

CHAPTER TEN

The International Regulatory Regime

Ian Walden

10.1 INTRODUCTION

Telecommunications is an inherently transnational technology. As such, the development of telecommunications has always required substantial cooperation and agreement between nation states. Cooperation can be seen at a number of different levels, including the need for adherence to certain standards, both technical and operational. Historically, the need for ongoing cooperation between States has meant the establishment of intergovernmental organisations, of which the International Telecommunication Union (ITU) lays claim to the oldest pedigree. These intergovernmental institutions have been responsible for laying down much of the framework that comprises international telecommunications law and regulation.

In addition, the nature of the industry demands the construction of communications links across jurisdictions subject to both domestic and international law. Consequently, the telecommunications industry has been subject to treaties and conventions established under public international law for the treatment and use of common natural resources, specifically, the sea and outer space.

Over recent years, the sources of international telecommunications law have diversified as the industry and national markets have undergone fundamental change. At a technical level, the need for internationally agreed standards has expanded exponentially with the growth of data communications and the increasing range of services available over communication networks. The rate of technological change has required more flexible and dynamic decision-making procedures and institutions. Historically, standards-making bodies comprised monopolistic operators that were part of

a national public administration. With market liberalisation, the numbers of participants in the standards-making process have risen dramatically, while the effective role of governments has diminished significantly. As a consequence, we are witnessing a period of change in those international institutions toward which the attention of telecommunications lawyers has traditionally been focused. International industry associations have emerged to challenge the primacy of intergovernmental organisations. At the same time, governments, particularly of developed nations, are increasingly looking to scale-down their involvement in the governance of the telecommunications sector. This is driven both by a desire to reduce demands on public finance, as well as by a recognition that they are not necessarily best placed to make appropriate decisions in such a rapidly evolving environment.

International telecommunications organisations such as the ITU are also experiencing institutional competition from other intergovernmental bodies. In particular, the World Trade Organisation (WTO) and the associated multinational trade agreements have focused on telecommunications as a distinct economic activity, a tradable service, rather than simply as a medium or conduit for conducting trade. As the industry undergoes fundamental structural shifts, with operators merging to become global entities as well as pondering the consequences of convergence, attention has shifted to issues of market access as the primary concern in international telecommunications law. The ITU has experienced a loss of status in the face of such new priorities, and is therefore engaged in a re-examination of its role in the changing environment.

Despite the global trend towards market liberalisation, there continues to be an inevitable divergence of views between developed and developing nations toward the telecommunications sector. While all nations recognise the critical role of telecommunications in a nation's economic infrastructure and development, many countries continue to see telecommunications as a public resource, and even a natural monopoly, in which governments have a right and obligation to intervene. Developing countries are experiencing considerable pressure to embrace the credo of market liberalisation from a number of directions. First, the need to attract foreign investment into the telecommunications sector. Second, developments in technology, particularly Internet-related, increasingly erode the ability of States to exercise effective regulatory control over the sector. Third, developmental organisations, such as the World Bank and the European Bank for Reconstruction and Development, have imposed liberalisation conditions as part of their loan programmes for infrastructure investment projects in telecommunications.

This chapter broadly examines three substantive aspects of international telecommunications law:

- (a) the construction of international telecommunications network infrastructure, both satellites and submarine cables;
- (b) the standards and operating rules established under the framework of the ITU;
- (c) the impact of the WTO and associated trade agreements on national telecommunication markets and legal regimes.

10.2 INTERNATIONAL NETWORK INFRASTRUCTURE

As at a national level, the physical construction of telecommunications networks is subject to a particular regulatory framework not applicable to the provision of services over such networks. For example, issues concerning rights of way across public and private property are a central element in the licensing of a public telecommunications operator (see Chapter 4). At an international level, similar issues arise concerning the rights and obligations of those wanting to construct either wireless (e.g., satellite) or wireline (i.e., cable) networks across and between sovereign jurisdictions. This section reviews the law governing the launch and operation of communication satellites and the laying of submarine cables. (Issues relating to the assignment of frequency spectrum and orbital slots are discussed at 10.3.2 below.)

10.2.1 Satellite regulation

The launch of TELSTAR I in 1962 marked the beginning of satellite technology for use in telecommunications and broadcasting. Satellite systems can be classified as geostationary or non-geostationary systems. A geostationary system is based above the equator (around 36,000 kms) and revolves at the same speed as the Earth, thereby appearing to be stationary (i.e., a synchronous orbit). An advantage of a geostationary system is its ability to provide continuous and relatively comprehensive coverage of the Earth with only three satellites.¹ Disadvantages include the fact that the equator can only accommodate a limited number of systems, and the quality of communications is diminished somewhat by the transmission delay caused by the substantial distance travelled by signals to and from such satellites, particularly for voice telephony.

Recent developments in the satellite market have been in the proliferation of non-geostationary systems operating in medium Earth orbit (MEO) and low Earth orbits (LEOs), such as ICO and Globalstar. Such systems require a considerably greater number of satellites to ensure continuous coverage.²

The launch and operation of satellites are subject to international space law. Historically, satellite systems were developed under international conventions between States, such as Intelsat, Inmarsat and Eutelsat. However, current non-geostationary systems are multinational private consortia operating under private agreement and subject to national legal regimes.

10.2.1.1 International space law International space law comprises a set of agreed principles embodied in a series of treaties and conventions. These principles encompass the launch and operation of satellites, particularly in respect of liability for any damage caused by the satellite or any other space object.

¹ Except regions above latitudes 75° north or south. The angle of elevation in northern Europe does significantly limit reception.

² For example, ICO, operating in MEO (10,390 km above sea level), uses 10 satellites, while Globalstar uses 48 satellites.

In 1963, the UN General Assembly adopted a Declaration comprising nine fundamental legal principles governing the use to be made of 'outer space'.³ This formed the basis of the 'Outer Space' Treaty agreed in 1967.⁴ This Treaty continues to be of primary international legal instrument governing the launch and operation of telecommunications satellites.

In terms of economic exploitation, the Treaty declares that outer space and celestial bodies may not be subject to national appropriation (Art. II). States are also responsible under international law for their activities in outer space, whether carried out by governmental or non-governmental authorities, the latter requiring authorisation and on-going supervision (Art. VI). Liability for damage caused by any object placed in space would rest jointly with the State that launches, or procures the launch of, the object and the State 'from whose territory or facility an object is launched' (Art. VII). Jurisdiction and control over any object in outer space remains with the State that registers the object, while ownership is unaffected by the presence of the object in space or its return to Earth outside of the registering State (Art. VIII). To facilitate international cooperation in the use of outer space, States are required to provide information to the United Nations regarding their activities in, and use of, outer space (Art. XI).

The 1972 Convention on International Liability for Damage Caused by Space Objects further elaborated the liability provisions of the Outer Space Treaty.⁵ The Convention defined the concept of 'damage' in the following terms: 'loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organisations' (Art. I(a)). Consequential losses, such as future traffic revenues, apparently are not encompassed within this definition.⁶ Reflecting the terms of the 1967 Treaty, liability lies with the 'launching State', which encompasses both the State that launches or procures the launch of the space object and the State from where it was launched (Art. I; launching includes any attempts). Where a launch involves two or more States, liability is joint and severable (Art. V).

