



European Academic & Research Network

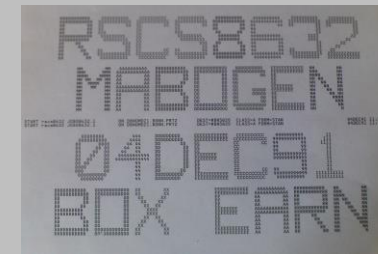
20-21 April 2024

40th Anniversary Conference

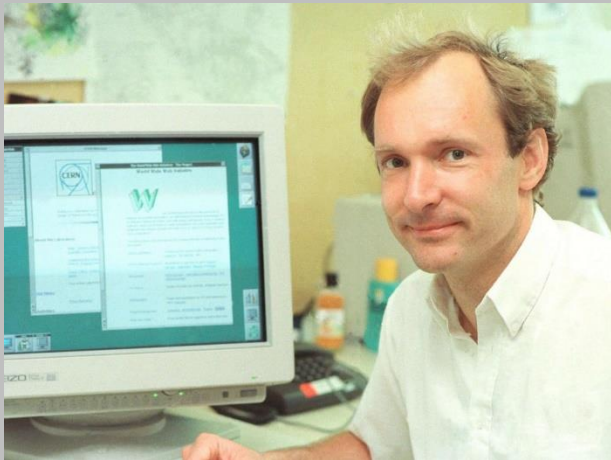
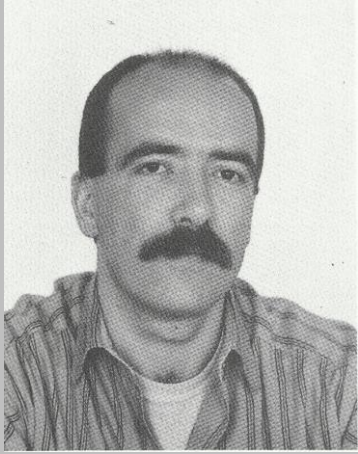
The DEARN Legacy

„Something that is a part of history and/ or that remains from an earlier time“

Dr. Manfred A. Bogen
was: mabogen@dearn
was: GMD in Germany

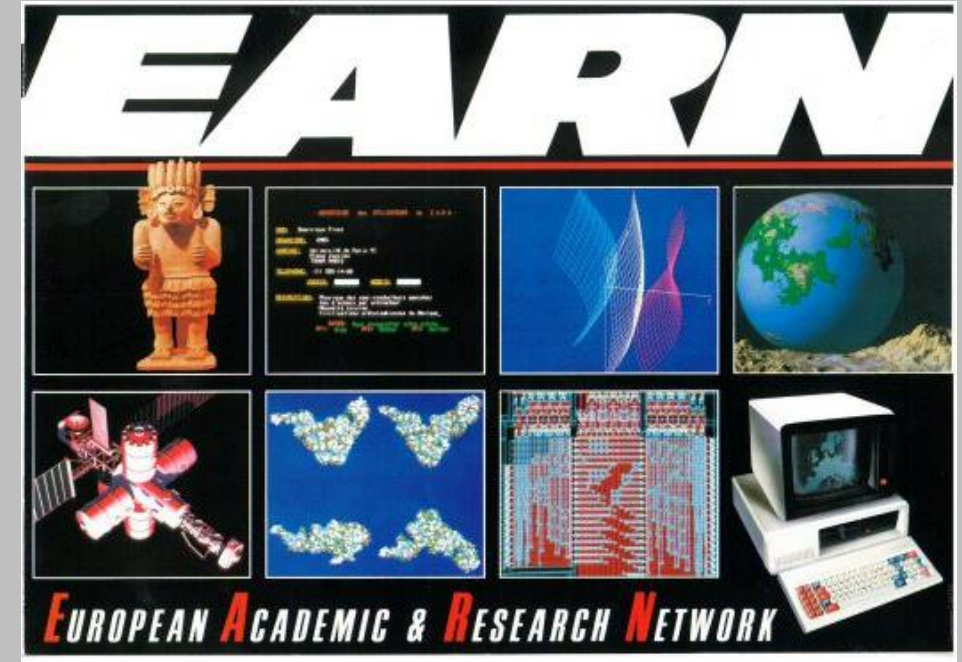


My Family Album



Outline

- Introduction
- DEARN – The EARN Central Node in Germany
- The Beginning of the Web in Germany
- L-Soft international, Inc.
- Conclusion



Introduction

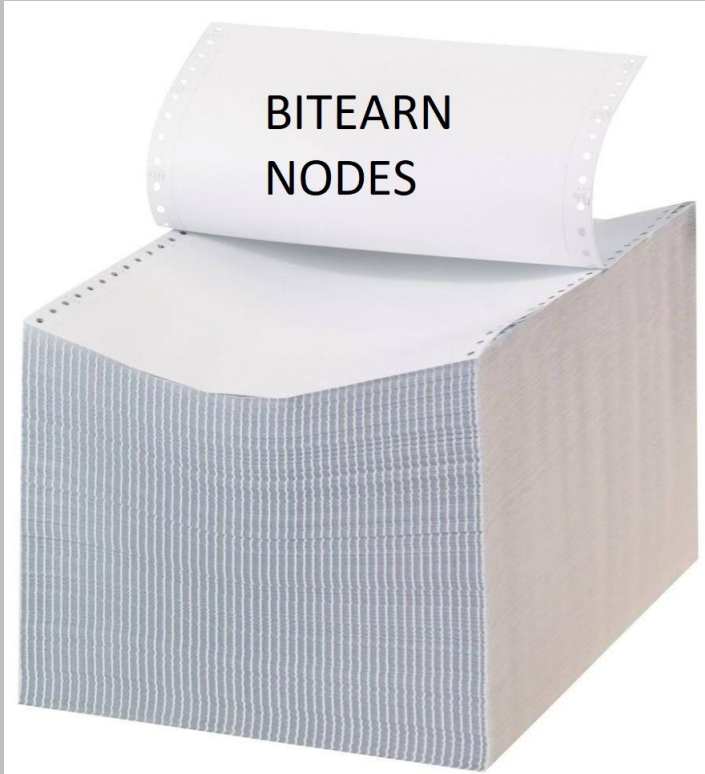
How it all began

Open Systems Interconnection (OSI)



