



IT- og Telestyrelsen

Ministeriet for Videnskab
Teknologi og Udvikling

Telecom Statistics

First Half of 2010



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Preface

Studies¹ have shown that information and communication technologies have a positive effect on productivity and growth. In relation to this, telecom infrastructure and developments plays an important role. A high usage of traditional telecommunication services such as broadband and mobile telephony and an increasing availability of new services such a mobile broadband are basic prerequisites for the creation of usable digitalisation and innovative solutions in Denmark which will benefit both citizens, companies and the public sector.

The development of the Danish telecom market is documented in the National IT and Telecom Agency's biannual telecom statistics. The statistical statements are based on data which the National IT and Telecom Agency collects from the telecom sector. Definitions and methods are developed in cooperation with both international organisations as well as through a continuous dialogue with the Danish telecom sector.

The National IT and Telecom Agency has published biannual telecom statistics that describe the Danish telecom market since 1999. However, historically the publication can be traced all the way back to 1922.

The format and content of these official telecom statistics have since changed many times and this publication – 'Telecom Statistics – First Half of 2010' marks the latest change. In recent years, the telecom statistics have primarily been a collection of tables and figures but with this edition focus will instead be on the development of selected areas which are described in text and numbers with references to relevant background material.

Background data to all figures and tables in the publication as well as statistics not covered in the publication including tables on company market shares can be found in a comprehensive spreadsheet found on the agency's website by clicking [here](#). In addition to this, there are also links to relevant data in the text in the publication.

The National IT and Telecom Agency hopes that these changes will result in a more reader friendly publication and wish that this will give the telecom statistics a larger audience and provide interesting reading for all interested in the Danish telecom market. In case of any questions or suggestions for improvements, enquiries can be made by email to statistik@itst.dk

¹ See for example *Information and Communications for Development 2009: Extending Reach and Increasing Impact*. The World Bank, 2009, and *Produktivitetsudviklingen i Danmark, 1966-2003, Danmarks Statistik, 2005*.

Main Indicators

MAIN INDICATORS, 2009-2010				
Subscriptions ultimo / Traffic in the period	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 – 1. H. 10
Subscriber lines – fixed network (1.000)	2.251	2.062	1.905	-15,4%
Subscriber lines per 100 inhabitants – fixed network	40,8	37,2	34,4	-15,8%
IP telephony subscriptions (1.000)	629	712	793	26,1%
Registrations to carrier selection (1.000)	192	177	170	-11,5%
Portings – fixed network (1.000)	132	155	133	0,5%
Outgoing fixed line traffic incl. IP telephony (mill. min.)	3.766	3.439	3.465	-8,0%
Outgoing fixed line traffic excl. IP telephony (mill. min.)	3.014	2.646	2.469	-18,1%
IP telephony traffic (mill. min.)	752	793	996	32,5%
Internet broadband subscriptions (1.000)	2.050	2.081	2.110	2,9%
Internet broadband subscriptions per 100 inhabitants	37,1	37,6	38,1	2,4%
xDSL broadband subscriptions (1.000)	1.245	1.251	1.240	-0,4%
Cable modem broadband subscriptions (1.000)	541	549	554	2,4%
Fibre broadband subscriptions (1.000)	120	135	144	20,3%
Mobil subscriptions (1.000)	7.018	7.418	7.559	7,7%
Mobile subscriptions per 100 inhabitants	127,1	134,0	136,3	7,2%
Mobile broadband subscriptions (1.000)	...	...	2.575	...
- Hereof standard subscriptions (1.000)	...	...	1.523	...
- Hereof add-on data subscriptions (1.000)	...	...	308	...
- Hereof dedicated data subscriptions (1.000)	418	587	744	78,0%
Portings - mobile (1.000)	281	302	355	26,3%
Outgoing mobile traffic (mill. min.)	5.094	5.268	5.504	8,0%
SMS sent (mill.)	6.473	6.583	6.620	2,3%
MMS sent (mill.)	34	41	40	17,8%
Mobil data traffic (mill. MB)	...	...	6.618	...
Bundled services - subscriptions (1.000)	437	561	646	47,8%

For main indicators in the period 2009 to 2010 click [here](#).

Mobile Telephony and Broadband

Mobile broadband made up all of the collected growth in the number of mobile subscriptions from the second half of 2009 to the first half of 2010, while the number of standard mobile voice subscriptions has seen a minor decrease for the first time.

Growth in the mobile market is due to mobile broadband

MOBILE SUBSCRIPTIONS, 2009-2010				
Subscriptions ultimo (in 1.000)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 1. H. 10
Mobile voice subscriptions	6.599	6.831	6.815	3,3%
- Hereof prepaid subscriptions	1.041	1.148	1.077	3,5%
Dedicated data subscriptions	418	587	744	78,0%
Total mobile subscriptions	7.018	7.418	7.559	7,7%
Mobile subscriptions per 100 inhabitants	127,1	134,0	136,3	7,2%

Note: The definition for 'dedicated data subscriptions' was changed from the first half of 2010.

There are 136 mobile subscriptions per 100 inhabitants in Denmark

The total amount of mobile subscriptions in Denmark rose with almost 8 pct. from the first half of 2009 to the first half of 2010. By the end of 2010, there were almost 7.6 million mobile subscriptions in Denmark, which corresponds to 136.3 mobile subscriptions per 100 inhabitants.

Mobile voice subscriptions have risen in the past year but have dropped from the second half of 2009 to the first half of 2010

Since the number of mobile voice subscriptions was first collected it has been an area of continuous growth but now for the first time, there has been a minor fall from the second half of 2009 to the first half of 2010. This is due to a decrease in the number of prepaid cell phone cards. If one looks at the development over the past year, the number of mobile voice subscription has however risen 3.3 pct. from the first half of 2009 to the first half of 2010.

Almost every tenth mobile subscription is a dedicated data subscription

Dedicated data subscriptions for mobile broadband rose with 157.000 in the period from the second half of 2009 to the first half of 2010 and thereby compensated for the minor drop in the number of mobile voice subscriptions so the total number of mobile subscriptions rose almost 2 pct. Almost every tenth mobile subscription in Denmark was a dedicated data subscription by the end of the first half of 2010.

