

INTRODUCTION TO THE INTERNET

A network is firstly about people, secondly about content, and lastly the means by which connections between people and content are made.

A network is comprised of the following components for communication, information retrieval and dissemination. Access to a network is enabled via a service provider (e.g. Pegasus Networks) to users on a subscription basis. A user is an individual or organisation who is allocated an email address and password for secure access to their email correspondence. Information sources and a range of network tools are also made available to them by the service provider.

1.1 INTERNET

The Internet is by far the largest of all networks. It is commonly referred to as a network of networks. Its function is to provide gateways from one network to another via a common protocol, or language, to ensure secure and authenticated passage of data (e.g. email, mailing lists, WWW and telnet connections).

The Internet includes all kinds of diverse public and private networks in almost every country and region of the world: from Antarctica to Siberia, from Mongolia to Manitoba. Only the public telephone network exceeds it in terms of extent and connectivity.

The Internet was originally created by the U.S. Defence Advanced Research Projects Agency in 1969. It was designed to withstand a nuclear attack. Although it has yet to prove itself under such circumstances it has withstood numerous political attacks to bring it down.

Beginning in the late 80's major Internet initiatives were begun throughout the world in dozens of countries. Connections among all these networks were established and are continuously enlarged to meet the global needs for information access and communication.

1.2 PEGASUS NETWORKS AND THE ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS

Pegasus Networks is one of Australia's longest standing service providers, predating the Australian Academic Research Network. Since 1989, Pegasus has provided communications services to subscribers across Australia, who use Pegasus facilities for electronic mail and conferencing, database and directory services, and full Internet access. With the recent explosion of popular interest in electronic networking and communications, Pegasus has been expanding rapidly.

Pegasus services are general-purpose and wide-ranging, but as a member of the international Association for Progressive Communications (APC), Pegasus specialises in information services on environmental, educational, international, political and cultural themes; and have an established user base of groups and individuals with interests in these areas.

Pegasus co-founded the Association for Progressive Communications (APC) of which there are now 19 member networks serving over 100 countries. These networks are located throughout Latin America, Europe, Africa, the United States, Australasia. Some of the most familiar of these networks are EcoNet in the States, Nicarou in Nicaragua, GlasNet in Russia, GreenNet in the UK and of course, Pegasus Networks in Australia.

Since 1989 Pegasus has collaborated with members of the APC in the establishment of low cost networks in Southeast Asia, Indochina and the Pacific. Pegasus is a consultant to the Canadian International Development Research Centre which has contributed to the funding of network services in Mongolia, Cambodia and Vietnam.

Pegasus carries a number of special-purpose subnetworks such as Councilnet, Artsnet, International Education and Research Network, ACS-Link, Direct-Link, Public Health Network, LandcareNet. Its partner in Pacific Island networking is Pactok.

Pegasus Networks is the recommended carrier for the Councilnet, Artsnet, Landcarenet, SkillNet, Publish Australia Network, 21C Magazine, International Education Research Network, WomenZnet and the Community Broadcasting Foundation and its member broadcasters.

1.3 PACTOK

Pactok is a voluntary operation providing network services to NGOs in the Asia Pacific region. As of May 1995 it consisted of local hosts in 7 countries of South East Asia and the Pacific islands, a network hub in Sydney supporting a total of 130 users.

The Pactok project is self supporting from user subscriptions and project funds and continues to attract strong interest and demand for its services.

In 1994 developments included contracts for the provision of an NGO network in Cambodia and for the setting up of a pilot network linking Fiji, Vanuatu and Western Samoa for the UNDP Sustainable Development Network project.

1.4 COMPONENTS OF NETWORKING

1.4.2 *Email*

An electronic mail system with the capability to communicate with users world wide. Email is used in a similar way to postal mail: information is sent within messages, addressed by one person to another.

The most obvious advantage of email is that it is faster than postal mail. Email is as fast as a telephone call and much cheaper, in particular over long distances.

Files, such as sound, full motion video and colour graphics can be sent via email using attachments to a mailer programme such as MIME (Multipurpose Internet Mail Extension) or BINHEX.

Email is sent and retrieved by a programme called a Mailer' (e.g. Eudora or Pegasus Mail for Mac and Windows).

Email is sent to and from an email address. The standard Pegasus email address is:

name@peg.apc.org

This is an international style of Internet address. Email can be addressed to broadcasters in this format from any network with an Internet connection.

1.4.3 *Conferences and Newsgroups*

Conferences (often referred to as "Newsgroups") are the online equivalent to bulletin boards, on which people can post messages for others to read. Conferences are used to distribute news, information on specific issues, or to support communications among, for example, individuals, whole organisations, committees.

Conferences have been traditionally used on Pegasus and the APC networks to store or export vast amounts of information to. As such, there are invaluable information resources available, information in the form of commentary, articles, news feeds. The majority of which

is not only available in English, you will find Spanish, Portuguese, French and German language conferences.

Network News (or USENET) is a system of discussion groups in which individual articles are distributed throughout the world.

