



REPUBLIC OF SERBIA
RATEL
REGULATORY AGENCY FOR
ELECTRONIC COMMUNICATIONS
AND POSTAL SERVICES

**AN OVERVIEW OF THE ELECTRONIC COMMUNICATIONS
MARKET
IN THE REPUBLIC OF SERBIA
The Fourth Quarter of 2019**

The Overview presents the data for the fourth quarter of 2019 along with comparative data for the three previous quarters.

The presented data reflect the overall market status for each given quarter, including the actual quarterly data for the leading electronic communications operators in the Republic of Serbia, whereas the data for the rest of the market were estimated based on the data for 2018 collected in the annual questionnaires. Therefore, the total quarterly report may show discrepancies with respect to the data collected in the regular annual questionnaires. The Agency shall not be held responsible for the correctness of the data submitted by the operators in the quarterly and annual questionnaires.

Quarterly electronic communications market indicators referring to fixed telephony include the data on the operators that make up over 99% of the market, in terms of the number of subscribers. The data on the market situation include CDMA subscribers and the effectuated traffic.

Quarterly electronic communications market indicators referring to mobile telephony include the data on three mobile operators and, as of Q1 2018, the Agency also collects data on virtual mobile operators.

Quarterly electronic communications market indicators referring to Internet services include the data for the leading operators that make up approximately 91% of the market, in terms of the number of subscribers, whereas the data for the remaining 9% of the market were estimated based on the data for 2018 collected in the annual questionnaires.

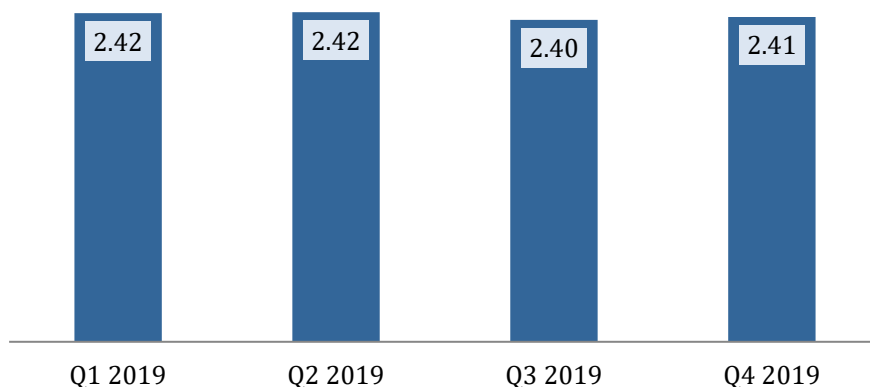
Quarterly electronic communications market indicators referring to media content distribution include the data for the leading operators that make up approximately 91% of the market, in terms of the number of subscribers, whereas the data for the remaining 9% of the market were estimated based on the data for 2018 collected in the annual questionnaires.

Quarterly electronic communications market indicators referring to bundle services include the data for the leading operators that make up approximately 97% of the market, whereas the data for the remaining 3% of the market were estimated based on the data for 2018 collected in the annual questionnaires.

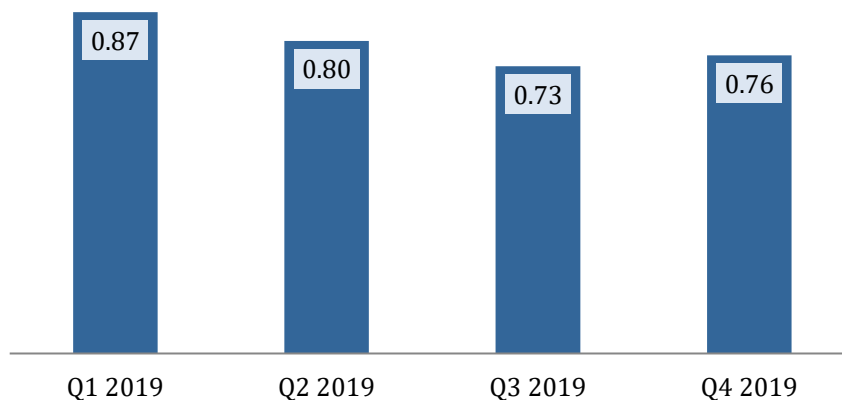
Public Fixed Telecommunications Networks and Services

Both the number of fixed telephony subscribers and the generated traffic have slightly increased in Q4 2019, compared to the previous quarter. Approximately 2.41 million fixed telephony subscribers generated approximately 760 million minutes of traffic in the last observed quarter, which means that a fixed telephony subscriber on average spent 3.5 minutes a day on calls.

Number of fixed line subscribers (in million)

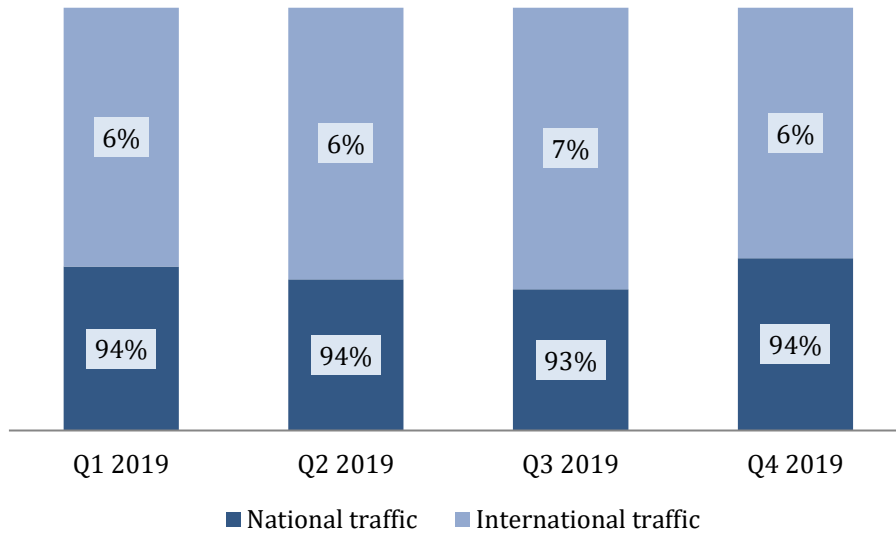


Total fixed telephony traffic (in billion minutes)



