Dear Mr Homann,

Subject: Commission decision concerning Case DE/2016/1854: Wholesale local access provided at a fixed location in Germany

Opening of Phase II investigation pursuant to Article 7a of Directive 2002/21/EC as amended by Directive 2009/140/EC

1. PROCEDURE

On 7 April 2016, the Commission registered a notification from the German national regulatory authority, Bundesnetzagentur (BNetzA)\(^1\), concerning the market for wholesale local access provided at a fixed location\(^2\) in Germany.

The national consultation\(^3\) ran from 23 November 2015 until 18 January 2016.

On 18 April the Commission sent a request for information to BNetzA to which an answer was received on 21 April.

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\(^3\) In accordance with Article 6 of the Framework Directive.
2. DESCRIPTION OF THE DRAFT MEASURE

2.1. Background

In 2010 BNetzA notified to the Commission the market for wholesale local access provided at a fixed location in Germany, which was assessed under case number DE/2010/1122\(^4\). At the time BNetzA included in the relevant market unbundled access to the traditional copper loop, unbundled and bundled access to local loops on the basis of OPAL and ISIS\(^5\) at the main distribution frame (MDF) or sub-loops, and Fibre-to-the-Home (FTTH) (both point-to-point and point-to-multipoint architectures). Pure fibre lines serving large business end-users were excluded from the market definition. BNetzA found the relevant geographic market to be national in scope. It proposed to designate the incumbent, Deutsche Telekom AG (DT), as an undertaking holding significant market power (SMP). Remedies for this market were notified under case DE/2011/1177\(^6\) (general remedies), DE/2011/1218\(^7\) (pricing for LLU/SLU), DE/2011/1254\(^8\) (prices for co-location at the street cabinet, and access to ducts and dark fibre), DE/2012/1363\(^9\) (further prices, e.g. for one-off activation and cancellation fees).

In 2013 BNetzA notified two further important amendments to existing remedies, namely, prices for LLU at the MDF, SLU, co-location at the street cabinet, access to ducts and access to dark fibre for the period until 30 June 2016 (DE/2013/1464)\(^10\) and an amendment to the SLU access remedy in order to allow DT to deny, under certain conditions, SLU access for the deployment of VDSL2 vectoring technique by DT or alternative operators (DE/2013/1484)\(^11\) – the latter also known as the "Vectoring I decision". Under this Vectoring I decision, one of the requirements for DT to fulfil, in order to be able to deny SLU access, was that DT or the (protected) third party offers access seekers a Layer-2 Bitstream access product (or, during a transitional period\(^12\), a Layer-3 bitstream access product) at a transfer point located

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5 OPAL (Optisches Anschlussleitungssystem or optical local loop) and ISIS (an integrated system for providing a network infrastructure on an optical basis) local loop lines partially consist of optic fibre, either from the main distribution frame to the remote concentrator or to the street cabinet, whereas the part of the local loop leading into the premises of the end-user consists of copper lines. In certain areas OPAL and ISIS lines constitute the only access technology provided by the incumbent operator. While OPAL and ISIS lines are not suitable (for technical reasons) to provide DSL based broadband services, they have the same functionality as copper lines for the provision of voice telephony.

6 C(2011) 1338
7 C(2011) 4375
8 C(2011) 7809
9 C(2012) 7165
10 C(2013) 4098
11 C(2013) 5382
as close as possible to the street cabinet. Finally, a notification under case DE/2014/1628\textsuperscript{13} concerned a number of amendments to remedies resulting from the introduction of vectoring.

In 2015 BNetzA notified a new market definition and market power analysis, assessed by the Commission under case DE/2015/1761\textsuperscript{14}. BNetzA divided the local access market into two submarkets\textsuperscript{15}, including in submarket A (i) unbundled access to the traditional copper local loop at the MDF or a different location closer to the end-user\textsuperscript{16}; (ii) unbundled access to the local loop via OPAL/ISIS at the MDF or a different location closer to the end-user; (iii) unbundled access to mass market FTTH, both point-to-point and point-to-multipoint architecture; and (iv) virtual local unbundled access to the local loop at the MDF or a point closer to the end-user. At the time BNetzA stated that a virtual access product available at the MDF is currently not planned. In addition, BNetzA analysed the Layer-2 Bitstream offer available at 900 access points of DT's network (so called Broadband Network Gateways or BNGs) and confirmed\textsuperscript{17} that, in its view, such a product would fall within the wholesale central access market\textsuperscript{18}. As a result, under DE/2015/1781 BNetzA imposed an obligation upon DT to provide a Layer-2 Bitstream access product at appropriate hand-over points. In both cases in 2015 the Commission questioned the appropriateness of BNetzA's draft measures, in particular since the exact functionalities of the Layer-2 Bitstream product were not yet determined and it was, thus, impossible to conclude whether this product could or could not serve as a functional substitute for the physical access. In DE/2015/1781 the Commission stated that it saw a possible contradiction in BNetzA's regulatory approach which on one hand located the Layer-2 access in the central access market but, on the other

\textsuperscript{12} This transitional period was initially set until 31 December 2015 and subsequently extended by BNetzA until 30 June 2016.

