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Kommunikations-
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de la communication

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Federal
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Commission

Federal Communications Commission (ComCom)

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Summary

ComCom has prepared an assessment of its activities one year after liberation of the telecommunications market (on 1.1.1998) which outlines a number of perspectives.

The Commission's **competencies** are the following: granting licences for telecommunications service providers, laying down the conditions for interconnection when service providers fail to reach an agreement, award of universal service licences and licences for the use of radiocommunication frequencies, approval of the national frequency allocation plan and national numbering plans, and fixing the terms of application of number portability and free choice of supplier. It also takes measures in the event of violation of the law in force and, where applicable, withdraws the licence.

The Commission has awarded two new **mobile telephony** licences alongside those which Swisscom was already operating. These two licences were awarded on 17 April to diAx mobile and to Orange Communications, from the five applicants for each of the two licences. An action in the Federal Court was initiated in June by one of the companies which did not receive a licence and to which the Court refused to grant suspensive effect without prejudice to its final decision. This decision allowed the licence holders to continue to set up their network. This action is still outstanding. These two licences were awarded on the basis of a "beauty contest" (a method of award based on a number of criteria) and not on an auction basis, primarily because of the distortion in competition which this would have constituted in relation to Swisscom.

Citizens' concerns regarding antennas and their electromagnetic radiation grew in the course of the year and currently constitute one of the major obstacles to the establishment of new networks. A Federal Council decree on protection from non-ionising radiation will be adopted during 1999, and this will clarify the legal situation for those authorities responsible for issuing construction permits.

The operator who was granted the first new mobile telephony licence launched itself onto the market at the end of the year.

Interconnection makes it possible to link networks together and guarantees user access to the services of operators other than those with which they are registered for connection. This process plays an absolutely essential role in opening up the market to competition. The law envisages that operators who occupy a dominant position in the market must guarantee this interconnection and that the partners will first negotiate between themselves for three months. If they do not arrive at an agreement within this period, ComCom may lay down the interconnection conditions and prices. In the course of this first year, five applications were lodged with the Commission. On 29 April, the Commission took provisional measures in favour of Sunrise to guarantee the continuation of interconnection services with Swisscom and the Commission fixed the provisional prices. On 6 November, the Commission took super-provisional measures to guarantee interconnection and its non-monetary conditions between diAx mobile and Swisscom.

These interconnection procedures highlighted the complexity of the problems in both the technical and legal spheres, particularly in the area of commercial secrecy. Indeed, a Commission decision giving limited access to the documents of the opposing party in one of the interconnection procedures was the subject of a Swisscom action in the Federal Court on the grounds that they contained commercial secrets.

The actions facing the Commission, however, must not hide the fact that the majority of the interconnection agreements have been concluded between the operators without any intervention by the Commission.

*In addition, the Commission decided on the obligation of **number portability** between telecommunications services from 1 January 2000. Regarding the option of choosing a supplier for national and international calls, **carrier selection** (call by call) came into force on 1 January 1998. **Carrier preselection** (predetermined) should have come into force definitively for all subscribers on 1 January 1999, but it has been deferred until 1 April 1999 because of the difficulties encountered with certain Swisscom telephone exchanges.*

*In a different context, the Commission approved the **national frequency allocation plan** and the **numbering plans**. These include numbering plan E.164/2001 which will come into force on 12 April 2001. This will result in the harmonisation of number length at 9 digits, regardless of the geographical location, the requested service and the operator.*

In the course of this year, the Commission has also been giving consideration to the forthcoming licences which it will have to award, notably UMTS, which is the third-generation mobile telephone system, and mobile digital trunked radio systems.

The assessment which the Commission has drawn up for the first year of liberalisation is positive overall. Interest from operators is considerable, since at the end of the year 171 companies were providing telecommunications services. There has been a generalised drop in prices, investment in the telecommunications sector has grown, as has the range of services, and all this has happened without any decline in quality becoming evident.

1. INTRODUCTION

1.1 General

Article 5 of the Law on Telecommunications (LTC) of 30 April 1997¹ established the Federal Communications Commission (ComCom) as the licensing authority and market regulatory body in the telecommunications sector. This commission reports on its activities every year to the Federal Council².

In a telecommunications environment which has been liberalised in Switzerland since 1 January 1998, ComCom was established as an independent body to assume the role of market regulator, according to a model which has been applied in most European countries³. As the Confederation is the majority shareholder in Swisscom, the former monopoly, it could not play the role of judge and one of the parties. For this reason, legislators decided in favour of an autonomous authority.

1.2 Composition of the Federal Communications Commission

The Federal Council nominated the Commission on 29 September 1997. It designated Fulvio Caccia as the president and chose six other members: Mr. Pierre-G rard Fontolliet, Mrs Yvette Jaggi, Mr. Beat Kappeler, Mrs Heidi Schelbert-Syfrig, Mr. Hans-Rudolf Schurter and Mr. Gian Andri Vital.

