

Explanatory remarks on the Telecommunications Markets Ordinance 2008 (TKMV 2008)

General:

This ordinance serves as the basis for procedures for the identification of effective competition and the identification of significant market power on the part of one or more companies; such procedures are to be carried out by the Telekom-Control Commission (TKC) pursuant to Art. 37 TKG 2003.

Regarding Art. 1:

The sequence of markets depicted above is based on the connections which exist between the given markets from an economic standpoint, especially with regard to the relationship between wholesale and retail markets. In this respect, the sequence of markets in this Ordinance diverges from the sequence in the Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services (hereinafter referred to as the "Commission Recommendation on relevant markets").

Definitions:

1. Residential customers – non-residential customers

The term "residential customers" is derived from the Commission Recommendation on relevant markets and comprises all customers not included in the following definition:

Non-residential customers as defined in this Ordinance include all legal entities and public-law/private-law corporations as well as partnerships and civil-law partnerships as well as physical and legal persons qualifying as undertakings pursuant to Art. 1 Consumer Protection Act, Federal Law Gazette No. 140/1979, as last amended. For the purposes of the market definitions in this ordinance, preparatory transactions in accordance with Art. 1 Par. 3 leg. cit. are to be assigned to the relevant markets for non-residential customers.

2. Leased lines

Leased lines refer to connections which provide (symmetric, bidirectional and) transparent transmission capacity between two network termination points located in Austria. Another defining characteristic of leased lines is their lack of on-demand switching functions, meaning that the user is not able to control the connection. This definition applies to leased lines at the retail and the wholesale level.

According to this definition, there are three criteria which must be fulfilled cumulatively in order to classify a connection as a leased line:

- A leased line is a symmetrical, bidirectional point-to-point connection which supports data and voice traffic.
- A leased line is a transparent connection, meaning that payload data bits are transmitted through the connection in unchanged form;
- A leased line does not provide on-demand switching functions, meaning that the user is not able to control the connection. On-demand switching functions are omitted as a result of the fact that no line control information from the bitstream is evaluated at the user interface.

In principle, the technology used to realize a leased line is irrelevant for the purpose of this classification.

What is decisive in this context is the function for the user, not the technical implementation between the two customer interfaces or the product's name on the market. Therefore, leased lines also include transmission lines realized using ATM technology with customer-side SDH or PDH interfaces, wavelength services with customer-side SDH interfaces, or products with Ethernet interfaces which fulfill the generic requirements above.

Products with user-side Ethernet interfaces which make it possible to control the connection destination using connection control parameters which can be selected by the user are not classified as leased lines (as the user is provided with on-demand switching functions). One example of such a connection control parameter is the VLAN identifier. Moreover, products with user-side X.25, frame relay, ATM or IP interfaces at the network termination points which make it possible to control the connection's destination by means of a connection control parameter are also not considered leased lines. Examples of connection control parameters for such products include the following: logical channel number, data link connection identifier (DLCI), virtual connection identifier (VCI), virtual path identifier (VPI) or a destination IP address. Regardless of the access technology used (e.g., xDSL, cable, WLAN), Internet connections generally enable on-demand switching, thus they are not classified as leased lines. Finally, products with more than two network termination points which deliver data sent from a customer interface to several or all of the product's other customer interfaces (multi-point to multi-point, not point-to-point) do not constitute leased lines.

In the case of wholesale leased lines, the network termination point is also defined as the point of interconnection between the contracting parties.

3. Ethernet services with guaranteed bandwidth

Ethernet services with guaranteed bandwidth refer to Ethernet services which provide a guaranteed bandwidth between two network termination points and which do not constitute leased lines with user-side Ethernet interfaces (e.g., because on-demand switching functions are provided).

In this context, guaranteed bandwidth between two network termination points is defined as the bandwidth which is guaranteed to be provided in the Ethernet service or the average data rate up to which specified performance levels are guaranteed, such as frame loss < maximum value, frame delay < maximum value, etc.

