

SAN JOSE SC97 NOV. 15-21

SC'97

And the

History of the Internet Exhibit

**Would Like to Thank You for the
Contributions, Time and Dedication
That Made Our Exhibit Possible.**

Many Thanks.

Ben Bous

Date: Mon, 15 Sep 1997 22:12:04 -0700
From: Dan Lythcott-Haims <dan@lythcott-haims.com>
Reply-To: dan@lythcott-haims.com
Organization: Lythcott-Haims Design
MIME-Version: 1.0
To: Gwen Bell <bell@tcm.org>, Bill Boas <bboas@abbatech.com>,
Merry Maisel <maisel@sdsc.edu>, Dag Spicer <Collections@tcm.org>
Subject: Timeline information list

DAG TO LOCATE

SC 97

Following is my distillation of the information we gathered today. I have made some assumptions about where we will need some descriptive text, although I may be off in some cases. Anywhere ?? shows up I am unsure of how we will display that information. Unfortunately, that happens far too often in this list for comfort, especially toward the end. Any and all suggestions will be helpful.

TIMELINE

1962

FACT (graphic): 10,000 computers installed (worldwide? USA?)
FACT (graphic): first \$1 billion year for the computer industry
ARTIFACT (Dag): Ad for Bell Labs „Information Highway%
PHOTO (acquire ??): Licklider
TEXT (Merry): about Licklider,s „Galactic Network%
PHOTO (in hand): TX-2 at MIT
TEXT (Merry): about TX-2
PHOTO (in hand): SAGE
TEXT (Merry): about SAGE
PHOTO (acquire ??): Dataphone
TEXT (Merry): about Dataphone
QUOTE (Merry): Paul Baran,s paper from RAND on packet switching

1963

PHOTO (Dag): American Airlines photo of Sabre system
TEXT (Merry): about Sabre
GRAPHIC (Gwen): Diagram of ASCII
TEXT (Merry): about ASCII

1964

ARTIFACT (Dag): IBM 360 console
TEXT (Merry): about 360
PHOTO (in hand): GE public timesharing system on a 635 (photo of 630)
TEXT (Merry): about GE timesharing

1965

PHOTO (in hand): DEC PDP-8
TEXT (Merry): about PDP-8
CARTOON (in hand): ILLIAC

published
directors chart
moved table

1966

★ ARTIFACT (Dag): Acoustically coupled modem

TEXT (Merry): about modem

ARTIFACT (Dag): DDP-516 marketing brochure

PHOTO (in hand): PDP-10

TEXT (Merry): about PDP-10

XD392.83

DLH has already?

1967

QUOTE (Merry): Larry Roberts, design paper on the ARPANET

TEXT (Merry): about Larry Roberts

QUOTE (Merry): Don Davies, plan for a packet switching network

TEXT (Merry): about Don Davies

1968

FACT (??how to display??): AT+T introduces 56KB service

1969

PHOTO (Bill,Dan): Kleinrock with his IMP at UCLA

TEXT (Merry): about Kleinrock,s lab

GRAPHICS (Bill to confirm authenticity): 2 diagrams of earliest ARPANET nodes

QUOTE (Merry): first RFC

TEXT (Merry): about RFC,s

FACT (??how to display??): Merit network in Michigan

ARTIFACT (in hand): BB&N design report on IMP

TEXT (Merry): about IMP book

1970

PHOTO (Gwen): first ATM machine

TEXT (Merry): about ATM

ARTIFACT (in hand): PDP-11 Unibus

TEXT (Merry): about Unibus

FACT (??): switch rom hard copy to CRT use

FACT (??): Militants attack the computer center at Wisconsin, casualties were 1 human and 4 computers

FACT (??): NCP (network control protocol) established

FACT (??): ALOHAnet established at Hawaii - a radio network

1971

ARTIFACT (Dag): advertisement for Intel 4004 - the first microprocessor

OR PHOTO (in hand)

