

EU Regulations for Internet Pricing

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Abstract

This paper introduces the principles of EU regulation and describes the most relevant directives. The regulative situation in 2002 is explored and the effects of the new regulatory framework and regulations on Internet pricing are observed.

Compared to fixed telephone legislation the Internet pricing is still a new page in the EU regulation scheme. Modem connections (local loop) and leased lines are the only services where the end-user price is directly governed. In other areas, the pricing control is conducted by imposing interconnection and wholesale requirements to operators with significant market power (SMP). However, these regulations do not yet apply to mobile data access services.

Keywords: EU, wholesale, Internet, pricing

1 Introduction

The Internet has grown to be one of the most important communication networks of today, with such success nobody could have even imagined 10 years ago. In the early 90's the Internet was mostly used in the academic world and there was no need to set any specific regulations concerning Internet pricing. However, the situation has changed and legislation has gradually started to apply also to the Internet access. For example, the new EU regulatory framework concerns modem connections as part of the universal service selection.

The Universal Service Directive is the only regulation where end-user Internet pricing is directly regulated and the common way to handle pricing issues is through introducing competition by interconnection obligations and price caps. Therefore, regulation of interconnection charges is essential for competition in both fixed and mobile markets.

The principles of EU regulation and the most relevant EU directives are introduced in Chapter 2. Chapter 3 describes the current situation in EU countries and the implications of the new regulatory framework are studied in Chapter 4. Chapter 5 contains conclusions and observations.

2 EU Regulations

This chapter introduces the most relevant EU regulations concerning Internet pricing. The view is futuristic and only the directives belonging to the new regulatory framework are studied. The current regulations are briefly covered in Chapter 3.

2.1 Introduction to EU regulation

One of the goals of the European Commission is to harmonise the legislation in EU countries. The tools to make this happen are the directives, regulations and decisions of the European Parliament and of the Council and Commission. These bodies can also give resolutions, recommendations and opinions that are not binding.

Regulations are binding and directly applicable in all EU countries. Directives are to be adapted to national legislation within certain time frame and decisions obligate the named member state governments or private persons.

In some areas directives impose only the minimum level of regulation that has to be applied and the EU member states can make additional national requirements. However, in some areas, including competition legislation, directives impose also the maximum legislation that can be set. This applies to Internet pricing.

Within the new regulatory framework, the main directives concerning electronic communication networks are the Framework Directive [1], Access Directive [2], Authorisation Directive, Universal Service Directive [3] and Directive 97/66/EC concerning the processing of personal data and the protection of privacy in the telecommunications sector.

As regards Internet pricing the relevant directives are Framework, Access and Universal Service directives and Commission recommendation about significant market definitions [4]. All EU member states have to adopt and publish these directives by 24 July 2003 at the latest and apply related measures from 25 July 2003. However, due to political reasons, adoption of

these directives will be delayed in many EU countries [5].

2.2 Framework Directive

The Framework Directive (Directive 2002/21/EC on common regulatory framework for the electronic communications networks and services) “establishes a harmonised framework for the regulation of electronic communications services, electronic communications networks, associated facilities and associated services” [1].

The Framework Directive defines the tasks of national regulatory authorities (NRAs) and set of procedures, from which the definition of the significant market power (SMP) is by far the most important when considering Internet pricing.

According to Article 14 of this directive, the company has a significant market power if, “either individually or jointly with others, it enjoys the position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers” [1].

The SMP definition process goes as follows:

1. The Commission defines the relevant product and service markets, explored more deeply in Section 2.5.
2. The national regulatory authority analyses these relevant markets to find out if they are efficiently competitive.
3. Where the NRA finds that the market is not efficiently competitive, it shall identify the undertaking market power on that market and impose appropriate regulatory obligations to these companies.
4. If the market is efficiently competitive, no new obligations should be applied and the existing obligations should be withdrawn.

