

## ATTACHMENT E

### International Comparisons

#### Overview

Many countries established universal service arrangements following deregulation of public monopolies and the liberalisation of telecommunications markets in the 1980s. These obligations generally focus on expanded access to affordable basic telecommunications services in remote and under served areas. In most cases these obligations apply to incumbent telecommunications service providers.

There are no standard international definitions of what constitutes ‘universal service’. Universal telecommunications services usually cover access to voice services, and tend to include access to emergency and directory information services. The broad objectives of universal service arrangements are commonly:

- *availability*—the level and quality of service is adequate wherever a person lives or works, including in rural and remote areas;
- *affordability*—maintaining and using the service does not place an unreasonable financial burden or disadvantage certain consumers; and
- *accessibility*—people with a disability can use and access communications services<sup>1</sup>.

Universal service arrangements by their nature may involve the universal service provider making a loss on service delivery. Requiring this type of service provision is often coupled with a compensation mechanism for the service provider.

Compensation arrangements often take the form of a cross subsidy from competitors and the establishment of a financing vehicle such as a universal service fund. In some instances the incumbent is required to absorb the cost of providing services through an internal cross subsidy without receiving a subsidy or government funding.

Universal service arrangements can be financed through several means such as:

- levies on competitors;
- levies on consumers of communications services; and/or
- Government financing through taxation revenue.

Often these arrangements are technologically neutral, and focus primarily on the delivery of the service. It is often explicit that the preferred outcome is that competition is not hampered.

#### **Rationale for universal service arrangements**

Universal service arrangements are established by governments to generate both economic and social benefits. It is generally argued that universal service

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<sup>1</sup> OECD, *Rethinking Universal Service for a Next Generation Network Environment*, 2006 (<http://www.oecd.org/dataoecd/59/48/36503873.pdf>).

arrangements have positive network effects, improve economic efficiency, and benefit consumers.

The 'network effect' is achieved because as each additional person joins a communications network, existing members benefit because they can both contact and receive calls from these new people. The expanded network increases the total pool of revenue available to all telecommunications providers.

From a social viewpoint universal service arrangements also improve connectivity and allow citizens to participate more effectively in society.

A number of further 'intangible' benefits may be enjoyed by the universal service provider. While difficult to quantify, examples of these benefits include: having ubiquitous coverage, which may influence the consumption decision of customers in multiple locations; being able to use infrastructure to deliver other (e.g. non-USO) services; and the advertising on payphone cabinets (see [Attachment F](#) for more details).

### ***Emerging issues***

Determining the appropriate coverage and form of a universal service regime to address contemporary needs is an ongoing issue for consumers, industry and governments. This requires an ongoing assessment of which obligations are necessary and how they should be delivered.

In some countries universal service regimes have been expanded to cover emerging and advanced technologies, such as access to mobile telephony and broadband. In Australia, access to these services has been addressed through the implementation of regulations that encourage competition and through targeted government funding programs.

Technological change has an ongoing impact on the role of universal service regimes. The emergence of VoIP and the ongoing rollout of competing networks able to deliver voice and other services can lead to a perception that universal service regimes are becoming less relevant. These changes continue to alter cost structures and revenue yields for telecommunications service providers. This can lead to both positive and negative impacts on the sustainability of financing of the USO.

### ***Selected USO regimes***

Each of the following countries has a universal service regime. These apply to various defined services. Costing methodologies also differ and can include avoidable costs, long run incremental costs and historical cost methodologies. European Union countries attempt to value intangibles and/or the benefits of universal service provision in determining appropriate cross subsidies.

#### **Australia**

Australia's USO includes the provision of standard telephone services and payphones. A levy is placed on market participants through a universal service fund. Claims are made for levy credits and the levies are distributed to the universal service provider. USO subsidies are determined up to three years in advance. Costing of the USO has

been based on avoidable cost less revenue forgone modelling, with the Minister for Communications, Information Technology and the Arts making a decision on net costs. The Australian Communications and Media Authority oversees the USO.

## **Canada**

Canada does not have a nation-wide incumbent universal service provider but has a number of local monopolies. The USO regime only applies to basic telephone services. A transferable per-line subsidy is paid to carriers in high-cost service areas.

Costing of the USO is based on long-run incremental costs with an additional mark-up of 15 per cent for joint and common costs. Intangible benefits play no role in costing the USO.

Both fixed and mobile carriers pay a fixed percentage of their eligible telecommunication revenues towards the USO subsidy. In 2007, Canada's telecommunications regulator, the Canadian Radio-television and Telecommunications Commission set this percentage at 1.03 per cent. Carriers that have less than C\$10 million in eligible revenue can apply for an exemption from contributing to the subsidy.

