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 Second Quarter of 2018

The Overview presents the data for the second quarter of 2018 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 2017 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 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, whereas as of the first quarter 2018, the Agency started to collect data from 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 2017 collected in the annual questionnaires.

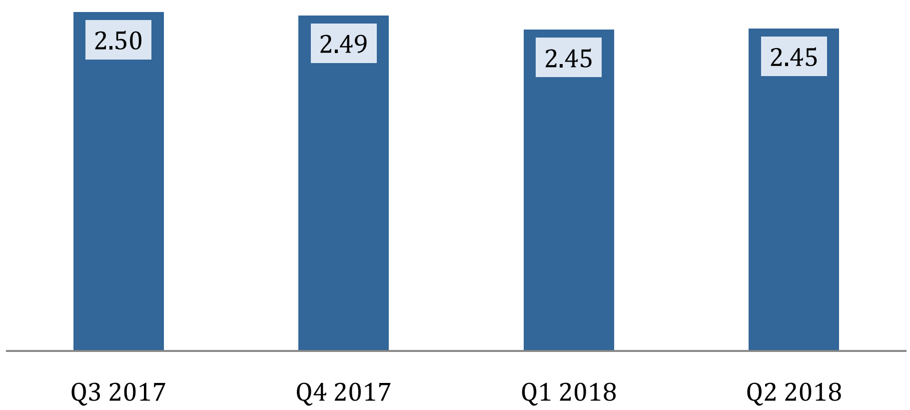
Quarterly electronic communications market indicators referring to media content distribution include the data for the leading operators that make up approximately 92% of the market, in terms of the number of subscribers, whereas the data for the remaining 8% of the market were estimated based on the data for 2017 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 98% of the market, whereas the data for the remaining 2% of the market were estimated based on the data for 2017 collected in the annual questionnaires.

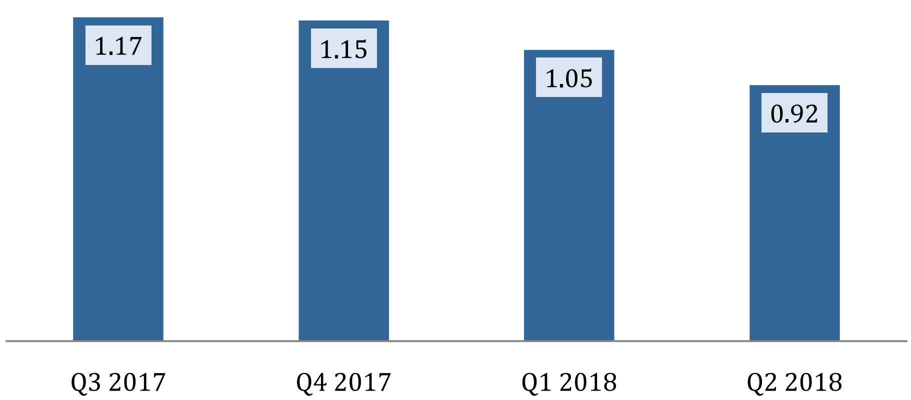
Public Fixed Telecommunications Networks and Services

The number of fixed telephony subscribers in Q2 2018 is approximately at the same level as in the previous quarter, whereas the generated traffic continues to drop. A little less than 2.5 million fixed telephony subscribers generated approximately 921 million minutes of traffic in the last observed quarter, which means that a fixed telephony subscriber on average spends 4.1 minutes a day on calls.

Number of fixed line subscribers (million)