Under the Convention, liability is *absolute* where the damage is caused on the Earth or to an aircraft (Art. II), unless it can be shown that the damage is the result of 'gross negligence or an act or omission done with intent to cause damage' by the claimant State (Art. VI). The only formal claim that

³ Resolution 1962 (XVIII), adopted at UN General Assembly, 13 December 1963 (GAOR Annexes (XVIII) 28, p. 27). The physical boundaries of outer space are somewhat unclear, although 100 km above sea level, representing the boundary between the lower and outer atmosphere, is a generally accepted figure. See Cheng, C., 'The legal regime of airspace and outer space: the boundary problem', in *Studies in International Space Law* (Oxford, Clarendon Press, 1997), at 425-56.

⁴ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (London, Moscow and Washington, 27 January 1967; TS 10 (1968); Cmnd. 3519).

⁵ London, Moscow and Washington, 29 March 1972; TS 16 (1974); Cmnd. 5551. The Treaty entered into force for the United Kingdom on 9 October 1973.

⁶ See generally Beer, T., 'The specific risks associated with collisions in outer space and the return to Earth of space objects - the legal perspective' (2000) XXV *Air and Space Law* 42.

has been submitted under Art. II was by Canada in 1979, claiming \$6 million from the Soviet Union for damage caused by the radioactive debris from the re-entry of Cosmos 954 in January 1978. The claim was settled for \$3 million, without liability being acknowledged.⁷ Fault-based liability applies where the damage is to the space object of another launching State caused elsewhere than on the Earth (Art. III). A State may claim damages on behalf of itself, its natural or legal persons (i.e., the State of nationality), or those sustaining damage while in its territory (Art. VIII). Claims for compensation are subject to certain time limits and, where diplomatic settlement is not achieved, may be decided upon by a Claims Commission established at the request of either party (Arts XIV–XX).

Underpinning the 1962 Declaration and the Outer Space Treaty was the concept that each State would maintain a register detailing the space objects for which the State claimed jurisdiction and control. The 1975 Convention on the Registration of Objects Launched into Outer Space formalised such registration procedures.⁸ Under the Convention, the launching State accepted an obligation to maintain a register (Art. II), although its contents and conditions of use could be determined by the 'State of registry'. However, certain information is required to be furnished to the Secretary-General of the United Nations for general publication (Arts III and IV).⁹ This information should be distinguished from that maintained under the auspices of the ITU in respect of the allocation of frequency spectrum and orbital slots (see 10.3.2 below).

Aspects of the treaties comprising international space law have been implemented in UK law by the Outer Space Act 1986. The Act applies to the 'launching or procuring the launch of a space object', 'operating a space object', or 'any activity in outer space' (s. 1) – all licensable activities.¹⁰ Under the terms of any such licence, a licensee is subject to a number of obligations, including supplying certain information for inclusion in a register to be maintained by the Secretary of State and avoiding 'interference with the activities of others' (s. 5). In terms of liability, the licensee is obliged to obtain third-party liability insurance for any loss or damage arising from the authorised activities (s. 5(2)(f)), as well as indemnifying the Government against any claims (s. 10).

In terms of jurisdiction, a satellite system can be distinguished into two components: the 'Earth segment' and the 'space segment'. The 'Earth segment' comprises those stations that send ('uplinks') and receive ('downlinks') transmissions from the satellite and which are subject to the laws of the jurisdiction in which they are physically located. (The geographical

⁷ *Ibid.*, at 48.

⁸ New York, 14 January 1975; TS 70 (1978); Cmnd. 7271. The Convention entered into force for the United Kingdom on 30 May 1978.

⁹ The information to be supplied is: the name of the launching State or States; an appropriate designator or registration number for the space object; the date, territory or location of launch; basic orbital parameters and the general function of the space object. See generally www.oosa.unvienna.org.

¹⁰ Such licences are separate from those required under the Telecommunications Act 1984; see generally Chapter 4.

coverage of a satellite's transmissions is known as its 'footprint'.) The 'space segment' has been defined as: '... the telecommunications satellites, and the tracking, telemetry, command, control, monitoring and related facilities and equipment required to support the operation of these satellites' (Intelsat Agreement, Art. 1(h)). Jurisdictional responsibility for the 'space segment' can be subdivided between the state that launched the satellite and the State from where the satellite is controlled. If control is distributed among a series of sites in multiple jurisdictions, it is the jurisdiction where the controlling operator has its principal place of business.

10.2.1.2 International satellite organisations With the successful launch of Sputnik I in 1957, the operation of satellite systems was initially a highly charged political arena with important military (and therefore 'Cold War') implications. However, the 1962 UN Resolution represented an important acceptance by the international community that space should be treated as a common resource of 'all mankind'. In addition, the industry then consisted of national, generally state-owned, monopoly operators. With these factors in mind, it was therefore perhaps inevitable that the first satellite systems were the subject of international treaty, rather than private endeavour.

The first international satellite organisation was established in 1964 under 'Interim Arrangements for a Global Commercial Communications Satellite System'¹¹ and, subsequently, the Agreement Relating to the International Telecommunications Satellite Organisation ('Intelsat').¹² Intelsat has legal personality (Art. IV) and operates in accordance with the intergovernmental Agreement and an 'Operating Agreement'. Member countries are required to grant Intelsat, and certain of its officers and employees, legal and taxation privileges and immunities (Art. XVII). Intelsat's stated prime objective is: '... the provision, on a commercial basis, of the space segment required for international public telecommunications services of high quality and reliability to be available on a non-discriminatory basis to all areas of the World' (Art. III).

Intelsat currently comprises 143 member countries and signatories, as well as over 200 'investing entities'. In the UK, BT is the designated signatory to Intelsat, reflecting the governmental origins of the organisation, although more than 20 other UK-based operators are currently designated as 'investing entities'. Intelsat operates some 19 geostationary satellites. In 1998, it established an independent and competing operating entity, New Skies Satellites NV, as part of an on-going policy to commercialise fully its operations. New Skies operates five satellites transferred from the Intelsat fleet.

The International Mobile Satellite Organisation ('Inmarsat') was established in 1979 as an intergovernmental organisation providing satellite services for the maritime and aeronautical sectors, particularly communications in

¹¹ Washington, 20 August 1964 to 20 February 1965; TS 12 (1966); Cmnd. 2940.

¹² See Agreement relating to the International Telecommunications Satellite Organisation (INTELSAT) (with Operating Agreement) (Washington, 20 August 1971; TS 80 (1973); Cmnd. 5416).

situations of distress and safety.¹³ In 1994, it established a separate private company, I-CO Global Communications Ltd, to build and provide a non-geostationary mobile satellite-based telecommunications system.¹⁴ Until 1999, Inmarsat's organisational structure was very similar to Intelsat's. The vast majority of its operations were privatised in 1999, and it has declared an intention to float an issue on the public stock markets at some point in the future.

