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 Third Quarter of 2019

The Overview presents the data for the third 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.

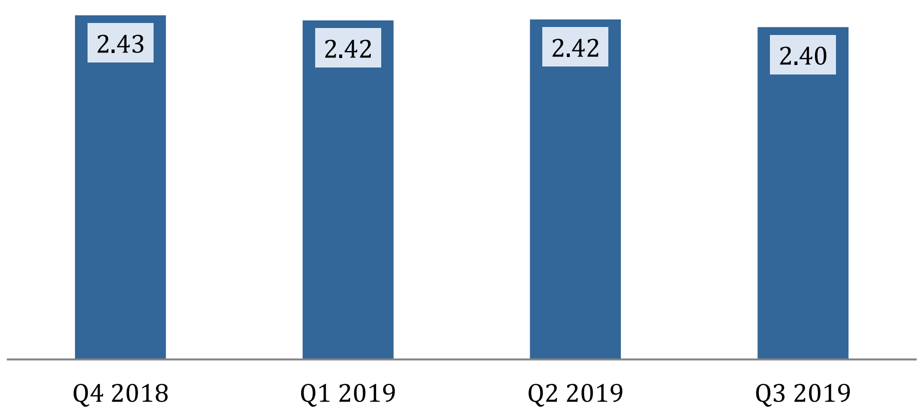
Quarterly electronic communications market indicators referring to media content distribution include the data for the leading operators that make up approximately 91% of the market, in terms of the number of subscribers, whereas the data for the remaining 9% of the market were estimated based on the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

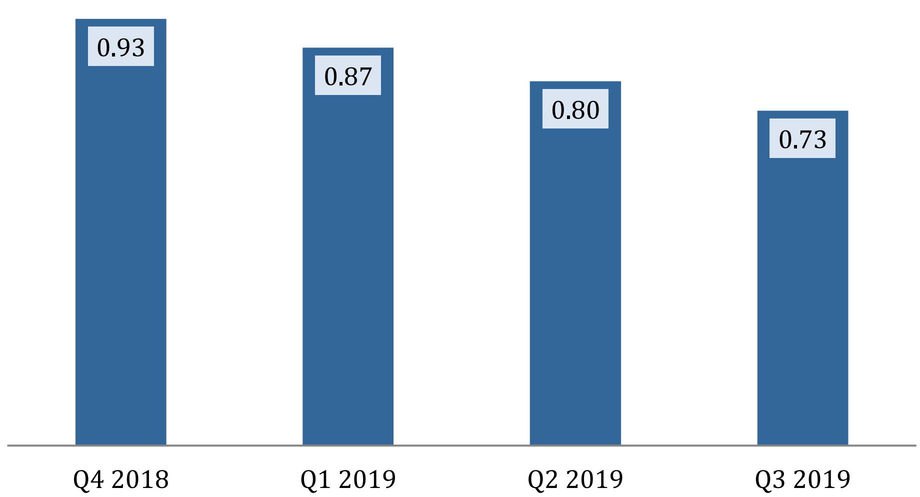
Public Fixed Telecommunications Networks and Services

Both the number of fixed telephony subscribers and the generated traffic decreased in Q3 2019, compared to the previous quarter. Approximately 2.40 million fixed telephony subscribers generated approximately 730 million minutes of traffic in the last observed quarter, which means that a fixed telephony subscriber on average spent 3.3 minutes a day on calls.

Number of fixed line subscribers (million)

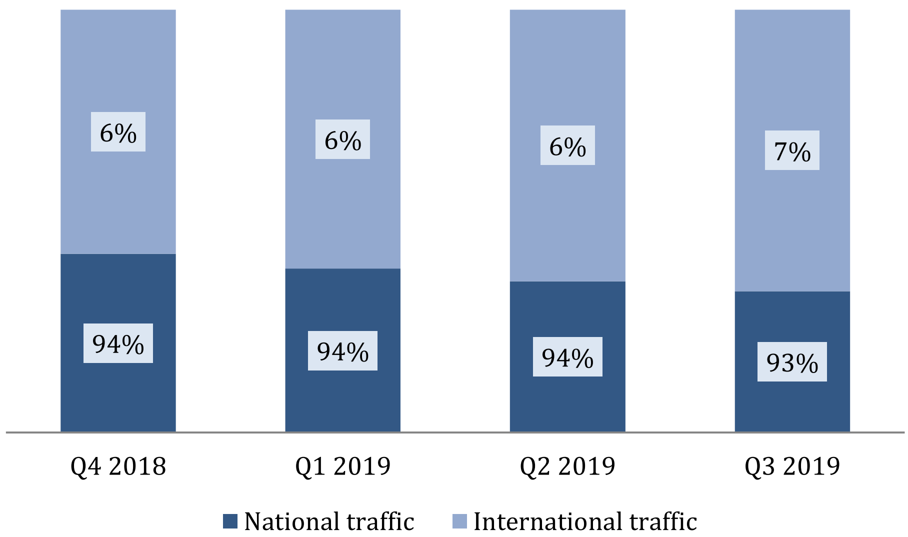


Total fixed telephony traffic (billion minutes)



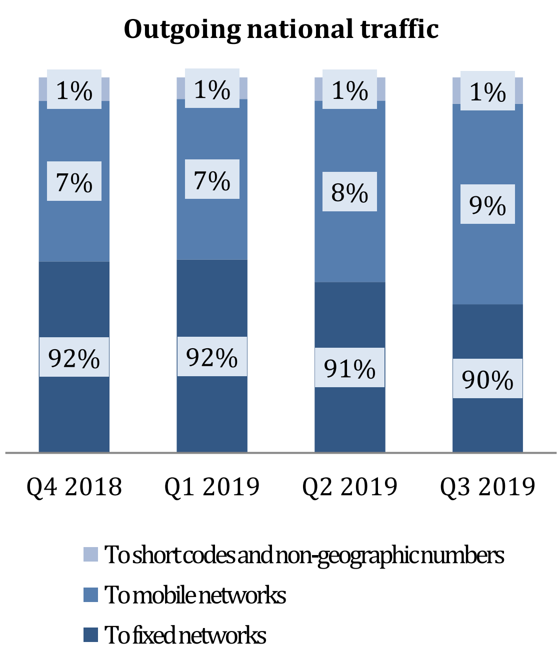
The subscriber structure has not changed over the observed quarters: 88% of the fixed telephony subscribers remain to be natural persons, i.e. private users. In all observed quarters, the largest share of the fixed telephony traffic is accounted for by the national traffic, with 93%.