For market shares of the telecom companies on mobile subscription please click [here](#).

TELEMETRY SUBSCRIPTIONS, 2009-2010

Subscriptions ultimo (in 1.000)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 2. H. 10
Telemetry subscriptions	377	470	511	35,6%

Note: As of the first half of 2010, the definition for telemetry subscriptions has been changed to be technology neutral. Previously, it only included telemetry subscriptions which used the GSM-network.

Growth in telemetry subscriptions

The number of telemetry subscriptions rose nearly 36 pct. from the first half of 2009 to the first half of 2010. Part of this increase may be due to a change in the definition for telemetry subscriptions. As of the first half of 2010, the definition is technology neutral where it previously only included telemetry subscriptions which used the GSM-network.

For market shares of the telecom companies on telemetry subscription please click [here](#).

TELEMETRY

Telemetry subscriptions are mobile subscriptions that solely have been used for communication between machines. This could for example be automatic reading of measurement data for a unit's electricity use or output.

PORTINGS, 2009-2010

Portings in the period (in 1.000)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 1. H. 10
Fixed network numbers	132	155	133	0,5%
Mobile numbers	281	302	355	26,3%
Outbound portings in total	413	457	488	18,1%

Portings of mobile numbers have increased 26 pct. the past year

The number of portings of mobile subscriptions, where subscribers change provider but keeps their old phone number, have increased 26.3 pct. from 281,000 to 355,000 from the first half of 2009 to the first half of 2010. For comparison, the total number of fixed network portings has only increased 0.5 pct. in the same period.

PORTINGS

Portings means that subscribers take their phone number with them when they change provider.

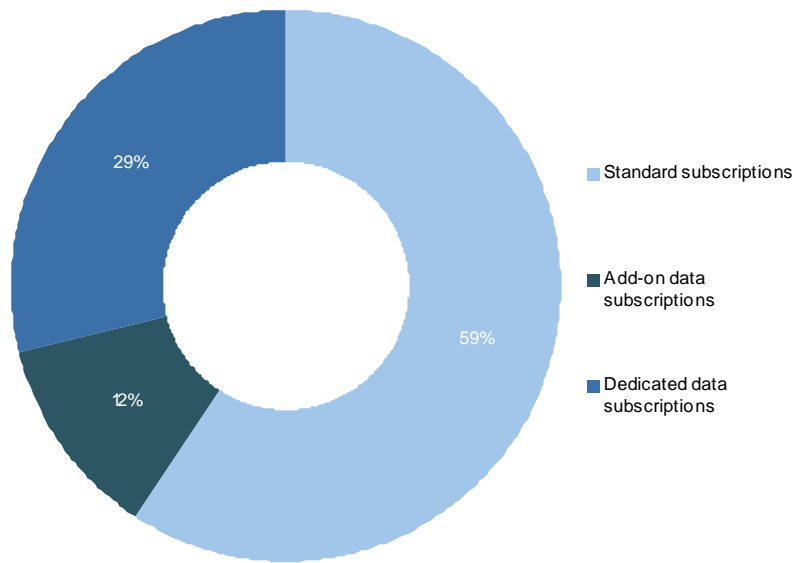


Figure 1
Mobile broadband subscriptions by type, first half of 2010

Note: Definitions for mobile broadband subscriptions and data traffic has been changed which means that the Telecom Statistics now include three indicators for mobile broadband as opposed to two in previous publications – one for data-only subscriptions and one for data subscriptions which allow speech. Thus, data from the first half of 2010 and previous periods are not directly comparable. See fact box for more information and click [here](#) for data on mobile broadband from the previous publications.

By the end of the first half of 2010, there were almost 2.6 million mobile broadband subscriptions in total.

59 pct. of the subscriptions are standard mobile subscriptions which have accessed the Internet in the last three months. 12 pct. are add-on data subscriptions and 29 pct. are dedicated data subscriptions via for example USB-modems for computers.

For market shares of the telecom companies on mobile broadband please click [here](#).

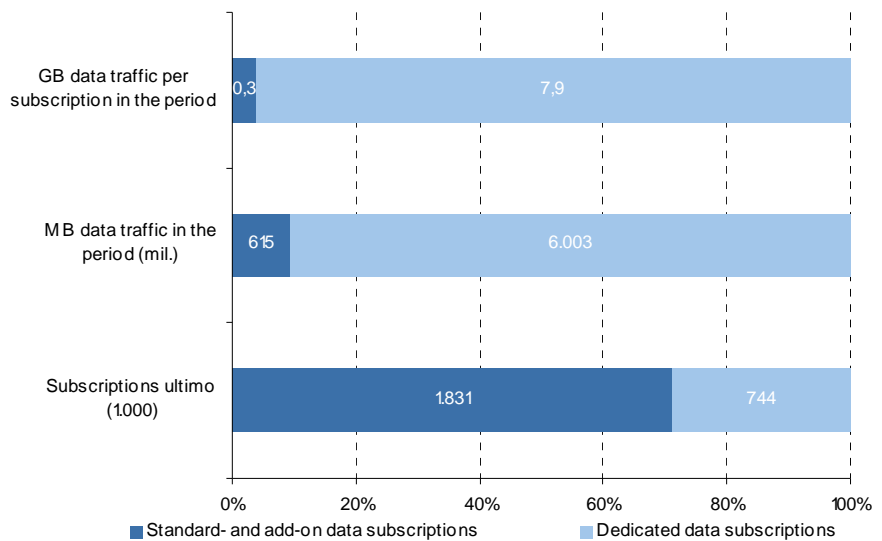


Figure 2
Mobile broadband subscriptions and traffic, first half of 2010

90 pct. of data traffic is generated by dedicated data subscriptions

7.9 GB data traffic per dedicated data subscription in the first half of 2010

More than 90 pct. of up- and download data traffic is generated by the 29 pct. of subscriptions that are dedicated data subscriptions. On the other hand, only a little more than 9 pct. of data traffic comes from the remaining 71 pct. of subscriptions which are made up of standards mobile subscriptions and add-on data subscriptions.

