

The Internet is a worldwide collection of several interconnected networks which are all based on a common set of network standards. Since the Internet spans the entire globe, then it is possible from your computer to communicate with people and machines around the globe just as you would communicate with the machine down the hall. This ease of use and worldwide accessibility has led to an exponential growth rate for the Internet. Many universities, companies, organizations and governments throughout the world are on the Internet. In fact, in some countries Internet access has become as indispensable as a telephone or a FAX machine. Information is now commonly stored in electronic format which means that access and exchange of information via networks is becoming more common. The question is no longer whether or not, we as a developing country, should join the Internet but rather how quickly can we join. Our ability to compete in the global marketplace will depend on this decision.

A detailed description of the many services available on the Internet is beyond the scope of this editorial. Several books are available on the Internet and the services which it provides. The most commonly used services are electronic mail (e-mail), file transfers, remote login, global database searches and network news. Having a full Internet connection (FIC) means that your machine is directly connected to one of the networks which make up the Internet. Remote login, interactive database searches and file transfers require a FIC. It is also possible to simply have Internet e-mail access via dial-up lines (as we at UWI presently have). Remote login allows one to access resources (such as supercomputers, large databases, multimedia news) worldwide which may not be available on one's local network. One can use the file transfer service to download gigabytes of software, documents and data from databases throughout the world. Database searches and file transfers can also be done (non-interactively) through e-mail. One interesting result of having Internet e-mail at UWI is that staff members who use Internet e-mail now regularly use e-mail to communicate locally as well!

At a recent Internet Workshop on National Network Management in Prague, Czech Republic, we discussed initiatives that were being taken by several developing countries to obtain full Internet access. In all cases, the greatest obstacle faced was the cost of leased lines. We in the Caribbean face the same problem. For example, in Trinidad, various organizations are interested in Internet access. However, it is not cost effective to do so on their own. What is required is a joint effort in which all participants (the University, Government, private companies, the telephone company, etc.), share in the cost of Internet access and have a single gateway (access point) which they share. The use of a single gateway will require that appropriate local (i.e., islandwide) data networking facilities be available. This is not the case in many of the islands in the region. One solution is to use inexpensive digital wireless links (based, for example, on Spread Spectrum technology) to provide a digital overlay network for local data communications as well as for access to the Internet gateway node.

The Laboratory for Data Communications in the Department of Electrical and Computer Engineering (which presently provides Internet e-mail for academic members) is presently investigating low-cost solutions for data communications within the country. We have set up a local e-mail network (TTNET) via dial-up telephone lines as well as through Packet Radio. This laboratory is willing to assist those who are interested in learning more about the Internet and the technologies available for wireless Wide Area Networks. Access to the Internet is now a necessity for developing countries. Unfortunately, there are many who do not understand why this is so hence the lack of demand for Internet services. It is up to you, the potential network surfers, to create the required demand.

Dr. P. Hosein
Department of Electrical and Computer Engineering
The University of the West Indies