\textsuperscript{13} C(2014) 5487

\textsuperscript{14} C(2015) 5495

\textsuperscript{15} In addition to submarket A (described above) for which DT was designated to have significant market power (SMP) BNetzA also defined a separate submarket B, which consists of customised local access to fibre for large businesses, built on demand, usually after the conclusion of a contract. BNetzA concluded that this market no longer warrants ex ante intervention since there are no high and non-transitory barriers to entry and a tendency towards effective competition can be observed for this market.

\textsuperscript{16} This included also Line Sharing, which is a variant of LLU and which allows the access seeker to provide the broadband service to the end user while handing the voice service to the incumbent.

\textsuperscript{17} As it had already suggested in case DE/2015/1735, C(2015) 4242.

\textsuperscript{18} In summary, BNetzA concluded at the time that this Layer-2 access product does not meet the criteria set out in the Recommendation on Relevant Markets, which need to be cumulatively fulfilled if a virtual access product is to be included in the wholesale local access market. In BNetzA's view, this type of virtual (Layer-2) access does not occur locally since the number of access points (900) does not match the number of access points at MDF level (7,904) or street cabinet level (approximately 320,000). In addition, the product does not fulfil other criteria such as dedicated capacity, high availability and low contention, necessary to ensure the functional equivalence with a physical unbundled access product.
hand, in a vectoring context, stated that the Layer-2 product is envisaged to replace the loss of physical access. Whilst the Commission acknowledged at the time that a concluding evaluation of this apparent conflict is, of course, only possible once the functionalities of the final Layer-2 offer are fully determined, it pointed to the clear risk that substitutability related assumptions made in the 2015 market definition may be out-dated once the Layer-2 product is finally offered, risking that the entire access regime for markets 3a and 3b may need to be re-visited. Against this background, the Commission urged BNetzA in October 2015 to re-consider, whether subsequent modifications to its market definitions of markets 3a and 3b and the ensuing regulatory obligations may be warranted in order to ensure an appropriate, proportionate and objectively justified access regime for broadband markets in Germany and reserved its position on all aspects of the market assessment until all relevant information concerning the potential access products in the market, including their technical specifications and functionalities, had been submitted to the Commission and a holistic assessment of market definition, SMP assessment and the appropriateness of relevant remedies was possible.

2.2. Current proposal

The notified draft measure concerns amendments to existing remedies in the local access market provided at a fixed location as previously imposed on DT in the regulatory order of 21 March 2011.\(^{19}\)

2.2.1. Criteria for deployment of vectoring in the Nahbereich

Whilst BNetzA proposes to maintain, in principle, DT's obligation to grant unbundled (physical) access to the local loop\(^{20}\), DT is not obliged to do so under certain conditions (further described below) in order to allow for the deployment of VDSL2 vectoring technique.\(^{21}\) In addition to the possibility to provide VDSL2 vectoring at street cabinets outside the so-called nearshore or 'Nahbereich'\(^{22}\) already granted under the Vectoring I decision of 2013, BNetzA proposes now to allow the deployment of vectoring also within the nearshore of an exchange. The draft measure only concerns the Nahbereich, thus only ca. 15% of local access lines in Germany. The regulatory regime for the remaining ca. 85% of local access lines remains largely unchanged.\(^{23}\)

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\(^{19}\) As amended on 30 August 2013.

\(^{20}\) The proposed exemptions to DT's obligation to provide physically unbundled access to the local loop relate to the unbundling of VDSL. The access obligation to unbundle the local loop in respect of ADSL and fibre local loops will remain unchanged.

\(^{21}\) Pursuant to ITU-T G.933.5 standard.

\(^{22}\) The nearshore or 'Nahbereich' is the area within 550m radius around an exchange.

\(^{23}\) In response to the Commission's request for information BNetzA confirmed that only small adjustments concerning procedural steps were made to the regulatory regime applicable outside the nearshore areas. BNetzA further confirmed that the deployment of vectoring at the exchange for nearshore KVzs does not affect the deployment of VDSL2 vectoring at other KVzs of the same exchange given that the respective cables are run separately. With regards to the deployment of VDSL directly from the exchange to the end-users outside the Nahbereich, due to distance limitation for
Given the proposed deployment of vectoring\(^{24}\), physical unbundling would no longer be possible at the relevant exchanges for the purpose of VDSL2 signal transmission. Instead of a physical unbundling, passive access alternative operators would be offered an alternative, active access product, either at the street cabinet or higher in the network (i.e. further away from the end-user) at one of the ca. 900 so-called BNGs (Broadband Network Gateways). In essence, under the current proposal DT would be allowed to refuse the request for or the provision of VDSL LLU at an exchange for the purposes of serving lines in its nearshore area under certain conditions\(^{25}\).

