

**E C T E L  
C O N S U L T A T I O N   D O C U M E N T**

**Recommendation of the Eastern Caribbean Telecommunications Authority  
("ECTEL")  
To the National Telecommunications Regulatory Commission to consult on  
Universal Service Fund Guidelines, Discussion Paper No. 1:  
Scope and Objectives of the Universal Service Fund for ECTEL Member States**

**Consultation Document**

**2006**

1. The National Telecommunications Regulatory Commission is in receipt of a submission from ECTEL containing Universal Service Fund Guidelines, Discussion Paper No. 1: Scope and Objectives of the Universal Service Fund for ECTEL Member States.
2. A copy of the Universal Service Fund Guidelines, Discussion Paper No. 1: Scope and Objectives of the Universal Service Fund for ECTEL Member States is attached to this Consultative Document.
3. The initial comments period will run from 02<sup>nd</sup> October 2006 to 13<sup>th</sup> November 2006.
4. Reply comments from 20<sup>th</sup> November 2006 to 11<sup>th</sup> December 2006.
5. Following the Reply Comments period, ECTEL's Directorate will take the comments into consideration in the development of draft Guidelines for Implementation of Universal Service Funds in ECTEL Member States. These draft Guidelines are to be submitted to the ECTEL Council of Ministers for its recommendation for adoption in the ECTEL Member States.
6. All responses to this Consultative Document should be written and sent by post, fax or email to: -

Managing Director  
ECTEL  
P.O. Box 1886  
Vide Boutielle  
CASTRIES  
St. Lucia  
Fax: 1-758-458-1698  
[usfdiscussionpaper1@ectel.int](mailto:usfdiscussionpaper1@ectel.int)

**Disclaimer**

*This consultative document does not constitute legal, commercial or technical advice. The consultation is without prejudice to the legal position of ECTEL's duties to provide advice and recommendations to the Ministers with responsibility for telecommunications and the National Telecommunications Regulatory Commissions.*



**Eastern Caribbean Telecommunications Authority (ECTEL)**

**Universal Service Fund Guidelines**

**Discussion Paper #1:**

**Scope and Objectives  
of the Universal Service Fund  
for ECTEL Member States**

**September 2006**

*ECTEL Universal Service Guidelines*  
*Discussion Paper 1: Scope and Objectives of the USF*

Table of Contents

<b>1. INTRODUCTION: BACKGROUND AND PURPOSE FOR DISCUSSION PAPER.....</b>	<b>1</b>
<b>2. SCOPE AND OBJECTIVES OF THE FUND: GENERAL VIEWS .....</b>	<b>2</b>
<b>3. BASIC TELEPHONE SERVICE.....</b>	<b>4</b>
<b>4. INTERNET ACCESS.....</b>	<b>6</b>
<b>5. BROADBAND AND WIRELESS.....</b>	<b>9</b>
<b>6. SPECIAL NEEDS .....</b>	<b>10</b>
<b>7. CAPACITY BUILDING, TRAINING .....</b>	<b>11</b>
<b>8. INFORMATION CONTENT AND APPLICATIONS .....</b>	<b>13</b>

*ECTEL Universal Service Guidelines*  
*Discussion Paper 1: Scope and Objectives of the USF*

## **1. Introduction:**

### **Background and purpose for Discussion Paper**

This Discussion Paper is the first in a series of papers presented by the Eastern Caribbean Telecommunications Authority (ECTEL) in connection with the development of Universal Service Regulations and Guidelines for the ECTEL Member States (Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines).

Each of the ECTEL Member States has included within its Telecommunications Act provision for the establishment of a Universal Service Fund (USF), to promote greater telecommunications connectivity and access. The Fund is to be financed by levies on the revenues of licensed telecommunications operators, and administered by the National Telecommunications Regulatory Commission (NTRC) of each ECTEL Member State..

ECTEL has engaged consultants to assist in the development of Regulations and Guidelines for the establishment and operation of the USFs, subject to approval and adoption by the NTRC and Minister of Telecommunications within each country. The proposed Guidelines and related Regulations and policy recommendations are being developed via a process of extensive consultation and communication with stakeholders in all of the ECTEL Member States. This process includes direct meetings and interviews with key government officials and industry representatives, public consultations and open forums permitting interested parties to express their views and ask questions, and the circulation of these formal Discussion Papers to solicit additional comments and input.

The subject matter of this initial Discussion Paper involves the Scope and Objectives for the Universal Service Fund. The general basis for this discussion is presented in the next section, along with specific discussion and inquiries regarding various topics and options relating to this issue. Subsequent Discussion Papers will address issues of Economic and Financial Analysis relating to the Fund's operations; and the Fund's Organization, Management and Operating Procedures.