TEXT (Merry): about 4004 or microprocessors in general

GRAPHIC (Bill): Diagram of ARPANET with 14 nodes

FACT (??): Ray Tomlinson invents an email program for use across the

ARPANET - possible messages available in archives
ARTIFACT (in hand): UNIX license plate
TEXT (Merry): about UNIX

1972

FACT (??): first public demonstration of ARPANET
PHOTO (in hand): Woz,s blue box
TEXT (Merry): about blue box
?? - IBM 3270
FACT (??): 2400 and 4800 baud modems introduced
FACT (??): Seymour Cray left CDC
FACT (??): C was developed
PHOTO (in hand): Intel,s 8008
TEXT (Merry): about 8008
FACT (??): Larry Roberts develops multifunction email software
QUOTE (merry): Eliza-Doctor conversation
TEXT (Merry): about Eliza conversation
QUOTE (Merry): from Bob Kahn from Hafner book

1973

GRAPHIC (Dag): Map showing first international connections to internet
TEXT (Merry): about international connections to internet
ARTIFACT (Dag): Ethernet connectors
TEXT (Merry): about Bob Metcalfe,s thesis on ethernet
?? - first dial-up modem
FACT (??): McQuillan completely revised IMP software

X1368.97, X1460.97

1974

ARTIFACT (Dag): Alto X124.82
TEXT (Merry): about the Alto
ARTIFACT (in hand): BBN manual for IMP
FACT (??): BBN Telenet developed
TEXT (Merry): about Telenet

1975

FACT (??): ARPANET transferred to DCA

1976

PHOTO (in hand): Cay-1
TEXT (Merry): about Cray-1
GRAPHIC (Dan): article about Ethernet from Xerox PARC book
TEXT (Merry): about ethernet

1977

GRAPHIC (Bill): network map showing ARPANET/RadioNet/SATNET demo
 TEXT (Merry): about internetwork demo
 FACT (??): fiber optic cable developed
 ARTIFACT (Dag): TRS-80
 TEXT (Merry): about TRS-80
 FACT (??): Larry Landweber at U. Wisconsin developed Theorynet

1978

✧ ARTIFACT (Dag): Hayes modem
 TEXT (Merry): about Hayes modem

1979

FACT (??): Usenet newsgroups begin
 FACT (??): Bitnet ?

1980

FACT (??): Telemail introduced from GTE Telenet

1981

✧ FACT (??): CSNet has 213 hosts
 ✧ ARTIFACT (Dag): Osborne
 TEXT (Merry): about Osborne
 PHOTO (in hand): Apollo DN-100
 TEXT (Merry): about Apollo
 ✧ ARTIFACT (Dag): IBM PC
 TEXT (Merry): about the PC
 QUOTE (Merry): from Clark, s paper on TCP/IP

1982

ARTIFACT (Dag): Time magazine cover: computer of the year
 ✧ ARTIFACT (Dag): board from IRMA *x580.85, x889.89, x991.89 + advert,*
 TEXT (Merry): about IRMA
 FACT (??): TCP/IP and EGP make internet come to life
 TEXT (Merry): about TCP/IP and EGP
 ✧ ARTIFACT (Dag): Apple II network board *x1132.93*
 TEXT (Merry): about Apple II network board
 ✓ ARTIFACT (Dag): SUN I board
 TEXT (Merry): about SUN I board
 ARTIFACT (in hand): Snipes manual
 TEXT (Merry): about Snipes

1983

PHOTO (Gwen): TI silent 700
 TEXT (Merry): about Silent 700
 FACT (??): the network becomes the computer - Berkeley releases 4.2BSD