A standard mobile subscription or add-on data subscription generated on average 328 MB up- and download traffic in the first half of 2010 whereas a dedicated data subscription on average generated almost 7.9 GB up- and download traffic which is roughly 24 times more than the before mentioned subscriptions.

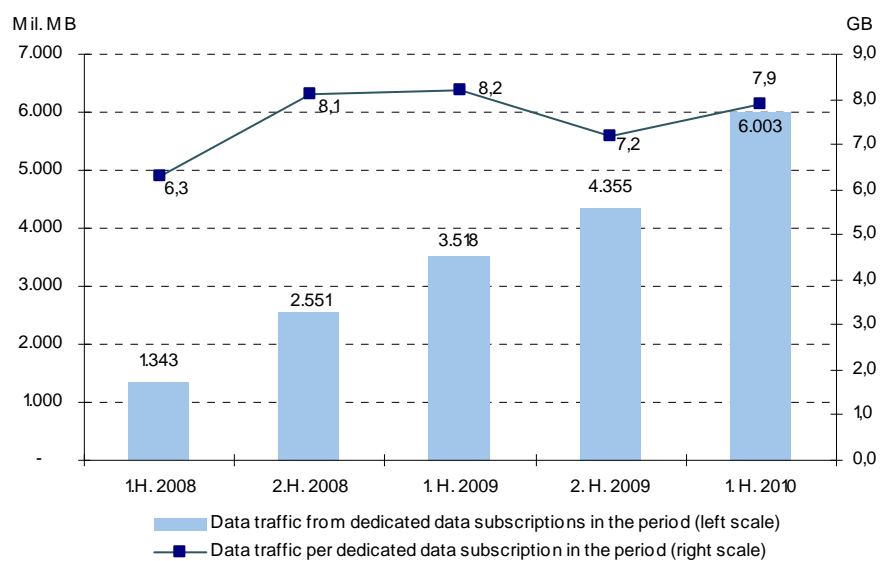


Figure 3

Data traffic from dedicated data subscriptions, 2008-2010

Dedicated data subscriptions have on average generated between 6 and 8 GB data traffic per half year from 2008 to 2010

Data traffic from dedicated data subscriptions is steadily rising and has risen almost 38 pct. from 4,355 million MB in the second half of 2009 to 6,003 million MB in the first half of 2010. In the last year, data traffic grew 71 pct. starting from 3,518 million MB and the growth has been 347 pct. in the last two years. Since 2008, data traffic per subscription has been around 7 to 8 GB per half year with the exception of the first half of 2008 where the average subscription up- and downloaded 6.3 GB data.

For market shares of the telecom companies on data traffic from dedicated data subscription please click [here](#).

MOBILE BROADBAND

In the telecom statistics, only mobile broadband subscriptions with an advertised download speed of at least 256 kbps are included.

Mobile broadband subscriptions are divided into three types:

Standard subscriptions consist of mobile voice subscriptions from which there have been established an Internet connection within the last three months but does not have a separate subscription for data access.

Add-on data subscriptions consist of regular mobile subscription which gives the subscriber the possibility of Internet traffic at a fixed determined rate. Add-on subscriptions are especially used for smartphones and often include a fixed limit on usage of data for example one or two GB data per month and a given maximum speed.

Dedicated data subscriptions consist of data-only mobile broadband subscriptions. Dedicated data subscriptions are often provided with a USB-dongle which the subscriber can use to establish a mobile broadband connection.

MOBILE VOICE TRAFFIC, 2009-2010

Outgoing traffic in the period (mill. min.)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 1. H. 10
Mobile telephony – outgoing domestic traffic	4.878	5.023	5.219	7,0%
Mobile telephony – outgoing international traffic	216	246	285	31,7%
Mobile telephony – outgoing traffic in total	5.094	5.268	5.504	8,0%

Mobile international traffic makes up around 5 pct. of total traffic volume

There is a big difference in the growth rates for outgoing domestic and international traffic from mobile subscriptions. Outgoing domestic traffic rose 3.9 pct. from the second half of 2009 to the first half of 2010 while the growth in international traffic in the same period was 16 pct. In the first half of 2010, international traffic made up around 95 pct. of total voice traffic from mobile subscriptions.

For market shares of the telecom companies on mobile voice traffic please click [here](#).

SMS AND MMS, 2009-2010

SMS and MMS sent in the period (mill.)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 1. H. 10
SMS sent	6.473	6.583	6.620	2,3%
MMS sent	34	41	40	17,8%

In the first six months of 2010, 6.6 billion SMS messages were sent in Denmark

Danes continue to send many SMS messages. During the first six months of 2010, 6.6 billion SMS messages were sent in Denmark which is the highest number ever and an increase of more than 2 pct. compared to the corresponding period in 2009. The number of MMS messages rose almost 18 pct. from 34 million in the first half of 2009 to 40 million in the first half of 2010.

For market shares of the telecom companies on SMS and MMS messages please click [here](#).

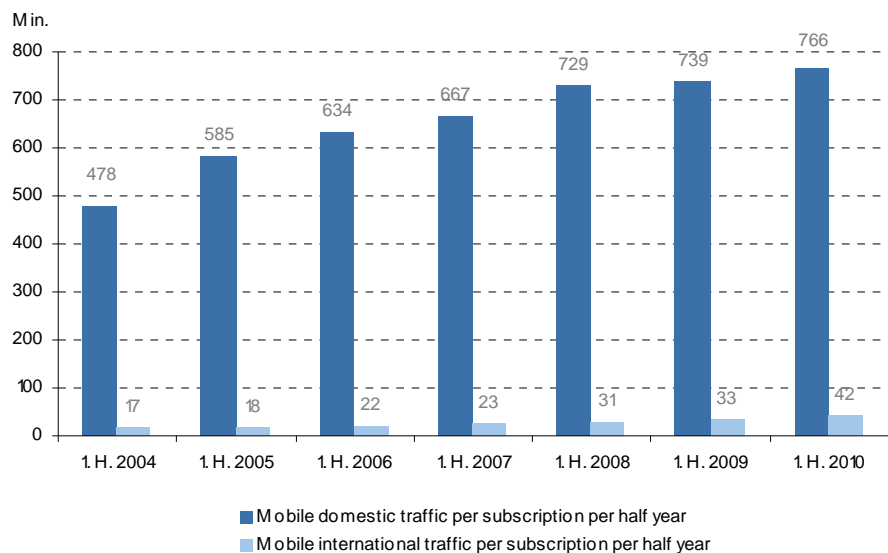


Figure 4

Mobile domestic and international voice traffic per subscription, 2004-2010

A total of 13 hours and 28 minutes of calls were made per subscription in the first half of 2010

The average usage per mobile subscription (excluding dedicated data subscriptions) was in the first half of 2010 808 minutes. Of these, 766 were domestic minutes and 42 were international minutes. That corresponds to 4.2 domestic minutes a day per subscription and 7 minutes of international traffic a month per subscription.