## **2. Scope and objectives of the Fund: general views**

A critical first-level issue for determining the role and operations of the Universal Service Fund is to define the scope and objectives of the Fund: i.e., the purposes for which the money will be spent. These decisions need not specify exact, detailed targets or projects for Fund financing, as these are likely to differ for each country and to change over time. But there must be some general parameters and standards for identifying priorities for allocating Fund resources. The following sections of this Paper provide discussion points concerning a variety of specific objectives that could be, individually or collectively, among the Fund's key goals.

As background, it should be noted that "traditional" Universal Service Fund mechanisms in other countries have in the past primarily focused their financing upon achieving universal "access" or universal "service" in the area of basic voice telephone service. Universal Access implies public access to telephones, for example pay phones or public call centres, within reasonable distance of all citizens. In this respect, many developing countries have utilized their USFs to try to ensure installation of at least one payphone in every town or village, for example. Universal Service, on the other hand, has traditionally implied that every household in the entire country should have a basic telephone connection: this has been the focus of the USF in wealthier countries in North America and Europe, for example, where the penetration of phones was already quite extensive.

As technology and the telecommunications market has changed, however, the concepts and objectives for Universal Access/Service have changed as well. The arrival of cellular telephones and the Internet have created a new environment in which, on the one hand, far more people have access to basic telephone services via the cell network than via traditional fixed line connections, while on the other hand, more and more people are starting to see Internet access as a "basic", fundamental communications medium. In this environment, Universal Service Funds, especially in developing countries, are now starting to focus their attention on helping to finance more ambitious roll-outs of advanced network technologies, to promote the establishment of so-called Information Societies.

In the ECTEL region, as will be discussed in the following sections, these same trends have taken hold. The USF mandates that were written into the Telecommunications Act in each country, however, do not specify the goals that these Funds should seek to achieve. The Act states that "universal service" includes:

- (a) public voice telephony;
- (b) internet access;
- (c) telecommunications services to schools, hospitals and similar institutions, and the disabled and physically challenged; or

*ECTEL Universal Service Guidelines*  
*Discussion Paper 1: Scope and Objectives of the USF*

(d) other service by which people access efficient, affordable and modern telecommunications.

With regard to the role of the Fund, the Telecommunications Act states that: “The Fund shall be used by the Commission, on the recommendation of ECTEL, to compensate any telecommunications provider who is required to provide universal service by virtue of section 43 of this Act or to otherwise promote universal service.” [emphasis supplied] This provides considerable latitude to the NTRCs and ECTEL to devise USF operating plans and procedures that are consistent with the main objective of promoting universal service.

The scope of services and facilities that can be supported by the USF is similarly open-ended, according to the definitions contained in the Acts as well as the licenses. As mentioned above, the definition of Universal Service itself includes public voice telephony, Internet access, telecommunications services to schools and other institutions, and “other service by which people access efficient, affordable and modern telecommunications.” This gives wide scope to the types of equipment and services that the Fund can legally support within its mandate.

**Questions:**

2.1 What should be the general, fundamental objectives for the scope of the Universal Service Fund’s activities? How should the NTRC set priorities for allocation and spending of collected funds?

2.2 What restrictions or limitations should be placed on the use of USF funds?

2.3 What targets and ultimate outcomes should the Fund seek to achieve? How should “Universal Service” be defined for the purposes of evaluating the Fund’s accomplishments?

### **3. Basic telephone service**

#### 3.1 Basic access

For most ECTEL Member States, cellular mobile telephone network signals cover a major part of the country, and fixed line networks and services are also widely available. However, there are locations where cellular signals are not received, and areas where the wireline network is not currently economically feasible. The latter is the case for some isolated rural locations, as well as populated outlying islands.

For most citizens, wireless cellular service has become the telephone service of choice these days, given the convenience and easy availability of cellular phones and low-priced pre-paid calling cards. The historical difficulty that many customers had with obtaining a traditional fixed-line telephone often prevented a large number of households from subscribing to telephone service. However in the new environment, there are few families or households that do not have access to at least one (mobile) telephone, and certainly some form of service is available to almost anyone, anywhere (public telephone, friend or neighbour, etc.) for use at least in emergency situations.