A third international satellite organisation to which the UK is a member signatory is the European Telecommunications Satellite Organisation (Eutelsat), which comprises 48 member countries.¹⁵ While the Convention and Operating Agreement are modelled closely on the Intelsat texts, in contrast to Intelsat only one operator per member is a shareholder, which for the UK is British Telecommunications plc. The prime objective of Eutelsat is 'the provision of the space segment required for international public telecommunication services in Europe' (Art. III(a)). As with Intelsat and Inmarsat, Eutelsat is committed to a process of privatisation. It is thus providing services through a private company, Eutelsat SA, while the intergovernmental organisation is continuing to operate in order to 'ensure that basic principles of pan-European coverage, universal service, non-discrimination and fair competition are observed by the company'.¹⁶

With market liberalisation, concerns arose that incumbent operators could utilise the treaty-based satellite systems to restrict access to space-segment capacity and satellite services. In particular, a service provider wanting to purchase satellite capacity was generally required to procure the capacity via its local signatory, i.e. the incumbent operator. Not only did this generate revenue for the signatory, but also associated 'coordination procedures' required details of the proposed service to be widely disclosed, e.g.:

To the extent that any Party or Signatory or person within the jurisdiction of a Party intends individually or jointly to establish, acquire or utilize space segment facilities separate from the INTELSAT . . . such Party or Signatory, prior to the establishment, acquisition or utilization of such facilities, shall furnish all relevant information to and shall consult with the Assembly of Parties . . . to ensure technical compatibility . . . and to avoid significant economic harm to the global system of INTELSAT. (Art. XIV (d))

Such procedures could obviously be abused to restrict competition either directly, e.g., by blocking the provision of a service, or indirectly, e.g., by the incumbent operator commencing a competing service.

¹³ See Convention on the International Maritime Satellite Organisation (INMARSAT) (with the Operating Agreement), London, 3 September 1976; TS 94 (1979); Cmnd. 7722. It changed its name in 1994.

¹⁴ See generally *Inmarsat-P* Case No. IV/35.296 (1995) OJ C 304/6.

¹⁵ See Convention establishing the European Telecommunications Satellite Organisation (EUTELSAT) (Paris, 15 July 1982; TS 15 (1990); Cmnd. 956, as amended by a Protocol of 15 December 1983, Cmnd. 9154). The United Kingdom instrument of ratification of the Convention was deposited on 21 February 1985 and the Convention, Operating Agreement and Protocol entered into force on 1 September 1985.

¹⁶ See www.eutelsat.com: 'Introduction to Eutelsat'.

As part of the EU's liberalisation programme, Member States party to any of the international satellite organisations, i.e., Intelsat, Inmarsat, Eutelsat and Intersputnik, are required to notify the European Commission of any measures which could breach European competition law.¹⁷ In addition, a 1994 Council Resolution called for the rules of the international satellite organisations to be adjusted to ensure strict separation between regulatory and operational aspects, as well as separation or flexibility between ownership of investment shares and usage of the systems.¹⁸

To minimise the potentially anti-competitive operation of the satellite organisations, the European Commission believed it was necessary to ensure that 'users obtain direct access to space segment capacity, while providers of this space segment should obtain the right to market space capacity directly to users'.¹⁹ Such direct access has subsequently been implemented in most Member States, although through separate ancillary agreements rather than amendments to the provisions of the international agreements.²⁰ However, the Commission does not consider such developments to be sufficient to ensure a fully liberalised market in the provision of satellite-based services. It therefore recently proposed strengthening the obligation placed upon Member States, such that they will be obliged to 'take all appropriate steps to eliminate' incompatibilities between the international conventions and the EC Treaty.²¹

With the progressive moves towards full commercialisation and privatisation, the treaty-based satellite systems are becoming less relevant as a feature of international telecommunications law. From a competition law perspective, however, the process of privatisation raises a number of issues. These include the need to ensure that the private operating entity does not retain any of the legal immunities granted to the international organisation, and opening up the shareholding to non-participant entities, preferably through a public offering.²² Such operators will then be subject to the scrutiny of competition regulators in the same way as other multinational satellite ventures.²³

¹⁷ Commission Directive 94/46/EC of 13 October 1994 amending Directive 88/301/EEC in particular with regard to satellite communications (1994) OJ L 268/15, at Art. 3. See generally Chapter 8.

¹⁸ Council Resolution on further development of the Community's satellite communications policy, especially with regard to the provision of, and access to, space segment capacity (1994) OJ C 379/5.

¹⁹ Communication from the Commission, 'Towards Europe-wide systems and services - Green Paper on a common approach in the field of Satellite Communications in the European Community', COM (90) 490 final, 20 November 1990. See also the 1991 Guidelines, at paras 122-128.

²⁰ See Communication from the Commission, 'Fifth Report on the Implementation of the Telecommunications Regulatory Package', COM (99) 537 final, 10 November 1999.

²¹ Draft Commission Directive on competition in the markets for electronic communications services (2001) OJ C 96/2, at Art. 11(2).

²² Ungerer, H., 'The transformation of the International Satellite Organisations - some aspects from a European perspective', 11 April 1999, published on the Competition Directorate-General website. See also Press Release, 'Commission gives green light to Inmarsat restructuring', IP/98/923, 22 October 1998.

²³ See, e.g., Commission competition decisions *International Private Satellite Partners* (Case IV/34.768) (1994) OJ L 354/75, and *Iridium* (Case IV/35.518) (1997) OJ L 16/87.

10.2.2 Submarine cables

Submarine cables have been a component of the international telecommunications infrastructure since 1851, when the first submarine cable for telegraphy was laid between England and France. The first commercially successful transatlantic telegraph cable was operational in 1866; the first transatlantic coaxial copper telephone cable (TAT-1) in 1956; and the first transatlantic fiber optic cable (TAT-8) in 1988.²⁴ The emergence of satellite technology was generally seen as signalling the demise of submarine cable as a transmission medium. However, submarine cable has continued to prosper and expand as the dominant medium for international traffic due to its superior transmission quality, reliability and security.

The expense of laying submarine cables has meant that, historically, consortia of operators from different jurisdictions carried out such projects under private agreement, often referred to as 'cable clubs'. Such 'clubs' usually comprised the monopoly operators from each jurisdiction connected to the cable. In contrast to the first satellite systems, such consortia were not the subjects of international conventions. Increasingly, the 'club' model has been replaced by single private ventures, such as Global Crossing and FLAG. Huge cable-laying projects are currently underway throughout the world, driven by the exponential growth in demand for bandwidth to carry data traffic. For example, the Africa Optical Network ('Africa ONE') will comprise a cable laid around the whole continent of Africa, a trunk and branch network covering approximately 40,000 km.²⁵

In terms of regulatory issues, submarine cabling can be divided into:

- (a) the laying of the cable itself;
- (b) the provisioning of capacity in the form of IRUs and, subsequently, as IPLCs;
- (c) the operation of the cable landing station; and
- (d) the facilities required to connect the operator's domestic network to the cable landing station, commonly referred to as 'backhaul'.²⁶

Cable laying raises issues of public international and national marine law, in respect of landing rights. The establishment of cable landing stations usually involves a complex array of national and/or local planning and environmental laws. The provisioning of capacity and 'backhaul' facilities, as well as access to landing stations, increasingly concerns telecommunications regulatory authorities in terms of competition.

²⁴ See generally Wagner, E., 'Submarine cables and protections provided by the law of the sea', in *Open Governance: Strategies and Approaches for the 21st Century* (ed. Mensah) (Proceedings of The Law of the Sea Institute, 28th Annual Conference, 1994), at 95-109.

²⁵ See Nellist, J.G. and Gilbert, E.M., *Understanding Modern Telecommunications and the Information Superhighway*, (Norwood, Artech House, 1999), chap. 5, 'The Undersea Information Superhighway'.

²⁶ See Hogan and Hartson, *Submarine Cable Landing Rights and Existing Practices for the Provision of Transmission Capacity on International Routes*, Report to the European Commission, August 1999.