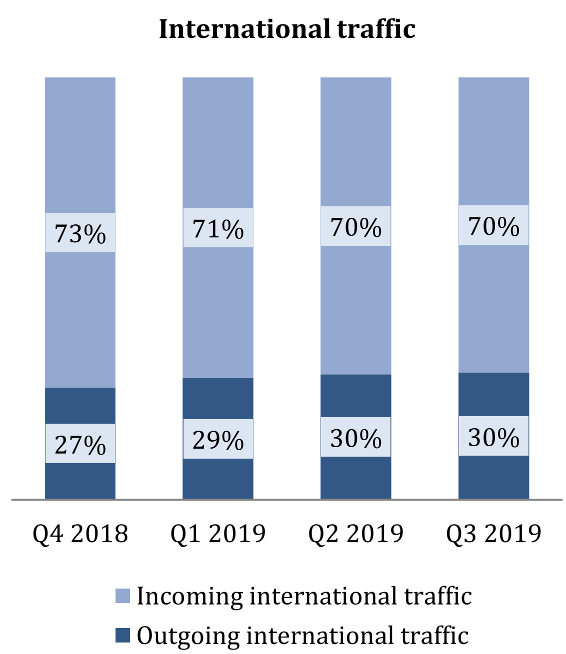
Fixed telephony traffic structure



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

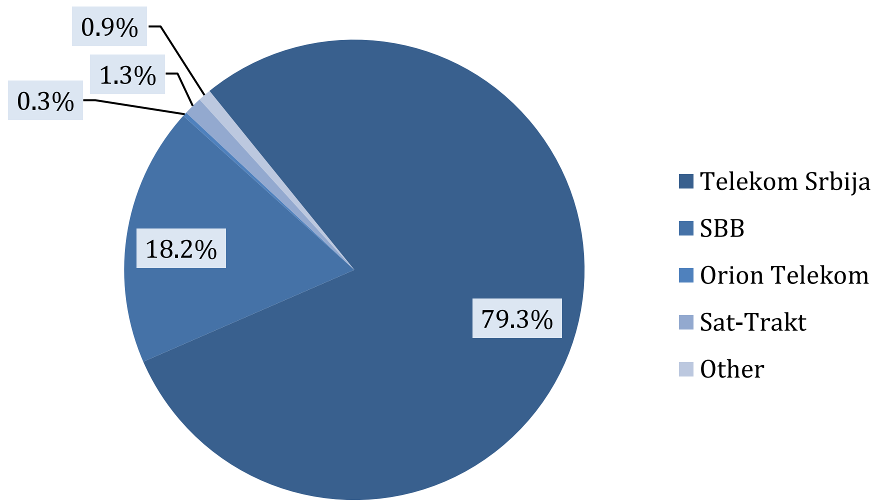
Structure of national and international traffic in fixed telephony





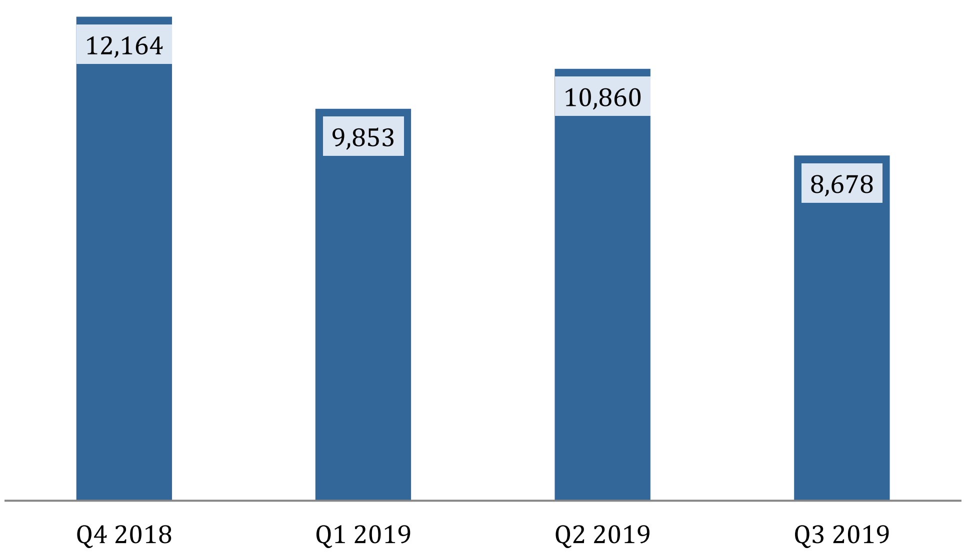
Below is shown the leading operators' market share according to the number of subscribers in Q3 2019.

Operators' market share according to number of subscribers in Q3 2019



The number of portings in the third quarter of 2019 was approximately 8.7 thousand (around 2.9 thousand a month), showing a decrease compared to the previous quarter.

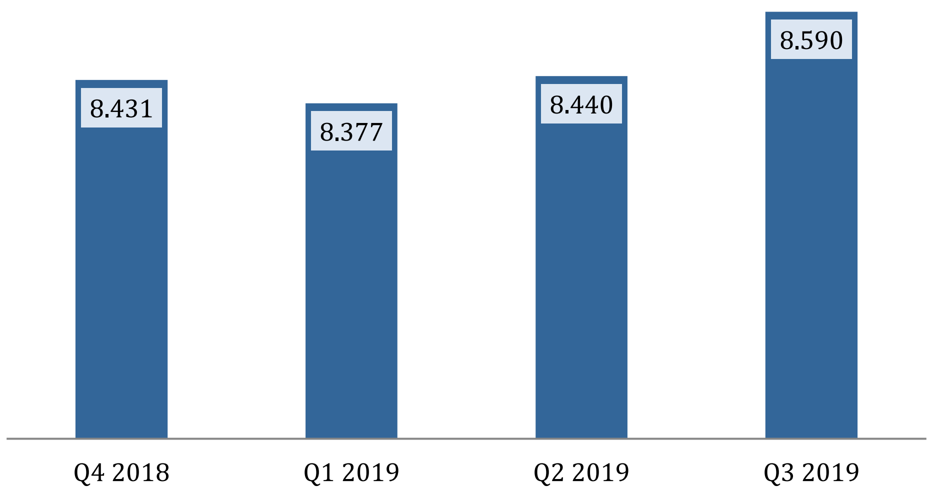
Fixed telephony number portings per quarter