Conferences are read via a "Newsreader", or by telnetting to Pegasus. Newsreaders are available for both Mac and Windows. Conferences can also be read off the Pegasus communications software, "Messenger". Messenger is available for IBM compatible computers only. It is recommended for use from international locations.

1.4.4 Mailing Lists

A mailing list is a subject/topic specific list of information and/or discussion which users from many different networks around the world can subscribe to. Hundreds of mailing lists have been exported into conferences available on Pegasus and the Association for Progressive Communication's networks.

Mailing lists are sent and received as email. They can be retrieved by a "Mailer".

1.4.5 FTP

FTP (File Transfer Protocol) enables you to copy, download or upload files from one computer to another.

An FTP programme (e.g. Fetch for Mac, WS-FTP for Windows) is used to retrieve files from FTP sites.

1.4.6 Telnet

Telnet provides you with the capacity to log-on to remote computers. You can telnet from your computer to search a library's catalogue, or access databases ranging from geographic names to weather forecasts.

A Telnet programme, available for both Mac and Windows, is used to establish this level of connection to Pegasus. A telnet address is needed to enable access to the network of your choice. Pegasus's telnet, or Internet Protocol address, is:

peg.apc.org or 192.131.13.1

1.4.7 Gopher

A Gopher is a computer server that assists users in locating information across the network. You can use gopher to search thousands of sites and millions of documents without knowing a single Internet address, file name, or locally idiosyncratic command. You just sniff around "Gopher Space" like you would browse your local library, using structured menus to guide you along the way.

Gophers can be accessed with gopher programme, via a telnet connection or a Web browser.

1.4.8 World Wide Web

The World Wide Web (WWW) retrieves and displays data based on keyword searches utilising hypertext based technology. This enables the user to simply click on a word or icon and receive relevant information, moving easily through the information located there.

The WWW has quickly become the most popular form of information dissemination on the Internet. It has developed into an electronic publishing medium for both individuals and organisations the world over. Commercial use of the WWW is increasing rapidly, although the majority of resources available there are generally made freely available.

Access to a WWW site, or pages, is possible from any one of the numerous Internet service providers. Some providers, such as Pegasus, have installed WWW servers enabling users to publish their own pages for both local and global consumption.

A Web browser, such as Netscape, is used to access the WWW. Netscape is bundled with a Newsreader to enable access to Newsgroups and conferences.

2.1 LOW COST

Email is by far a cheaper form of communication than fax, phone or even regular postal services. Here are a few reasons why:

- A local call to your service provider;
- On a single call numerous messages can be sent and received;
- Access to global information sources and international email via a single local call;
- No STD or IDD charges;
- Less use of paper.

2.2 ACCESS TO INFORMATION

Network access enables access to a broad range of information sources such as news feeds, databases, mailing lists and World Wide Web materials. Information such as:

- Daily updates to newsfeeds the world over
- Access to project/issues specific information sources
- Search tools enabling searching of vast quantities of information on WWW, Gophers
- Information can be sent from the office to the field and visa versa;
- Information off the network can often be validated and copyright approval sought via email and quite quickly too.

2.3 TRAVELLING ONLINE

Access to the network is not restricted to the office nor the city or country of origin. You can travel with your laptop, a built in modem and telephone cable and maintain connectivity from just anywhere in the world. So long as the phone line isn't too flaky (e.g. India, Vietnam, Czech Republic) you will be able to connect to either your home or a locally based network without a great deal of difficulty.

Some advantages to on the road email are:

- Local access to your email from just about anywhere in the world;
- Email articles to your broadcasters office;
- Maintain contact with your colleagues;
- Break on-road isolation with email from friends and family.

Some of the hazards of on-road email are:

- Poor quality telephone lines in developing countries play havoc with modems;
- If you can't get your modem to work local support may not be available;
- Beware hotels that charge for "busy lines";

- Where a local point of entry cannot be found an IDD call may be your only hope of getting access to your email. If so, get on and offline real fast. Many hotels charge outrageously for IDD calls.

2.4 INFORMATION DISSEMINATION

World Wide Web (WWW)

The WWW is a powerful, simple, and cost-effective way to publish promotional and educational information on the Internet.

WWW pages can be placed onto the Pegasus Web Server at no extra charge other than for storage. Storage is charged at \$1 per megabyte, per month. One megabyte is equivalent to about 500 pages of plain text.

Pages can be prepared by your organisation or sub-contracted to Web designers. Each item placed onto the Web server must be referenced to by HTML (Hypertext Markup Language) elements, tags and scripts. Information on HTML is available on various Web sources and quite easy to find.

Email/Mailing lists

An organisation using the Internet may distribute news, information and discussion to project partners and individuals via an electronic mailing list.

CONCLUSION

Networking provides a enriching approach to both information gathering and provision. It is personal, fast, expressive, unpredictable, anarchic, controversial. The Internet is more a metaphor for the street, where like can both flourish and perish, than it is for super highways. The net is what you make of it, what you put in and what you retrieve from it. Those who use the Internet will bring their own personalities and the voices of the communities they represent to the net.

For more information about Pegasus Networks, contact:

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