In the case of wholesale Ethernet services with guaranteed bandwidth, the network termination point is also defined as the point of interconnection between the contracting parties.

4. Trunk segments

Trunk segments refer to those wholesale products or sections thereof belonging to this market which are provided for use by other communications network operators or service providers and which link trunk segment interconnection points in those 28 Austrian towns where Telekom Austria has realized its points of interconnection for the telephone network (as of November 2005).

Trunk segments typically do not reach the end user's network termination point.

The towns which fulfill the criteria above and thus apply as a differentiation criterion for trunk segments are as follows: Vienna, Graz, Linz, Salzburg, Innsbruck, Klagenfurt, Villach, Wels, Sankt Pölten, Dornbirn, Steyr, Wiener Neustadt, Feldkirch, Baden, Amstetten, Mödling, Spittal an der Drau, Bruck an der Mur, Telfs, Lienz, Vöcklabruck, Ried im Innkreis, Eisenstadt, Korneuburg, Wörgl, Hollabrunn, Judenburg, Bruck an der Leitha.

5. Terminating segments

Terminating segments refer to all wholesale products or sections thereof belonging to this market which are provided for use by other communications network operators or service providers and which are not classified as trunk segments.

6. Voice over IP (VoIP)

For the considerations taken in the course of market delineation, an essential distinction must be made between two types of VoIP services:

- Voice over Internet (VoI)

VoI is characterized by the fact that the VoIP provider offers services using the (public) Internet, but these services are generally not bundled with (broadband) Internet access to the retail consumer. Access to the retail consumer is realized via the retail customer's existing (broadband) Internet connection, that is, the VoIP provider uses the Internet or an existing Internet connection as an "access network." The customer's Internet connection (i.e., the physical connection, including Internet connectivity) is generally provided by an independent third party. VoI is offered in various forms: Some enable full connectivity with the conventional telephone network, while others only support outgoing calls to the conventional telephone network or are restricted to calls between Internet users.

- Voice over Broadband (VoB)

Voice over Broadband (VoB) is offered in the form of Voice over DSL (VoDSL) using copper-wire pairs or as "Voice over CATV" on cable television networks. VoB is characterized by the fact that the VoIP provider offers services in combination with the provision of (broadband) Internet access and uses VoIP technology to transport voice data in the access network. VoB services generally enable full connectivity with the conventional telephone network and are largely equivalent to conventional telephone services in terms of product characteristics. This is not least due to the fact that the provider controls the quality parameters in the access network by offering a VoIP service combined with (broadband) Internet access. Moreover, VoB operators can generally fulfill the requirements for the use of geographical telephone numbers.

Explanatory remarks regarding individual markets:

1. Access to the public telephone network at a fixed location for residential customers

From a factual standpoint, this market is part of Market No. 1 in the Commission Recommendation on relevant markets.

The market for access to the public telephone network at a fixed location comprises implementations of analog and digital access to the public telephone network via one's own copper-wire pair network or fiber optics network, unbundled lines, leased lines or cable networks (CATV connections). Access includes the connection and reachability for incoming calls. Implementations of access to the public telephone network via mobile networks are not included in this market.

Due to differing demand characteristics and different forms of marketing by providers, residential and non-residential customers are assigned to separate markets.

Access realized using VoB is included in this market, while access using Vol is not.

2. Access to the public telephone network at a fixed location for non-residential customers

From a factual standpoint, this market is part of Market No. 1 in the Commission Recommendation on relevant markets.

With regard to the realizations of access, see the explanatory remarks on No. 1 above. With regard to the delineation of this market from the retail market, see the definitions above.

3. Physical access to network infrastructure (wholesale market)

This market corresponds to Market No. 4 in the European Commission's markets recommendation.

This market comprises fully unbundled access to subscriber lines, which includes metallic lines from the main distribution frame (MDF) to the customer's network termination point. Unbundling services are also assigned to this market in cases where only sections of the subscriber line are unbundled.