incorporating TCP/IP

1984

FACT (??): 1,024 hosts on the network

FACT (??): DNS started

ARTIFACT (Dag): Macintosh

TEXT (Merry): about Macintosh

1985

ARTIFACT (in hand): Kobayashi, s „Computers and Communications&

GRAPHIC (Bill): map of US with T1 backbone

TEXT (Merry): about establishment of supercomputer centers by NSF

FACT (??): 2,000 hosts

ARTIFACT (Dag): IBM token ring board

X1167-94

GRAPHIC (Dan): token ring

TEXT (Merry): about token ring

1986

ARTIFACT (Dag): VAX 11/785 board

X759.86

TEXT (Merry): about VAX

PHOTO (Gwen): Cray XMP

TEXT (Merry): about XMP

FACT (??): IETF (internet engineering task force) formed

1987

FACT (??): # of hosts breaks 10,000

FACT (??): UUNet founded

1988

FACT (??): Morris Worm incident

FACT (??): FidoNet established

?: Paper by Jacobsen about TCP/IP

1989

FACT (??): 100,000 hosts

FACT (??): MCI mail and Compuserve introduced

GRAPHIC (in hand): Berners-Lee diagram showing hypertext environment

TEXT (Merry): about Berners-Lee

1990

FACT (??): ARPANET ceases to exist

FACT (??): 300,000 hosts

FACT (??): WWW is born
TEXT (Merry): about telescopes, toasters, etc.

1991

FACT (??): NSFNet backbone upgraded to T3
ARTIFACT (Dag): Little blue book about the US High Performance Computing Act (Gore)
TEXT (Merry): about the Act
FACT (??): Gopher, WAIS, WWW
FACT (??): 600,000 hosts

ad. Merry to fetch

1992

GRAPHIC (??): WWW
PHOTO (Gwen): RS-6000 server
TEXT (Merry): about RS-6000
FACT (??): Mosaic developed at NCSA
GRAPHIC (Bill): map of US with internet backbone
FACT (??): # of hosts breaks 1 million
GRAPHIC (Dag,Dan): Map of world showing when countries came on-line
PHOTO (Gwen): Photo of students in Illinois lab

--
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SC 97

1962

Photographs; AN/FS-Q7 SAGE Light gun, The Computer Museum History Center

1963

Syncar Satellite image courtesy of NASA.

1964

Photographs: The Computer Museum History Center
IBM 360/40 Console. Gift of International Business Machines.

1965

Photographs and documents: The Computer Museum History Center.

1966

Credits:

Photograph of Lawrence Roberts" Courtesy of Lawrence Roberts.
DDP-516 manual: The Computer Museum History Center
Acoustic coupled modem The Computer Museum X.1448.97. Gift of Digital Equipment Corp.

1967 (196 words)

Papers: courtesy of Lawrence Roberts.

Photographs: Paul Baran, courtesy of Paul Baran. Donald Davies, The Computer Museum History Center.

1968

Documents: The Computer Museum History Center

1969

Photograph and ARPANET map: courtesy of Leonard Kleinrock

1970

UNIBUS: on loan from Gordon Bell.
Network Interface module: on loan from Robert Metcalfe.

1971 (249 words)

Photograph and License plate: The Computer Museum History Center.

1972 (335 words)

Documents and photograph. The Computer Museum History Center

? Atlantic City brochure

1973

1974

don't have any idea where these came from.

1975

1976

Photograph: Cray 1, The Computer Museum History Center, Remote Packet Radio Test, Stanford Research Institute.

1977

1978

? David Clark?

1979

Document: The Computer Museum History Center

1980

Tenex License Plate on loan from Dan Lynch

Shockwave Rider and paper on loan from John Shoch

Ethernet manual. The Computer Museum History Center

Please eliminate TRS-80 Model 100 -- not referred to in text and belongs in 83/4

1981

Le Minitel photograph. The Computer Museum History Center

Ethernet connector. The Computer Museum X1460.97. Gift of Digital Equipment Corporation.

Osborne I. The Computer Museum X363.84. Gift of Osborne Computer Corp.

1982

Credits: Snipes The Computer Museum X1195.95. Gift of Drew Major.

IRMA board and license plate The Computer Museum X580.85. Gift of Dr. W. Waverly Graham.

1983

Credit: Apollo photograph and Token ring network connector X1166.94. Gift of Hewlett Packard Corporation.

Jon Postel photo?

1984

Datapoint ad. The Computer Museum history center

1985

Computers and Communication. The Computer Museum History Center.

NCAR digram. courtesy of NCAR.

1986

TCP/IP ventors workshop. on loan from Dan Lynch
FIX West ?

