HUNGARIAN CENTRAL STATISTICAL OFFICE

STATISTICAL REFLECTIONS

22 March 2018

Telecommunications, internet, television services, 4th quarter 2018

Contents

Summary

In the 4th quarter of 2018 the number of mobile phone subscriptions was 11.8 million, within it the proportion of monthly plan subscriptions continued to increase. More than four-fifths of phone conversation time was initiated from mobile phones. Mobile network data traffic surpassed the previous year's by 62%. By the end of the 4th quarter of 2018 the number of internet subscriptions increased to 9.9 million, of which 69% were mobile internet subscriptions. The number of television subscriptions surpassed 3.7 million, 79% of it consisted of digital subscription packages.

Sales revenue and staff number figures of the information and communication section

Based on preliminary data in the 4th quarter of 2018 sales revenue of enterprises with 5 or more employees enlisted in the information and communication section[1] was HUF 984 billion which, – at current prices, – surpassed by 6.2% the 4th quarter 2017 data. Enterprises in the telecommunications division – carrying a 32% weight in the section – produced a sales revenue of HUF 317 billion. Combined sales revenue of the information technology and information service activity oriented enterprises (HUF 452 billion) increased by 13%, while that of motion picture, video and television programme production, sound recording and music publishing activities, programming and broadcasting activities divisions decreased by 6.9%.

Enterprises enlisted in the information, communication section achieved a HUF 3,398 billion sales revenue in 2018, representing 3.7% of the whole national economy's sales revenue. Within it sales revenue of enterprises in the telecommunications division (HUF 1,218 billion) increased by 1.7%, those of the information technology and information service divisions (HUF 1,469 billion) grew by 17% year-on-year.

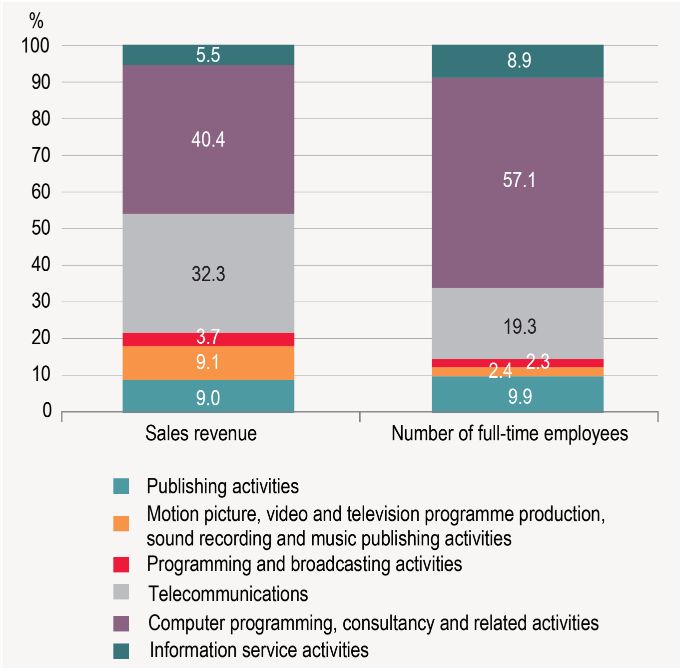
In the studied section 83 thousand people were **full-time employees**[2], 4.8% more than in the 4th quarter of 2017. The number of employees in the information technology and information service division (55 thousand people) increased by 7.0%, in telecommunications (16 thousand people) by 1.0%.

Average gross monthly earnings per person of the section's full-time employees (HUF 572 thousand) increased by 7.6% in one year and surpassed by HUF 212 thousand the national economy's average. Within it average earnings in the telecommunications division were HUF 524 thousand, 2.5% higher than in the 4th quarter of 2017. In the motion picture, video and television programme production, the sound recording and music publishing activities as well as in the broadcasting activities divisions the average gross monthly earnings were the lowest (HUF 504 thousand), 88% of the section's average.

In the observed section the gross monthly earnings increased by 9.5% year-on-year in 2018, we measured the greatest increase (13%) in the motion picture, video and television programme production, sound recording and music publishing, programming and broadcasting division.

Figure 1

Distribution of sales and headcount data in the section of information and communication by division, 4th quarter 2018