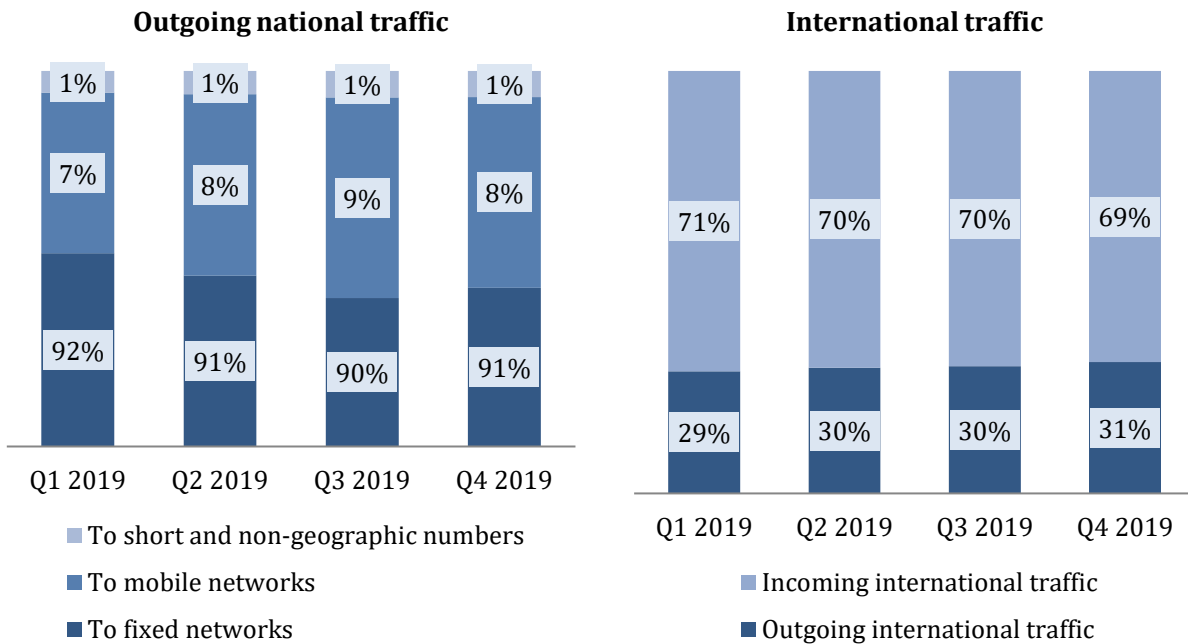
The subscriber structure has not changed over the observed quarters: 88% of the fixed telephony subscribers remain to be natural persons, i.e. private users. In all observed quarters, the largest share of the fixed telephony traffic is accounted for by the national traffic, with 94% in Q4 2019.

Fixed telephony traffic structure



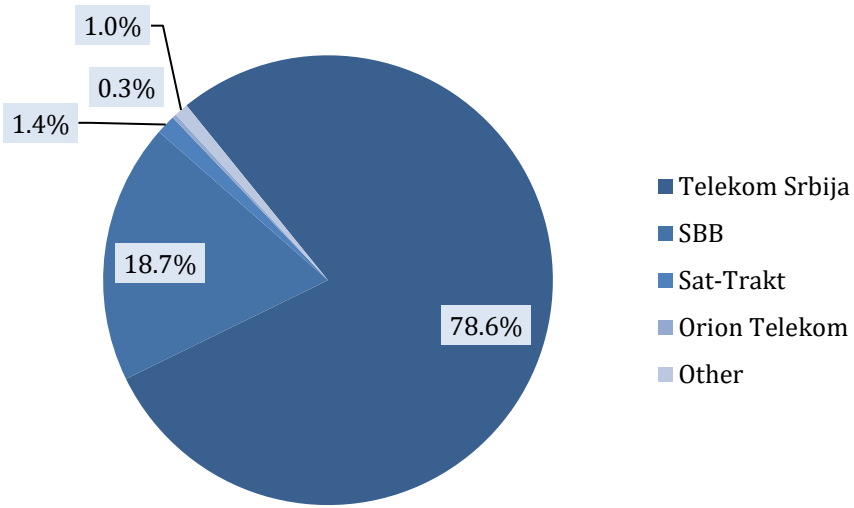
The outgoing calls from fixed network are mostly directed towards other fixed networks, while the international traffic is dominated by incoming calls.

Structure of national and international traffic in fixed telephony



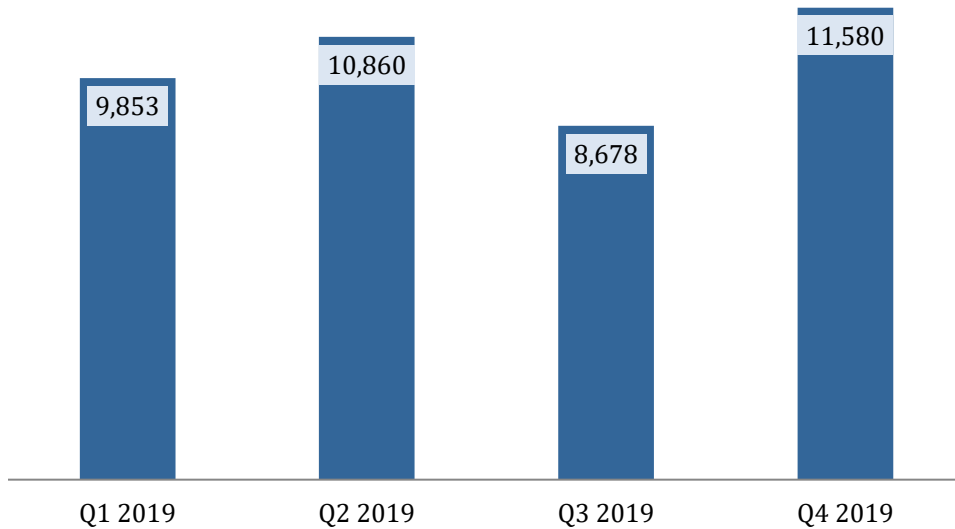
Below is shown the leading operators' market share according to the number of subscribers in Q4 2019.

Operators' market share according to number of subscribers in Q4 2019



The number of portings in the fourth quarter of 2019 was approximately 11.6 thousand (around 3.9 thousand a month), showing an increase compared to the previous quarter.

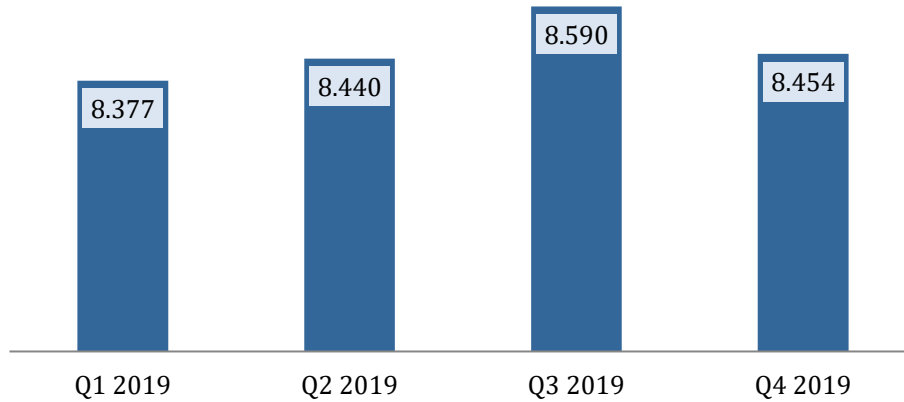
Fixed telephony number portings per quarter



