

Defining Relevant Markets for Leased Lines: the Interface with Local Loop Unbundling

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Paper presented to the EC Sector Inquiry on the Competitive Provision of Leased Lines in the EU Telecommunication markets

Brussels 22 September 2000

Introduction

My aim today is consider some of the issues raised by the Sector Inquiry into the provision of leased. Whilst all the speaker share this common goal my aim is to explore the issues of leased line provision in the context of the rapid unfolding policy on local loop unbundling (LLU). My argument is that there is a clear relationship between the market conditions that surround the provision of leased lines and the implementation of LLU. Without understanding this relationship only a partial analysis is possible of the leased line market.

Using LLU as my reference point the *markets* for the competitive provision of leased lines look markedly different than when taking a narrow (traditional?) view of the leased line market. From the perspective of customers the issue is one of the *provision of bandwidth*, customers are indifferent to the technical solution used by their supplier. It is important to remember that the leased line market has evolved as a particular and specific response to the provision of specialised services in the context of a PSTN network. In such a network the only choice for consumers to acquire a service other than the POTS

(the telecommunications industry formulation of the black model T ford!) was to acquire a leased line. Thus the basic tenet of my argument is that the sector inquiry has to be fully cognisant with developments in terms of LLU in order to ensure *effective competition* in the market for the provision of leased lines.

The comments in this paper are particularly pertinent to the provision of leased lines up to and including 2 Mbps. This limitation of up to and including 2 Mbps is inclusive, the mass of the leased line market is accommodated within these speeds. Thus, for example, evidence from the UK shows that 86% of leased lines and 53% of leased lines revenues were accounted for by lines up to 2 Mbps. Lines operating at 2 Mbps accounted for 13.5% of the total number of leased lines and 41% of total revenue¹.

My comments are intended to apply necessarily to the supply of leased lines at higher speeds. Also in focusing on the demand for bandwidth up to 2 Mbps and the provision of such capacity via xDSL technologies means that the geographic markets are inclusive. xDSL technologies run over the existing metallic local loop infrastructure and therefore, in principle, bring the possibility of high bandwidth access to almost all existing consumers of PSTN. As such resonate with the geographical market definition that was implicit in the Lisbon Council of Ministers declaration on *eEurope*, “the aim is to bring everyone in Europe – every citizen, every school, every company – on line as quickly as possible”. xDSL technologies, operating up to 2 Mbps are already capable of satisfying this *eEurope* objective.

What is LLU?

In this presentation I am making a number of working assumptions about what is meant by LLU. The key working assumptions I am making are;

- The focus is on full copper local loop unbundling, that is access to metallic path
- LLU provides both asymmetric and symmetric services at data rates up to 2 Mbps
- As a rule of thumb the xDSL service range is up to 4.5 kms line length from the MDF

¹ Oftel (2000) *National Leased Lines: Effective competition review and policy options*, p.15

- Access seekers have fair and non-discriminatory access to necessary and related services, e.g. to co-location and back haul capacity if required.

The Sector Inquiry

The Sector Inquiry in its focus on leased lines and *not* the market for bandwidth draws a number of conclusions:

- Competition is growing in certain markets, competition is powerful at the retail level as demonstrated by discounts but the fairness of such schemes is questionable.

From a LLU perspective one could argue that competition is widespread (or will be from the 31st December 2000). Wholesale prices for LLU are an order of magnitude lower than for leased lines; at the wholesale level there is an emerging norm across EU member states of between 10-13 euros per month per loop.

- Demand is growing and users are sophisticated.

The former is clearly the case, the latter is increasingly questionable. Recent evidence² shows that 12% of firms with 3-15 employees have dedicated Internet access, the relevant figures for firms with 16-30 employees and 31-50 employees are, respectively 15% and 22%. These small firms are neither necessarily sophisticated users, nor willing to invest in new skills and staff to support advanced high bandwidth technologies.

- The sector inquiry focuses on the growth of output and highlights wireless local loops

Clearly such a view does not reflect the dramatic impact that LLU is having in terms of providing customers with access to bandwidth.

² The Gallup survey undertaken for A/1 DG Information Society, European Commission in 1999, summaries of which are available via the ISPO website

- Product market definitions focus on the segments of short distance, long distance varied by bandwidth. The geographic markets are domestic (metropolitan/rest of the country) and, perhaps, international.

LLU will bring into question these product markets, especially distance and at speeds up to and including 2 Mbps. In particular LLU will simplify the markets for bandwidth (in terms of the number of different service speeds) and erode the boundary between national and local markets.

The Sector Inquiry has its foundations set in the concern that effective competition does not exist in the market for the provision of leased lines. The hypothesis is that this market does not appear to work in terms of processes of rivalry or absence of restraints or in terms of pricing behaviour. The information collected through the survey has allowed some tentative conclusions to be drawn but clearly there is a debate as to the next steps. Two fundamental questions still need to be addressed, namely (i) are the issues surrounding the provision of leased lines institutional or about the implementation of competition law and, (ii) are the issues transitory or structural.