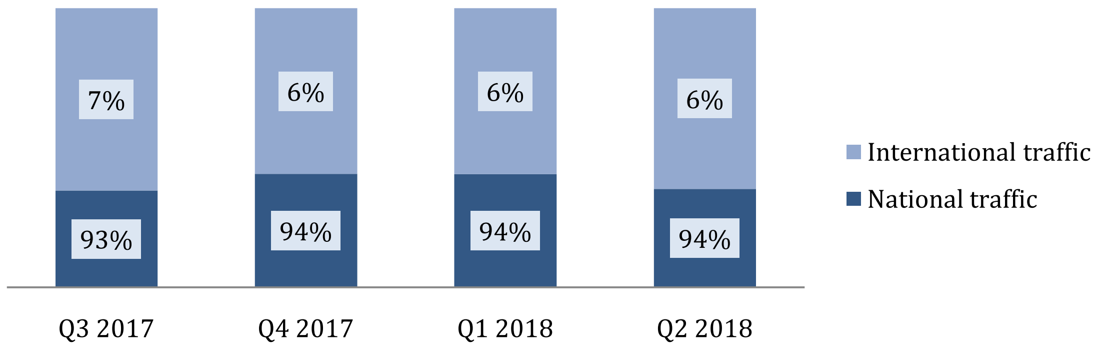


Total fixed telephony traffic (billion minutes)



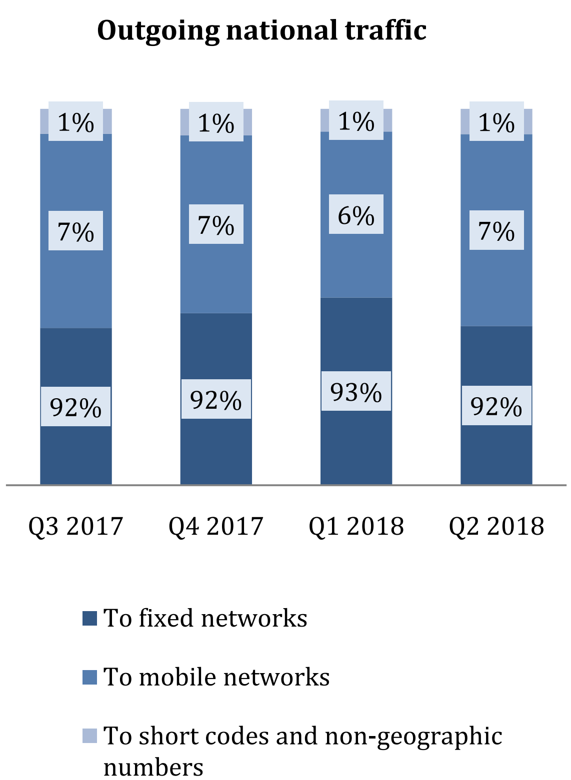
88% of the fixed telephony subscribers are natural persons, i.e. private users, while the subscriber structure remains unchanged in the analyzed quarters. The largest share of the fixed telephony traffic is accounted for by the national traffic, with 94% in Q2 2018.