Public Mobile Telecommunications Networks and Services

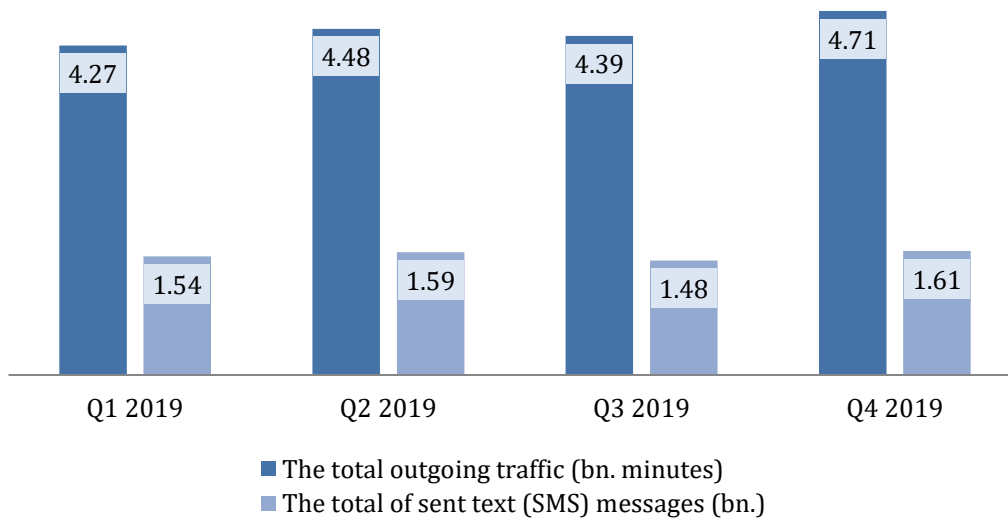
In Q4 2019, there were approximately 8.5 million active mobile telephony subscribers, that generated approximately 4.7 billion minutes of national and international voice traffic and sent almost 1.6 billion SMS messages. On average, in Q4 2019, a mobile user spent 6.1 minutes a day on calls and sent 2.1 text messages. On the mobile networks market, a slight decrease in the number of active mobile telephony subscribers has been observed in Q4 2019, by approximately 1.6 % compared to the previous quarter.

Total number of active mobile telephony subscribers (in million)

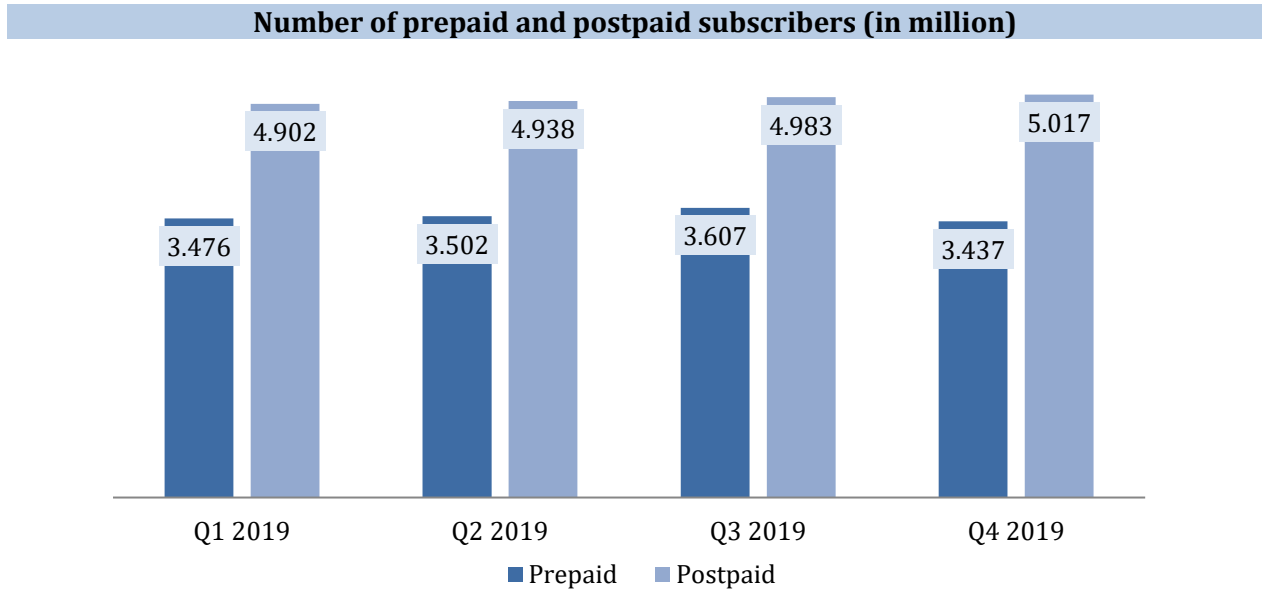


In Q4 2019, the effectuated voice traffic in mobile networks has increased, equally as the SMS traffic, compared to Q3 2019

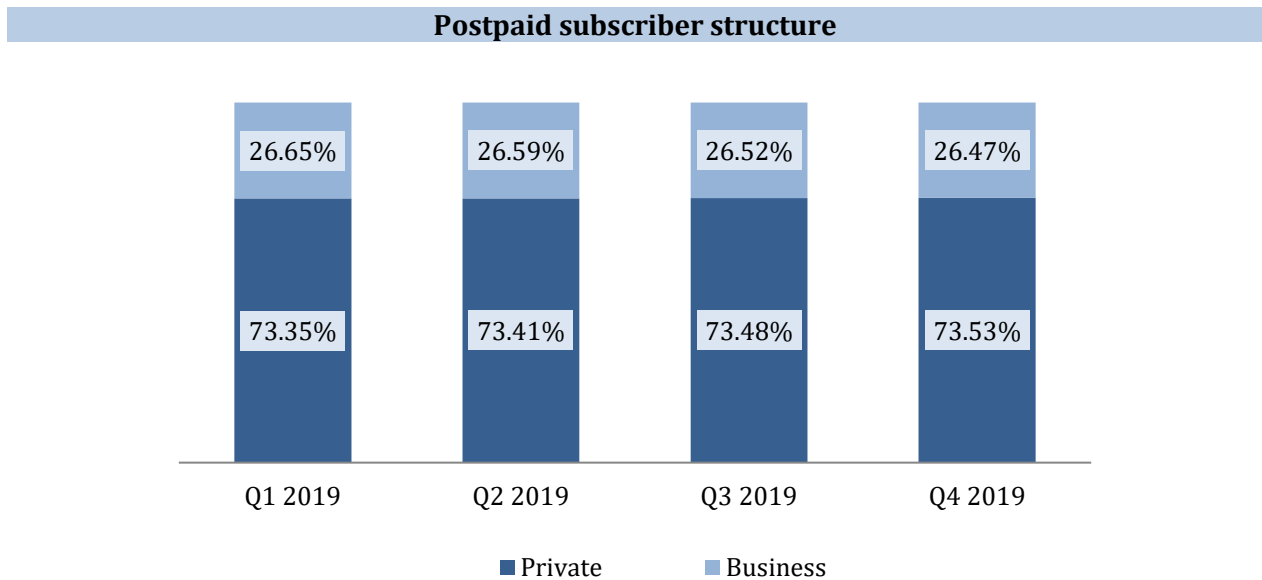
Generated voice and SMS mobile telephony traffic



In Q4 2019, the number of postpaid subscribers has slightly increased, whereas the number of prepaid users has been somewhat lower compared to the previous quarter.