- Development of the 1st German X.400 Message Handling System for SIEMENS mainframes running BS 2000
- Horst Santo, Robert Babatz, Manfred Bogen, Uta Pankoke-Babatz, Gabriele Theidig: Computer Conference System KOMEX Version 4.1 – Manual -, Arbeitspapiere der GMD Nr. 71, GMD, Sankt Augustin
- Robert Babatz, Manfred Bogen: KOMEX: Ein offenes Message Handling System nach CCITT X.400 unter BS 2000; Funktionale Spezifikation. Arbeitspapiere der GMD Nr. 133, GMD Sankt Augustin
- Robert Babatz, Manfred Bogen: Referable Documents – Semantic Relations in Message Handling Systems, in: R.P. Uhlig (Editor), Computer Message Systems – 85, Proceedings of the IFIP TC 6 International Symposium on Computer Message Systems, Washington, DC, September 5-7, 1985, North Holland, pp. 193-206, 1986
- Expert of the German PPT for the Standardization of CCITT X.400-88
- Co-author of a Book about X.400-88
- Manfred Bogen, Bernd Cappel, Peter Kaufmann, Horst Santo, Günter Schulze, Rolf Speth, Michael Tschholz, Alfons Warnking, Lothar Wosnizta, Hans Zschintzsch: Konzept für einen **DFN-Message-Verbund** auf der Basis von CCITT-Message-Handling-Systems, DFN-Studie II, **DFN-Verein**, Berlin

... and then came BITEARN NODES

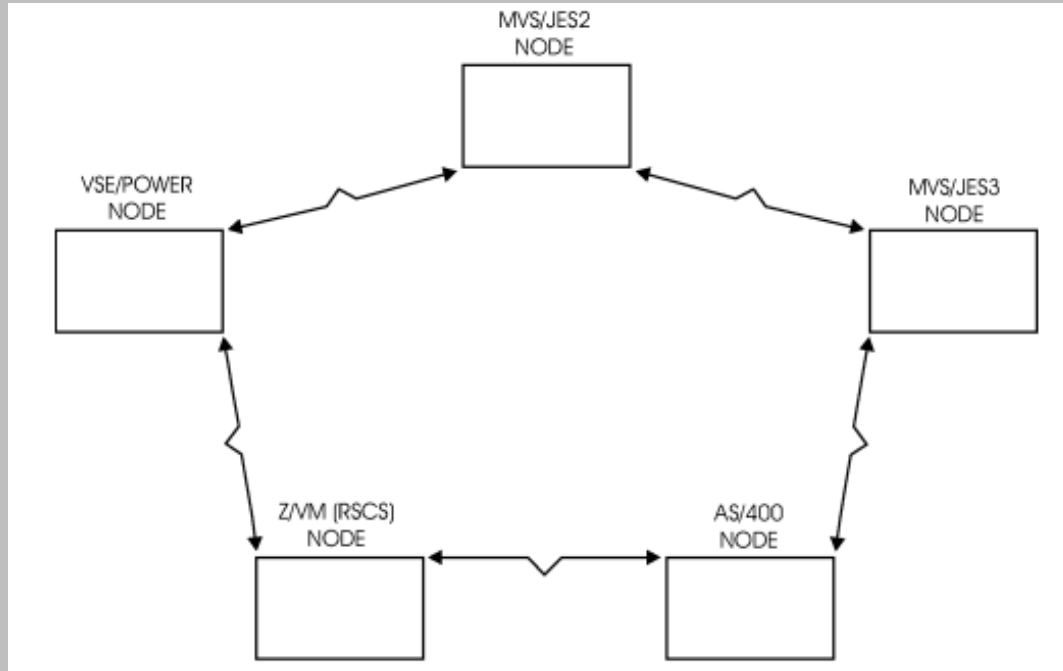


- The master database file for the BITNET and cooperating networks was called BITEARN NODES.
- Each Country Coordinator (and BITNIC in the US) was responsible to collect, on a monthly basis, the changes affecting its national backbone, providing a list of added and deleted nodes and network links to the master EARN repository via NETSERV, a server accessible via the network, managed at first by IBM engineers and later transitioned to EARN hired engineers.
- The key activity of EARN was to maintain the BITEARN NODES file, a text file containing the list of all the existing computers (nodes) connected to the worldwide network, as well as information about the contact person at each node, and needed to generate the routing tables for each computer in the network.

DBNGMD21 in Bonn in BITEARN NODES

- :node.DBNGMD21 :nodenum.0229 :net.EARN :lastup.86/11/20 :abbr.GMD Bonn, Germany :site.Ges. fuer Mathematik u. Datenverarbeitung **Bonn, Germany**
- :addr.Ges. fuer Mathematik u. Datenverarbeitung;Riemenschneiderstrasse 11;D-5300 Bonn - Bad Godesberg :country.D :longitude.007E06 :latitude.50N44 :gmtoff.+01.00 :planet.EARTH
- :director.(Klaus Birkenbihl) GRZ003@DBNGMD21 (+49 228 303-241)
:contact.(Peter Sylvester) GRZ027@DBNGMD21 (+49 228303-245)
:linkfail.OPERATOR@DBNGMD21 (+49 228 303-212) :system.**IBM MVS/SP 2.1.4**
:netsoft.**JES2** 2.1.5 :msgs.YES :cmds.YES
- :files.YES :fformat.NETDATA :machine.**IBM 3083** :connect.84/11/27
:via.DBNRHRZ2 :linkspeed.9600 :linktype.LEASED :mailer.MAILER DEFRT 1
:acontact1.GRZ027@DDAGMD11 :acontfor1.alternate nodeid for system contact
:adjnodes1.DBNRHRZ2 DK0ZA1
- :adjtypes1.9L 2L :cks.57895

NJE and some Users at DBNGMD21



- The Network Job Entry (NJE) Protocol
- Transmission of Jobs
- NJE address: <userid> @ <nodeid>
 - 8 alphanumeric characters each
 - a6@esoc