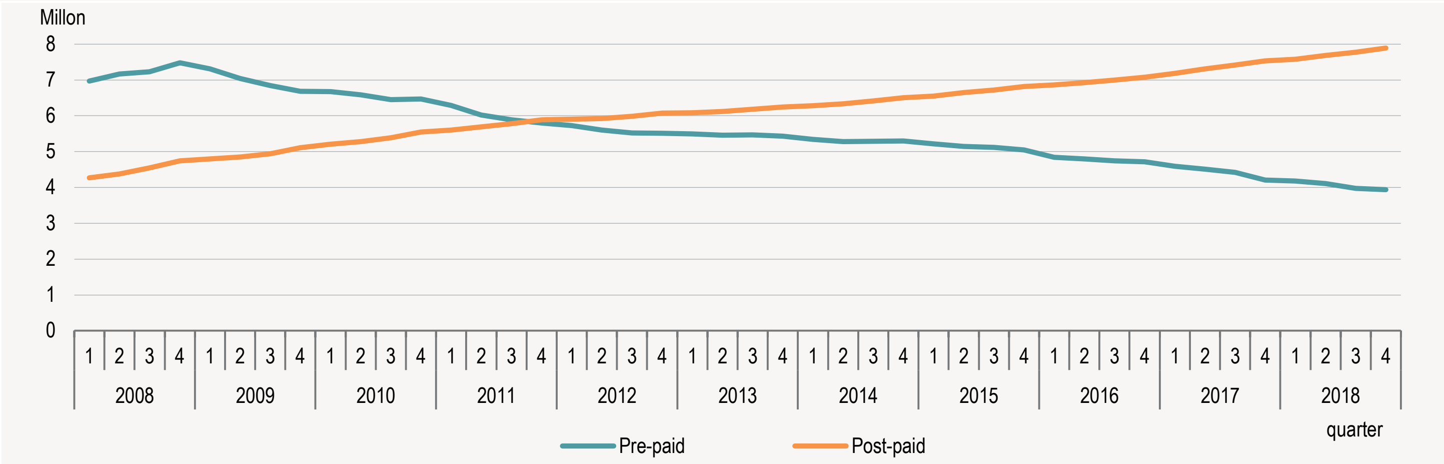
Telecommunications

At the end of the 4th quarter of 2018 the number of **mobile phone subscriptions** was 11.8 million, the stock increased by 93 thousand in one year. Within the total stock the number of monthly subscriptions increased by 360 thousand (4.8%) and came close to 7.9 million. At the beginning of 2017 an official decree[3] regarding prepaid subscriptions control came into effect regulating compulsory data reconciliation with

[1] According to TEÁOR'08, information and communication (section J) includes publishing activities (division 58), motion picture, video and television programme production, sound recording and music publishing activities (division 59), programming and broadcasting activities (division 60), telecommunications (division 61), computer programming, consultancy and related activities (division 62) and information service activities (division 63).
[2] According to the statistics of the institutional labour statistics, full-time employees at enterprises employing at least 5 people.
[3] NMHH Decree 1/2017. (I. 11.) modifying NMHH Decree 2/2015. (III. 30.) on the Detailed Rules of Electronic Communications Subscriber Agreements.

Figure 2

Number of mobile subscriptions by type of subscription



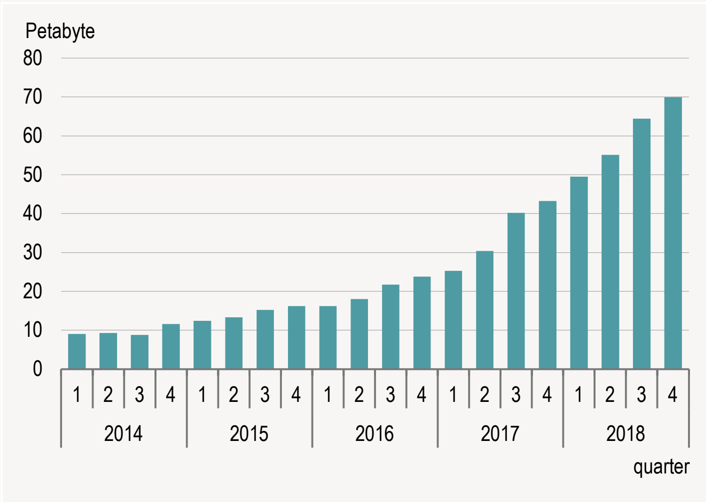
subscribers. As a result the number of prepaid subscriptions continued to decrease, by 267 thousand, – although it did not cause a break in the time series – and their proportion (33%) declined by 2.5 percentage points year-on-year.

The continuous increase of monthly subscriptions is mainly due to the fact that besides new subscribers some pre-paid subscription customers are switching to monthly plans at their given service providers. In many cases price per minute for monthly - post-paid type - packages is lower and data traffic is also provided for users.

In the 4th quarter of 2008 out of the 12.2 million mobile phone subscriptions 61% were still pre-paid ones; after a brief period of growth their number continuously decreased since the 1st quarter of 2009. In contrast post-paid subscriptions grew by 3.5 million until the 4th quarter of 2018, a quarterly average growth of 1.3%. Last time pre-paid subscription numbers exceeded the post-paid ones within mobile phone total subscriptions was in the 3rd quarter of 2011.

Figure 3

Mobile network data traffic



With the spread of combined service packages and monthly subscriptions, mobile data subscription numbers are continuously growing as well. In the 4th quarter of 2018 mobile network data traffic[4] (70 petabyte[5]) increased by 62% compared to the 4th quarter of 2017. The spread of 4G technology[6] is indicated by the fact that 90% of all data traffic has been realised through the 4G/LTE system.

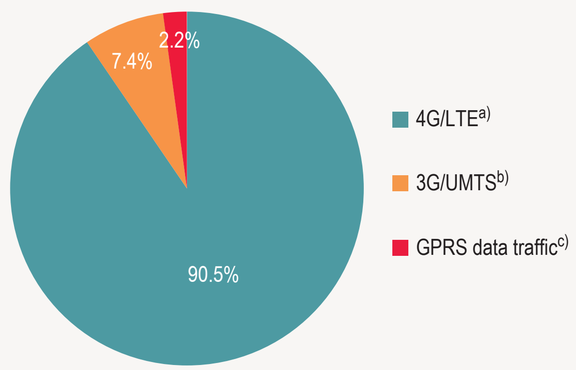
Mobile network data traffic reached 239 petabyte in 2018, a 72% increase year-on-year.

