

Comments on the ERG Consultation Document on “Bitstream Access”

DT welcomes the opportunity to comment on the questions raised by the ERG to discuss the regulatory approach put forward in the Consultation Document.

Executive Summary

DT is concerned about the regulatory approach the Consultation Document chooses for bitstream access (BSA) as it assumes that the National Regulatory Authorities (NRAs) will in any case mandate BSA obligations. Such approach disregards the requirement of the New Regulatory Framework (NRF) to undertake in each case **an analysis of market failure and a proportionality test for the specific measure** envisaged. In order to prevent unjustified regulatory intervention it is necessary that NRAs take into account

- that the imposed obligation generates **additional benefits for end-users**
- whether **existing access obligations** and **wholesale offers which are on the market at commercial conditions** already provide possibilities to offer competitive services to the end-user
- **negative impacts** BSA may have **on existing business models** and **on investment** of alternative network operators **in local infrastructure**; a reliable regulatory environment is essential for future incentives to invest and innovate
- that **rising broadband penetration** and the expected increase in traffic volume **will** make an expansion of network capacity necessary and thereby **create more favourable conditions** for investment in alternative infrastructure

As regards the product options and **network structure proposed** by the Consultation Document, DT finds that these do **not** sufficiently **reflect the situation in Germany**. The Consultation Document assumes the same network architectures in Member States and proposes specific access interfaces. This does not take into account different conditions in Member States. It could even **be detrimental to further technical development** and thereby hinder network operators to minimise costs.

An analysis of the market situation in Germany in comparison to other Member States underlines the finding of the Consultation Document that the **competitive conditions** with respect to broadband and Internet access as well as network architectures **differ across Europe**. Only where **similar market situations** can be identified there is scope **for harmonised application of remedies**.

I. Question: What do you think of the regulatory approach advocated in the document?

According to the ERG the objective of bitstream access is the promotion of fast internet access offers to consumers (p.2). This reflects the current policy of the European Commission to focus on the mass market in order to ensure that broadband becomes widely available (eEurope Action Plan 2005)¹.

However, DT is concerned about the regulatory approach in the Consultation Document as it seems to take for granted that the National Regulatory Authorities (NRAs) will in any case mandate a Bitstream Access (BSA) obligation. Accordingly, the consultation document assumes that “the Recommendation on relevant Product and Service Markets foresees ex-ante regulation of BSA as part of the wholesale broadband access market” and that under the current regime “BSA should be made available additionally to ULL” (p. 9, p.10). Network architecture and national market conditions seem to play a decisive role only within the assessment which BSA option to impose (p.10) but not within the assessment whether to mandate an obligation at all. We therefore feel that it is necessary to recall that according to the New Regulatory Framework (NRF) the imposition of any obligation requires an analysis of market failure and a proportionality test (which will determine whether a regulatory measure is necessary and if so which measure is suited to remedy the identified market failure and is the least burdensome for the operator concerned). In other words, we feel that it is necessary to recall that the market definition alone and the finding of SMP do not automatically lead to a BSA obligation. We therefore suggest the following procedural steps to be taken into account before coming to abstract conclusions about the need for regulatory intervention and before addressing the issue of harmonisation:

1. Market Analyses

The starting point for the identification of markets is a characterisation of the retail market, taking into account demand-side and supply-side substitutability. Having defined the retail market it is then appropriate to identify the relevant wholesale market involving the supply of products to a third party intending to supply end-users. The market analyses of the wholesale market should always be examined in the light of the market outcome of the corresponding retail market. This can be derived from “the key objective” of the NRF to enhance user and consumer benefits in terms of choice, quality and price (see p. 15 of the Explanatory Memorandum on the Commission Recommendation on Relevant Product and Service Markets).

2. Proportionality

If a relevant wholesale market is found not to be competitive and competition law is insufficient NRAs shall carry out a proportionality test for the specific measure envisaged. The principle of proportionality requires that a measure is suited to address the specific market problem identified, is the least burdensome of possible obligations and is not overly intrusive in view of the fundamental rights of the operator concerned. In this context we do not agree with the finding in the Consultation Document that the NRF favours a strong regulatory approach (p. 9). This ignores the objective

¹ Communication from the Commission “Electronic Communications: the Road to the Knowledge Economy”, 11.02.2003, COM (2003) 65 final

of the NRF to remove regulation where possible and to let market forces work freely (see recital 13 of the Access Directive which states the aim of the NRF is to reduce ex ante sector specific rules and that NRAs should be able to relax regulatory obligations in those markets where competition is delivering the desired results; recital 14 of the Access Directive further states that obligations should be established at a set of maximum obligations in order to avoid over-regulation).