## **Chile**

In Chile, a direct subsidy is supplied to a competitive tenderer for investment in telecommunication services. The subsidy is funded directly by the government through a telecommunications development fund. Subsidies are distributed through a competitive bidding process where the lowest bid wins.

The USO is administered by the Chilean regulatory agency Subtel. Engineering and cost benefit analyses are used to determine the value of the bids made by providers. Subsidies are based on projects with the highest positive net present value. There is some fixing of local connection charges and a ten-year commitment to payphone provisions, which must be considered in the costing calculation.

## **European Union directive**

The European Union directive gives member states various allocation options for financing the net cost of providing universal services when the provision of these services falls outside commercial standards and when the obligations represent an unfair burden on the providers. The directive is flexible enough to permit various options to suit particular circumstances of member states.

Costing focuses on the net benefit of providing the USO adjusting for any intangible or market benefits in providing universal services. States may establish mechanisms for the recovery of net costs, which must be efficient and transparent. Verification of net costs rests with the regulator. Costing must satisfy the criteria of technological neutrality, in addition to minimising market distortions.

## **Hong Kong**

Hong Kong sets the following policy objectives for the universal service arrangements:

- to ensure access to affordable basic telephone services for all people in Hong Kong on a non-discriminatory basis irrespective of where they reside or carry on business; and
- to ensure that the costs of providing universal basic services are fairly borne by the users of network services.

Since 1995, the responsibility of providing universal service has continued to rest with the incumbent local fixed carrier, PCCW-HKTC, and is set out in its fixed carrier licence.

The USO is currently funded within the telecommunications industry.

The Hong Kong Office of the Telecommunications Authority commenced a review of universal service arrangements with the release of a discussion paper in December 2006<sup>2</sup>.

## **Italy**

Italy's USO net cost is calculated on a fully distributed historic cost basis. The incumbent makes an offer to the Communications Regulatory Authority (Agcom), stating the net cost of providing the USO, including the role of intangible benefits. This offer is independently audited and the Agcom determines what part(s) of the offer or audited value(s) are accepted.

If such costs represent an unfair burden on the supplier, licensed fixed and mobile operators may be required to contribute to an ad hoc fund. The contributions are based on turnover, which has been set at one per cent of revenue less payments on interconnection, leased lines and roaming services. New entrants to the market may be exempt from contributing to the fund.

## **New Zealand**

Telecom New Zealand is the sole provider of universal services. The New Zealand regulator, the Commerce Commission, calculates the cost of delivering the Telecommunication Service Obligation (TSO) using an efficient network cost model. While intangible benefits are to be taken into account, the Commerce Commission has concluded that these are difficult to quantify and not considered significant compared to the overall cost of the obligation.

The funding of the TSO's net cost is allocated among market participants according to their share of gross retail revenue.

## **United Kingdom**

The Universal Service Provider must respond to all reasonable requests to install a telephone line, offering the same prices irrespective of location. This obligation upon British Telecom (BT) and Kingston (the universal service provider in Hull) is particularly important for those who live in remote areas.

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<sup>2</sup> See [www.ofta.gov.hk/en/report-paper-guide/paper/consultation/cp20061228.pdf](http://www.ofta.gov.hk/en/report-paper-guide/paper/consultation/cp20061228.pdf)

The regulator, the Office of Communications, or OfCom, uses a variation of the long-run avoidable cost method to calculate the net cost of the USO to providers. This equals the long-run future costs that the operator would avoid by not providing the service less the revenues forgone by not providing the service. Net cost is reduced further by an estimate of the indirect, or intangible, benefits that accrue to the USO operator.

There is no fund currently established to subsidise the USO as costs are absorbed by the incumbent. The regulator has the ability to establish a fund to support the USO if costs are considered a burden.

### **United States of America**

The Federal Communications Commission oversees a universal support mechanism to provide advanced telecommunications services to all regions in the nation with an emphasis on rural and high cost areas. There are also specific obligations to provide services to schools, library and rural health care providers.

Costing of the USO is based on a forward-looking long run incremental cost methodology and on costing studies by states for the provision of services to specific groups. The forward-looking economic cost methodology approximates the costs of the most efficient USO provider. Funds distribution is based on the difference between the forward-looking costs of providing the service and a nationwide revenue benchmark.

The Universal Service Fund receives contributions from all telecommunications companies. Companies providing services to consumers, including the specific legislated groups, may draw from the fund.