In cases where the access seeker is not yet collocated at the relevant exchange BNetzA proposes to allow DT to refuse unbundled access to the local loop in a nearshore area for VDSL usage (i.e. with regard to frequencies of above 2.2 MHz) unless:

1. the access seeker has – by the 31 January 2016 – deployed DSL-technology\(^{26}\) to at least 50% of street cabinets in the connection area of the relevant exchange and has more street cabinets connected in this area than DT\(^{27}\);

2. the respective operator provides BNetzA – by 31 May 2016 – with a unilateral and binding promise to deploy within 18 months technology to the street cabinets\(^{28}\), which enables the roll-out of VDSL2 vectoring technology; and

3. to offer a virtual access solution (as described further below).

In case where the access seeker is already collocated at the relevant exchange DT can refuse or terminate unbundled access to the local loop in a nearshore area for VDSL deployment (i.e. the technical limits on the ability to provide such service beyond the 550m boundary), the effect of the new proposal is negligible.

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\(^{24}\) Vectoring is a noise-filtering technology, which enables an upgrade of the broadband speeds provided over a copper cable. However, the technology allegedly only works when it is applied to an entire bundle of copper cables, thus preventing – at least at the current state of technological development – the physical "unbundling" of individual subscriber lines by alternative operators.

\(^{25}\) The proposed measure is likely to affect the vast majority of exchanges in Germany (ca 7500 nearshore exchanges of 7904 exchanges in total).

\(^{26}\) In response to the Commission's request for information BNetzA confirmed that any type of xDSL technology would be covered by this criterion. In this case it is worth noting that such a xDSL line will have to run to the relevant street cabinet, without, however, having to be activated in order to be considered as "erschlossen" or "deployed".

\(^{27}\) In response to the Commission's request for information BNetzA stated that the second part of this requirement has to be read as meaning that DT – by the 31 January 2016 – has deployed DSL-technology to less than 50% of street cabinets in the connection area of the relevant exchange.

\(^{28}\) As well as for the so-called "A0" loops which are connected directly to the exchange in question (and do not pass through any street cabinet).
VDSL usage (i.e. with regard to frequencies of above 2.2 MHz) as of 1 December 2017 if:

(1) DT has deployed DSL technology to the relevant street cabinets, which enables the roll-out of VDSL2 vectoring technology;

(2) it has notified this to the access seeker 12 months in advance,

(3) an alternative, virtual access product is offered; and

(4) compensation\textsuperscript{29} is paid for migration costs and stranded investments.

According to the figures provided to the Commission the criteria proposed would lead to alternative operators being able to deploy vectoring in the Nahbereich themselves in ca. 6% of Nahbereiche.

2.2.2. Promise of DT to deploy VDSL2 vectoring technology across Germany

In its balance of various and potentially competing interests BNetzA took into account DT’s offer to commit\textsuperscript{30} to the deployment of vectoring technology in all nearshore areas. As a result of the envisaged roll-out, access conditions to approximately 6.2 Mio households in the Nahbereiche would be directly affected. Approximately 1.4 Mio households (i.e. ca. 22% of those directly affected)\textsuperscript{31} would receive speeds above 50 Mbit/s for the first time. In this respect BNetzA suggests that in an alternative scenario for 2018 it could not conclude that – with regards to VDSL roll-out – a significantly higher deployment could be assumed. In this respect, BNetzA assessed the expected gains of prospective roll-out plans of DT’s competitors with alternative NGA infrastructures such as FTTx\textsuperscript{32} and/or HFC\textsuperscript{33} in nearshore areas and concluded that, based on the current rate of FTTx deployment, no meaningful NGA coverage could be achieved. BNetzA did not seem, however, to also consider the future potential for those technologies to provide high speed connections in the nearshore based on a significantly increasing deployment rate.

\textsuperscript{29} This compensation is limited to the residual value of certain technical equipment, such as line cards and DSLAMs plus the actual migration costs.

\textsuperscript{30} This unilateral investment commitment certified by a notary is currently still in draft form (based on the information available to the Commission it was last updated on 12 February 2016). In it DT commits to roll-out VDSL2 vectoring to all VDSL capable connections within 30 months and is accompanied by enforceable sanctions should DT not meet its investment commitments.