In November 1998, it named Mr. G. A. Vital as Vice-President. Mrs. Y. Jaggi resigned at the end of 1998, following her nomination by the Federal Council to another office.

1997 saw the Commission meet for the first time in early November; it sat on four days in its first three months of existence and in 1998 it met for eight days. It was initially established in Biel at the OFCOM premises and then moved in mid-1998. The Commission finally opened its secretariat in October 1998, at Marktgasse 9, Berne.

¹ RS 784.10

² Art. 57, para. 1 LTC

³ Note that in some countries the activity of the bodies corresponding to ComCom also extends to the area of electronic media; this is not the case in Switzerland.

1.3 The secretariat

The Commission has had a secretariat since September 1998. This is made up of one manager (full-time), one scientific colleague (40%) and one administrative secretary (60%). Before the Commission had its own offices and employees, its secretariat was provided by OFCOM, on an interim basis.

2. **LEGISLATION**

2.1 The Law on Telecommunications

In June 1996, the Federal Council approved the message on revision of the Law on Telecommunications⁴. In August, Parliament began its deliberations and approved the Law by a final vote on 30 April 1997. It took less than one year to examine a law which was destined to fundamentally change the telecoms landscape in Switzerland and which was linked to the revision of the law on the Post Office - confirming the separation of post and telecommunications. This demonstrates the importance which legislators attached to this subject and the urgency of adopting a new law which takes into account technological, commercial and political developments in the telecommunications sector. Indeed, given the globalisation of markets, the fall of the monopolies, the developments in means of communications towards an “information society” and the liberalisation of the telecoms market envisaged in the European Union on 1 January 1998, it was imperative to amend the law on telecommunications in order to transform it into a law for regulating the market.

The aim of the law, drawn up as a draft law, is to guarantee a diversified range of top-quality telecommunications services at advantageous prices, together with a universal service at reasonable prices throughout the country. It must also allow effective competition, respect personal rights and ensure rational use of frequencies.

To make the market work, the law provides for three means of regulation:

- 1.) *self-regulatory market mechanisms*, which determine the services and prices which operators are prepared to offer naturally. This is in response to the market's needs and the provisions of the law on competition which dictates, in particular, the interconnection obligation for the dominant operators.
- 2.) *licences*, which are of three types:
 - first, the licences for any telecoms services provider who operates major parts of the communications installations himself (the others are obliged to notify OFCOM);
 - then, any service provider using the frequency spectrum must obtain a licence, the object of which is to allocate a resource (frequencies) which is limited;
 - and finally, the universal service licence ensures that any subscriber within a licence area has access to a number of services, of predetermined quality and at a ceiling price fixed by the Federal Council. This type of licence is distinguished from the other two in that it does not confer a right, but imposes an obligation, to provide a service.
- 3.) the "*traffic rules*" contain all the rules drawn up by the regulator in order to guarantee satisfactory operation of telecommunications in an environment governed by the laws of the market, e.g. ensuring interworking of universal services, number portability, carrier selection, protection of telecommunications secrecy, etc.

2.2 Decrees relating to the Law on Telecommunications

There are several decrees relating to the Law on Telecommunications which originate either from the Federal Council, or from DETEC, or from the Federal

⁴ 96.048 n Message dated 10 June 1996 on telecommunications (LTC). Full revision

Office for Communications, or from the Communications Commission^{4bis}. Here we shall merely give an overview, without going into too many details.

- Decree on telecommunications services dated 6 October 1997⁵

In particular, this decree governs the procedure and conditions for awarding licences, exemptions, arrangements for leased lines, universal service provision and the licensee's obligations. In addition, it lays down the rules for using public land, defines interconnection and the procedure relating to it.

- Decree on addressing resources in the telecommunications sector dated 6 October 1997⁶

This decree gives OFCOM the authority to draw up and issue numbering plans, subject to ComCom approval, and to manage the communications parameters. It specifies the methods and principles for allocating numbers.

The OFCOM decree on telecommunications services and addressing resources dated 9 December 1997⁷ contains the technical and administrative provisions relating to both telecommunications services and national numbering plans.

- Decree on frequency management and radiocommunications licences dated 6 October 1997⁸

This decree determines the use of the frequency spectrum and the licences awarded for their use (frequency management, procedure for award of licences and miscellaneous licences which do not relate to the provision of telecommunications services).

The OFCOM decree dated 9 December 1997⁹ on the same subject contains the national frequency allocation plan which was established by OFCOM and approved by ComCom, together with the details of the various radiocommunications and amateur radio licences and the stipulations relating to various certificates.

^{4bis} cf. below 3.2.1

⁵ RS 784.101.1

⁶ RS 784.104

⁷ RS 784.101.113

⁸ RS 784.102.1

⁹ RS 784.102.11

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- Decree on telecommunications installations dated 6 October 1997¹⁰

The purpose of this decree is the approval and monitoring of telecommunications installations. On 9 December, OFCOM issued a decree on the same subject¹¹.

