
QUICK SCAN SURVEY
PART C: INVENTORY EXISTING ICT INFRASTRUCTURE



*Developing Information and Communication Technology (ICT) services
for institutes of higher education and research.*

QUESTIONNAIRE



January 2000

0. General Information

**0.1 UNIVERSIDAD NACIONAL AUTONOMA DE NICARAGUA LEON
(UNAN LEON)**

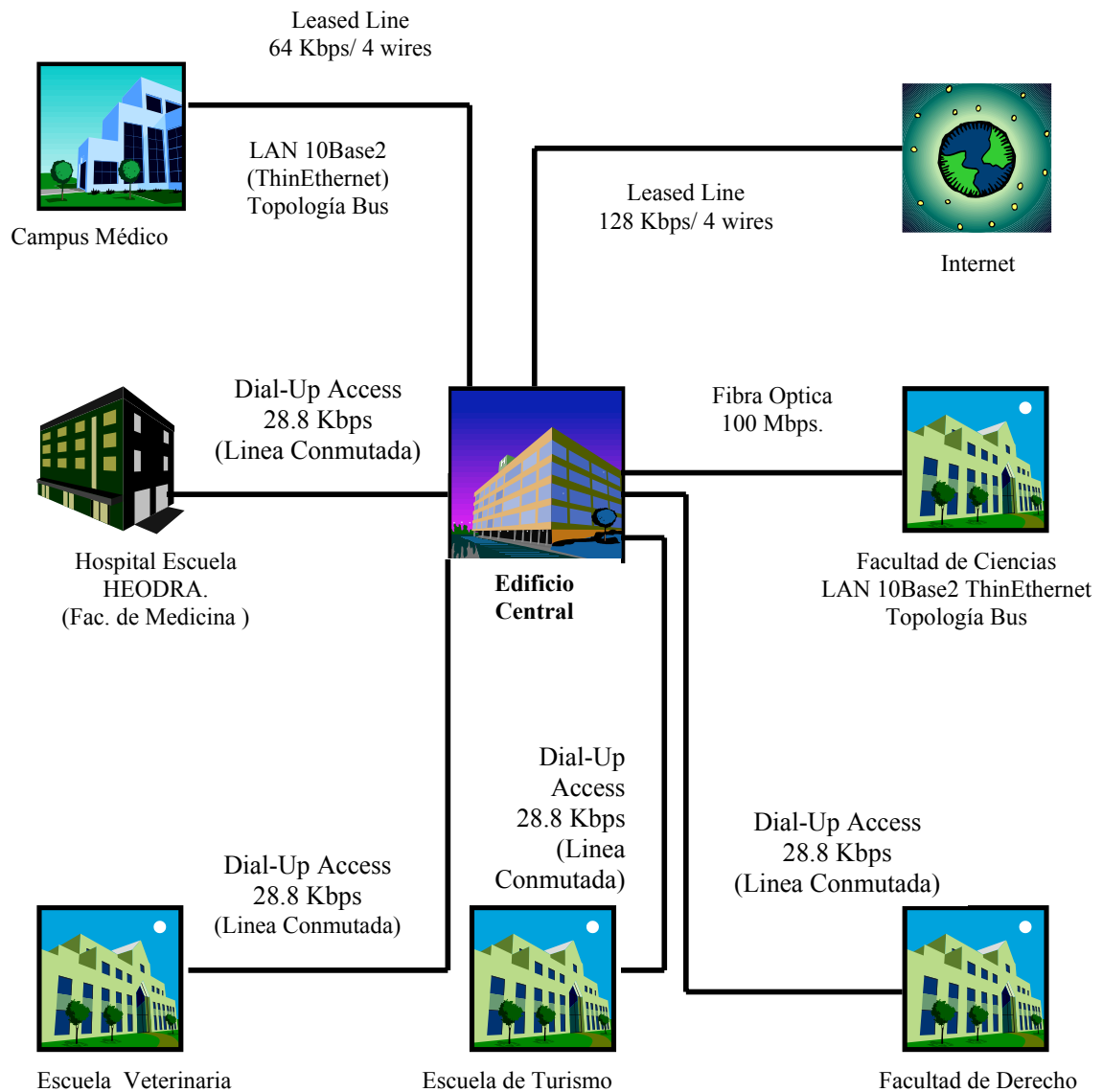
1. Description of existing networking facilities

1.1 Inter-campus networking

Describe in brief inter-campus networking facilities (if any) by specifying data communication links between campuses (or university's main compound) and individual buildings outside the campuses (or main compound). Please specify for each link the points (buildings) connected by the link, the distance the link is bridging, the technology used and the capacity of the link.
If possible, include a schematic drawing!