In the 4th quarter of 2018 the number of sent SMSs increased to 500 million, MMSs to 7.1 million, the former surpassed the 4th quarter of 2017 figures by 3.0%, the latter by 13%.

In 2018 as a whole the number of SMSs increased by 4.9%, that of MMSs by 14% year-on-year.

Figure 4

Distribution of mobile network data traffic by the technology used, 4th quarter 2018



a) 4G/LTE (Long Term Evolution): fourth generation mobile phone technology.
b) 3G/UMTS (Universal Mobile Telephone Services): third generation mobile communications, it is a procedure for data transmission through extensive, bidirectional radio communication.
c) GPRS (General Packet Radio Service): packet data transfer.

In the 4th quarter of 2018, 2.0 billion calls have been initiated from mobile networks, 2.7% more than in the 4th quarter of 2017. Total time spent on mobile calls (5.9 billion minutes) increased by 6.0%. Duration of calls initiated in own network, carrying the largest share (56%) in total calls increased by 7.5% while in regard to the duration of calls toward domestic fixed lines (by 14%) and international calls increased considerably (by 13%), the latter partly due to reduced roaming charges.

In 2018 a total of 7.9 billion mobile calls were initiated, their duration surpassed 23 billion minutes, a 3.8% increase year-on-year.

[4] Data traffic through SIM cards ensuring voice- and mobile internet service.
[5] 1 petabyte=1000 terabyte.
[6] 4G/LTE (Long Term Evolution): fourth generation mobile phone technology.

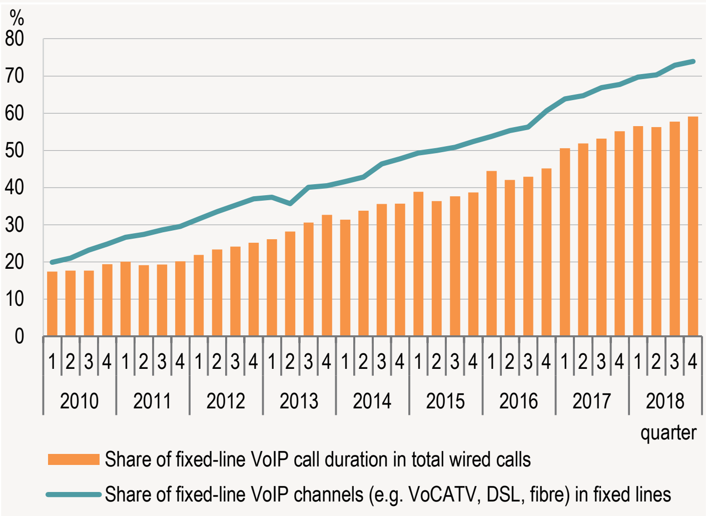
Number of calls per one mobile subscription (169 calls) increased in the 4th quarter of 2018 by 3 compared to the 4th quarter of 2017. 497 minutes conversation time came by one subscription on average, **corresponding to a daily average call length of 5.4 minutes.**

By the end of the 4th quarter of 2018 the number of fixed main lines[7] lessened by 1.2% to below 3.1 million. The proportion of VoIP voice channels (cable TV or broadband, fixed telephone services) in fixed main lines total was 74%, surpassing by 6.2 percentage points the end of 4th quarter of 2017 data. The number of fixed lines per 100 inhabitants (32 lines) basically remained unchanged.

Close to 87% of connected fixed lines were individual, 13% business, 0.4% were public and other main lines.[8]

Figure 5

Changes in fixed-line VoIP phone calls



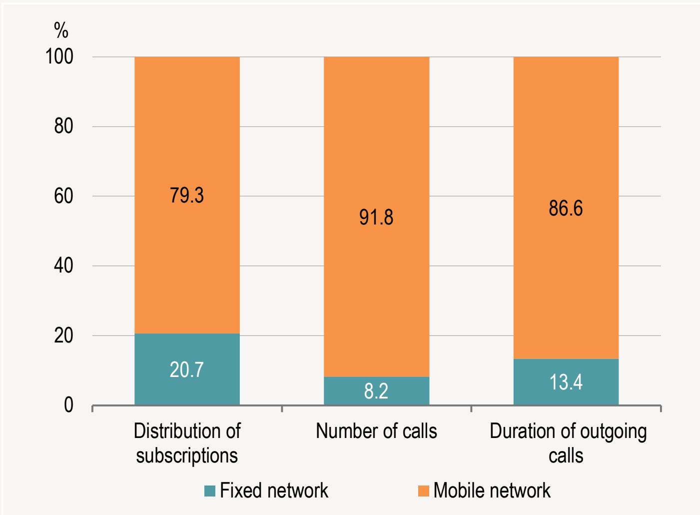
In the 4th quarter of 2018 there were 13% less calls initiated from fixed main lines and their duration was 7.9% shorter than in the 4th quarter of 2017. 73% of fixed main line calls were initiated from individual lines, 26% from business lines. Time spent on fixed line calls was distributed in an 89–11% proportion between individual and business calls. Average call times initiated by individual subscribers (6.2 min.) surpassed by 4.1 minutes the call times initiated from fixed business lines. Calls per one individual fixed line (49 calls) decreased on average by 6, the number of calls per one business line (117 calls) by 10 compared to the 4th quarter of 2017.[9]

