Seminar on Costs and Tariffs for Member Countries of the TAF Group

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Basic Principles of Universal Service Obligations

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Universal Service Obligations?

- USOs are an exclusive prerogative of the public authorities.
- Decisions taken independently by an operator cannot under no circumstances be considered as «Obligations»; in this case the operator alone bears the costs.
The key policy objectives for development of a telecommunication industry are:

- maximizing utilization of telecommunication installations;
- encouraging investment in telecommunication infrastructures;
- making competition more of a reality.
Universal Service Obligations

- A common feature of the telecommunication marketplace is the existence of an incumbent operator holding a dominant position and with different commercial objectives from new entrants.
- Competition means that the decision to enter the marketplace will be profit-led; thus, with market liberalization universal service obligations will have to be managed differently from the way they were in a monopoly framework.
Developed and developing markets

• Developed markets: high teledensity (>25 fixed lines per 100 inhabitants and residential penetration >80%)

• Developing markets: teledensity (population) <25% and penetration (residential) <30%

• Competition works differently in developing and developed markets, and policies and regulations have to reflect those differences:
• Low penetration -> Need to promote rapid network expansion and optimum use of capital
• Problems of affordability -> Universal Service Obligations (low GDP)
• Tariff imbalances -> Gradual evolution towards cost-based tariffs
• High risk factor -> Low level of investor confidence  -> Increase in the cost of capital.
The contents of the fundamental concepts may vary according to the level of development of the market:

- **availability**: infrastructure available everywhere and at all times without geographical discrimination;
- **accessibility**: services useable by all social groups and in particular by the disabled;
- **affordability**: services affordable for the general public.
Availability (1)

- Policies in respect of availability must, according to the level of the market, address the following questions:
  - *Type of infrastructures and type of services?*
  - *Geographical/administrative priorities, given the shortage of available resources?*
  - *Scheduling priorities, given the shortage of available resources?*
Availability (2)

- In developing markets, the focus is usually on the fixed telephone infrastructure.
- Availability is not necessarily understood as meaning availability to individuals.
- It includes public telephones and rural telecommunications.
- It can be determined on the basis of criteria of population, distance and/or duration.
Accessibility

• Policies in respect of accessibility are aimed at guarding against the exclusion of certain categories of person, such as in particular the disabled, e.g.:
  – special telephone handsets for the hearing-impaired;
  – special keyboards for the blind, etc.

• Faced with the general scarcity of infrastructure and the priority need this represents, developing markets rarely place this issue at the forefront of their concerns.
Affordability (1)

• In developing markets, the policy on affordability should take the following factors into account:
  – *the actual cost of the services offered*;
  – *affordable rates for local users having regard to GDP*; a distinction will be made between business users and the general public;
  – *equality of all telecommunication network operators in respect of universal service*;
  – *legitimate aspiration to a level of profit that will enable infrastructure and service development*. 

Universal Service Obligations
Affordability (2)

- In developing markets, policies in respect of affordability are crucial for infrastructure development. They are a primary economic consideration.
- Availability and affordability are closely linked in developing markets as both of them are usually required by the public authorities yet they are often difficult to reconcile.
- Affordability is therefore a key feature of tariff regulation in low-teledensity telecommunication markets.
In developed markets all three aspects of USOs are generally fulfilled.

In developing markets, however, the simultaneous pursuit of the three aspects generates conflicting policy choices making it necessary to prioritize.

