

Chapter 4

The Limits of National Sovereignty: Issues for the Governance of International Telecom

Pekka Tarjanne

1.0 Introduction

We are at the cusp of change. Over the past decade telecom has witnessed fundamental change; the underlying framework within which telecom has been understood and operated is being reconceived. Mindful of the fact that every beginning must also signal an end, I hope that the telecom community will embrace a far-sighted, clearly-structured view of a global future.

In this chapter, I would like to do three things: first, I shall describe the ways in which the telecom world is changing and passing from what I will call the *ancien régime* of public service monopoly to the ‘new paradigm’ of private competitive business. These revolutionary metaphors are entirely appropriate, and in no way overstate the transition currently underway in global telecom. Second, I will discuss five of the most important issues that these changes are raising, focusing on the key issues for the governance of international telecom. Third, I will propose a set of principles which could guide the construction of a new system of governance, and examine a few different scenarios for reforming existing governance structures on the basis of these principles.

These fundamental changes affect us all, and the International Telecommunication Union (ITU) is no exception: it must also evolve if it is to assume a redefined new role in a reshaped global information economy. It is for this reason that will address questions of national sovereignty and international telecom governance primarily by considering the continuing evolution of the ITU.

2.0 The Foundations of Governance

In seeking to redefine the goals for the future, it is often necessary to review the goals of the past. The governance of international telecom has its foundations in the agreements between European telegraph administrations over 130 years ago. Different electromagnetic telegraph systems, codes and tariffs had emerged in western Europe which threatened to stifle development in the middle of the last century. The 1865 Paris Telegraph Conference resulted in the International Telegraph Convention, which propitiously agreed to use the international Morse code, to connect important cities and to accept and deliver telegrams originating in other countries thus assuring the bedrock creation of a common European telegraph network. The ITU can trace its history back to

that Paris Conference and, as such, is the world's oldest international organisation of any standing.

Since then, the telecom world has experienced a great many changes. However, until about a decade ago, these changes were evolutionary in nature; the entry into a new telecom paradigm has, however, threatened to dissolve the bedrock into a quicksand of conflicting interests. The old telecom world had a relatively simple hierarchical star structure (like the networks themselves) which is beginning to wane in influence. At the national level, there were monopoly providers, usually state-owned. As a consequence, 'inter-national' coordination was a matter of agreements between national entities.

Telecom was provided or controlled by government institutions, and was understood as relatively discrete and stable end-to-end services. Cables and facilities linking countries were jointly owned and provided. The presumption of national sovereignty over telecom demanded an inter-governmental organisation with a classic one-nation, one-vote system. The ITU, therefore, grew up to mirror the structure of the telecom industry.

The primary goal of the ITU has always been to oversee and ensure interconnection and interoperability of national systems on a technical and administrative basis through its standards setting activities, recommendations on tariff and accounting rate principles and, increasingly, by supporting telecom development. The achievements of this *ancien régime* have been considerable. Over the past 130 years or so, the ITU and its Members have helped to forge the global communication system into the biggest machine the world has ever seen. There are now almost 650 million telephone lines world-wide and an even greater number of users. These lines carry more than 47 billion minutes of international telephone traffic per year. The great challenge for the ITU now is to oil the engines of change, and reconstruct this vast machine.

Thus, it should be remembered that the 254 advanced industrialised democracies of the OECD still account for 70 percent of global telephone mainlines, 80 percent of service revenues and 90 percent of mobile phone subscribers, even though they are home to just 16 percent of the world's population. More than two-thirds of households around the world still have no telephone.

In the past decade, however, we have begun to enter a new telecom paradigm. The much-discussed convergence of telecom, broadcasting and computing is now really happening, and really affecting almost everyone in their daily lives. Businesses around the world are bringing about fundamental restructuring and dramatic change in the organisation of work both in the developed and developing countries, through the enabling power of these new technologies. Technological change alters the costs and benefits of any market structure and telecom is no exception. In an increasingly competitive and global economy, large corporate users have become less and less willing to accept the shortcomings of the traditional telecom set-up. Large businesses have become increasingly influential users, and their pressure for more competition in the telecom system has not been ignored.