1987

Button and pocket protector, on loan from Dan Lynch

1988

Interop Conference plaque, on loan from Dan Lynch
NCAR diagram, courtesy of NCAR
Proteon router

1989

Information management, The Computer Museum History Center.
Cray III on loan from Tony Cole

1990

?

Buttons, on loan from Dan Lynch

1991

Cray YMP model, The Computer Museum History Center
Buttons, on loan from Dan Lynch

1992

T-shirt, on loan from Dan Lynch

SC97 Artifact List
Artifact List

1962-92

1962

- DEC Writer
- PDP-10 (Livermore)
- PDP-1
- Honeywell 516
- UNIX LIVE FREE OR DIE
- JCR Lich photo
- TX-2 photo/doc
- Q32 Burroughs
- Paul Baran

(PIX)

first \$1 billion

works

(A) GB

~~1972~~

RS6000 photo/doc

mod 550

(A) B²

B²

- John Maldi. ~~IL~~ Illinois ~~→ what was web like then?~~ → Prester Catay
- TBL orig notes handwritten notes

(A) DS

- ANS:

- # hosts breaks a million

(A) B²

- 2/1 Wams

- U WISC Larry hand webber

Negs or Group. whenever possible

(A) Timetables of Technology

(A) M Brewster Caley

- photo of SAGE // user
- Bell Labs: "info highway"
- Dataphone (acoustically-coupled modem)

1963 - GECOS 1st TSS photo/manual

(A) DS

- SABRE
- Project MAC (MIT)
- ASCII invented (Time life) Multics
- ~~ICSA~~ ~~SE~~ photo ASR-33

1964 S 360/40 console
ASR-33 PIX

1965 - PDP-8 PIX
- Carnegie Tech: portable teletype 33 100/bps

Boston

X392.83

1966 - Accountly-coupled Anderson-Juebsen
- DDP-516
- ~~DDP~~ PDP-10 PIX / brochure
ELIZA:

1967 ACM first paper on ARPANET
Cary Roberts ~~paper~~ Dan Davis
~~DS~~

1968 - AT&T announces 56kbps

1969 - RS232 standardized
- ~~UNIX plates~~ UNIX development started
- ~~Mulden~~

(A) B² - 1st arpanet node.
- IMP PIX (Kleinrock)
- arpanet maps

(A) DS - Xerox Sigma PIX / brochures
#

(A) B² fox LK for authenticating node maps

- first RFC
- Mount network?

- 1970 - ~~first RT~~ 1st ATM
 - first UNIBUS PDP-11 announcements
 - Datapoint ARCNET network
 - glass teletype ADP/Lear-Siegler pix
 - Univac attach ~~trans~~ computer centre 1 hour 4 min/c

- 1971 - NCP established RFC?
 - ALOHA-net in UHawaii amateur radio
 (A) DS " " 14 nodes.
 ← 1st processor (P) // 1795
~~1st~~ ← 1st e-mail + file transfer = UNIX plato

- (A) DS send B² msg group archives
 655K/dy.

- 1972 - first public demo of ARPANET
 - Woz blue box pix
 - 8088
 - 2400/4800 baud
 - 3270 terminal
 - Cray learner CDC
 - C lang developed

- (A) GB - Larry Roberts first mailer
 Washington hotel ELIZA & Perry (Dartmouth) p 183.

- p186 NWSOL Bob Kahn ^{organized} CCC

1973

- 1st intl connection UC-London +

- VA-3400 Kahn, Cerf begin TCP/IP work
- VADOC first full-duplex modem photo

(A) B² Bob Metcalfe 1st Ethernet h/w

1974

~~AN~~
~~- DTRAW all digital network in TX?~~

(A) DS - telnet (BBN)

- Alto ⁵ itself

(A) DS

May 74 IC Trans Comm. Stanford + UC London

Kahn/Cerf
TCP/IP

1975

~~Mitford~~ ~~John~~ ~~Cray~~ photo
- UNIX pgms manual + license
- ~~UNIX license plate~~

1976

~~MIT~~

Cray - Los Alamos

X1292.96

1977

TRS-80 mod 100
Hayes modem.