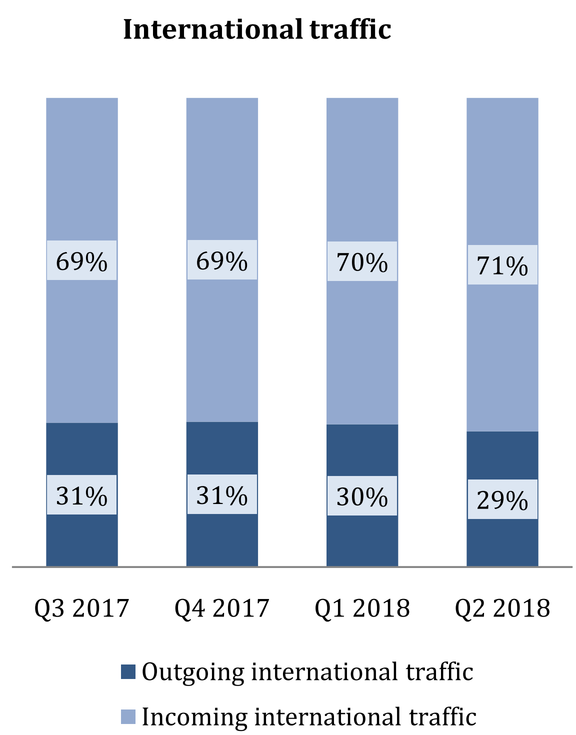
Fixed telephony traffic structure



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

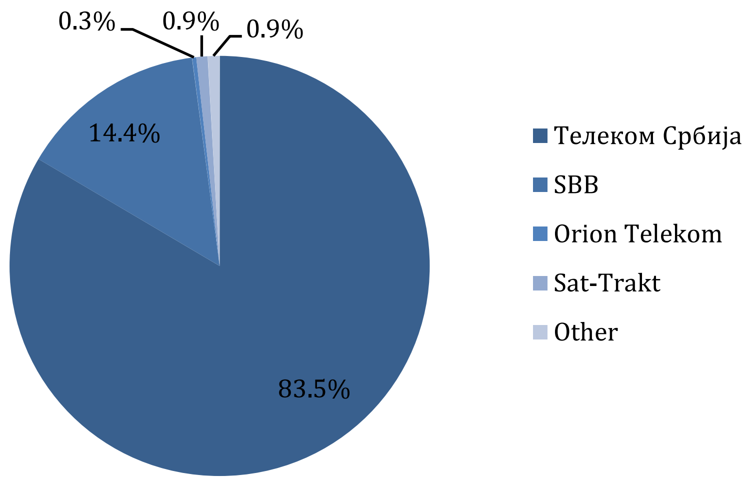
Structure of national and international traffic in fixed telephony





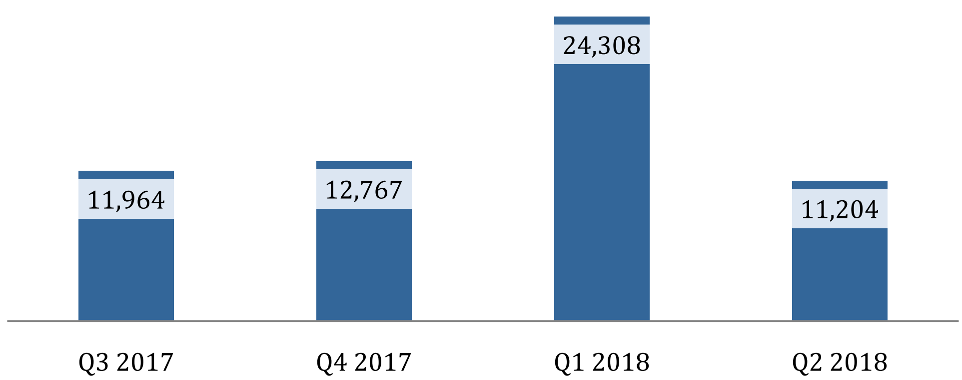
Below is shown the leading operators' market share according to the number of subscribers in Q2 2018.

Operators' market share according to number of subscribers in Q2 2018



The number of portings in the second quarter of 2018 was approximately 11.200 (around 3.700 monthly), showing a decrease compared to the previous quarter.

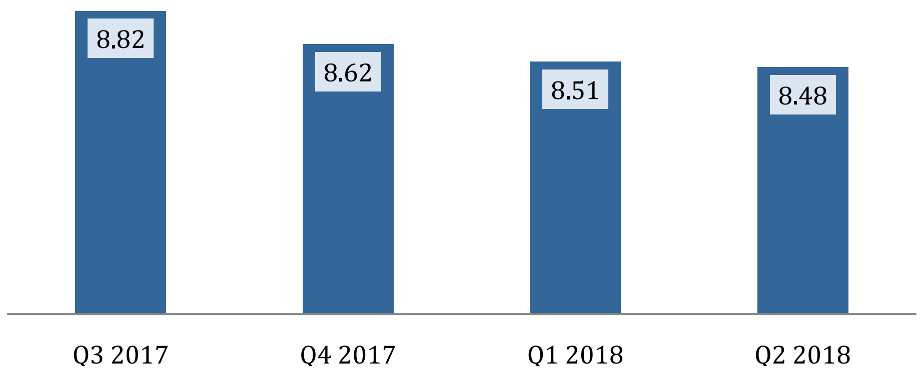
Fixed telephony number portings per quarter