- SERVICE – Egbert, the IBM SE (PW=SERVICE)
- GRZ001 – Volker, the Head of the Systems Group
- GRZ003 – Klaus, the Director of the Computing Center in Bonn
- ...
- ...
- GRZ027: Peter, a student
- ...
- GRZ046: Richard, another student
- ...
- ...
- GPEP16: a user from one of the other GMD Research Institutes

• **Me: GPEP16@DBNGMD21 = HOW IT ALL BEGAN**

DEARN

The EARN Central Node in Germany

DEARN Darmstadt in BITEARN NODES

since 1984

- :node.DEARN :nodenum.0239 :net.EARN :lastup.86/12/15 :abbr.EARN Central Node, Germany :site.EARN Central Node, Darmstadt, Germany :addr.Gesellschaft fuer Schwerionenforschung mbH;Planckstr. 1;D-6100 Darmstadt 11 :country.D
- :longitude.008E40 :latitude.49N56 :gmtoff.+01.00 :planet.EARTH :director.(**Dr. Stefan Glueckert**) RZ04@DDAGSI3 (+49 6151 359-527) :contact.(Udo Meyer) MEYER@DEARN (+49 6151 359-703)
- :linkfail.OPER2@DEARN (+49 6151 359-515 (Mo-Fr 6:00-23:00 CET)) :system.**IBM VM/SP** Release 3 :netsoft.RSCS V1 Rel. 3 :msgs.YES :cmds.YES CPQN :files.YES :fformat.NETDATA :fclass.N :machine.**IBM 4361-5** :connect.**84/11/27** :via.GWUVM
- :linkspeed.9600 :linktype.LEASED :postmast.(Udo Meyer) MEYER@DEARN (+49 6151 359-703) :mailer.MAILER :mformat.PUNCH :mclass.M :acontact1.(**Udo Meyer**) OPERATOR@DEARN (+49 6151 359-703)
- :acontfor1.alternate operator console (Mo-Fr 8:00-17:00 CET) :acontact2.(**Berthold Pasch**) PASCH@DHDIBM1 (+49 6221 404-242) :acontfor2.alternate system contact :adjnodes1.DBNRHRZ2 DDAGMD11 DHDURZ2 DDAGSI3 CEARN DERRZE1
- :adjtypes1.9L 2L 9L 9L 9L 9L :adjnodes2.GWUVMHEARN DKEARN DS0RUS1P DBSTU1 DDAGSI5 :adjtypes2.9L 9L 9L 4L 9L 9L :adjnodes3.AEARN DDAESA10 D00DEMO DMRHRZ11 DHDMP15 DJUKFA11 :adjtypes3.9L 9L 2S 2L 2L 9L :adjnodes4.DMZRU71 :adjtypes4.1L
- :remark1.This node has a NETSERV facility. :hub.MAJOR :cks.39647 :remark2.This node runs a RELAY machine for interactive conferencing. :remark3.This node runs a LISTSERV machine.

- **Decision to move DEARN from Darmstadt to Bonn on July 15, 1987 [87EXEC4.87].**