1978

→ CSI modem > 100 hosts

1979

~~CS net begins~~
usenet starts
~~etc~~

(photo)

Kern/Die/Lubel
Ethernet

1980

bitnet (IBM)

telemail GTE introduction

1981

~~Osborne~~

Osborne 1

photo

[Kaulone]

CS net begins

213 hosts

1982

DN100 (photo)

Time mag
IRMA Bd

"man of the year"

X580.85

X Sent photo
or artifact.

Apple II

X 1132.93

X 1073-91

TCP/IP

Snipes

ⓐ DS

send Snipes cat. description

1983 TI Select 700 X1118.93 (photo)
1st BSD rel of UNIX & IP
- network becomes computer

1984 Mac introduced [real] X1074.91 ~~562 hosts~~
1024 hosts

~~X1075.91~~ DNS introduced

Ⓐ M ~~HA~~ "cyberspace" Norm Gibson

1985 TI - introduced (map ...) 2,000 hosts
NSF centers SC centers established

- IBM token ring X1167.94

1986 11/785 word 2,300 hosts
X-up
IETF formed (RTPC introduced)

1987 y-up
vnet ~~28 hosts~~
10 hosts

1988 Robert Morcut worm 56K
CERT - FIDonet formed
(van Jobben McQuillan)

1989 MCI mail fanned 100,000 hosts
convergence fanned
w/3 TBL starts on it

1990 August Space Dec Status 3100
~~first ISP: world.com~~ 300R
fourteen

1991 gopher, mas, PGP 600,000 hosts
backbone upgraded to T-3
APCCT - AL Core

I Vignettes
IMP Kleinsch, Roberts @ ARPA } archive
(A) DS ~~ship the books back up here~~
Talk to Mary.

II Reid @ Stanford (1977) Vint Cerf
SR = Don Nelson Kahn VT-100

NSFnet nodes
III Football router (DEC or NCAR)
RT PC (IBM)
RS 6000 (from ANS)
NSFnet maps Al Weiss

IV 19) NCSA Mosaic Illinois

Robert Cailliau
e-mail

where?
who worked?
equip would be?

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Fax

jsandiacq@aol.com

To: *Green Bill or Dag Spicer* From: *Jan Zimmerman*
 Fax: *415-604-2594* Pages: *3*
 Phone: *650-604-2571* Date: *10/28/97*
 Re: *Fluiter Insurance* CC:

Urgent For Review Please Comment Please Reply Please Recycle

• Comments:

PROCESSED OCT 30 1997

*Help! For insurance purposes,
 I need serial # for all the items
 from A62-1 (Sage Light Gun) to
 A 101-3 (TI Silent 700) that have a
 \$ value next to them. If you
 disagree with Bill's valuations,
 let me know ASAP, please.*

Thanks, _____

= Porto punch for Gates

Subject: dan's artifact list 10/22/97

Date: Wed, 22 Oct 1997 17:37:52 -0400 (EDT)

From: Jzsandhuog@aol.com

To: bboss@abbaitech.com, bell@fcm.org

Fax to Jan
345-4128

Bill and Gwan:

here's the current list of artifacts from Dan. I will be submitting an itemized and valued list for insurance no later than Friday. If you have any ideas of value either by item or total, please let me know ASAP. Thanks, Jan

Vignette #1
IMP (from Kleinrock)
TI silent 700 (via Merry)
ASR 33 from Jan Hauser at SUN

