

THE ORGANIZATION OF AMERICAN STATES HEMISPHERE-WIDE NETWORKING INITIATIVE

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Abstract

In 1991, the Organization of American States (OAS) approved the initiative for the establishment of an "Hemisphere-Wide Inter-University Scientific and Technological Information Network". Its main objective is the implementation of an electronic network for exchanges of information among professors and researchers of universities in the Member States of the OAS. Two major events were co-organized by the Department of Scientific and Technological Affairs (DACyT) of the OAS to ensure the feasibility of this initiative: The First Caribbean Academic and Scientific Network-Workshop in cooperation with the University of Puerto Rico, where the Caribbean University Network Project (CUNet) was launched; and, The First

Inter-American Networking Workshop in collaboration with the Scientific Research Council of Brazil (CNPq), which included the sponsorship of other agencies and organizations.

In preparation for the UNCED Conference in Rio de Janeiro, the DACyT, with technical support of the University of Maryland, organized a computerized Tele-Conference on the Environment. Also, with the participation of the Universities of Illinois and Costa Rica, the DACyT is sponsoring the implementation of an on-line Natural Products data base in Latin America and the Caribbean, called MEDFLOR.

Hemisphere-Wide Networking Initiative

Introduction

As specified in its Charter, the Organization of American States (OAS) has the following essential purposes: to strengthen the peace and security of the Hemisphere; to prevent possible causes of difficulties, and to ensure the pacific settlement of disputes that may arise among the member states; to provide the common action on the part of those states

in the event of aggression; to seek the solution of political, juridical, and economic problems that may arise among them; and to promote, by cooperative action, their economic, social and cultural development.

The OAS is the oldest regional society of nations in the world, dating back to the First International Conference of American States, which was held in Washington, D.C. in 1890.

Within the United Nations it is a regional agency. Today the OAS is made up of thirty five member states. The General Secretariat of the Organization, its central and permanent organ, is situated in the city of Washington, D.C.

In 1991, the OAS approved the initiative for an "Hemisphere-Wide Inter-University Scientific and Technological Information Network" and allocated financial resources as seed money to start the project.

The main objective of the OAS Networking Initiative is the establishment of an electronic network of science and technology for the exchange of information among professors, researchers and specialists at different universities of the Member States of the OAS.

The OAS effort will focus on setting up a regional coordination mechanism for the organization, the start-up and operation of automated information exchange networks.

The infrastructure of this network will serve as a basis for the integration and coordination of efforts, through the exchange of experiences, information, methodology, protocols, technical norms, problems and solutions related to the development of science, education and technology in the region. In order to be successful, this project will need the continuous support of the Member States as well as their political commitment.

Objectives

1. To interconnect the countries of the region through an hemisphere-wide inter-university network.
2. To convoke representatives of the principal networks in the Member States, and international agencies and related initiatives to

optimize and coordinate the use of this network.

3. To contribute to the formulation and adoption in the Hemisphere of common protocols on matters relating to the establishment of a basic infrastructure for the operation of this automated network.

4. To identify additional funding sources for the expansion of services and activities.

In order to implement this initiative, two major events were co-organized by the Department of Scientific and Technological Affairs (DACyT) of the OAS: The First Caribbean and Scientific Network-Workshop in cooperation with the University of Puerto Rico, where the Caribbean University Network Project (CUNet) was launched; and, the First Inter-American Networking Workshop in collaboration with the Scientific Research Council of Brazil (CNPq), which included the sponsorship of other agencies and organizations.

First Caribbean and Scientific Network-Workshop

The main objective of the seminar-workshop was to encourage and facilitate the participation of Caribbean countries in world wide academic and scientific networks.

The OAS, CRACIN (Corporacion de la Red Academica y Cientifica de Puerto Rico) and The University of Puerto Rico, organized this First Caribbean Academic and Scientific Network Seminar-Workshop. Participants represented institutions of the English-speaking countries in the Caribbean Basin and the Dominican Republic, with a principal role in the development of non-commercial networks in their respective countries.

The participants were trained to establish nodes for the Network in their respective countries. Several software packages were distributed.

The Caribbean Academic Scientific and Technological Network Project CUNet was launched formally.

CUNet is a project dedicated to the establishment of an Academic, Scientific, Technological and Research Network for the Caribbean Region and it was conceived of as a cooperative project among institutions of the countries of the Region.

