



WiMAX in Western Europe Winning Market Share over DSL and HSPA

The Company

DBD Deutsche Breitband Dienste GmbH is a telecommunications company that operates across Germany to provide customers with broadband access to the internet. The company's headquarters is located in Heidelberg, Germany. Founded in 2003 by a diverse management team with extensive experience in the telecommunications industry, DBD selected the new advanced wireless access technology WiMAX for the delivery of broadband services. Deployment of a WiMAX access network began in 2005 in parallel with the establishment of a backbone network, core data center, OSS, and BSS.

DBD has been awarded spectrum licenses in the 3.5 GHz band throughout Germany covering 83 million inhabitants. With 70 MHz of spectrum in some of the largest cities - reaching a combined population of 21 million - and 42 MHz spectrum nationwide, DBD is well positioned for the deployment of a cost-effective WiMAX network for the delivery of broadband fixed and mobile services.

DBD currently has 180 WiMAX base stations installed with 3 to 6 sectors covering approximately 400,000 households in urban centers and suburban deployments. The target market for DBD includes residential, enterprise, SMB, government offices, etc.

DBD is not only the first and largest WiMAX operator in Germany but is also the largest 3.5 GHz spectrum owner.

WiMAX Broadband Services Offered

Through its DSLonair service DBD offers high-speed internet access to residential consumers and small & medium enterprises (SME) in suburban and rural areas where DSL services are limited. In metropolitan areas DBD offers WiMAX broadband internet access and voice over IP (VoIP) through its MAXXonair service. DBD offers various pricing models for their MAXXonair service. For example a data only, volume-based plan is available for €9.99 and a flat rate plan for data and voice is available for €29.99 per month.

The customer end-user device includes an indoor Airspan EasyST WiMAX modem with either an integrated 7.5 dBi antenna or, for customers in weaker signal locations further from the base station, an externally mounted 9 dBi patch antenna. Modem interface options include a standard DSL Network Address Translation (NAT) router with a Wi-Fi option for data service or an integrated access device that provides

VoIP, NAT, and Wi-Fi for combined data and voice services.

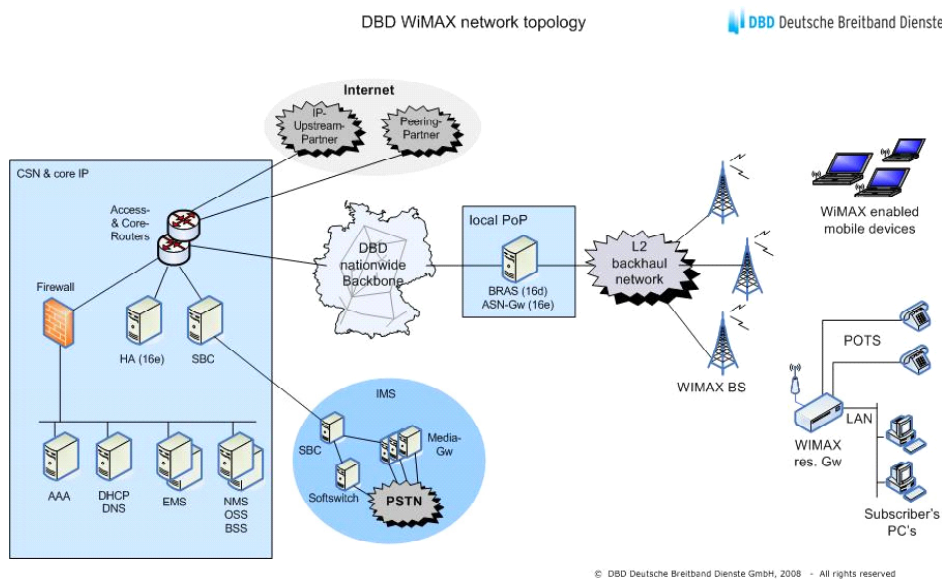
As of June 2008 the company has more than 25,000 paying customers on their fixed 802.16d-2004 network.

In autumn 2008 DBD will launch their 4G WiMAX network (IEEE 802.16e) with the vision of providing mobile broadband Internet access, including voice service, available anywhere, anytime at affordable rates.

The mobile WiMAX network is planned to support USB-devices for portable/nomadic Internet access service at first, and later on handsets and other multimedia devices.

The End-to-End Network

The DBD network shown below consists of regional PoPs (Point of Presence) interconnected by a national backbone. Emanating from each PoP are multiple leased lines that provide Gigabit capacity to microwave aggregation sites. These sites are, in general, backed by a ring architecture consisting of fiber and/or microwave links. At this point high capacity microwave links (100+ Mbps) connect to lower level microwave aggregation sites (star, ring, or mesh topology). The aggregation points deliver the required capacity to the WiMAX base station sites, typically wirelessly, either in licensed or unlicensed frequency bands.



Market Opportunity and DBD Vision

The fixed broadband access market in Germany is expected to grow from 19 million subscribers to 28 million in the next 3-5 years and generate about €10 billion per year. The mobile market has achieved 100% penetration and currently generates about €23 billion annually.