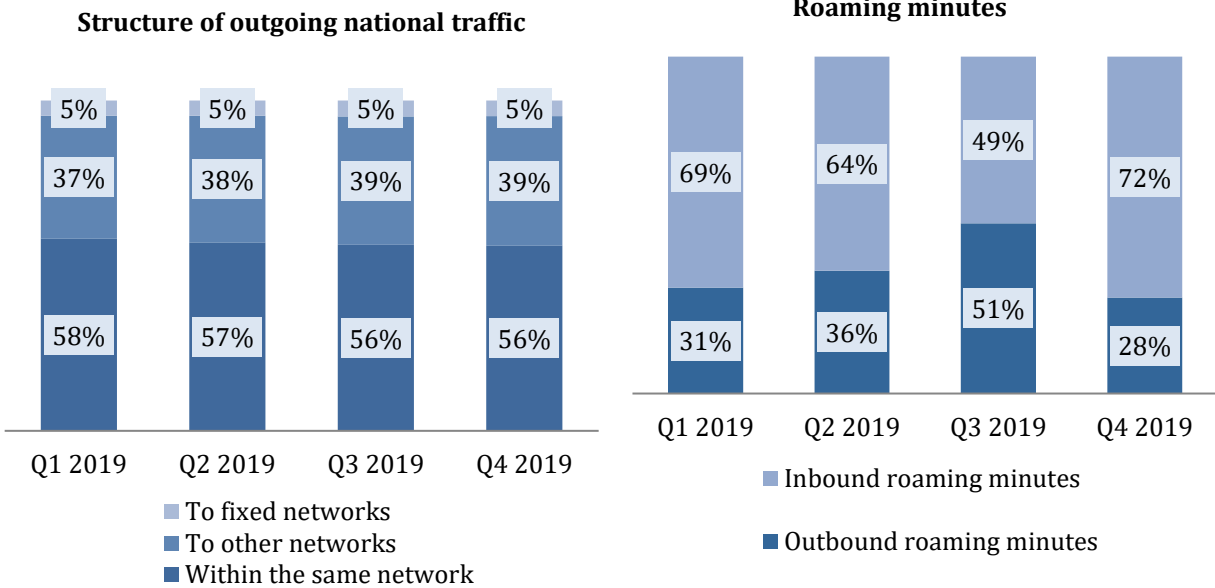


The majority of postpaid subscribers are natural persons, accounting for around 74%, much the same as in other observed quarters.



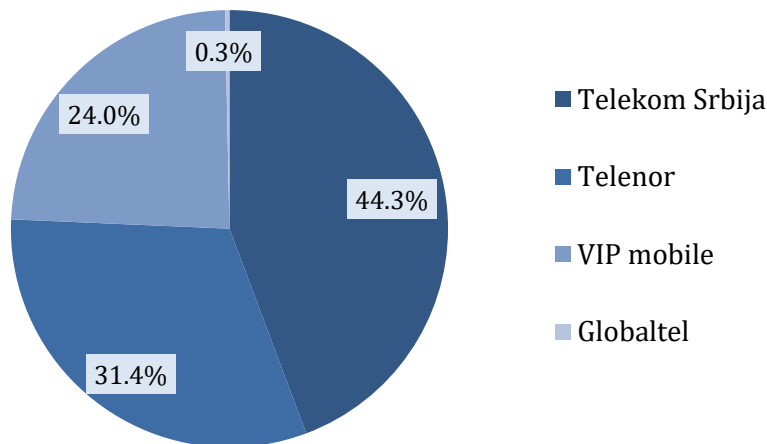
Most of the outgoing traffic in Q4 2019 has been generated within the same mobile network (56%). As for the roaming, the subscribers of foreign networks generated slightly more traffic than the subscribers of national networks abroad.

Structure of mobile networks outgoing traffic



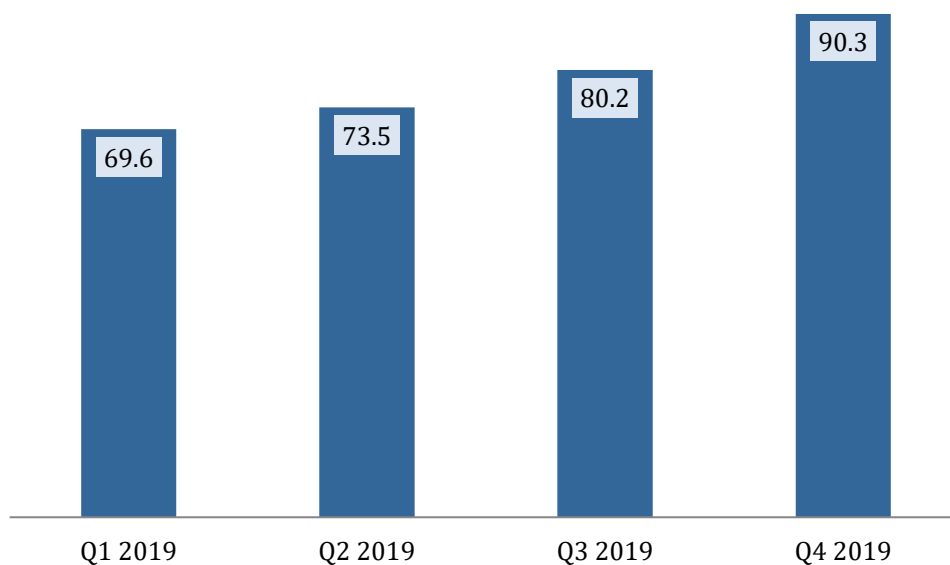
There haven't been any significant changes in market shares in terms of the number of users, compared with the previous quarter.

Market share in terms of number of users in Q4 2019



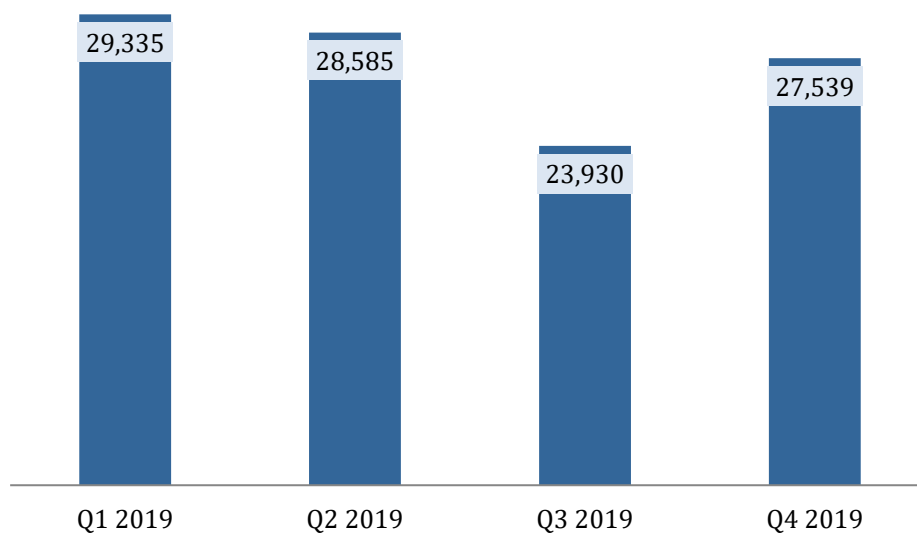
Data transmission over mobile network has shown growth in the analyzed period, amounting to 90.3 million GB in Q4 2019, which means that a mobile broadband subscriber used on average 163 MB daily, or almost 5 GB a month.

Mobile Internet traffic (in million GB)



The number of mobile telephony number portings was approximately 27.5 thousand in the fourth quarter of 2019, or approximately 9 thousand per month, which is an increase compared to the previous quarter.