In similar fashion to satellites, the international law of the sea governs the laying of submarine cable and associated liabilities for damage, where such cable lies outside the territory of a State. The primary international treaty governing ownership of the seas is the United Nations Convention on the Law of the Sea 1982, which came into force only in November 1994.²⁷ The UK instrument of accession was deposited on 25 July 1997 and the Convention came into force in the UK on 24 August 1997.²⁸ In March 1998, the European Community acceded to the Convention in respect of those matters for which competence has been transferred to it by those Member States that are parties to the Convention.²⁹

The 1982 Convention divides the sea into five different zones, each subject to different legal regimes:

- (a) *internal waters*, which are 'on the landward side of the baseline of the territorial sea' and are part of a State's sovereign territory (Art. 8);
- (b) *territorial waters* extending 12 nautical miles in breadth and over which the coastal State has sovereignty (Art. 3), subject to the right of 'innocent passage' (s. 3);
- (c) *the continental shelf*, comprising 'the sea-bed and subsoil of the submarine areas that extend beyond its territorial sea' up to 200 nautical miles (Art. 76), and over which the coastal State exercises 'sovereign rights for the purpose of exploring it and exploiting its natural resources' (Art. 77);
- (d) *the exclusive economic zone* extending over a 200 nautical mile zone, where the State has the right to declare exclusive economic interests in the resources (Part V); and
- (e) *the high seas* which are open to all States, both coastal and land-locked (Art. 87).

A coastal State is entitled to lay submarine cables in its territorial waters, provided that they do not obstruct the rights of use of others, such as innocent passage (Art. 21(c)). Any State is entitled to lay cables on the continental shelf, subject to the rights of other users already present, as well as the right of the coastal State to take reasonable measures in respect of exploitation, control of pollution and the imposition of conditions on cables entering its territory or territorial waters (Art. 79). States are also free to lay cables in the exclusive economic zone (Art. 58) and the high seas (Art. 87), subject to an obligation to respect existing cables and pipelines (Art. 112).

The need to protect submarine cables from damage caused by other uses of the sea, such as fishing, gave rise to the Convention for the Protection of Submarine Cables in 1884,³⁰ applicable outside of territorial waters.³¹ The

²⁷ See UN General Assembly Resolution A/48/263 of 28 July 1994.

²⁸ Treaty Series No. 81 (1999), Cm. 4524.

²⁹ Council Decision of 23 March 1998 concerning the conclusion by the European Community of the United Nations Convention of 10 December 1982 on the Law of the Sea and the Agreement of 28 July 1994 relating to the implementation of Part XI thereof, (1998) OJ L 179/1, at Annex II.

³⁰ Paris, 14 March 1884 (75 BFSP 356; C 5910).

³¹ Primarily in the continental shelf zone: Wagner, *op. cit. supra* n. 24, at 100.

1884 Convention was implemented in English law by the Submarine Telegraph Act 1885, although any contradictory provisions within the 1982 Convention supersede its provisions (Art. 311.2). Under the 1885 Act, it is an offence unlawfully and wilfully, or by culpable negligence, to break or damage a submarine cable under the high seas (s. 3(2)). Conversely, where a shipowner can prove damage to his or her equipment in order to avoid damaging a submarine cable, that shipowner may claim compensation from the cable owner, provided that all reasonable precautionary measures were taken (Continental Shelf Act 1964, s. 8(1); see *Agincourt Steamship Co. Ltd v Eastern Extension, Australasia and China Telegraph Co. Ltd* [1907] 2 KB 305, CA).

In similar fashion to the international satellite organisations, the cooperative nature of the 'cable clubs' raises competition concerns. In a liberalising environment, competing operators will want to purchase capacity on the cable and may need access to the cable landing stations to connect their networks physically to the international circuits. Cable owners, historically incumbent operators, may delay the provisioning of capacity on the cable, levy excessive tariffs or make landing station access difficult, in order to obstruct the competitor's entry into a market. Therefore, in some EU Member States (e.g., Italy), national regulators have imposed access and interconnection obligations upon incumbent operators.³²

10.3 INTERNATIONAL TELECOMMUNICATIONS UNION

The ITU was founded in 1932, although its origins can be traced back to the International Telegraph Union established in 1865. As such, the ITU is the oldest of the intergovernmental organisations, which illustrates the inherently international nature of the telecommunications industry. It became a specialised agency of the United Nations system in 1947. Based in Geneva, the ITU exists to further the development of telegraph, telephone and radio services, to promote international cooperation for the use of telecommunications and the development of technical facilities, and to allocate radio frequencies. The International Telecommunications Convention and Constitution, to which the United Kingdom is a party,³³ contain the basic principles for the conduct of international telecommunication services, the basis for membership of the ITU and its organisation and permanent organs.

The Constitution sets forth the fundamental principles of the ITU, while the Convention details the operational procedures which may be subject to periodic review. The 'supreme organ' within the ITU structure is the

³² See Hogan and Hartson, *op. cit. supra* n. 26. Also Commission Communication, 'Sixth Report on the Implementation of the Telecommunications Regulatory Package', COM (2000) 814, 7.12.2000.

³³ See Constitution and Convention of the ITU, Geneva, 22 December 1992 (Treaty Series No. 24, 1996, Cm 3145), as amended by the Final Acts of the Plenipotentiary Conference of the ITU, Kyoto, 14 October 1994 (Treaty Series No. 65, 1997, Cm 3779), which entered into force on deposit of the UK's Instrument of Ratification on 11 February 1997; and as amended by the Final Acts of the Plenipotentiary Conference of the ITU, Minneapolis, 6 November 1998, which entered into force on 1 January 2000. See generally <http://www.itu.int/>.

Plenipotentiary Conference, which comprises every Member State and meets every four years (Constitution, Art. 8). Between meetings, a Council, comprising no more than 25 per cent of the total membership, acts on behalf of the Plenipotentiary (Constitution, Art. 10(3)). The work of the Union is then subdivided into three sectors:

- (a) the Radiocommunications Sector (ITU-R);
- (b) the Telecommunication Standardization Sector (ITU-T); and
- (c) the Telecommunication Development Sector (ITU-D).

The work of each sector is carried out by a series of organisational entities: world and regional conferences, boards, assemblies and numerous study groups examining particular topics. An administrative 'Bureau', within the General Secretariat, supports each sector, and the Secretary-General, currently Yashio Utsumi, heads the General Secretariat.

The ITU has two categories of membership:

- (a) 'Member States', i.e. national governments, of which there are currently 189; and
- (b) 'Sector Members', representing all the various categories of player within the telecommunications industry and numbering over 600.

Sector Members have been involved in the work of the ITU since the Rome Telegraph Conference in 1871, with the sponsorship of a Member State (Convention, Art. 19(1)(a)). In 1998, the Convention was amended to enable Sector Members to apply directly to join the ITU, although the applicant's Member State must approve such a procedure (Convention, Art. 19(4bis)-(4quarter)). Despite being eligible for membership, it was not until the Plenipotentiary in 1994 that 'other entities dealing with telecommunication matters' could formally participate in the decision-making processes of the ITU (Convention, Art. 19(9)); and it was only in 1998 that Sector Members were recognised as having formal rights of participation under the Constitution:

In respect of their participation in activities of the Union, Sector Members shall be entitled to participate fully in the activities of the Sector of which they are members, subject to relevant provisions of this Constitution and the Convention:

- (a) they may provide chairmen and vice-chairmen of Sector assemblies and meetings and world telecommunication development conferences;
- (b) they shall be entitled, subject to the relevant provisions of the Convention and relevant decisions adopted in this regard by the Plenipotentiary Conference, to take part in the adoption of Questions and Recommendations and in decisions relating to the working methods and procedures of the Sector concerned. (Art. 3(3))

The fundamental legal instruments of the ITU – the Constitution, Convention and Administrative Regulations (see 10.3.4 below) – continue to be under the exclusive jurisdiction of the Member States.

