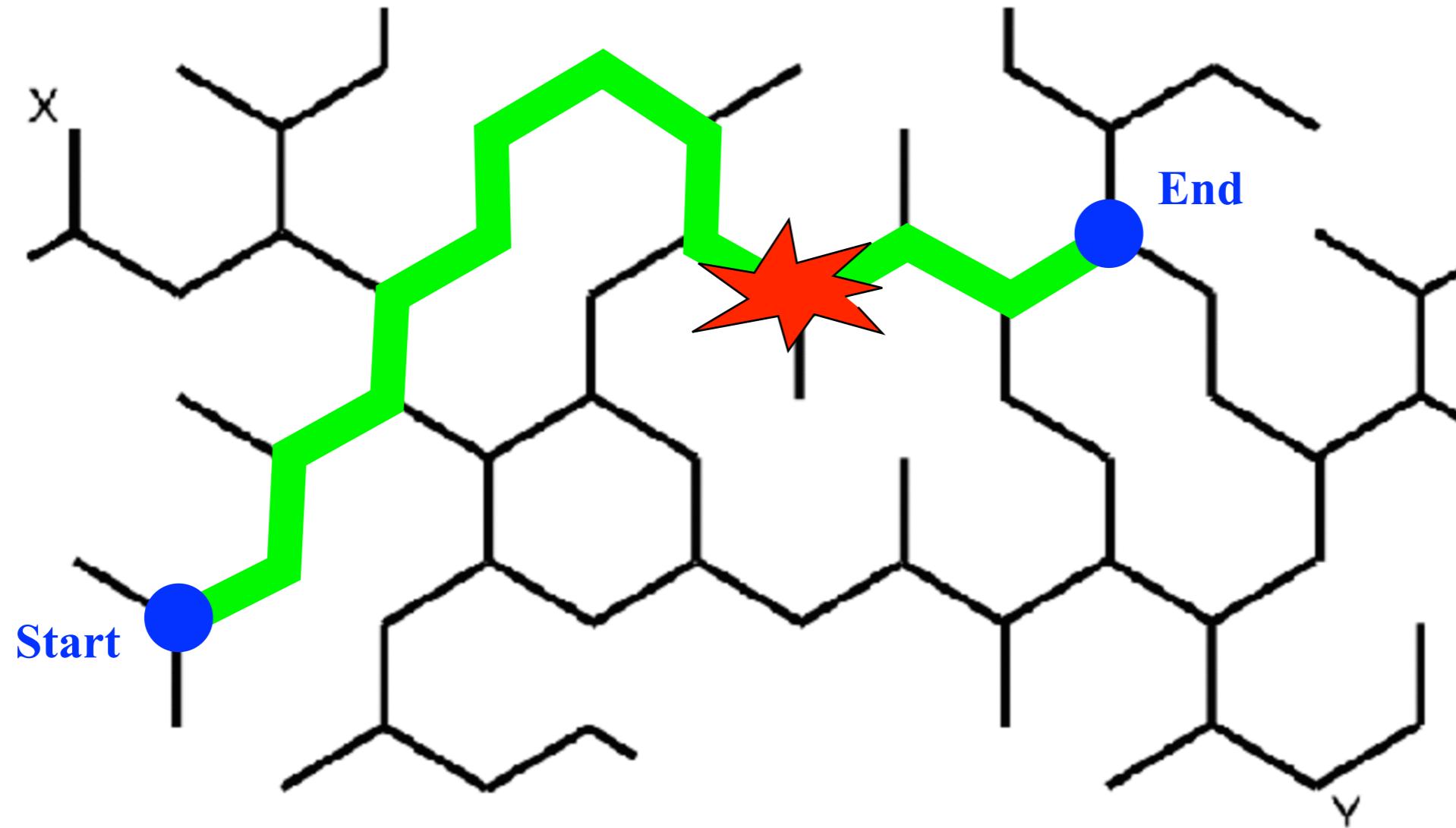
Distributed network diagram



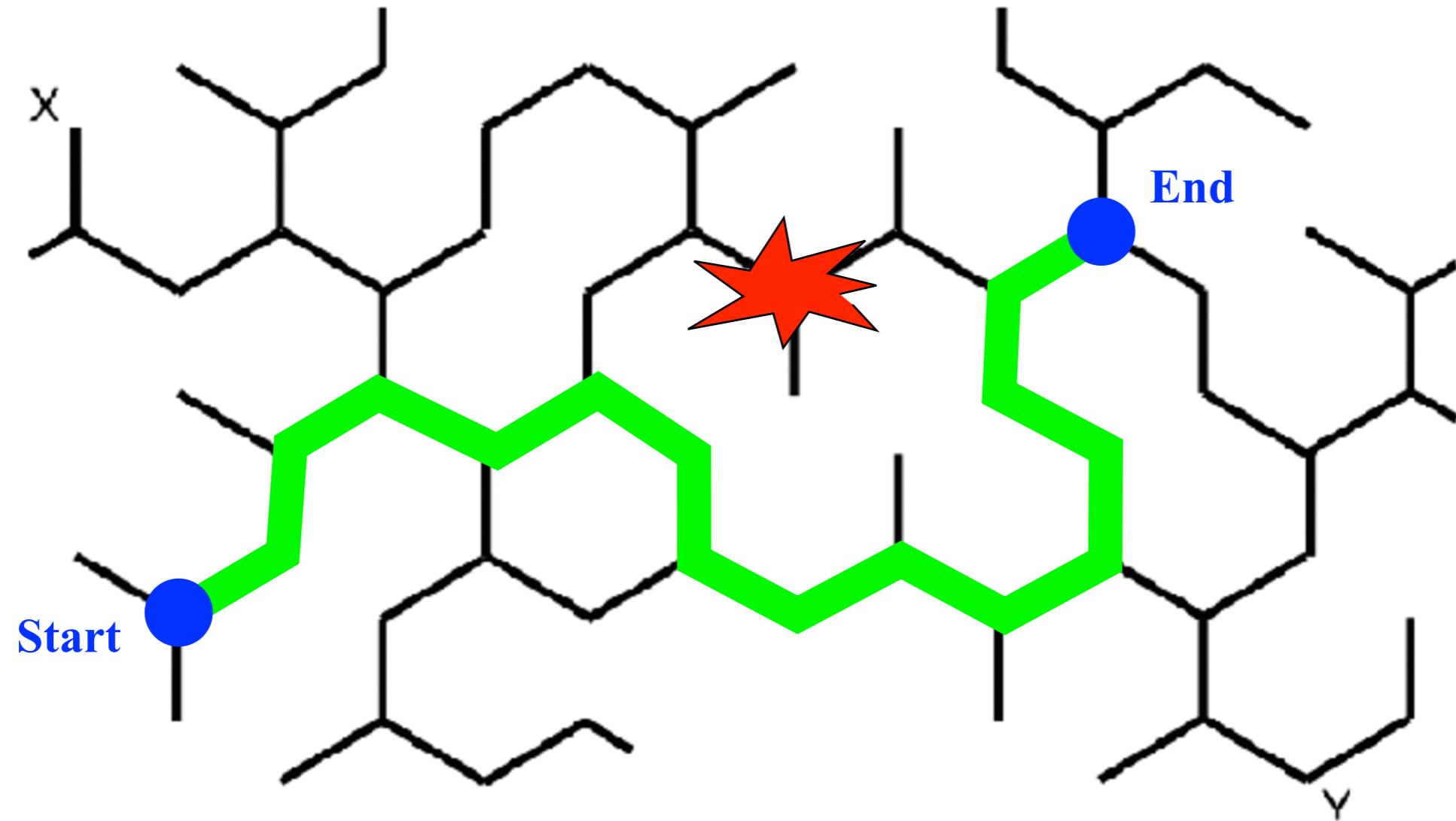
Distributed network diagram



Distributed network diagram