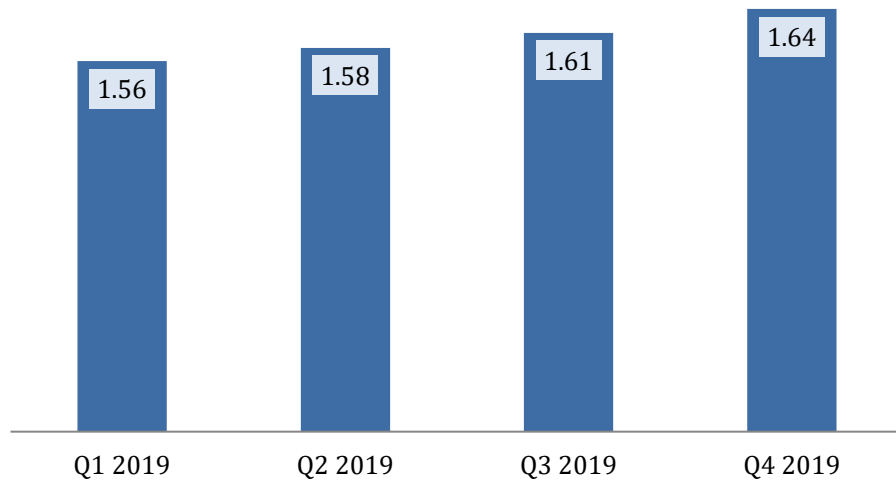
Mobile telephony number portings per quarter



Broadband Internet Access

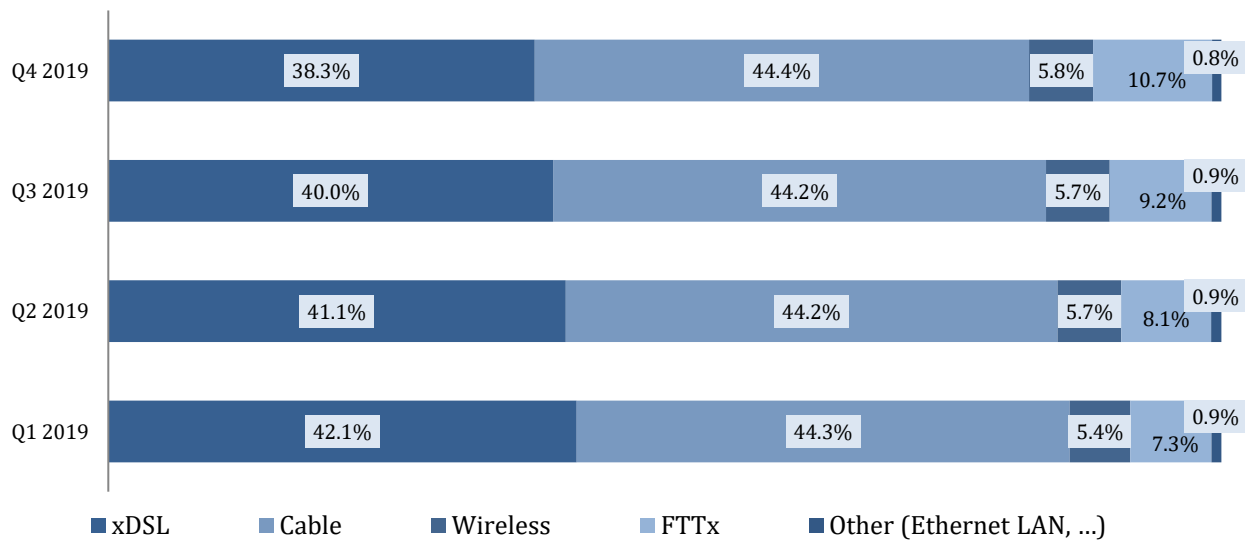
Compared to the previous quarter, the number of fixed broadband Internet access users in Q4 2019 has slightly increased, amounting to approximately 1.64 million subscribers.

Number of fixed broadband Internet subscribers (in million)

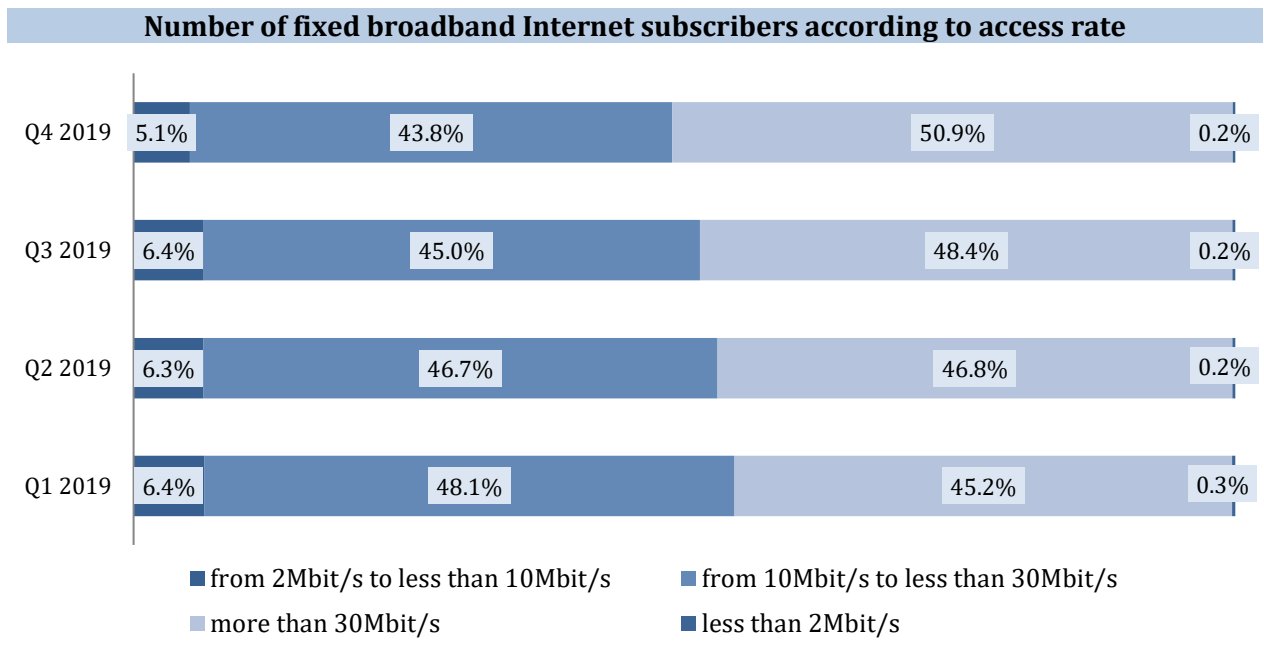


The majority of fixed broadband Internet subscribers have xDSL or cable access. The number of xDSL subscribers has been marked by a slight drop and the share of cable access subscribers has slightly increased in the analyzed period.