- Decree on fees in the telecommunications sector dated 6 October 1997¹²

This decree is completed by a DETEC decree dated 22 December¹³ and another from OFCOM of the same date¹⁴.

- Decree on the postal correspondence and telecommunications monitoring service dated 1 December 1997¹⁵

3. THE FEDERAL COMMUNICATIONS COMMISSION (ComCom)

3.1 Competencies of the Commission

The Commission awards licences for telecommunications service providers (article 4), lays down the conditions for interconnection in the first instance when service providers cannot reach an agreement (article 11), awards universal service licences (article 18) and licences for the use of radiocommunication frequencies (article 22), approves the national frequency allocation plan (article 25) and the national numbering plans and fixes the terms of application of number portability and free choice of supplier (article 28). It also takes measures, based on OFCOM proposals, in the event of infringement of the law in force and, where applicable, withdraws the licence (article 58).

The Commission has delegated to OFCOM a number of tasks for which it is responsible (cf. para. 3.2.1).

¹⁰ RS 784.101.2

¹¹ RS 784.101.21

¹² RS 784.106

¹³ RS 784.106.12

¹⁴ RS 784.106.11

¹⁵ RS 780.11

3.2 Decisions of the Commission

3.2.1 Regulation and organisation of the Commission

Since its first session, the Commission has adopted a system of internal regulation, dated 6 November 1997 and approved by the Federal Council on 15 December¹⁶. These regulations organise the operation of the Commission, its secretariat and its relations with OFCOM. To promote the Commission's efficiency, these regulations provide for the possibility of the president, with one other member, taking provisional measures. This measure has proved to be very useful, particularly in the area of interconnection, where it is not possible to await the next session before taking decisions.

As a result of the experience acquired in the first year of its activity, the Commission has decided to amend its regulatory system. Henceforth, it will have the option of taking its decisions by circulation, unless a member demands a meeting. Furthermore, the president or vice-president may, with one other member, take incidental decisions, not only provisional measures. This measure is intended to improve the Commission's efficiency and to allow it to react quickly in certain situations.

In its first two sessions, the Commission also prepared and adopted its decree relating to the Law on Telecommunications¹⁷.

In this decree, the Commission delegated to OFCOM the authority to grant telecommunications services licences which are not subject to an invitation to tender, as well as radiocommunications licences which are not intended to provide telecommunications services.

This decree prescribes number portability between telecommunications service providers, which must be introduced on 1 January 2000. It also provides for the possibility of service providers offering geographical portability of numbers.

¹⁶ RS 784.101.115

¹⁷ RS 784.101.112

Finally, this decree obliges telephony service providers to give their subscribers the option of choosing a supplier for their national and international calls, either in a predetermined way (carrier pre-selection) or on a per-call basis (carrier selection). The same obligation is imposed on mobile telephony operators for international calls. Carrier selection for national and international calls on a per-call basis came into force with the decree, and carrier pre-selection came into force on 1 September for 50% of subscribers and on 1 January 1999 for all subscribers.

Two provisions of this decree were amended on 9 November 1998 (entry into force on 1.1.1999). On the one hand, carrier pre-selection for national and international calls was deferred until 1 April 1999 for Swisscom subscribers connected to an Alcatel S12 exchange; this decision was taken because introducing pre-selection on these exchanges requires software upgrading followed by a test phase. Secondly, carrier pre-selection for international calls for mobile telephony is provisionally suspended and will be imposed according to the evolution of the technology and international harmonisation.

3.2.2 Numbering plans

A liberalised telecommunications market presupposes that a body, independent of the operators, allocates the addressing resources which are indispensable to setting up any call. The commission adopts numbering plans, the application of which is then managed by OFCOM.

The requirements imposed on a numbering plan are the allocation of number ranges to defined types of services, a structure which is easily comprehensible to users with numbers which indicate specific services, sufficient reserves to allow the integration of new products and services whilst offering the same framework in terms of conditions to all telecommunications service providers.

On 9 December 1997, the Commission approved the following numbering plans:

- numbering plan F.69 which contains the numbers of the Swiss telex network,

-
- numbering plan X.121 which contains the numbers for data transmission using packet switching technology,
 - numbering plan E.164 / 1998 which contains the numbers destined for telephony services,
 - numbering plan E.164 / 2001, which will replace the preceding one; it is set to enter into force on 12 April 2001.

We shall go into the latter in more detail, since this is the plan which has aroused the greatest controversy.