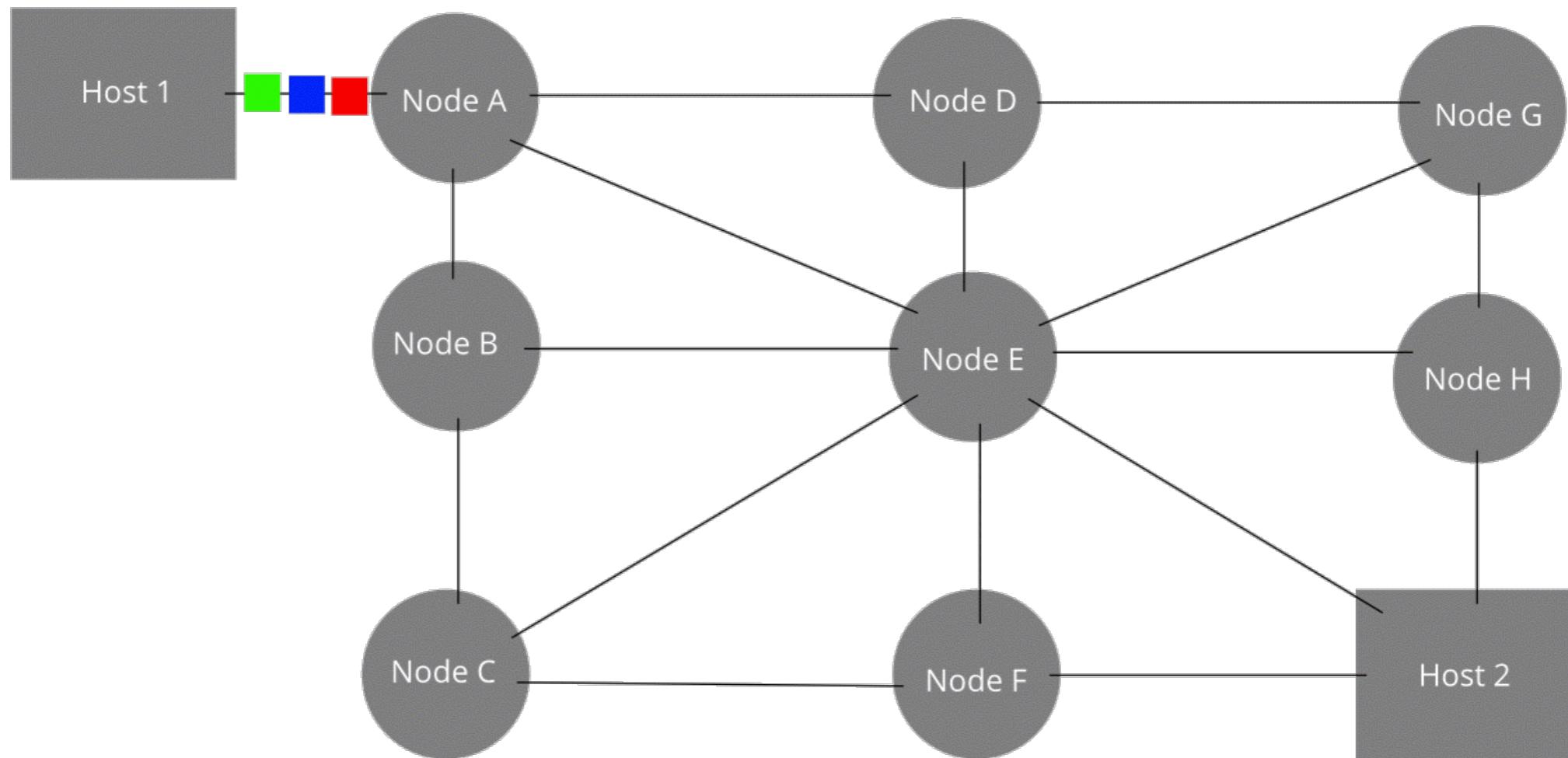


Distributed network diagram



Distributed network diagram

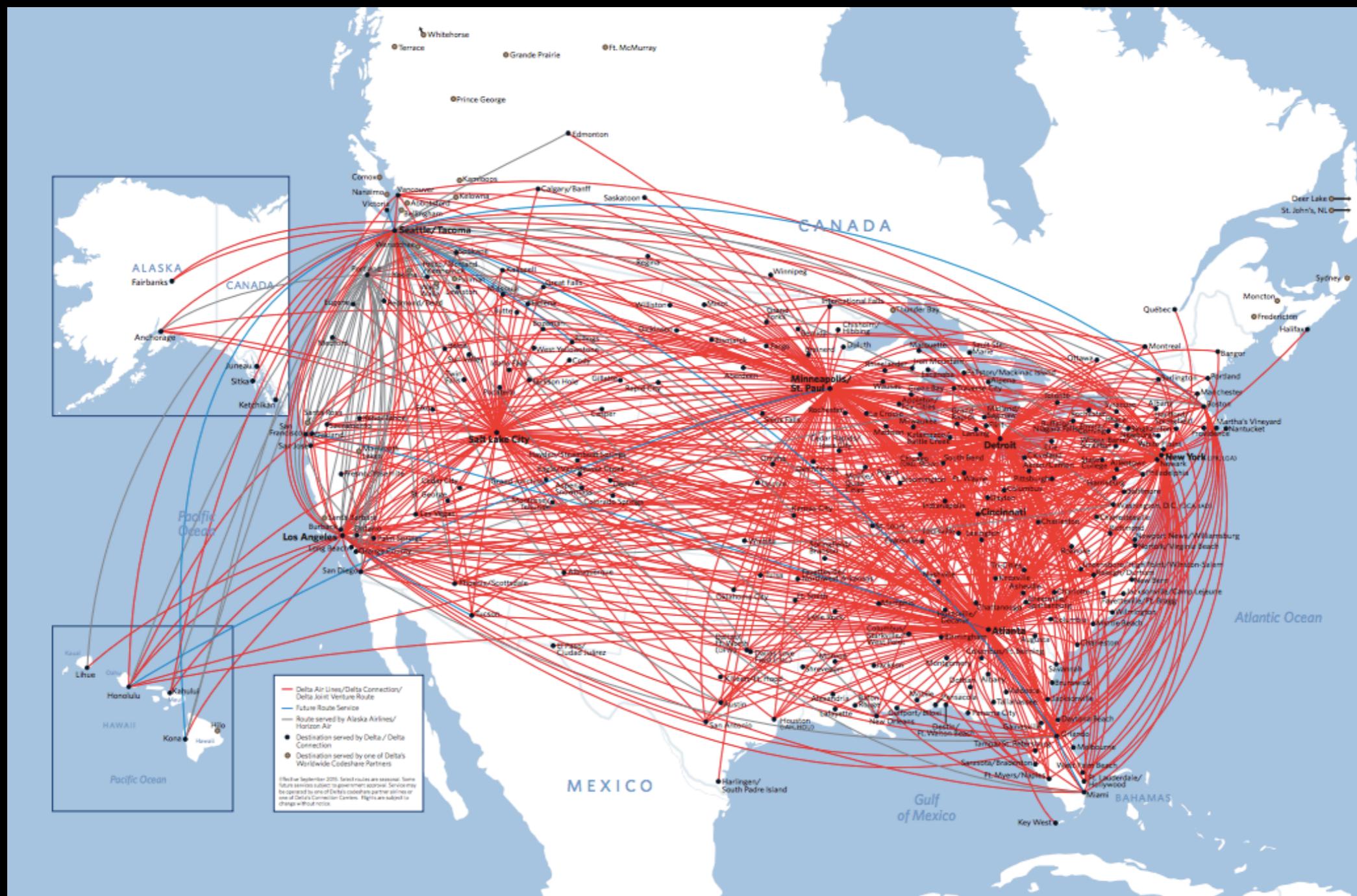
The original message is **Green**, **Blue**, **Red**.