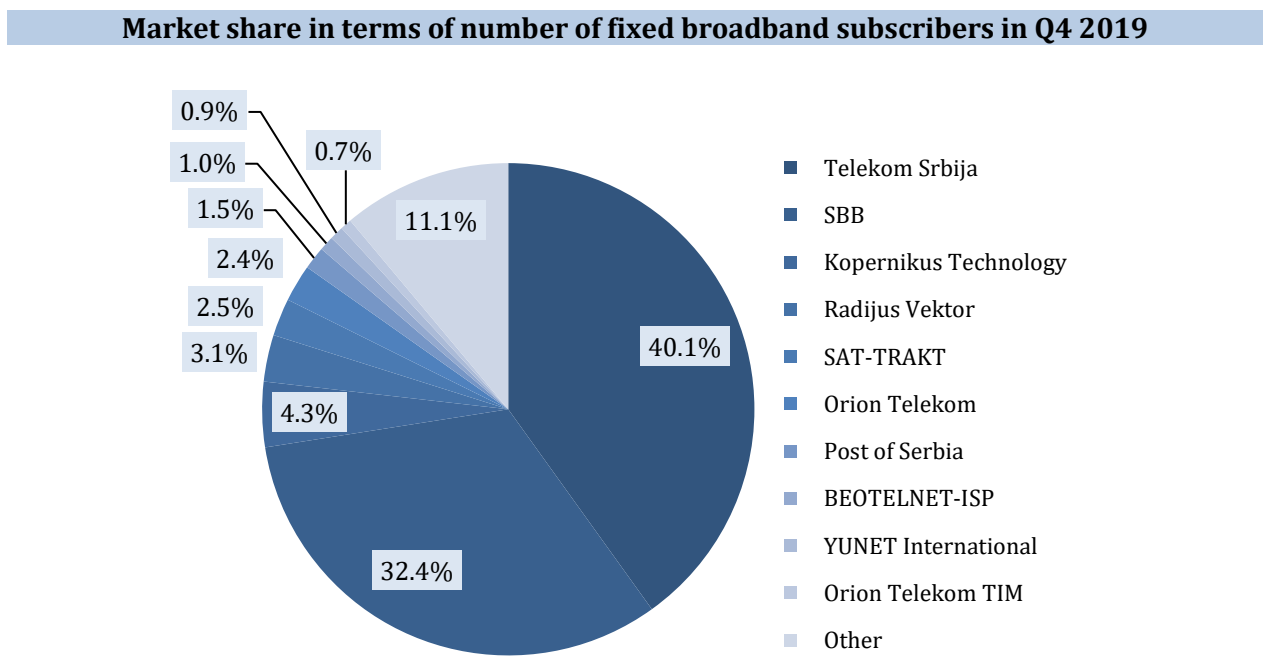
Number of subscribers according to type of access



In Q4 2019, the majority of subscribers used Internet access rate over 30 Mbit/s (around 51%) and between 10 Mbit/s to less than 30 Mbit/s (around 44%).

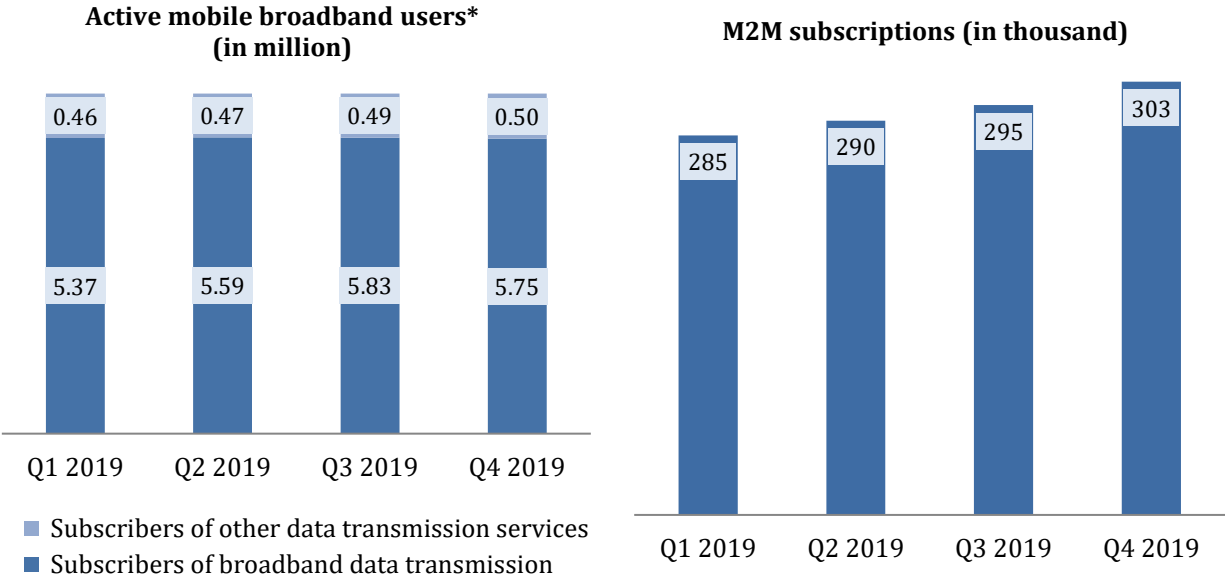


In Q4 2019, there haven't been any significant changes in the leading operators' market shares, in terms of number of subscribers, compared with the previously observed quarters.



The number of active mobile broadband subscribers in Q4 2019 has slightly decreased compared to the previous quarter, amounting to approximately 6.25 million. The number of M2M subscriptions is on the rise in the fourth quarter as well, reaching approximately 303 thousand.

Number of active mobile broadband subscribers and M2M subscribers

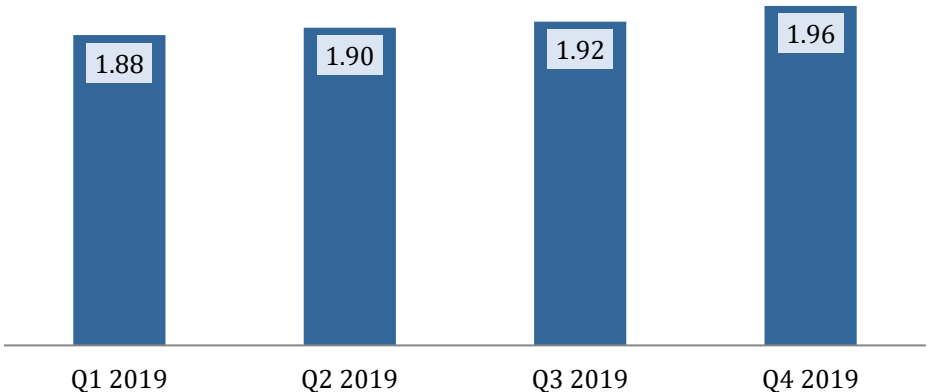


* Active mobile broadband subscribers include subscribers of data transmission services contracted together with voice services, or as an additional package to the voice tariff plan, whereas subscribers of other data transmission services represent mobile broadband transfer users with single service agreement, separate from voice service (data card subscriptions, USB modem/dongle subscriptions, tablet subscriptions and similar).