The proportion of VoIP-type calls (54%) increased by 5.0 percentage points among all calls within one year. 59% of cumulated total time of conversations was VoIP-based.[10] *In 2018, the decreasing trend lasting for several years continued, and the number of fixed line calls decreased by 11%, their duration shortened by 7.7% compared to 2017.*

In the 3rd quarter of 2005 duration of mobile calls (2.5 billion min.) surpassed for the first time the duration of fixed line calls (2.3 billion min.). In the period between the 4th quarter of 2008 and the 4th quarter of 2018 the duration of calls initiated from mobile phones increased quarterly on average by 0.9% while the duration of calls initiated from fixed lines decreased quarterly on average by 1.3%.

Figure 6

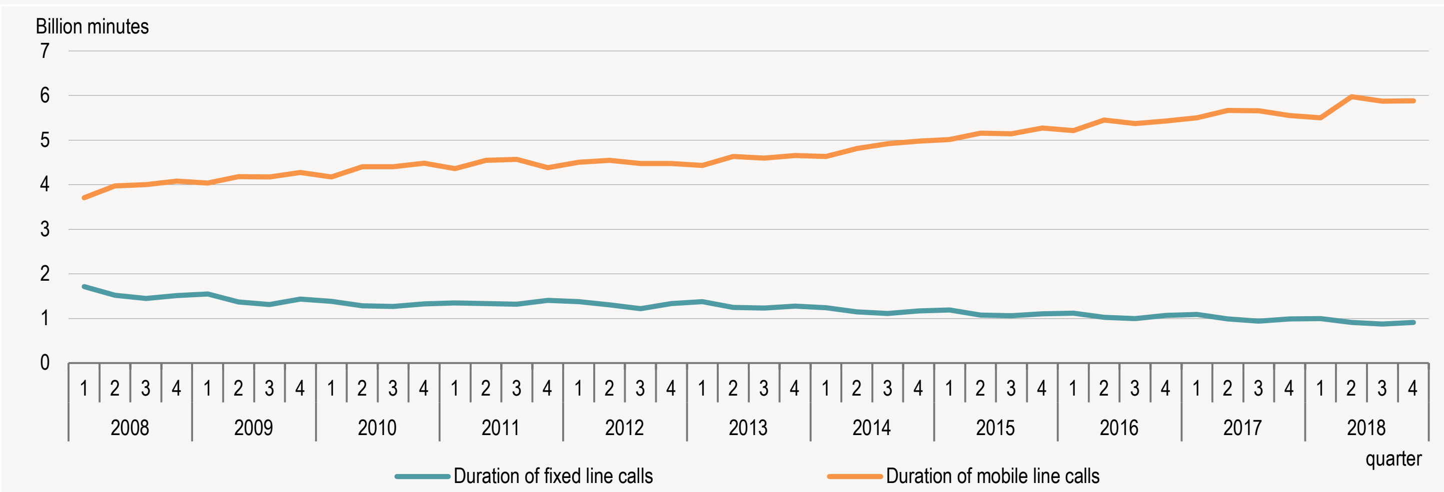
Distribution of fixed-line and mobile phone calls significant data, 4th quarter 2018



Due to spreading of packages often containing free calls within network and significant free time allotments subscribers made fewer fixed line calls but talked for a longer time (5.1 min.) than on mobile (2.9 min). In October–December 2018 the number of phone calls per fixed main line was 58, 8 calls fewer year-on-year. Time spent on calls initiated from fixed main lines represented 13% of total call time.

Figure 7

Duration of initiated calls



[7] In the publication it means permanent main lines (including cable TV and service provided VoIP channels) and ISDN-channel joint numbers.
[8,9] Based on data collection No. 1707 – titled *Interim data of telecommunication services* and carried out by the Ministry of National Development (NFM) – in the National Statistical Data Collection Programme (OSAP).
[10] Partly or fully VoIP-based fixed calls (realised via the internet or other, also IP-based data networks).

In the 4th quarter of 2018 – based on preliminary data – net telecommunications sales revenue of the studied voice service ensuring telecommunications providers (HUF 226 billion) increased by 4.6% compared to the 4th quarter of 2017. Net sales revenue coming from mobile telecommunication services – representing the largest weight (49%) – surpassed by 3.6% the 4th quarter of 2017 data.

Internet

The dynamic expansion of the internet market continued, the number of **subscriptions** was more than 9.9 million by the end of the 4th quarter of 2018, surpassing by 4.8% the 4th quarter of 2017 data. Market concentration is high: more than 96% of subscriptions were contracted with 10 providers. 80% of internet subscriptions were individual, 20% were business contracts.

