

The Internet

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Internet

- Administrative business
- What is the internet, anyway?
- How did it evolve?
- FTP: File Transfer protocol

What is Internet. I Keep hearing about

A network of networks which...

- Do and not share content
- Are public and private to varying degrees
- Use a variety of network protocols
- Are all connected, one way or another

(D)Apra

- Backdrop: the Cold War, nuclear threat.
- The Department of Defense
- (Defense) Advanced Research Projects Agency made networks compatible
- Defense and academia
- Contracted with academics to research the possibilities

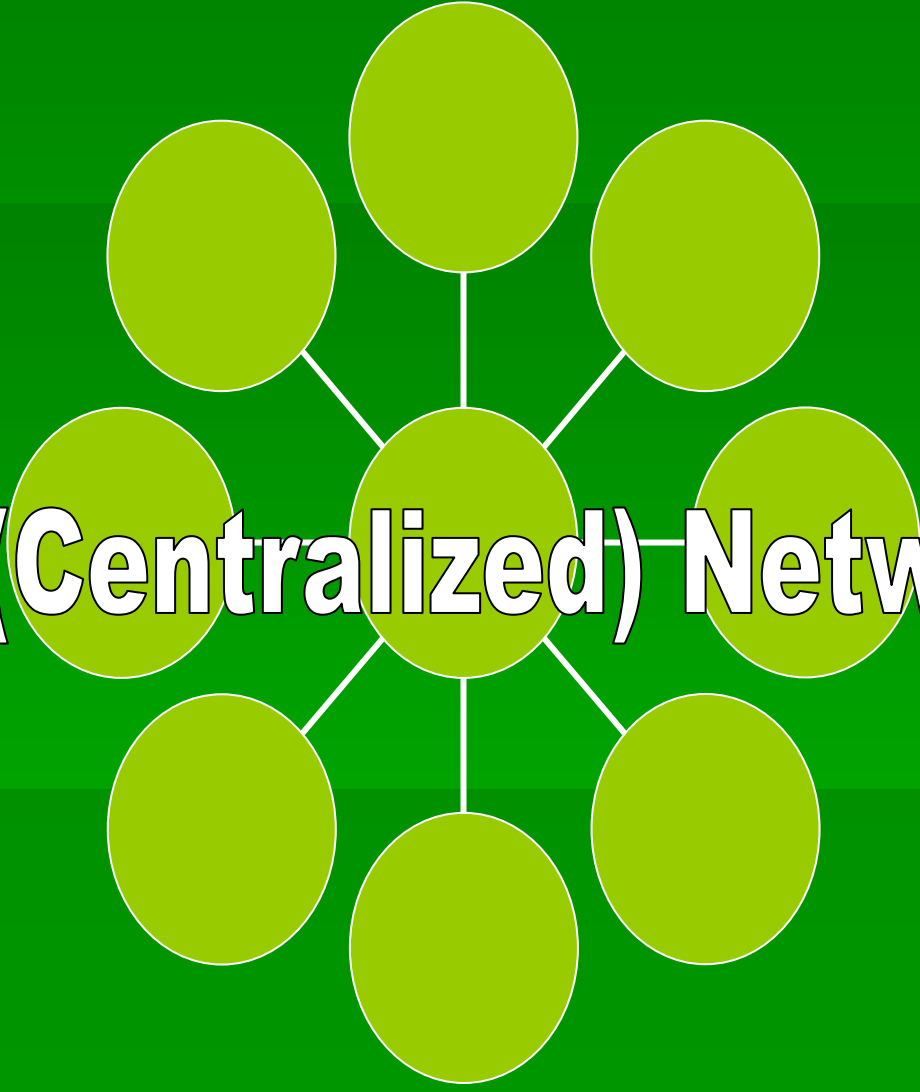
The DARPA Challenge



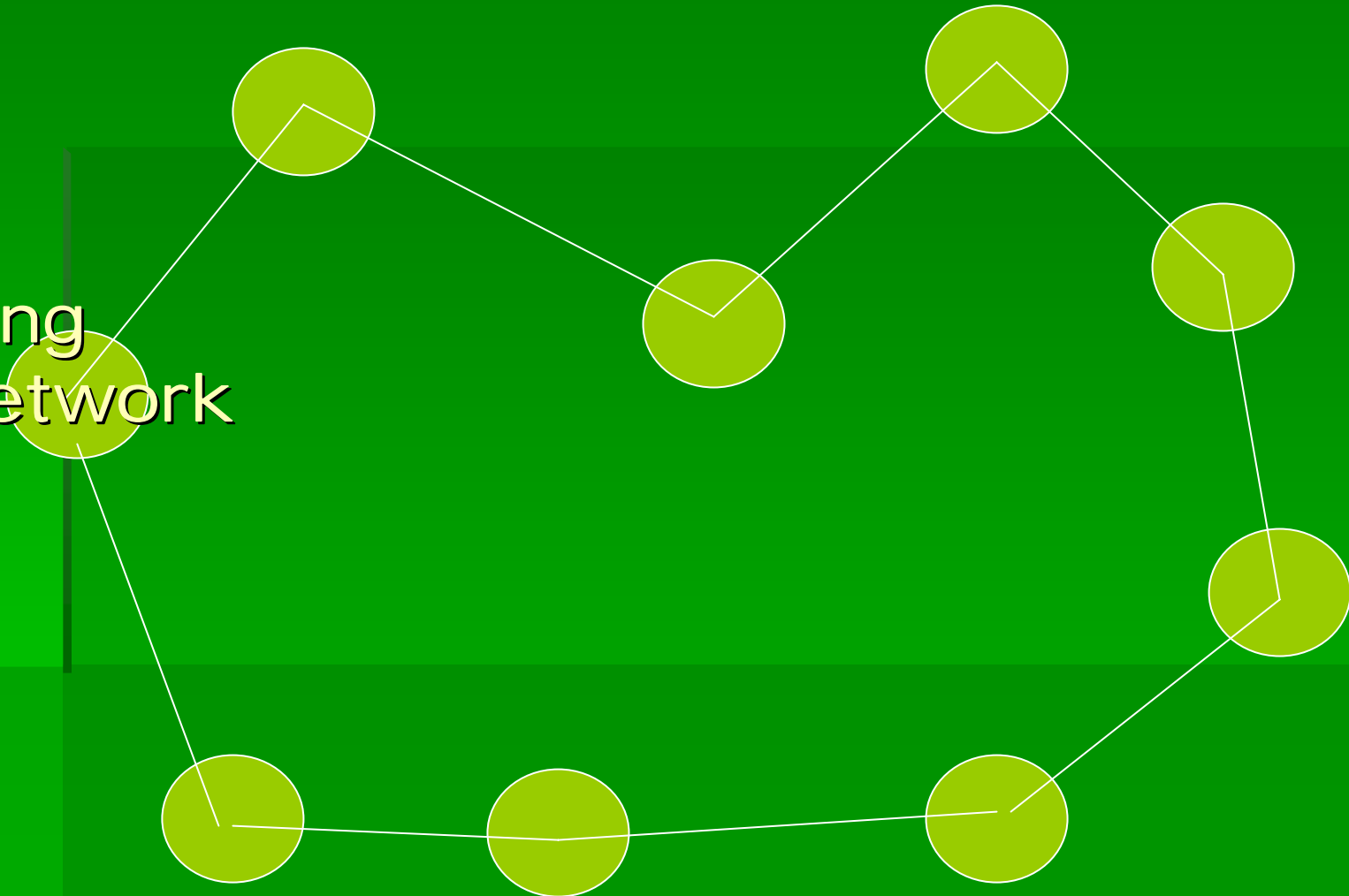
Problem: Network these sites!