Packet switching

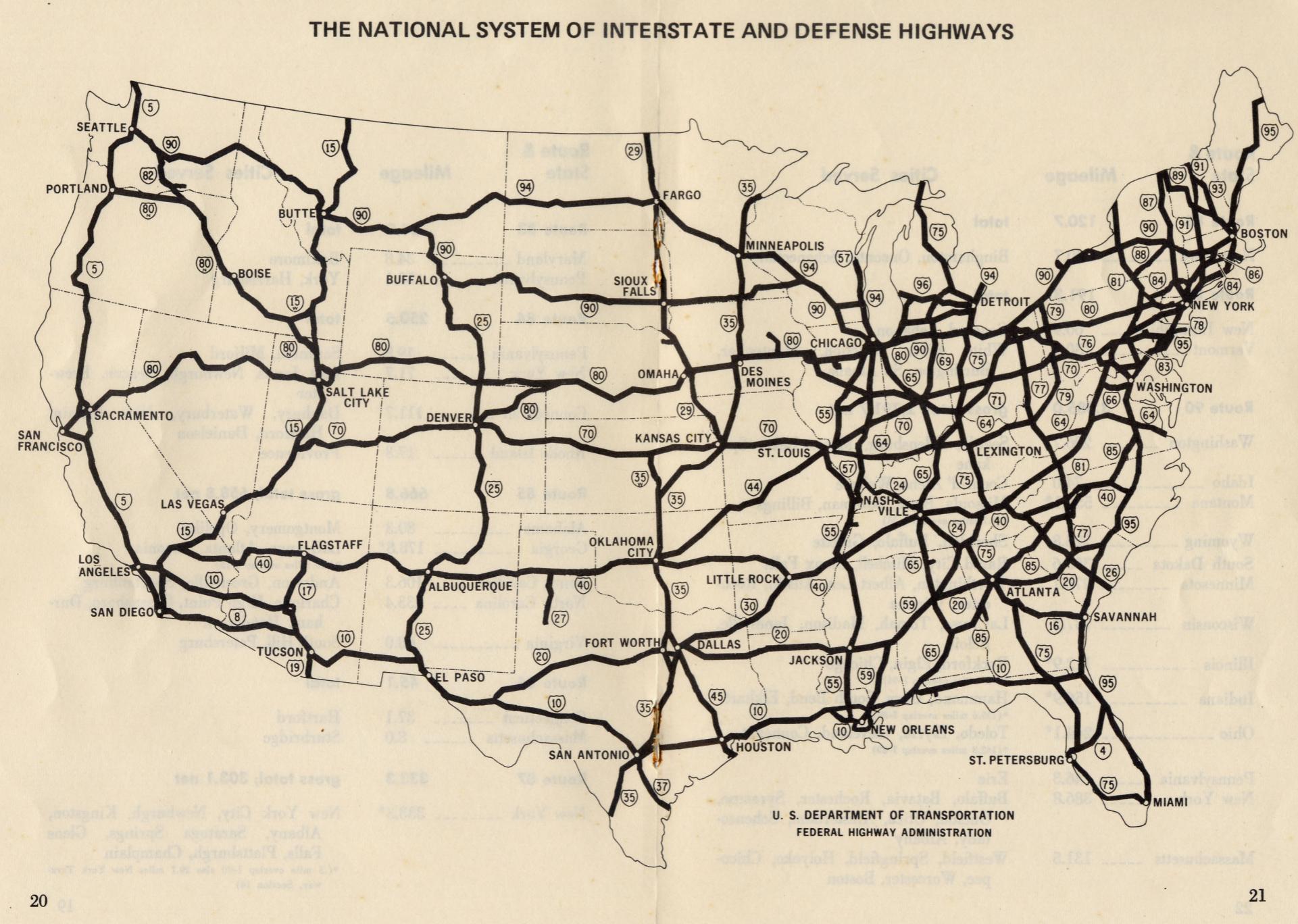


Panopticon



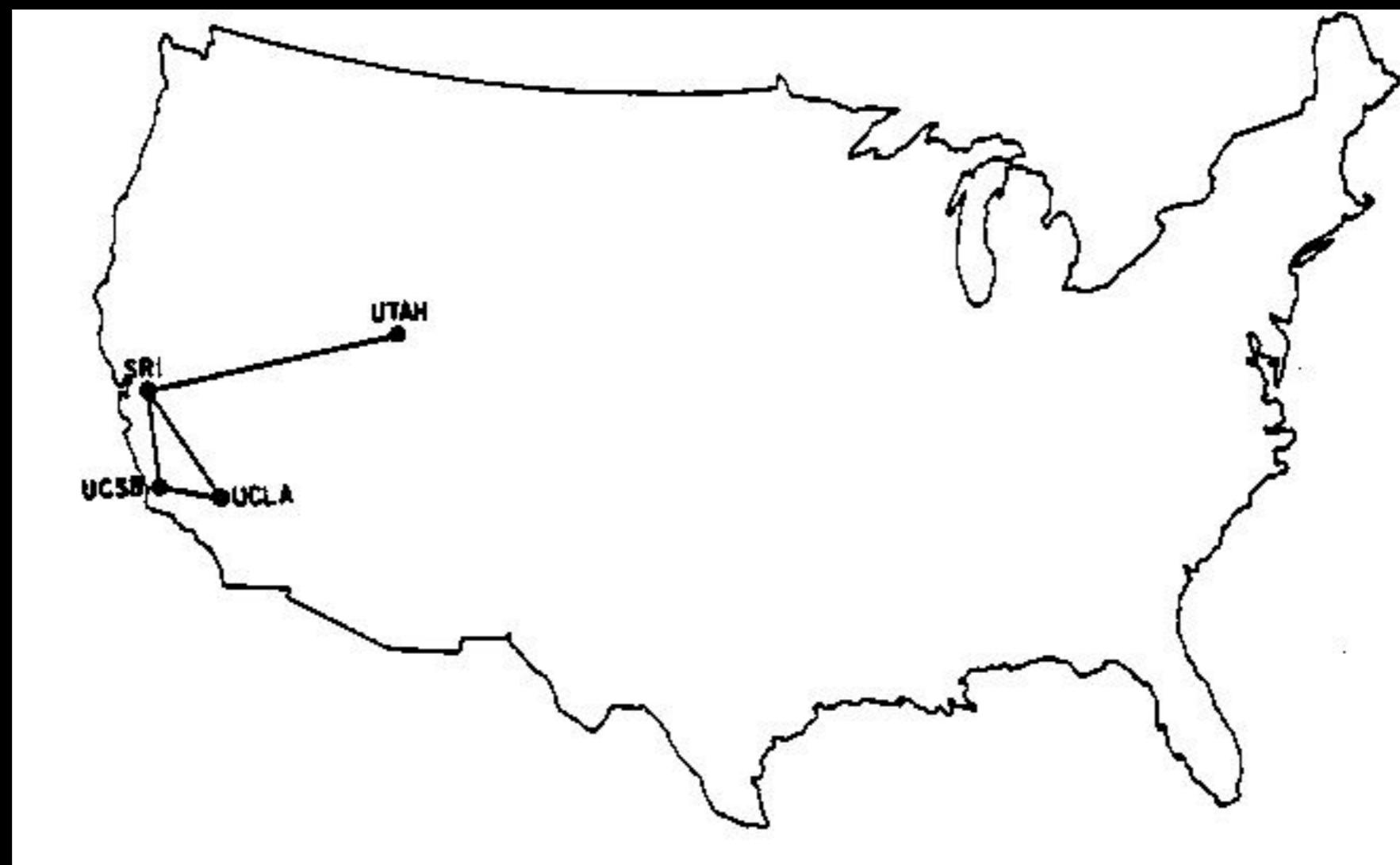
Air Travel Routes

THE NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAYS



Highway System

1969

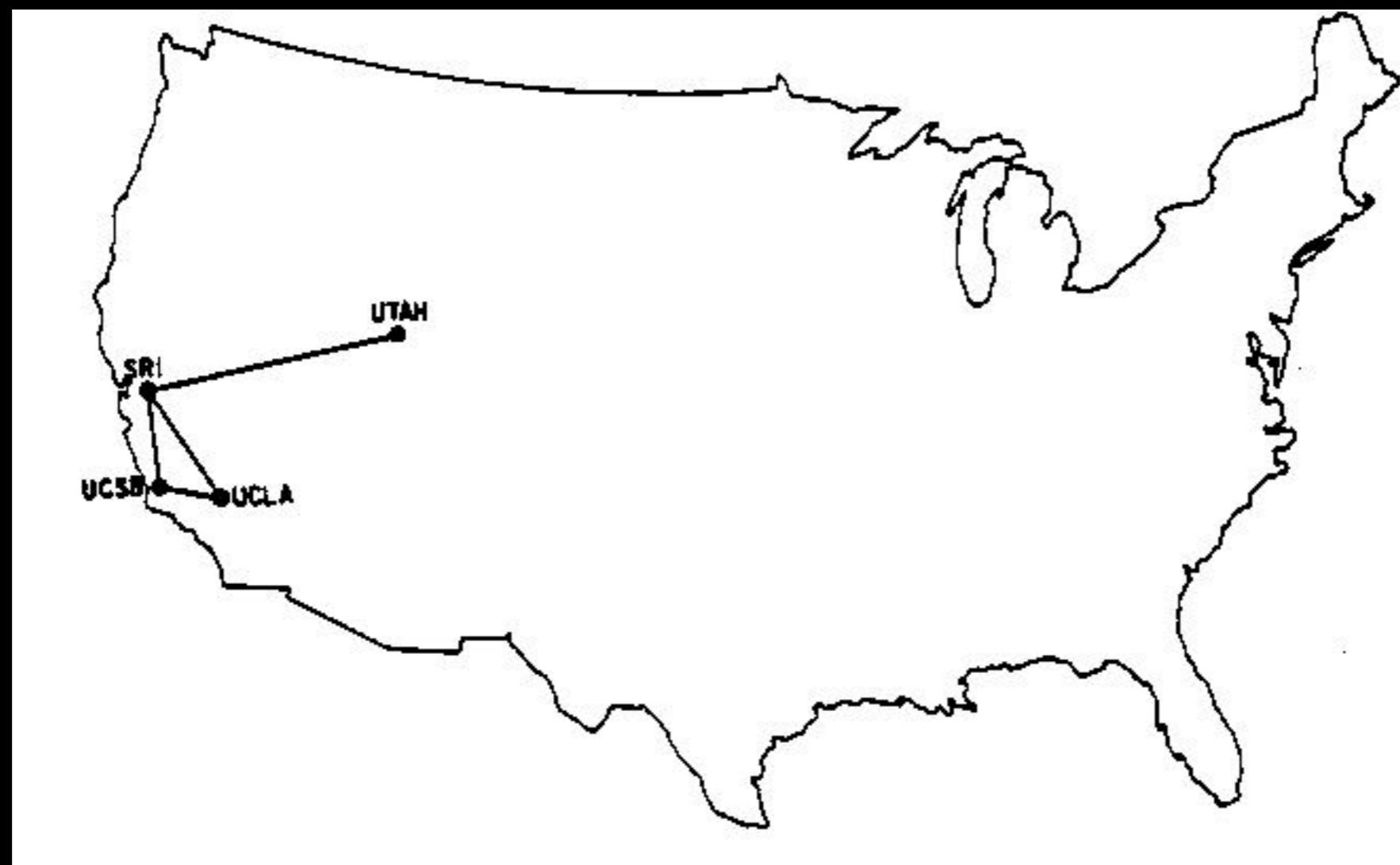


ARPANET

1969

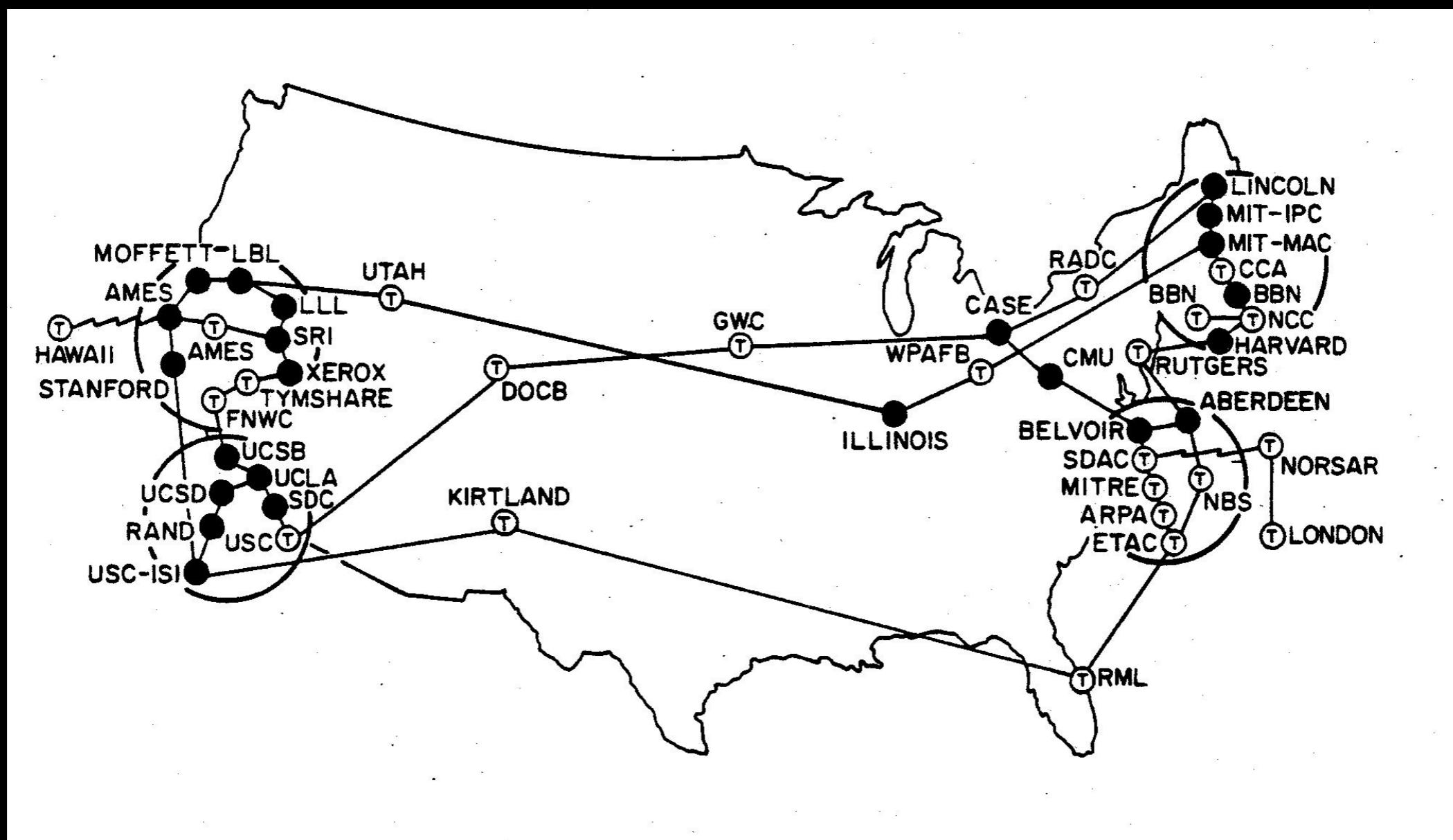
First host-to-host message from UCLA to the Stanford Research Institute