- **64 Kbps wireless communication (radio) link between main administrative building at the main campus and the faculty of health science building located in the centre of the city. Distance between connected buildings: 3 km**
- **9.6 Kbps dial up connection between main campus (computer centre building) and lake site campus (building of faculty of micro-biology).**

RED INTER-CAMPUS



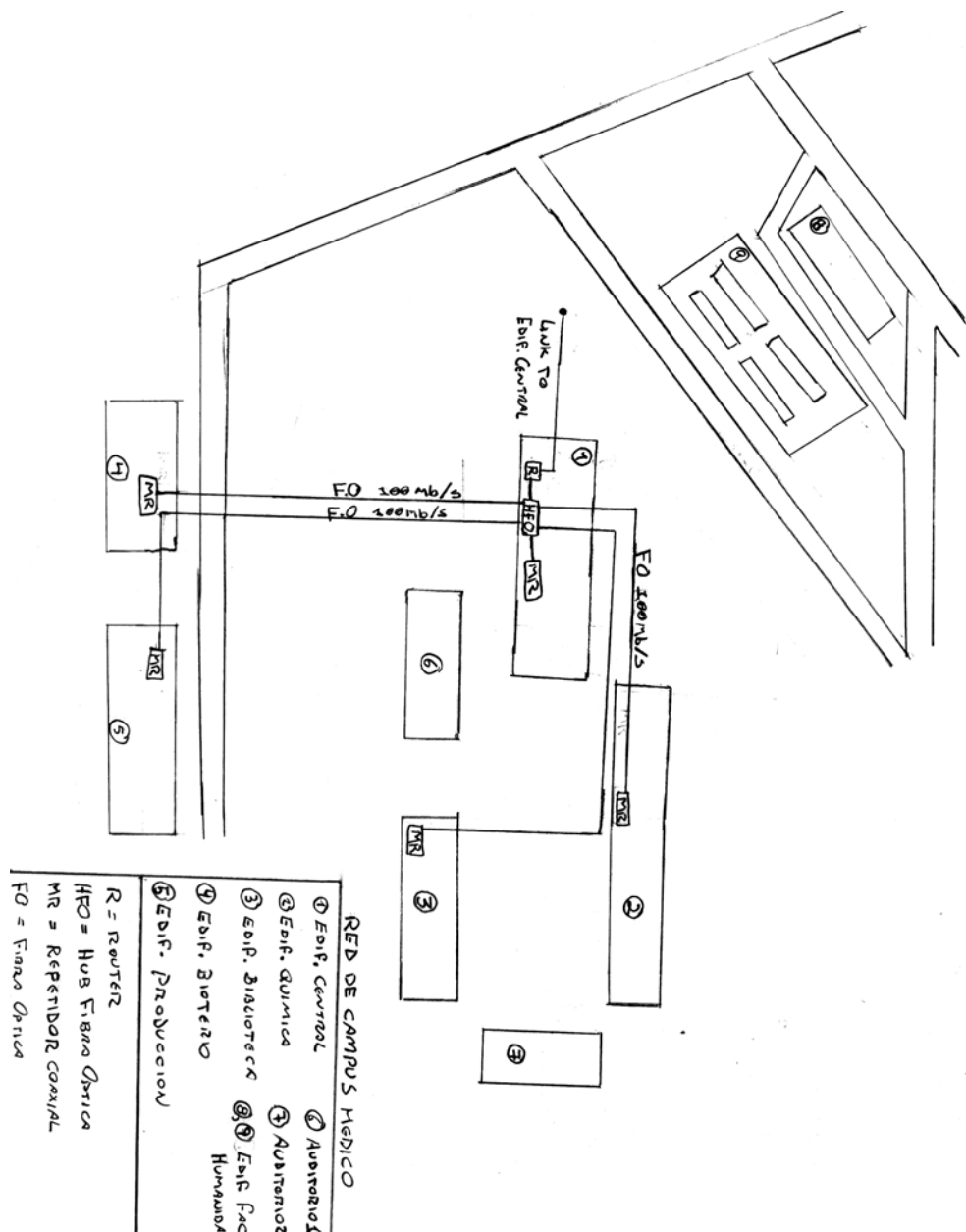
DISTANCIAS:

- Edificio Central - Campus Médico: 3500 mts.
- Edificio Central - Heodra: 700 mts.
- Edificio Central - Escuela Veterinaria: 4500 mts.
- Edificio Central - Escuela de Turismo: 500 mts.
- Edificio Central - Facultad de Derecho: 600 mts.
- Edificio Central - Facultad de Ciencias: 200 mts.

1.2 Campus networks

Describe in brief the networks available (if any) at the various campuses facilities providing data communication connectivity to the individual buildings. Do not include the description of LANs at the individual buildings! Please specify buildings connected, distances, the technology used and capacities. *If possible, include a schematic drawing!*

Main campus: 100 Mbps fibre optical campus backbone network connecting 2 buildings
(for details see drawing)



1.3 LANs at the individual buildings

Describe in brief the Local Area Networks installed (if any) at the various buildings. Please specify the number of connection points, capacities and technology used.