With the liberalisation of the telecommunications industry and the proliferation of commercial operators, tension has grown over the position of industry members within the ITU structure. On the one hand, governments are wary of relinquishing their historic rights to control the organisation; on the other hand, they recognise industry's legitimate interests in the work of the Union and want industry to contribute an ever-greater proportion of the costs associated with its operations and activities. The issue of industry involvement dominated the ITU's most recent Plenipotentiary Conference (Minneapolis, October–November 1998), where a single category of industry membership was finally recognised: 'Sector Member: An entity or organization authorized in accordance with Article 19 of the Convention to participate in the activities of a Sector' (Constitution, Annex).

In terms of financing the work of the ITU, the Member States amended the Constitution to place Sector Member contributions on an equal footing to their own (Art. 28). In addition, new 'Advisory Groups' were established for each sector, with a broad remit to review the 'priorities, programmes, operations, financial matters and strategies' of the various bodies within each sector (Convention, Arts 11A, 14A, 17A). These new bodies should increase the influence of Sector Members within the ITU as Member States and industry will participate on an equal footing.

As part of a broad review of the ITU's role and strategy for the future, an ITU Reform Advisory Panel recently made the following recommendation with respect to the balance of influence between Member States and Sector Members within the ITU: 'The decision-making functions of the ITU should reflect the modern, competitive telecommunications environment in which the private sector plays the lead role while the regulatory agencies act as an arbitrator for the wider public interest.'³⁴ While such a sentiment will be welcomed by the telecommunications industry, the degree to which Member States will continue to intervene in the 'public interest' may give cause for concern. Currently, there are no institutional procedures to enable Sector Members to appeal against a decision made by Member States, or for arbitration in a dispute with a Member State.

The work of the ITU can be divided into three major areas: standardisation; spectrum management and orbital slots; and development issues.

10.3.1 Standards

It was the issue of technical standards that gave rise to the establishment of the International Telegraph Union in 1865, when governments recognised the need for standards to extend the telegraph network throughout Europe. Standards represent the cornerstone of the global telecommunications indus-

³⁴ ITU Reform Advisory Panel (RAP), Observations and Recommendations for Reform, 10 March 2000.

try, and the ITU is one of the leading international institutions for *de jure* standards-making. Its remit extends not only to technical issues, but also to operational and tariff structures for international telecommunication services (see further 10.3.5).

Over recent years, the ITU's pre-eminent position in the standards-setting field has somewhat diminished in the face of regulatory competition from regional organisations,³⁵ industry bodies³⁶ and, most significantly, *de facto* standards organisations such as the Internet Engineering Task Force (IETF) which are able to develop standards much more rapidly than formal bodies such as the ITU. Recognising such developments, the ITU is examining ways to reposition itself: 'ITU-T could become a facilitator for collaboration, convening meetings among different standards bodies and industry forums, in particular on interworking between the Internet and telecommunications networks, both fixed and mobile.'³⁷ As such its standards-development role would be focused on those areas where it currently leads: optical transmission, voice services, numbering, signalling and network management.

10.3.2 Radio communications

The development of radio communications at the beginning of the twentieth century also gave rise to the need for international cooperation to avoid harmful interference. The International Radiotelegraph Union, established in 1906, adopted operating principles that have continued to form the basis of the ITU's regulation of radio communications. Member States were required to notify each other of any new service utilising the radio spectrum and were obliged to ensure that such services did not interfere with other uses of the frequency.³⁸

The Radiocommunications Sector of the ITU, primarily operating through the Radio Regulations Board, exercises a regulatory function in respect of the use of two scarce resources: radio-frequency spectrum and the geostationary satellite orbit (Constitution, Art. 1(2)(a), (b), Chapter II (Arts 12–16); Convention, s. 5 (Arts 7–12)).³⁹ The ITU is responsible for the allocation of bands of the radio-frequency spectrum to Member State administrations and then registers the assignment of particular radio frequencies by an administration to a specific operator. Such procedures are designed 'to eliminate harmful interference . . . and to improve use made of the radio-frequency spectrum'.⁴⁰

³⁵ For example, the European Telecommunications Standards Institute (ETSI): www.etsi.org.

³⁶ For example, the GSM Association: www.gsmworld.com. It comprises some 449 member companies from 149 countries.

³⁷ RAP, *supra* n. 34, at Recommendation no. 3.

³⁸ See Allison, A., 'Meeting the Challenges of Change: The Reform of the International Telecommunications Union' (1993) 45 *Federal Communications Law Journal* 498.

³⁹ The ITU's procedures cover both geostationary and non-geostationary satellite systems.

⁴⁰ 'Harmful interference' is defined as 'interference which endangers the functioning of a radio navigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radio communication service operating in accordance with the Radio Regulations.' (Constitution, para. 1003). See also Art. 45.

The ITU expects Members to bear in mind that countries have 'equitable access to [the resources], taking into account the special needs of the developing countries and the geographical position of particular countries' (Constitution Art. 44(2)). This provision was introduced in 1973 to reflect the interests of developing countries concerned about reserving a portion of the relevant resources until such time as they were in an economic position to exploit them.

However, one of the dominant issues of current concern in the Radio-communications Sector is the problem of overfiling of requests for orbital slots with associated frequencies for satellite systems. In particular, Member State administrations have been accused of filing for 'paper satellites' that have little or no real prospect of becoming operational. The filing is designed to pre-empt competing claims to what is perceived as an ever-diminishing resource in the face of multinational, private satellite consortia, such as Globalstar and ICO. The administration can then realise the value of the allocation by re-selling or leasing the slot to the highest bidder at some later date. The consequence of such practices is to lengthen substantially the procedure for genuine satellite systems to obtain the necessary allocations.

To address the problem of overfiling, the ITU proposed in 1997 that administrations be required to provide specific evidence of the proposed satellite system, referred to as administrative and financial 'due diligence', and to make regular submissions on the implementation of the system, including the contractual date of delivery, the number of satellites procured and the proposed launch date. Financial constraints would include an annual coordination and registration charge, as well as a refundable deposit. To date, only the administrative obligations have been implemented, while the need for the financial measures will be reconsidered in 2002.⁴¹

10.3.3 Telecommunications Development

From 1947, membership of the ITU expanded rapidly among developing nations. As their numbers grew, so did their share of the votes and ability to influence the direction and activities of the ITU. At the Nairobi Plenipotentiary Conference in 1982, such increasing influence resulted in the adoption of a new basic purpose of the ITU: 'to promote and to offer technical assistance to developing countries in the field of telecommunications, and also to promote the mobilization of the material and financial resources needed for implementation' (Constitution, Art. 1(1)(b)). Therefore, since 1982, the ITU has given equal priority to telecommunications development, standards-setting and radio communications.