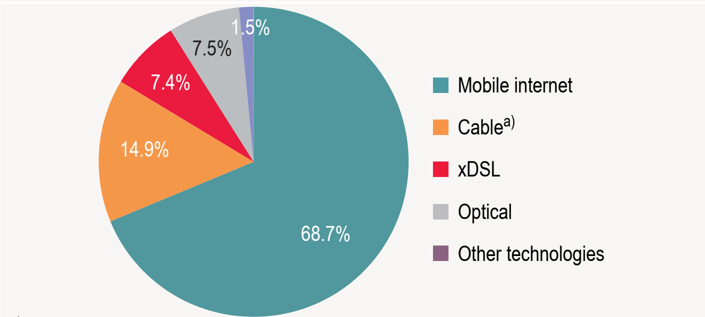
The 2.3 million internet-subscriptions from the end of the 4th quarter of 2008 increased by the end of the 4th quarter of 2018 by 7.6 million, meaning a quarterly 3.7% growth on average, within it the number of mobile internet subscriptions grew on a larger scale, quarterly by 6.4% on average, in consequence from the 1st quarter of 2012 these represented the larger part of internet subscriptions.

The rapid adaptation of providers to technological changes, the spreading of mobile phones and the continuous price competition stands behind the dynamic growth going on for years.

The wireless segment was larger by 4.3% at the end of the 4th quarter of 2018 than in the 4th quarter of 2017, mainly as a result of the corresponding increase of the more and more affordable mobile internet subscriptions. 69% of total internet subscriptions were represented by mobile internet.

Figure 8

Distribution of internet subscriptions by type of technology, end of the 4th quarter 2018



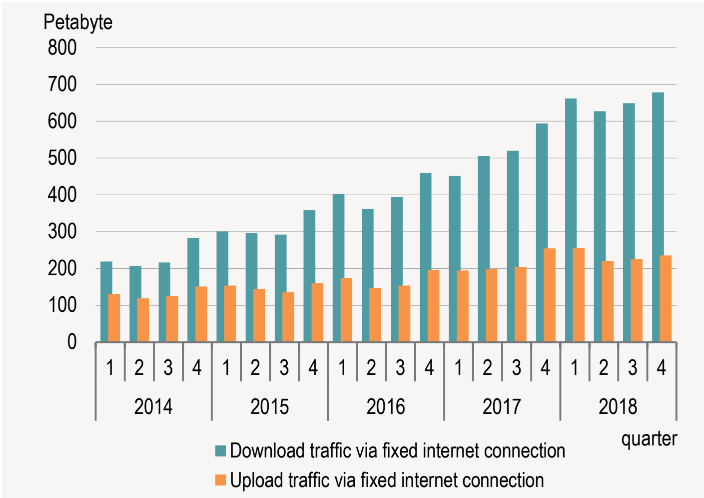
a) Modem attached to cable TV network is suitable for sending and receiving digital signals.

At the end of the 4th quarter of 2018 fixed internet subscriptions stock (3.0 million) exceeded by 6.1% the previous year's data. Within it the most significant technology, cable network subscriptions, representing half of the fixed line subscriptions increased by 4.8%, optical network subscriptions grew by 18%, and xDSL subscriptions lessened by 1.6%. Within internet subscriptions the joint proportion of optical, cable network subscriptions (22%) increased by 0.9 percentage point.

In the 4th quarter of 2018 subscribers' fixed line internet based download traffic (678 petabyte) and upload traffic (236 petabyte) increased by 4.5% alike year-on-year. *In the whole year of 2018, fixed lined internet based download traffic expanded by 26% and upload traffic by 10% (2,617 and 937 petabyte, respectively).*