The next step in DBD's plans is to launch mobile services. IEEE 802.16e-2005-based equipment trials are currently underway and commercial service launch is expected later this year. This together with continued expansion of their existing WiMAX network will provide DBD with the opportunity to compete in both the fixed and mobile market. Assuming nationwide coverage, a modest 5% market share in this market

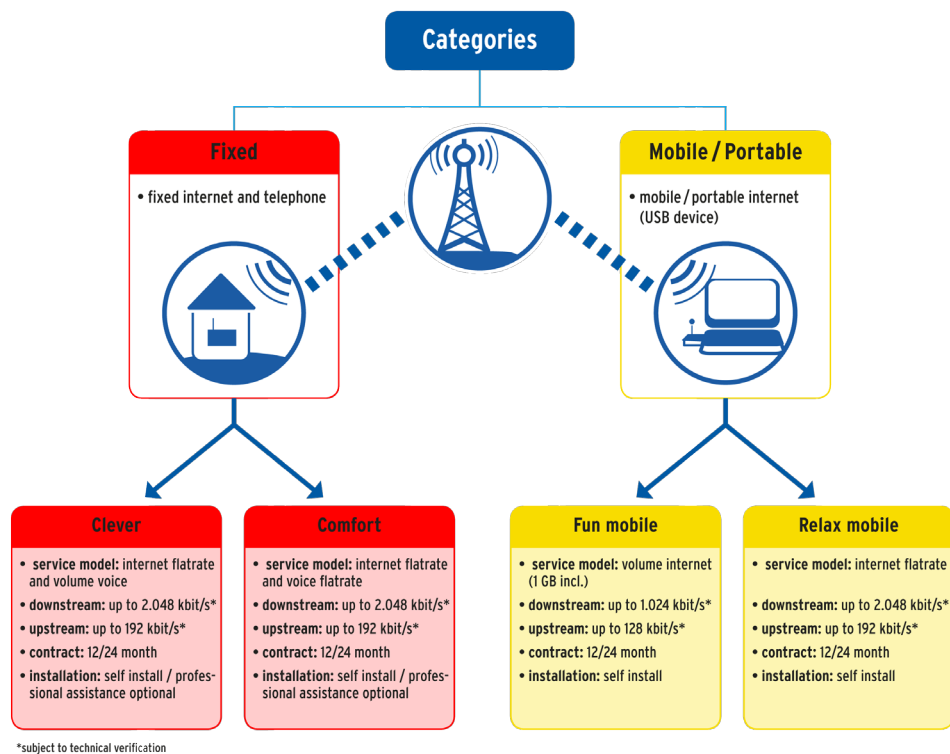
represents an annual revenue potential of more than €1.5 billion.

DBD is focused on the following to achieve their market goals:

- Maintain a first-to-market strategic advantage
- Launch WiMAX-based mobile services to take advantage of time to market lead over LTE
- Maintain a competitive pricing and flexible service model that can be tailored to varied customer types

Customer Experience

Following are some testimonials that illustrate the success of the DBD Deutsche Breitband Dienste WiMAX broadband network.



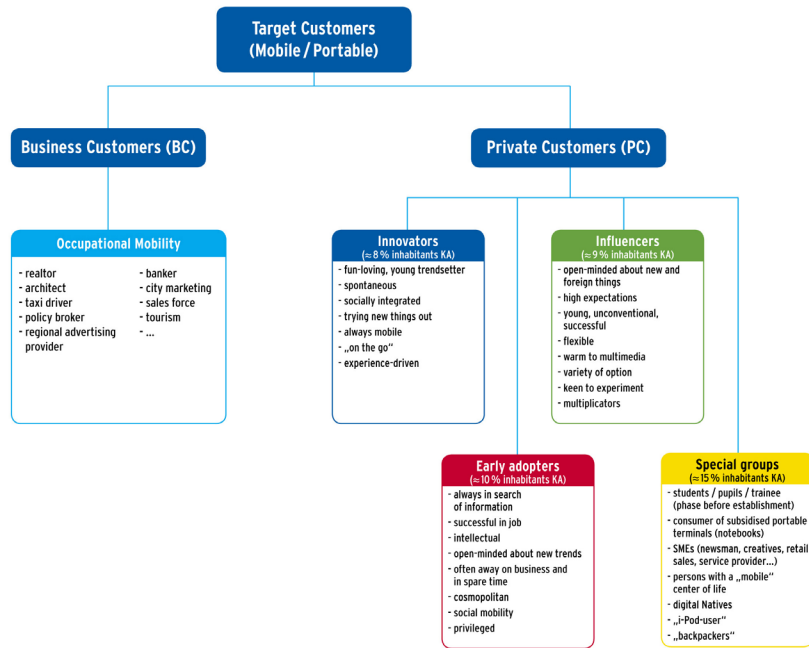
Testimonials

“Until I moved to Berlin-Pankow, where there was no DSL service available, I never realized how important broadband Internet access is to a self-employed person. Now, with DBD’s fixed WiMAX service, I finally have broadband access – and an efficient home office – once more.”

Heike Bayer-Wenzel, Independent Marketing Consultant
Berlin-Pankow, Germany

"Thanks to MAXXonair, we can now stay in Pankow. The transfer of data takes only a few seconds, and we save about 5,000 euro a year."

Marco Knoblauch, Managing Director EURIX GmbH & Co. KG
Berlin-Pankow, Germany



Typical WiMAX
3-sector base station



Microwave backhaul site



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