More generally, new technologies and market forces have caused governments around the world to rethink the role of the state. The need to control public spending, and the seeming inability of state-controlled industries to innovate and respond to the needs of the marketplace, has prompted a wave of privatisation and the introduction of competition in traditional state-controlled industries.

In the new telecom arena, many of the concepts that have been taken for granted have changed. Even the basic definition of what is ‘international’ is no longer the same. With the need for common technical and operational specifications throughout the network down to the end user, it is no longer merely a matter of ‘interfacing’ at the borders. And with telecom seen as a tradable commodity in an integrated global economy, it is not surprising that it has contributed to an erosion of sovereignty.

The world order built up over the past few centuries on the foundation of autonomous nation states is being transformed. This is due in large part to telecom, which has made it possible to develop global markets for goods, services, money and information. The rise of the global information economy has in turn transformed human life, at the national, regional, local, and individual levels. Today, everything is changing because of telecom – be it the nature of work, relationships with people, media, messages, and patterns of political life.

How is the ITU responding to the changing telecom environment? In December 1992, at an extraordinary Additional Plenipotentiary Conference (APP) in Geneva, the ITU was reorganised for the first time since becoming a part of the United Nations system in 1947. As a result of this reorganisation, the ITU now has three main functions – standardisation, regulation and development – and these functions are largely, although not completely, reflected in the ITU’s current organisational structure.

In 1994, for the first time, the Kyoto Plenipotentiary Conference adopted a strategic plan for the ITU. It set an ambitious goal “to establish the ITU as the international focal point for all matters relating to telecom in the global information economy and society of the twenty-first century.” Achieving this goal will require ITU members to re-think key elements of their current governance structure – overall, and in each main area of activity.

3.0 Key Issues for the Governance of International Telecom

With the emergence of a new technologies, and a competitive and global information economy, come new issues and challenges for the ITU. These challenges are many, including:

- the ramifications of telecom as a traded service;
- reform of the accounting rate system;
- participation of the private sector; and
- the relationship of the ITU to other international organisations.

Furthermore, there are new issues raised by the advent of global systems and services, and questions surrounding the regulation of content. In this chapter I shall concentrate on what I see as the most pressing and urgent issues.

4.0 Telecom as a Traded Service

What does it mean to say that telecom is a traded service? In the old structure telecom trade usually applied to the imports and exports of telecom equipment: exchanges, transmission equipment, terminals and so on. With the widespread, rapid expansion of the computing and telecom industries, and a more commercial orientation to telecom

administrations, has come an increasing demand from business associations and developed countries that telecom be considered as a fully traded sector. Trade economists have argued that telecom has a vital dual role as both a provider and a facilitator of services trade. Some in the telecom community are wary of these developments, believing that they may weaken national authority and thus fundamentally transform the telecom system. Those advocating bringing telecom under a trade regime, however, contend that this is simply a reflection of reality. Telecom is the backbone of world trade – in goods and services – and it is therefore argued that this must be recognised in international economic relations.

Telecom services trade is a main feature of the European Union's single telecom market program; a prominent section of the North-American Free Trade Agreement (NAFTA); and the subject of a number of bilateral international value-added network (IVAN) agreements. The Uruguay Round for trade in services negotiations also directed considerable attention to the telecom sector. The result has been to further validate the concept of telecom as a fully traded sector. Now the tradability of telecom services is widely accepted, although perhaps more so by trade economists than national administrations.

Nevertheless, there are still a number of concomitant aspects which have yet to be fully explored. For example, under the General Agreement on Trade in Services (GATS) which was part of the Final Acts of the GATT Uruguay Round, emphasis was placed on the role telecom plays in facilitating trade in other services, such as financial services or travel. In the negotiations currently underway in the new World Trade Organization (WTO) on the other hand, the focus is on trade in basic telecom service itself.

But whatever the particular emphasis, these and other related developments all point in the same general direction. Instead of seeing international telecom principally as a public service to be provided by national entities on the basis of agreements between sovereign governments, in this 'new world' telecom is increasingly seen as a commercial service which may be provided on a competitive basis by domestic or foreign suppliers, whether public or private, under conditions established by the host government.