The origins of the plan date back to 1995, when Telecom PTT prepared a new numbering plan as the result of a threatened shortage of numbers in the Zurich region. This plan was rejected by the partners who were consulted because of the way it would have discriminated against new service providers. In 1996, OFCOM, now responsible for numbering plans, prepared a new draft which was approved by the interested parties. This plan was then published. The date for its introduction, 12 April 2001, was made public in May 1997, again in agreement with the partners concerned. In December 1997, the Commission approved the numbering plan and confirmed the date of entry into force of the plan. It returned to the question in August 1998, following a request for re-examination from Swisscom, with a view to delaying the introduction date for the new plan, and once again confirmed its decision.

The characteristics of this new plan, which comply with international developments in this area, are as follows: establishing uniform number lengths of 9 digits (without the 0) regardless of the geographical location of the desired connection, the requested telecommunications service and provider, plus disappearance of the area codes.

The origins of the reasons for this new numbering system lie in the situation of Zurich, where practically all the number blocks which can be allocated without limitation to new operators have already been assigned, or will be by 2001. Moreover, even today some operators in this region are experiencing a degree of discrimination: they have to be content with fewer adjacent blocks of numbers

than the former monopoly and their exchanges have to analyse more digits to route calls to their destination. In addition to certain specific technical factors which result in the fact that certain blocks of numbers, even if they are only partially occupied, cannot be allocated to new service providers, a numbering plan must include reserves in order to be able to cope with any development both in the growth of the operators' and users' market and in the technology (e.g. Internet telephony, new wireless local area networks, etc.).

In its decision, the Commission took into consideration the flexibility and capacity reserves which this new plan guarantees and which alone makes it possible, under reasonable conditions, to offer the geographical number portability envisaged in ComCom's decree. It will be able to cope with the growing demand for numbers and the development of new services. It also gives new operators the possibility of offering their services without fearing a distortion in competition due to a lack of available numbers.

3.2.3 National frequency allocation plan

As with numbering plans, the national frequency allocation plan is adopted by the Commission and subsequently managed by OFCOM.

The plan presents the radiocommunications frequencies allocated to different telecommunications applications and gives an overall view of the use of the frequency spectrum.

The Commission approved the plan on 9 December 1997.

3.2.4 Mobile telephony

On 22 October 1996, within the framework of the parliamentary discussions on the revision of the law on telecommunications, the Transport and Telecommunications Commission of the National Council (CTT-N) submitted a

proposal¹⁸ inviting the Federal Council to take measures which, at the time of coming into force of the LTC, would make it possible to grant at least a second GSM-type mobile telephony licence. CTT-N, conscious of the time required to prepare a tender for a mobile telephony licence, wished to see liberalisation implemented as quickly as possible in the mobile telephony sector. To this end, it decided to forge ahead, in the hope that at least one additional operator would be able to enter the market within the shortest possible time. Following this parliamentary intervention, OFCOM was entrusted with the preparatory work.

With its decision of 17 November 1997, a month and a half after its nomination, the Commission published an invitation to tender for two national mobile cellular telephony licences using the GSM 900 and DCS 1800 frequencies. This tender was immediately communicated to the press and published on the Internet. On 23 December 1997, it was also published in the Federal Bulletin.

The situation at that time was as follows: By virtue of article 66 of the LTC, Swisscom held a licence for a national mobile telephony licence for a period of 10 years. It received one third of the spectrum frequencies in the 900 MHz band and one quarter in the 1800 MHz band. On top of this, it received, on a provisional basis, a further third of the 900 MHz frequencies to continue to provide the “Natel C” analogue service. The frequency bands envisaged for the two new licences had to take into account the geopolitical aspects which govern frequencies. These include the equal sharing of frequencies between countries within a radius of 15 kilometres from their borders. This affects in particular the agglomerations of Geneva, Lausanne, Zurich and above all Basle, where frequencies are shared by three countries. Furthermore, the frequencies occupied by Natel C had to be taken into account until the end of the year 2000 and high-performance systems had to be guaranteed throughout the country.

In consideration of these various factors, the Commission decided that the first licence would receive the same frequency shares as the Swisscom GSM

¹⁸ 96.3538 Postulate of CTT-CN. Second GSM network. This postulate was adopted by the National Council on 11 December 1996

licence, whilst the second would be limited to the 1800 MHz band, but would have at its disposal half of the spectrum currently available.

The Commission took the decision to award both licences on the basis of a “beauty contest” (specified criteria) rather than an auction; this is authorised by the decree on telecommunications services. It selected five criteria, giving the same weighting to each:

- 1.) *the capability to provide services*, i.e. providing proof that the applicant is able to implement the technical and commercial planning aimed at complying with the provisions of the licence (project management, resources, guaranteed finance, sites for antennas, etc...)
- 2.) *the technical concept and implementation* is used to examine how the candidate will, on the technical side, conform to the conditions of the licence (e.g. stipulations in terms of electromagnetic compatibility, arrangements relating to interference in border zones, how it will guarantee interworking and interconnection, emergency call services, etc.)
- 3.) *the business plan and services plan*: the candidate must submit a business plan for the period from 1998 to 2008, supplying an estimate of the commercial value obtained from the licence and the point in time at which it expects to break even. In addition, it must indicate the target groups it is aiming at and the potential market, with an indication of the expected number of users. The marketing concept must also be presented, together with an investment and finance plan.
- 4.) *the service obligation*: this criterion requires the company to indicate precisely the resident population it expects to serve and by when, it being understood that these indications will become binding in the event that it obtains the licence.
- 5.) *innovation*: the company is invited to highlight the innovative aspects of its bid and of the services it intends to provide, and must also express its opinion on the development of mobile telephony from the technical, social and economic viewpoints.