1969



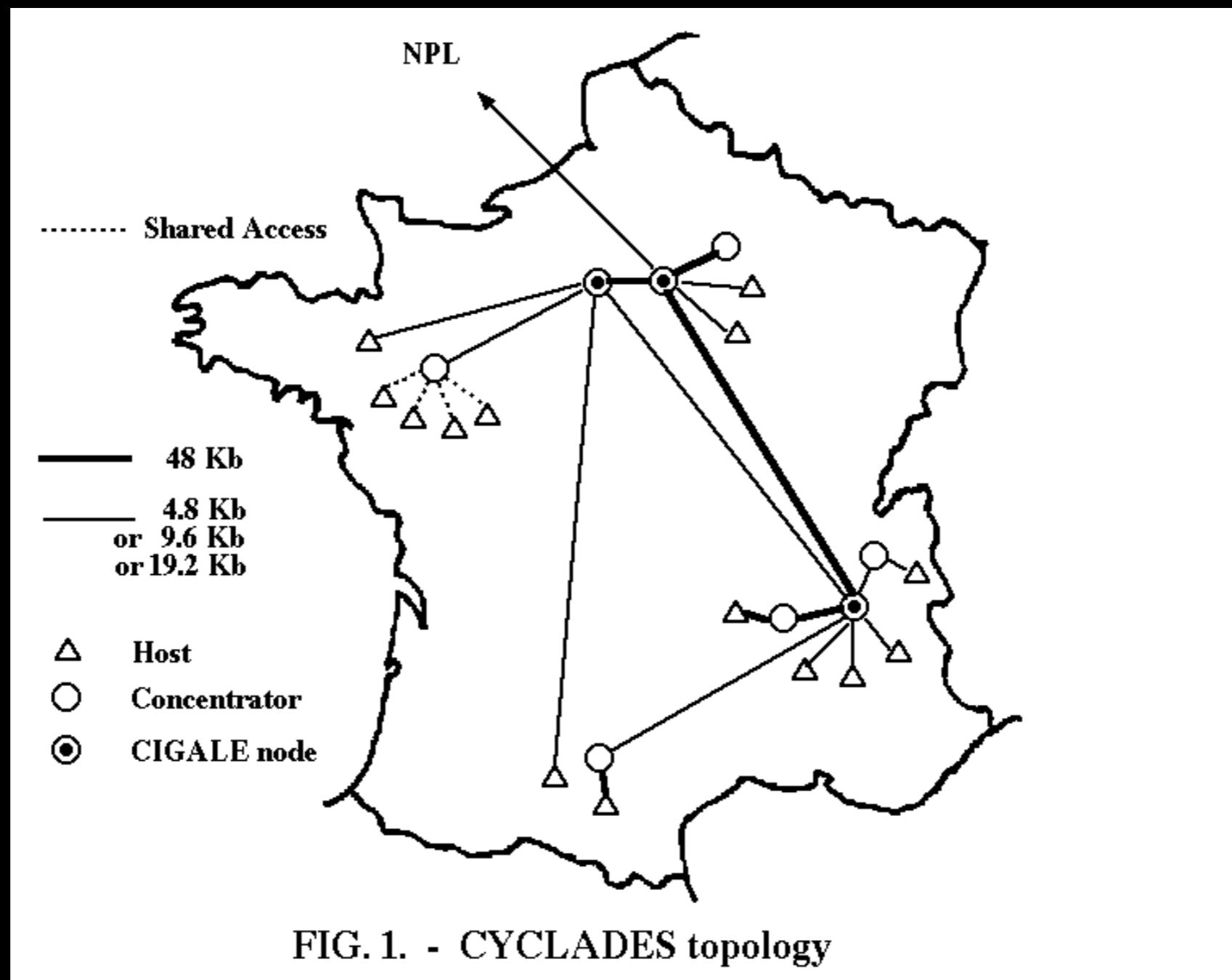
ARPANET

1974



ARPANET

1970s



CYCLADES & Louis Pouzin

1968



Earthrise

1968



Stewart Brand's Whole Earth Catalog

1971

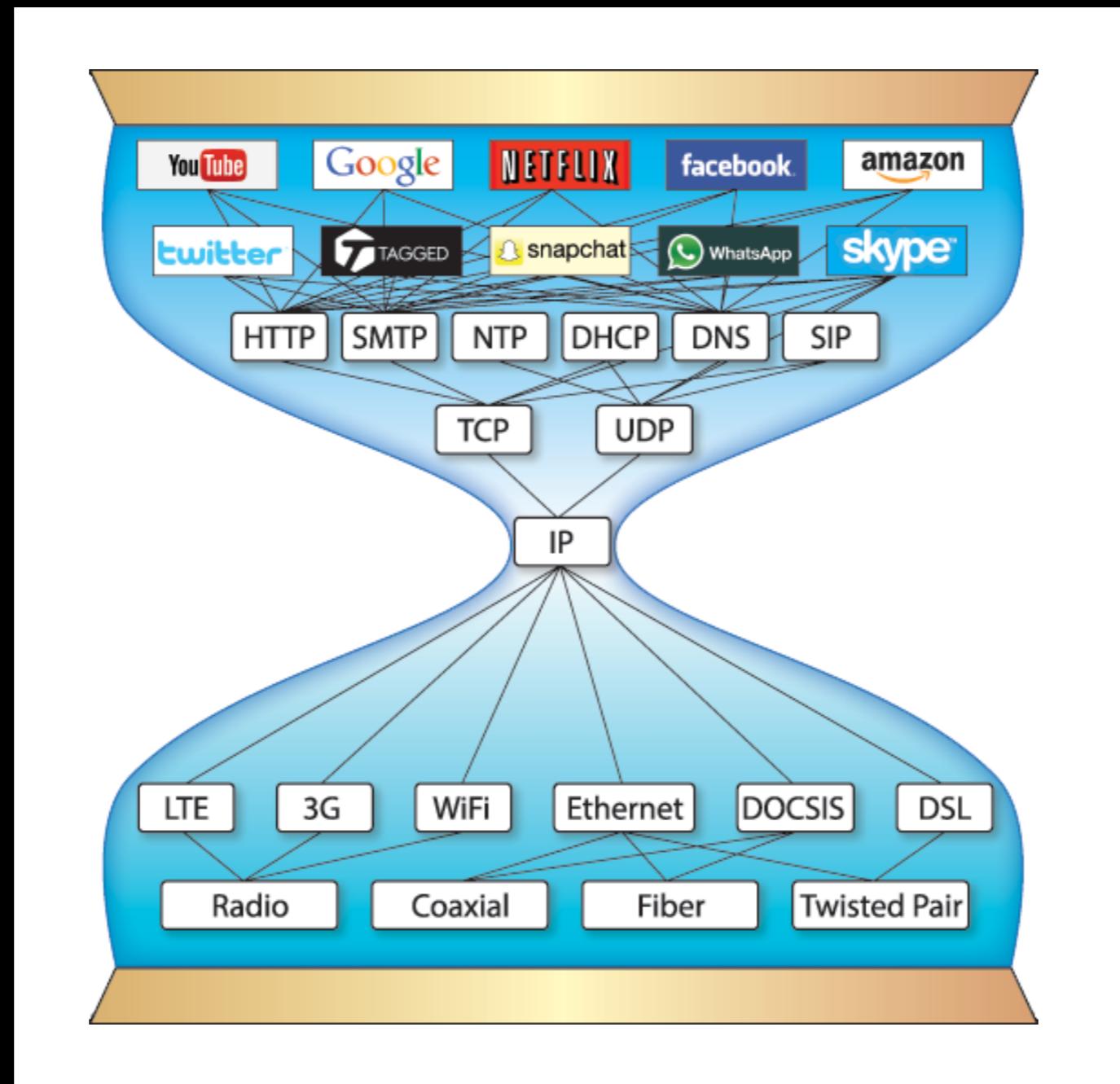


Email & Ray Tomlinson

1980

IP

Internet Protocol



Internet architecture (hourglass model)

1980s

TCP

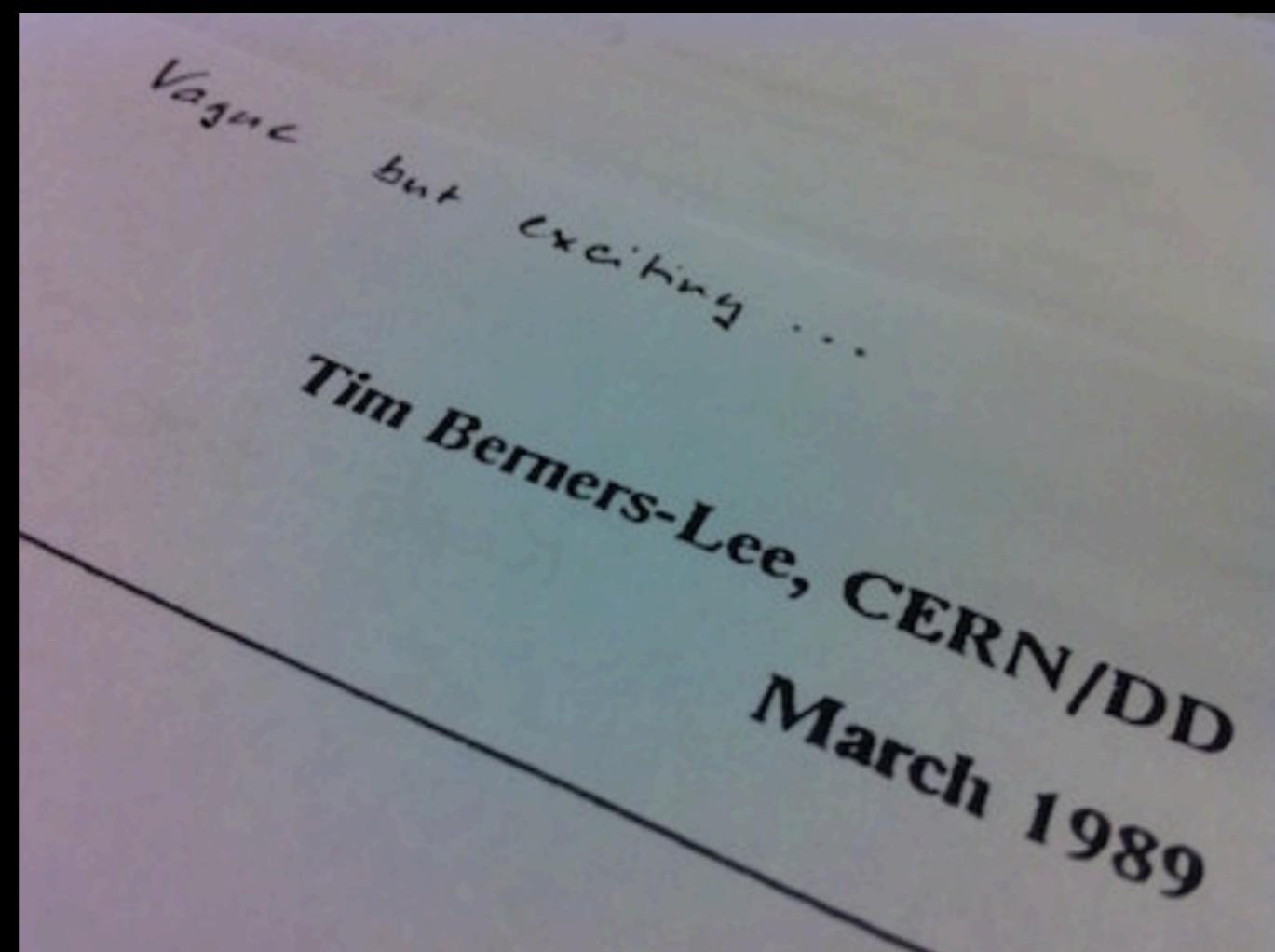
Transmission Control Protocol

1990s

HTTP

Hypertext Transfer Protocol

1989



World Wide Web & Tim Berners Lee

1991

W W W

World Wide Web & Tim Berners Lee

1991-

The collage consists of approximately 15 screenshots of professor websites from the mid-1990s. The sites are from diverse fields including Physics, Mathematics, Computer Science, and Engineering. Key features include:

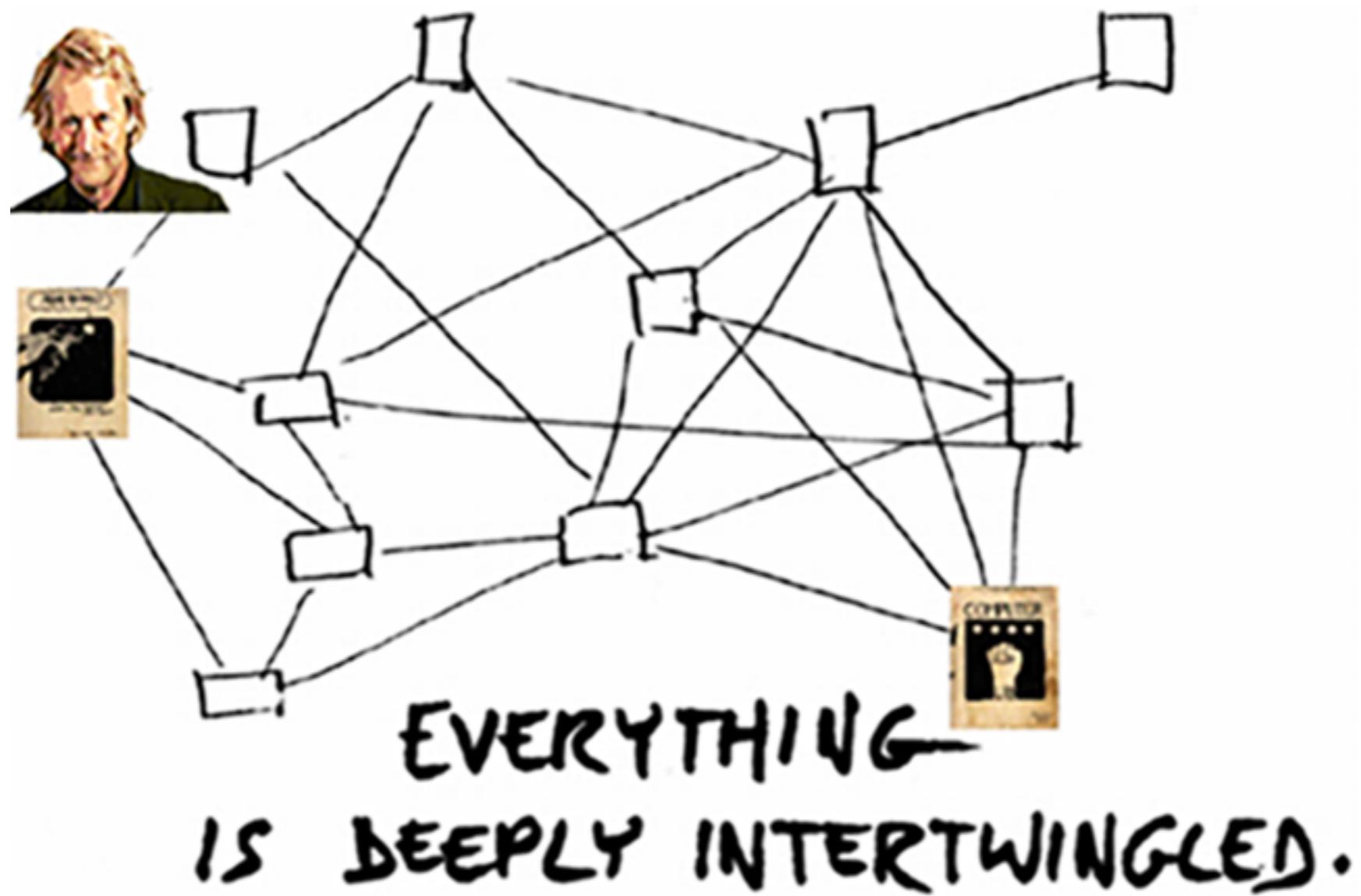
- Physics 109 - Astronomy:** A site for Physics 109 featuring assignments, a syllabus, and links to various astronomical topics.
- ETH Zurich Department of Mathematics:** A site for Prof. Dr. Paul Embrechts, showing his biography, publications, and contact information.
- Stanford University:** A site for Donald E. Knuth, featuring a portrait and a frequently asked questions section.
- Computer Musings:** A site by Ayodeji Demuren, a professor at Imperial College London.
- Department of Mechanical Engineering:** A site for Harry Buhrman, listing awards, fields of interest, and research projects.
- TU Wien:** A site for Ewa B. Weinmüller, featuring her research interests in Numerics and Simulation of Differential Equations.
- Ronald L. Rivest:** A site for Prof. Dr. Rivest, showing his biography, publications, and contact information.
- Computer Science and Engineering:** A site for Dhabaleswar K. (DK) Panda, highlighting his work on Rock Star of HPC.
- Sankt-Peterburg Center for Human Evolution and Paleontology (HEP):** A site for Prof. Dr. Madeline Balme, detailing her research in Lower Vertebrates.
- University of California, Irvine:** A site for Bernard Grofman, listing his professional positions and research interests.

Websites of professors
“Prof. Dr. Style” by Olia Lialina
<http://contemporary-home-computing.org/prof-dr-style/>