The Telecommunication Development Sector operates through a Telecommunication Development Bureau, Telecommunication Development Conferences and associated Study Groups. In particular, the ITU has worked with other development agencies, such as the World Bank and the International Bank of Reconstruction and Development, to improve the flow of

⁴¹ Press Release, *supra* n. 22.

technology, funds and expertise into developing countries. The Reform Advisory Panel has recently proposed that the ITU's development focus should be expanded 'from technical assistance towards helping developing countries establish pro-market regulatory frameworks',⁴² which would seem to reflect the influence of the WTO in the telecommunications sector.

10.3.4 Legal instruments of the ITU

As international treaties, the Constitution and Convention of the ITU are legal instruments that bind Member States (Constitution, Art. 6(1)). While primarily detailing the rules governing the establishment and operation of the ITU, the Constitution also embodies certain fundamental legal principles governing international telecommunications (Chapter VI). Members give recognition to certain rights of users, i.e. the 'right of the public to correspond by means of the international service' (Art. 33) and 'ensuring the secrecy of international correspondence' (Art. 37). The majority of the principles, however, represent reservations that Members have the right to exercise, such as in respect of the 'stoppage of telecommunications' (Art. 34) and the 'suspension of services' (Art. 35), as well as the avoidance of any responsibilities for damage and related claims (Art. 36).

Complementing the Constitution and Convention are Administrative Regulations, subdivided into:

- (a) International Telecommunications Regulations; and
- (b) Radio Regulations.

The Administrative Regulations comprise the general principles to be observed in the provision of international telecommunication services and networks, and in the assignment and use of frequencies and orbital slots. Such Regulations 'shall be binding on all Member States' (Constitution, Arts 4 and 54). At the time of accession to the Constitution and Convention (i.e., 27 June 1994 in the case of the United Kingdom), a Member State may make reservations in respect of any of the existing Administrative Regulations (Art. 54(2)): Any subsequent partial or complete revision of those Regulations requires Member States to indicate their consent to be bound, by depositing an instrument of ratification, acceptance or approval, or by notifying the Secretary-General (Art. 54(3)A), although a Member State will be provisionally bound from the entry into force of the revision if the Member State has signed the revision (Art. 54(3)D).

Under the Constitution, Member States are also required to

take the necessary steps to impose the observance of the provisions of this Constitution, the Convention and the Administrative Regulations upon operating agencies authorized by them to establish and operate telecommunications and which engage in international services or which operate

⁴² RAP, *supra* n. 34.

stations capable of causing harmful interference to the radio services of other countries. (Art. 6(2))

However, this blanket provision is qualified by the concept of a 'recognised operating agency' (ROA):

Any operating agency . . . which operates a public correspondence or broadcasting service and upon which the obligations provided for in Article 6 of this Constitution are imposed by the Member State in whose territory the head office of the agency is situated, or by the Member State which has authorized this operating agency to establish and operate a telecommunication service on its territory. (Constitution, Annex)

Historically, ROAs were generally the state-owned incumbent operator. However, in liberalised markets, the categories of ROAs could potentially extend to any provider of international services, including re-sale services.

The current applicable International Telecommunications Regulations are those adopted at Melbourne in 1988 (ITR 88), comprising ten substantive Articles and a series of Appendices. Reiterating the Constitution, the Regulations are binding only on 'administrations' (i.e., Member States and ROAs). Administrations do, however, have the freedom to enter into 'special mutual arrangements' for the provision of international telecommunications networks and services (ITR 88 Art. 9). This provides considerable flexibility for countries such as the US and the EU Member States that have regulated to ensure liberalisation, e.g., the application of interconnection regulations to intra-EU international traffic. There have recently been calls for the International Telecommunications Regulations to be revised, partly due to the considerable changes in the market since 1988, but also arising from concerns that the Regulations may conflict with other international agreements, such as those administered by the WTO.⁴³

In addition to the binding legal instruments, the various bodies of the ITU adopt Recommendations, Resolutions and Decisions. While the Administrative Regulations comprise the general principles to be complied with, the ITU-T and ITU-R Recommendations detail the manner in which they are to be implemented and represent the bulk of ITU rule-making (e.g., over 2,600 ITU-T Recommendations are currently in force). Such Recommendations do not have 'the same legal status as the Regulations' (ITR 88, Art. 1.4), although 'administrations' 'should comply with, to the greatest extent practicable, the relevant' Recommendations (Art. 1.6; see also the opinion of the Advocate-General in *Italy v Commission* [1985] 2 CMLR 368, at 373). The various sectoral 'Study Groups' prepare draft Recommendations that enter into force either through approval at the relevant assemblies or conferences, or through direct correspondence with Member State administrations (Convention, Arts 11(2) and 14(1)).

⁴³ See documents issued by the ITU Expert Group on the International Telecommunications Regulations. See also 10.4 below.

Any disputes regarding the interpretation of any of the legal instruments – Constitution, Convention or Administrative Regulations – are to be settled either through mutually agreed bilateral or multilateral arrangements, or, if not settled by such means, via an arbitration procedure (Constitution, Art. 56). The decision of the arbitrator(s) shall be 'final and binding upon the parties to the dispute' (Convention, Art. 41), although no enforcement mechanism exists in the event of non-compliance. There is a compulsory arbitration procedure under an Optional Protocol to the Convention, between Members that are party to the Protocol (Constitution, Art. 56(3)).⁴⁴

10.3.5 International accounting rates

As discussed at 10.3 above, the International Telegraph Convention, the predecessor of the ITU, was established to extend the operation of telecommunication networks beyond national borders. As well as the need for common standards for the transmission of messages between different networks, such international traffic also raised the issue of payments to be made between national operators for the carriage of each other's traffic. The historic regime established for the making of such payments is known as the 'International Accounting Rate system' and the principles of its operation are contained in the ITU's International Telecommunications Regulations (Art. 6).

The International Accounting Rate system comprises a series of related rates that are intended to provide for an equitable payment to the terminating operator for the termination of an international call and, where relevant, to any transit operators that have handled the call (either direct transit or switched transit). The 'collection charge' (ITR 88, Art. 2.9) is the retail price levied on the originating customer by the originating operator. The 'accounting rate' is essentially a wholesale rate representing the agreed cost of transmitting each unit of traffic between the calling parties.⁴⁵ The 'settlement rate' is the payment made by the originating operator to the terminating operator and is usually 50 per cent of the accounting rate. Such payments are made on a net settlement basis between operators, since traffic generally flows in both directions; therefore the operator originating the most traffic is required to make the periodic payments.

Although the system is embodied in the International Telecommunications Regulations, elaborated in a series of Recommendations, it operates through bilateral contractual agreements between telecommunication operators in each jurisdiction: 'For each applicable service in a given relation, administrations (or recognized private operating agencies) shall by mutual agreement establish and revise accounting rates to be applied between them' (ITR 88, Art. 6.2.1).

While the essential elements of the International Accounting Rate system have remained the same over many years, the system was in fact designed to

⁴⁴ The United Kingdom has ratified the Optional Protocol, 27 June 1994.

⁴⁵ Usually expressed in terms of Special Drawing Rights (SDRs) under the International Monetary Fund, or the gold franc. Convention, Art. 38; ITR 88, Art. 6.3.1.

operate under certain conditions no longer present in most telecommunications markets:

- (a) jurisdictional symmetry with respect to both call origination and traffic flows;
- (b) collection charges higher than the accounting rate;
- (c) relatively constant inflation and exchange rates; and
- (d) monopoly operators in each jurisdiction providing the international service.