DEARN

What came to Bonn from Darmstadt and Barcelona



IBM 4361 R5 with VM/SP
IBM 3705 and IBM 3725 communication controllers



Jose Maria Blasco y Comellas
was: ZCCBJBC@EB0UB011
then: jmblasco@dearn

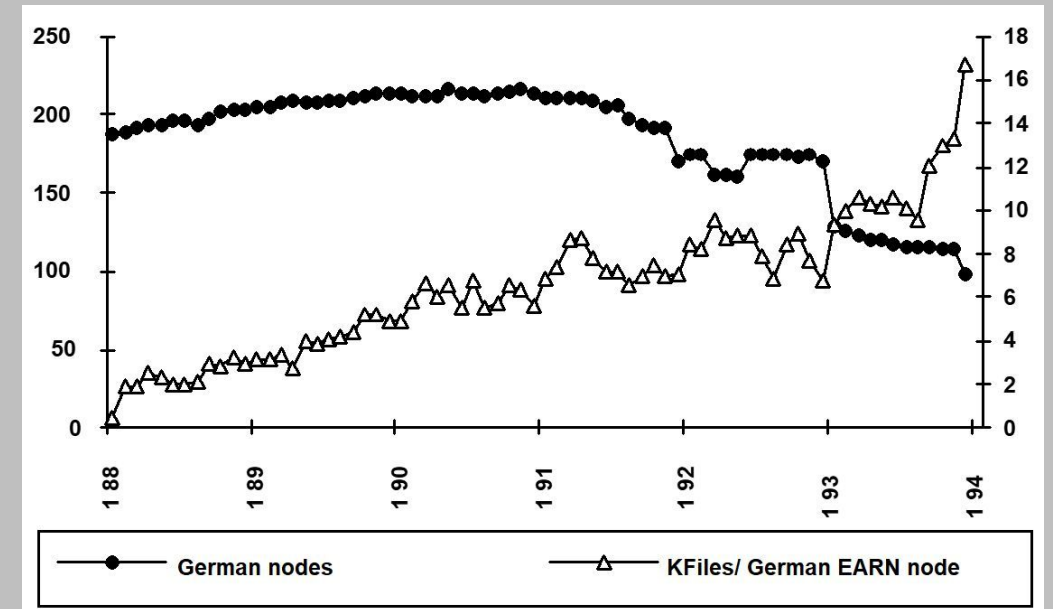
- **Wanted: Project Manager!**

DEARN Bonn in BITEARN NODES

- :node.DEARN :nodenum.0239 :net.EARN :lastup.88/11/06 :abbr.EARN Central Node, Germany :site.EARN Central Node in **Bonn**, Germany :addr.Gesellschaft fuer;Mathematik und Datenverarbeitung;Riemenschneiderstrasse 11;D-5300 Bonn 2 :country.DE
- :longitude.007E06 :latitude.50N44 :gmtoff.+01.00 :planet.EARTH :director.(Klaus Birkenbihl) GRZ003@DBNGMD21 (+49 228 81996-41) :contact.(Jose Maria Blasco) **JMBLASCO@DEARN** (+49 228 81996-51)
- :linkfail.(Jose Maria Blasco) JMBLASCO@DEARN (+49 228 81996-51) :system.IBM VM/SP R5 :netsoft.RSCS V2.2 :msgs.YES :cmds.YES :files.YES :fformat.NETDATA :machine.IBM 4361-5 :connect.87/02/01 :via.CUNYVMV2 :linkspeed.64000
- :linktype.LEASED :postmast.(Jose Maria Blasco) JMBLASCO@DEARN (+49 228 81996-51) :mailer.MAILER :mformat.PUNCH :mclass.M :acontact1.(**Manfred Bogen**) **MABOGEN@DEARN** (+49 228 81996-50) :acontfor1.Alternate System Contact
- :adjnodes1.DDAGSI1 DBNGMD21 DK0ZA1 DBNGMD12 DJUKFA11 D00DEMO :adjtypes1.ZL CC 2L ZL ZL 2S :remark1.This node provides NETSERV, LISTSERV ~~and RELAY service~~:hub.MAJOR :cks.32894
- :adjnodes2.DHHDESY3 DDAGMD11 **CEARN FRMOP22 CUNYVMV2** DHDURZ1 :adjtypes2.ZL 9L 9L ZL ZL ZL :srv1id.MAILER@DEARN :srv1type.GATE822 :linkign.FRMOP22-CEARN :adjnodes3.DBSTU1 DB0ZIB21 DFLVROP1 :adjtypes3.4L 4L ZL

The DEARN Services at GMD Bonn

- German EARN Country Coordination
- MAILER
- LISTSERV
- NETSERV
- Node Management
- National Lines
- International Lines
 - CEARN (with a T1 link (1.544 Mbps) to the US)
 - FRMOP22
 - CUNYVM via a direct link, sponsored by DFN, 19.2 Kbps, later on 64 Kbps



In: GeNeRIC: Living multi-protocols for years. So what? Proceedings of INET'94/ JENC5, Book 2, pp. 531.1-531.10, Reston/ Amsterdam

GeNeRIC: German Networking Research and Information Center

The Establishment of the DFN Value-Added Services for the Academic Community in Germany

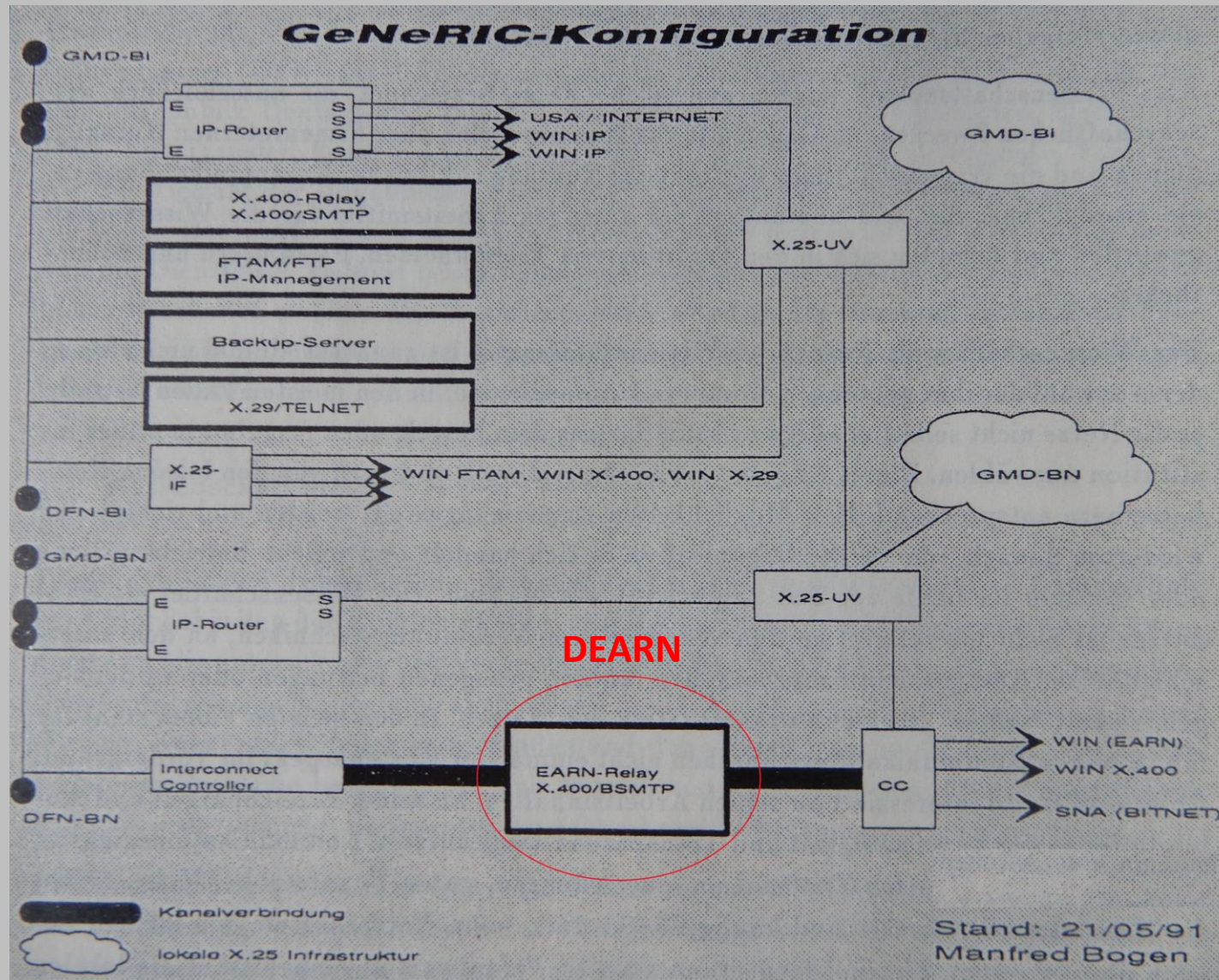
- Call for Tender of the DFN Association in Berlin in 1990
 - E-Mail
 - File Transfer
 - Remote Login
 - Paket Switching
 - Directories
 - Network Operation Center (DFN-NOC)
 - **Service Level Agreements (SLA)**
- GMD did win
- DEARN -> GeNeRIC



