

Topics on the future of Unbundled Local Loops – Does broadband infrastructure expansion still have a chance?



The initial situation

The expansion of infrastructure for supplying the public with high-quality broadband offerings is one of the central political tasks in Germany, and should take place in an environment of competition, in order to ensure quality, diversity of offerings and reasonable prices for some time to come.

The shift of DSL technology from the main distribution frame (MDF) to the street distribution cabinets (Street Cabinets) in the range of the Last Mile, and the expansion of the fiber-optic network between MDF and the Street Cabinets necessitated in part by this shift, make even more intensive broadband service to the public possible through

- a possible expansion of bandwidth through VDSL (>ADSL2+ >25 MBit/s),
- significantly improved delivery density with high bandwidth (>=1 Mbit/s) (from around 40% formerly to >95%).

This shift of DSL technology in conjunction with the expansion of VDSL, from the large main distributors to the small street cabinets, deprives the competition of the possibility of obtaining higher-performance access to the subscriber line, as Deutsche Telekom (“DTAG”) does. That would make it impossible for competitors to provide offerings of equivalent high quality on the market in terms of bandwidth and delivery density. There are several reasons for this:

1. DTAG refuses contractually secured **co-use of the Remote Terminal (collocation in the Street Cabinet).** And a regulated right of access does not yet exist at this time;
2. **Constructing one’s own Street Cabinet and connecting it to the DTAG Street Cabinet (collocation at to Street Cabinet) is impossible in many cases:**
 - Actual impossibility
Often there is no possibility of placing additional Street Cabinets by the street simply for reasons of space (central traffic situations / limited sidewalk area).

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- Economic impossibility

An expansion of infrastructure in the Last Mile, and thus connection of the Street Cabinet, is not economically feasible with blanket coverage, because in most cases their market share is significantly smaller.

- Legal impossibility

Where expansion would be economically justifiable and actually possible, building codes and regulations leave no possibility of forcing construction of additional Street Cabinetss next to the locations of the DTAG Street Cabinetss. In this case the regulation leads nowhere.

3. Even the **necessary connection of the Street Cabinet sites to the competitor's own network is entirely uncertain**. DTAG declines both access to the fiber-optic infrastructure and access to the conduit. A regulatory framework for access to the fiber-optic cable and the conduits is also lacking.
4. A **"substitute product," for example in the form of bitstream access, does not exist**. There is neither a concrete regulatory ruling for access to the Street Cabinet nor a tested standard offering.

Given these facts, the intention of the German Federal Regulator "BNetzA" to ignore the broadband hybrid loops in the market analysis of Market 11 seems totally incomprehensible, especially since

- the BNetzA included bundled access to the narrow-band hybrid Local Loops (ISIS/OPAL) in its last regulatory ruling on Market 11, since this proved necessary for technical and economic reasons. Only the completion of the Unbundled loop glass fiber network to the end customer (fiber to the home - FTTH), not the hybrid Local Loops of glass fiber and copper, was taken out of Market 11 by the BNetzA in 2005;
- the EU considers it obligatory to investigate including glass-fiber connections in Market 11. This is emphasized again in the draft of the new market recommendation ("or equivalent"). Here again it is pursuing a technology-neutral approach, in which the demand market (connection from the Street Cabinet to the end customer) and corresponding substitution effects is supposed to be the deciding factor, not the material of the Unbundled Local Loops.

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Risks for consumers and the market

Without a contractual access solution to the VDSL expansion of DTAG or regulatory intervention, the following dangers will arise for consumers and the market:

Investments already made would be devalued and new ones prevented.

The investments made by competitors for non-bundled access to the Unbundled Local Loops when developing Street Cabinetss would be devalued, and additional investments in the area of the Unbundled Local Loops would be prevented or would become much more difficult. That puts thousands of jobs at risk!

Opportunities for adding value would be dramatically limited, specifically in new technologies.

DTAG plans to permit access to its expanded DSL network at the resale level at most, which would place the infrastructure providers at a disadvantage. This would change the market from an infrastructure market to a resellers' market.

High prices without competition for quality.

A change in the market and barriers to infrastructure competition in the broadband market would inevitably result in loss of quality and higher prices for the consumer.

Threat of a competition-specific digital divide.

Millions of citizens who are customers of the competition would be excluded from access to the higher-bit-rate services, or would be forced to change back to DTAG or its resellers.

Threat of a rural digital divide.

Millions of citizens outside of the few expansion regions would remain excluded from broader-band services for many years, since DTAG is steering its investments toward regions of high population density.

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Possible solutions

Continuity of investment planning for the Last Mile must be maintained. Access to the Unbundled Local Loops (Market 11) must also be guaranteed at the broadband level, technology-neutral and with security for the future.

This is true regardless of whether there will be supplemental access variants in the future per BSA (Market 12). The following are therefore all indispensable in terms of the infrastructure competition:

A. Access to hybrid broad-band Unbundled Local Loops in/at the Street Cabinet (non-bundled)

1. Access in the Street Cabinet (non-bundled)

Explanation: Installation of the provider's own DSLAM in the Street Cabinet of DTAG, and non-bundled access to the hybrid Unbundled Local Loops (copper wire segment between Street Cabinet and end customer), sharing the necessary technology of DTAG (patching distribution frame, power supply, ventilating technology) where this is technically and economically possible.

2. Access at the Street Cabinet (non-bundled)

Explanation: Construction of the provider's own Street Cabinet beside the Street Cabinet of DTAG, where this is possible on the part of the competitor economically and under building codes, for those cases in which access in the Street Cabinet of DTAG is not possible.

3. Access to the glass fiber network segment (non-bundled)

Explanation: Access to the glass fiber segment of the hybrid Local Loops (between MDF and Street Cabinet) for broadband connection of subscribers according to sections 1 and 2 above. Depending on the technical circumstances, this will require access to the conduit between MDF and Street Cabinet (to pull the provider's own fiber optic cables), to the dark fiber of DTAG, or to one color on the fiber.

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B. Access to the hybrid broadband Local Loops at the Street Cabinet (bundled)

Explanation: bundled access to the hybrid broadband Local Loops at the Street Cabinet, using the glass fiber network segment and the active technology of DTAG in the Street Cabinet, since the access to the non-bundled hybrid Local Loops (according to A. 1-3) will not be realizable, at least not with blanket coverage, for actual, legal or economic reasons.

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