CUNet's participants represent private and governmental institutions which are leaders not only in the development of national networks in their respective countries, but also supporters of international communications for academic, scientific, technological and research purposes.

The CUNet Project contemplates the integration of the Caribbean Region countries. The first phase involves the following countries and institutions: **Antigua:** University of Health Sciences; **Barbados:** University of the West Indies; **Bahamas:** Chamber of Commerce and College of the Bahamas; **Belize:** University of Belize; **Dominica:** Ministry of Education; **Grenada:** Grenada National College; **Jamaica:** Scientific Research Council, University of the West Indies and College of Arts, Science and Technology; **Puerto Rico:** Corporation for the Academic, Scientific and Research Network of Puerto Rico and University of Puerto Rico; **Dominican Republic:** Pontificia Universidad Catolica; **Saint Kitts and Nevis:** College of Further Education; **Saint Lucia:** Ministry of Planning and Ministry of Health; **Suriname:** University of Suriname; **Trinidad and Tobago:** University of the West Indies and NIHERST.

Other countries of the region are invited to

participate in this effort. The present phase of the network contemplates the interchange of electronic mail and files among the CUNet members and the rest of the world. Protocols and lines used depend on the traffic, telecommunications infrastructure, and other resources available in each country.

At present and as part of the activities of CUNet, additional seminars have been organized in Grenada, Suriname, and Trinidad and Tobago where additional nodes have been setup. Following is a list of nodes currently in operation:

- Dominican Republic:
 - Pontificia Universidad Catolica Madre y Maestra
 - email: pucmm.edu.do
- Grenada:
 - Grenada National College
 - email: gnc.edu.gd
- Jamaica:
 - Mona Campus, University of West Indies
 - email: uwimona.edu.jm
 - College of Arts and Science
 - email: mink.edu.jm
- Suriname:
 - University of Suriname, Computer Center
 - email: evs.edu.sr
 - Student host System
 - email: exp.uvs.edu.sr
- Trinidad and Tobago
 - National Institute of Higher Education, Research, Science and Technology
 - email: niherst.gov.tt
 - Caribbean Industrial Research Institute
 - email: cariri.gov.tt

First Inter-American Networking Workshop

From October 7-11, 1991, the First Inter-American Networking Workshop was held at IMPA (Instituto de Matematica Pura y Aplicada), Rio de Janeiro, Brazil. This event was co-organized by the OAS and CNPq,

Brazil, and co-sponsored by many organizations including FUNDESCO - SIRIAC, NSF, UNDP, and others (a more detailed list follows).

About 130 delegates participated in this major event. Sessions were divided on technical and political issues. A very significant cooperation Agreement was signed by the delegates which provides for the first time the possibility of true representation for the Caribbean and Latin America in worldwide networking efforts.

The following institutions participated at the First Inter-American Networking Workshop and it is through some of these institutions that the OAS will carry out the Networking Initiative in the Caribbean and Latin America.

- Argentina:
ATINA-Cancilleria, Universidad de Buenos Aires, Universidad de la Plata, SECyT, RETINA, RAN.
- Bolivia:
Universidad Mayor de San Andres, BOLNET
- Brazil:
ABC-ITAMARATI, RNP, Red Nacional de Pesquisa, representing a Consortium of Brazilian universities, coordinated by CNPq; BIREME, FAPESP, FAPERJ, USPE, IMPA, PUC, UFRJ, USP-San Carlos, LNCC, many NGOs.
- Canada:
OUI (Org. Universitaire Interamericaine)
- Chile:
Universidad de Chile, Universidad Catolica, Universidad de Santiago
- Colombia:
RUNCOL -a consortium of Colombian University Networks, although mainly the Universidad de los Andes and Universidad Nacional- ICFES, COLCIENCIAS
- Costa Rica:
Universidad de Costa Rica, CSUCA-PNUD
- Cuba:
IDICT/ACC (Academia de Ciencias)

- Ecuador:
CONUEP (a consortium of universities) and CONICYT, Banco del Pacifico
- Mexico:
REDMEX (a consortium of universities: UNAM, Monterrey Tec, and CONACYT are the main players), CONACYT, UNAM, ITESM.
- Nicaragua:
Universidad Nacional de Ingenieria
- Peru:
Red Cientifica Peruana (a consortium of universities), CONCYTEC
- Paraguay: PAHO
- Puerto Rico:
CRACIN (consortium of universities) and University of Puerto Rico
- Trinidad & Tobago:
InfoTech College-NIHERST
- United States:
ANS, NSF, NASA, NCAR, University of Maryland, University of Florida, and other institutions.
- Venezuela:
CONICYT, Universidad Central de Venezuela
- Uruguay:
Universidad de la Republica de Uruguay