This market also includes those metallic subscriber lines which are installed by communications operators themselves in order to connect subscribers to their network using their own infrastructure,

regardless of whether such subscriber lines are used for the provision of retail products such as ADSL Internet access or voice telephony, or for wholesale products such as bitstream access or leased line services.

Therefore, this market includes all metallic subscriber lines (regardless of how they are used) where such lines have been unbundled, are or can be used as a self-provided wholesale service, or serve the purpose of shared access.

This market does not include cable television (CATV) networks.

4. Call origination on the public telephone network provided at a fixed location

This market corresponds to Market No. 2 in the European Commission's markets recommendation.

Origination on the public telephone network at a fixed location refers to a wholesale service provided by subscriber network operators for the purpose of carrying traffic initiated by the users at network termination points in their own communications network to the nearest exchange capable of interconnection with other networks. An interconnectable exchange is one where such traffic is handed over to at least one other network operator.

Demanders of origination services are mainly carrier network operators selected by the users of other communications networks on the basis of call-by-call carrier selection and carrier pre-selection in order to handle outgoing calls.

Service network operators are also demanders of origination services. In order for the services (or service numbers) operated in their networks to be reached by users of other communications networks, service network operators have to rely on the origination services of subscriber network operators.

Subscriber network operators also provide origination services for themselves, even in cases where origination is not handled via an interconnectable exchange.

This is the case regardless of whether the origination service is offered as a wholesale component of a retail product to an operator's own communications service provider or to a third party.

This market includes voice, fax and dial-up modem connections (including dial-up Internet connections).

The relevant market includes the origination services of all subscriber network operators.

Voice over Broadband (VoB) origination services – including those realized using naked DSL connections – are part of this market, while Voice over Internet (VoI) origination services are not.

5. Call termination on individual public telephone networks provided at a fixed location

This market corresponds to Market No. 3 in the European Commission's markets recommendation.

Termination is a wholesale service provided by every subscriber network operator for the purpose of carrying incoming traffic from the last interconnectable exchange before a network termination point to that termination point in the subscriber network. An interconnectable exchange is one where such traffic is handed over by at least one other network operator.

The demanders of termination services include carrier and subscriber network operators which carry calls.

Subscriber network operators which have access to the public telephone network at fixed locations provide termination services for themselves within each network-

internal connection, even in cases where the terminating traffic is not routed via an interconnectable exchange.

This is the case regardless of whether the termination service is offered as a wholesale component of a retail product to an operator's own communications service provider or to a third party.

This market includes voice, fax and dial-up modem connections (except for dial-up Internet connections).

Termination services can only be rendered by the provider network to which the subscriber is connected. Therefore, these markets are specific to each network operator.

6. Retail leased lines up to and including 2.048 Mbit/s

The market for leased lines at the retail level comprises analog leased lines with bandwidth for voice connections of normal or special quality as well as digital leased lines with bandwidths of 64 kbit/s and 2048 kbit/s (structured and unstructured). Moreover, this market also includes leased lines with a capacity equaling any multiple of 64 kbit/s up to 2048 kbit/s.

This market does not include unswitched copper-wire pairs or dark fiber.

Moreover, products with end user-side X.25, frame relay, ATM, Ethernet or IP interfaces at the network termination points which make it possible to control the connection's destination by means of a connection control parameter (see definition of leased lines above) are not included in this market. Likewise, this market does not include products with end user-side Ethernet interfaces at more than two network termination points which transport Ethernet frames sent from a customer interface to several or all other customer interfaces belonging to the same product. Finally, this market does not include Internet access services, which provide the end user with on-demand switching functions.

7. Terminating segments of leased lines with low bandwidths up to and including 2.048 Mbit/s (wholesale market)

This market includes terminating segments of leased lines and Ethernet services with a guaranteed bandwidth up to and including 2.048 Mbit/s (see the "Definitions" section above for definitions of these services).