\textsuperscript{31} This would equate to 3.8% of all households in Germany.

\textsuperscript{32} This includes various pure and hybrid optical fibre solutions, including Fibre-To-The-Cabinet, Fibre-To-The-Home, Fibre-To-The-Building etc.

\textsuperscript{33} Hybrid Fibre Coaxial
2.2.3. Alternative access solutions

The alternative, virtual access product, which is to be offered for the loss of physical access (VDSL LLU) has to be provided either as a virtual unbundled access (VULA) at the street cabinet (Kvz-VULA)\(^{34}\) or as Layer-2 Bitstream access product.

With regards to the obligation to provide Kvz-VULA, BNetzA sets out that – for technical and proportionality reasons – this access type is limited to only one access seeker\(^{35}\). Once the first access seeker has requested a Kvz-VULA subsequent requests can only be met by the provision of a Layer-2 Bitstream access product at the BNG as an alternative for the loss of physical VDSL unbundling at the exchange.

BNetzA further proposes to oblige DT to provide access to its ducts (or subsidiary, i.e. where such duct access is not possible, access to dark fibre) between the exchange (Main Distribution Frame or MDF) and the street cabinet, where this is required for the access seeker to gain access to either the physically or virtually unbundled line.

Whilst, in BNetzA's view the Kvz-VULA shall meet the VULA criteria set out by the Commission in its Explanatory Note to the 2014 Recommendation on Relevant Markets\(^{36}\), the situation with regards to the Layer-2 product is somewhat different. In the latter case BNetzA considers, on one hand, that the provision of this product sufficiently and appropriately addresses the competition concerns which arise through the loss of fully unbundled access. On the other hand, BNetzA continues to be of the opinion – without, however, yet having conclusively defined all technical characteristics of the product\(^{37}\) – that the Layer-2 access product remains attributable to the wholesale market for central access and is, thus, not an economic substitute for physical unbundling\(^{38}\).

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\(^{34}\) BNetzA's proposal foresees this VULA access to be provided at the first concentrator point in the network (closest to the end-user). This is in most cases the MSAN at the street cabinet. Where a line, which is to be vectored is directly connected with the exchange (the so-called A0-lines) the VULA product will be provided at the exchange.

\(^{35}\) However, in response to the Commission's request for information, BNetzA confirmed that there are some Kvz, in particular in urban areas, where more than one access seeker is present at the Kvz. In such a scenario – if vectoring would be deployed – the restriction to only one access seeker for the Kvz-VULA product could leave the remaining access seekers stranded, with no available regulated access product meeting the substitutability conditions for inclusion in this relevant wholesale access market. In addition potential future roll-out to the Kvz would be foreclosed.


\(^{37}\) The exact technical features required for the Layer-2 access product are currently in national consultation (BK3d-15/003). The national consultation is expected to close by 6 May 2016. In response to the Commission's request for information BNetzA stated that a notification under Article 7 of the Framework Directive is foreseen still by the end of July at the latest. At the same time, BNetzA plans to start a national consultation on the prices for the Layer-2 product in May this year (BK3c-16/008).

\(^{38}\) In response to the Commission's request for information BNetzA confirmed that the Layer-2 product in Germany (i) does not foresee to support a multicast functionality, (ii) has inherent restriction as to
2.2.4. Other remedies

In addition to the access obligations discussed above, BNetzA proposes to continue to impose obligations of transparency and non-discrimination. BNetzA further proposes (i) that the rates to be charged for access to copper local loops and for the corresponding VULA product will (continue to) be subject to approval by BNetzA on a cost-orientated basis and (ii) that the rates for access to fibre local loops will remain subject to ex post regulation in accordance with the requirements of abuse control. BNetzA considers it adequate to continue to examine these rates to ensure a sufficient difference between the rates and end user prices or prices for other wholesale products (price and margin squeeze tests). In addition, it is worth noting that the actual rates for the access to copper local loops, to ducts and to dark fibre are currently being examined by BNetzA and expected to be notified to the Commission once the national consultation procedure has been concluded.

3. Assessment

The Commission has examined the notification and the additional information provided by BNetzA and has the following comment as concerning the market for wholesale local access provided at a fixed location in Germany:

Apparent flaws in BNetzA's market definition for wholesale local and central access provided at a fixed location

The Commission notes that that BNetzA continues to classify the Layer-2 active access product as being part of the central access market, due to its limited functionalities compared with unbundled local access. At the same time, in the current notification, BNetzA appears to argue that the loss of physical unbundling opportunities can be adequately compensated with an active Layer-2 product.

In this context the Commission would like to reiterate its view that the position of BNetzA in the context of the ability of the Layer-2 product to replace physical access, on one hand, and in the context of its previous market the maximum speed, which can be offered, and (iii) is in general restricted to "best effort" internet (reducing its capability to provide business services). In addition the access seeker is not in a position to determine the contention factor itself.