Public Mobile Telecommunications Networks and Services

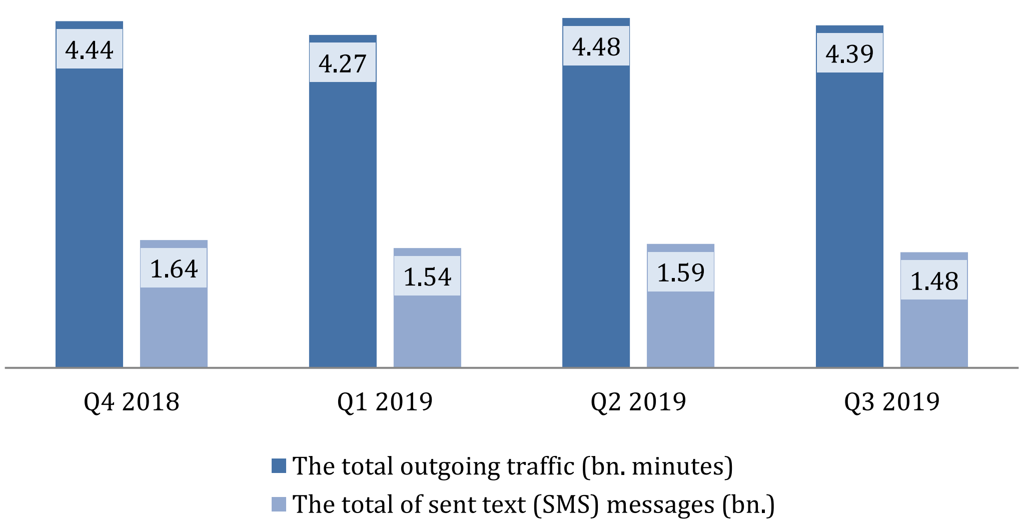
In Q3 2019, there were approximately 8.6 million active mobile telephony subscribers, that generated approximately 4.4 billion minutes of national and international voice traffic and sent almost 1.5 billion SMS messages. On average, in Q3 2019, a mobile user spent 5.6 minutes a day on calls and sent 1.9 text messages. On the mobile networks market, a slight increase in the number of active mobile telephony subscribers has been observed in Q3 2019 as well, by approximately 1.8 % compared to the previous quarter.

Total number of active mobile telephony subscribers (million)



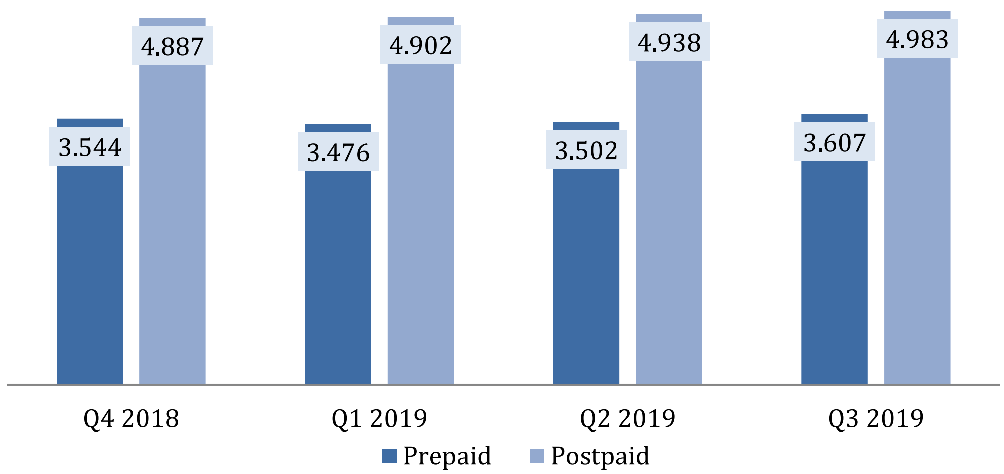
In Q3 2019, the effectuated voice traffic in mobile networks marked a slight decrease, equally as the SMS traffic, compared to Q2 2019.

Generated voice and SMS mobile telephony traffic



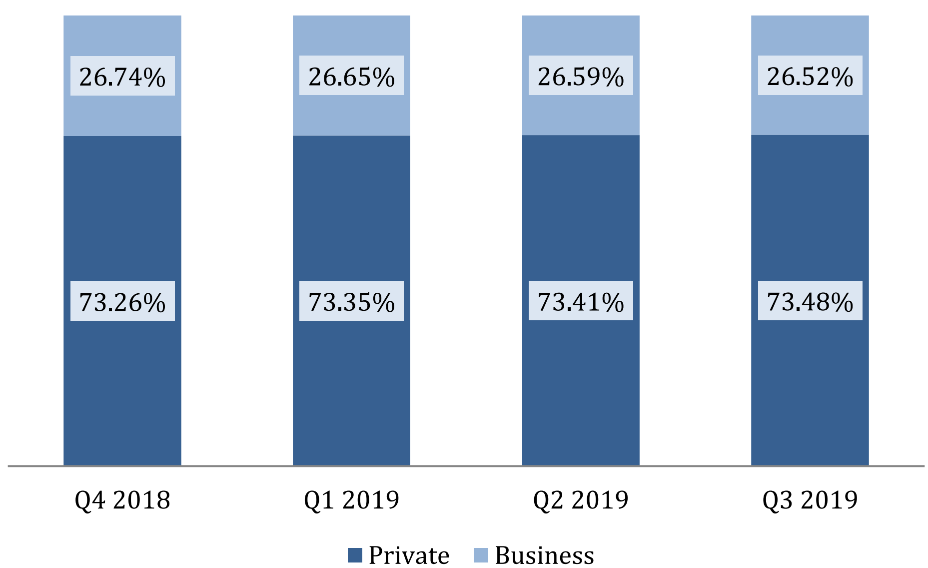
In Q3 2019, both the number of postpaid and prepaid subscribers slightly increased, compared to the previous qaurter.

Number of prepaid and postpaid subscribers (million)



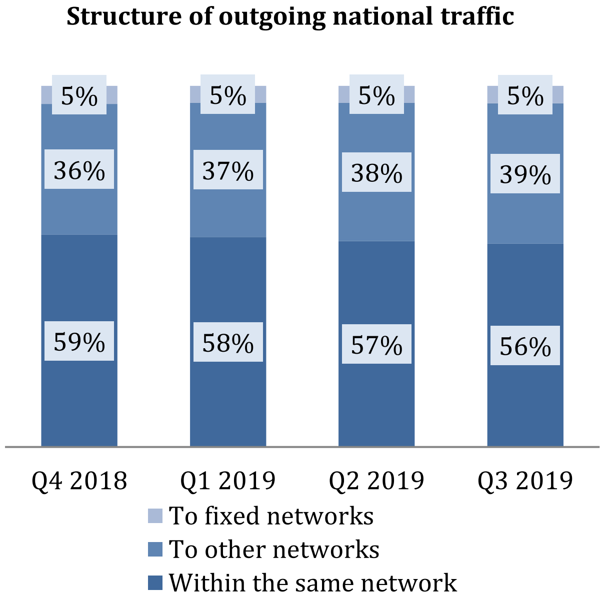
The majority of postpaid subscribers are natural persons, accounting for around 73%, much the same as in other observed quarters.