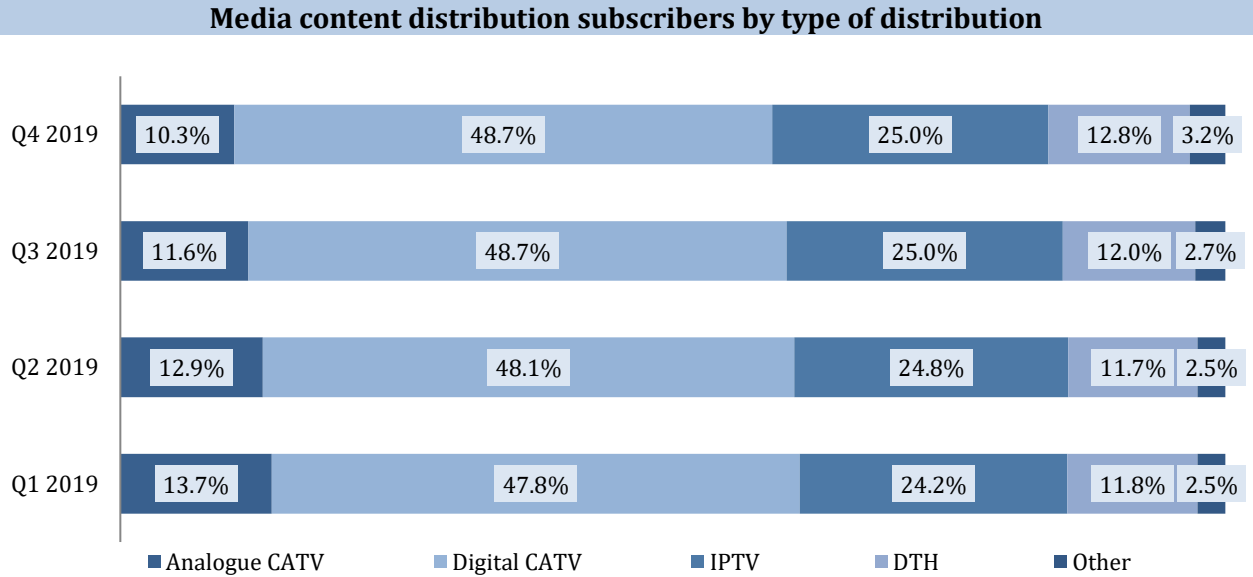
Media Content Distribution

The number of media content distribution service subscribers has slightly increased in the observed period, amounting to approximately 1.96 million in Q4 2019.

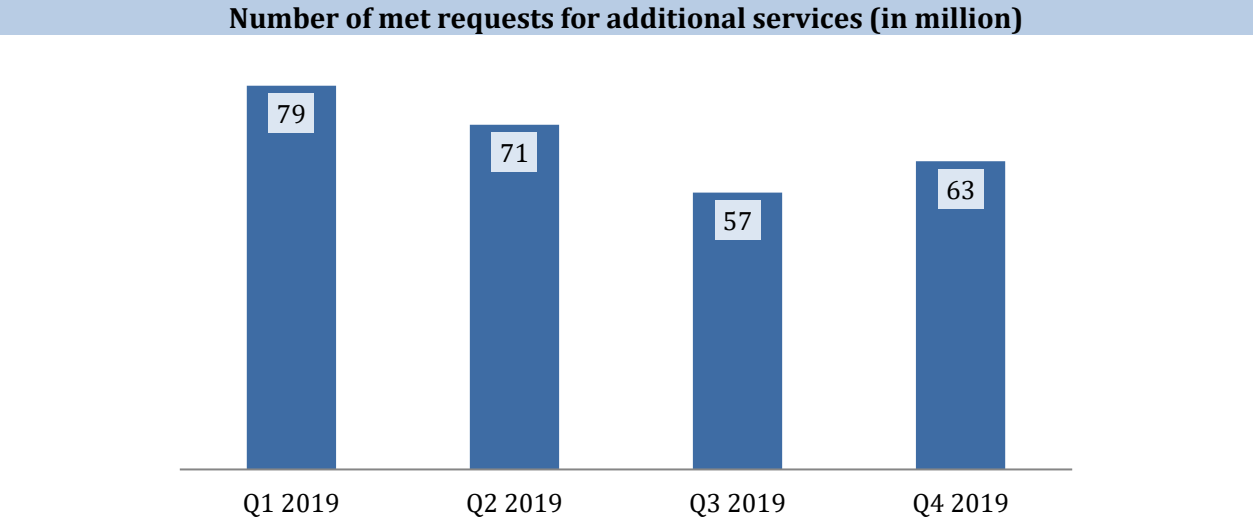
Number of media content distribution service subscribers (in million)



In Q4 2019, the majority of subscribers used CATV distribution, either analogue or digital (around 59%). The number of IPTV subscribers is stable, whereas the share of DTH subscriptions has slightly increased, while wireless network and Internet media content distribution were the least used.



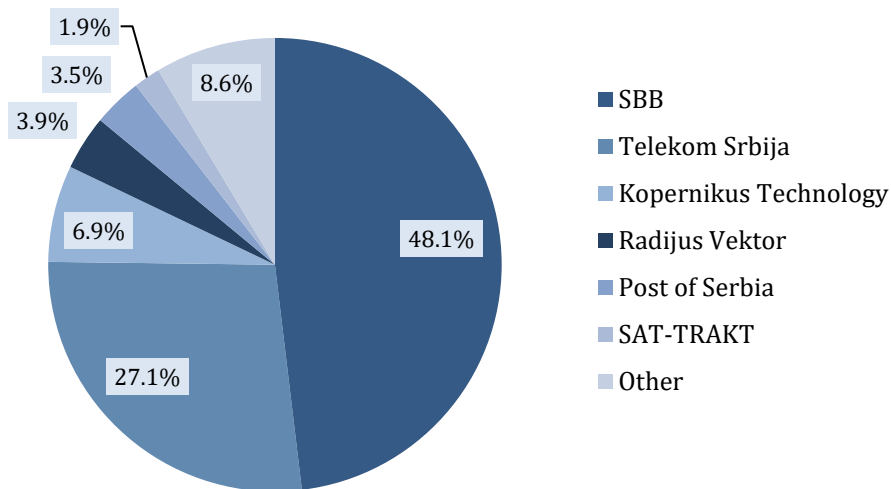
The number of met requests for additional services, such as video on demand (VoD), content recording, TV on mobile devices, playback etc, has slightly increased in Q4 2019 compared to Q3 2019, amounting to approximately 63 million requests, or some 14 requests a month per user. The number of met VoD requests in Q4 2019 was around 2.6 million.



In Q4 2019, around 29% of media content distribution subscribers with the possibility to have additional channels, subscribed to such programmes.

As for the leading operators' market shares, in terms of the number of subscribers, there haven't been any significant changes in Q4 2019 compared to the previous quarter.

