



SOME HISTORY ON STARTING THE NETWORK IN GREECE

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SUMMARY

It is well accepted that the so called National Research Education Networks (NREN) like the Computer Science Network (CSNET) in the USA or JANET (UK), NORDUNET (Scandinavian Countries), SURF (NL) and others including ARIADNE (GR) created during the early 80 were an important catalyst in the advance of the Internet where its base on the DoD IP suite of protocols won the technology race during a period described as “Protocol Wars”.

Presentation starts with Nicolas Malagardis, an IRIA and BNI director to propose to the Greek Minister in 1982 the creation of the NREN in Greece to match the developments in Europe. He will speak of the state of things in Networking in EU and US as well as in Greece, the key issues and the key players: the European Commission and Governments, Vendors, Telecommunication organizations, CERN, Research Centers and Universities.

SUMMARY CONTINUED

Next, the presentation of Yannis Korovesis, recruited by NM as the project's first technical expert in 1986. He describes the main events until 1988. Then the next phase of ARIADNE, on the steps of Mr. Malagardis transferring the knowledge he obtained as his collaborator to the new project manager. Plans changed when the new Minister assigned the task to move the NREN inside a supporting research organization, namely NCSR Demokritos rather than to continue in the private leased building at Archelaou Street 28, central Athens

Yannis participating in the OSI oriented working groups of COSINE and RARE (Networking activities that led to today's GEANT Association) visits ULCC NOC in London to meet Mr Tony Bates for a first Internet-demo. The idea to bring NSFNET (Internet) connectivity to ARIADNE using COSINE-IXI (International X.25 Interconnections) as underlay is quickly thrown by T.Bates. On returning to Greece Y.Korovesis develops ISOSUN on SUN 4/330.

PROFILE OF NICOLAS MALAGARDIS

N. E. Malagardis (1934)

Dipl.-Ing. Techn. University Stuttgart 1958

DEA (Dipl. Études Approfondies) Numerical Analysis Institut Blaise Pascal Université de Paris 1964

DEI – Power Utilities company 1961 -1967

Ingénieur de Recherche, IRIA (Institut de Recherche en Informatique et Automatique) 1968-1977

Director of the Computing Center 1970-1973

Director of BNI (Bureau d'orientation de la Normalisation en Informatique et Télécommunications) 1977- 1987

Chairperson of European Workshop on Industrial Computer Systems (EWICS) under the auspices of Directorate

General XIII European Commission 1976 -1982

Part time consultant for the project Ariadne; national university network for Greece by the Minister of Research &

Technology 1982-1985, then the General Secretary of R&T 1995-1987

Director of ELOT 1994-1997

Consultant to the Director of the Bank of Greece 1997-2005

THE STATE OF NETWORKING IN EUROPE AND USA (I)

- London conference on Bank Transmission Nets 1972/73
- At that moment star configurations with time sharing were called networks
- Project by Louis Pouzin back from MIT, Cyclades network
- Proposed full scale Academic Network based on datagrams technology. Accompanied with proposed set of applications file transfer etc.
- USA Best known ARPANET using packet switching since 1969 and allowing different types of systems to be interconnected based on TCP/IP around 1980.
- Main networks were local “national”, based on home developments and multiservice open i.e. following a main manufacture , IBM in most cases
- Around 1980, International Standards in telecommunications were worked out at the Standards branch of the IPU/UPI postal established 1853, (Greece being member of since then, named CCITT (Comité Consultatif deTélégraphes et Telephone) now IPU’s Technical Committee. Standards ISO Follow up project inside ISO TC 97 sc11 Cooperation with NCC (UK) & GMD (Germany) on national standard network projects
- Proposal to the Ministry, first steps efforts for collaboration with the national communications agency OTE, first effort to find staff, interface with the European activities running in parallel
- RARE Project COSINE Implementation

THE STATE OF NETWORKING IN EUROPE AND US (II)