Klaus Ullmann, 1948-2011

GeNeRIC: German Networking Research and Information Center

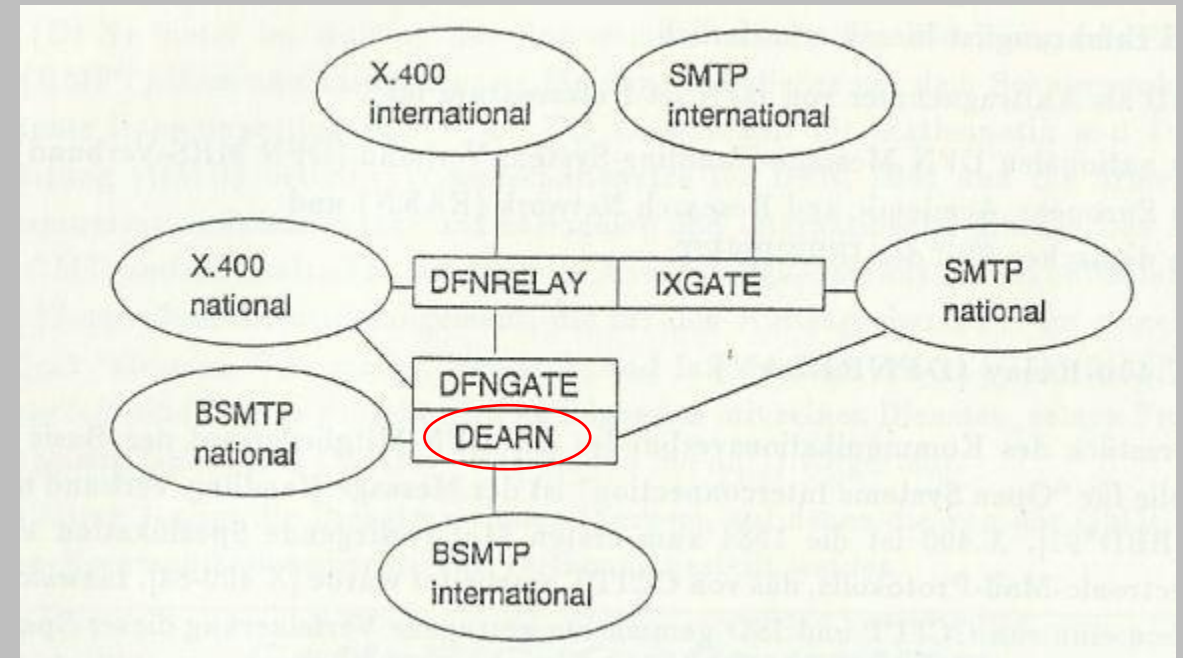
The DFN Communication Hub for the Academic Community in Germany, 1991-1993



The GeNeRIC Project Team

GeNeRIC: Mission accomplished!

- The establishment of the DFN Value-added Services (GeNeRIC with DEARN) ended in 1993.
- Regular Operation of the DFN Value-added Services from then on elsewhere
- DFN-NOC moved to Stuttgart
- **December 1993: The End of the DEARN legacy?**



In: J. Encarnacao (Hrsg.), Telekommunikation und multimediale Anwendungen der Informatik. GI-21. Jahrestagung, Darmstadt, Oktober 1991. Seite 104-125, Springer Verlag, 1991



- DFN LISTSERV since 1988
 - Started as part of the DEARN service offering
 - Continued as part of the GeNeRIC Communication Hub
 - Finally an independent service for the academic community until 2001 @ GMD
- Central LISTSERV for Germany on behalf of DFN
- As of 2001
 - 400 mailing lists
 - 6.000.000 e-mails per month resulting in a monthly data volume of 45-60 GB

The Beginning of the Web in Germany

May 1994: First International World Wide Web Conference

CERN in Geneva



Sir Tim Berners Lee, „Father of the WWW“



- The First International Conference on the World-Wide Web (also known as WWW1) was the first-ever conference about the World Wide Web, and the first meeting of what became the International World Wide Web Conference.
 - organized by Robert Cailliau
- It was held on May 25 to 27, 1994 in Geneva, Switzerland.
- The conference had 380 participants, who were accepted out of 800 applicants.
- It has been referred to as the "Woodstock of the Web"