5.0 Reform of the Accounting Rate System

The international framework for pricing international telecom services and sharing revenues between operators allows operators in each country to set charges for international calls it originates with a fixed price – the accounting rate – being agreed to be paid to the operator of the receiving country. In a world of national, state-owned monopolies and 'inter-national' telecom, the system worked well, with high stability, and ease of administration. Nevertheless, this traditional system has come under growing pressure in recent years, mainly because the prices charged often exceed the real cost of providing service by substantial margins. Country direct services, international simple resale and call-back services offer customers services at prices much closer to costs. Unfortunately, these advances for the consumer are causing a regulatory and administrative headache, creating problems for operators of public international telecom services, and for governments of both developed and developing countries.

Pressure will undoubtedly increase as new international services which do not use the pricing and revenue sharing system grow (e.g. the Internet, cellular roaming services). Is the current system for pricing international telecom services and sharing revenues still

appropriate? If not, what alternative approaches should be considered? These are among the most important questions facing the ITU and its members today.

6.0 Private Sector Participation

Like the networks themselves, the new telecom world is emerging as a highly complex inter-network of heterogeneous players and non-hierarchical architectures. It is no longer a matter of sole concern to public organisations, since almost every significant organisation or enterprise is involved in this inter-network one way or another. Consequently, the governance of telecom in the future will have to embrace both public and private organisations.

Although the ITU was established as an intergovernmental organisation, provision was made for private sector participation as early as at the ITU's second conference in Vienna in 1868. Private members were first admitted to the Union in 1871. Today the ITU has 184 governmental members and about 375 private members, the latter including all the major telecom service providers, equipment manufacturers and satellite organisations. It also includes representatives of 'convergent' industries such as broadcasting and computing; major user groups; financial and development institutions; and consultancies.

The role of the private sector in the ITU is perhaps the single most important strategic issue which we at the ITU have to face. If we are to remain responsive and relevant to the telecom industry, enhanced private sector involvement is vital. The 1994 Kyoto Plenipotentiary Conference recognised the importance of this and responded in two ways. First, one resolution formally recognised the rights of the private sector which had been previously applied, including the right to be included in the decision-making process of ITU study groups. A second resolution established a Review Committee to recommend how the rights and obligations of the private sector could be enhanced.

Resolving differences in the rights and obligations of public versus private interests presents difficulties for any intergovernmental organisation. Nevertheless, with common sense and goodwill, I believe it would be possible for ITU member countries to find a way to distinguish between those rights and obligations and allow private sector participation where treaties are not involved. One possible solution would be to reserve the area of the Radio Regulations for governments, but allow the private sector a full role in the standardisation and development areas of the ITU's activities.

7.0 Regulation of Global Systems

In the past, international satellite systems have been owned, operated and regulated by International Satellite Organizations (ISOs) such as Intelsat and Inmarsat. These organisations acted as capacity wholesalers or "carriers' carriers", that is, they sold services to national carriers rather than directly to end users. Public access to satellite services was therefore licensed and regulated on a national scale. Commercial relations between national satellite carriers were governed by the international correspondence model originally developed for wireline carriers. As a result, it was possible to reconcile the principle of national sovereignty with the global nature of satellite communications.

However, the new generation of satellite systems and services being planned (e.g. Global Mobile Personal Communications Services provided by big-LEO operators) challenges this regulatory understanding in at least six critical respects:

- systems will be operated by private companies, which in some cases are multinational consortia, rather than by national public operators;
- the space segment of these new systems may be licensed by national regulators, rather than by international agreement;
- these systems aim to provide services directly to end users;
- service access will, nonetheless, might be administered or authorised on a country-by-country basis, according to local regulations which govern such matters as competition, interconnection, and the importation and use of terminal equipment;
- customer billing and revenue sharing will be a very complex operation, given the potentially large number of operators involved in completing a call;
- end users will expect to use the terminals needed to access these systems anywhere in the world, and, in spite of the formidable complexities mentioned previously, without being subject to local licensing controls and multiple bills in multiple currencies.

This new generation of satellite systems and services promises significant benefits in both developed and developing countries. However, the complex regulatory issues which will arise may delay their deployment, and add costs which will eventually be borne by consumers. The FCC has already licensed a number of “little LEO” systems to provide mobile data services, some of which have begun operations, as well as three “big LEO” systems (i.e. mobile voice and data). The question that needs to be addressed for the governance of international telecom is whether the development of these kinds of systems would be better enabled by some form of global regulation, and thus what role the ITU should assume.