- Other Countries
Netherlands: CWI
Spain: RedIRIS/FUNDESCO

International Organizations, agencies, and private companies:

Bell Labs, DIGITAL-DEC, IBM, LASPAU, PAHO, PANAMSAT-Alpha Lyracon, UNDP, UNESCO, UNION LATINA, US Sprint, Pacific Systems, BBN, EMBRATEL, ORACLE, SATELLIFE

● Sponsoring Institutions:

OAS, CNPq, FUNDESCO (Spain), LASPAU, NSF (U.S.), PAHO, UNDP, UNESCO, UNION LATINA, Research Councils of Latinamerican and Caribbean Countries.

Recommended Proposal

The Latin American and Caribbean Networking Initiatives Group, meeting in Rio de Janeiro from October 7th to 11th, 1991, has agreed: to establish a "Permanent Forum for the Coordination of Electronic Communication Networking Activities" in Latin American and Caribbean countries.

This Forum shall have as its mission:

To establish the Latin America and the Caribbean Academic, Scientific, and Research Network, to promote the development of national networks in participating countries, and to achieve cooperative integration between the networks here represented and other networks from regions all over the world.

The network thus defined should be an instrument for the exchange of information for the pursuit of academics, culture, the sciences, technology and research among universities, centers for research and development, institutions of higher learning and education in general, non-governmental organizations, libraries and information centers, and national and international government organizations.

The Forum consists of a Working Group made up of 5 members representing the Region.

Computerized Tele-conference on Environment and Development

As part of the preparatory activities of the General Secretariat of the OAS, in reference to the United Nations Conference on Environment and Development (UNCED), the DACyT organized a Multinational Computerized Tele-Conference on Environment and Development to further understand the different perspectives that are

evolving within the Americas in connection to hemispheric sustainable development aspects.

This computerized teleconference was held in October 1991 with the technical support of the University of Maryland, and with the participation of institutions from fifteen Member Countries of the OAS: Antigua & Barbuda, Argentina, Barbados, Chile, Colombia, Costa Rica, Guatemala, Honduras, Jamaica, Mexico, Panama, Dominican Republic, Saint Lucia, Trinidad & Tobago and Venezuela.

Among the participating institutions there were National Councils for Science and Technology, Ministries of the Environment, Ministries of Agriculture, NGOs, and universities.

Three groups -of five countries each- were established, and each group was connected simultaneously with the University of Maryland's host computer, which is used by its Department of Political Science in the ICONS Project.

These groups exchanged information on environmental topics through a series of questions directed by a moderator as well as through direct communication among themselves. At the end of the conference a summary of the exchanges was obtained, which the OAS used in the document for the Heads of Delegation of the Interamerican Council for Education Science and Culture (CIECC) Meeting in Guatemala. Highlights of this summary were also used in the OAS Document to be presented at the UNCED Conference in Rio de Janeiro in June.

MEDFLOR

The DACyT, as part of its activities on the Natural Resources Conservation of the Hemisphere, is implementing in collaboration with the University of Illinois at Chicago and

the University of Costa Rica, an electronically accessible Ethnobiological Data Base, MEDFLOR, with an hemispheric scope.

MEDFLOR is compatible with NAPRALERT, the chemical and pharmacological Natural Products Data Base, maintained by the Program for Collaborative Research in the Pharmaceutical Sciences (PCRPS) from the University of Illinois as a permanent project.

NAPRALERT, a correlational data base, currently contains the extracted information from more than 75,000 articles or books, that refer to any medical use of a living organism, any chemical isolated from an organism, any biological testing done on either organism extracts or purified non-synthetic chemicals.

These articles contain information on more

than 87,000 pure chemical species, more than 38,000 plant or animal species and more than 426,000 records which associate these previous record types with biological activity.

MEDFLOR will be maintained by the University of Costa Rica, with the technical support from the PCRPS and the collaboration of the participating academic institutions from Latin America and the Caribbean, which will have free electronic access to both data bases. The datastructure of MEDFLOR contains ethnographic, biological, functional and bibliographic information of the regional native flora. Institutions from fourteen countries are participating in this project: Antigua & Barbuda, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Dominican Republic, Trinidad & Tobago and Uruguay.