



1969 to 1994

Large Mainframes to Major Internet Advancements

Followed by Everyone's war stories

IBM 360

Released 1964, purchased at Raytheon 1969 (360/65)

512K of 8-bit bytes

Memory included Operating System

Estimated ½ million ops/second

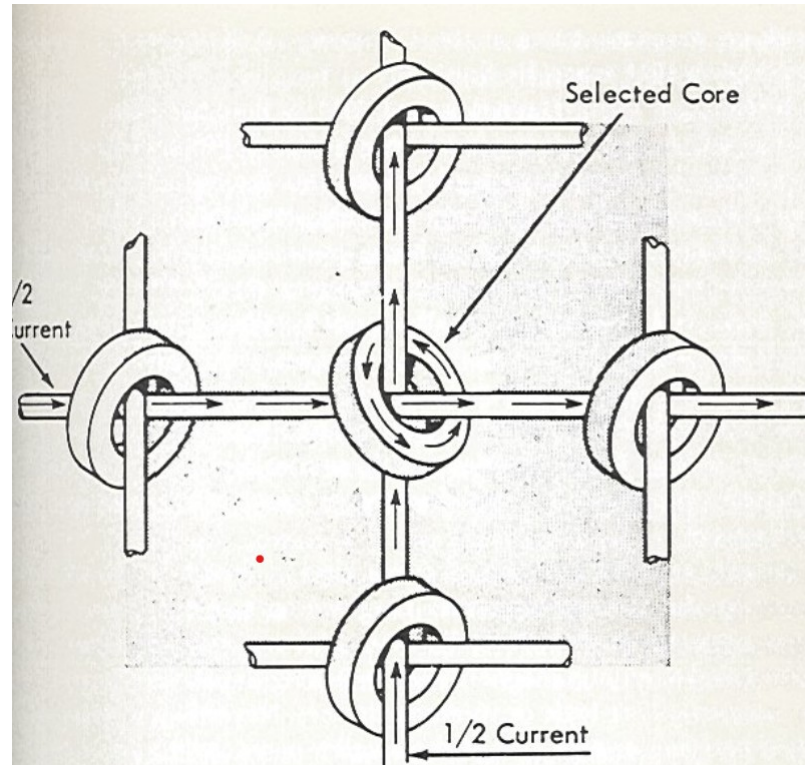
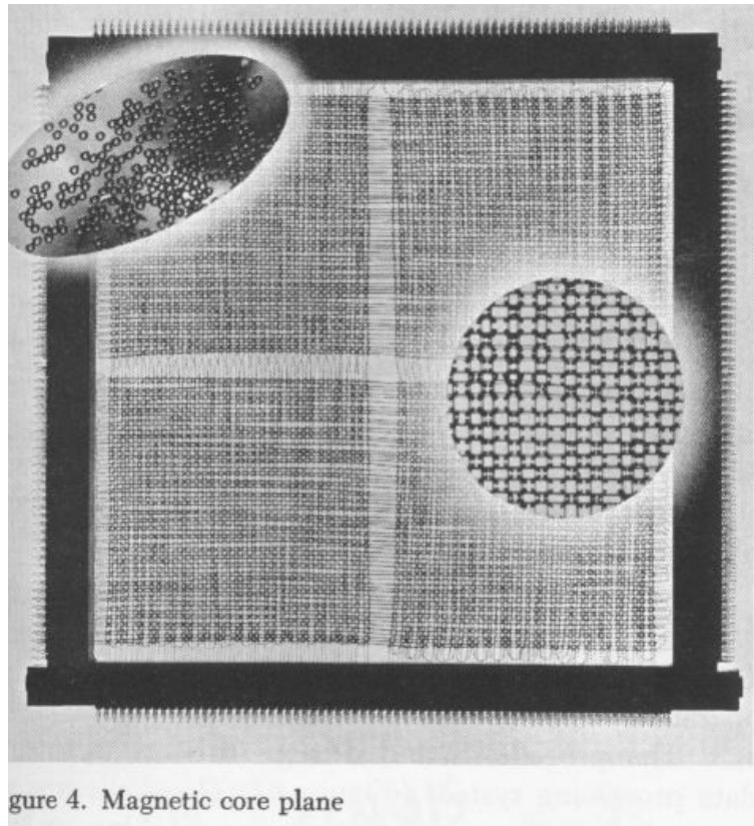
Had disks and tapes, but programs and most data on cards.

80 column cards, 12 rows, 7³/₈ by 3¹/₄ “

026 and then 029 keypunch



IBM 360 had Core Memory until mid-70s



The IBM System/360 Model 50's core memory has 30 mil diameter (0.8 mm) cores. Each core has three wires: X and Y wires to select a core from the grid, and a green sense/inhibit line.

