

CHAPTER 8 Retrospective – Toward Second Decade (1991-2000)

2015.8.5/2019.6.17/2024.11.15

Kilnam Chon

The Internet started with ARPANET in October 1969. Shortly thereafter in the 1970s, computer network research began in various countries throughout Asia. By the early 1980s, there were several national computer networks operating in Australia, Japan, South Korea, and New Zealand.

Korea Institute of Electronics Technology (KIET) in South Korea formed a computer network research group in 1979, and developed a national research network which was launched in 1982 based on the IPv4 protocol, and various other countries in Asia developed computer networks with email facilities compatible with the Internet email system. Among these were computer networks based on DECNET, N1 Protocol, Sydney Unix Network, and TCP/IP as well as BITNET and CSNET.

Several Asian nations began a collaboration in 1984 with the creation of AsiaNet, based on UUCP and Usenet protocols. Asians also began participating with researchers from North America and Europe beginning with their attendance at the USENIX Conference and UNICON, and participation in CSNET from 1983. Asia began involvement with the International Academic NetWorkshop (IANW) starting with Israel in the third annual workshop in 1984. Asians also began their own forum for collaboration with the creation of the Pacific Computer Communications Symposium (PCCS) in 1985 – the first Internet conference in Asia and one of the first global Internet conferences [PCCS 1985].

Later in the 1980s, the PACCOM Project was launched by the United States federal government and several countries in Asia, including Australia, Hong Kong, Japan, South Korea, and New Zealand to establish an IPv4-based intercontinental link with the North American nodes at the University of Hawaii and NASA Ames in 1989 [Hawaii 1998].

The second decade of the Internet's presence in Asia began with the creation of a major Asian Internet organization called the Asia Pacific Coordination Committee on Intercontinental Research Networking (APCCIRN) in 1991, as well as Asia's participation in CCIRN as the third continental member after North America and Europe. We formed many working groups and "Birds of a Feather" (BoFs) at APCCIRN, and many of them grew to become independent regional Internet organizations later in the 1990s. APCCIRN was renamed the Asia Pacific Networking Group (APNG) in 1994 to reflect the broad scope of its activity in addition to participation in CCIRN.

There were several important global Internet-related developments at the beginning of the 1990s:

- International NETworking Conference (INET)
- Internet Society (ISOC), and
- Developing Country Workshop.

There were also two important technological developments by the early 1990s that impacted Internet development: the Open Systems Interconnection (OSI), and the creation of the World Wide Web (WWW) and the MOSAIC browser.

Major events during the 1980s as well as earlier and later decades are documented in the Appendix C: Year Table;

APCCIRN (APNG) with CCIRN

The foundation of the Coordination Committee on Intercontinental Research Networking (CCIRN) was discussed during the Princeton International Academic NetWorkshop (IANW) in the fall of 1987 as a means to coordinate the intercontinental links among the research networks in Europe and North America. Various members of research networks among others in Europe and North America came to Washington, D.C. immediately following the Princeton meeting in 1987 and agreed to form CCIRN. The first annual CCIRN meeting was held in the following year. CCIRN created the Internet Engineering Planning Group (IEPG) as its engineering forum at a later date.

In June 2001 in conjunction with the INET held in Copenhagen, CCIRN invited Asia Pacific research networks to participate in CCIRN as the third continental member after North America and Europe. Several countries in Asia – including Australia, Japan, South Korea, and New Zealand – got together two months later in Honolulu, Hawaii to hold a preparatory meeting to form the Asia-Pacific Coordinating Committee on Intercontinental Research Networking (APCCIRN). The second preparatory meeting was held in Santa Fe, New Mexico in November 1991 in conjunction with the CCIRN/IEPG meeting held during the 22nd IETF. The third preparatory meeting on APCCIRN was held in Tokyo immediately following the CCIRN meeting in June 1992 prior to the Kobe INET.

The first official APCCIRN meeting was held in Honolulu in January 1992. Since Asia did not yet have stable regional Internet coordinating organizations, APCCIRN played the role of the Internet coordinating group for Asia as well as participating in CCIRN as the continental delegate from Asia-Pacific. At that first official meeting in January 1991, the discussion was held on the development of various working groups as well as the creation of the APNIC Pilot Project as some of the initial activities of APCCIRN.

INET and Internet Society

Toward the end of the 1980s, the Internet became very popular beyond the computer network community. During the Sydney International Academic NetWorkshop (IANW) in 1989, it was decided to stop the informal meeting of the IANW and to hold a more formal and broadly covered International NETworking conference (INET) to include industry and government as well as technical community with the scope of global coverage. The first INET was held in 1991 in Copenhagen with over 300 participants. Meanwhile, Internet Society was being founded as the umbrella organization of IETF, and its foundation was announced at the Copenhagen INET. It was decided by the Internet Society to adopt INET as its conference upon its foundation in 1992. According to Internet Society website, its mission is “To promote the open development, evolution, and use of the Internet for the benefit of all people throughout the world.”

Developing Country Workshop

Laura Abba and Giorgio Giunchi

From Happy Birthday Internet Society, 2012

On the occasion of the first International NETworking conference (INET) in Copenhagen in 1991, the CNR-CNUCE in Pisa, Italy organized a workshop for developing countries. The aim was to explain to those invited the terms used to define network services and their

problem areas and to address the topic, "How to build a network from scratch." The group invited by CNR-CNUCE to the workshop also participated in the INET '91 conference which included the session "The Third World issues." On the final day of the conference, there was a roundtable to conclude, entitled, "Building or improving academic and research networks in developing countries."

The idea of organizing this workshop came to my friend, Enzo Puliatti and me [Abba], and we worked with the United Nations Development Programme. Steve Wolffe, director for the networking division at the US government's National Science Foundation, encouraged us to pursue the idea. At the time the CNR, through CNUCE, was negotiating with UNESCO concerning a project to introduce the first Internet nodes to fifteen African countries, partly funded by the Italian government; the project began the next year (1992) with the name RINAF (Regional Informatics Network for Africa). The workshop for developing countries in Copenhagen included delegates from Tanzania, Ghana, Zambia, Cameroon, Nigeria, and Zimbabwe as well as from UNESCO, representing Africa, and from Turkey, Santo Domingo, Ecuador, Costa Rica, Bolivia, Argentina, Nicaragua, and the United Nations representing other regions.

The Workshop for Developing Countries, INET92, Kobe, Japan, was similarly organized. The workshop lasted for the entire day of 14 June, the day before the official opening of the conference in 1992. The Internet Society (ISOC) handled the invitations for representatives; Enzo Puliatti and Stefano Trumpy drew up the program. Delegates came from Chile, Argentina, China, Czechoslovakia, Malawi, Peru, Botswana, Lesotho, Poland, Tunisia, Hungary, Algeria, Nigeria, Tanzania, Syria, Vietnam, Egypt, Nicaragua, Peru, Ecuador, Guatemala, Bolivia, Swaziland, Puerto Rico, Zambia, Iran, Kenya, Ethiopia, Senegal, Ghana, Mexico, and South Africa.

The week-long format for the Workshop on Developing Countries ran from 1993 until 2001, and George Sadowsky led the workshop committee throughout those nine years. See Sadowsky's article in *An Asia Internet History – Second Decade (1990s)* for a detail description on those week-long workshops.

References

- [Abba 2012] Laura Abba and Giorgio Giunchi, *Happy Birthday Internet Society*, 2012. [Hawaii 1998] University of Hawaii, Hawaii High Performance Internet Connection, NSF #9876406, 1998.
- [PCCS 1985] Proceedings of Pacific Computer Communications Symposium, Seoul, 1985.