If one goes five years back and compares the first half of 2005 with the first half of 2010 then the growth rates are 31 pct. for domestic traffic from 3.2 to 4.2 minutes a day and 128 pct. for international traffic from 3.1 to 7 minutes per day.

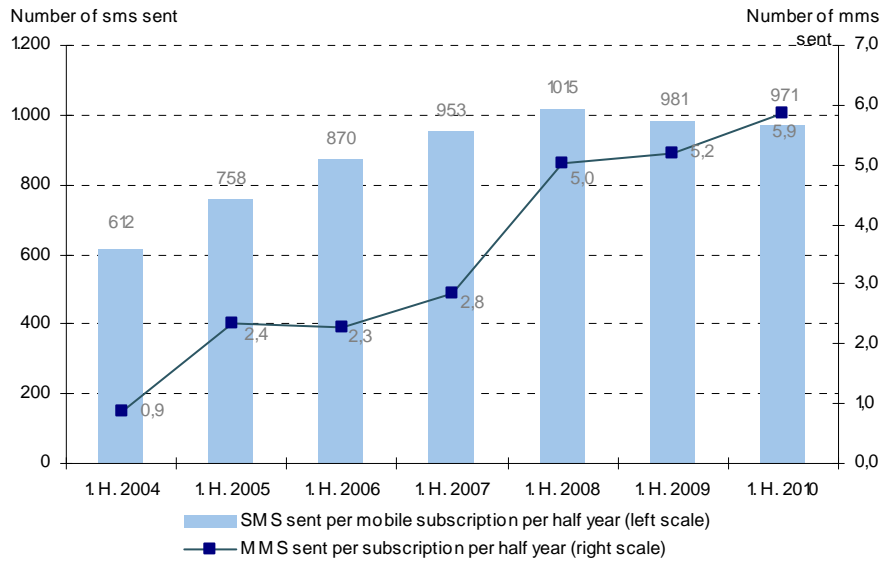


Figure 5

SMS and MMS per subscription
2004-2010

In the first half of 2010, 971 SMS messages were send per subscription

In the first half of 2010, 971 SMS messages were send per subscription. In the same period, 5.9 MMS messages were send per subscription. This equals an average of 5.4 SMS a day and just under 1 MMS a month per subscription.

If one looks at the growth in a five year perspective from the first half of 2005 to the first half of 2010, SMS and MMS messages per subscription increased 28 pct. and around 150 pct., respectively.

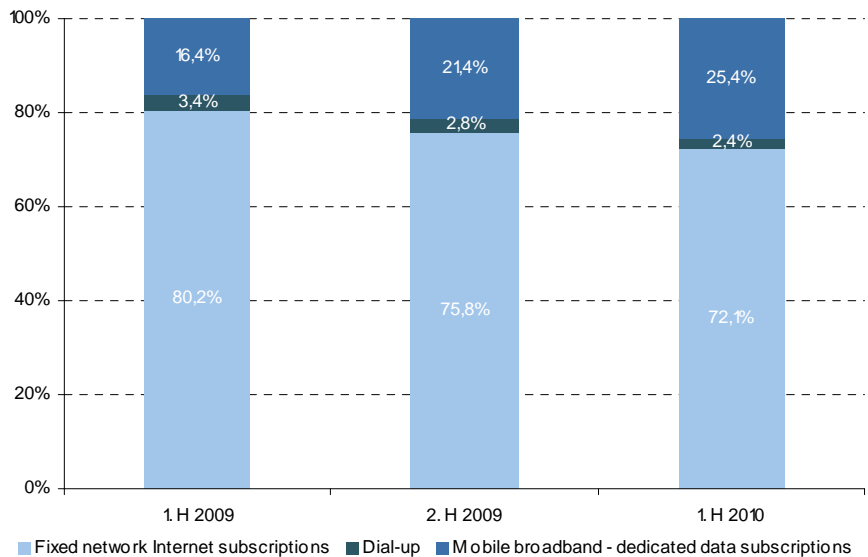


Figure 6

Internet subscriptions by type,
2009-2010

One in four Internet subscriptions are mobile

While the number of fixed Internet subscriptions increased modestly in recent years, there has been a large growth in mobile broadband. This means that a larger share of Internet subscriptions than ever before are mobile. While dedicated data subscriptions by the end of the first half of 2009 made up 16 pct. of all Internet subscriptions this share had increased to 25 pct. a year later. In addition, many also use their mobile phone to access the Internet.

Fixed Internet

On a fixed broadband market with otherwise modest growth rates, WiMAX subscriptions have doubled in the first half of 2010 from 19,000 to 37,000.

59 pct. of broadband subscriptions are xDSL subscriptions

Besides WiMAX, the number of fibre, cable modem and LAN subscriptions has also increased in the first half of 2010 while only the number of xDSL subscriptions has fallen. Despite the growth of the last half year, it is still less than 2 pct. of all broadband subscriptions that are based on WiMAX technology. The broadband market is still dominated by xDSL with a market share of 59 pct. and cable modem subscriptions with 26 pct. of the market.

FIXED BROADBAND SUBSCRIPTIONS				
Subscriptions ultimo (in 1.000)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 1. H. 10
xDSL	1.245	1.251	1.240	-0,4%
Cable modem	541	549	554	2,4%
Fibre	120	135	144	20,3%
LAN	121	119	128	6,3%
WiMAX	17	19	37	113,7%
Others	8	7	8	-1,7%
In total	2.050	2.081	2.110	2,9%

The number of broadband subscriptions has grown 3 pct. in the past year

By the end of the first half of 2010, there were 2,110,000 broadband subscriptions in Denmark which is an increase of around 3 pct. from the first half of 2009. Besides broadband subscriptions, there were 71,000 Internet subscriptions based on dial-up via modem.