This prioritization defines the levels of USO, which vary according to the degree of development of the market.
The table below shows how universal service objectives might alter with teledensity

<table>
<thead>
<tr>
<th>TELEDENSITY</th>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>LEVEL 3</th>
<th>LEVEL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACTORS CONSTRAINING THE NETWORK</td>
<td>CAPITAL</td>
<td>CAPITAL</td>
<td>INADEQUATE WORKFORCE</td>
<td>AFFORDABILITY OF SERVICE IN THE POOREST HOUSEHOLDS</td>
</tr>
<tr>
<td>FACTORS CONSTRAINING EXPANSION</td>
<td>SCARCITY OF COMPETENCES</td>
<td>SCARCITY OF COMPETENCES</td>
<td>HUGE DEMAND TO BE MET</td>
<td>DEMAND TAILS OFF</td>
</tr>
<tr>
<td>APPROPRIATE USO</td>
<td>SERVICE TO ALL COMMUNITIES</td>
<td>MEETING BUSINESS USER REQUIREMENTS</td>
<td>MEETING RESIDENTIAL USER REQUIREMENTS</td>
<td>AN AFFORDABLE TELEPHONE FOR ALL</td>
</tr>
<tr>
<td>OBJECTIVES</td>
<td>PROVISION OF PUBLIC TELEPHONES IN ALL AREAS WHERE JUSTIFIED</td>
<td>PROVISION OF PUBLIC TELEPHONE SERVICE IN ALL COMMUNITIES</td>
<td>RAPIDLY MEETING ALL REASONABLE DEMAND</td>
<td>TELEPHONES FOR THE DISABLED</td>
</tr>
</tbody>
</table>
USO policies

• In short, universal service policies must take the following elements into account:
  – scope and limits of policies in terms of services covered and social/legal rights;
  – practical definition of the notion of affordability;
  – timetable for implementation;
  – delivery;
  – financing.

• The fundamental difference between developed markets and developing markets is that in developing markets USOs benefit virtually the whole community.
• First invest in areas with a high level of potential traffic
• Develop shared access to increase the volume of traffic and thereby reduce the unit cost: e.g.: *telephone booths and telecentres in urban and rural areas*
• Define conditions of availability and affordability:
  – *Service provision priorities in rural areas*;
  – *installation priorities for public telephones*;
  – *tariff restrictions on access fees*;
  – *price restrictions on national calls*.
• Define delivery modes: through the incumbent operator alone, « play or pay ».
USO policies in developing markets (2)

- Guarantee return on capital invested in the sector, thereby helping to attract additional funding
- Ensure fair and healthy competition in a multi-operator environment through interconnection charges
- Increase the size of the market, *inter alia* through liberalization of the sector and equitable management of technical and commercial conditions governing interconnection.

In developing markets, accessibility as defined above should not be an immediate priority.
Financing of USO costs (1)

• There are two types of USO cost:
  – *social charges incurred in order to meet the criterion of accessibility* -> *universal service contributions*
  – *deficits resulting from the dual constraints of availability and affordability imposed by the public authorities* -> *access deficit*.

• In developing markets, the costs of universal service contributions are minimal and can be financed by payments into a fund.
However, the access deficit represents a substantial amount which it would be difficult to finance through a fund.

In a monopoly market, the access deficit is financed through cross-subsidies between services provided by the operator.

In an open market the access deficit is a burden transferred to other services provided by the operator:

- *unrestricted services provided to customers;*
- *services provided to other operators, e.g. interconnection, accounting rate shares.*
Financing of USO costs (3)

- The access deficit should gradually decrease with the rebalancing of traffic
- The portion of interconnection charges pertaining to the access deficit contribution must be identifiable
- In certain markets, the access deficit contribution is included in the interconnection charge, while in others it is separated out.
The table below gives examples of ways of managing universal service contributions and access deficit contributions:

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>UNIVERSAL SERVICE CONTRIBUTION</th>
<th>ACCESS DEFICIT CONTRIBUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>USO</em></td>
<td><em>FINANCING</em></td>
</tr>
<tr>
<td>AUSTRALIA</td>
<td>YES</td>
<td>EXPLICIT</td>
</tr>
<tr>
<td>CANADA</td>
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<td>NONE</td>
</tr>
<tr>
<td>UNITED KINGDOM</td>
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<td>NONE</td>
</tr>
<tr>
<td>UNITED STATES</td>
<td>YES</td>
<td>EXPLICIT</td>
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