As these conditions have either disappeared or altered, the International Accounting Rate system has given rise to substantial payment flows between operators, representing invisible trade imbalances between countries. In 1996, for example, US operators paid around US\$6 billion to operators in other jurisdictions, of which it was estimated that 70 per cent constituted 'an above-cost subsidy from US consumers to foreign carriers'.⁴⁶ Indeed, under the current regime, the co-existence of liberalised telecommunications markets with traditional monopolistic environments can actually reward the latter at the expense of the former. In particular, a practice known as 'whipsawing' has arisen, whereby monopolistic operators in one country negotiate with competing operators in other countries to achieve substantially lower accounting rates for the termination of traffic originating in the monopoly country. Alternatively, the monopoly operator may lease its own circuit in the liberalised terminating regime, therefore bypassing the accounting regime for outbound transmissions (commonly referred to as 'one-way bypass').

The payment imbalance is exacerbated by the fact that, historically, accounting rates were not based on actual cost but were often priced at a premium. For some countries, such as the US, the accounting rate system has therefore come to be seen as an unacceptable regime that positively disadvantages the introduction of competitive markets. However, countries which are net creditors under the accounting rate system, often (although not exclusively) developing countries, usually view the system as constituting an important source of foreign 'hard currency' revenue for investment into the domestic market, either in the form of network rollout or through subsidising the cost of access (e.g., line rental). Such revenues can be viewed as contributing to a universal service policy, at a global level as well as for individual countries.⁴⁷ Indeed, the ITU's Secretary-General has noted that developing countries receive more revenue from the accounting rate system in one year than they received from development banks, such as the World Bank, for telecommunications programs during the first half of the 1990s.⁴⁸

⁴⁶ Federal Communications Commission, In the matter of International Settlement Rates, Report and Order, IB Docket No. 96-261, 7 August 1997 ('Benchmark Order'), para. 13.

⁴⁷ See Tyler, M., 'Transforming economic relationships in international telecommunications', Chapter 8, Briefing Report for ITU Regulatory Colloquium No. 7 (1997). Also, Stanley, K., 'International settlements in a changing global telecom market', in *Telecom Reform* (ed. Melody) (Technical University of Denmark, 1997), at 371-94.

⁴⁸ Tarjanne, P., 'Reforming the International Accounting Rate System', (1998) 2 *ITU News*.

Over recent years there has been significant pressure for the International Accounting Rate system to be reformed, from governmental concern to reduce trade deficits, as well as to benefit end-users through reductions in the cost of international telecommunications.⁴⁹ In addition, technological developments have resulted in a proliferation of alternative calling procedures designed, either directly or indirectly, to avoid the normal operation of the international accounting regime. Such procedures can be broadly divided into two categories:

- (a) 're-origination' techniques, which take advantage of asymmetric rates on particular routes to minimise the cost of the accounting rates, e.g., call-back,⁵⁰ country-direct, calling cards, refile;⁵¹
- (b) 'by-pass' techniques, which completely circumvent the international accounting regime, e.g., international simple re-sale services, VSATs,⁵² Internet telephony.

These practices inevitably lead to a reduction in the revenues of the monopoly provider of international telecommunication services and, in some cases, are infringements of national law.⁵³ However, while re-origination techniques represent a loss in collection revenues, the concurrent increase in settlement payments from inbound traffic may significantly offset the impact for the incumbent and will encourage the maintenance of high accounting rates.⁵⁴

The ITU is in an uneasy position in respect of such activities and has called upon Member States to take appropriate action against operators in their jurisdiction who are breaching the laws and regulations of other Member States.⁵⁵

Proposals to change the system take two main forms. First, there have been moves within the ITU to lower accounting rates towards the actual cost of terminating international calls. Such cost-based tariffing reflects the regulatory position adopted in liberalised markets, such as that applicable to interconnection agreements (see Chapter 6). It also reflects existing obligations under the International Telecommunications Regulations 1988, where Member States are required to revise accounting rates 'taking into account

⁴⁹ See ITU-Report of the Informal Expert Group on International Telecommunications Settlements, March 1997.

⁵⁰ Various forms of 'call-back' exist, but it essentially involves a reversal in the direction of the call, e.g., a call from a country with high originating international tariffs is manipulated to appear to come from the terminating country which has low originating international tariffs, using features of call signalling systems.

⁵¹ 'Refile' involves routing a communication from country A to country B via a third country, C, where the sum of the tariff rates for calls between A-C and C-B are less than A-B.

⁵² Very Small Aperture Terminals, used for satellite-based telecommunications direct to home.

⁵³ See ITU Resolution 21 of the Plenipotentiary Conference, Kyoto, 1994: 'Special Measures concerning Alternative Calling Procedures on International Telecommunication Networks' (revised at the Minneapolis Plenipotentiary, 1998) (noting that 86 Member States prohibit 'call-back' (as of October 1998)).

⁵⁴ See Secretary-General's Paper on Accounting Rate Reform, ITU-T, COM 3-2-E (November 1996).

⁵⁵ Resolution 21, *supra* n. 53.

relevant [ITU-T] Recommendations and relevant cost trends' (Art. 6.2.1). Recommendation D.140, 'Accounting rate principles for international telephone service', calls upon administrations to move accounting rates towards a cost-based approach, by identifying those operational elements considered legitimate components of the accounting rate:

- (a) international transmission facilities;
- (b) international switching facilities; and
- (c) national extension.

The direct costs of utilising these facilities, with some allocation of the associated common costs, should comprise a cost-based settlement rate. Despite Recommendation D.140 and a fall in accounting rates by 12 per cent over the past three years, many ITU members view progress towards cost-orientated rates as too slow. As a result, an Annex to D.140 was adopted at the recent World Telecommunication Standardization Assembly, containing indicative target rates and specified deadlines for each country.⁵⁶

The second approach to address the present accounting rate system is through the adoption of a range of alternative rate systems, which are designed to reflect the different conditions present in many markets. Five alternative models have been suggested.⁵⁷

(a) *Call termination charges*, where a single rate is charged to terminate into a country from any other country, as is currently operated, for the international telegram service. The primary advantages of such a system are transparency and non-discrimination.

(b) *Facilities-based interconnection charges*, as already required under European Union law (Interconnection Directive; see Chapter 6) and generally in operation for mobile roaming.

(c) *'Sender keeps all'*, where no payments are made between national operators, historically the system adopted between the UK and Ireland. Such an approach also reflects the 'peering' arrangements present in the Internet (see Chapter 6). However, as with peering, it does operate on a presumption of equality in traffic flows.

(d) *International private leased circuits*, where the charge will reflect the cost of leasing such capacity.

(e) *Volume-based payments*, fixed per traffic unit carried, as currently used in Internet-based transit arrangements.

The ITU's developmental role has created problems when addressing the reform of the International Accounting Rate system, since the system is perceived in many Member States as contributing funds to the broader

⁵⁶ Montreal, 27 September–6 October 2000.

⁵⁷ For example, ITU-T Recommendation D.150, 'New system for accounting in international telephony' (June 1999).

development of telecommunications in their jurisdiction. Indeed, the ITU specifically recommends that accounting rate apportionment in favour of a developing country should be used for telecommunications improvements.⁵⁸

Pressure to reform the system is also being driven, in part, by decisions made by regulatory authorities in certain jurisdictions. In particular, the FCC in the US created considerable consternation in certain countries when it issued its International Settlement Rates Order in 1997.⁵⁹ The Order represented a fundamental policy shift from the previous Uniform Settlements Policy (USP), which had been operating since 1980.⁶⁰ Under the USP approach, all US-licensed operators were required to operate under the same accounting rate with foreign correspondents, which addressed the problem of 'whipsawing', as well as obliging operators to maintain proportionate inbound and outbound traffic volumes.

