Information and Communications Technologies
OECD Communications Outlook 2007

Summary in English

Growth through transformation

After emerging from the crisis of 2000, the telecommunication industry is being transformed. Technological changes and the development of new services are affecting the core businesses of telecommunication operators.

Voice continues to be the key driver in OECD telecommunication markets which have now attained revenues of USD 1 trillion. However, voice services, and the structure of telecommunication revenues, are evolving. Mobile services now make up 40% of all OECD-area telecommunication revenues, and mobile subscribers outnumber fixed subscribers by a ratio of 3 to 1. At the same time, technologies such as Voice over Internet Protocol (VoIP) are exerting strong downward pressure on prices for voice services. The impact of VoIP is apparent in prices for international fixed-line calls, which many VoIP operators now bundle into flat-rate subscription plans. As a result, the future of voice revenue streams is unclear.

The number of high-speed Internet connections is one of the main reasons why technologies such as VoIP have had such an impact on the market. Broadband is quickly becoming the dominant technology for Internet access throughout the OECD area; 60% of the area's 256 million Internet subscribers now have a broadband connection. New broadband revenues have helped operators offset declines in voice revenues.

Operators now commonly market multiple-play offers of video, voice and data to hold on to subscribers as well as to introduce new revenue-generating services. Users can now subscribe to multiple-play offers over a variety of platforms, as operators in previously distinct markets have begun to compete. Thus, cable providers commonly offer data and voice while mobile companies complement their offerings with data and video packages and traditional telecommunication providers offer similar multiple-play offers over their networks.

Consumers are benefiting from the dismantling of barriers between markets as they can now choose similar and substitutable services from a number of providers. At the same time, the removal of these barriers is forcing regulators to re-examine how specific markets are regulated. These issues can be sensitive if network-specific regulations are closely tied to social or cultural policy.

Transformation led by competition

The current transformation of telecommunication markets is a product of increased competition. Markets with healthy levels of competition have led the introduction of innovative services and appealing pricing packages. In a number of OECD member countries, local loop unbundling changed the competitive landscape by allowing multiple providers to sell communication services over the same line. Infrastructure-based competition, typically between cable and telecommunication networks, also spurred operators to enter their rivals' traditional business areas and has reduced prices for consumers.

The past two years have seen municipal networks enter the competitive telecommunication landscape. Various cities and towns have built or put forward plans for wireless or fibre access networks as a way to improve connectivity for residents. Some of these networks have been built under "open-access" rules which require the network operator to offer capacity to any service provider under equal terms. In other areas, lower-cost Wi-Fi networks are being promoted as a way to improve public services and solve digital divide problems.

Signs of change

The rise in broadband Internet access has signalled a change in the way that telecommunication services are delivered and priced. Trends show a distinct shift away from paying for voice to paying for data, which can also be used to transport voice. Some operators now offer flat-rate packages for domestic and international voice calls to fixed lines. Others have introduced flat-rate, unlimited calling for mobile subscribers to a group of pre-selected numbers. Flat-rate pricing is also the dominant structure for broadband access across the OECD area.

Flat-rate pricing is typically applied to a specific service. However, the past two years have also witnessed the introduction of fixed/mobile convergence. Various operators now offer phones that function as a mobile phone outside the home but switch to a Bluetooth or Wi-Fi-enabled landline at home. Such offers are in their early stages but show how the distinction between fixed and mobile telephony is diminishing.

Converged services are marketed as a way to eliminate the need for two phone subscriptions (fixed and mobile) and to reduce the costs of telephony for consumers. Over the past two years, in fact, prices for all types of telecommunication have generally fallen while services have improved. For example, consumers typically pay less for broadband than they did two years ago, while their connection speeds have generally increased.

Price decreases and improved services have been the most marked in markets characterised by intense competition. Competition may be the product of regulatory intervention, as in the case of local loop unbundling, or may be the result of new infrastructure-based competition. In particular, competition between traditional wireline and wireless access providers is increasing in telecommunication markets. The two technologies may not be perfect substitutes but flat-rate data offers on mobile networks are beginning to compete with broadband connections to individual homes. The ultimate extent of such substitutability is unclear, as individual demands for bandwidth may outstrip capacity on wireless networks. However, certain data services may clearly be as competitive on mobile networks as fixed.

Competition in telecommunication markets used to be limited to other domestic operators but users can now receive services from anywhere in the world over a broadband connection. Broadband subscribers in one country can easily sign up for local phone service in another country that is delivered to them over the Internet. Domestic broadcasting markets are also undergoing changes both as countries begin to switch to digital broadcasting and as a result of increasing competition from Internet-based content. These developments are drawing attention to regulatory changes that may be needed in the future.

The growth and development of communication markets is also reflected in trade of communication equipment. Telecommunication trade continues to grow in the OECD area and now accounts for 2.2% of all trade. The growth is most notable between the member and non-member countries, and increasing imports from countries such as China are having a substantial impact on trade balances. Exports to non-member countries are up 66% since 1996 while imports from these countries are up 112%.

China is one of the five emerging countries in the group known as the BRICS (Brazil, Russia, India, China and South Africa). They are among the world's fast-growing ICT markets and developments in these five countries have spillover effects in the OECD area. Between 2000 and 2005, ICT spending in the BRICS economies increased by more than 19% a year from USD 114 billion to USD 277 billion, while worldwide ICT spending increased by just 5.6% a year and OECD country spending by 4.2% a year.

Recent developments in OECD communication markets have been beneficial for consumers and they continue to increase the proportion of household expenditures for communication goods and services. These markets will continue to evolve over the next two years as operators diversify away from voice and provide a wider range of services. This will require policy makers to constantly monitor markets and re-evaluate policies that may no longer be optimal. There will be more interest in extending fibre-based technologies closer to end users and regulators will be faced with decisions regarding the role of regulation in relation to these networks. Finally, the next two years will likely see closer integration of broadcasting and telecommunication markets as more video services are provided over telecommunication networks. Regulators will thus be under pressure to harmonise content policies across platforms.