Figure 10

Changes in fixed-line internet data traffic*

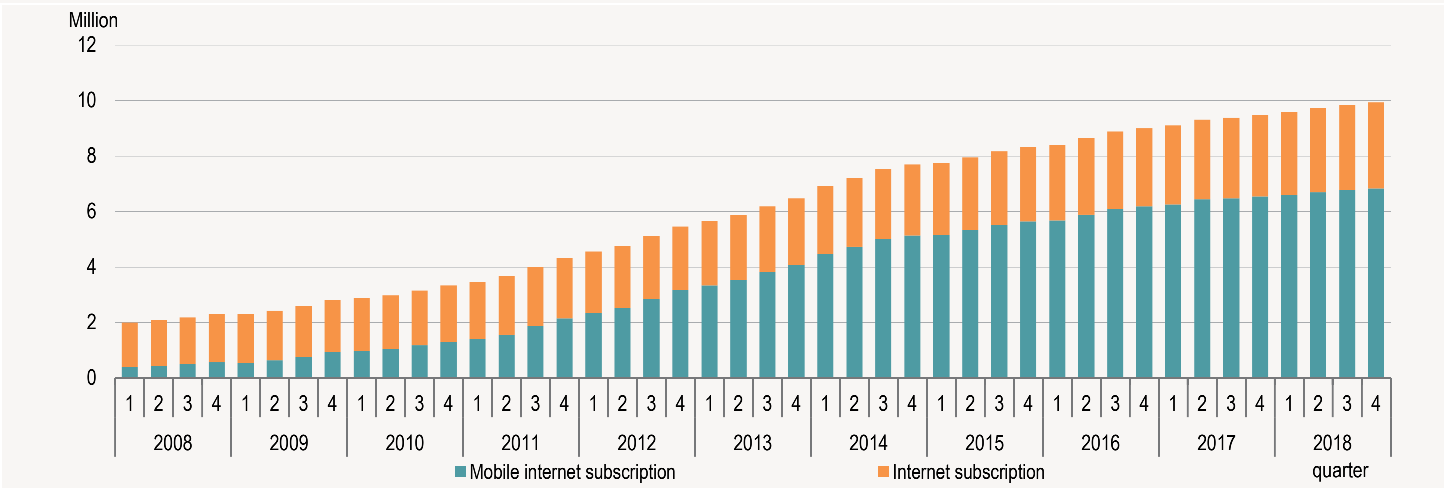


* Based on data collection No. 1994 – titled *Interim data of internet and television services* and carried out by the Ministry of National Development (NFM) – in the National Statistical Data Collection Programme (OSAP).

At the end of the 4th quarter of 2018, 8.8% of fixed main line subscriptions were in the under 2 Mbit/s guaranteed bandwidth segment, 32% were in the 10 and 30 Mbit/s guaranteed bandwidth[11] segment.[12] The exceptionally high speed guaranteeing segment (30 Mbit/s at least) contained 38% of the subscriptions. At the same time, within the maximum bandwidth range[13], 0.8% was below 2 Mbit/s, 15% was between 10 and

Figure 9

Changes in the number of internet subscriptions



[11] Guaranteed bandwidth: the theoretical minimum – guaranteed – download direction bandwidth provided by the service provider to the subscriber (line bit rate).

[12] Based on data collection No. 1994 – titled *Interim data of internet and television services* and carried out by the Ministry of National Development (NFM) – in the National Statistical Data Collection Programme (OSAP).

13 Maximum bandwidth: the theoretical maximum download direction bandwidth provided by the service provider to the subscriber (line bit rate).

30 Mbit/s, while high speed (at least 30 Mbit/s) ranges) accounted for 74% of subscriptions.

The qualitative development in the field of the fixed line internet segment is shown by the fact that subscriptions[14] moved in the high-end access categories (cable and optical) toward the exceptionally high speed offering ranges.

Figure 11

Distribution of fixed-line internet subscriptions by guaranteed bandwidth

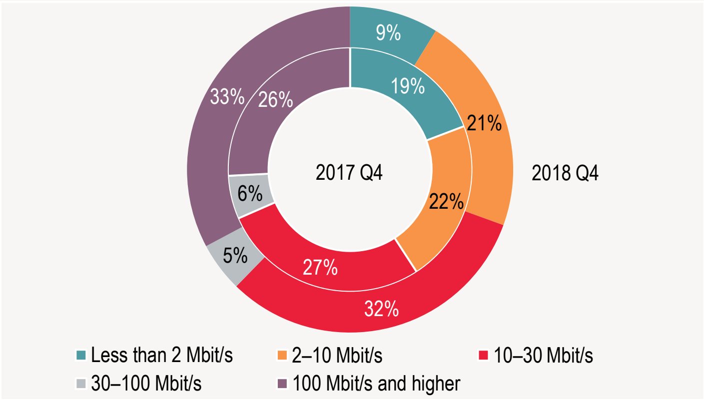
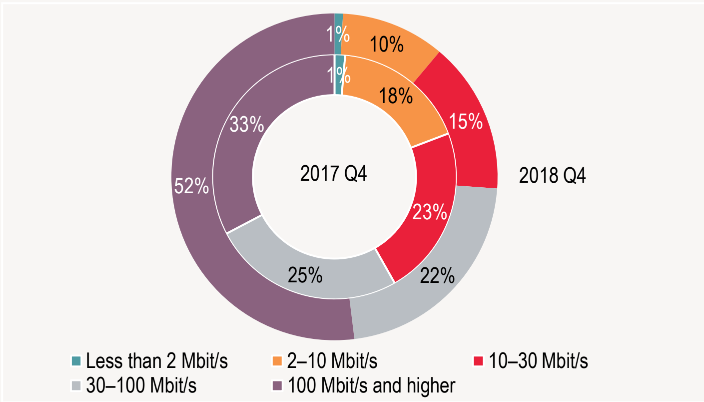


Figure 12

Distribution of fixed-line internet subscriptions by maximum bandwidth range

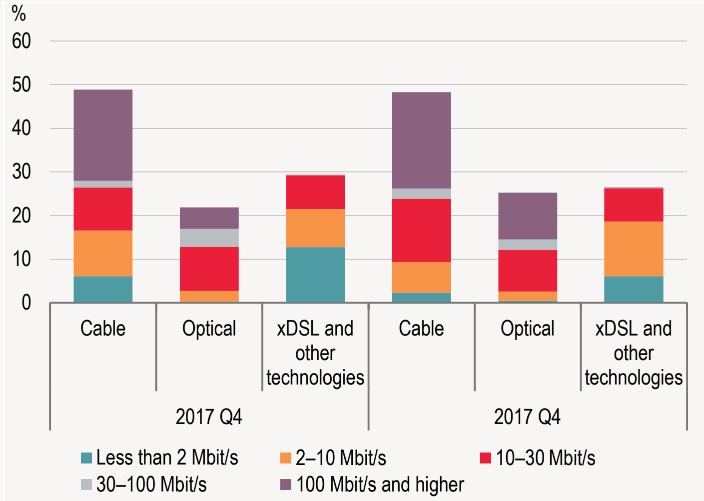


In the 4th quarter of 2018 net **sales revenue** of internet services was HUF 65 billion, 13% more at current prices year-on-year. The change in sales revenue significantly surpassed the increase in subscription numbers. 47% of internet services sales revenue came from mobile internet subscriptions, which exceeded by 1.6 percentage points the October–December 2017 data. Broadband, fixed line internet services (cable TV, optical and xDSL subscriptions combined) represented a 46% proportion (HUF 30 billion), 1.5 percentage points less year-on-year.