This situation suggests that the most basic initial objective, i.e., for universal “access” to simple telephone service, has been virtually achieved within the ECTEL Member States. As mentioned, however, there may still be pockets where even such minimum connectivity is not conveniently available to everyone. This raises the following questions:

#### Questions

- 3.1.1 How much need is there to expand basic telephone services, both fixed line and cellular, within the ECTEL countries? Where are the key locations where telephone service is unavailable or inadequate?
- 3.1.2 Is the availability of public (pay) telephones sufficient for the need? Where, and to what extent, should more public phone access be made available under the Fund’s programs?
- 3.1.3 Should the USF focus on supporting build-out of fixed-line telephone connections to households even where cellular service is widely available? Is there demand for such traditional telephone service?
- 3.1.4 What criteria should the Fund establish to define truly “universal” telephone service? How should achievement of universal service be measured and verified? For example, is universal service achieved when:

*ECTEL Universal Service Guidelines*  
*Discussion Paper 1: Scope and Objectives of the USF*

- All individuals have access to a public telephone within a 5 minute walk of their household; or
- All individuals have access to a fixed or cellular telephone in their household; or
- All individuals have access to fixed or wireless telephone service within a distance of 1 km in their community; or
- Any other criteria?

3.1.5 If universal service is defined based on distance, time,,location or other criteria, what appropriate indicators should be developed to measure and monitor progress, and to ensure that all individuals have access to basic service?

### 3.2 Affordability

Related to the issue of access is the question of affordability of basic telephone services for lower income citizens. In more developed countries, USFs have been utilized to help subsidise demand in this respect, by offering discounts or vouchers or other benefits to disadvantaged users, to allow them to have at least a minimum level of affordable telephone service. However, even if this is a desired policy goal, it may be more difficult to develop a regime to help subsidize individual cellular service as compared with traditional household telephone service. One mechanism might simply be to have the government, through existing social welfare programs aimed at qualified low income citizens, purchase and distribute calling cards of a certain denomination (or possibly even SIM cards) along with other designated benefits.

There are a variety of potential drawbacks to this approach, however, since these products can be more easily resold, for a profit, than traditional welfare benefits, so it is unclear how effective such a program might be in promoting its actual purpose of ensuring telephone service access for low income households. Publicly subsidized pay phones and/or telecenters (discussed further below) might provide a more reasonable means of promoting affordable telephone services, although they are less convenient than individual phone ownership.

### Questions

- 3.2.1 Should the Fund seek to address the affordability of telephone services for low income residents? Which groups of persons should benefit from such programs,?
- 3.2.2 What mechanisms should the Fund implement to help provide affordable telephone services? What are the advantages and drawbacks of different approaches?

## **4. Internet access**

### 4.1 Network access

Internet access and use is growing in the ECTEL region, but not nearly as rapidly as cellular telephone use, and apparently more slowly than in many other countries. While dial-up Internet service is available wherever the fixed telephone network is connected, there are many users who either cannot afford or do not have direct access to Internet connections. In other cases, citizens may be uninterested or unaware of the uses and benefits that Internet access can provide to them, or they may be unfamiliar and uncomfortable with computers and information technology in general.

Despite all of these potential hindrances, however, Internet demand continues to grow in the region, suggesting that, once people are given the exposure and the opportunity, they will utilize the Internet.

One way in which users can become familiar with the Internet, and can obtain affordable access is through public Internet access sites. These include both commercial locations such as Cyber Cafés and community-based or government sponsored sites such as “telecenters”, as well as libraries or schools where the public can access e-mail, the Web, and other services on an occasional basis for affordable prices. One potentially significant activity for the USF could be to help finance the establishment of such public Internet access points for communities lacking Internet connectivity. The Fund could also contribute to extending Internet access for households, e.g., through expanding the fixed wireline network and/or through new technologies.

### Questions

- 4.1.1 Should the Fund place emphasis on expanding access to the Internet?
- 4.1.2 Where should the Fund place greatest emphasis, on household Internet access or on public, community-based Internet access?

*ECTEL Universal Service Guidelines*  
*Discussion Paper 1: Scope and Objectives of the USF*

4.2 Affordability of Internet access

For many customers, one of the largest barriers to widespread Internet use at the household level is likely to be the cost of internet access along with the cost of purchasing a computer and related hardware and software. However, as indicated before, one way in which users can obtain affordable access without having to pay the full costs of equipment and subscriptions, is through public Internet access facilities.

Some USF programs seek to help provide discounts or other incentives to assist users to obtain computer equipment and software, to enhance use of Internet services. It appears that the language of the Telecommunications Act includes such end-user equipment within the definition of telecommunications services and facilities, which come under the USF's mandate. This creates the possibility that the USF could assist in making computers more affordable and available to individuals as part of its goal to encourage growth of Internet use.

