

UNIVERSAL SERVICE OBLIGATION

A



PERSPECTIVE



AGENDA

- **Universal Service**
 - **definitions**
 - **calculation of costs**
 - **paying for universal service**
 - **TSTT's experience**




DEFINITIONS



Types of Definitions

- **Network coverage**
 - A network passes the whole county
- **Universal access**
 - Everyone has access to telecoms
- **Universal service**
 - A phone in every home
- **Access to advanced services**
 - Everyone has access to advanced information services

A large, multi-colored thought bubble with a gradient from light blue at the top to light purple at the bottom. It has several smaller, similar bubbles trailing off to the bottom left. The text inside is in a bold, dark blue font.

These concepts are used alone or in combination to achieve national Goals.



Examples: Definitions of Universal Service

Country	Definition
USA	Basic voice telephony available to everyone at affordable rates. Special programmes for low-income, disabled and rural operators. Access to advanced services for everyone.
UK	Basic telephony supporting low-speed data and fax transmission to all at a reasonable price. Special schemes for customers with financial difficulties. Talk-type services for the blind
EU:	A defined minimum set of services of specified quality which is available to all users independent of their geographical location and in light of specific national conditions, at an affordable price
T&T	Public telecommunication services, taking into account the needs of the public, affordability of the service and advances in technology and shall include, at a minimum, a quality public telephone service.



Essential Components of the Definition

- **Influence of social , economic, cultural factors, and level of network development**
- **Costs:**
 - **uneconomic customers and location**
 - **disability**
 - **profitability**
 - **vision**



Unwrapping Universal Service

- **Essentially about the uneconomic *existing* users**
- **Areas with high costs**
 - **rural areas**
 - **islands**
- **Populations with low incomes**
- **Disabled people**
- **Loss making public facilities**
- **Should some of these categories be handled through social services?**
- **Some countries have required provision of a low user discount scheme - but who benefits?**



CALCULATIONS



Basis of Calculations

- **Costs avoided if US facilities are not provided**
 - *less revenues foregone by facilities not being provided*
- **Payphones example**
 - *total revenue per payphone (assuming minimal incoming calls)*
 - *minus annualized capital costs (depreciation) plus return on capital employed per payphone*
 - *minus annual maintenance costs per payphone*
 - *equal net universal service cost*



Cost of Uneconomic Areas

- **What is the net cost of areas served by TSTT which it would not serve on purely commercial criteria?**
- **Much depends on how information is held by operator**
- **Which areas should be used - choice depends on availability of information**



Calculating Costs of Uneconomic Areas - T.S.T.T.

- **Exchange areas classified into cost groups**
 - **population (10,000 - 5,000 - 0)**
 - **geography (island, mountain)**
 - **technology (cable or radio)**
- **Annualized costs of assets employed in exchange area**
- **Operational costs**
 - **maintenance**
 - **billing**
 - **operation**
- **Only incremental costs included or include overhead costs also.**



Calculating Revenues of Uneconomic Areas - T.S.T.T.

- **Total revenue from each area:**
 - *monthly rentals*
 - *all call revenues*

- **Assumptions for revenues from calls total from each area**
 - *local calls terminated in each area, hence ignore*
 - *incoming national calls = outgoing national calls*
 - *incoming international calls = national ratio of outgoing/incoming international calls*
 - *mobile to fixed calls = national ratio, but interconnection charge only*

- **Other benefits - publicity, image, etc., - ignored**



COST

- **UK, Spain, France etc.,: 1% - 6% of incumbent's turnover.**
- **Spain (2002): in Euros - uneconomic areas 203 M, social tariffs 64M, public phones 14.3 M, disabled users 78M.**
- **TSTT - approximately 3% - 18% of total revenues (328M euros in 2003 = 9 M - 59M**



Meeting the Costs

- **Cross subsidization**
- **USF (Universal Service Fund):**
 - **one designated operator to provide US and receives monies from the fund account**
 - **bids assessed for specific location(s) and winner paid from USF**
- **ADC (Access Deficit Charge) as a direct surcharge on interconnection rates**



Basic Characteristics of Funding Mechanisms

- **Funding mechanisms are designed to finance the net cost of providing universal service**
- **There is no one perfect funding mechanisms**
- **Funding mechanisms need to be adjusted over time to reflect changes brought about by:**
 - ***market liberalization***
 - ***government policy***
 - ***etc.,***



Fund Administrators

There are many different types of administrators:

- **Ministries**
 - **Independent regulators**
 - **Independent third parties**
 - **Industry**
- **Funds administered by the private sector or non-governmental agencies have distinct advantages:**
 - *Maintain neutrality*
 - *Promote efficiency by reducing red tape and bureaucracy*
 - *Diminish the impact of the changing landscape of political objectives, which can interfere with universal service goals*



Examples of Fund Administrators

Ministry

Columbia. The Ministry of Communications is the full-time administrator and absorbs all costs.

**Independent
Regulator**

Australia. The regulator assumes full responsibility related to collecting and disbursing funds to qualifying operators.

**Independent Third
Party**

France, South Africa, Peru and the U.S. Independent organizations collect and distribute funds among operators.

