How has networking changed in 30 years?

~~Application~~	90s	20s
<u>Physical</u>	wiring, copper	fiberoptic ↙ <u>diverse wireless</u> ⤷ WIFI 4G Bluetooth... lasers?
	higher error	lower error
	28.8 Kbps ↙ my 1st modem	1 Gbps ↙ my house now
Link Layer	~~Bett~~ Simple encoding	Better encoding, better checksums
	NO security	has security! eg - encrypted WIFI
	Heterogenous, Proprietary Standards FDDI, Token ring ATM...	→ Broadly Standardized (IEEE 802. foo?)

	90s	20s	50s

Network

IPv4 → IPv6?? ← STILL..!!! → Please?

Routing fully distributed

SDN, Centralized Control

Transport

1987
↓
Internet Collapse
TCP invented

Reno

SACK,
Cubic
BBR
Fast TCP ...
Reno+
TCP Chicago
TCP Potato

~~SPDY~~ TCP/UDP ← QUIC

Mostly unencrypted

TLS is Standard!

Application Layer

	90s	20s
	Everything is slow	Latency sensitive
	Less secure	More secure
	Centralized, Single serve	Distributed Geo-replicated, CDNS
	Static documents + files are majority	Video is majority