When assessing whether additional BSA obligations are appropriate it should also be taken into account that the NRF encourages NRAs to refrain from regulating new emerging and innovation-driven markets as entry barriers may become less relevant due to ongoing technical progress (see Commissions Guidelines on Market Analysis of SMP, footnote 92; Explanatory Memorandum of the Commissions Recommendation on relevant markets, p.11). Besides, investment in new markets like e.g. the DSL market are made in a long term perspective. If operators become obliged to make their technical and product innovation available to other market participants as soon as the innovation has been brought to market this will devalue the investment made and, as a consequence, reduce incentives for investment and innovation in the future.

a. Proportionality test according to Art. 12 Access Directive

aa. Art. 12.1 Access Directive - benefit for end-users

According to Art. 12.1 of the Access Directive and Art. 8.2 of the Framework Directive NRAs have to assure that the imposed obligation will generate benefits for end-users (e.g. retail prices and consumer choice). It underlines that the purpose of regulation is to overcome monopolistic bottlenecks from the perspective of the end-user and not to stimulate wholesale competition or entry as such. Accordingly the Consultation Documents finds that the promotion of fast internet access offers to consumers is the reason behind the discussion on BSA (p. 2).

In assessing the impact on competition and efficiency, caution must therefore be exercised in distinguishing between a real benefit for consumers on the one side and simply a redistribution of market shares and business between two competitors on the other. In this context it should also be noted that a mere redistribution of market shares is not in line with the objective of the eEurope 2005 Action Plan to foster the expansion of broadband infrastructure.

NRAs should therefore demonstrate that an additional BSA obligation would be for the benefit of end-users, e.g. with regard to the end-users' choice among services. As regards the situation in Germany however, an additional BSA obligation as described by the consultation document would be detrimental to the end-users choice among services of different ISPs. This arises from the German DSL provisioning model (based on the business model of Deutsche Telekom) according to which end-users have to purchase two separate services to get Internet access. These two services are the subscriber line offer 'T-DSL' of Deutsche Telekom and a complementary retail ISP service which is provided by a variety of ISPs (on the basis of several wholesale products of Deutsche Telekom, for details see below on p. 6). The product design in Germany enables end-users to select more than one ISP per time period and allows for "ISP selection" similar to "carrier selection" in voice telephony. I.e.

consumers can easily switch between ISPs as they do not have to change their DSL-access provider when they want to use broadband services of another ISP. This is different from BSA as described in the consultation document and business models chosen in other Member States where the end-user buys the entire DSL-service, i.e. a one-stop DSL package consisting of the access line plus the ISP-services. The German DSL provisioning model gives the utmost amount of flexibility and freedom to T-DSL end-users to choose services which best suit their needs. Consequently, competition among ISPs in Germany is intense. There are currently more than 20 nationwide ISPs offering a huge variety of retail ISP services which differ in price level, price structure and service design and quality (the independent market overview www.teltarif.de is currently listing more than 50 different retail offers; concerning price structures, customers can choose between flatrate models, to pay per minute or volume or to choose offers with or without monthly fixed rates etc.). About 850.000 of 3,6 Mio DSL customers are currently using the services of these alternative ISPs. When assessing whether to impose an additional BSA obligation (requiring Deutsche Telekom to provide a wholesale service composed of the access line and the backhaul services that allows ISP's to achieve an exclusive customer relation for both DSL access and ISP) the German Regulator has to take into consideration that this would possibly reduce consumer's choice between providers of broadband services and increases consumer switching costs.