For market shares of the telecom companies on broadband please click [here](#).

FIXED INTERNET TECHNOLOGIES

xDSL is a digital access technology which makes it possible to use the traditional telephone connection for data transmission.

Cable modem is a unit that supports a DOCSIS standard (Data over Cable System Interface Specification) which makes it possible to send and receive data signals through a cable TV net while at the same time broadcasting radio and TV programmes.

Optical fibre is an access technology where signals are transmitted through fibre optics by light signals. Fibre connections often have just as fast upstream speeds as downstream speeds as opposed to other broadband connections.

WiMAX, which stands for World wide interoperability for Microwave Access, is a wireless access technology that makes it possible for the end user to access a wireless broadband connection and to a certain extent have some mobility depending on the WiMAX standard used.

LAN (Local Area Network) consists of an internal local network in for example a housing association or a dormitory where the individual households/rooms share a common Internet connection. The connection to the building can for example consist of an optical fibre or a xDSL connection.

DOWNSTREAM SPEEDS, 2009-2010

Subscriptions ultimo (in 1.000)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 1. H. 10
At least 144 kbit/s, under 2 Mbit/s	160	122	112	-30,2%
At least 2 Mbit/s, under 4 Mbit/s	323	230	182	-43,6%
At least 4 Mbit/s, under 10 Mbit/s	986	975	915	-7,2%
At least 10 Mbit/s, under 50 Mbit/s	528	686	820	55,2%
At least 50 Mbit/s	20	25	31	55,1%
In total specified	2.017	2.038	2.060	2,1%
Unspecified	33	43	49	50,3%
In total	2.050	2.081	2.110	3,3%

*40 pct. have at least 10 Mbps
downstream*

The number of broadband subscriptions with an advertised downstream speed of at least 10 Mbps has risen almost 20 pct. during the first half of 2010 to roughly 851,000 subscriptions and now make up 40 pct. of broadband subscriptions as opposed to 27 pct. a year earlier. The faster broadband subscriptions are also reflected in the median speed which has risen from 8.1 Mbps in the second half of 2009 to 8.8 Mbps in the first half of 2010.

UPSTREAM SPEEDS, 2009-2010

Subscriptions ultimo (in 1.000)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 2. H. 10
Under 512 kbit/s	483	347	216	-55,2%
At least 512 kbit/s, under 1 Mbit/s	824	795	835	1,3%
At least 1 Mbit/s, under 2 Mbit/s	447	591	663	48,4%
At least 2 Mbit/s, under 4 Mbit/s	120	122	148	22,8%
At least 4 Mbit/s	144	182	198	38,0%
In total specified	2.018	2.038	2.060	2,1%
Unspecified	33	43	49	50,1%
In total	2.051	2.081	2.110	2,9%

Almost every other subscription has an upstream speed of at least 1 Mbps

Upstream speeds are also rising. In the first half of 2009, roughly every third subscription had an upstream speed of at least 1 Mbps while a year later this has risen to almost every second subscription. Only 10 pct. of all subscriptions sold in the first half of 2010 had an upstream speed under 512 kbps while this a year earlier was 24 pct. of all subscriptions.

ADVERTISED AND ACTUAL SPEEDS

The speeds of broadband connections included in the telecom statistics are so called advertised speeds as one would see in for example adverts for broadband offers. The actual speed users experience, when using their Internet subscription, is in most cases lower than the advertised speed.

You can check the speed of your own Internet subscription by using the National IT and Telecom Agency's broadband speed test [here](#).

77 pct of all fibre subscriptions have at least 10 Mbps downstream

The technology used has a large impact on advertised speeds of the sold subscriptions. Thus, 77 pct. of all fibre connections have a downstream speed of at least 10 Mbps while it is only 41 pct. of xDSL and 36 pct. of cable modem subscriptions which have a speed of at least 10 Mbps.

DOWNSTREAM SPEEDS BY TECHNOLOGY, 1. H. 2010

	xDSL	Cable modem	Fibre	LAN	WiMAX
Under 2 Mbit/s	5%	3%	8%	6%	30%
At least 2 Mbit/s, under 4 Mbit/s	10%	4%	3%	13%	43%
At least 4 Mbit/s, under 10 Mbit/s	44%	57%	11%	20%	23%
At least 10 Mbit/s, under 30 Mbit/s	41%	35%	54%	19%	3%
At least 30 Mbit/s	0%	1%	22%	5%	0%
Unspecified	0%	0%	1%	36%	0%
In total	100%	100%	100%	100%	100%

WiMAX is the technology where the sold subscriptions have the lowest speeds. Nearly 74 pct. of WiMAX costumers have a download speed under 4 Mbps while it for all other access technologies only is 14 pct. that have speeds under 4 Mbps.

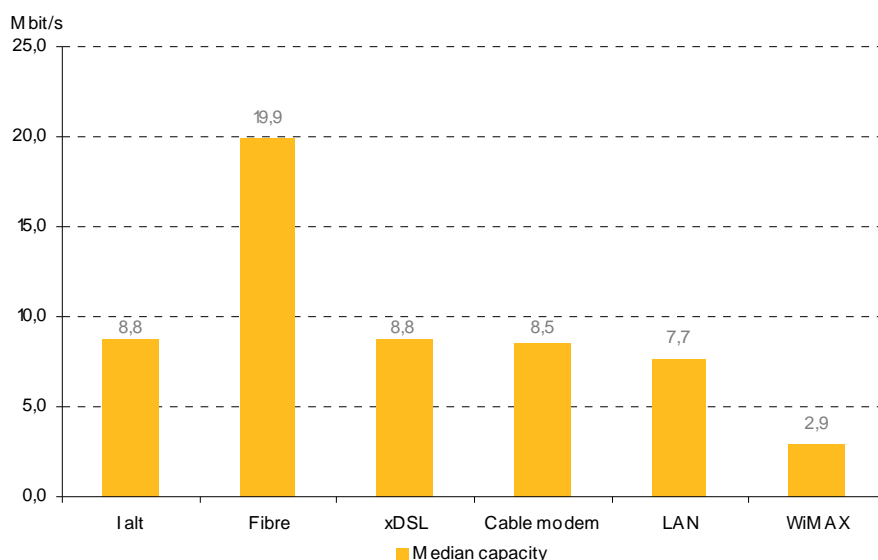


Figure 7
Downstream median speed by technology, first half of 2010

Fibre subscriptions have the highest downstream speeds

The sold fibre connections have a median speed of around 20 Mbps downstream while the median speed for xDSL, cable modem and LAN subscriptions is less than half of this. WiMAX has a median speed of around 3 Mbps.