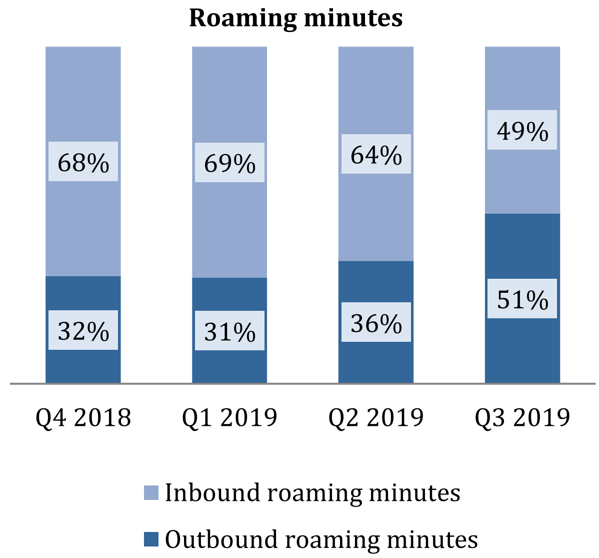
Postpaid subscriber structure



Most of the outgoing traffic in Q3 2019 has been generated within the same network (56%). As for the roaming, the subscribers of national networks abroad generated slightly more roaming traffic than the subscribers of foreign networks.

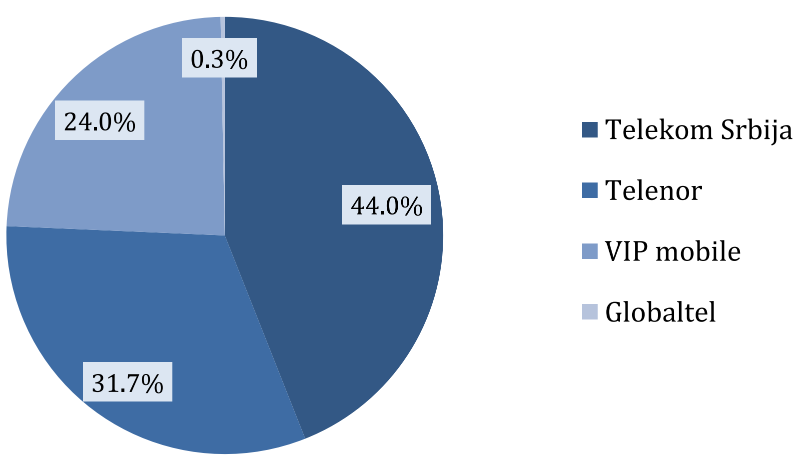
Structure of mobile networks outgoing traffic





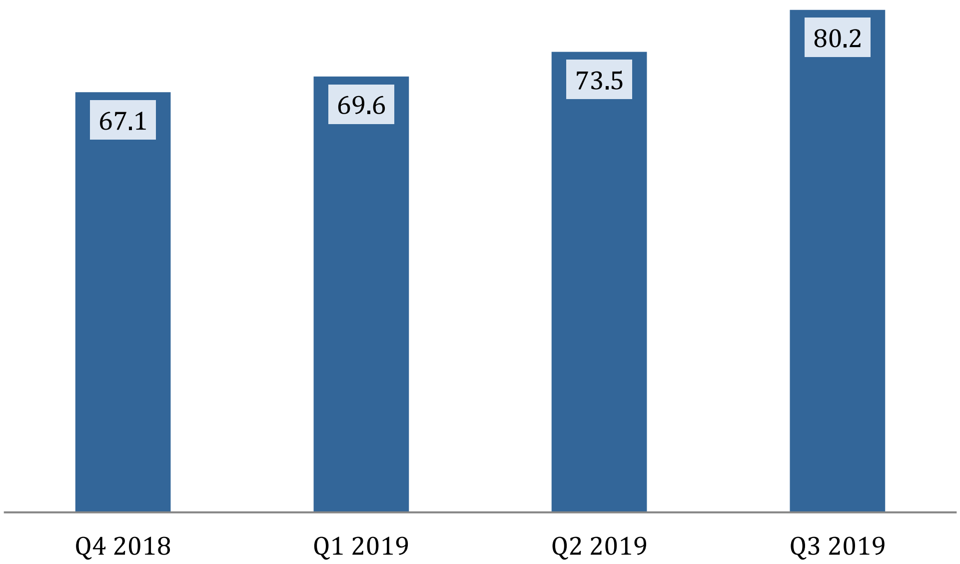
There haven't been any significant changes in market shares in terms of the number of users, compared with the previous quarter.

Market share in terms of number of users in Q3 2019



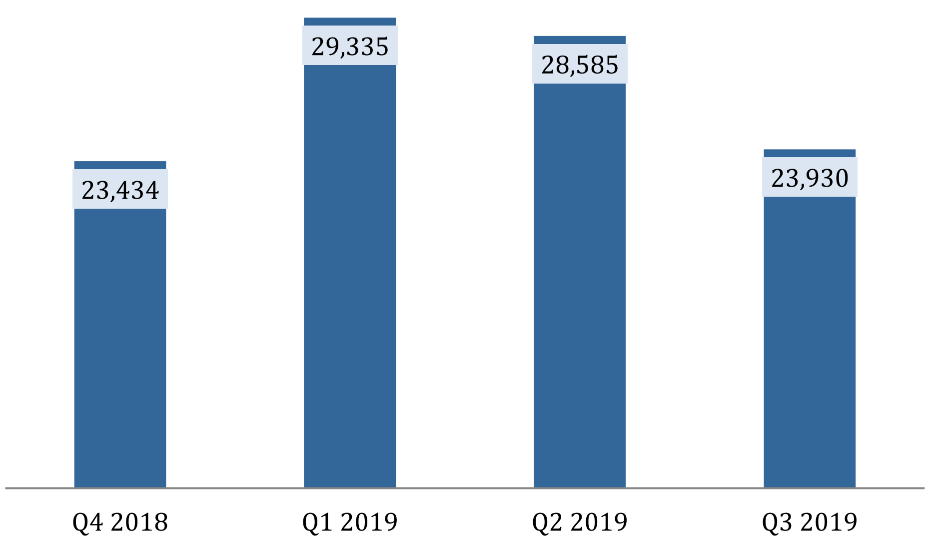
Data transmission over mobile network has shown growth in the analyzed period, amounting to 80.2 million GB in Q3 2019, which means that a mobile broadband subscriber used on average 142 MB daily, or approximately 4 GB a month.