The realisation of the BSA options described in the Consultation Document would rather result in price increases than in lower prices for end users in Germany. Due to the fact that the network design anticipated by the ERG is different from the network design in Germany used for mass market DSL traffic [the mass market traffic is not conveyed via a nation-wide ATM-network that conveys ATM-traffic (guaranteed bandwidth and high functionality) but via 74 separate concentration networks] a realisation of the BSA options described in the Consultation Document would require significant investment in infrastructure and would lead to a price increase of about 30% for the end-user (details see below on p. 8).

bb. Art. 12.2.c, d Access Directive - impacts on other markets or other business models

NRAs are also required to take into account that regulatory measures on an identified relevant market may have repercussions on other markets or business models. Accordingly Art. 12.2.c of the Access Directive requires that especially the initial investment by network owners has to be considered, bearing in mind the risks involved in making investment (impact on existing business models). It should further be taken into account that mandated access which might increase competition in the short term does not reduce incentives to invest (business roll-out plans) in alternative facilities as only infrastructure investments will secure sustainable competition in the long term (Art. 12.2.d., recital 19 Access Directive).

We expect that an obligation to provide the proposed BSA options will have negative impacts on existing business models in Germany. The high investments of alternative network operators in local infrastructure will be put at risk. There are currently 44 infrastructure based operators offering DSL access services mostly on the basis of unbundled local loops (ULL). Particularly city carrier which focus on customer acquisition and service in one region successfully operate on the basis of this business

model. Hansenet for example has currently gained 34% market share with regard to DSL in Hamburg and serves 40.000 broadband customers. The case of Hansenet shows that a stable regulatory environment and planning reliability is indispensable for infrastructure investment. Changing market entry conditions which allow new entrants to get access without having to add much economic value in the provision of services as other market participants have to may lead to stranded investment which, at the same time, would reduce incentives for future investment and innovation.

cc. Effects of existing access obligations and market offers

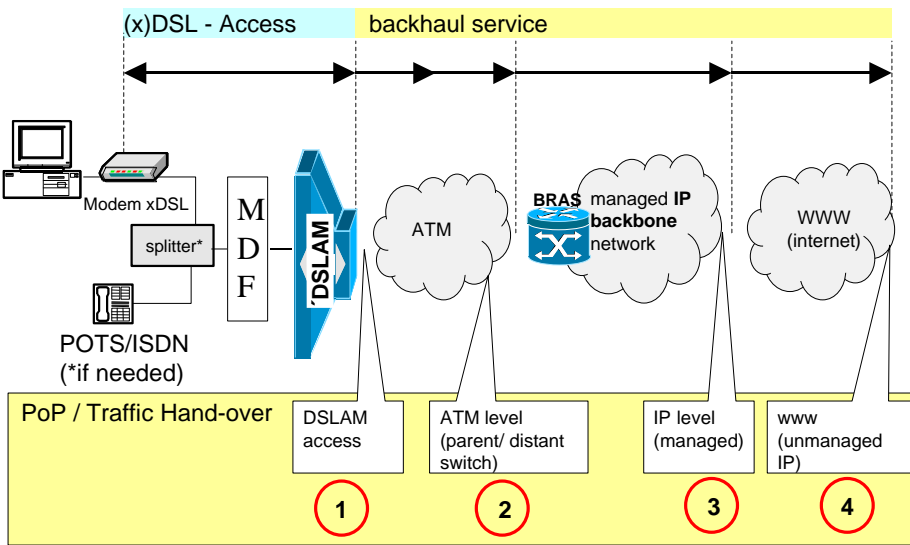
Within the proportionality test NRAs also have to examine whether existing broadband access obligations and wholesale offers which are on the market on competitive conditions already provide possibilities to offer competitive retail services to the end-user.

In the case of already existing broadband access obligations, ULL and Line-sharing have to be considered. Although ULL and Line-sharing constitute a different market under the Commissions Recommendation on Relevant Markets, this does not imply that these two types of access do not have to be considered when assessing whether an additional access obligation such as BSA would be proportionate and beneficial for the overall market development.