Industry

Canada. The Senator Group manages the process



PAYING FOR UNIVERSAL SERVICE













The Main Questions

- **Should anyone pay?**
- **Who should pay?**
 - ***Are mobile operators included?***
- **What is the basis for payment?**
 - ***Revenues***
 - ***Traffic volume***
 - ***Market share***
- **Who receives support?**



Current and Planned Funding Mechanisms

<u>Country</u>	<u>Cross-subsidies</u>	<u>Access charges/ surcharge to IXC</u>	<u>Universal Service Fund</u>
Australia	-	-	
France	-		
Mexico		-	
Portugal		-	
UK		-	
US	-		



Who Pays?

Country	Long Distance Operators	Incumbent PSTN Operators	New Entrant Access Operators	Cellular Operators	Government
Australia	☞	-	-	☞	-
France	☞	-	-	☞	-
Mexico	-	☞	☞	-	-
Portugal	-	☞	-	-	-
UK	-	☞	-	-	-
US	☞	☞	☞	☞	-

Incumbent operators in Australia and France technically do help support the costs of universal service as they are compensated for the total amount of the costs.



Competition

- **A well defined policy protects against the risk that market forces on their own might exclude certain groups of users or users in certain areas from being able to access services**
- **Certain rules are not needed in an environment where services are delivered of determined quality at an affordable price**
- **Obligation to be applied in a non- discriminatory manner to all operators ... physical or financial**
- **Coverage: access to emergency numbers, directory enquiries, public telephone, provision to the physically challenged/those requiring special needs and the blind**



Trinidad & Tobago - A Case Study

- **Population: approximately 1.3 M**
- **Household penetration of 70% (2002)**
- **Cellular subscribers 440,000 (2003)**
- **Fixed line subscribers 360,000 (2003)**
- **Local toll rates: US\$0.035/call - \$0.11/min**
- **International toll rates USA, UK, & Canada: US\$0.36 - \$0.64**
- **Access: Residential - US\$4.92/mth**
- **Business - US\$27.78/mth**



Examples

- Community Communications Centres (CCC)



C.C.C.





C.C.C.



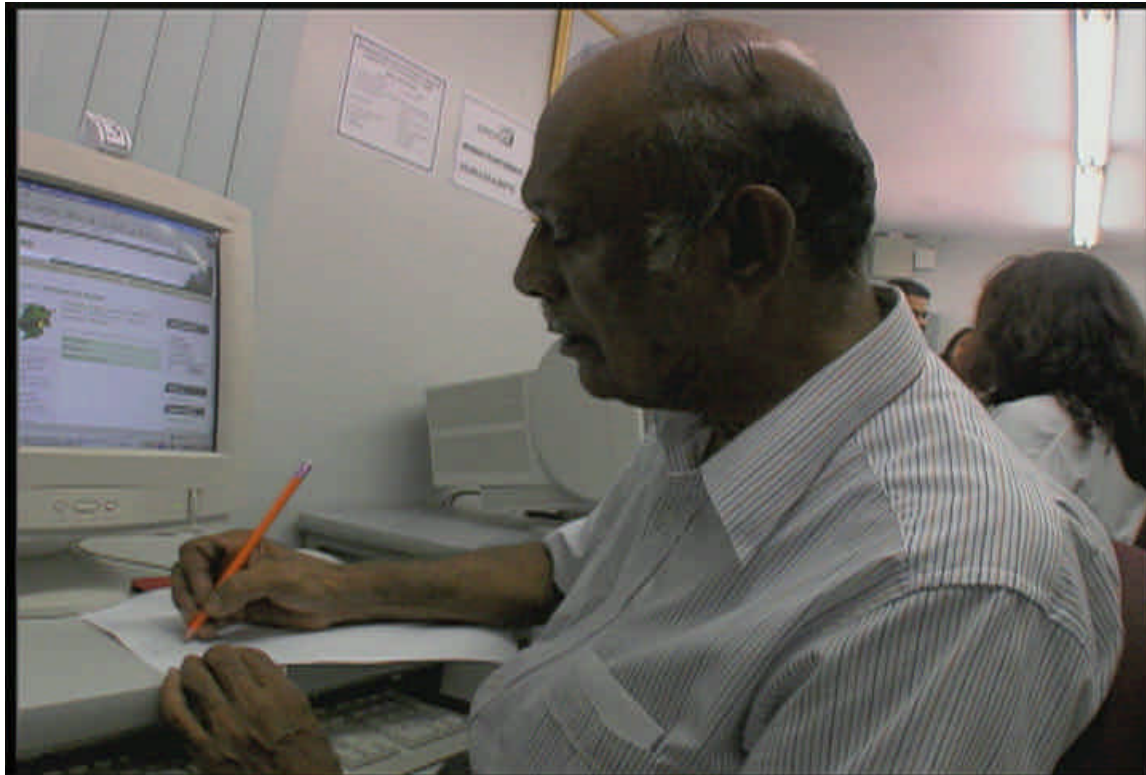


C.C.C.





C.C.C.





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Examples (cont'd)

- **Unlimited local calls at US\$0.35/call**
- **Free access to emergency services**
- **Free access to directory enquiries**
- **“Received calls” only plans**
- **Blocked calls**
- **Payphones**
- **Consumers in rural or geographically isolated areas**



WAY FORWARD

- **Rebalance rates: to avoid artificially high and systematically distorted prices which are unsustainable in the long run:**
- **low rate packages and special equipment to assist the disadvantage.**
- **measures to help customers control expenditure**
- **All benefiting, including mobile operators, should be required to contribute to the costs.**



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