MEDIAN SPEED

The median speed is the speed at which half of the sold subscriptions either have the same or a higher speed and half either have the same or a lower speed. This way the median gives an estimated depiction of the typical advertised speed.

UPSTREAM SPEEDS BY TECHNOLOGY, 1. H. 2010

	xDSL	Cable modem	Fibre	LAN	WiMAX
Under 512 kbit/s	14%	5%	0%	2%	21%
At least 512 kbit/s, under 1 Mbit/s	44%	48%	1%	4%	63%
At least 1 Mbit/s, under 2 Mbit/s	35%	36%	8%	11%	9%
At least 2 Mbit/s, under 4 Mbit/s	7%	7%	7%	12%	4%
At least 4 Mbit/s	0%	4%	84%	35%	4%
Unspecified	0%	0%	1%	36%	0%
In total	100%	100%	100%	100%	100%

Nine out of ten fibre subscriptions have at least 2 Mbps upstream speeds

Likewise, fibre subscriptions in general have faster upstream speeds than broadband connections based on other technologies. While nine out of ten fibre subscriptions have an upstream speed of at least 2 Mbps that is the case for only one out of ten broadband subscriptions based on xDSL, cable modem or WiMAX. Almost half of the LAN subscriptions have an upstream speed of at least 2 Mbps.

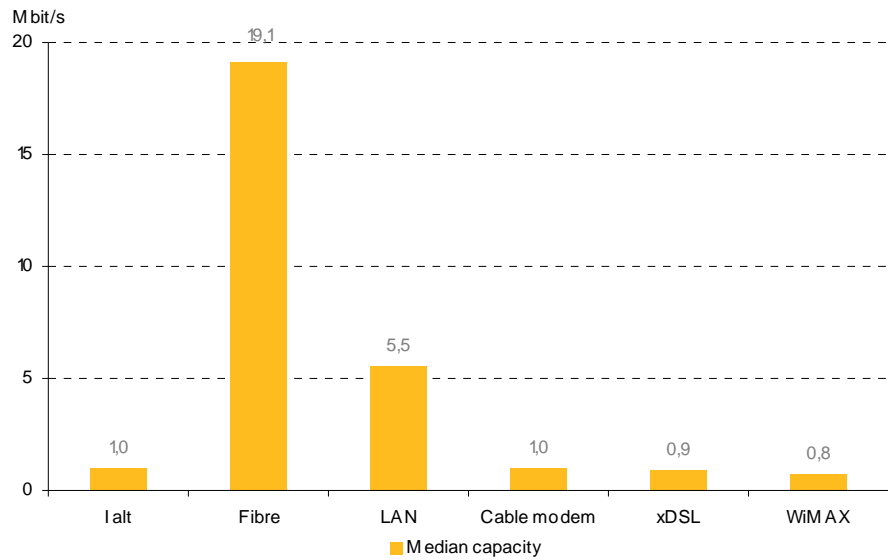


Figure 8
Upstream median speed by technology, first half of 2010

The median upstream speed for fibre is 19 Mbps while cable modem, xDSL and WiMAX all have median speeds of 1 Mbps or below. LAN connections have relatively high upstream speeds which probably are due to the fact that LAN is often based on fibre.

Fixed Telephony

The number of PSTN subscriptions has decreased by 37 pct. in the last three years while the number of IP telephony subscriptions has more than doubled.

IP telephony subscriptions has more than doubled in three years

The development trends for PSTN and IP telephony are opposite. While the number of IP telephony subscriptions has more than doubled from 309,000 to 793,000 from the first half of 2007 to the first half of 2010, the number of PSTN subscriptions has fallen by 37 pct. from 2.2 million to 1.4 million in the same period. The number of ISDN subscriptions has likewise fallen from 266,000 in the first half of 2007 to 158,000 in the first half of 2010 which corresponds to a decrease of around 40 pct.

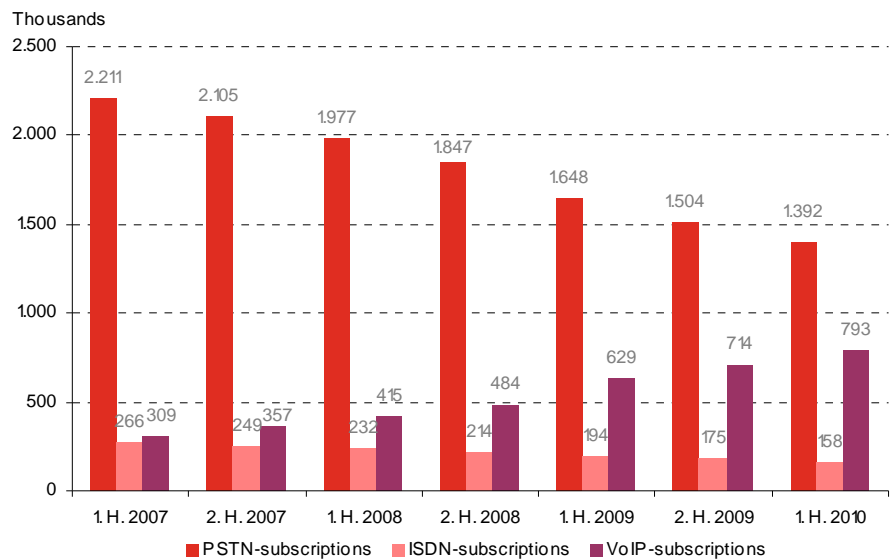


Figure 9

Fixed telephony subscriptions by technology, 2007-2010

Note: As of the second half of 2008, the data only includes active IP telephony subscriptions. This means subscriptions that have generated in- and/or outgoing traffic within a three month period.