1960

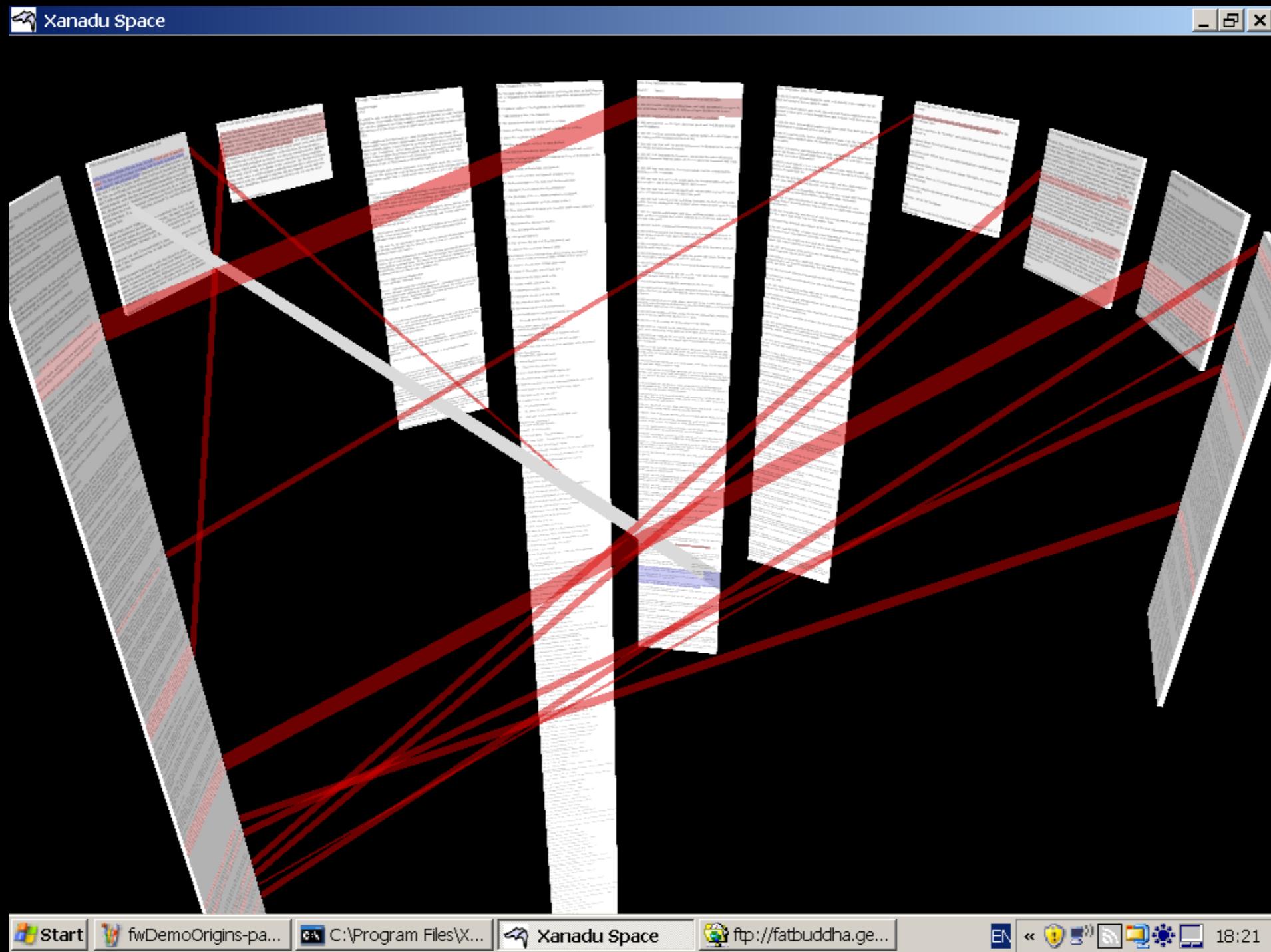
Ted Nelson's Project Xanadu

1974



Computer Lib / Dream Machines

1997



XanaduSpace

1997

pyxii v2.16

1.1.0.1.0.3 Document Edit Link back fwd reload compare 1.1.0.1.0.3.1 Document Edit Link back fwd reload

A Declaration of the Representatives of the United States of America, in General Congress assembled

When in the course of human events, it becomes necessary for a people to advance from that subordination in which they have hitherto remained, and to assume among the powers of the Earth, the equal and independent station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the change.

We hold these truths to be sacred and undeniable, that all men are created equal and independent, that from that equal creation they derive rights inherent and inalienable, among which are the preservation of life, and liberty, and the pursuit of happiness; that to secure these ends, governments are instituted among men, deriving their just powers from the consent of the governed; that whenever any form of government shall become destructive of these ends, it is the right of the people to alter or to abolish it, and to institute new government, laying its foundation on such principles and organising its powers in such form, as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate that governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, begun at a distinguished period, and pursuing invariably the same object, evinces a design to subject them to arbitrary power, it is their right, it is their duty, to throw off such government and to provide new guards for their future security. Such has been the patient sufferance of these colonies; and such is now the necessity which constrains them to expunge their former systems of government. The history of his present majesty, is a history of unremitting injuries and usurpations, among which no one fact stands single or solitary to contradict the uniform tenor of the rest, all of which have in direct object the establishment of an absolute tyranny over these states. To prove this, let facts be submitted to a candid world, for the truth of which we pledge a faith yet unsullied by falsehood.

He has refused his assent to laws the most wholesome and necessary for the public good.

The Unanimous Declaration of the Thirteen United States of America

When in the course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the Earth, the separate and equal station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are life, liberty, and the pursuit of happiness; that to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed; that whenever any form of government shall become destructive of these ends, it is the right of the people to alter or to abolish it, and to institute new government, laying its foundation on such principles and organising its powers in such form, as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate that governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such government and to provide new guards for their future security. Such has been the patient sufferance of these colonies; and such is now the necessity which constrains them to expunge their former systems of government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all of which have in direct object the establishment of an absolute tyranny over these states. To prove this, let facts be submitted to a candid world.

He has refused his assent to laws the most wholesome and necessary for the public good.

He has forbidden his governors to pass laws of immediate

1996



Internet Archive
<http://archive.org>

2009



Internet Archive
<http://archive.org>

Internet Archive
<http://archive.org>

1990s



America Online (AOL)

1994-2009



The image shows an email from Yahoo! GeoCities. The subject line is "SERVICE ANNOUNCEMENT". The body of the email contains the following text:

Final notice: GeoCities is closing.

Dear Yahoo! GeoCities customer,

We're writing to remind you that Yahoo! GeoCities, our free web site building service and community, is closing on **October 26, 2009**.

On October 26, 2009, your GeoCities site will no longer appear on the Web, and you will no longer be able to access your GeoCities account and files.

What You Need to Do

If you'd like to move your web site, or save the images and other files you've posted online, you need to act now by choosing one of the following options:

Yahoo! GeoCities

2011-



One Terabyte of Kilobyte Age: Digging through the Geocities Torrent
Olia Lialina & Dragan Espenschied
<http://blog.geocities.institute>

1994

Attention Shoppers: Internet Is Open

By PETER H. LEWIS

Published: August 12, 1994

At noon yesterday, Phil Brandenberger of Philadelphia went shopping for a compact audio disk, paid for it with his credit card and made history.

e-commerce

2000s-2010s



Switching from the Page to the Feed
via Anil Dash, "The Web We Lost," 2013

2001



Wikipedia

2000s, 2010s-



“Imagine a world without free knowledge”

Net Neutrality, SOPA, PIPA

2007



iPhone

2015



Rhizome's Webrecorder

2016

Thanks Obama

archive.rhizome.org/narrative-archives/thxobama.html

Apps Remove Styles Other Bookmarks Sign Up Login

Replaying 2.07 GB 566 bookmarks Autoscroll

(native) Current https://vine.co/v/OPq02dpidBM from 11/29/2016, 10:12:50 AM

Doesn't look right? Finish

Search Login

Thanks Obama

In late 2009, the conservative blog *Authentic Connecticut Republican* published an image in the style of a de-motivational poster sarcastically stating [1 Thanks Obama](#).

In 2013, the *International Business Times* published the opinion piece [2 Smaller US Paychecks In 2013 Spark Twitter Outrage From Disgruntled Obama Voters](#), linking to the apparent evidence on Twitter.

The referenced tweets by themselves didn't have much impact. Posted by users with [3 very low follower counts](#), the tweets lacked hashtags and mostly received [4 zero likes or 5 retweets](#). Conservative sites like [6 twitchy](#) were key in focusing the attention.

Since many of the original tweets expressed disappointment about a few dollars less on a paycheck, more meme-savvy users started to associate them with [7 white people problems](#), as exemplified by infomercials which picture the slightest discomfort (typically caused by an abundance of possessions and free time) as grave issues. This sparked a wave of parody GIFs being made, combining the

Vine



Samir Mezrahi Feb 12, 2015

Thanks Obama

59,022,217 Loops

475.5 Likes · 270.9K Revines · 17.2K Comments

Say something nice

Tweet Share Pin VM Embed

Twitter Facebook Blog Help Jobs Contact Terms Privacy Rules © 2016 Vine Labs, Inc.

Rhizome's Webrecorder

2010s-

The Internet of Things

Key Terms

A host is a computer on the network that can communicate with other computers. Think of it as a single node in the network diagrams.

When a host sends information, it's called a *server*.
When a host receives information, it's called a *client*.

Protocol is a way in which information is passed from one computer to another. It's like a language that all hosts (computers on the network) speak. Many protocols that make up the internet as we know it:

HTTP – hypertext transfer protocol

FTP – file transfer protocol

IP – internet protocol

TCP – transmission control protocol

DNS stands for “Domain Name Service.” Every website is actually a number (its IP), but DNS lets us refer to these numbers with language.

Example:

allmyfriendsatonce.com = 198.74.60.197

Most websites have:

1. Server (a computer always connected to the Internet that sends information when you request it)

Such as dreamhost.com, mediatemple.com, godaddy.com, etc. These are called “hosting providers.” From a host, you’ll receive your own unique IP (string of numbers).

2. Domain (a special name for the server)

Domains are simply special words that the host points to, like veryinteractive.net. You can buy domains at “domain name registrars” such as name.com, iwantmyname.com, namecheap.com, etc.

X. THE FUTURE