SGI w/s 02 15,000
Octane 30,000
02 10,000

10 \$ 55,000
10
0

- A62-1 Sage Light Gun 3134908
- A64-1 IBM 380 console 1040-22
- ✓ A64-3 Paul Baran's Paper on Distributed Communication Networks in "IEEE Transactions"
- A64-4 Kleinrock's Book "Communication Nets" 10
- A65-4 Acoustically coupled modem 3948 0
- A66-2 BDP-516 marketing brochure 0
- A67-1 Davies' Paper from Gatlinburg 0
- A67-2 Larry Roberts' paper on networks 0
- A67-3 Paul Baran letter to Larry Roberts 0
- A69-5 First design book on IMP 0
- A70-1 Metcalfe's interface board N/A 10,000
- A70-2 PDP-11 Unibus N/A 0
- A71-3 UNIX license plate 0
- A72-6 Honeywell/BBN IMP and TIP Brochure 0
- A72-7 ARPA Network session booklet Atlantic City 0
- A74-2 Xerox PARC Alto 10,000
- A74-4 Manual for BBN IMP 0
- A78-1 Hayes modem 835 349 97 0
- A79-1 Computer magazine w/ networking cover 0
- A80-2 TENEX License Plate 0
- A80-3 Ethernet Specification 1.0 manual 0
- A80-4 Shockwave Rider book (worm) 0
- A80-5 PARC paper on Worms 0
- A81-1 Osborne CA 00106B 1,000
- A81-4 Piece of ethernet hardware 1,000

1,000 ← very dirty t.fol!
1,000 ?

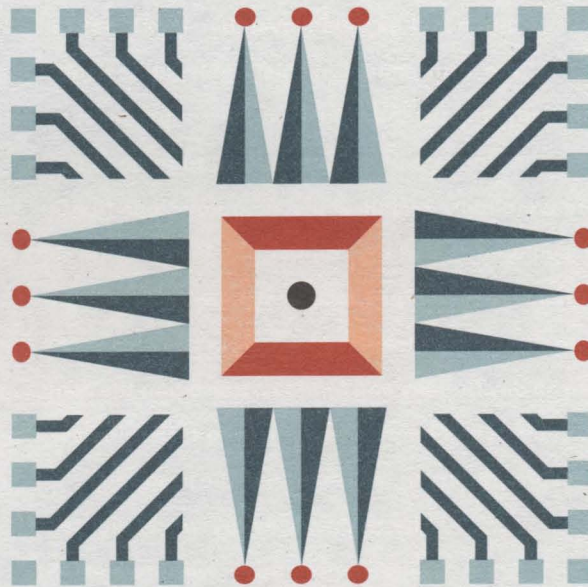
If it's worth \$10, what are do a S/N?

A82-1	TIME magazine cover: machine of the year	0	
A82-2	IRMA board 401 662 66	0	← sketch-wrapped CA0001A0
A82-5	Snipes Manual	0	
A82-6	IRMA convertible license plate	0	
A83-2	"I survived TCP" button	10	← why worth \$10? + others \$0? ds
A83-3	Digital Ethernet brochure	0	
A83-6	Apollo Token ring cable	0	
A84-2	Datapoint Advertisement	0	
A85-1	Kobayashi book	10	
A86-1	TCP/IP vendors workshop book	0	
A86-2	Misc. Computerworld buttons	10	
A87-2	TCP/IP pocket protector	0	
A87-4	"power of TCP/IP" button	0	
A88-2	Ethernet cable on plaque w/ net diagram	100	
A88-3	Proteon artifact 2999 2019 224	100	
A89-2	Gray-3 Brick	100	← way off. Try \$100,000
A89-4	I heart SNMF button	0	
A90-2	"FDDI interop" button	0	
A90-3	Ask me about SMDS button	0	
A90-4	"All the right connexions" button	0	
A90-5	"SNMP at work" button	0	
A91-2	Gray YMP-C90 model/plaque	100	
A91-5	TCP/IP in-board button	0	
A91-6	Frame relay forum button	0	
A92-2	"Nobody knows you're a dog" t-shirt	0	
A101-1	1969 IBM 360 Same as A64-1	100	
A101-2	ca. 1970 Hazeltine 200 terminal	1000	
A101-3	TI Silent 700 with yellow paper	1000	
A101-4	IMP	200,000	UCLA
A102-1	Datamedia Terminal		
A102-2	Terminal unit from the van	1000	} SRI
A102-3	Packet Radio Ministation	1000	
A102-5	Packet Radio	1000	
A102-6	Antenna	100	
A102-9	Various equipment manuals	0	

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