Mobile Internet traffic (million GB)



The number of mobile telephony number portings was approximately 23.9 thousand in the third quarter of 2019, or almost 8 thousand per month, which is a decrease compared to the previous quarter.

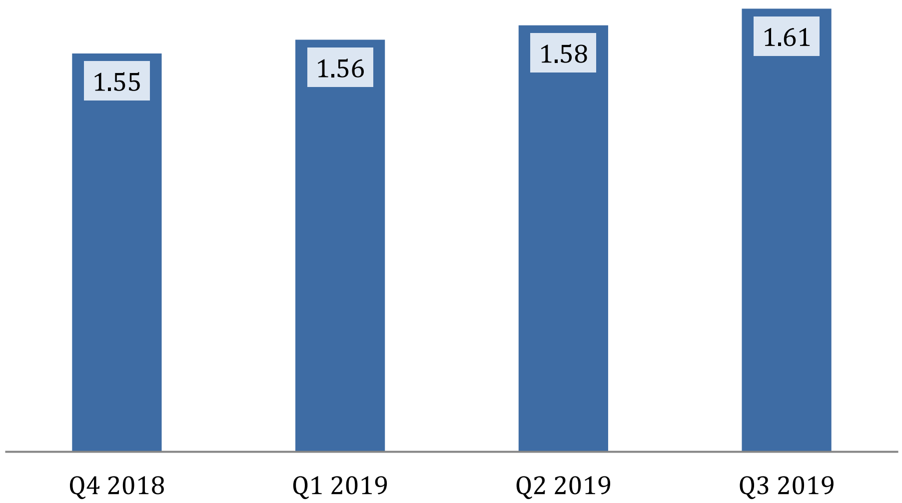
Mobile telephony number portings per quarter



Broadband Internet Access

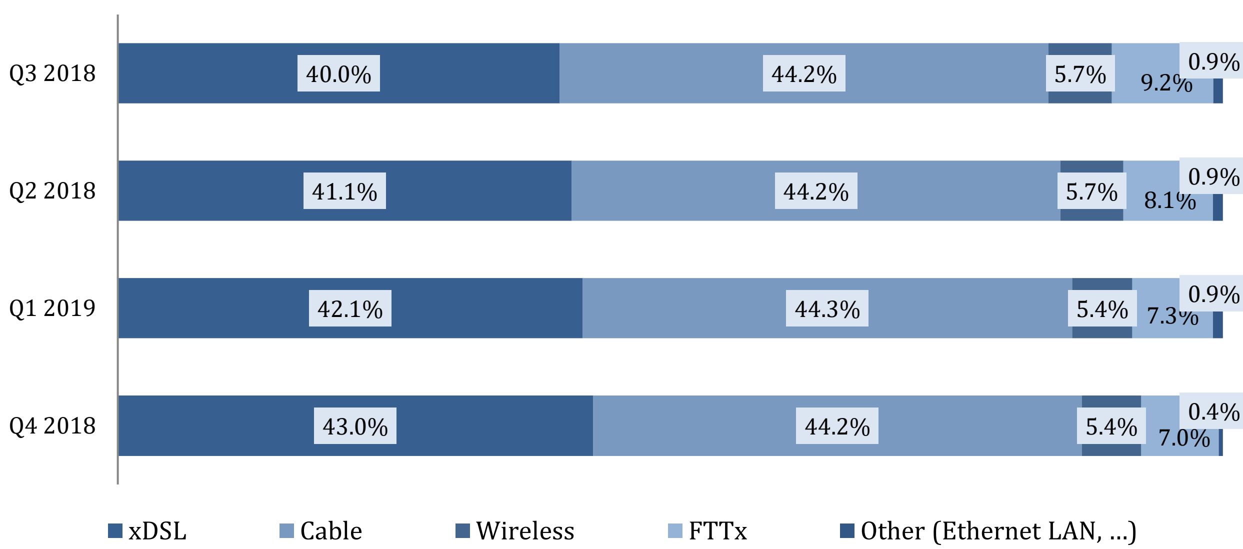
Compared to the previous quarter, the number of fixed broadband Internet access users in Q3 2019 has slightly increased, amounting to approximately 1.61 million subscribers.

Number of fixed broadband Internet subscribers (million)



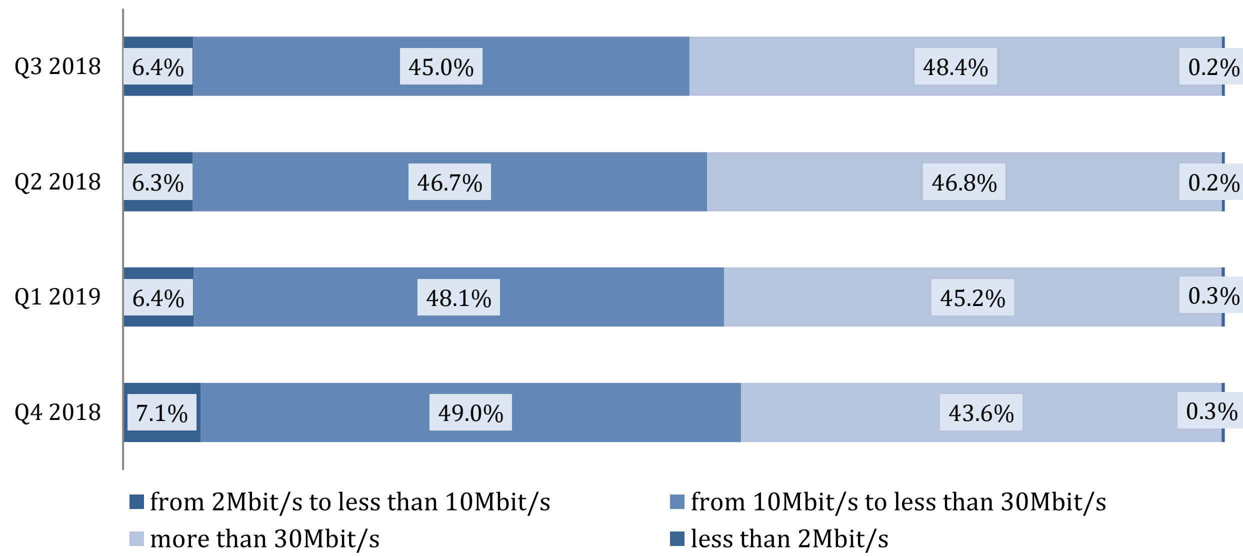
The majority of fixed broadband Internet subscribers have xDSL or cable access. The number of xDSL subscribers has been marked by a slight drop and the share of cable access subscribers has remained unchanged in the analyzed period.