BNetzA also proposes to withdraw the obligation to provide shared access to the local loop as of 1 October 2016. As justification BNetzA puts forward the current switch to all IP-based infrastructures and the consequent low and decreasing demand for this wholesale product.

The prohibition of discrimination is to be supplemented by a scheme to monitor key performance indicators. An Equivalence of Input approach is not considered appropriate.

See procedure BK3c-16/005, in which a national consultation for various local access prices (including LLU and SLU) was launched on 20 April 2016. In response to the Commission's request for information BNetzA stated that a notification of this draft measure is foreseen for the end of May 2016, with the view to adopt a final measure for the 30 June 2016. In parallel, BNetzA is also currently carrying out a national procedure concerning the prices for duct and dark fibre access 9BK3a-16/006 within the same timelines, which BNetzA proposes to reduce significantly.

In accordance with Article 7(3) of the Framework Directive.
definition (claiming that the two products are not substitutable) on the other hand, appears to be contradictory and appears to reveal a serious flaw in the overall market analysis of BNetzA. Whilst the Commission acknowledged at the time that a concluding evaluation of this apparent conflict is, of course, only possible once the functionalities of the final Layer-2 offer are fully and conclusively determined, the position taken by BNetzA in this notification appears to confirm the Commission’s initial concerns. As such the Commission remains concerned that there is a clear risk that substitutability related assumptions made in the 2015 market definition may now be outdated, meaning that the entire access regime for markets 3a and 3b should be re-visited. Against this background, the Commission urges BNetzA to reconsider its market definitions of markets 3a and 3b and the ensuing regulatory obligations in order to ensure an appropriate, proportionate and objectively justified access regime for broadband markets in Germany. Without doing so, BNetzA risks to regulate the local and central access markets in Germany on the basis of a flawed market definition, which could be in violation of Article 15(3) of the Framework Directive. This is without prejudice to the powers of the Commission under Article 258 TFEU.

Following the examination of the notification, the Commission considers that the notified draft measures fall under the Commission's powers of ensuring the consistent application of remedies as set out in Article 7a of the Framework Directive, as the notified measures aim at imposing obligations on undertakings in conjunction with Articles 9 to 13 of the Access Directive.\footnote{Draft measures imposing regulatory obligations on undertakings with SMP in Germany may have an influence, direct or indirect, actual or potential, on the ability of undertakings established in other Member States to offer electronic communication services. BNetzA's notification comprises measures that have a significant impact on operators or users in other Member States, inter alia measures which affect the ability to access crucial network bottlenecks to serve end-users. Consequently, such draft measures may affect the patterns of trade between Member States in a manner which might create a barrier to the single market.\footnote{See Recital 38 of the Framework Directive.}}

The Commission has serious doubts as to the compatibility with EU law of BNetzA’s draft measures concerning the ability of alternative operators to obtain local access provided at a fixed location in Germany in its current form, in particular with the requirements referred to in Articles 8(4) and 12(1) and (2) of the Access Directive in conjunction with Article 8 of the Framework Directive and Article 16(4) of the Framework Directive.

On the basis of the notification, the Commission has serious doubts in this regard for the following principal reasons:

**Risk that draft measure does not promote or safeguard competition**

*Compliance with Articles 8(4) and 12(1) and (2)(d) of the Access Directive in conjunction with Article 8 of the Framework Directive and Article 16(4) of the Framework Directive*

The Commission refers to Articles 8(4) and 12(1) and (2)(d) of the Access Directive[^1] that require NRAs (i) to impose remedies which are based on the nature of the problem identified, proportionate and justified in the light of the objectives laid down in Article 8 of the Framework Directive and in relation to the imposition of access to, and use of, specific network elements; and (ii) to take into account – when considering how access obligations would be imposed proportionate to the objectives of Article 8 of the Framework Directive – the need to safeguard competition in the long term, with particular attention to economically efficient infrastructure based competition.

Moreover, the Commission refers to Article 16(4) of the Framework Directive, which requires NRAs to impose on SMP undertakings appropriate regulatory obligations.

In addition, the Commission stresses that pursuant to Article 8(2) of the Framework Directive, NRAs shall promote competition in the provision of electronic communications networks and services by ensuring that there is no distortion or restriction of competition.

In this regard, in pursuit of the policy objectives referred to in Article 8 (2) – (4) of the Framework Directive, NRAs have to apply objective, transparent, non-discriminatory and proportionate regulatory principles by, inter alia, safeguarding competition to the benefit of consumers as well as promoting efficient investment and innovation in new and enhanced infrastructures. In this respect, the Commission takes note of the attempt of BNetzA to find an appropriate balance of the various objectives and interests set out in this provisions by looking at the potential risks for competition inherent in its proposal vs a short-term enhancement of existing infrastructures in order to provide higher broadband speeds to a small subset of affected end-users.