Public Mobile Telecommunications Networks and Services

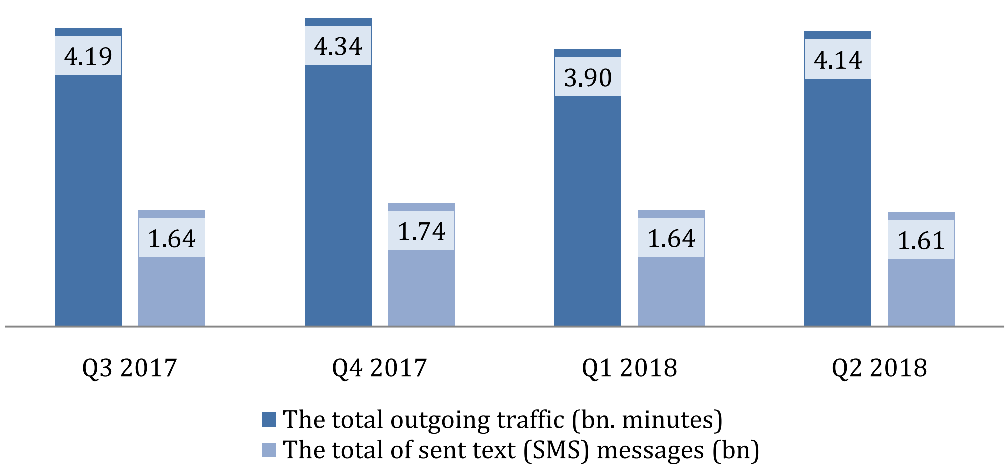
In Q2 2018, there were 8.5 million active mobile telephony subscribers, which generated approximately 4.1 billion minutes of national and international voice traffic and sent approximately 1.6 billion SMS messages. On average, a mobile user spends 5.4 minutes a day on calls and sends 2 text messages. On the mobile networks market, a decrease in the number of active mobile telephony subscribers has been observed, mostly due to the decrease in the number of prepaid users, whose number declines faster than the number of postpaid users grows.

Total number of active mobile telephony subscribers (million)



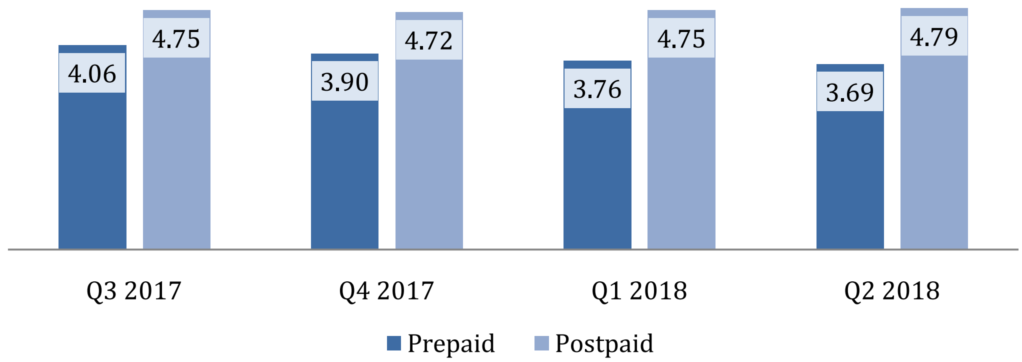
Compared to the previous quarter, in Q2 2018, generated voice traffic in mobile telephony has marked an increase, while SMS traffic has continued to drop.

Generated voice and SMS mobile telephony traffic



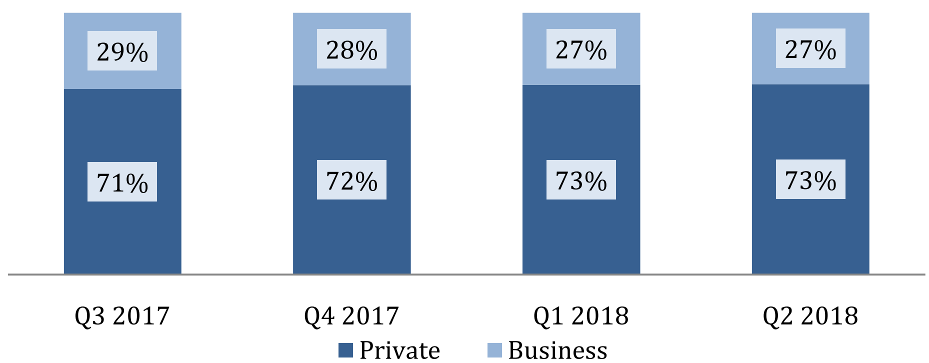
The number of prepaid users continues to drop in Q2 2018, with the number of postpaid users rising, compared to the first quarter 2018.