May 1994: First International World Wide Web Conference at CERN in Geneva



WWW94 -- List of Participants

Aas	Gisle	Norsk Regnesentral	gisle.aas@nr.no	Norway
Abramatic	J. M.	INRIA		France
Ackermann	David	New York University	ackerman@acf.NYU.EDU	USA
Adams	Gary	Sun Microsystems Laboratories	Gary.Adams@East.Sun.COM	USA
Aizpurua	Jose Ramon	Basque Government		
Akazawa	Shunichi	World Health Organization	akazawa@who.ch	
Alexandersson	Sture	Faculty of Health Sciences	Stual@huk.liu.se	Sweden
Altis	Kevin	Intel Corporation	altis@ibeam.intel.com	USA
Ambühler	Reto	Eidgenössische Technische Hochschule Zürich	ambuehler@ks.id.ethz.ch	Switzerland
Ancel	Bernard	International Trade Centre UNCTAD/GATT	ancel@unicc.bitnet	
Anderson	Raymond	IXI Limited	ray@x.co.uk	Great Britain
Anderson	Paul	Department of Computer Science University of Edinburgh	paul@dcsc.ed.ac.uk	Great Britain
Anthony	Denis	University of Warwick Computing Services	cudma@warwick.ac.uk	Great Britain
Appel	Ron D.	Hôpital Cantonal Universitaire de Genève Centre d'Informatique Hospitalière	appel@cih.hcuge.ch	Switzerland
Arents	Hans C.	K.U. Leuven, Dept. MTM	hca@kuleuven.ac.be	Belgium
Arnold	Christopher	Läkemedelsstatistik AB	chris@ls.se	Sweden
Ashley	Charles	Learned Information Ltd	charles_ashley@learned.co.uk	Great Britain
Baier	Jürgen	CIMCCSO CAPPs	baier@dns1.cim.ch	Switzerland
Bakka	Terje	USIT, University of Oslo	Terje.Bakka@usit.uio.no	Norway
Balestra	Andrea	Astronomical Observatory of Trieste	balestra@oat.ts.astro.it	Italy
Bartoli	Andres	Axone Service et Developement S.A.	andres@axone.ch	Switzerland
Baruffolo	Andrea	Osservatorio Astronomico di Padova	baruffolo@astrpd.pd.astro.it	Italy
Baudelaire	Patrick	Digital Equipment Corporation - PRL	baudelaire@decprl.dec.com	France
Behlendorf	Brian	WIRED Magazine	basley@prl.dec.com	USA
Bell	Gavin	School of Psychology	brian@wired.com	Great Britain
Ben Mrad	M.	EPFL	gavin@jupiter.qub.ac.uk	Switzerland
Benacchio	Leopoldo	Osservatorio Astronomico, Padova	benmrad@di.epfl.ch	Italy
Berners-Lee	Timothy	CERN	benacchio@astrpd.pd.astro.it	
Biesbroeck	Stephan	BELNET	timbl@info.cern.ch	Belgium
Binding	Angelica	Springer-Verlag	stephan@belnet.be	Germany
Blume	Heiko	Contributed Software GbR		Germany
Bogen	Manfred A.	GMD	src@contrib.de	Germany
			MABOGEN@DEARN.BITNET	Germany

The World Wide Web: Fast and Early Adoptors in Germany

- 1994-2001: Value-added Solutions
- Deutsche Welle Online
 - First German Broadcaster in the Web
 - Federal Elections in September 1994
- Bundesregierung Online
- Süddeutsche Zeitung Online
- Bayerischer Rundfunk Online
- Hessischer Rundfunk Online
- Das Digitale Beethoven-Haus



Süddeutsche Zeitung



Beethoven-Haus, Bonn

INET'99

- 9th Annual Conference of the Internet Society, San Jose, CA
 - M. Bogen, S. Lahme, and U. Lechner
 - The Digital Beethoven House: Conception and Demonstrator
 - Proceedings of INET'99: The 9th Annual Internet Society Conference, June 21-25, 1999, San Jose, California, USA
 - ISBN: 1-891562-06-1
- West Coast RV Tour
- Decision in 1999: Let's move to the US!
- 2 roadblocks:
 - A job in the US and
 - my PhD thesis still to be completed



Closing the German Chapter



- PhD Thesis started in 1994, right after NSC'94 in London
- Postgraduate Research in Computer Science
 - Only 5% succeed
- Submission of PhD Thesis on August 31, 2000
- **The end of the DEARN Legacy?**



L-Soft international, Inc.

Landover, Maryland, USA [Greater Washington D.C. area]

See also: <https://www.lsoft.com/corporate/history-lsoft.asp>

L-Soft international, Inc.



Eric G. Thomas



Start-up in a basement

- Incorporated on February 13, 1994
- 2 Software Products
 - LISTSERV®
 - LSMTP®
- Hosting (ListPlex and EASE)
- Software Development
- Training & Consulting
- Customer Support
- Sales, Marketing, Administration, HR, ...
- Offices in the Washington DC Area, in Stockholm, and in London



L-Soft international, Inc. - Partial Client List 2001

- Former EARN/ BITNET Sites
- Examples only

Education and academia		
American Association of Colleges and Universities	Massachusetts Institute of Technology	Universidade Federal de Santa Catarina
Arizona State University	McGill University	Universita Commerciale Luigi Bocconi
British Council	Miami University	Universitat Autònoma de Barcelona
Brown University	Michigan State University	Universitat Linz
Carnegie Mellon University	Pace University	Universitat of Karlsruhe
Columbia University	Penn State University	Université de Genève
Cornell University	Princeton University	Universiti Pertanian Malaysia
CUNY	Queens University	University of Central Lancashire
Czech Technical University	Rice University	University of Guelph
Duke University	Rockefeller University	University of Hong Kong
Ege Üniversitesi	Royal Melbourne Institute of Technology	University of Illinois
FUNET	Rutherford Appleton Library	University of Laval
Georgetown University	Smithsonian Institution	University of Liverpool
George Washington University	SUNY Albany	University of London
Harvard University	SURFnet bv	University of Maryland
IAT Pisa	Swedish Museum of Natural History	University of Notre Dame
Indiana University Bloomington	Syracuse University	University of Pennsylvania
IUPUI	Technische Universität Clausthal	University of Texas
Jewish Theological Seminary of America	The American University	University of Uppsala
La Trobe University	The Catholic University of America	University of Valencia
Louisiana State University	UCLA	Vienna University
Marist College	Universidad Autónoma de Madrid	

L-Soft international, Inc. - Partial Client List 2001

- LISTSERV® had become an e-mail marketing tool

Computers and telecom

About.com	General Electric	Qualcomm
Adaptec	Harris Poll Interactive	Samsung
Adobe	Hewlett Packard	SAS Institute
Apple Computer	IBM	Software AG
AT&T;	Ingram Micro	Sterling Commerce
Befree	Intel	Sterling Software
Bell Canada	Lexmark	SUN Microsystems
BMC Software	Lucent Technologies	Surplus Direct
Borland	MCI Communications	Symantec Corporation
British Telecom	MCI Worldnet	Tandem
Compaq	Micron	TCI Communications
Computer Associates	Microsoft	Telenor
Creative Labs	Mitre	Telenordia
EarthWeb	Netscape	TRW
Egghead Software	Network Solutions (INTERNIC)	UNISYS
Ericsson	Nokia	XcelleNet
Forrester	Nortel	
Gartner Group	Packard Bell/NEC	