However, the FCC recognised that the WTO 'basic agreement' had the potential to sharply worsen the US balance of payments deficit on international services, since incumbent operators in non-liberalised markets would be free to establish US-based operations subsidised from their monopolistic international revenues. The progress of reform within the ITU was slow, therefore the FCC decided to take unilateral steps to drive the pace of change towards cost-based settlement rates.

The Order lays down benchmark 'settlement rates that carriers subject to FCC jurisdiction may pay for termination of US-originated traffic' (para. 312). Countries were categorised into four tiers, representing different stages of economic development. The rates are to be implemented over a transition period, over one to four years, and operators were able to appeal against a rate determination (para. 74). The regime came into effect on 1 January 1998 and the first targets were to be achieved by 1 January 1999. The rates were based on a methodology known as 'tariffed components pricing' (TCP), which comprised the three elements specified in Recommendation D.140: international transmission; international exchange; and national extension. All US-licensed carriers were subject to the Order, while for foreign-affiliated operators compliance was a condition of obtaining FCC approval for the provision of long-distance services to the home jurisdiction (para. 207).

The Benchmark Order generated opposition in many countries, such as those in the Caribbean region, over the potential impact it would have on domestic operator revenues.⁶¹ In addition, the European Commission and Japan raised concerns about the compatibility of the Benchmark Order with

⁵⁸ Resolution 22, 'Apportionment of revenues in providing international telecommunication services' (Kyoto, 1994).

⁵⁹ Benchmark Order, *supra* n. 46.

⁶⁰ *Uniform Settlement Rates on Parallel International Communications Routes*, 84 FCC 2d 121 (1980), applicable to international telephone services since 1986. See *Implementation and Scope of the International Settlements Policy for Parallel Routes*, CC Docket No. 85-204, Report and Order, 51 Fed. Reg. 4736 (7 February 1986).

⁶¹ But see Petitions for Enforcement of International Settlement Rates Benchmark Rates, 4 August 2000 (seeking enforcement of 19 cents benchmark rate against Trinidad and Tobago), http://www.fcc.gov/Bureaus/International/Public_Notices/2000/da001768.doc.

the United States' commitments under the General Agreement on Trade in Services, specifically the principle of 'most-favoured-nation'.⁶²

In 1998, Cable & Wireless brought an action before the US courts challenging the legality of the Benchmark Order. Over 100 other petitioners and intervenors, comprising national governments, regulators and operators, soon joined the case on both sides. The main thrust of the complaint was that the FCC had exceeded its authority through the extraterritorial nature of the Order's provisions (*Cable & Wireless et al. v FCC*, 166 F. 3d 1224 (DC Cir. 1999)).⁶³ The court found overwhelmingly in favour of the FCC, holding that it had the requisite powers to make decisions regulating the actions of US-licensed operators, including the contractual arrangements entered into for international settlement rates (see 47 USC §§205(a), 211(a)): 'the Commission does not exceed its authority simply because a regulatory action has extraterritorial consequences.' The court dismissed objections to the use of the TCP methodology on the grounds that the FCC had acted reasonably, and criticised the petitioners for withholding actual cost data as well as failing to propose alternative methodologies.

During the course of the proceedings, the Australian operator Telstra entered a petition against the Benchmark Order on the grounds that it did not address the issue of international Internet connections. Telstra complained that the Order was based on a circuit-switched environment, where traditionally each correspondent operator is responsible for the provision of half of the international circuit. Telstra argued, however, that in an Internet environment non-US operators were effectively forced to purchase a full circuit in order to connect to the Internet exchange points based primarily in the US (see 166 F. 3d, at 1235-36; see also Chapter 6). As a consequence, US carriers were obtaining significant financial benefits from the current arrangements for international Internet connections. The court denied Telstra's petition as constituting insufficient grounds for overturning the FCC Order, but the issue has subsequently been pursued within the ITU.

In April 2000, ITU-T Study Group 3 approved a draft Recommendation on International Internet Connection that had been proposed by Australia. Draft Recommendation D.120 was presented to the World Telecommunication Standardization Assembly (WTSA) for adoption in October 2000:

Noting the rapid growth of the Internet and Internet based services: It is recommended that administrations negotiate and agree to bilateral commercial arrangements applying to direct international Internet connections whereby each administration will be compensated for the costs that it incurs in carrying traffic that is generated by the other administration.

For many Internet-based services, such as the World Wide Web, traffic flows are asymmetric, as an individual request for a page generates large flows of data towards the requester. Such data is generally from servers based in the

⁶² *Ibid.*, at para. 109. See also 10.4 below.

⁶³ See www.fcc.gov/ogc/documents/opinions/1999/cable.html.

US and connected to the Internet by US operators. Under the draft Recommendation, such operators would have been required to pay transit and termination fees to operators in other jurisdictions to which the individual requester is connected, such as Australia, rather than the current settlement-free 'peering' system (see Chapter 5, at 5.6), with operators such as Telstra having to pay for full international circuits.

The draft Recommendation generated significant opposition from the US and Europe, but was supported by many developing nations' members. An amended version was eventually adopted at WTSA:

[R]ecommends that administrations involved in the provision of international Internet connections negotiate and agree to bilateral commercial arrangements enabling direct international Internet connections that take into account the possible need for compensation between them for the value of elements such as traffic flow, number of routes, geographical coverage and cost of international transmission amongst others.

The shift from mandatory to voluntary compensation enabled the proposal to be adopted, although the US and Greece made reservations and stated that the Recommendation would not be applied in their jurisdictions. Despite the agreed position, it can be expected that the ITU will be required to address this issue again over the coming years, as Internet-based data communications continue to expand as a proportion of total international traffic.

The International Accounting Rate system is gradually disappearing in its current form, to be replaced by a multitude of different arrangements reflecting the state of liberalisation in Member States, technological developments and the commercial positions of the respective parties. However, political pressure to accelerate such change has shifted somewhat in recent years from the ITU to the World Trade Organisation (WTO), although a moratorium was agreed between certain Member States not to pursue a legal action before the WTO on accounting rates in the near future.⁶⁴

10.4 WORLD TRADE ORGANISATION

The World Trade Organisation (WTO) was established in 1994 as part of the final act embodying the results of the Uruguay Round of multilateral trade negotiations.⁶⁵ The function of the WTO is to facilitate the implementation, administration and operation of certain multilateral trade agreements (Art. III(1)). Its unique feature is the establishment of a dispute settlement body to enforce the obligations accepted by Member States within the context of the agreements (see 10.4.3 below). The existence of this enforcement mechanism has been a key factor in pushing the WTO to the forefront of intergovernmental organisations.

⁶⁴ See WTO Report of the Group on Basic Telecommunications (S/GBT/4), 15 February 1997.

⁶⁵ See the Agreement Establishing the World Trade Organisation with Understanding on Rules and Procedures Governing the Settlement of Disputes and Trade Policy Review Mechanism (Marrakesh, 15 April 1994; TS 57 (1996) Cm 3277; (1994) 33 ILM 15; (1994) OJ L 336/1). The Treaties entered into force on 1 January 1995.