Number of prepaid and postpaid subscribers (million)



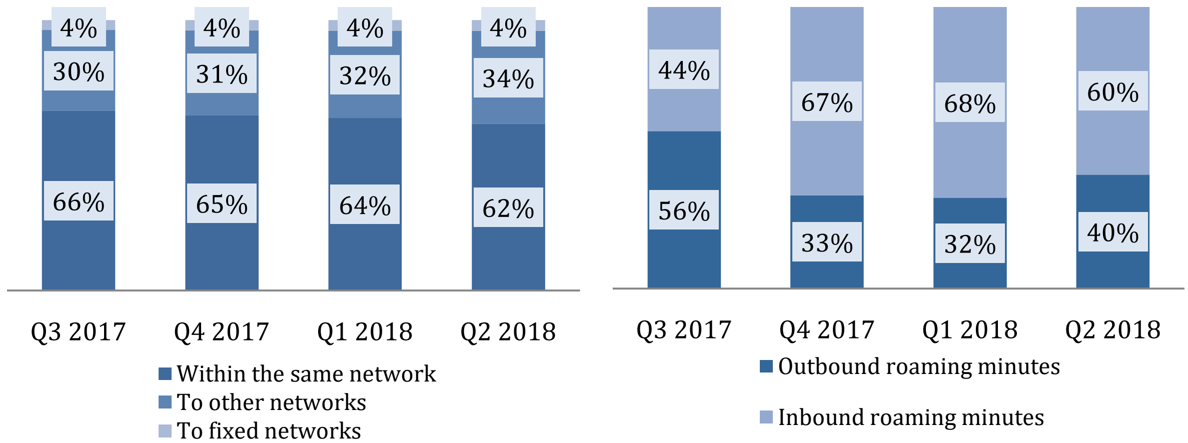
The majority of postpaid subscribers are natural persons, with their number at the same level as in Q1 2018.

Postpaid subscriber structure



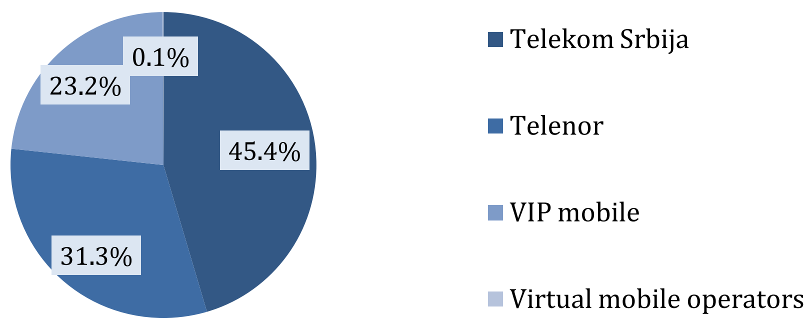
Most outgoing traffic is generated within the same network (62% in Q2 2018). As for roaming, the subscribers of foreign networks generated more roaming traffic than the subscribers of national networks abroad.

Mobile networks outgoing traffic structure



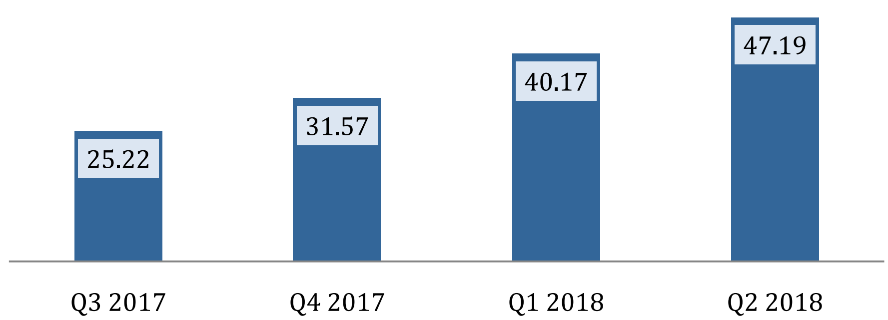
There haven't been any significant changes in market shares in the analyzed year, in terms of the number of users.

