

Glossary of terms

ADR

American Depository Receipt

ADS

American Depository Share

ADSL

Asymmetric Digital Subscriber Line

With ADSL, transmissions from provider to user take place at a higher speed than from user to provider. ADSL allows high-speed digital communication, including video signals, across an ordinary twisted-pair copper phone line. An ADSL modem is required.

All-IP

IP is a technology based on the Internet Protocol. 'All-IP' refers to the transformation of KPN to an ICT- Multimedia organization which offers its customers all needs for communication. The new organization will be fully based on IP-service using a new fibre-network.

AMPU

Average Minutes Per User

Weighted AMPU are calculated by taking the weighted average of the monthly AMPU during the year. The monthly AMPU is calculated by dividing total traffic volumes during a month by the average number of customers in that month. Each month is weighed according to the average number of customers in that month.

ARPU

Average Revenue Per User

ARPU is the sum of connection fees, monthly fixed subscription revenues, traffic revenues and gross service provider revenues less related discounts during a one-month period, divided by the average number of customers during that month. Gross service provider revenues represent revenues generated by third-party providers. We account for the net part as gross service provider revenues. Gross service provider revenue is mainly generated by E-Plus.

ATM

Asynchronous Transfer Mode

ATM is a transfer mode in which the information is organized into cells. It is asynchronous in the sense that the recurrence of cells containing information from an individual user is not necessarily periodic.

Backbone

Central processing point.

BiPT

Belgisch instituut voor Postdiensten en Telecommunicatie

The Belgian Institute for Postal Services and Telecommunications is active as the telecommunications regulator in Belgium.

Bitstream access

Unbundled access to KPN's metallic local loops using DSL and ATM technology over KPN's copper infrastructure. A BitStream access connection consists of an xDSL broadband connection combined with an ATM Permanent Virtual Circuit.

Broadband

Broadband refers to telecommunication that provides multiple channels of data over a single communications medium, typically using some form of frequency or wave division multiplexing.

Bundesnetzagentur (former RegTP)

The Federal Network Agency is active as the telecommunications regulator in Germany.

Carrier Select

Method to opt for a different operator by entering an access code.

Churn

The number of mobile customers no longer connected to a mobile operator's network divided by the operator's customer base.

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CityRing

Fiber optic access network for data and Internet traffic in and across several Dutch cities.

Co-location

The provision of space and technical facilities (such as power supply and air-conditioning) for a customer's telecommunications equipment on the service provider's premises, in the framework of interconnection or special access.

Content

The information presented on Internet sites, including its structure.

CPS

Carrier (Pre)Selection

With CPS, a customer is no longer required to dial the Carrier Select Code. The end user can dial the Carrier Select Code via an interactive Voice Response System.

Customer base

Customer base figures of our mobile operators consist of the number of end users as of the end of a period. The figures include data-only and PC connections, but exclude connections suitable for machine-base traffic. The customer base also comprises inactive prepaid users, who have had neither incoming nor outgoing traffic for three months, but have not met disconnection criteria.

DCS

Digital Cellular System

Mobile telephone network based on the GSM standard.

DSL

Digital Subscriber Line

DSL is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper PSTN lines. The widely used term xDSL refers to different variations of DSL, such as ADSL, HDSL, VDSL and SDSL.

DVB-T

Digital Video Broadcasting – Terrestrial

DVB-T constitutes a transparent transmission channel, via which all types of digital signal can be broadcast. In addition to digitalized video and audio data, multimedia and computer data can be broadcast as well.

DWDM

Dense Wavelength Division Multiplexing

Use of DWDM allows providers to offer services such as e-mail, video, and multimedia carried as Internet protocol (IP) data over asynchronous transfer mode (ATM) and voice carried over SDH. Despite the fact that these formats—IP, ATM, and SDH—provide unique bandwidth management capabilities, all three can be transported over the optical layer using DWDM. This unifying capability allows the service provider the flexibility to respond to customer demands over one network.

EDGE

Enhanced Data rates for GSM Evolution

Enhanced data rates for GSM evolution. EDGE is a behind-the-scenes technology, pushing GPRS download speeds to above 100 kbps.

Ecapacity-VPN (E-VPN) or IP-VPN

Connects two or more offices using IP-VPN.

EuroRing

Fiber optic network for data and Internet traffic, running through several European cities.

GPRS

General Packet Radio Service

Particularly suited for voice, text and images. GPRS is an application that enables data packet switching via the GSM network as well as via the existing voice communication. GPRS will complement the existing CSD (Circuit Switched Data) of the GSM system. GPRS is based on the Global System for Mobile communications.

Gross churn ratio

Gross churn ratio is defined as the number of end-user relations terminated as a percentage of the average subscriber base. The ratio includes postpaid customers discontinuing the usage of our services due to involuntary churn (e.g. disconnections due to non-payment) and voluntary churn (e.g. customers switching to other operators) as well as prepaid customers whose call credits were not recharged in the past 13 months.

GSM**Global System for Mobile communications**

GSM is a second generation, digital mobile telephone system that is widely used in Europe and other parts of the world to send and receive voice and data.

Hirka

Our traditional backbone network.