Travel and leisure

Activision	Delta Airlines	Nintendo
Air Canada	EF Cultural Tours AB	OAG
America West Airlines	Games Workshop	Sabre Group (Travelocity)
British Airways	Golfweb	Travelweb
Carlson Travel Network	MCA Records	Wizards of the Coast

L-Soft international, Inc. - Partial Client List 2001

- LISTSERV® had become an e-mail marketing tool

Government

Centers for Disease Control	National Library of Canada	US Department of Agriculture
Executive Office of the President (White House)	New York State Department of Criminal Justice	US Department of Commerce
Federal Aviation Administration	New York State Education Department	US Department of Defense
Georgia Department of Education	Ohio Attorney General	US Department of Energy
Kansas City Public Library	Rikssantikvarieämbetet	US Department of Health and Human Services
Kansas State Board of Education	Sallie Mae	US Department of Justice
Library of Congress	Sandia National Labs	US Department of State
Michigan Department of Natural Resources	State of Mississippi	US General Services Administration
NASA	State of North Dakota	US House of Representatives
National Academy of Sciences	Statskontoret	US Patent and Trademark Office
National Endowment for the Arts	United Nations at Geneva	US Senate
National Institute of Health	United Nations Office at Vienna	

Health

American Diabetes Association	Columbia Healthcare	Medical Economics Company
American Hospital Association	Family Health International	Mount Sinai Hospital
American Medical Association	Health Science Libraries Consortium	New York Academy of Medicine
American Urological Association	Johns Hopkins Hospital	
British Medical Journal	Medical Consultants Network	

Internet integrators

BMC Software	Computer Associates	EDS
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ISPs, ASPs and portals

America Online	Global Irish Network	Sprint
BBN Planet	Internet MCI	Telenor
CompuServe	Maila Nordic	Telenordia
Digital Impact	Planet Internet	Torget
Earthweb	PSinet	

L-Soft international, Inc. - Partial Client List 2001

- LISTSERV® had become an e-mail marketing tool

Media

Barnes and Noble	IDG	San Jose Mercury
BBC	Knight-Ridder, Inc.	Scientific American
Boardwatch	Le Monde	Scripps
Boston Globe	Lifetime Television	Starmedia
Broadcast.com	Lycos	Time Warner (Pathfinder)
CBS Advertising	MCA Records	Tribune Company
CBS News	McGraw-Hill Publishing	United Media (Dilbert)
CMP Media	Mecklermedia	Universal Studios
CNET Computer Network	MSNBC	USA Today
CNN	National Geographic	Wall Street Journal
Dallas Morning News	New York Times	Warner Brothers
Digital City	Oxford University Press	Washington Post
Discovery Communications	Penton Media	Windows Magazine
Disney Publishing	PointCast	Women.com
Fast Company	Prentice Hall/Simon & Schuster	Ziff-Davis
FoodTV	Radio Netherlands International	
Grolier Interactive	Reuters	

Military

Air Force Services Agency	Ft. Knox Information Management	The Pentagon
Armed Forces Institute of Pathology	Ft. Leavenworth	US Air Force, March AFB
Bowling Air Force Base	Naval Warfare Assessment	US Army Environment Center
Department of the Army, ODCSPER, HQ	Raytheon T.I. Systems	
USAREUR		

Multinationals

3M Corporation	BP Exploration Operating	Ford Motor Company
Agfa Corporation	Canon	IKEA
Amoco	Castrol	Siemens
Arthur Andersen	DuPont	Texas Instruments

Non-profit associations

Allied Pilots Association	Australian Information Industries Board	National Audubon Society
American Association for Affirmative Action	CARE	The Sierra Club
American Red Cross	IEEE Computer Society	
Association for Computer Machinery	Mathematical Association of America	

L-Soft international, Inc. - Partial Client List 2001

- LISTSERV® had become an e-mail marketing tool

Political parties and unions

Democratic Leadership Council LO	Moderaterna Republican National Committee	Socialdemokraterna
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Miscellaneous

Abercrombie & Fitch	Lockheed-Martin	Ralph Lauren Fragrances
All Advantage	Metromail	Space.com
Axiom	Nabisco	The Pet Channel
Duke Power	National Instruments	Westat
Eskom	OfficeMax	Yves Rocher
Esprit	Outpost.com	
General Electric	QVC	

How to get there?

- Discussion with Eric Thomas
 - „You can start tomorrow!“
- Interview with L-Soft international Inc. in Stockholm, Sweden in September 2000 after the submission of my PhD thesis.
- Application for a H-1B Visa
 - The H-1B visa is a non-immigrant work visa that allows U.S. employers to hire foreign workers with specialized skills to work in the United States for a specific period of time.
 - Typically, the roles require a bachelor's degree or equivalent. Occupations that qualify for the H-1B visa are typically in fields such as technology, finance, engineering, architecture, or more.
- INS: Immigration and Naturalization Services
 - 6 months' check



VP of Computer Services at L-Soft international, Inc.

- Start on May 1, 2001
- In charge of
 - Computer Operations
 - Training & Consulting
 - Customer Support
- Computer Services Staff being from
 - D.C. Area
 - New York State
 - Rhode Island
 - Colorado
 - Indiana
 - Ohio
 - Pennsylvania
 - Florida
 - Michigan
 - Australia



The Bogen Family in the US



- July 16, 2001: Arrival
- September 11, 2001: 9/11
 - 2,996 people killed
 - L-Soft's office being 5 miles away from the Pentagon
- September 18, 2001: Start of the Anthrax attacks
 - 5 people killed
- April 20, 2002: Earthquake in the Washington DC area
- October 2002: The DC Sniper
 - 17 people killed
- September 6-20, 2003: Hurricane Isabel
- March 2004: Cicadas (every 25th year)
- July 19, 2004: Departure
 - Why is that?

9/11 and the US Economy



- Stock markets immediately went south, and almost every economic sector was economically damaged.
 - Anticipating market chaos, panic selling, and a disastrous loss of value in the wake of the attacks, the NYSE and the Nasdaq remained closed until Sept. 17, the longest shutdown since 1933.
 - Many trading, brokerage, and other financial firms had offices in the World Trade Center and could not function in the wake of the tragic loss of life and collapse of both towers.
- Airlines and insurance companies took the hardest immediate hit, and U.S. stock markets initially fell more than 10% in the days after.
- Reduction of the real GDP growth in 2001 by 0.5%
- Increase of the unemployment rate by 0.11%
 - Reduction of employment by 598,000 jobs
- ...