IP telephony subscriptions as a share of fixed network subscriptions has grown from 11 pct. in the first half of 2007 to 34 pct. in the first half of 2010.

For market shares of the telecom companies on fixed telephony please click [here](#).

PSTN, ISDN AND IP-TELEPHONY WITH/WITHOUT QUALITY OF SERVICE

PSTN (Public Switch Telephony Network) is used as a term for traditional analogue fixed telephony over the copper net.

ISDN (Integrated Services Digital Network) is a technology that makes it possible to use digital telephony and data transmissions at the same time on one copper line.

IP telephony is telephony over the Internet where data packages are being sent between callers by different routes on the Internet. IP telephony can thereby be used on all access technologies.

An IP telephony subscription can be sold with *Quality of Service (QoS)* which includes a safeguard securing the IP telephony call against fallouts caused by delays and loss of data packages ensuring the end user a guaranteed quality.

IP TELEPHONY SUBSCRIPTIONS, 2009-2010

Subscriptions ultimo (in 1.000)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 2. H. 10
IP Telephony subscriptions in total	629	712	793	26,1%
- hereof with Quality of Service (QoS)	537	626	697	29,8%
- hereof without Quality of Service (QoS)	92	86	96	4,6%

Note: As of the second half of 2008, the data only includes active IP telephony subscriptions. This means subscriptions that have generated in- and/or outgoing traffic within a three month period.

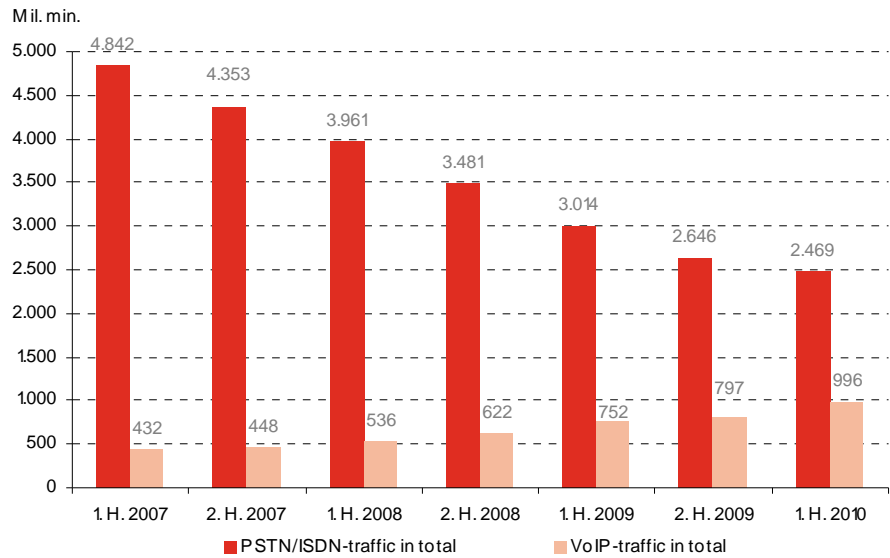
Nine out of ten IP telephony subscriptions have Quality of Service

Most IP telephony subscription have Quality of Service (QoS). From the first half of 2009 to the first half of 2010, the number of IP telephony subscriptions with QoS rose almost 30 pct. from 537,000 to 697,000. At the same time, the number of IP telephony subscriptions without QoS have risen around 5 pct. from 92,000 to 96,000.

34 pct. decrease in fixed telephony traffic during the past three years

The total fixed telephony traffic continues to decrease. From the first half of 2007 to the first half of 2010, fixed telephony traffic has fallen more than 34 pct. from 5.3 billion minutes to 3.5 billion minutes.

Figure 10
Fixed telephony traffic by IP telephony and PSTN/ISDN, 2007-2010



Note: Do not include 'peer-to-peer' IP telephony traffic.

IP telephony traffic has increased 130 pct. and PSTN/ISDN traffic has fallen 49 pct. in three years

The decrease in total fixed telephony traffic covers two different developments. From the first half of 2007 to the first half of 2010, IP telephony has grown more than 564 million minutes equivalent to a growth of around 130 pct. Whereas IP telephony traffic at the start of the period made up only 8 pct. of the total fixed telephony traffic, in the first half of 2010 it made up almost 29 pct. PSTN/ISDN traffic has moved in the opposite direction and has fallen from 4.8 billion minutes in the first half of 2007 to 2.5 billion minutes in the first half of 2010 which is equivalent to a fall in PSTN/ISDN traffic of roughly 49 pct.

For market shares of the telecom companies on fixed network traffic please click [here](#).

Bundled Services

Bundled services has increased more than fivefold in two years.

Growth in bundled services in recent years

The number of bundled services has grown substantially during the last couple of years. In the first half of 2010 there were nearly 646,000 subscriptions on bundled services where two years earlier there were nearly 133,000 subscriptions which corresponds to a growth in the period of around 387 pct.

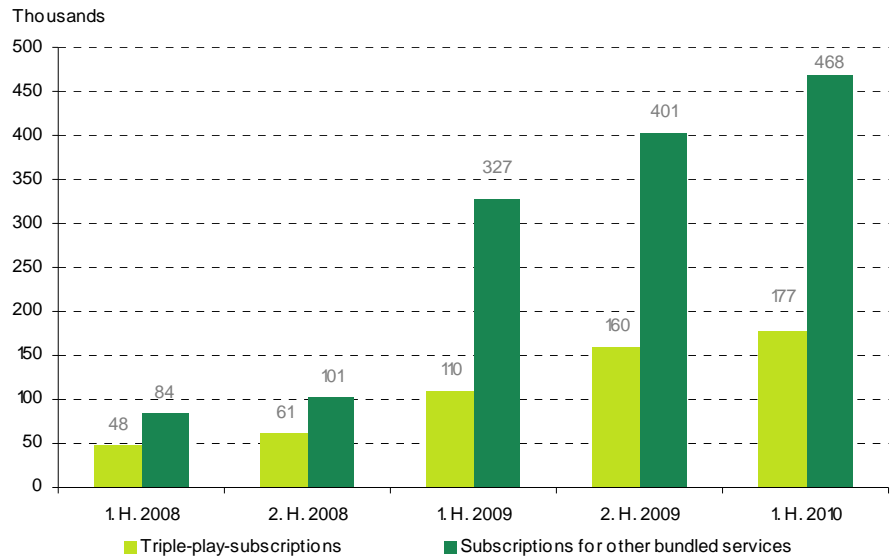


Figure 11

Bundled services by type 2008-2010

Note: As of the first half of 2010, there is no longer a requirement that subscriptions should be marketed as a single product. Subscriptions should however still consist of a single product package sold at a single price.