In addition to the procedure regarding significant market power, the Framework Directive also requires companies to separate their accounting and financial reports concerning public communication networks and public communication services.

2.3 Access Directive

Within the new regulatory framework, the Access Directive (Directive 2002/19/EC) “establishes rights and obligations for operators and for undertakings seeking interconnection and/or access to their

networks or associate facilities” [2]. According this directive, the operator has to provide interconnection with equivalent conditions to all parties.

According to Article 8 of this directive, national regulator may also set obligations for accounting separation in activities related to interconnection and/or access. Accounting separation may be required especially for the wholesale prices and internal transfer prices.

Also according to Article 8 of this directive, national regulators may impose obligations related to cost recovery and price control. These requirements may include obligation of cost orientation of prices and obligations concerning cost accounting systems. However, these obligations can be applied only where a market analysis indicates the lack of effective competitions.

The national regulatory authority has to ensure that if the use of some specific cost accounting system is mandated, the description of that cost accounting system has to be published. According to Article 13, all mandated cost recovery mechanisms and pricing methodology have to promote efficiency, sustainable competition and maximise user benefits.

2.4 Universal Service Directive

The idea behind the Universal Service Directive (2002/22/EC) [3] is to ensure the availability of publicly available electronic communication services of a good quality by the means of effective competition. This directive establishes the rights of end-users and corresponding obligations on undertakings.

The Universal Service Directive defines the minimum set of basic services to which all end-users have access with an affordable price, which is defined nationally taking the specific national conditions into account.

According this directive, NRAs can impose regulation in retail level, including e.g. tariff control. However, these actions can be taken only if NRA notices that wholesale measures have failed to ensure effective competition.

The Universal Service Directive ensures users a single narrowband PSTN connection at affordable price at a fixed location. The connection should be sufficient to support adequate data rates to an on-line service, such as the Internet. The required data rate is not specified, but the 56 kbit/s can be considered as a

preferable lower limit. In specific cases this directive enables NRA to require upgrades up to the level enjoyed by the majority of subscribers to those fixed locations, where current PSTN connections are clearly insufficient to support satisfactory Internet access.

The Universal Service Directive defines also obligations concerning the minimum set of offered leased lines. According to the directive, the SMP company prices have to be cost oriented and transparent also in this area.

2.5 Relevant product and service markets

Based on Article 15 of the Framework Directive, EU Commission has given the Recommendation on Relevant Product Markets [4] that defines the significant product and service markets for NRAs to be analysed. The recommendation divides markets to seven retail and eleven wholesale market categories, mostly related to fixed voice services and PSTN.

The market definition work is started by identifying retail market characteristics. After that, the relevant wholesale markets can be defined. EU Commission will review the need to update this recommendation by 30 June 2004 at the latest. The more detailed market descriptions are illustrated in the explanatory memorandum [6].

The relevant markets for Internet pricing are the following:

- Market 7 (retail): the minimum set of leased lines (up to the 2 Mbit/s)
- Market 11: wholesale unbundled access including metal loops and subloops for voice and broadband service offering
- Market 12: wholesale broadband access covering bitstream and other similar wholesale access services
- Market 13: wholesale terminating segment of leased lines
- Market 14: wholesale trunk segment of leased lines

The only market that has been defined in both retail and wholesale level is leased lines market (markets 7, 13 and 14). The retail market is defined due to the Universal Service Directive requirements. Market 11 defines the wholesale market for unbundled access including shared access, and market 12 defines the wholesale broadband access market. These two markets are the two most important when concerning

broadband Internet access. An interesting case, bitstream, is studied further in Section 4.1.