9/11 and the Airline Industry

Travel and leisure

Activision	Delta Airlines	Nintendo
Air Canada	EF Cultural Tours AB	OAG
America West Airlines	Games Workshop	Sabre Group (Travelocity)
British Airways	Golfweb	Travelweb
Carlson Travel Network	MCA Records	Wizards of the Coast

- Since September 11, 2001, numerous airlines (both in the U.S. and abroad) have been experiencing a financial crisis unlike any in modern aviation history.
 - In the immediate aftermath of the attacks, the U.S. government grounded the commercial fleet for three days that resulted in a 31.6 percent reduction in travel volume in September of 2001 compared to that same month in 2000 and generated massive industry losses.
-
- While United Airlines and US Airways had filed for Chapter 11 bankruptcy, many other large U.S. carriers had engaged in dramatic **cost-cutting programs**.
 - U.S. airlines lost \$8 billion in 2001.
 - The industry wasn't profitable again until 2006.
 - Losses topped \$60 billion over that five-year period.
 - Job cuts in the wake of 9/11 were in the tens of thousands and workers faced massive pay cuts
 - The prospects for (or lack of) a recovery in passenger demand has been the primary issue in the minds of aviation industry leaders and policymakers alike.

Our Legal Status

- Me: Alien from Overseas
- My wife: Dependant from an Alien from Overseas
- My H-1B Visa was on L-Soft
- When you are laid off as an alien
 - 2 weeks' notice
 - Report to the INS
 - 2 weeks to leave the country
- As a company: don't mess with the INS!
- Decision to not extend the VP contract and to return to Germany in 2004



Back in Germany: Department Manager at Fraunhofer

Retirement in 2021

- August 1, 2004 - May 31, 2021
 - Virtual and Augmented Reality
 - Oil and Gas Exploration
 - Digital Transformation
 - Cultural Heritage
 - Civil Security
 - Climate Change Adaptation
 - Artificial Intelligence
 - Critical Infrastructure Protection
-
- This had nothing to do with the DEARN legacy at all.
 - **July 2004: the end of the DEARN legacy?**



L-Soft and Maila Nordic

Health		
American Diabetes Association	Columbia Healthcare	Medical Economics Company
American Hospital Association	Family Health International	Mount Sinai Hospital
American Medical Association	Health Science Libraries Consortium	New York Academy of Medicine
American Urological Association	Johns Hopkins Hospital	
British Medical Journal	Medical Consultants Network	
Internet integrators		
BMC Software	Computer Associates	EDS
ISPs, ASPs and portals		
America Online	Global Irish Network	Sprint
BBN Planet	Internet MCI	Telenor
CompuServe	Maila Nordic	Telenordia
Digital Impact	Planet Internet	Target
Earthweb	PSInet	

- On July 1, 2001 L-Soft acquires tracking technology and the German development unit in Erlangen, Germany of a Swedish email marketing company called Maila Nordic.
- The plan was to integrate the tracking technology into LISTSERV.
- Discussion with Eric Thomas
- The related product became LISTSERV® Maestro – made in Germany.
- L-Soft Germany GmbH was founded in July 2002.



July 2002 – August 2020

Managing Director of L-Soft Germany GmbH, Erlangen - part-time until retirement



- Software Development
LISTSERV® Maestro
 - Marketing
 - Administration
-
- **August 2020: The end of the
DEARN legacy?**

Conclusion

The End of the DEARN Legacy?

- L-Soft is still in business



- DFNLIST is still up and running
 - Operated by KIT in Karlsruhe
- DFN-NOC is in Stuttgart



- DEARN's impact on my professional life: DONE

The End of the DEARN Legacy?

- DEARN'S impact on my personal life: ONGOING
- Living for 3 years in a foreign country & your brain and mindset
 - Self-consciousness
 - Eldest son:
 - Feb 2011 - Jan 2014, Pre-doctoral fellowship at National Institutes of Health, Washington D.C.
 - Daughter: B.Sc. From University Regensburg, Bavaria
 - 500 km from the Cologne Bonn Area
 - Youngest son: M.Sc. from UCM, Madrid
 - Global thinking
- Living for 3 years in a foreign country
 - Friends
 - Global thinking

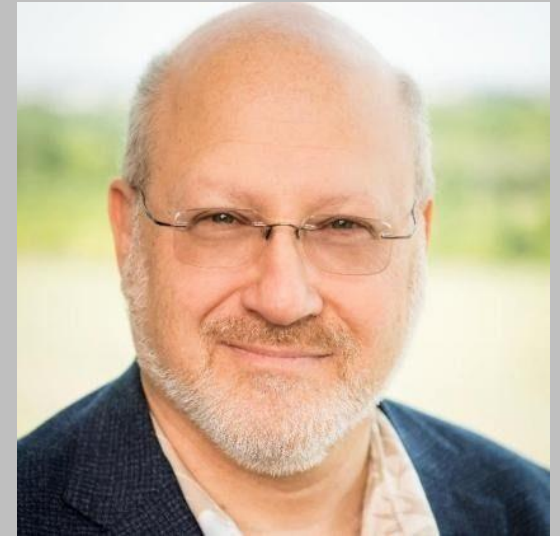


The End of the DEARN Legacy?



Michael R. Gettes since 1991
„Hey, I’m Michael“

- A message from Michael R. Gettes:
- *"I am VERY sorry I am unable to attend, but sometimes life just gets in the way."*
- *I had a great deal of fun and excitement during the years we all worked together to help change networking in EARN.*
- *IMHO, I think what we did together was largely responsible for bringing IP networking to Europe during a time when the PTTs really wanted to do X.25. X.25 - half the bandwidth for twice the cost! :-)*
- *I hope everyone is keeping healthy and we should all be very proud of all the great work we did together."*



The End