However, for the reasons set out below, the Commission has serious doubts that BNetzA's draft measure strikes an appropriate balance in line with the requirements of Article 8 of the Framework Directive. On the contrary, after an assessment of the notified draft measure and BNetzA's responses to the Commission's request for information, the Commission is currently of the view that BNetzA's proposal threatens to distort and restrict sustainable competition in the local access market in Germany in particular given the

expressed need pursuant to Article 12 (2) (d) of the Access Directive to take a long-term view of the competitive conditions and their potential development.

**Restriction of competition**

First, the Commission is of the view that BNetzA's assessment of the net benefits of its proposal with regards to potential short-term gains for higher speed broadband services in Germany is flawed. As was also expressed by the German national competition authority, the Bundeskartellamt, BNetzA appears to compare the envisaged net-effects, which – with a maximum number of 1.4 Mio (i.e. ca. 3.8% of) German households being served with speeds above 50 Mbit/s for the first time – are already moderate, with the status quo of network investment. In order to assess the potential benefits for consumers and the overall infrastructure enhancement adequately, however, it seems more appropriate – as also suggested by the Bundeskartellamt in its submission to BNetzA – to consider the potential net effects of the roll-out plans of DT's competitors, including with alternative technologies (e.g. HFC and FTTx solutions) in the affected areas based on likely increasing roll-out rates. In the view of the Commission, any such approach is likely to demonstrate that the expected net effects concerning speed gains are even smaller and, thus, of less weight in a balancing exercise to justify the negative effects the draft measure is likely to have on the development of sustainable competition in the local access market in Germany.

Second, the Commission considers that BNetzA – in its balance of interests – did not take sufficient account of the potential negative effects its proposal has on the ability of alternative operators to invest in optical fibre infrastructure. Whilst the Commission takes note of BNetzA's argument that the deployment of vectoring per se does not prevent alternative operators from making such investment in infrastructure, the Commission takes the preliminary view that BNetzA did not sufficiently address the argument made by alternative operators that the loss of VDSL LLU resulting from vectoring deployment weakens an already challenging business case to roll out optical fibre infrastructure more widely. This potential dampening effect on the innovation and investment in new and enhanced infrastructures should have featured more prominently in BNetzA's considerations when carrying out a balancing exercise of the various objectives in Article 8 of the Framework Directive.

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46 In view of access seekers, the main business plans were made on the basis of the Vectoring I decision for the entire area served by the exchange, i.e. the area inside and outside the Nahbereich, based on the explicit decision in 2013 that within the nearshore no vectoring would be allowed and the access seeker could rely on VDSL unbundling in this context. Given that the current proposals are likely to withdraw this access option and, instead, would require the access seeker to either incur additional costs to move up the investment ladder in order to consume a VULA at the street cabinet or to rely on an – in view of the competitors – inferior product at the BNGs, the business case for investment per exchange area looks even more challenging.
Restriction of alternative infrastructure investments at the street cabinets

BNetzA's proposal as to the conditions under which alternative operators are able to deny DT the exclusive right to vector the Nahbereich appear to be, in the view of the Commission, inappropriately strict. The double requirement (i) to have at least 50% of street cabinets in a given area connected with DSL and (ii) to have more street cabinets connected than DT would – according to the information available to the Commission at this stage – lead to a situation where alternative operators could only vector the Nahbereich themselves in approximately 6% of cases, leaving the incumbent operator DT to "claim" over 90% of the Nahbereiche, which in practice is close to the exclusivity requested by DT.

In particular, the condition i) above would mean that alternative operators are prevented to deploy vectoring in the Nahbereich themselves, even where they have connected significantly more cabinets than DT but not yet 50%. The resulting loss of VDSL LLU opportunities for alternative operators in these areas is likely to have a significant detrimental effect on competition, in particular given the apparent restrictions of the alternative products, to be made available by DT (see below). The Commission notes in this respect that not only the Bundeskartellamt, but also BNetzA's own advisory board are critical of such strict criteria and have asked BNetzA to explore how to allow for roll-out opportunities for alternative operators even in cases where the absolute majority requirement is not fulfilled.