At a fundamental level the question needs to be asked as to whether the absences of effective competition in a particular market needs to be addressed at the institutional level or is it one solely articulated in terms of effectiveness of the price signals and competition policy. In terms of the provision of leased lines this fundamental question needs further work. It is not clear from the Sector Inquiry as to whether the issues need to be addressed by the competition authorities and the failure of market mechanisms or whether further institutional reform needed. In other words, are the issues at stake ones that mean that investors are unable to gain sufficient information or have sufficient confidence in the market to warrant investing in new infrastructures? Such issues surrounding the ability of investors to judge the market are highly pertinent when sunk costs are high. Thus what appear to be simple competition issues may in fact be highly complex regulatory and/or institutional issues. This point is in part recognised in the sector inquiry where the correlation between number of suppliers and the level of prices is discussed. These types

of issues raise important questions over policy framework for LLU, its rapid, consistent implementation across the EU and the nature of information available to access seekers and the effectiveness of the incentive mechanisms. The key message, in my opinion, is that a well focused and consistent implementation of LLU will have profound implications for the provision of leased lines.

LLU Implementation

Working on the increasingly likely outcome that the Regulation on local loop unbundling comes into effect on 31st December what are the implications for the market for bandwidth and the leased market as currently structure? I would like to make the following observation;

- The retail market for leased lines will polarise around (i) 2 Mbps and less and (ii) greater than 2 mbps – this latter market will remain highly specialist and will centre on lines operating at speeds of 34 Mbps or more. Some firms will demand bandwidth greeter than 2 Mbps but will face the choice of either buying multiple LLU lines operating at 2 Mbps or migrating to 34 Mbps. The current highly fragmented leased line market (in terms of bandwidth) below 2Mbps will become simplified with fewer products.
- The local access segment of the leased line market for 2 Mbps or less will be provisioned by xDSL technologies on the existing infrastructure. Given this technological profile relatively high speed bandwidth can be delivered over the existing infrastructures to the vast majority of consumers.
- The concentration of retail traffic at DSLAMS or other well defined hand over points (such as a regional point of presence) will create a more focused market for the provision of leased lines in the wholesale market. Therefore competition in the retail market for bandwidth up to 2 Mbps will stimulate wholesale market at higher speeds which in turn will spin of into further competitive managed products in the retail market.
- The geographic roll out of LLU will initially be concentrated in the key cities (for both businesses and residential users). This roll out of LLU will mean that the geographic provision of high bandwidth services will be shaped by the complexities

of economic geography of each member state rather than the specific location of individual large customers

This description of the development of the market for bandwidth is contingent on the relatively painless roll out of xDSL technologies. Obviously when substantial revenues are at stake incumbent operators are going to necessarily remain passive. The potential of a real competitive threat to some 90% of leased line revenues (which in themselves may constitute up to 17% of total revenue) let alone revenue from other products such as ISDN, future income from data services (and ultimately telephony revenues) is going to produce a number of responses from the incumbent operators. These responses will vary and may well include the following;

- Delaying tactics, such as in the ambiguity or lack of precision over the qualification of the local loops thereby making it difficult for an Access Seeker to know with any degree of confidence whether or not an individual customer can be provided with xDSL technologies prior to placing a specific order.
- Innovative new services and prices on existing leased line products
- Innovative new services using higher bandwidth infrastructures thereby transferring the rent earned from infrastructure to higher order services.
- Constrain the supply of LLU services through the control of necessary but related products such as co-location space

Conclusions

As the Sector Inquiry draws to a close I want to emphasise three major conclusions which flow from looking at the market for bandwidth rather than through a more narrow perspective of the provision of leased lines. These conclusions are:

- The retail market for leased lines will polarise around 2 Mbps and 34 Mbps. This polarisation of the retail market will have major implications for the supply of bandwidth; for speeds up to and including 2 Mbps the existing metallic infrastructure will largely be adequate, for speeds on 34 Mbps or more new fibre based infrastructures will be deployed.

- The wholesale market become increasingly significant as well as more clearly defined and more geographically diffused. This change in the wholesale market will mean that investors are better able to define the risks and hence it is not an unreasonable expectation that new investment will be stimulated. These new investments will lead to innovative services and improvements in quality of service at both the wholesale and retail level.
- There are a number of institutional issues that remain perhaps the most significant is the clarity and rapidity by which LLU is implemented across member states. In effect changes in the competitive provision of leased lines can be seen as function of the regulatory policies designed and implement to ensure the rapid and widespread deployment of xDSL technologies through local loop unbundling.

In short the competition issues which lie at the heart of the Sector Inquiry will be addressed not only through the action of competition authorities but significantly through the clarity of the regulatory policies implement and secure local loop unbundling.

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