Triple-play is not the most widespread bundled service

The largest growth has not taken place in triple play subscriptions but in the other bundled services. The number of triple play subscriptions has increased by around 129,000 from the first half of 2008 to the first half of 2010 which equals a growth of 267 pct. The other types of bundled services have in the same period grown by 384,000 subscriptions from around 84,000 to a little more than 468,000 which is a growth of 455 pct.

BUNDLED SERVICES

A bundled service consist of a commercial offer of two or more services of fixed network/mobile telephony, TV and Internet at a single price. Bundled services primarily includes dual play subscriptions (two services) and triple play subscriptions (three services).

Nine out of ten triple play subscriptions only includes fixed services

Triple play subscriptions that only include fixed services made up a little more than 91 pct. of all triple play subscriptions in the first half of 2010. It is also here that the growth in triple play subscriptions the last couple of years has taken place. Triple play subscriptions that only include fixed services have grown by around 86 pct. from the first half of 2009 to the first half of 2010. Triple play subscriptions that only include mobile services or a combination of mobile and fixed network services have fallen by 38 pct and 6 pct, respectively.

BUNDLED SERVICES, 2009-2010				
Subscriptions ultimo (in 1.000)	1. H. 2009	2. H. 2009	1. H. 2010	Growth 1. H. 09 - 1. H. 10
Bundled services in total	437	561	646	47,8%
Bundled services excl. Triple-play	327	401	468	43,2%
Triple-play in total	110	160	177	61,8%
- of which fixed triple play	87	141	162	86,2%
- of which mobile triple-play	18	14	11	-37,9%
- of which triple-play fixed and mobile combined	4	4	4	-6,2%

Note: As of the first half of 2010, there is no longer a requirement that subscriptions should be marketed as a single product. Subscriptions should however still consist of a single product package sold at a single price.

For market shares of the telecom companies on fixed line triple play please click [here](#).

IPTV

Fixed line IPTV continues to grow whereas there has been a fall in the number of subscriptions for mobile IPTV.

Fixed line IPTV has tripled in two years

The number of IPTV subscriptions by fixed line has more than tripled from almost 53,000 in the first half of 2008 to nearly 193,000 in the first half of 2010.

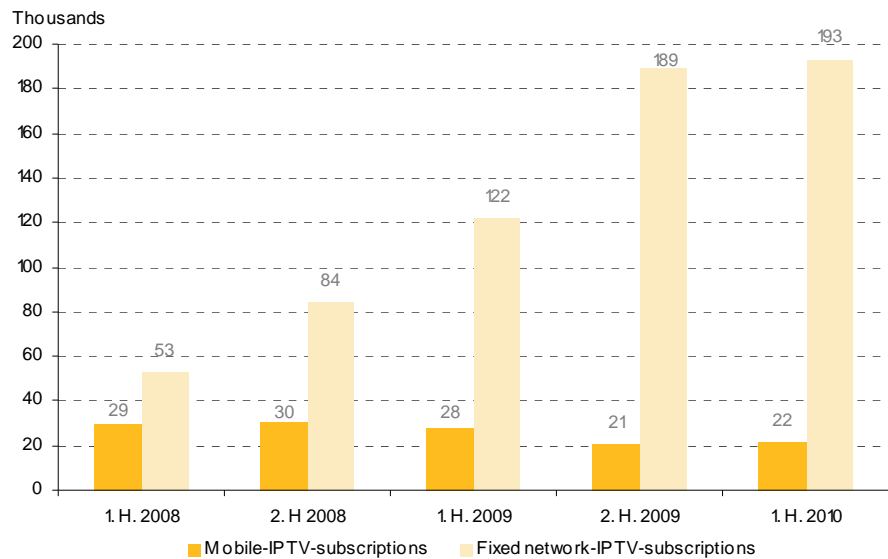


Figure 12

Fixed line and mobile IPTV, 2008-2010

So far, mobile IPTV peaked in the first half of 2008

The number of subscriptions for mobile IPTV topped in the second half of 2008 at around 30,000. Subsequently, there has been a fall and in the first half of 2010 there were nearly 22,000 subscriptions for IPTV by mobile phone in Denmark.

IPTV

IPTV is TV transmitted by the Internet protocol through either fixed line or a mobile broadband connection. In the telecom statistics, only IPTV subscriptions that enable the user to see TV programmes at the same time as they are broadcast (flow tv) are included.

As of the first half of 2010, only subscriptions with an external or internal physical digital receiver box, that decode the IPTV signal, are included.

For market shares of the telecom companies on fixed line IPTV please click [here](#).

Data Foundation

In Denmark, electronic communication networks and services may be provided by anyone without obtaining a licence, registration or similar requirements. Consequently, the National IT and Telecom Agency takes the reservation that possibly not all providers on the Danish telecom market are included in the telecom statistics.

Companies, that only provides hotspots, are not included in the statistics. There can also be certain providers especially on the market for international traffic that are based abroad and not included in the statistics.

Furthermore, it should be noted that not all providers report data in time for the publication of the telecom statistics which can result in variations in the published figures from half year to half year. Late reported data and corrections to previously reported data which NITA subsequently receives from the providers are incorporated into the next telecom statistics.

A complete list over all providers who have contributed to 'Telecom Statistics – First Half of 2010' can be accessed by clicking [here](#). The overall ownership can also be found on the list.