In the 4th quarter of 2008 a HUF 37 billion net sales revenue originated from internet subscriptions, which increased until the 4th quarter of 2018 by HUF 29 billion, quarterly by 1.5% on average. Within it the smaller proportion carrying mobile internet access sales revenue grew – in 10 years six times more, from HUF 5.0 billion to 31 billion - quarterly on average by 4.7%.

Figure 13

Distribution of fixed-line internet subscriptions by guaranteed bandwidth and technologies in the percentage of subscriptions*



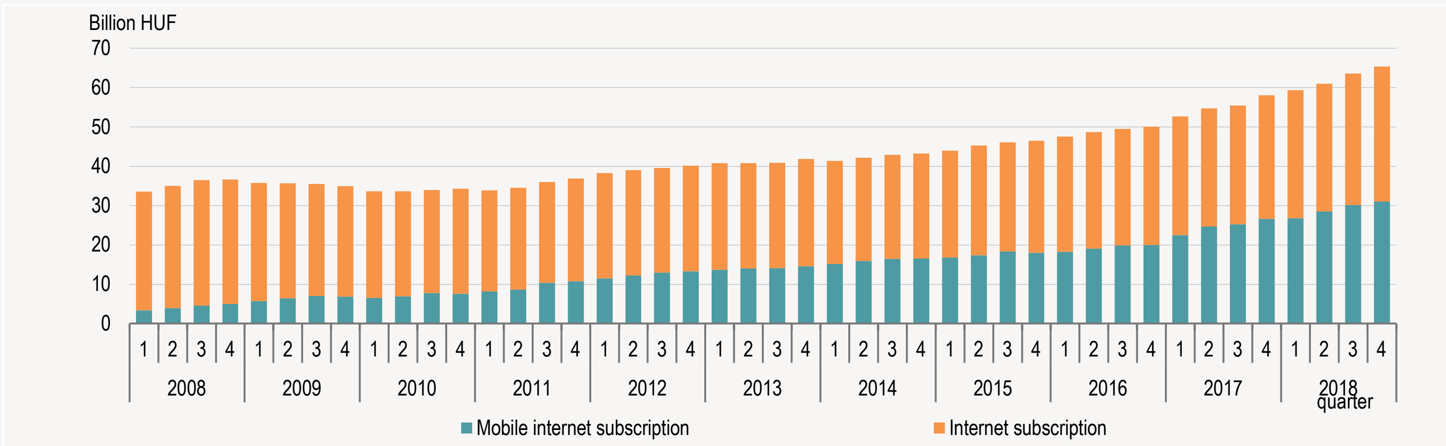
* Based on data collection No. 1994 – titled *Interim data of internet and television services* and carried out by the Ministry of National Development (NFM) – in the National Statistical Data Collection Programme (OSAP).

Television services

The **subscription** numbers of television services[15] surpassed 3.7 million at the end of the 4th quarter of 2018, out of which 79% were digital packages. 72% of the packages (2.7 million subscriptions) reached the customers by fixed line signal transmission networks, their number increased by 7.3% year-on-year. Out of this the proportion connected to the cable TV network (HFC) was 80%, while the one connected to IPTV

Figure 14

Changes in net sales revenues of internet subscriptions



[14] Based on data collection No. 1994 – titled *Interim data of internet and television services* and carried out by the Ministry of National Development (NFM) – in the National Statistical Data Collection Programme (OSAP).

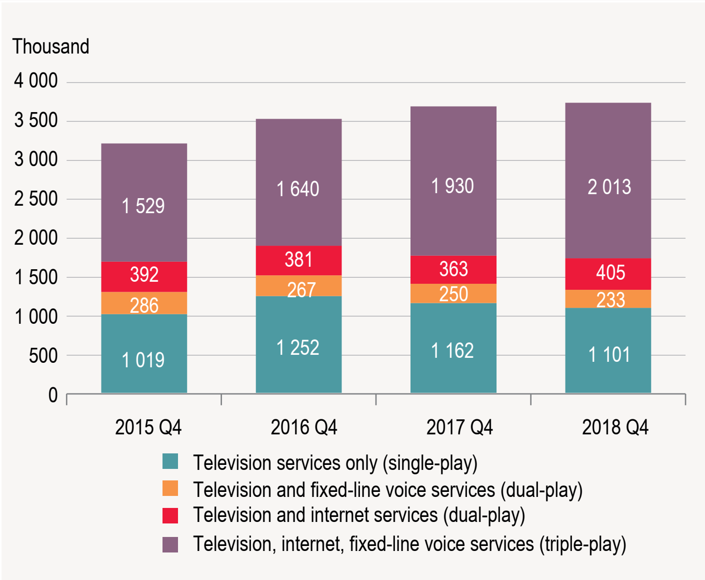
[15] Based on data collection No. 1994 – titled *Interim data of internet and television services* and carried out by the Ministry of National Development (NFM) – in the National Statistical Data Collection Programme (OSAP).

transmission capable network represented 20%. The number of subscriptions using fixed or non-fixed broadcast signal transmission technology came close to 1.1 million.

