

2013 CAFOE Session

The Future Internet

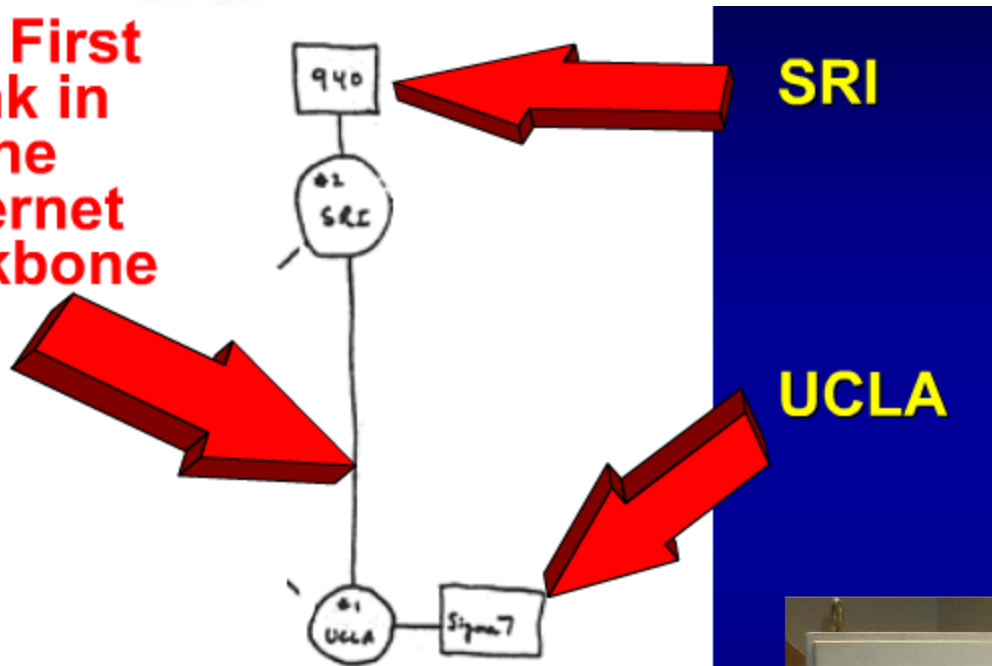
Volker Hilt
Bell Labs/Alcatel-Lucent

Networking History: First Content Transmitted

- First Morse Code message:
 - "What hath God wrought?"
- First phone call by Alexander Graham Bell:
 - "Mr. Watson -- come here -- I want to see you."
- First content transmitted over the Internet?
 - "LO"
 - Intention was to send "LOGIN" ...
 - ... but the system crashed.
 - Sent by UCLA student programmer Charley Kline, at 10:30 pm, on October 29, 1969 who worked for Prof. Len Kleinrock

The Internet in 1969

The First Link in the Internet Backbone



THE ARPA NETWORK

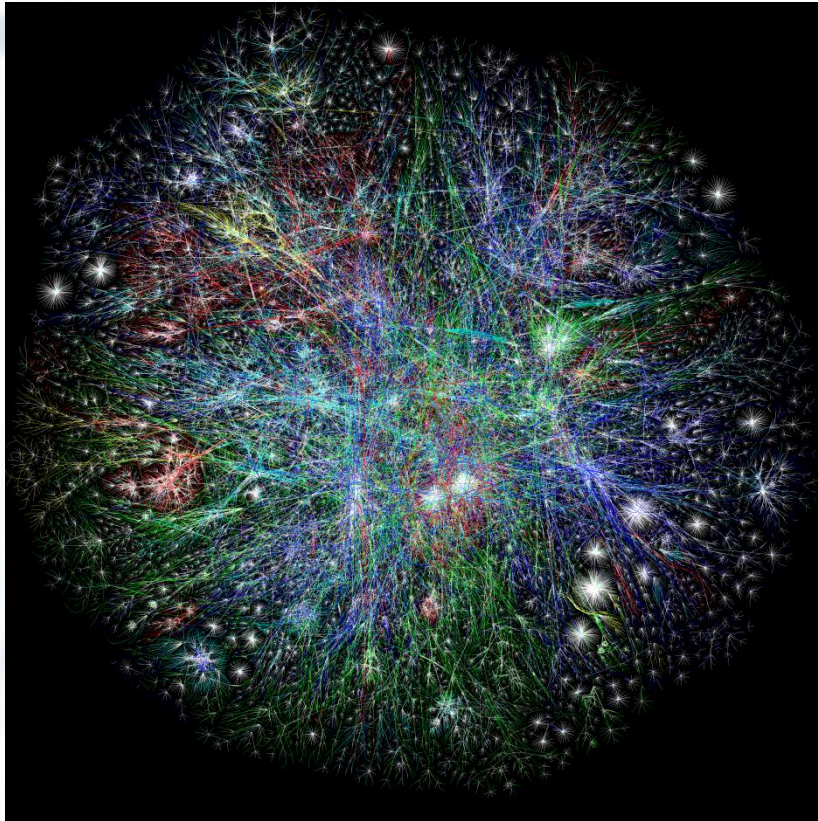
October 1969

The 1969 IMP



Source: Len Kleinrock

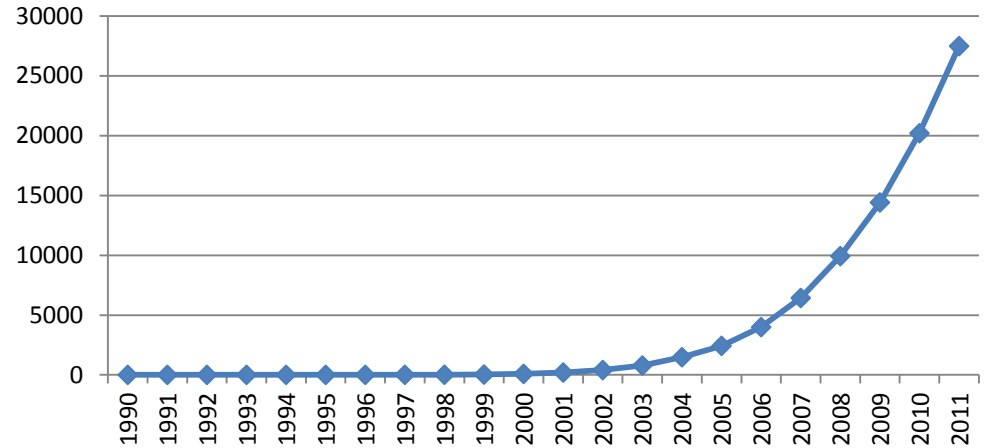
The Internet Today



Map of the Internet in 2003

Source: <http://www.opte.org/maps/>

Global IP Traffic (Petabyte/month)



Source: Wikipedia

All books, articles, essays, songs, images, movies, videos, TV shows and Web pages ever made digitized and compressed corresponds to 50 Petabyte.

Source: New York Times

In 2016, the gigabyte equivalent of all movies ever made will cross the global Internet every 3 minutes.

Source: Cisco

Speakers

- Software-Defined Networks

Anees Shaikh

Senior Architect

Systems Networking, IBM

- Named Data Networking

Patrick Crowley

Associate Professor

Computer Science and Engineering

Washington University