Configurations: Star, Ring or Distributed Network

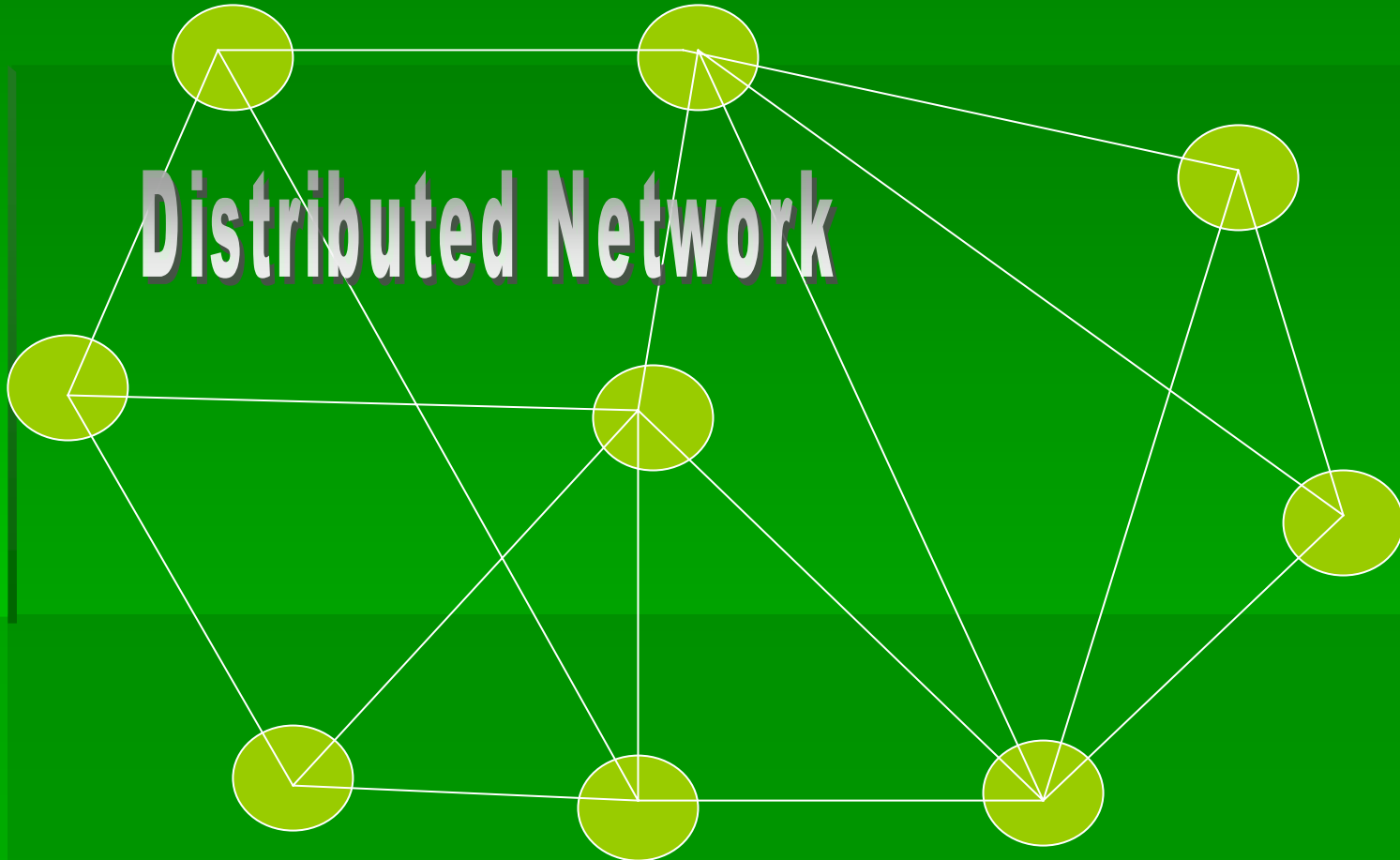
Star (Centralized) Network



Ring
Network

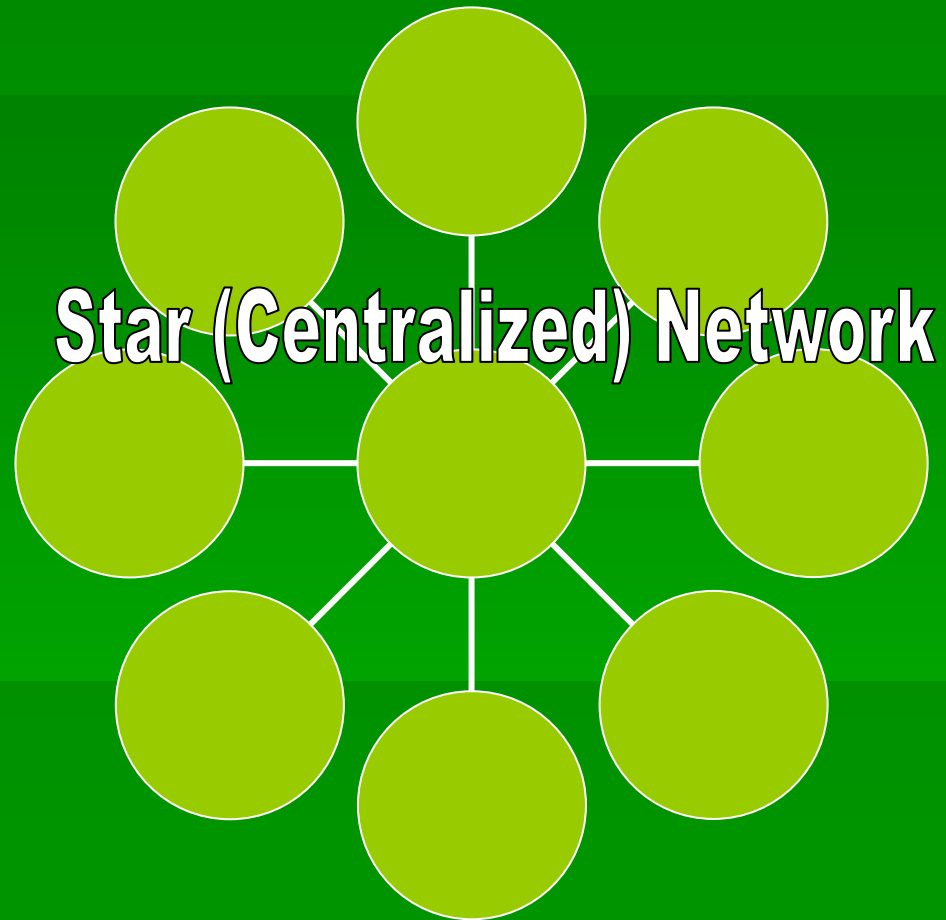


Distributed Network



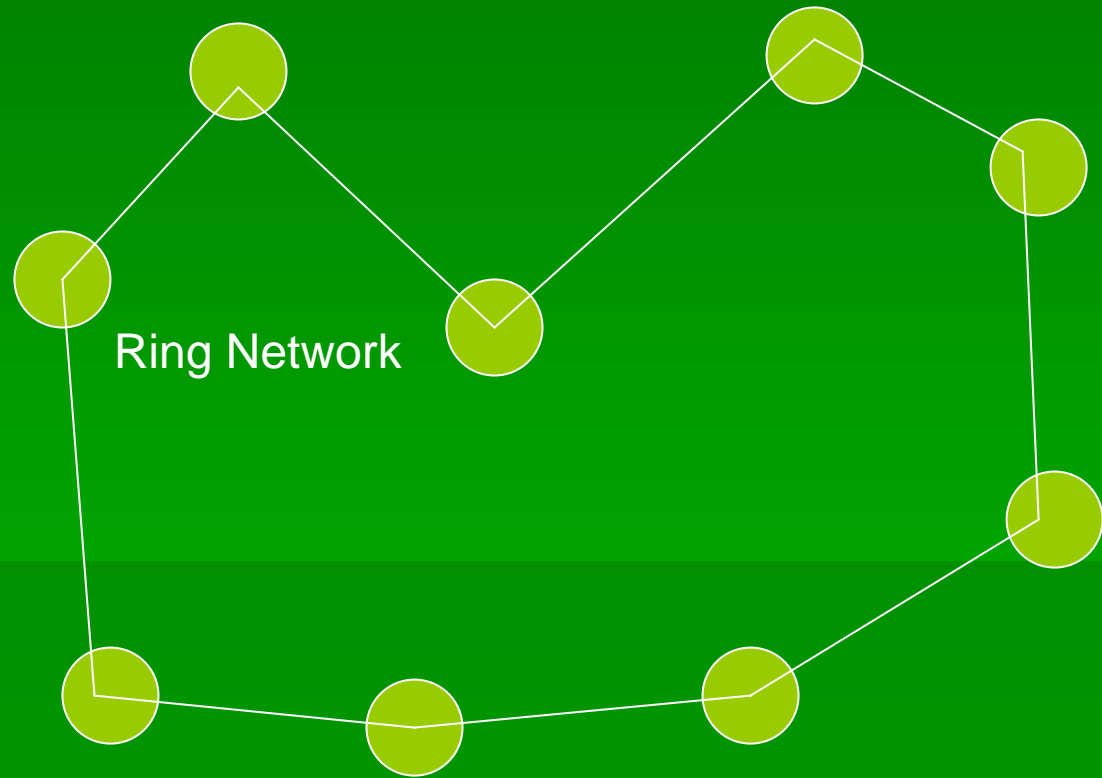
Star Network

- Pros
- Cons



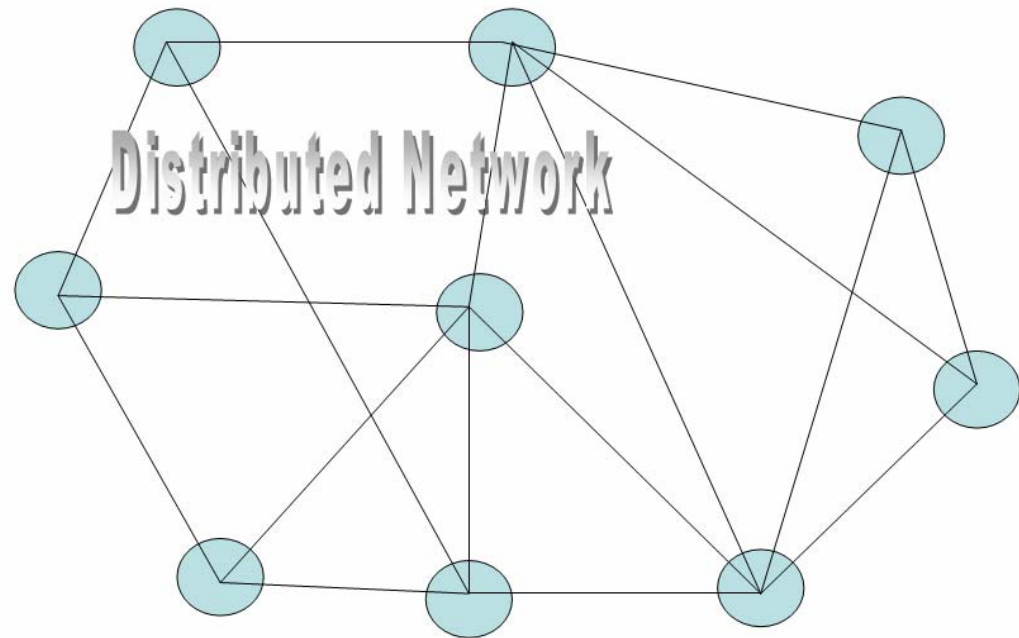
Ring Network

- Pros
- Cons



Distributed Network

- Pros
- Cons



(D)ARPA

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Other early participants

- RAND Corporation
- Association for Machinery
- Stanford Res
- UCLA
- UCSB (Sta. Ba
- University of Utah

Life after DARPA

- ARPANET very successful!
- What made it popular?
- Research was selling point, but...
- People love to chat!
(Even academics.)