Main campus:

- **Main administrative building: 10 Mbps UTP LAN 30 connections**
- **Faculty of mathematics: 10 Mbps coax LAN 15 connections**

1.4 Connection to Internet/e-mail

Describe in brief the links (if any) the university does have to the Internet. Please specify the set-up, capacities and technology used.

Unan-León has a unique link to the Internet, through the ISP TELEMATIX (Line Dedicated of 4 threads to 128 kbps) All of links remote of the centers that pertain to the network academic, is done by means of connection Dial-up our Node central Internet to 28.8 Kbps.

1.5 Internet/e-mail facilities for common use

Does the university have central Internet/e-mail facilities serving the various faculties, departments, etc? If the answer is yes, please specify briefly the configuration of the facilities, the location of the facilities and name the group responsible for operations and maintenance

The university has the services of Internet localized in the center of computations in the main building.

The center of computations is the responsible for the maintenance and the operations. The configuration consists of a mail server, a name server of domains, and a proxy server (everything computers Intel P3 running under Unix) and link road dial up with a bank of modems (10 ports). The services single are able to be accessed from the central campus.

All of services of Internet and email are Centralized in the Node central. East is localized in the edifice central of the UNAN-León/Division of Informatics.

The division of Informatics is the Accountable for the administration of saying Node.

The Node of Internet disposes of a one server Internet in the which are running all of services (e-mail, Web, FTP, Telnet, POP3) East also serves as server of names.

The platform envelope the run the services: PC, X Clone of 166 MHz, 64 RAM, 3.5 Gb HD, and using as S. Or UNIX/BSDI.

It accounts a bank of 8 Modem to a Dial-UP.

The point of entry to the network academica single it may be realized through from the central Node.

As central router in east Node it uses the platform Cisco, with the model 2500.

2. Other ICT resources

- 2.1 Describe briefly the major computerized information systems in use at your university. Please indicate the number (estimate) of end-users for each particular administration and if possible, the department considered the main user.

The System Automated mas great of use in the Unan-León is the System of Information of Libraries the which is utilized so much by the students and educational, as the personnel of Library.

- 2.2 What is the number of PC's in use within the administration (estimate):

- 2.3 What is the number of PC's in use at the central library (estimate): **20**

- 2.4 What is the number of PC's in use at for education and research (estimate):
If possible, give estimates for each faculty, institute, school, other.

Total number (estimate): 400 PCs;

- Faculty of Science: 120 PC;
- Faculty of Medicine: 70 PC;
- Facultad de Odontología : 5 PC;
- Facultad de Ciencias Químicas : 20PC;
- Facultad de Ciencias de la Educación: 15PC;
- Facultad de Derecho: 20PC;
- Administración: más de 100

- 2.5 Please indicate the average condition of the present available PC's.

Approximately 50% of the total number is older than 3 years, and near of 30% is less 2 years older. 30% of the total number consists of Intel 486 or less powerful computers

- 2.6 Please describe in brief the condition of the electricity supply system at your university:

Electricity supply is not very reliable, we are facing power supply break-downs frequently (average 2 – 3 times a month). Mostly, power supply is restored within 60 minutes, but sometimes break down periods do span several hours(until 12 hours).

3. ICT resources available outside the university

The following questions are related to ICT resources (expertise, services) which may be available outside the university but within the country.

- 3.1 Are there one or more Internet Service Providers in the country? If so, please mentioned their names, location and - if possible - the maximum bandwidth the ISP can provide:

**There are several ISP'S : TELEMATIX, IBW, SISTEMATICA, etc.
512 Kbps, 512Kbps 512 Kbps
Managua, Managua, Managua**

- 3.2 Does one of the ISPs offer VSAT-services (access to the Internet through a satellite ground station). If the answer is yes, please mentioned the name, address, telephone, fax and e-mail address of the ISP (if available):

- 3.3** Are there any companies active in Nicaragua who could possibly be contracted for *designing complex ICT networks*. If the answer is yes: please give the name/address details (if available):

Company name: IBW Communications
Address: Semaforos de Enitel Villa Fontana 200mts al norte, #286
Phone: (+505) 2786328
Fax: (+ 505) 2786370
E-mail: jwyss@ibw.com.ni, j.ruiz@ibw.com.ni

- 3.4** Are there any companies active in Nicaragua who could possibly be contracted for the *installation of wireless communication networks*. If the answer is yes: please give the name/address details (if available):

Company name: IBW Communications / MERINCO

- 3.5** Are there any companies active in Nicaragua who could possibly be contracted for *LAN cabling networks*. If the answer is yes: please give the name/address details (if available):

- 3.6** Are there any companies active in Nicaragua who could possibly be contracted for *delivering and installation of Internet/e-mail server systems, including provision of staff training*. If the answer is yes: please give the name/address details (if available):

Company name: IBW Communications

4. Plans for building ICT Infrastructure

- 4.1** Are there any plans (proposals, technical designs, other) for building an ICT infrastructure spanning the whole (or parts of the) university? If the answer is yes, can these plans be made available to the consultants?

<End of Part C>