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1 Background

Information technologies have significantly modified the ways in which people access knowledge and communicate leading to a new paradigm called Information Society. It has the potential to improve the quality of life of citizens, and increase the efficiency of our social and economic organisation. In this context, a new trend is emerging in the provision of universal service, tending to favour community connectivity and broadband access instead of seeking, in the short term, to ensure that all households have a telephone line.

The Plenipotentiary Conference of the International Telecommunication Union (Marrakech, 2002) recognized the needs of each Member State to promote knowledge and the development of skills in order to eliminate the digital divide between those having access to communication and information and those not having access.

In this context, the conference resolved to promote the adoption of measures necessary to adopt new indicators for measuring the real impact of community connectivity to be taken into account in the plan of action of the World Summit on the Information Society.

2 Discussion

It is an unquestionable fact that technological changes have radically altered the ways in which human beings have access to knowledge and relate to each other.

It is also a fact that such technological innovation generally creates a gap between developed and developing countries, as well as between urban areas and rural areas with scarce economic resources in almost all countries.

Against this background, community connectivity policies are being put in place by developing countries to provide the population with faster access to telecommunication services through digital community centers.

Community connectivity policy is based on the approach that, in order to achieve universal access, the focus must be on the installation of digital community centers (DCCs) and the use of broadband

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technologies, instead of aiming for a fixed telephone line for each household in the short term. It is important to emphasize that in many geographical regions and some urban areas it is impossible to provide telecommunication services on an individual or residential basis simply because they are not affordable. For this reason the community scheme holds the solution to the issue of access.

This framework document focuses on community connectivity indicators that evaluate the deployment of digital community centers. A digital community center (DCC) is defined as a center where the members of the community may access digital telecommunication and Internet services from terminal facilities put at their disposal. Two principals must be satisfied by a DCC:

- No discrimination for access. All are welcome.
- Free or very low-cost access

Other centers not satisfying the above requirements (e. g. centers in schools, or those only available to members of a club) may also play and important role in the development of the information society, but they are outside the scope of this document.

On the other side, usage of the services depends not only on the availability of the appropriate infrastructure but also on other issues rarely considered in telephone service like the possibility and the initiative of the people to develop the required skills, the existence of appealing services, etc. Education of the people is as important as the deployment of infrastructure.

An indicator that measures both effects, infrastructure and education, is the number of Internet users per hundred inhabitants. This indicator, which is already used, is a good measure of the real effectiveness of the policies carried out to develop the information society.

3 Requirements of the Digital Communication Centers

WP 3/2 considers that the usefulness of a DCC may only be reached if it satisfies a minimum set of requirements, both in the Telecommunications and equipment facilities, and in assistance by technical personal. In a first approach, these requirements shall be related to the following elements:

Telecommunication and equipment facilities

- A minimum number of available computer terminals equipped with appropriate software: the number of computers must be a function of the number of inhabitants and of the service demand in the area served by the center. The appropriate software needs to be determined and may depend on the social characteristic of the center's users.
- A minimum access speed: there must be a absolute minimum connection speed for the center (e.g. 256 kbit/sec.), which must increase as a function of the number of computers.
- Printer access (e.g. one printer per five terminals)

Assistance by technical personal, covering

- Technical support and maintenance
- New-user introductory training
- A minimum number of open hours a day. (e.g. 12h, except in rural centers with very small service demand)

It is desirable that the authorities certify the centers that satisfy these minimum requirements and that only certified centers may show a sign that identifies them as DCCs.

WP 3/2 invites member states and sector members to contribute to the qualitative identification of the elements that must be integrated in a DCC.

4 Initially proposed community connectivity indicators

In the working session of December 2002, WP 3/2 derived the following propositions of community connectivity indicators from its discussions.

- **Number of community access terminals per hundred inhabitants.**

  This indicator offers a way to gauge the availability of terminals to users. Countries will be able to measure their own development of community connectivity by changes in the number of terminals per 100 inhabitants. Countries may set a penetration target based on their own particular needs. Case studies play a vital role in determining how many users one community access terminal can support. Each country will have different needs and case studies can provide an idea of the penetration rates countries should choose at targets. Countries with higher levels of home Internet access may need fewer community access terminals and could set their target penetration rates lower than countries that rely more heavily on DCCs for Internet access. A country may have many private digital centers (those that restrict access), which would also decrease the need for the public-oriented DCC's. Countries could then measure their progress in attaining their goals with the indicator.

- **Percentage of inhabitants who have a close community access center.**

  While the penetration rates in the first indicator give an idea of overall community access terminal penetration, they tell nothing of the distribution of those terminals. While metropolitan areas may have an abundance of DCCs in a small geographic area, rural users may be very far from the nearest community access point. This second indicator measures the percentage of inhabitants that are within a certain distance (e.g. 3 km) of a community access point. Therefore, countries should care not only about the number of users per community access terminal but also the percentage of the population that has convenient access to those terminals.

WP 3/2 invites member states and sector members to contribute to a more elaborated definition of the required indicators.

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