These five criteria were sub-divided into sub-criteria in order to allow an assessment of the candidates which was as detailed as possible.

Interested companies were invited to submit their bid by 13 February 1998 at the latest.

By this date, five bids had been received for each of the two licences. These were from for::tel SA, diAx mobile, Orange Communications SA, Sunrise and Unlimitel for the first licence and the first four plus Cheapernet for the second.

After examining the dossiers and interviewing the selected candidates as part of the evaluation carried out by OFCOM, with the help of independent experts¹⁹, the Commission took its decision on 17 April 1998. It awarded the first licence to diAx SA and the second to Orange Communications SA.

At the end of June, Sunrise initiated an action under administrative law in the Federal Court, which granted suspensive power on a provisional basis.

Following a request from the two licence holders, on 8 September 1998 the Federal Court decided definitively not to grant suspensive power. This enabled the licence holders to enjoy the rights and duties associated with the licences and therefore allowed them to continue their work in setting up the respective networks without prejudice to the final decision of the Federal Court. This means, in other words, that the two licence holders can make use of their licence and, consequently, build their network and commission it at their own risk.

The problematic revealed by the discussion on mobile telephone antennas and non-ionising radiation (commonly known as “electric smog”) is preoccupying the Commission. This preoccupation relates both to the type and scope of the opposition to antennas and to the legal insecurity which currently affects the authorities responsible for issuing construction permits. This situation creates a considerable obstacle to the establishment of the networks for which the Commission has granted licences.

The new Law on Telecommunications clearly provides for competition which implies the creation of parallel networks, in so far as the technical characteristics

¹⁹ These companies were Infras and quotient

of the licences makes it necessary to erect antennas at different distances. Moreover, the current discussion may well have consequences which are in the interest neither of public health nor protection of the landscape. Indeed, if antennas are concentrated on the same masts, it immediately becomes essential to increase their height. In addition, the greater the number of active channels on an antenna, the higher the non-ionising radiation. Also, opposition to antennas favours a reduction in the number of antennas and consequently larger cells. By increasing the distance between antennas, higher power is required not only for the antenna but also for the mobile telephone, which leads to an increase in radiation.

Citizens' concerns regarding electromagnetic radiation must be taken seriously. The Commission is positively considering the scientific studies on their effects on the human organism in the medium and long term; these are being conducted by various institutions at the international level. On the other hand, it notes that the massive and systematic opposition to antennas has counter-productive effects and additionally hampers the development of competition by penalising, above all, those new operators who are just setting up their networks.

For these reasons, the Commission is eagerly awaiting the Federal Council's decree on protection from non-ionising radiation. Whilst guaranteeing compliance with international recommendations, or even stricter limits, it will allow communal or cantonal authorities responsible for issuing construction permits to finally take their decisions on precise legal grounds.

3.2.5 Other radiofrequency licences

During 1998, the Commission prepared itself for the forthcoming licences which it will have to grant over the next two years. Here, briefly, are the subjects:

- UMTS (*Universal Mobile Telecommunications System*) is the third-generation mobile telephony system which will allow mobile telephones to be used not only for voice communication but also to use multimedia services (high-speed data transmission). In February 1998, the Commission asked OFCOM to submit to it an analysis of the situation. After examining this analysis, it asked OFCOM to

continue with preparatory work for the tenders (freeing up frequencies, co-ordination with other countries, preparation of the invitations to tender, etc...). The decisions on the number of licences, the award procedure and the licence conditions should be taken by the Commission in the course of 1999. At the current planning stage, these licences should therefore be allocated during the year 2000, and will provisionally come into operation in 2002.

- *Mobile trunked digital radiocommunications networks*: These networks are professional mobile radiocommunications (PMR) systems: bi-directional communications networks for voice and data transmission for professional purposes. Their use may either be limited to closed user groups and therefore not accessible to the public (Private (professional) Mobile Radio, PMR) or linked to the public telephone network and therefore open to anyone who wishes to share the same infrastructure. These networks have been developed to cover users' requirements at the operational level, with a view to guaranteeing the efficiency and security of their transmissions. Hence they are well suited to groups of users such as transport companies and security services with requirements for systems with high transmission speeds, which allow group calls, cope with difficult conditions and offer excellent security.