Number of subscribers according to type of access



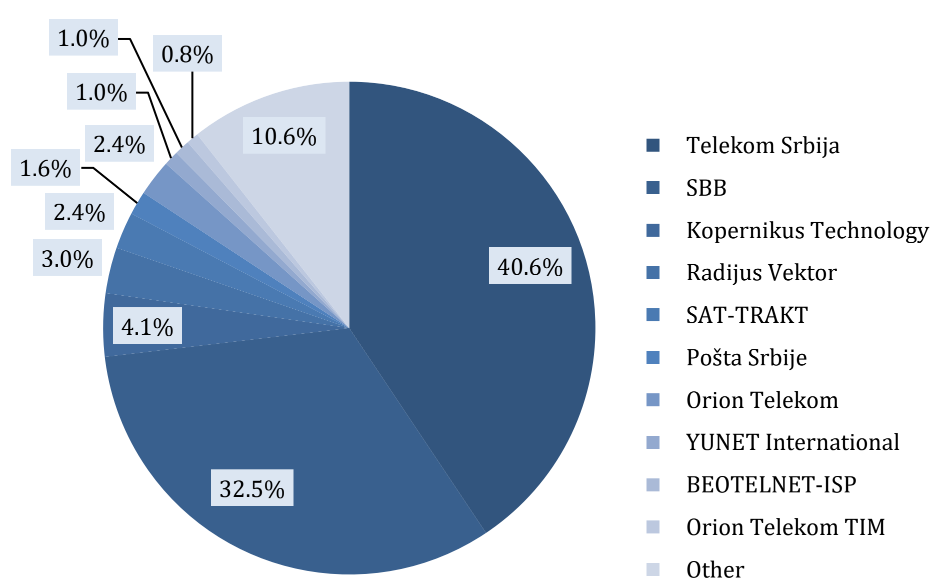
In Q3 2019, the majority of subscribers used Internet access rate over 30 Mbit/s (around 48%) and between 10 Mbit/s to less than 30 Mbit/s (approximately 45%).

Number of fixed broadband Internet subscribers according to access rate



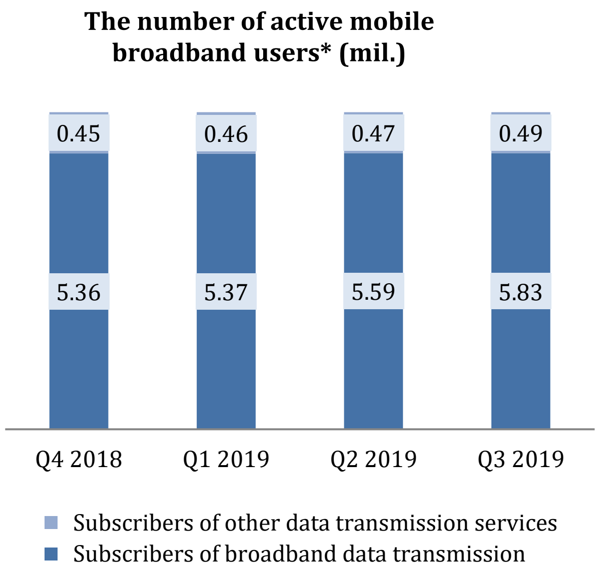
In Q3 2019, there haven't been any significant changes in the leading operators' market shares, in terms of number of subscribers, compared with the previously observed quarters.

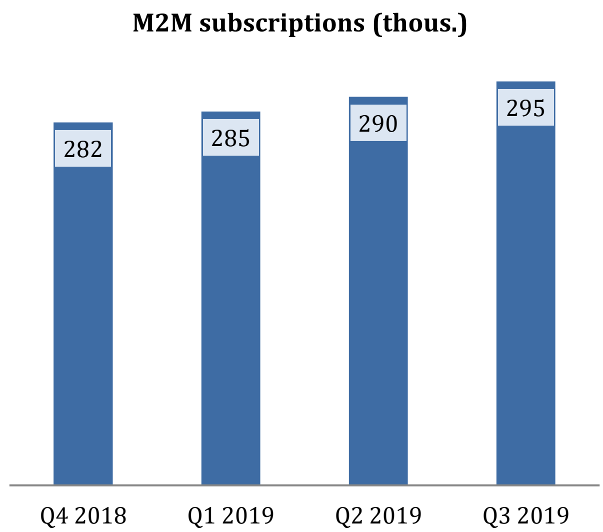
Market share in terms of number of fixed broadband subscribers in Q3 2019



The number of active mobile broadband subscribers in Q3 2019 has slightly increased compared to the previous quarter, amounting to approximately 6.3 million. The number of M2M subscriptions is on the rise in the third quarter as well, reaching approximately 295 thousand.

Number of active mobile broadband subscribers and M2M subscribers



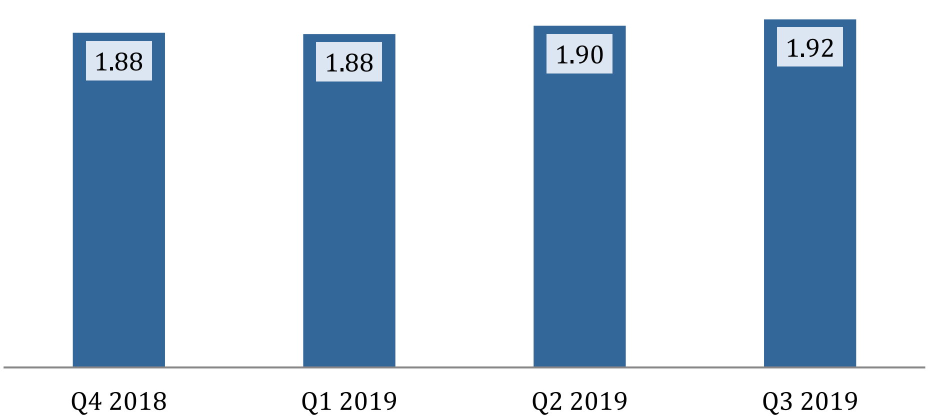


** Active mobile broadband subscribers include subscribers of data transmission services contracted together with voice services, or as an additional package to the voice tariff plan, whereas subscribers of other data transmission services represent mobile broadband transfer users with single service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