At the end of December 2018, 54% (2.0 million) of television services subscriptions were triple-play subscriptions – containing TV, fixed line voice as well as internet services – their number increased by 4.3% compared to the previous quarter. The number of the significant 29% proportion carrying single-play (containing television services only) subscriptions exceeded 1.1 million. Dual-play subscription numbers (TV and fixed line voice services or TV and internet services combined), representing 17% of total subscriptions, increased by 4.1% in one year.

Figure 15

Television services subscription numbers by subscription packages*



* Based on data collection No. 1994 – titled *Interim data of internet and television services* and carried out by the Ministry of National Development (NFM) – in the National Statistical Data Collection Programme (OSAP).

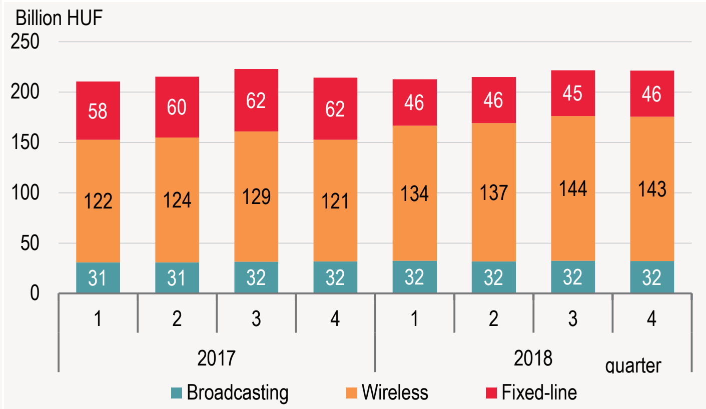
In the 4th quarter of 2018 television transmission time (11 million hours) increased by 0.9% year-on-year. *In the whole year of 2018, television broadcasting time exceeded 43 million hours, and was 2.9% more than in 2017.*

Top 15 enterprises in telecommunications[16]

In the 4th quarter of 2018 total net sales revenue coming from **telecommunication activities**[17] of the 15 largest and determinant service providers working in the telecommunications division increased on current prices by 4.6% compared to the 4th quarter of 2017. This consisted of wireless (mobile phone and internet) services in 63%, by further 20% of fixed line telecommunications services (fixed line phone and internet), and 14% of broadcasting (television) services.

Figure 15

Net sales revenue of the top 15 enterprises in telecommunications by service type



Methodological notes

Interim data cannot be considered final, these can change – due to quarterly corrections – during the year. In the Statistical Classification of Economic Activities in the European Community (abbreviation in Hungarian: TEÁOR; in English: NACE Rev.2) internet service doesn't appear as individual activity, however it has to be reported; this is the reason why the basis of our list of respondents is made up by the register of telecommunication service providers published on the National Media and Infocommunications Authority's homepage. The respondents of the reference year are assigned according to the previous year's September state of the register. We used unrounded values for the calculation of dynamic relative numbers. Sum of partial data may differ from total amounts due to rounding. Data referring to fixed telecommunications slightly differ from each other (under 1.0%) as they come from different sources (OSAP 1639 Telecommunications and broadcasting performances, OSAP NFM 1707 Interim data of telecommunication activities). Comparability of 2014 and 2015 data originating from "OSAP 1639 Telecommunications and broadcasting performances", "OSAP NFM 1707 Interim data of telecommunication activities" is limited due to the enlargement of respondents' circle. Starting 2018 we publish the data traffic of mobile network and the fixed line internet in petabytes. Data referring to fixed internet slightly differ from each other (under 1.0%) as they come from different sources (OSAP 1639 Telecommunications and broadcasting performances, OSAP NFM 1707 Interim data of telecommunication activities). Respondents included in the "OSAP NFM 1994 Interim data of internet and television services" data collection represent approximately a 99% coverage in the television services market. Comparability of the 2015 year's data coming from television services database is limited as a result of the enlargement of the respondents' circle. According to paragraph 162. § 1) c) of the Decree No. 94/2018 (V.22) regarding duties and authorities of the Members of the Government, following the renaming of the Ministry of National Development this will carry the name National Ministry of Innovation and Technology.

[16] Based on data collection No. 1957 – titled Representative data regarding the business activity of organisations in telecommunications carried out by the Ministry of National Development (NFM) – in the National Statistical Data Collection Programme (OSAP).

[17] Telecommunication activities include here fixed line (voice- and internet services), wireless (voice- and internet services) and satellite as well as other telecommunication services.

Further information, data (links):

Tables

Tables (STADAT)

Methodology

Contact details:

kommunikacio@ksh.hu

Contact us!

Telephone: +36 1 345 6789

www.ksh.hu