The mobile data service market, including also mobile Internet access, was evaluated in the Commission explanatory memorandum [6] and it was seen to contain too many uncertainties for Commission to be able to evaluate the substitutes correctly. Therefore, no retail or wholesale markets will be identified until more services are established in the mobile data market,

3 National Internet Pricing Regulation in Europe in 2002

The current Internet pricing related national interconnection legislation is based on the Interconnection Directive (97/33/EC) [7] and various Commission recommendations. The current telecommunications legislation framework is based on the Open Network Provision (ONP) Framework Directive (90/387/EEC) and directive 97/51/EC amending it. Leased lines are regulated by the Leased Lines Directive (92/44/EEC amended by 97/51/EC).

The ONP Interconnection Directive requires NRAs e.g. to ensure that SMP operators publish their fixed network reference interconnection offers (RIOs) and that these RIOs include a description where the interconnection offering is broken down into components according to market needs. In 11 EU countries these RIOs have to be explicitly approved by the corresponding NRA. In five EU countries the RIOs are not subject to any charge cap and the charges are subject only to an ex post control. In the UK, BT has to notice the charges and the regulator can use veto if needed. [8]

The fixed network operators have to use cost oriented interconnection charges. For mobile operators this applies only if the same company also holds a significant market position in the fixed interconnection market. In the fixed market there are also many other obligations, such as unbundling of interconnection charges and the use of suitable cost accounting system, that do not apply to mobile networks.

The current Interconnection Directive says that the "charges for interconnection shall follow the principles of transparency and cost orientation" [7]. Therefore, most EU countries have defined a cost accounting system (CAS) to be used. In Finland, no specific CAS has been made mandatory, but the

operators need an approval from the Ministry for their system.

Six EU countries are using systems based on Fully Distributed Cost (FDC), three countries are using Long Run Investment Costs (LRIC) based systems and four countries are using systems based on Long Run Average Incremental Cost (LRAIC). In the rest of the EU countries some hybrid solutions are used [8].

The Commission has suggested that the most appropriate approach for interconnection prices would be LRAIC [9], so it can be assumed that many EU member states will start using LRAIC in the near future. However, it has been argued that maybe LRAIC is not the best solution for all countries. Therefore there will be different CAS methodologies and parameters in different EU countries.

4 Implications on Internet pricing

According to the Universal Service Directive, NRAs can regulate the lower speed Internet access and leased line pricing at a retail level. All the other Internet access services are regulated at a wholesale level. Due to the separation on transmission and content regulation and non-existing mobile data access regulation, the only relevant area to be studied more deeply in this paper is the regulation of broadband Internet access pricing.

Broadband Internet access pricing is regulated via wholesale requirements. These requirements apply both to the physical access (local loop) and to more sophisticated bitstream and other similar retail services. This topic is covered in next section in more detail.

The current common price (equivalent conditions) and cost-orientation requirements and practises can also impose problems in some situations e.g., if the same incumbent operator operates the network in town and countryside around it, which is usually the case. If the incumbent is required to have same interconnection and wholesale prices in both areas, this may lead to a situation, where the price is too high in the town area and too small in the rural area. Competitors can then build their own network in the city and lease incumbent's network in countryside and gain this way a competitive advantage.

As a conclusion, the current regulations have balanced the price differences and lowered the interconnection and wholesale prices, but the impact

on the broadband Internet access prices for end users has been much lower than in voice services.

Author's opinion is that the new market definitions and related obligations may increase competition and truly lower the prices. In the mobile Internet access area, regulation has not directly affected the consumer prices, though the high licence fees may have some effect also for the pricing of these services.

4.1 Bitstream service

This section describes the bitstream service as it is currently seen by the Commission to help reader to understand, how the broadband Internet access markets are defined and how the pricing components are chosen. In fact, there seem to be different understanding and implementations of bitstream in EU and the topic is still under a hot discussion.