A number of frequencies reserved for this type of application are partially available in Switzerland for these networks for civil applications. These are, on the one hand, the 410 - 430 MHz frequency band. Since, for the most part, this band is occupied by other applications it will not be able to implement a system based on TETRA or TETRAPOL standards. For this band, the Commission has asked OFCOM to undertake an assessment of the requirements and to submit a proposal on the allocation of licences or, if the number of interested parties exceeds the number of licences available, on a public invitation to tender. In the latter case, the Commission has decided to proceed on an auction basis.

On the other hand, the frequencies involved are 870 - 876 MHz and 915 - 921 MHz, which are suitable for implementing such systems based on TETRA or TETRAPOL standards. For these frequency bands, the Commission has asked OFCOM to evaluate the requirements, even though it is aware that equipment is

not available for the application. The Commission's decisions are expected in the course of 1999.

3.2.6. Interconnection

Interconnection is the process which makes it possible to link telecommunications networks together and guarantees consumer access to the services of operators other than those with whom they are registered for connection. It therefore guarantees that new operators who do not have a complete network can still offer services and reach subscribers, particularly on the final section (the "last mile"). The Law on Telecommunications²⁰ envisages that the telecommunications service providers who occupy a dominant position in the market are obliged to guarantee interconnection for other operators, on the basis of transparent, cost-based prices. By imposing this stipulation, the legislators demonstrated the importance they attached to this procedure, the aim of which, in the pioneering phase of telecommunications market liberalisation, is to promote effective competition and offer new operators the chance of acquiring a critical minimum share of the market.

The Law states that the supplier who is obliged to offer interconnection and the party who requires it negotiate interconnection conditions for three months and that, if they have not reached an agreement within this period, they may then involve ComCom. If one of the parties so requests, or on its own initiative, the Commission may take provisional measures to guarantee interconnection during the procedure. When the office has completed its examination, it organises a conciliation procedure. If this fails, the Commission then decides on the interconnection conditions and lays down the prices.

Since April 1998, five requests have been lodged with ComCom. These are: two requests from fixed network operators against Swisscom, one telephony operator against Swisscom, one operator using leased lines and one Internet service provider against a cable distributor.

On 29 April 1998, ComCom decided to take provisional measures in favour of Sunrise, whose provisional contract with Swisscom was to expire one day later. Sunrise's application had two aspects: on the one hand it wanted ComCom to guarantee the continuation of the interconnection services it had defined contractually for the period from January until the end of April, and on the other hand it wanted these services at prices lower than those offered by Swisscom. ComCom granted Sunrise's first request to oblige Swisscom to continue to provide the interconnection services which it was providing in the first four months of the year. It partially granted the second request, by fixing prices 4 to 25% lower than those demanded by Swisscom, depending on the services. It should be pointed out that these prices were higher than those demanded by Sunrise; ComCom based its decision on a study provided in December 1997 by the consultants OVUM²¹ who used as a reference the average interconnection values practised in Denmark, France, the Netherlands, Spain, Sweden, Great Britain and the United States. To these prices, ComCom added 10% to take into consideration the "charges deriving from the conditions of the former law (...)"^{21bis}. The rate thus adopted falls between that claimed by Sunrise and that demanded by Swisscom; its effect is to allow Sunrise to offer competitive prices and to avoid Swisscom suffering major prejudice.

The implementation of the procedure highlighted the complexity of the problems both in terms of the subject to be dealt with and the formal aspects of the procedure itself. Thus on 7 August ComCom had to take a decision on the right to consult documents, following an action from Sunrise on 14 July 1998, the purpose of which was to consult documents on file. In fact, Sunrise established that in order to be able to take a position on the principal question, it was essential for it to be able to access documents classified as confidential by Swisscom. The Commission was obliged to undertake a judgement of interests which was particularly delicate, since it involved both the right to consult documents and the right to protect business secrets. Swisscom defended its

²⁰ RS 784.10, art. 11

²¹ Ovum, *Interconnect in Switzerland. A report to Ofcom*, December 1997. This study is available on OFCOM's Internet site.

interest in protecting its business secrets, whilst for its part Sunrise claimed that a refusal to allow access to the files prevented it from taking a substantial position on Swisscom's claims.

The two companies are in direct competition, they offer potentially the same services and target the same customers. The basis for calculating the provision of these services consequently involves obvious commercial secrets.

The Commission decided to give Sunrise access to certain documents considered as confidential by Swisscom, apart from sections which it decided to conceal, since they included business secrets for which the consideration of protection was paramount.

Swisscom attacked this decision in the Federal Court. By the end of 1998, the Court had not announced its decision²².