Media Content Distribution

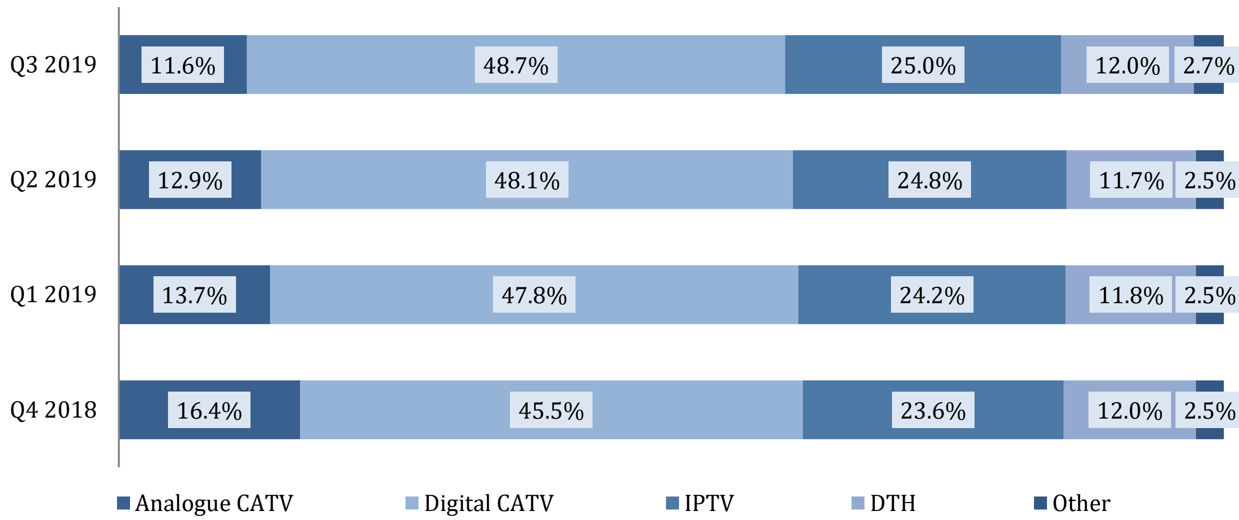
The number of media content distribution service subscribers has slightly increased in the observed period, amounting to approximately 1.92 million in Q3 2019.

Number of media content distribution service subscribers (million)



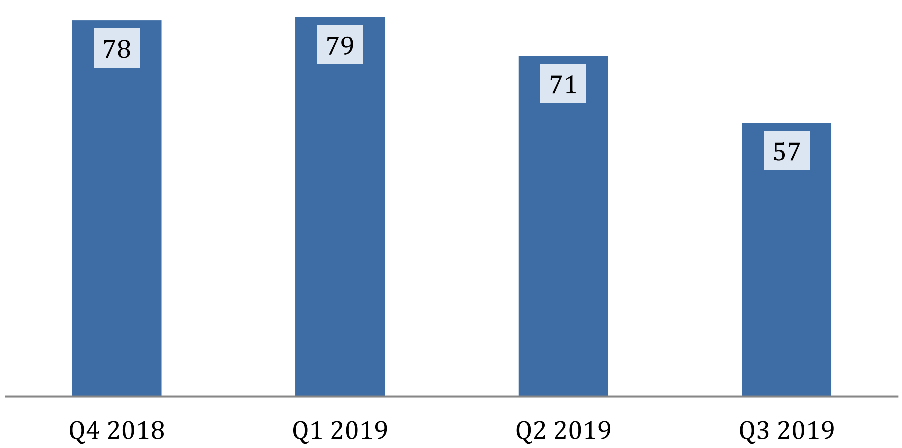
In Q3 2019, the majority of subscribers used CATV distribution, either analogue or digital (around 60%). The number of IPTV and DTH subscriptions has also slightly increased, whereas wireless network or Internet media content distribution were the least used.

Media content distribution subscribers by type of distribution



The number of met requests for additional services, such as video on demand (VoD), content recording, TV on mobile devices, playback etc, has slightly decreased in Q3 2019 compared to Q2 2019, amounting to approximately 57 million requests, or some 13 requests a month per user. The number of met VoD requests in Q3 2019 was around 3.4 million.

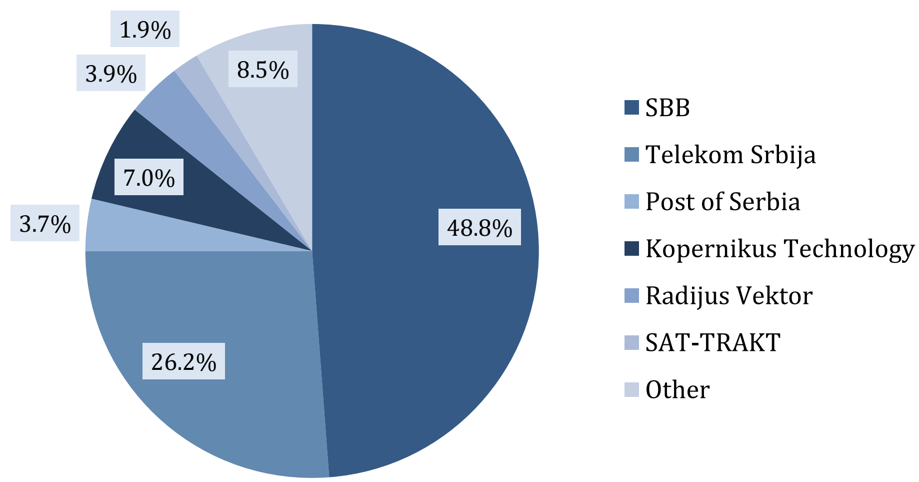
Number of met requests for additional services (million)



In Q3 2019, around 28% 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 Q3 2019 compared to the previous quarter.