Limitation of number of competitors at the street cabinet

The Commission takes note of BNetzA's assertion that due to technical limitations, the alternative virtual local access product, in all likelihood to be provided at the street cabinet, allows for only one alternative operator to make use of this local access opportunity. Other competitors will have to rely on the Layer-2 Bitstream access product, which – in BNetzA's own view – is functionally less able to mimic physical unbundling and is not considered to fall within the scope of market 3a. In the view of the Commission, the currently proposed solution artificially and inappropriately limits the competitive options available to alternative operators, in particular since it has not been demonstrated convincingly to the Commission in the current notification process so far, that the alleged technical restrictions could not be overcome with a viable and proportionate solution, which would give more than one competitor the opportunity to demand – where this solution is economically viable – the KVz-VULA access solution at the street cabinet. In this respect the Commission would like to point to remedies proposed by national regulators in other Member States\(^ {47} \), which appear to support a solution allowing for multi-operator vectoring and which as a result could address the competitive restrictions allegedly inherent in the provision of vectoring. At this stage of the process, the Commission questions the assertion that it would be disproportionate to require the SMP operator to provide KVz-VULA access to a second competitor upon reasonable demand.

\(^ {47} \) See, for example, Case IT/2015/1778; C(2015) 6884 final.
Without prejudice to the concerns of the Commission as regards the alleged technical restrictions for alternative access seekers to be able to exercise a commercial choice concerning the most appropriate access solution in any given context, the Commission questions whether a reliance by BNetzA, in practice, on a VULA product which requires the alternative operators to duplicate infrastructure between the exchange and the street cabinet is adequate in the majority of cases to promote economically efficient infrastructure based competition and efficient investment as required under Articles 12(2)(d) of the Access Directive and Article 8(5)(d) of the Framework Directive. The Commission questions whether in the majority of cases the roll-out of a duplicate fibre infrastructure between the exchange and the street cabinet is economically viable, given the small number of potential clients over which such costs can be spread. In any case, given that the exact price levels of the key components for this access product for the near future (including the prices for duct access and dark fibre) are not yet finally determined by BNetzA, it is impossible for the Commission to assess at this stage of the proceedings whether the proposed alternative access product can be an appropriate substitute for the loss of VDSL LLU and thus adequate to remedy the competition concerns identified by BNetzA in its market analysis of last year. This argument applies a fortiori in light of the tight time limit currently foreseen (e.g. by 1 December 2017 for alternative operators who are already collocated at the exchange) for an alternative operator to adapt to the foreseen technology change, which may not be coherent with previous business planning for a given exchange based on the Vectoring 1 decision, or with achieved levels of retail market penetration in a given Nahbereich area.

In addition, in this context the Commission takes note of BNetzA's continued position that access to DT's dark fibre between the main distribution frame and the street cabinet should only be granted in cases where duct access cannot be granted due to technical reasons or the lack of duct capacities. Whilst the Commission recognises that there may be objective justifications for such a subsidiarity approach to the provision of dark fibre in a general regulatory context for local access, the Commission would like to draw BNetzA's attention to the fact that the particular circumstances in the context of the deployment of vectoring in the Nahbereich may require a different regulatory solution. Given that the business case to roll out fibre infrastructure to the relevant street cabinets is already challenging and time constrained in this context (see above), a solution that would force those alternative operators interested in requesting virtual access at the street cabinet to duplicate in the short term an existing infrastructure appears at odds with the requirement to ensure efficient investment. In addition, it appears to restrict unduly the ability of DT's competitors to provide competitive solutions based on an appropriate and proportionate regulatory access regime, also in view of the fact that contrary to the general regulatory context (i.e. under the Vectoring 1 decision), in the Nahbereich DT's competitors will no longer be able to have recourse to VDSL access at the local exchange, as a second option, and would only have as an alternative the Layer-2 access product, which – at this stage of development at least – appears a questionable substitute.
**Appropriateness of Layer-2 product**

The Commission has currently serious doubts that the alternative Layer-2 access product that would be offered to alternative operators under BNetzA's proposal, which in light of the considerations set out above (i.e. the technical restrictions of the KVz-VULA to one operator and the challenging economical case for infrastructure investments to the street cabinet in the short term) is likely to be the most important replacement for the loss of VDSL unbundling, can – in its currently proposed form – serve as an adequate functional substitute for such physical unbundling. The Commission notes that the BNetzA's advisory board and the Bundeskartellamt have suggested that a VULA product at the exchange or, at the very least, at the ca. 900 BNGs would be a more appropriate solution to serve as an alternative for the loss of physical VDSL unbundling (at the exchange).