8.0 Regulation of Content

In traditional telecom regulation, there tended to be a strict separation between the regulation of carriage and content. Telecom operators were not held responsible for the content of the services carried on their facilities. In fact, as public utilities, they were typically required to provide non-discriminatory access to the carriage services they offered. Barring exceptional circumstances, operators were usually prohibited from interfering with the content of the messages they carried, and were sometimes restricted from offering content services themselves. Regulation also protected the privacy of communications. Responsibility for illegal or undesirable content services rested with individuals or service providers making use of carriage facilities, not with the operators themselves.

There is a growing sentiment now though, that the traditional separation of responsibility for carriage and content has become inappropriate. Modern international telecom can access databases and other content services anywhere in the world. Given the social and cultural diversity of our global community, public authorities in any given country may consider such information illegal or socially undesirable, either for the whole population or for a part of it (e.g. children). Examples of content services that may

be considered illegal or undesirable run the whole gamut of crimes against the person or the state (such as libel or sedition), to activities that, if not always strictly illegal, are considered harmful to certain groups (such as pornography and racism), to services that are considered socially or culturally inappropriate because they flout the accepted patterns of behaviour in a particular country.

But the desirability of regulating the content of international telecom services on the grounds of social harm must be balanced against the desirability of maintaining other principles, such as freedom of speech, access to information and diversity of opinion. Even if regulation is considered desirable, a number of practical problems arise:

- It is currently considered impossible to distinguish between bit-streams carrying socially acceptable messages and those carrying illegal or undesirable messages. The notion of ‘bit-stream police’, even if possible, does not seem desirable.
- Other technical approaches (e.g. blocking access to certain network addresses), will almost certainly result in higher costs.
- If operators do agree to bear some responsibility for regulating the content of services they carry, how should this responsibility and the costs involved be divided between corresponding operators and their customers in different countries?

9.0 Towards a New Governance

We are witnessing the end of the old regime of ‘inter-national’ telecom based on national sovereignty and correspondent relations. As we enter the global information society, the question is: what will replace it? Marketplace ideology which sees commercial, trade and other general schemes as a replacement for the old regime has much to commend it, and has produced spectacular results in many countries in a very short period of time. But it has also produced some abuses, and is raising many new questions that require regulatory attention at both domestic and international levels.

In a strict sense, we are unlikely to go beyond the limits of national sovereignty in the near future. However, the global information economy, and society itself, will almost certainly require a new scheme of rights and obligations and new regulatory principles. After all, such a scheme is needed to support the operation of free and fair markets, to govern business and social relations, both domestically and increasingly internationally.

What might these principles be? There have already been a number of attempts to map out the principles on which the global information should be founded. In proposing, at the ITU World Telecommunication Development Conference in Buenos Aires in 1994, that nations of the world should cooperate in building what he called a ‘global information infrastructure’, US Vice-President Al Gore set out the following five principles: encouraging private sector investment; promoting competition; providing open access to the network for all access providers; ensuring universal service; and creating a flexible regulatory environment which stays abreast of rapid technological and market change. In a similar vein, the G7 Halifax Summit in June 1995 endorsed eight similar principles with the added intentions of promoting equality of opportunity to the citizen, promoting diversity of content, including both cultural and linguistic diversity,

and of recognising the necessity of world-wide cooperation, with particular attention to the involvement of the less developed countries.

One of the key questions raised by these deliberations is the issue of what kind of role the state should play in ensuring the development of the global information society. In my view, the following principles should guide its action:

- The principle of **internationalism**. It is commonplace to acknowledge that the world is shrinking and that the inter-dependence of nations is growing. Policymakers should thus strive to ensure that national initiatives are harmonised and coordinated at both the regional and international level. The ITU has traditionally assumed responsibility for global technical standardisation, and for defining interconnection and revenue sharing principles. The rise of conflicting industrial policy interests in North America, Europe and Japan has made this responsibility more difficult, but no less important.
- The principle of **universalism**. The development of the telephone network has been guided by the desire to achieve universal service. This implies uniform geographical coverage, service quality and pricing, and service provision offered on a non-discriminatory basis. It also implies a cross-subsidy between different classes of users, between urban and rural areas, and between business and residential subscribers. It will probably be necessary to develop mechanisms whereby the cost of providing network access to non-commercial or uneconomic users is shared between the different firms competing in the market. Investment in advanced networks in the industrialised nations needs to be reconciled with investment in basic networks in the developing countries.
- The principle of **regulatory symmetry**. Historically there have been at least three regulatory traditions in the information industry: publishing, common carriage and broadcasting. In some countries, regulations have been designed to create boundaries between industries by placing constraints on cross-ownership and cross-sectoral service provision. There may be justification for retaining certain restrictions, for instance where one firm or a group of firms have a dominant market position which is restricting the development of competition. But for the most part these regulatory barriers are now largely artificial and can be dismantled. Thus the barriers which prevent cable TV companies and telephone operators from entering each the others' market should be reviewed, as has been proposed in the US. Similarly, regulators should take every step to ensure that mobile communications companies are able to compete with, as well as interconnect with, fixed-link operators.
- The principle of **regulatory independence**. In countries where the regulator is under-resourced or inadequately funded, it is all too easy for the regulator to be captured by narrow sectoral or commercial interests. This can happen as easily in the industrialised countries as in the developing world, and it can be done by legitimate means – by lobbying, by sponsoring favourable studies, by constant recourse to the courts to slow down progress – as well as by non-legitimate means. Regulatory capture invariably produces results which militate against the public interest, which are economically sub-optimal, and which can be narrowly

protectionist. In order to avoid this situation, it is important the regulator be properly funded. Ironically, this probably means that the industry itself, rather than the State, should pay for the regulatory process. But this should be done in an open, transparent and shared way, not by hidden transactions and/or under-the-table dealing.

- The principle of **open access**. One of the main reasons why information technology is perceived to be a *technology of freedom*, to borrow the phrase of Ithiel de Sola Pool, is because of its history of open and non-discriminatory access to public networks. In a democratic and pluralistic society, these values should be cherished. In the coming era of high capacity networks, it will be possible for multiple service providers to share the same network in much the same way that multiple television channels are provided over the same cable. In traditional telephone networks, the network and the service have been virtually indivisible. But technological change is permitting the *unbundling* of the network from the services it supports. While the virtually infinite capacity of today's fibre-based networks might make dual network provision uneconomic, it will make multiple service provision by a variety of service providers highly attractive.

10.0 Conclusion

I see these five principles – internationalism, universalism, regulatory symmetry, regulatory independence and open access – as becoming the cornerstones of a new governance structure for global telecom. At the ITU, we are fortunate that our founders had the foresight to create a single body with specialist interests in both telecom and broadcasting. Consequently, the current discussion of convergence is not new to the ITU. But the founders of the Union could never have foreseen the capacities of the modern communication network. Nor could they have anticipated the emergence of global players and global services which raise new regulatory challenges. Regulators everywhere should ensure that the door remains open to innovation and market-making, without slamming it on international cooperation and universality.

But even if we can agree on the principles that should guide us, there is still a need to apply them methodically in an agreed formal governance structure. In attempting to learn the lessons that experience has taught us I can foresee two alternative scenarios.

In the first, things will continue to evolve incrementally. Markets will continue to be opened up to transnational competition. Once market competition begins to work effectively, however, many of the transitional regulatory functions needed to regulate the telecom sector in its own right may fade away to be replaced by competition laws and other laws of general application (e.g. laws concerning privacy, intellectual property rights, freedom of expression, etc.). This would see a withering away of telecom as a separate domain of policy and regulation, and of political attention. In this scenario, the ITU would remain primarily as a technical organisation, retaining its specialisation in areas such as standardisation and spectrum management with much of the attention shifting elsewhere, except perhaps in spectrum management.

Today, there is growing interest in this scenario in many countries, and even among some ITU members. In many ways, it is attractive. However, I believe it has at least one critical flaw. Without the established presence of an effective international body

there is a danger that the present disparities between individuals, social groups, countries and regions of the world will widen, leading to a world of information rich and information poor.

The alternative, and I believe preferable, scenario requires a bold act of political will at international level to focus world attention on the central role that telecom will play in a truly global information economy. This second scenario offers the prospect of a redefined structure and governance of an ITU fit for the 21st century.