- Various Proposals to build computer networks
- Networks of Vendors such as SNA from IBM and DECNET from Digital
- EIN – European Informatics Networking
- ECMA supports OSI architecture
- there are NREN in many Countries even Yugoslavia but not in Greece
- OSI Standards not developed
- Commission decides to create RARE, a union of NRENs that will implement
- The OSI based network protocols specified by COSINE collaboration financed under EUREKA

THE SITUATION IN GREECE

- The proposal to Minister George Lianis named NREN ARIADNE
- Start a collaboration with OTE (Tzortzinis, Latsis, Oikonomou, Ms.Voulodemou)
- Start a collaboration with Universities (Protonotarios, Filocyprou, Maritsas, Pangalos, Vasiliou, Michailidis and other Professors each with 1-2 graduates or postdocs)
- The effort to create a stable team of People
- OSI Conference in Research Center EIE with Michel Elie et al 1988
- NREN ARIADNE moves to new location in Archelaou from a single room in 3rd floor Syntagma Square at the
- Ministry of Industry Research and Technology

PROFILE OF YANNIS KOROVESIS

- Graduate from Essex University in CS and Mathematics 1977
- PhD from St.Andrews Uni. 1983 “Thesis: implementation of Functional Programming Lang” using UNIX, DECNET, C
- As a postdoc in UEA heard of ARPANET EMAIL in RAL meeting 1981
- Work done collaborating with NM
- Using MINITEL Missive
- Using TELMAT SM90, X.25 TELEPAC switch
- TELEPAC PAD
- Modems
- Collaborate with Mr. Stavros Binietoglou of OTE to implement the first full packet switch connection in Greece to NTI Paris TRANSPAC

NREN RE-ORGANIZATION

- Announcement of new plan for ARIADNE by Prof. Of UOC/FORTH E. Oikonomou, end of 1988
- Assist with administration of open issues, help the committee led by Prof.Protonotarios, G. Stasinopoulos, S. Sykas, S.Dimakos
- Create the first technical report concerning project plan (see PDF at last slide)
- Transfer knowledge from collaboration with NM to the new director
- Work with OTE to get to use Telefonica X.25 Switches
- Accept students for practical work as part of their grad. Thesis

NEW DIRECTOR OF NREN ASKS FOR A PLAN SELECTS THE VERSION PROVIDED BY YK

- ARIADNE hosts COSINE Policy Group in Athens 1988
- Meet H. Davies and James Hutton
- Participate in RARE working groups
- Web links of Technical Reports
- Gradually build a NOC at computer center of Demokritos
- Leased lines from OTE to computer centers in Universities
- NREN ARIADNE financed by HPC project of Demokritos

JOIN THE RARE, COSINE NETWORK WORKING GROUPS

- Implement 20 X.400 connections in Europe over IXI X.25 by 1989
- Participate in RARE X.400, X.500 working groups report to RFC about coordination of rules to map X.400 to RFC822 email addresses
- Participate in USIS User Support and Information services Jill Foster connects me with RFC related to NIR
- There is IETF participation in RARE working groups
- Create app Pythia and contribute to NIR report (see link at end)
- 1st hand review of WWW proposal (see link at end)
- Visit ULCC get 1st Internet demo by Mr. Tony Bates, his idea to use IXI to get Internet for NREN ARIADNE
- Connect ARIADNE to NSFNET over IXI (see link at end) 1989
- Register domain ARIADNE-T.GR run parallel protocol stacks
- Propose project VALUE II v.5805 OSI nodes and admins includes RFC987 gateways later in 1990

SOURCES FOR INFORMATION

- <https://en.wikipedia.org/wiki/Ariadnet>
- www.ariadne-t.gr
- same site click icons for RARE reports
- SRI report- book “Internet: getting started”
- Post titled ycor2.1 at the end contains the PDF scan of the report to new director of ARIADNE
<https://ycor.wordpress.com/2008/09/11/ycor21/>
- IEEE Spectrum on history of computing in Greece
<https://getpocket.com/saves/tags/ieee%20history%20comp%20greece>

The background is a dark blue gradient. In the four corners, there are white, stylized circuit board traces. These traces consist of straight lines of varying lengths and angles, ending in small white circles, resembling electronic components or connections.

End of Presentation

THANK YOU