In some areas, the establishment of public Internet access facilities could be an attractive option. Such facilities are often either (i) Privately-owned and operated, on a commercial basis; (ii) Government-owned and operated; (iii) Government-owned, and operated by a non-profit organisation; (iv) Government –owned, and operated by a private entity; or (v) Owned and operated by non-profit organisation community organisations. However, experience has shown that many public Internet access facilities often encounter challenges which threaten their sustainability. Such challenges are often related to the management of the facilities, the maintenance of equipment and financing of the facilities.

**Questions**

- 4.2.1 Should the USF consider helping to finance the purchase of computers and related equipment and software by potential Internet customers, whether they are individuals or households, or public access facilities?
- 4.2.2 How best should an equipment purchase assistance programme for individuals or households be structured?
- 4.2.3 What groups of persons should benefit from such a programme?
- 4.2.4 Should the USF consider providing support to Public Internet access facilities?.
- 4.2.5 Should an assistance program to public Internet access facilities place emphasis on operations owned by private individuals or entities, government agencies or non-profit community organisations.

*ECTEL Universal Service Guidelines*  
*Discussion Paper 1: Scope and Objectives of the USF*

- 4.2.6 How best should an assistance programme for public Internet access facilities be structured?
- 4.2.7 How should the community Internet “telecenters” be organised so as to be sustainable?

## **5. Broadband and wireless**

Because the state of basic telephone network development in the ECTEL region is significantly advanced, it is possible to start looking at upgrading the goals of universal access to include higher speed (“broadband”) Internet connections, including wireless broadband services. Increasingly, Internet users are finding that broadband connections (e.g., at least 512 kbps downstream and 128 kbps upstream capacity) are necessary to experience the full benefits and diversity of information and applications available over the Internet, and in particular more advanced e-commerce and other valuable services often depend upon both high-speed access and the “always-on” feature that usually accompanies either telephone company ADSL service or cable-TV broadband Internet access. The arrival of WiFi and newly emerging “WiMAX” wireless broadband transmission technologies allows users with laptops or other remote computers to connect to the Internet without cables, from virtually any location within range of the signal (which can be several hundred meters in the case of WiFi, and is anticipated to be several kilometres in the case of WiMAX).

Broadband and wireless technologies thus present very promising new opportunities to expand the quality, availability, and usefulness of Internet access and related on-line services far beyond the range of what most ECTEL citizens currently experience. This may be particularly true in community (and institutional) settings, where new wireless broadband networks and services could upgrade the quality of service available to large numbers of people quickly and affordably. From there, the market may expand further into household and individual level services, as demand grows.

The Universal Service Fund could contribute to the expansion of and investment in broadband and wireless networks in the ECTEL Member States, where these technologies and services may not yet be financially viable or affordable in many locations. Given the advances in technology, it may be more efficient for the Fund to support wireless broadband access projects in place of traditional dial-up Internet and even fixed or mobile telephone services, since the new technologies can potentially provide all of these together.

### **Questions**

5.1 Is the development of broadband networks and services an appropriate objective and priority for the USF? Should Fund resources focus on broadband, and in what locations?

## **6. Special needs**

The USF could support projects to promote and facilitate the use of telecommunications services by individuals with special needs, such as the blind, the physically disabled, speech impaired people, among others. These technologies can provide sophisticated and vital tools and functions that can facilitate communication for the disabled and can also increase the employability of many disabled individuals. Stakeholders in the ECTEL countries have expressed their views on this issue and raised several areas of concern, such as the generally low income of disabled people, the high cost of appropriate technology and software needed to make telecommunications services usable by those individuals, the limited physical conditions to facilitate access (including buildings limitations), as well as the current lack of training and capacity building programs designed to accommodate the needs of this group.

In many countries, national and local governments have developed strong policies and legislation to ensure universal access to various services and programs by the disabled, including assistive technologies (e.g., the Braille bar, Text teletype (TTY) equipment) and appropriate architectural design (to facilitate universal physical access). These programs sometimes include IT training programs for people with disabilities. Some interesting programs include projects to increase access to the Internet (including electronic books) by disabled school age children, access to the Internet and computer centers by wheel chair users, and Internet-based job placement programs for the disabled.

### **Questions**

- 6.1 Should USF financed projects be required to make provisions to ensure access (physical and technological) by disabled individuals?
- 6.2 Should the USF support and finance the technology that will facilitate the use of telecommunications services by individuals with special needs? If so, what should the priorities be?
- 6.3 What are the options and constraints to make telecommunications services universally accessible and useful to the disabled? How can the USF address those constraints?

## **7. Capacity building, training**

The value of and demand for Internet access and related capabilities is highly dependent upon the level of knowledge, understanding, and training of both providers of services as well as users at all levels. Most of the ECTEL States have begun to implement programs aimed at increasing exposure to and training in technologies for students and the general public, but there remains a substantial lack of awareness and skills in technical fields.