I used a typewriter, teletype and keypunch each with different keyboards



029
keypunch

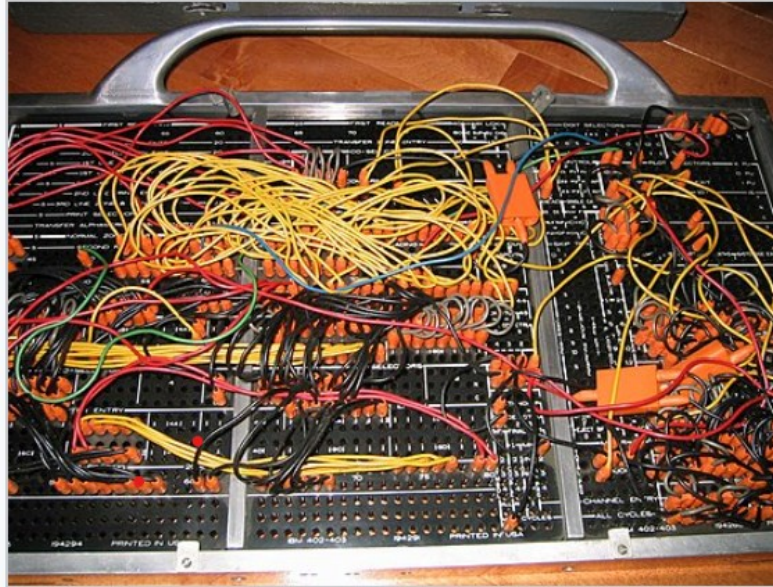


ASR-33



Smith-Carona typewriter

Tabulating Equipment



Control panel for an IBM 402
Accounting Machine



Production Jobs included many steps using Tab Equipment
Sorting input decks, etc

IBM 082 Card Sorter

Nominally 1000 cards/minute
After handling ~500 cards (1 column) per min

Bob Beaudoin arrived with 2 pallets of cards

- 2000 cards/box
- 5 boxes/case (10,000 cards)
- 4 cases/pallet

- Wanted to sort a 15 character partnumber including alpha, requiring 3 passes per column
- #hours = $(8 \times 10,000 \times 15 \times 3) / (500 \times 60 \text{ mins/hr})$
- =120 hours

- Then print and resort.
- I recommended using Syncsort



Let's leap to 1994 (30 years ago)

What the Internet looked like in 1994 according to 15 webpages born that year.

Source – www.FastCompany.com

- Internet started in 1983
- Tim Berners-Lee in 1989 at CERN combined HTML, HTTP and URLs and in 1993 all put in the Public Domain..

1994

- MOSAIC released “first killer app)
- AOL, Prodigy and CompuServe became available
- At start of 1994 623 web servers; by year’s end 10,000
- SNOPES and Internet Movie Database (IMDB)
- Big companies got online
- Ads were at a minimum
- 14.4 kbps to 28kbps; 56KB in late 90s

More 1994 events

- WHITEHOUSE.GOV and then whitehouse.net
- 11/93 the White House purchased a T1 line to the Internet via DARPA
Jack Fox, IT Director “What are we going to do with it?”
Borrowed some Sun quad processor servers; launched 10/20/1994
- Yahoo for searching, news page, email
- Bill Gates** “It’s good for nerds, or technical people like us. We love it. But normal people want a more curated experience they don’t want weird URLs, HTTP colon, slash, slash, www dot. A normal person’s never going to get any of that stuff”
Microsoft’s first website was for customer support using CompuServe.
- First e-Commerce transaction 8/11/94 selling a music CD for \$12.48 plus shipping

More 1994 events

- 9/1994 Relentless.com registered. In 1995 name changed to Amazon.com
- 12/1994 Netscape Navigator 1.0 released
- 8/22/94 Pizza Hut released *PizzaNet*. Telephone to confirm; payment at pickup
- Norway's Olympic Games signed deal with Sun. By 2nd week of the games servers accessed 1.3 million times by users from ~25,000 computers in 42 countries. **OVERLOAD**
- Ed Kroll's *Whole Internet User's Guide and Catalog* (600 pages)
- 7/1994 first webcam *Fogcam* for watching weather

More 1994 events

- 5/1994 Ted Kennedy's office launched first congressional portal.
Used against Romney who had no web presence.
- 12/12/1994 Wells Fargo: "first" banking site. VERY SLOW
First page showed two people on a stagecoach saying "Under Construction".
- First robot web crawlers

This was quite a year