This market also includes those terminating segments up to and including 2.048 Mbit/s which a communications network operator makes available to a communications service provider within the same company in order to provide leased lines or Ethernet services with guaranteed bandwidths at the retail level ("self-provided services").

This market does not include unswitched copper-wire pairs or dark fiber.

Moreover, products with user-side X.25, frame relay, ATM or IP interfaces at the network termination points which make it possible to control the connection's destination by means of a connection control parameter (see definition of leased lines above) are not included in this market.

8. Terminating segments of leased lines with high bandwidths over 2.048 Mbit/s up to and including 155.52 Mbit/s (wholesale market)

This market includes all (sub-)products belonging to the market except for those where both ends of the leased line are located within one of the following Austrian municipalities: Bregenz, Dornbirn, Feldkirch, Graz, Hallein, Innsbruck, Klagenfurt, Linz, Salzburg, Steyr, Wels and Vienna.

This market includes terminating segments of leased lines and Ethernet services with a guaranteed bandwidth over 2.048 Mbit/s up to and including 155.52 Mbit/s (see the "Definitions" section above for definitions of these services).

The market also includes those terminating segments with high bandwidths (over 2.048 Mbit/s up to and including 155.52 Mbit/s) which a communications network operator makes available to a communications service provider within the same company in order to provide leased lines or Ethernet services with guaranteed bandwidths at the retail level ("self-provided services").

This market does not include unswitched copper-wire pairs or dark fiber.

Moreover, products with user-side X.25, frame relay, ATM or IP interfaces at the network termination points which make it possible to control the connection's destination by means of a connection control parameter (see definition of leased lines above) are not included in this market.

9. Call termination in individual mobile networks (wholesale market)

This market corresponds to Market No. 7 in the European Commission's markets recommendation.

Termination refers to a wholesale service in which calls are routed from an interconnectable exchange to the mobile telephone connection dialed. Wholesale-level demand for termination on the part of a communications network operator depends on demand among retail subscribers: In order to make calls to other subscribers – regardless of whether they belong to the same or different communications networks – each subscriber requires termination as a wholesale service.

Mobile network operators provide termination services for themselves within each network-internal connection, even in cases where the terminating traffic is not routed to the network termination point via an interconnectable exchange.

This is the case regardless of whether the termination service is offered as a wholesale component of a retail product to an operator's own communications service provider or to a third party.

As this wholesale service can only be rendered by the provider network to which the subscriber is connected and termination charges are not given sufficient consideration in network selection (even under the "calling party pays" principle), these termination markets are specific to each network operator. This market does not include SMS termination, as text messages and mobile voice services are not demanded as bundled products. SMS termination is not a separate relevant market because this service does not exhibit any of the deficits in competition or structural competition problems, meaning that the second criterion in the "three criteria test" is not fulfilled.

Regarding Art. 2 Par. 1:

In geographical terms, the market generally comprises the area in which objectively similar competitive conditions (e.g., the regulatory framework) apply to the providers of communications services. For the markets under Art. 1 Nos. 1 to 7 and No. 9, this is the case throughout the entire territory of Austria.

Regarding Art. 2 Par. 2:

As an exception to Art. 2 Par. 2, the market for terminating segments of leased lines with high bandwidths over 2.048 Mbit/s up to and including 155.52 Mbit/s under Art. 1 No. 8 was delineated according to the different competitive conditions prevailing in different geographical areas.

Regarding Art. 4:

The substitution considerations regarding the markets under Art. 1 Nos. 4, 6 and 17 TKMVO 2003 (publicly available local and/or national telephone services provided at a fixed location for non-residential customers [Art. 1 No. 4 TKMVO 2003], publicly available international telephone services provided at a fixed location for non-residential customers [Art. 1 No. 6 TKMVO 2003], and broadband access [Art. 1 No. 17 TKMVO 2003]) had not yet been completed at the time when the TKMV 2008 was adopted. Therefore, these markets cannot be integrated into the TKMV 2008 at the present time.