1970s

- 1971: 23 hosts around the country
- 1973: ARPANet is international!
- Late 1970s: ARPANet goes commercial!

General public perceptions (vague)
grows

1980s

- Early 80s: PCs at home and work increasingly common
- 1983: TCP/IP fully embraced by Internet
- 1988: “Internet Worm” is very destructive early virus
- 1989: Number of hosts breaks 100,000
- 1989: Tim Berners-Lee begins work on WWW

1990

- 1990: Number of hosts breaks 300,000
- 1993: NCSA works on Mosaic
- Mid 1990s: Prodigy, CompuServe, AOL becomes popular. Netscape develops Mozilla.
- 1995: NSF retreats from architecture
- Late 1990s: Explosion!

Network Potpourri

Local Area Network

- Novell at WCC

Regional Network

- Merit

Commercial Networks

- AOL

- EarthLink

Intranet

- Like JSTOR, or many corporations

More Networks

National Backbones

- Early ARPANet, NSFNet, MBONE

International Backbones

- Mainly Commercial

Virtual Private Networks (VPN)

The privacy of Intranet, the span of WAN

Common themes

Themes?

Commercial v. academies/gov't

Research v. daily use

Collaboration v. competition

How quickly do things grow?

Sources

- <http://www.isoc.org/internet/history/breif.html>
- <http://www.zakon.org/robert/internet/timeline/>
- <http://www.davesite.com/webstation/net-history.shtml>

When do you think the Internet “really” started?

Pick one event you think really molded it.

What about your event makes the Internet what it is today??