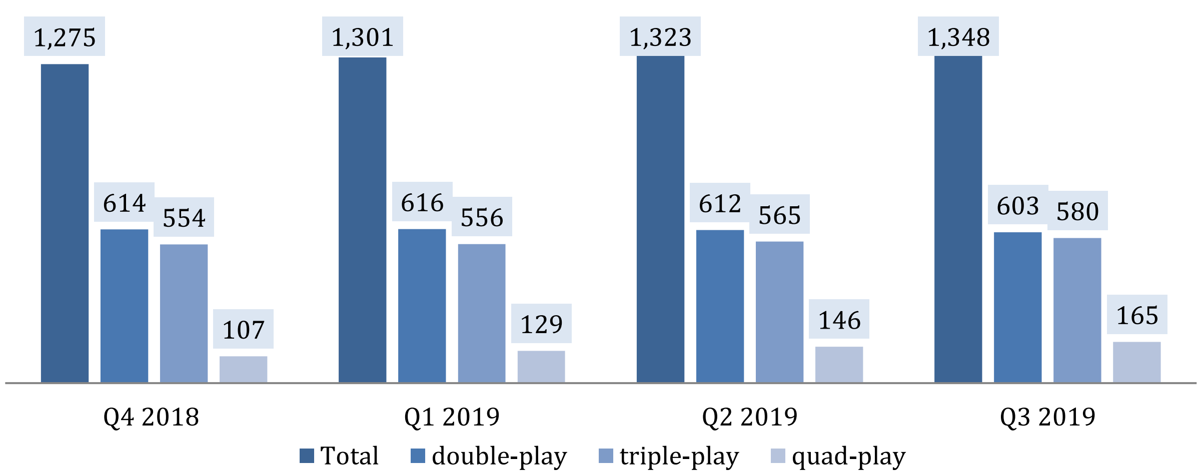
Operators' market share in terms of number of subscribers in Q3 2019



Bundled Services

The number of bundled service subscribers in Q3 2019 has increased compared to the previous quarter, amounting to approximately 1.34 million. Packages offering two services (double-play) were most used, whereas least used were packages with four services (quad-play).

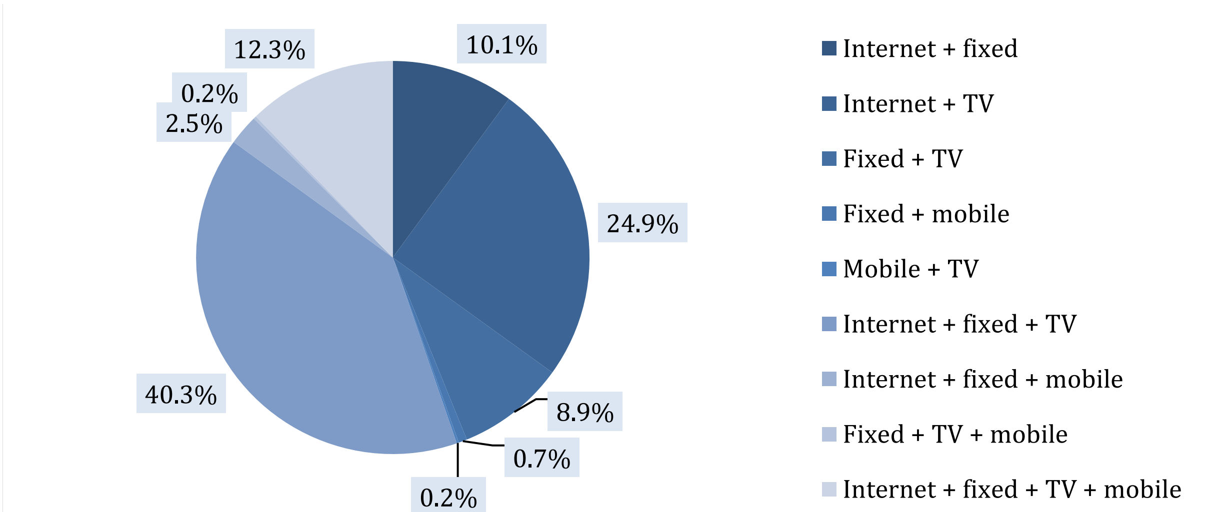
Number of bundled service users (thousands)



Of all bundled services offered by operators in Q3 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

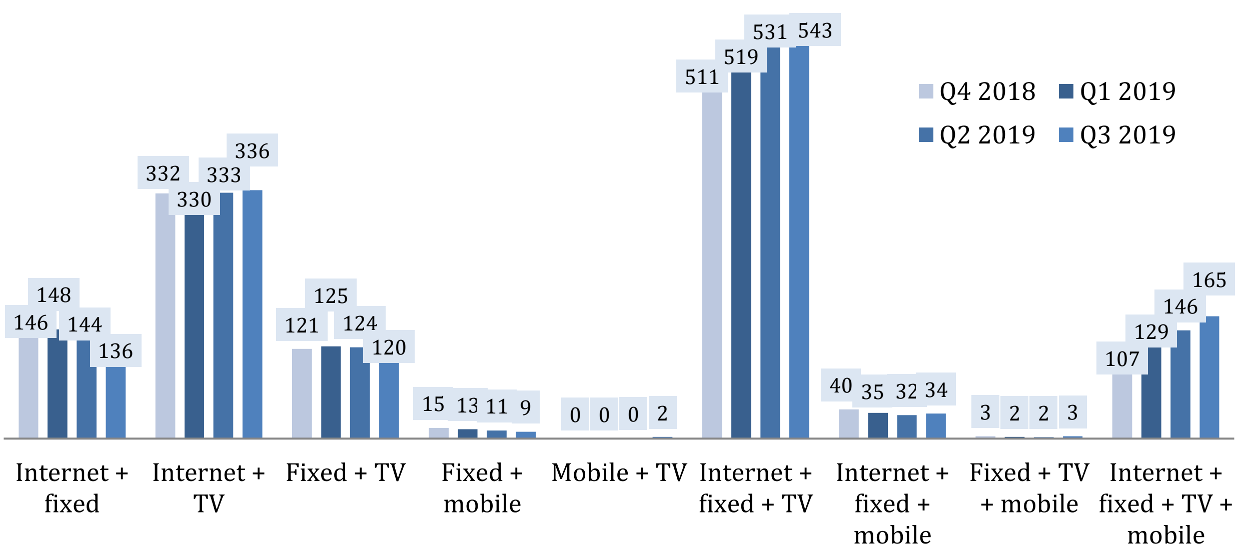
Internet access, fixed telephony, TV and mobile telephony. These packages also have had the highest subscriber growth rate in Q3 2019. A triple-play offering fixed and mobile telephony and TV, as well as a recently introduced package including mobile telephony and TV, have had the lowest number of subscribers. The shares of different bundled services in terms of number of subscribers are given below.

Share of bundled services in Q3 2019



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

Number of bundled service users by type of service (thousands)



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 Q3 2019