The Commission questions whether BNetzA's apparent reliance on the Layer-2 access product in its current form is appropriate to address the competition concerns identified in the local access market, which would be exacerbated by the loss of physical unbundling solutions due to vectoring. The Commission is aware that BNetzA has undertaken a public consultation on the technical parameters for such a Layer-2 access product and argues that the Layer-2 product displays enhanced functionalities compared with traditional Bitstream access. However, the Commission also notes that BNetzA itself continues to classify this product as being part of the central access market, due to its limited functionalities compared with unbundled local access. There appear to be particular concerns in relation to the ability of alternative operators to use this access product in its current form in order to provide appropriate product differentiations (e.g. certain business services) as well as with regards to their restricted capabilities to differentiate their offers on the basis of QoS and speed characteristics. In light of the fact that the exact technical parameters of such a product are not yet finally determined, and on the basis of the information currently available to the Commission, there remain serious doubts as to the ability of such a remedy to address the competitive concerns raised in the context of vectoring in the Nahbereich. However, the Commission stresses that improvements to the product specifications in combination with an appropriate and adequate pricing structure may serve to ensure that such an enhanced Layer-2 product would be a functional

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48 The exact technical features required for the Layer-2 access product are currently in national consultation (BK3d-15/003). The national consultation is expected to close by 6 May 2016. In response to the Commission's request for information BNetzA stated that a notification under Article 7 of the Framework Directive is foreseen still by the end of July at the latest. At the same time, BNetzA plans to start a national consultation on the prices for the Layer-2 product in May this year (BK3c-16/008).

49 In response to the Commission's request for information BNetzA confirmed that an access seeker consuming a Layer-2 product would be capable of determining the product profile itself and that the restricted ability to determine the contention factor is less significant given the fact that there is no further contention between the MSAN and the BNG.
substitute, which could thereby contribute to addressing the competition concerns identified\(^50\).

In the view of the Commission, all of the above considerations, show that the draft measures at stake are likely to disproportionately restrict and distort sustainable competition in the local access market. In combination, they raise significant concerns and put seriously into question the ability of the envisaged measures to meet the requirements of Articles 8 and 12 of the Access Directive and Articles 8 and 16 of the Framework Directive. The Commission underlines that, even if the specific concerns regarding the realistic opportunity for alternative operators to introduce VDSL vectoring in the Nahbereich, regarding the number of operators having access to the vectored KVz, the requirement and timeline for fibre duplication to the KVz, the lack of an adequate active access product at the exchange and the adequacy of the access product foreseen at the BNG, were to be resolved in whole or in part, the overall balancing of interests as between improved broadband services to a small minority of homes and the foreseeable effects of a revised measure on competition and investment dynamics in Germany would remain to be reviewed.

In conclusion, the Commission would like to express serious doubts as to the compatibility of the proposed draft measure with Articles 8(4) and 12(1) and (2)(d) of the Access Directive read in conjunction with Articles 8(2) and 16(4) of the Framework Directive.

**Conclusion**

In this particular case, the Commission has serious doubts that the draft measure notified by BNetzA’s in its current form is – pursuant to Article 8(4) of the Access Directive – based on the nature of the problem identified, proportionate and objectively justified in the specific German context and meets the policy objectives and regulatory principles enshrined in Article 8 of the Framework Directive, in particular as regards the promotion of competition and of efficient investment. In addition, based on the information currently available, the Commission has serious doubts that the draft measure is able to safeguard competition in the long term, with particular attention to economically efficient infrastructure-based competition, as required by Article 12 (1) and (2)(d) of the Access Directive and can be considered to be appropriate in light of Article 16(4) of the Framework Directive.

The above assessment reflects the Commission’s preliminary position on this particular notification, and is without prejudice to any position it may take vis-à-vis other notified draft measures.

\(^50\) In this respect the Commission refers to its Explanatory Note accompanying the Commission Recommendation on relevant product and services markets within the electronic communications sector; SWD(2014) 298, in which it sets out clear guidance as to the technical characteristics a non-physical or virtual wholesale access product has to meet in order to be considered a functional equivalent and a substitute for physical unbundled local access. The Commission also notes that other NRAs have stated in the past that such virtual access products are considered part of the local access market and can serve – under certain conditions – to address the competitive problems identified in this market (see for example, UK/2010/1064).
The Commission points out that, in accordance with Article 7a of the Framework Directive, the draft measures on the market for wholesale local access provided at a fixed location in Germany shall not be adopted for a further three months.

Pursuant to Recital 17 of Recommendation 2008/850/EC\textsuperscript{51}, the Commission will publish this document on its website, together with a notice inviting third parties to submit observations on this serious doubts letter within ten working days. The Commission does not consider the information contained herein to be confidential. You are invited to inform the Commission\textsuperscript{52} within three working days following receipt whether you consider that, in accordance with European Union and national rules on business confidentiality, this document contains confidential information which you wish to have deleted prior to such publication. You should give reasons for such request.

Yours sincerely,

For the Commission,
Günther H. Oettinger
Member of the Commission


\textsuperscript{52} Your request should be sent either by email: CNECT-ARTICLE7@ec.europa.eu or by fax: +32.2.298.87.82.