The last important decision taken by the Commission in these interconnection procedures for 1998 was dated 6 November and concerns diAx mobile and Swisscom. To remind the reader: diAx was granted the first mobile telephony licence on 17 April 1998 with the obligation to cover 59.3% of the population and 18.9% of the area of the country by the end of November 1998. On 26 October, diAx mobile submitted a request to ComCom to oblige Swisscom to provide interconnection on the basis of super-provisional measures. On 4 November, Swisscom in turn submitted a request to ComCom, asking it to take super-provisional measures also in order to guarantee interconnection and its non-monetary conditions.

In view of diAx's obligations deriving from the mobile telephony licence, and considering that interconnection constitutes a condition *sine qua non* of the entry of diAx onto the market, that this market is extremely dynamic (at the time Swisscom was announcing 40,000 new subscribers per month) and in view of

^{21bis} Consideration of these charges is provided for by article 65, para. 1, let. e OST

²² It should be noted here that when this report was produced, the conciliation procedure took place in January 1999 for Sunrise vs. Swisscom and in February 1999 for diAx vs. Swisscom, and that these two procedures resulted in an agreement between the parties. Consequently, the Federal Court has put this matter on file.

the urgency of the situation, the Commission announced super-provisional measures. The decision on the price of interconnection was deferred, since it was not part of the request for super-provisional measures.

The procedures were still outstanding at the end of 1998²³.

3.3 An assessment of ComCom

3.3.1 Structural aspect

From the structural viewpoint, the LTC assigns to the Federal Council competencies limited to the issuing of decrees, whilst the Law on radio and television confers upon it the full competencies of the executive authority. The LTC gives a large part of the executive competencies to ComCom, as an independent authority. OFCOM is dependent upon these two authorities, which are firstly the DETEC (actually the Federal Council) for all issues related to radio and television and for all matters linked to the law-making process in the telecommunications field, and secondly ComCom for all executive tasks in that field. ComCom may delegate tasks to, and impose directives on, OFCOM. This is a solution which has its roots in Swiss pragmatism and was chosen deliberately by the legislators.

The secretariat of ComCom, provided for in the LTC, has been organised without recourse to technical and legal specialists, who are, however, present among the members of the Commission itself. The main preoccupation was to avoid the creation of a bureaucratic apparatus parallel to that of OFCOM.

The Commission has been very aware throughout of the delicate aspects of the legal solution, which requires quite particular and constant attention on the part of the different authorities involved. The experience of the first fifteen months shows

that this distribution of roles has worked and has made it possible to guarantee respect for the respective competencies of each of the authorities.

3.3.2 Radiofrequency licences

The development of Swisscom mobile's activity under the monopoly system, its success and consequent acquisition of a large share of the market, together with the award of a licence by the LTC (article 66) created a predetermined initial situation.

In fact, the law guarantees Swisscom a licence without it having to conform to a price established by auction. The result of this *de facto* situation is that the market cannot operate according to the theory.

Under these conditions, the new operators entered the market with unfavourable conditions compared with the operator which was already active. If, in addition, they had to pay an auction price, which might well have amounted to tens or even hundreds of millions of francs, before even starting any commercial activity, the situation could have become especially delicate and damaging to fair competition, from which consumers would have been the first to suffer. It was on the basis of these considerations that ComCom decided to organise a competition, with evaluation on the basis of criteria defined in the invitation to tender, rather than an auction.

For the new cases of licence awards which ComCom is preparing (see 3.2.5), the situation appears completely different. These are new areas of activity, where no operator is yet active, and as a result all the licence holders set out under the same initial conditions and can therefore be invited to pay an auction price.

ComCom is therefore in the process of preparing to apply different types of auction.

²³ see note 22

All the same, it must be borne in mind that the two systems of award have a series of advantages and disadvantages and, in particular, that the auction system does not necessarily exclude recourse to the Federal Court.

3.3.3 Interconnection

The experience of the first year of application of the legal provisions on interconnection (article 11) and leased lines (article 12, where the applicable procedure is similar to that of article 11) leads to the conclusion that the implementation of the procedure for fixing interconnection prices is very prolonged in cases where the parties cannot arrive at an agreement. This state of affairs obliges the new operators to produce their business plan without this important element, the price of interconnection, in order to determine their rates and their financial planning.

Thus, for example, if there had been no agreement in the conciliation procedures in January and February 1999, the interconnection prices disputed in early April 1998 would have been the subject of a definitive decision during the spring of 1999. If, in addition, one of the parties had resorted to action in the Federal Court, the 1998 interconnection prices would in all probability not have been finally fixed before the year 2000; this would have resulted in a degree of uncertainty in the Swiss telecoms market - hardly propitious to the development of effective competition. When the legislators gave priority to negotiation between operators and only afterwards provided for recourse to authority - this is the opposite of what happens in other countries - they probably did not envisage what occurred in this delicate transitory phase from a monopoly to an open market.

If a new culture of negotiation were to establish itself only very slowly, the negative consequence on market development would become obvious.

3.3.4 Transparency vs. commercial secrecy

Both interconnection procedures and the procedures of actions against the mobile telephone licences have highlighted another problem linked to the regulator's activities.