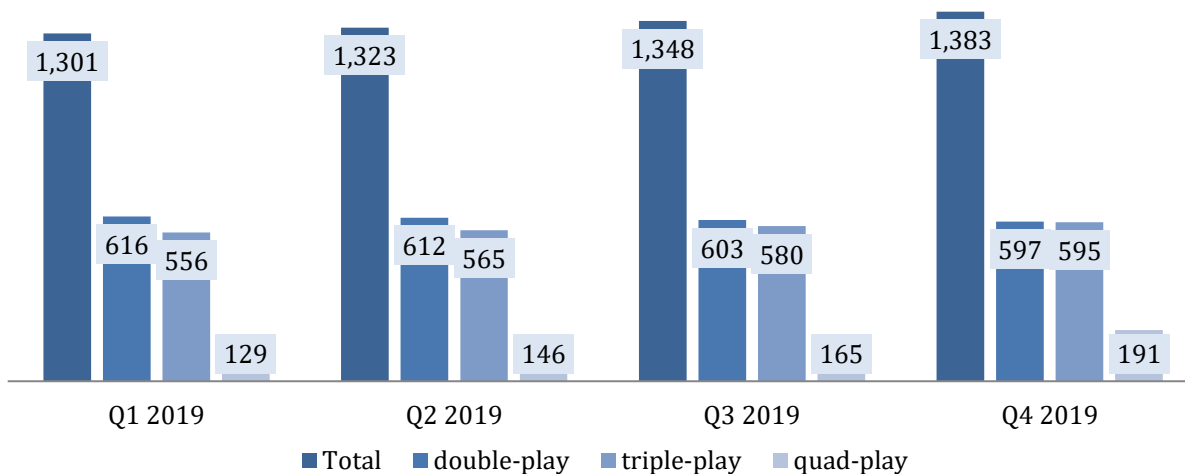
Operators' market share in terms of number of subscribers in Q4 2019



Bundled Services

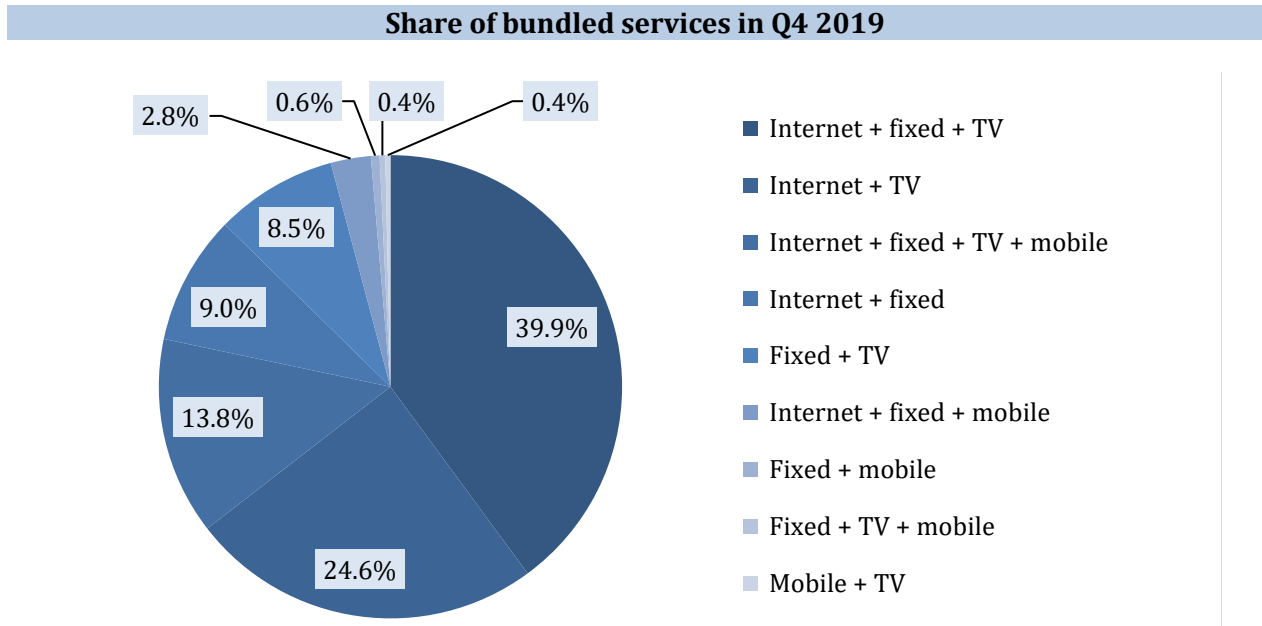
The number of bundled service subscribers in Q4 2019 has increased compared to the previous quarter, amounting to approximately 1.38 million. Packages offering two services (double-play) were most used, whereas least used were packages with four services (quad-play).

Number of bundled service users (in thousand)

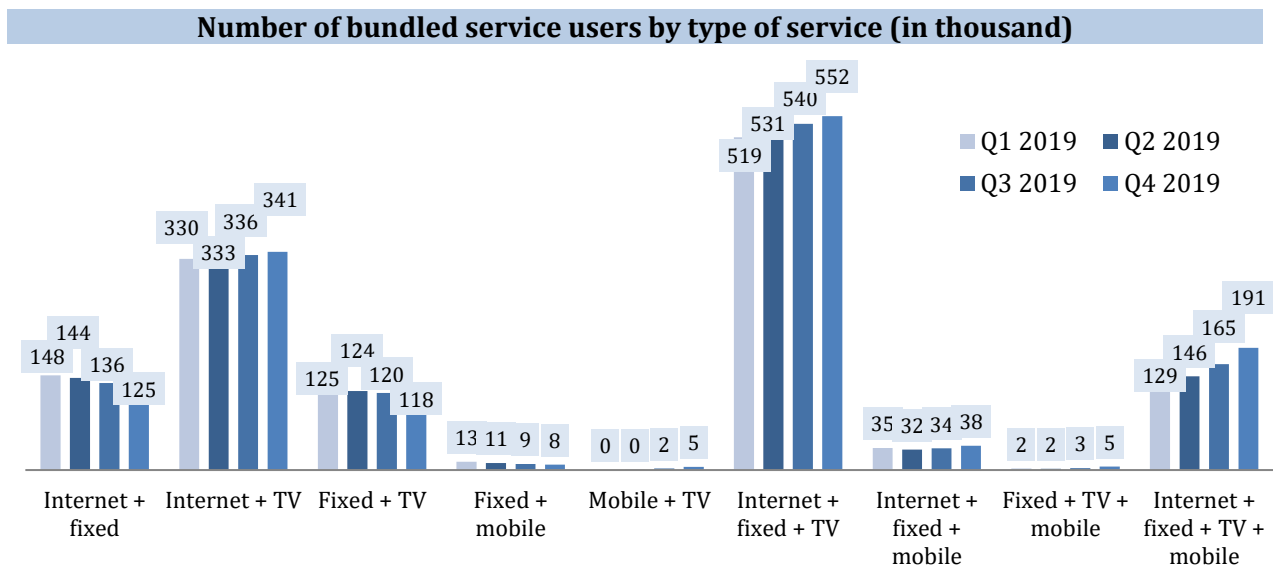


Of all bundled services offered by operators in Q4 2019, the most popular was the package with broadband Internet access, fixed telephony and TV, followed by a double-play offering broadband Internet access and TV, as well as the only available quad-play package including broadband Internet access, fixed telephony, TV and mobile telephony. These packages also have had the

highest subscriber growth rate in Q4 2019. A triple-play offering fixed and mobile telephony and TV, as well as a recently introduced package including mobile telephony and TV, have had the lowest number of subscribers. The shares of different bundled services in terms of number of subscribers are given below.



Fluctuations in different packages' number of subscribers can be seen below.



Broadband Internet access is mostly purchased as a bundled service, whereas mobile telephony is generally purchased as a stand-alone service.

Share of bundled and stand-alone services purchased in Q4 2019