The problem arises from the fact that bitstream is a technical term and reselling is an economic term. Therefore, it is hard to make clear separation between bitstream and reselling. In this paper the latest Commission definition is used and it is the following:

Bit stream is a high speed bit stream access, where incumbent installs and manages the equipment. The difference compared to the reselling is that in bitstream the beneficiary has a possibility to alter the technical parameters of the end-user service. [10]

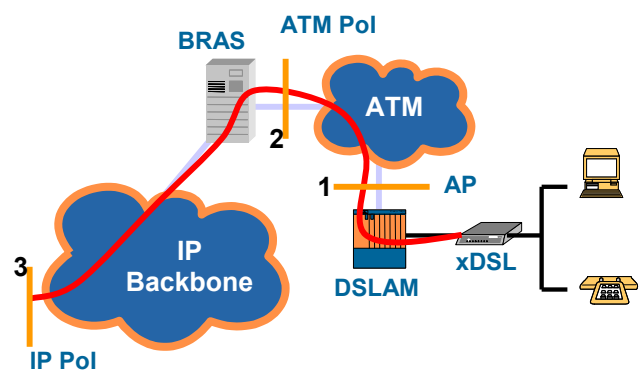


Figure 1: An example of bitstream access arrangements (ADSL)

There are three options to implement this service as presented in Figure 1. In the first option the bit stream is handled to beneficiary after DSLAM (access point, AP). In this case the modified parameter is a chosen bit rate, e.g. 64/256 kbit/s. The second option is that the incumbent provides also the

asynchronous transfer mode (ATM) backhaul and then the modified parameter could for example be the ATM overbooking factor (the reserved capacity for the private virtual circuit). In the third option the interconnection is done in IP level and the reason why the service is put on bitstream category is the possibility to negotiate different quality of service and bit rate from network operator.

5 Conclusions

Retail prices are regulated only within the scope of the Universal Service Directive. The included services are modem capable connection and leased lines. All other Internet access services are regulated merely by wholesale obligations and requirements. Concerning broadband access, the directive defines two separate wholesale markets: unbundled access and bitstream services.

Directives impose the maximum regulation in the electronic communications market, including Internet access, where any pricing regulations are allowed only if the market is not fully competitive. In this case the national regulatory authority (NRA) has to define the significant market power operators and set them some selection of listed obligations. If the market becomes competitive, the NRA has to remove the obligations and all new obligations are prohibited.

As presented in this study the fixed network services are under a much heavier regulation than their mobile counter parts. In fact the current market definitions and regulations do not impose any price regulation on mobile Internet access, as presented in Section 2.5.

Author's opinion is that this situation is likely to change in the future after the mass-market introduction of suitable "high" speed services, such as 3G and WLAN access services. This may happen as soon as in June 2004, when the Commission next time evaluates their market definitions.

6 References

[1] Directive 2002/21/EC of the European parliament and council on common regulatory framework for the electronic communications networks and services, Framework Directive, 7.3.2002

[2] Directive 2002/21/EC of the European parliament and council on access to, and interconnection of, electronic networks and associate facilities, Access Directive, 7.3.2002

[3] Directive 2002/22/EC of the European parliament and of the council on universal service and users' rights relating to electronic communication networks and services, Universal Service Directive, 7.3.2002

[4] Commission recommendation of 11/02/2003 On Relevant Product and Service Markets, 11.2.2003

[5] Cullen International, Telecommunications: The Cross-Country Analysis, 21.2.2003

[6] Commission recommendation of 11/02/2003 On Relevant Product and Service Markets, explanatory memorandum, 11.2.2003

[7] Directive 97/33/EC of the European Parliament and of the Council of 30 June 1997 on interconnection in Telecommunications with regard to ensuring universal service and interoperability through application of the principles of Open Network Provision (ONP), 30.6.1997

[8] Cullen International, Telecommunications: The Cross-Country Analysis, 1.9.2002

[9] Commission recommendation of 8 January 1998 on interconnection in a liberalised telecommunications market (98/195/EC), 8.1.1998

[10] Independent Regulatory Group (IRG), SMP-WG working paper: On Bitstreaming, Request for further clarification, 28.2.2003