Market share in terms of number of users in Q2 2018



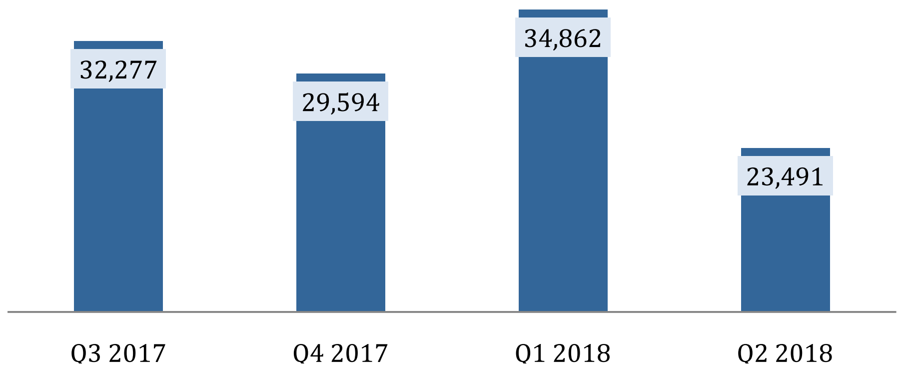
Data transmission over mobile network showed growth in the analyzed period, amounting to over 47 million GB in Q2 2018, which means that a mobile broadband subscriber used on average 95 MB daily, or approximately 2.9 GB a month.

Mobile Internet traffic (million GB)



The number of mobile telephony number portings was approximately 23.5 thousand in the second quarter 2018, or around 7.8 thousand per month, which is a decrease compared to the previous quarter.

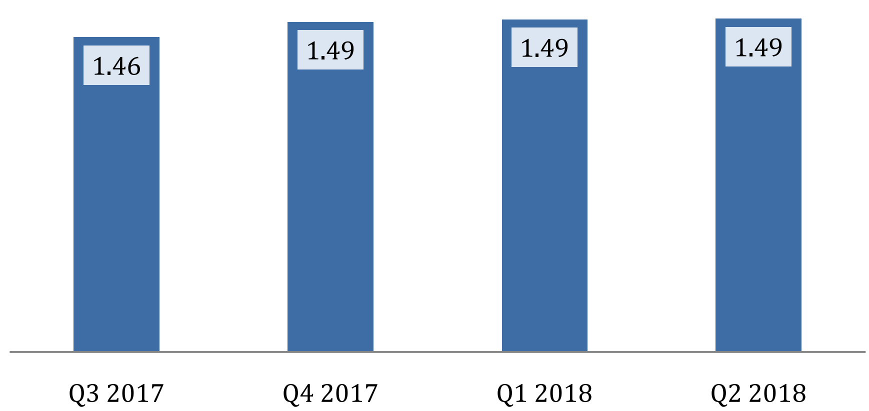
Mobile telephony number portings per quarter