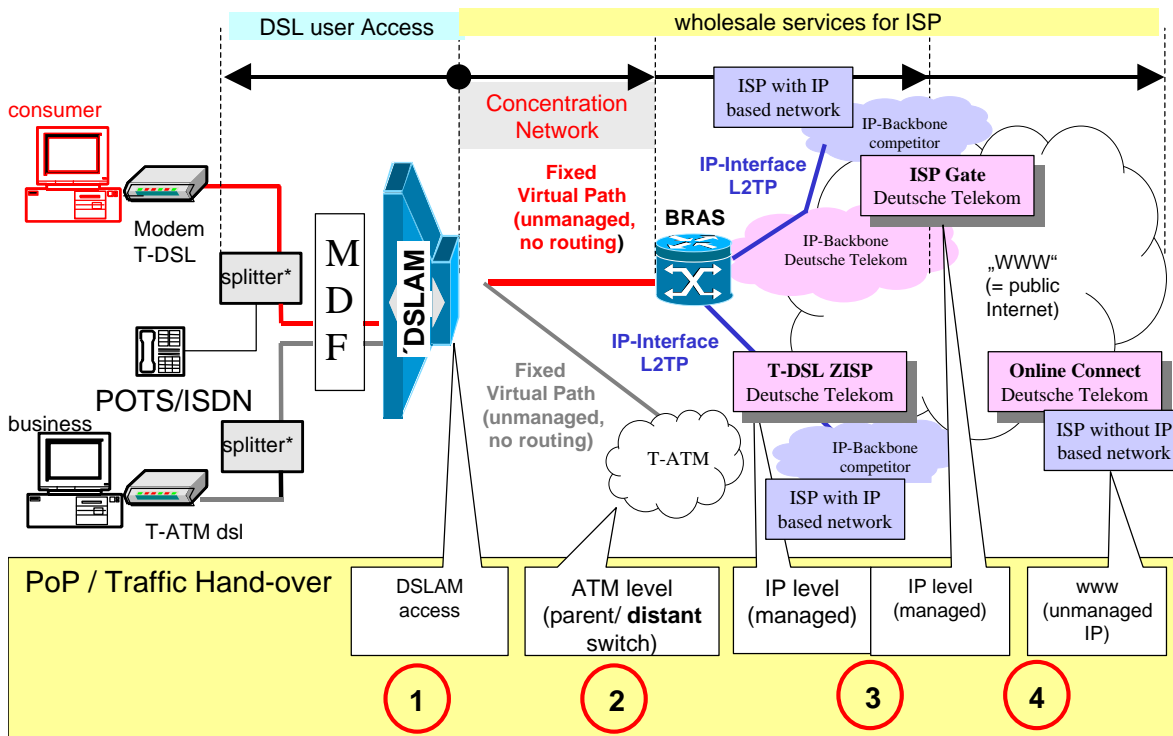
In Germany, unlike in other Member States, ULL has been successfully implemented. In May 2003 the number of ULL in Germany has risen to 1,1 Mio (compared to only 250.000 in all other Member States together), of which approximately 270.000 are used by alternative operators for the provision of DSL-services. In the UK for example, OFTEL announced in March 2003 that only 3000 unbundled local loops are currently used for DSL services.

Concerning freely negotiated offers, there are various wholesale backhaul products offered by Deutsche Telekom to ISPs. Deutsche Telekom makes all of its DSL access links to customer premises available to third parties via its wholesale backhaul products T-DSL ZISP, ISP-GATE and OnlineConnect. Therefore, offers equivalent to BSA exist in the form of pure backhaul wholesale services. However there are no wholesale services composed of both, the access line and a backhaul service. For a better understanding of the offers available and how they differ, it is necessary to explain the network design in Germany which does not reflect the network design described in the Consultation Document.

(1) Network structure anticipated in the ERG Consultation Document



(2) Network structure of Deutsche Telekom used for mass market DSL traffic (via a concentration network) and network structure used for business traffic (via an ATM network)



(a) In Germany the traffic of the mass market product DSL is conveyed from more than 6.000 DSLAM locations in the local areas to 74 locations of the Broadband Remote Access Servers (BRAS) **not via a high-quality ATM-Network** that allows for guaranteed bandwidth and different quality parameters but via a “**Concentration network**”. Only traffic of business customers is conveyed via the high-quality ATM-Network (e.g. T-ATM-dsl, T-ATM solutions).

The **Concentration network** consists of permanent virtual paths so that each local DSLAM is exclusively connected to one corresponding regional BRAS. The traffic is concentrated at certain concentration points. Although the technique used is ATM-based, ATM functionality (bandwidth, quality) is not provided for mass market customers. The network has no routing functionality that allows for determining the physical address corresponding to the IP addresses. Its single purpose is to convey traffic efficiently to a higher network level.