For many of the services that might be supported by the Fund to be successful, there may be a need to incorporate capacity building components as part of the activities to be financed. This can manifest itself in several ways, for example:

- Hands-on (as well as “virtual”) training for Users of services such as Internet telecenters to help them understand the features and functions available to them, to encourage their enhanced involvement with and appreciation for the technologies, as well as to provide important skills that can help them in other areas of their lives;
- Assistance to the local managers of public telecenters or other community services, to help train them in the effective operation of public service enterprises, including both technical and business skills, to help ensure the successful operation and sustainability of these projects;
- Contribution to higher-end technical training initiatives for citizens looking to work in the ICT sector, whether as employees of existing companies or in developing new business models, including technical support, software and applications development, networking, etc.
- Support for research leading to improvements in universal service implementation.

In each of these and other areas, the Fund could participate in a variety of ways to help advance capacity building objectives that underlie universal service goals. It need not take the lead to set up or finance specific training programs, but could require that recipients of Fund subsidies ensure that some degree of training be incorporated as part of the services that they offer. The Fund could also collaborate with other training programs, for example to promote seminars and workshops, or to help establish interactive training materials that could be utilized throughout the USF’s activities.

### **Questions**

7.1 In what manner should the Fund be utilized to support training and human resource capacity building? What restrictions or limitations should there be on such involvement?

*ECTEL Universal Service Guidelines*  
*Discussion Paper 1: Scope and Objectives of the USF*

- 7.2 Which types of training should be emphasized? How should training candidates be qualified? What amount and types of financial support should be provided (e.g., free classes, subsidized tuition, training-the-trainers, etc.)?
- 7.3 Should the Fund participate directly in developing and funding training programs and research, or should it mainly require that subsidy recipients develop training as a component of their Fund-supported operations?

## **8. Information content and applications**

In the era of the Internet and Convergence, telecommunications networks and services deliver far more than person-to-person conversations, and the value of these networks is directly related to the quality and diversity of the information content and applications that users are able to obtain and share thereby. The On-Line experience, the wealth of Web sites and increasingly sophisticated Internet-based programs can be overwhelming, and even potentially discouraging, as it can be a challenge to search through the masses of information for the kind of useful, relevant, and interesting features that appeal precisely to one's own personal preferences. The success and sustainability of network and service expansion, therefore, as well as the social and economic impact of these technologies in general, depends upon the nature of the content that is available.

In this respect, the countries of the Eastern Caribbean are lagging behind the major global markets in terms of producing locally generated, relevant, and unique information, applications, and electronic content of all kinds that is specifically aimed at the native peoples of the region. Although there are a growing number of locally hosted Web sites as well as Web design firms, in addition to traditional media such as newspapers, radio, and television, there remains almost no significant functioning local market for the development and dissemination of Eastern Caribbean focused content. This gap is likely to remain a significant barrier to the strong and sustainable growth of the Internet market in the ECTEL Member States, until potential customers feel that their culture, interests, and needs, from entertainment to political involvement to e-commerce, are reasonably addressed in the on-line environment.

In this context, the question arises as to whether the Universal Service Fund, in its role of promoting the widest possible access to – and use of – Internet and other communications networks and services, can and should contribute to fostering the growth of the local information content market within the Member States. While the legislative mandate is silent on this issue, it can certainly be argued that the ultimate benefits of the services that the USF is intended to promote are integrally dependent upon the end-use applications and content that those services deliver, and hence that the Fund has at least some role to play in supporting such content development. This type of support could be indirect in nature, or provided in conjunction with network and facility projects financed by the Fund, or it could be offered on an experimental or trial basis in specific instances.

### **Questions**

- 8.1 What role, if any, should the USF play in seeking to promote development of local information content and applications to support Internet service expansion? What types of services and operations (e.g., non-profits, community-based groups; health organizations) should potentially qualify for Fund support?

*ECTEL Universal Service Guidelines*  
*Discussion Paper 1: Scope and Objectives of the USF*

- 8.2 What types of content and applications would be appropriate for Fund assistance: e.g., educational and cultural applications and Web sites, health care information and other public service information, local news and information, interactive functions that encourage community participation, etc.? What should be considered out-of-bounds (e.g., commercial content)?
- 8.3 How should the Fund manage any potential allocation of resources for content development, such as through public competitions or contests, to ensure fair participation and creative initiative?

Please feel free to provide any additional comments, ideas, or concerns in response to this Discussion Paper. Thank you for your time and interest.