Broadband Internet Access

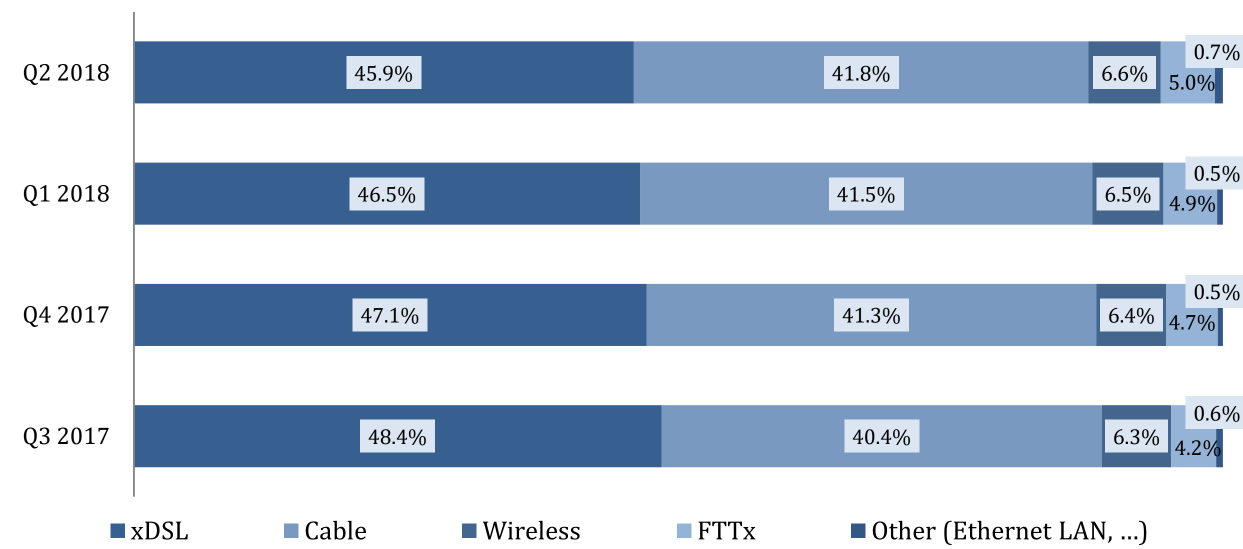
The number of fixed broadband Internet access users in Q2 2018 is at the same level as in the previous quarter, with almost 1.5 million subscribers.

Number of fixed broadband Internet subscribers (million)



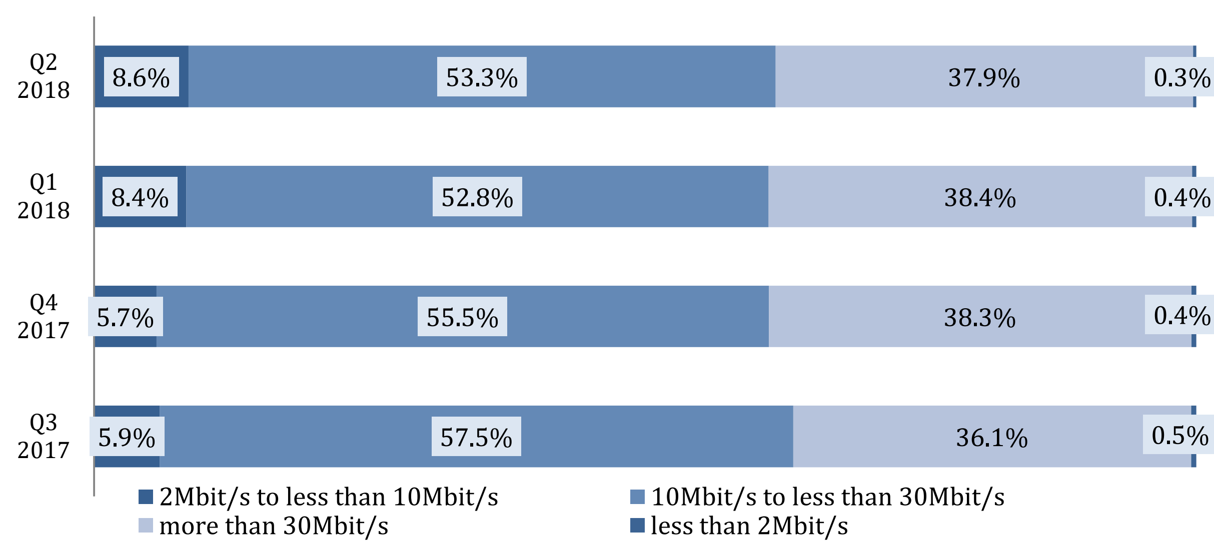
The majority of fixed broadband subscribers have xDSL or cable access. The number of xDSL subscribers marked a slight drop, whereas the cable access remained unchanged in the analyzed period.