With T-DSL **ZISP**, traffic conveyed via the concentration network is handed over at a connection between each of the 74 BRAS and the IP-Backbone of the ISP (it does not include the DSL access line). As open L2TP-tunnels are handed over, consumers' sessions (point-to point protocol over Ethernet) are terminated by the ISP himself on it's own router. T-DSL-ZISP is suited for ISPs whose IP-backbones reach into the regions. With T-DSL-ZISP ISPs can take over the T-DSL traffic close to the T-DSL customers and do not have to buy IP-traffic routing services from Deutsche Telekom.

In addition to the functionality of T-DSL ZISP, **ISP-GATE** includes a more sophisticated element of IP-transport as the L2TP-tunnels are prolonged via the IP-backbone of Deutsche Telekom from the BRAS to an optional point of hand-over to the IP-backbone of the ISP. Therefore, ISP-GATE is designed for ISPs **with a less dense IP-backbone** who want to take over traffic on a higher level in the network.

T-DSL ZISP and ISP-GATE are wholesale services designed for ISP which want to provide IP transport and services on their own and which differ in the scope of their own network. With both services, open L2TP-tunnels are handed over, authorisation and authentication is up to the ISPs which have full freedom in service creation. On the basis of ZISP and GATE, the session is terminated by the ISP on it's own Router. The consumer has the ability to switch between connected ISPs on a dial-up basis.

In addition to the services T-DSL ZISP and ISP-GATE, ISPs can choose to buy a **resale** product including connectivity to the public IP network of the www. This service is called OnlineConnect. It does not include the DSL access line. ISPs can still use their own authorisation and authentication equipment in order to differentiate their service from the services of other ISPs and in order to provide value added services. The portfolio of wholesale offers by Deutsche Telekom allows ISPs with different needs and business models to design offers for broadband users.

(b) Access to the concentration network is currently not possible. In this context it should be noted that the EU Commission has stated that access at ATM level (only to “where one exists”) or at the level of any other transit network is of importance (CoCom 03-04Rev2) to allow new entrants to make full use of their own network. To our understanding this reflects that the discussion is not about access at certain spe-

cial bitstream access interfaces or special network technologies but about access at different levels on the value chain. This conclusion has also been found in the Consultation Document (p. 6 “value chain concept”). In Germany, as has been described above, access at different levels of the value chain is provided by the wholesale offers ZISP, GATE and OnlineConnect.

As regards to access at the concentration network (at the concentration points) it should be considered that this would require significant investment which would result in a price increase of approximately 30% for the end-users. Additional costs would arise if also additional quality parameters have to be implemented. Furthermore, it should be taken into account that the network structure anticipated and the bitstream access options described in the Consultation Document might impede the technical development intended to make the provision of DSL services even more cost efficient. E.g. in Germany a new generation of more cost-effective DSLAMs is currently being developed and implemented to step by step replace the concentration network. It is further expected for the future that the DSLAMs will not have ATM-connectivity point which means that the traffic conveyed between the DSLAMs and BRAs will not be based on ATM-technology but on cost-effective Ethernet-technology. The network structure and access options defined in the Consultation Document will therefore hinder network operators to minimise costs and to provide efficient solutions.

(c) As a result, we consider the access options and the network structure described not to be suitable to take the situation in Germany sufficiently into account.

dd. Art 12.2.a Access Directive – infrastructure investment

According to Art.12.2.d NRAs should also take into account investment in alternative facilities that will secure more competition in the long term.

It is questionable whether an additional BSA obligation (wholesale product that is composed of the access line product bundle and backhaul services) would have the effect of lowering entry barriers and thereby fostering competition on the wholesale level in Germany. It has been argued that entrants subsequently switch over from access-based services to building their own infrastructure as soon as they have established a toe-hold position using the access service. To support this approach two arguments have been brought forward:

1. with BSA, competitors of the incumbent can acquire a customer base on their own so that when switching to their own DSL infrastructure they can substantially decrease risk
2. with BSA, competitors can speed up entry in contrast to the renting of the unbundled local loop which must be complemented by significant infrastructure investment