This is the antagonism between the requirement for transparency in the processing of dossiers, promoted quite reasonably in the name of the public's right to know (or the right of the opposing party) and the requirement to respect commercial secrecy, put forward by the company under attack.

As was demonstrated in the chapter on interconnection (3.2.6), this conflict is inherent in the very nature of these negotiations and could not be eliminated by opting for one or the other. Only the credibility of the regulatory bodies (ComCom and OFCOM) will make it possible to find a viable equilibrium, which in particular avoids the route of legal action becoming a tool to harm a competitor.

4. LIBERALISATION: ASSESSMENT OF THE FIRST YEAR

4.1 Telecommunications services

On 31 December 1998, 171 companies were providing telecommunications services in Switzerland either simply by being registered (103), or by licence (55) or by virtue of a mobile licence (13).

Of these companies, 66 offered telephony services, 32 telephony via interconnection, and 16 offered telephony via their own (national or regional) physical network. In addition, 126 companies offered Internet access services and 44 a data transmission service.

In the area of telecommunications prices, even though it is difficult to compare operators' tariffs, it is, however, possible to discern a generalised drop in prices. In the area of local telephony the falls in prices have been less marked whereas they are greatest in international telephony. In particular, this is explained by the

fact that competition is much stronger in the international area; in the local area in late 1998, only Sunrise offered an alternative to Swisscom.

After comparing prices, it is notable that the average price difference of the new operators in the local and national areas is between 0 and -50% in comparison with Swisscom rates and -20 to -50% in the international area.

Taking the retail price index into consideration, there was a fall in its telecommunications component of approximately 13% for the period from August 1997 to December 1998.

Despite some delays, competition in the mobile telephony sector began at the end of the year.

For the end user, the diversity of services on offer (in the form of different packages and linked to multiple discount schemes) makes the market less transparent and choice more difficult (above all in relation to the situation when there was no choice!). Consumer organisations are working hard to untangle the sometimes impenetrable maze and are doing an excellent job.

Investment has reached a considerable level, increasing the turnover of the telecoms sector (industry plus service providers) by some 13%, to reach approximately 19 billion Swiss francs in 1998.

An increase in employment of approximately 2.5% has occurred, but it is not possible to forecast whether this trend will continue or even be maintained. The labour market in telecommunications, be it in the technical or commercial sectors, has been exhausted and this is causing companies to take on foreign personnel.

In any case, the Swiss telecommunications market has a considerable attraction, also for foreign operators.

In the work to put the new legislation in place, the preoccupation to guarantee a quality service at non-discriminatory prices in the peripheral and mountainous regions was a major one.

Hence the measures provided in articles 14 - 21 LTC which govern universal service, in particular articles 16 and 17 which, on the one hand, define the universal service provisions and the capability of the Federal Council to adapt them regularly and, on the other hand, lay down a policy for quality and prices (defined quality and ceiling prices).

After the first twelve months of liberalisation of the market, a very positive initial assessment can be drawn up. The fears of certain people, with regard to a possible deterioration in telecommunications in these regions, at the level either of services or of tariffs, have not been realised to date and it is to be hoped that the situation will remain as satisfactory in the years to come.

4.3 Interconnection

At the end of 1998, companies had signed 26 interconnection contracts with Swisscom and 6 contracts had been concluded with other companies. This is the topic which has occupied centre stage, especially the debates within the sector, and which has caused a certain uneasiness. At the end of 1998, there was no reason to be optimistic about the consequences of the procedure in progress, particularly in the rather special area of leased lines. In the fixed network sector at least, OFCOM's work made it possible to achieve some very interesting results by early 1999 and this nurtures the hope that the culture of self-regulation is gradually permeating the operators in the market.

5. PERSPECTIVES

The topic of interconnection will continue to occupy the stage for a long time to come, above all since in early 2000 a new system of calculation is envisaged by

the Federal Council decree and negotiations will therefore have to begin in 1999. It is quite possible that after the experience acquired (in Switzerland and elsewhere), new measures will be adopted in the direction of “unbundling” the local loop.

If the 170 or so telecoms service providers bear witness to the great interest in the Swiss market, the size of this market and the developments in progress worldwide will lead to a concentration of forces, throughout the range of possibilities which the market exhibits (joint ventures, based on the convergence of services or expansion of the market, purchases, mergers, withdrawals and failures). Some of these events will unfold outside Switzerland but will also have their effects on the national market.

Although the sector does not fall within ComCom's area of competence, as a market regulatory body, one cannot but underline the progress made in Switzerland in the telecommunications sector and above all how many possibilities are opening up and demanding support - in the interest of the country - in different areas (basic, professional and academic training; scientific research; technological development; transfer and use of know-how, e.g. by the formation of new companies; culture; politics, etc.).

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For the Federal Communications Commission

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