HSDPA**High-Speed Downlink Packet Access**

HSDPA is a new mobile telephony protocol that, as an evolution of UMTS, is designed to increase the available data rate by a factor 5 or more.

ICT

Information, Communication and Technology

i-mode

Mobile data services originally developed and launched by NTT DoCoMo.

IP-VPN**Internet Protocol – Virtual Private Network**

Offers a secured and private network using IP-based infrastructure.

ISDN**Integrated Services Digital Network**

A worldwide digital communications network evolving from existing telephone services. A standard ISDN connection consists of three channels, i.e. two B channels to carry data and voice at a speed of 64 Kbps and one D channel to carry control information at a speed of 16 Kbps.

ISP**Internet Service Provider**

A company that provides individuals and companies access to the Internet. Therefore, ISP maintains one or more connection points to the Internet for ISP subscribers. An ISP itself can be a subcontractor of an ISP that is connected with an Internet backbone.

Lambda

Our national fiber optic network in The Netherlands.

LAN**Local Area Network**

A LAN is a network designed to move data between stations within a campus.

Local Loop

The system, being a wired connection from a telephone company's central office in a locality to its customers' telephones at homes and businesses, was originally designed for voice transmission only using analog transmission technology on a single voice channel. Today, a computer modem converts analog signals and digital signals. With ISDN or DSL, Local Loop can carry digital signals directly and at a much higher bandwidth than for voice only.

Market share

The operator's share in the total industry revenues in a country.

MDF**Main Distribution Frame**

Allows other telecommunications companies to access the local network, enabling them to connect with their customers through our main distribution frame.

MetroRings

City-level networks.

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MMS

Multimedia Message Service

MMS is the ability to send messages comprising a combination of text, sounds, images and video to MMS capable handsets.

MoU

Minutes of Use

Minutes of Use is calculated by taking the weighted average of the monthly MoU during the year. The monthly MoU is calculated by dividing total traffic volumes during a month by the average number of customers in that month. Each month is weighed according to the average number of customers in that month.

MPLS

Multi Protocol Label Switching

Allows customers to classify and prioritize applications over their network according to their own business needs, while providing them with a high level of performance, security and reliability.

MTA tariff

Mobile Terminating Access tariff

The tariff, charged by mobile operators for the termination of incoming telephone traffic (originating from either a fixed or a mobile network) on their network.

MVNO

Mobile Virtual Network Operator

A mobile operator that does not have its own spectrum, nor its own network infrastructure. Instead, MVNOs have business arrangements with traditional mobile operators to buy minutes of use to sell to their own customers.

NMa

Nederlandse Mededingingsautoriteit

The Dutch Anti-trust Authority is the Dutch authority responsible for monitoring compliance with anti-trust rules.

OPTA

Onafhankelijke Post en Telecommunicatie Autoriteit

The Independent Post and Telecommunications Authority operates as the telecommunications regulator in The Netherlands.

Portal

Platform offering service providers and their customers access to fixed or mobile data services.

PSTN

Public Switched Telephone Network

Traditional telephone system that runs through copper cables (voice up to 64 Kbps, data up to 56 Kbps).

SDH

Synchronous Digital Hierarchy

A digital technology for synchronous data transmission on optical media at very high speeds (155 Kbps and higher).

SDSL

Symmetrical Digital Subscriber Line

SDSL transports only data and no traditional voice. SDSL uses similar speeds for up and download.

SIM card

Subscriber Identity Module card

A chip card inserted into a mobile phone, which contains information such as telephone numbers and memory for storing a directory.

SMS

Short Message Service

SMS is a service for sending messages of up to 160 characters to mobile phones that use GSM communications.

SoHo/SME

SoHo refers to Small Office/Home Office companies. SME refers to Small and Medium Enterprises.

Spam

Unsolicited emails, usually to many recipients. Not a message written for and mailed to one individual known to the sender neither a reply to an email is spam, unless that 'reply' is resent endlessly.

UMTS**Universal Mobile Telecommunications System**

One of the major third generation mobile communications systems being developed. UMTS is suited to deliver voice, text, music and animated images. Data can be sent via UMTS at approximately 6 times the speed of ISDN.

VPN**Virtual Private Network**

A virtual network constructed from logic connections that are separated from other users.

VoDSL**Voice over DSL**

Voice telephony and broadband Internet together.

VoIP**Voice over IP**

Voice traffic is transported over an IP-based data network. It enables new ways of communicating, such as combinations of telephony, messaging and videoconferencing.

WiFi**Wireless Fidelity**

For an explanation, reference is made to WiMax and WLAN.

WiMax**Worldwide Interoperability for Microwave Access**

WiMax is a standards-based wireless technology providing high-throughput broadband connections over long distances that can be used for a number of applications, including "last-mile" broadband connections, hotspots and high-speed enterprise connectivity for business. It is conceptually similar to WiFi, but has certain improvements aimed at a better performance and permitting usage over much greater distances.

WLAN**Wireless Local Area Network**

Through this wireless connection, Internet access is provided at the speed of broadband.

WLR**Wholesale Line Rental**

This system enables telecommunications providers to invoice customers for line rental and phone charges on the same bill, as opposed to having to pay for calls and line rental separately. With WLR, one can rationalize his organization's invoicing with one bill for line rental and call charges.