As for the situation in Germany, both arguments are not valid as the mentioned advantages are already granted by the existing wholesale offers. T-DSL-ZISP, ISP-GATE and OnlineConnect allow ISPs to build up their own customer base. Customers directly purchase retail services from the ISP. Billing and accounting is provided by the ISP. T-DSL-ZISP and ISP-GATE also enable ISPs to implement their own au-

thorisation and authentication processes and to provide value added services in order to differentiate themselves from the services of other ISPs. T-DSL-ZISP and ISP-GATE allow for market entry without investment compared to the investment needed for business models based on local loop unbundling. In addition, the variety of Deutsche Telekom's wholesale offers enables ISPs to optimise their position depending on the degree of infrastructure already available to them. Against this background, it might be doubted whether regulatory intervention will lead to a better market outcome.

Instead, additional regulatory intervention could even be detrimental to infrastructure investment that has already been made and remove incentives to invest in the future (see above the example relating to city carriers, 2. bb., p. 5).

It should further be noted that regulatory intervention that promotes "artificial" competition in the short term might be considered disproportionate taking into account that the pursued objective to stimulate sustainable competition, i.e. infrastructure competition, at the wholesale level might be achieved already by incentives of market development. According to market forecasts (e.g. study of GAP GEMINI ERNST & YOUNG 2002 or media report of Prognos on broadband access) it is expected that the broadband penetration will rise from 6-8% in 2002 to 25% in 2006 in Germany, which corresponds to 10 Mio. house-holds. The rising penetration and the amount of traffic volume which can be expected to increase at the same time will make an expansion of network capacity necessary. This will have a positive impact on incentives to invest in competing networks since there is a real need for alternative infrastructure.

Additional incentives for new entrants to invest in infrastructure are being driven by the technical development. As explained above, the new technology (cost-efficient DSLAMs, cost-efficient Ethernet between DSLAM and BRAS) will provide for more favourable market entry conditions as it will reduce production costs.

3. Conclusion

Taken together, these considerations show that it is indispensable to carry out the required market analyses and assess the respective market situations and network structures in each Member State before jumping to abstract conclusions about the need for regulatory intervention. Only when a market analysis justifies regulatory intervention, NRAs may decide to impose remedies that are in line with the principle of proportionality. The NRAs thereby have to take into account that the imposed obligation generates additional benefit for end-users and whether existing access obligations and wholesale offers which are on the market at commercial conditions already provide possibilities to competitive services to the end-user. NRAs further should examine whether negative impacts BSA may have on existing business models and that rising broadband penetration and the expected increase in traffic volume create more favourable conditions for investment in alternative infrastructure. In this context we also recall the recent FCC decision of 20th February 2003 (Triennial Review) which focuses on infrastructure competition and on freely negotiated wholesale offers.

II. Question: How do you evaluate the options described or which options should be made available?

We consider the proposed access options and the network structure described not to be suitable to sufficiently reflect the situation in Germany (details above on p. 7, 8). As already mentioned the Consultation Document assumes the same network architectures in Member States and proposes specific access interfaces. This does not take into account different conditions in Member States. It could even be detrimental to further technical development and thereby hinder network operators to minimise costs.

III. Question: In which fields and by which means would you like regulators to take a harmonised approach?

We support the approach to harmonise the principles for definition and analysis of the market, including the criteria to apply those principles across the EU and in line with the Recommendation on Relevant Markets and Guidelines for market analysis. We also support the approach to apply harmonised remedies if similar situation can be identified. However as we consider network architecture (e.g. no ATM-network for mass market traffic in Germany) and market conditions currently not to be comparable between the Member States (e.g. ULL has been successfully implemented in Germany whereas in other Member States the market is characterised by more interplatform competition) we see only limited scope for harmonisation as regards to specific BSA obligations.

If, however, a BSA obligation is mandated as the result of a thorough cost-benefit analyses and is the least burdensome measure for the operator concerned it is important that the NRA ensures a consistent regulatory approach regarding all access products. New business models should not be promoted at the expense of already existing and viable business models.

IV. Question: Do you think that cable operators should be requested to offer bitstream access?

In this context we recall that the NRF encourages NRAs, irrespective of the type of technology used, to refrain from regulating new emerging and innovation-driven markets. According to the technological neutral approach of the NRF the Recommendation of Relevant Markets explains that the market of wholesale broadband access covers also cable networks if cable operators provide equivalent broadband services.