Number of subscribers according to type of access



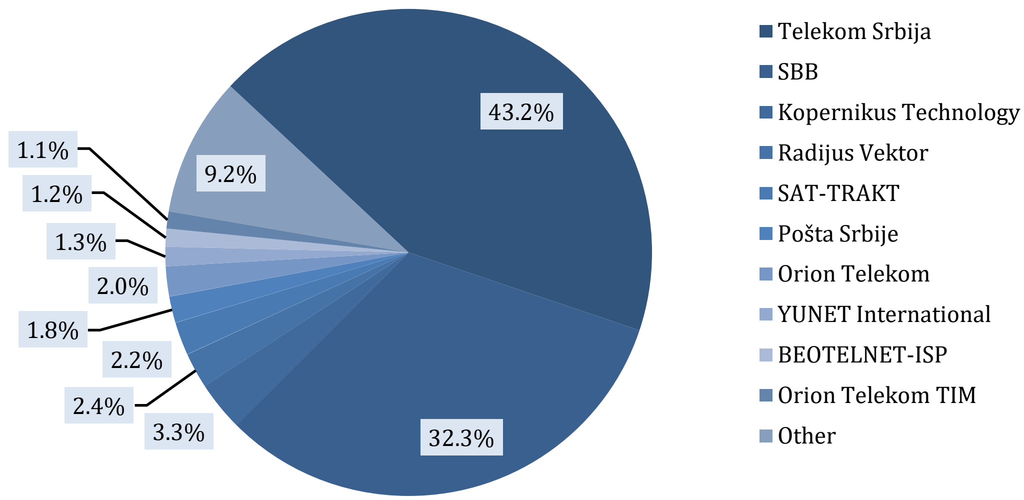
The majority of subscribers in all four analyzed quarters had Internet access rates between 10 Mbit/s to less than 30 Mbit/s, while the number of subscribers using access rates of over 30 Mbit/s marked a slight decrease compared to Q1 2018.

Number of fixed broadband Internet subscribers according to access rate



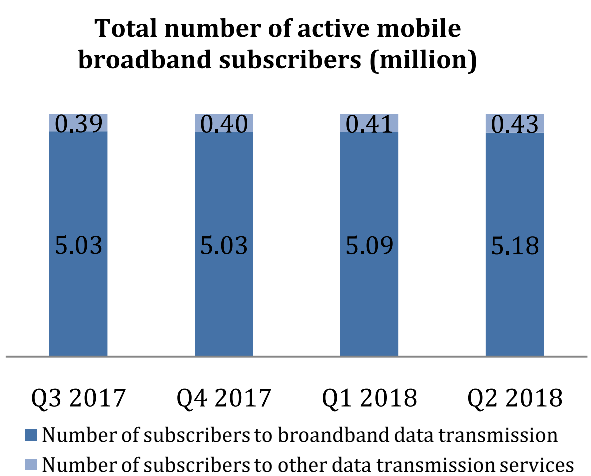
In Q2 2018, there haven't been any significant changes in the leading operators' market shares, in terms of the number of subscribers, compared to the previously observed quarters.

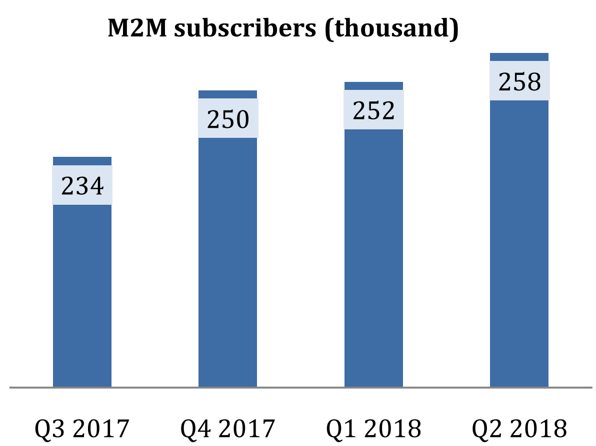
Market share in terms of number of fixed broadband subscribers in Q2 2018



The number of active mobile broadband subscibers in Q2 2018 has slightly increased compared to the previous quarter, reaching 5.6 million. In addition, dominant share belongs to the mobile broadband data transfer users (around 92%). The number of M2M subscriptions is on the rise as well, reaching around 258 thousand in Q2 2018.

Number of active mobile broadband subscribers* and M2M subscribers



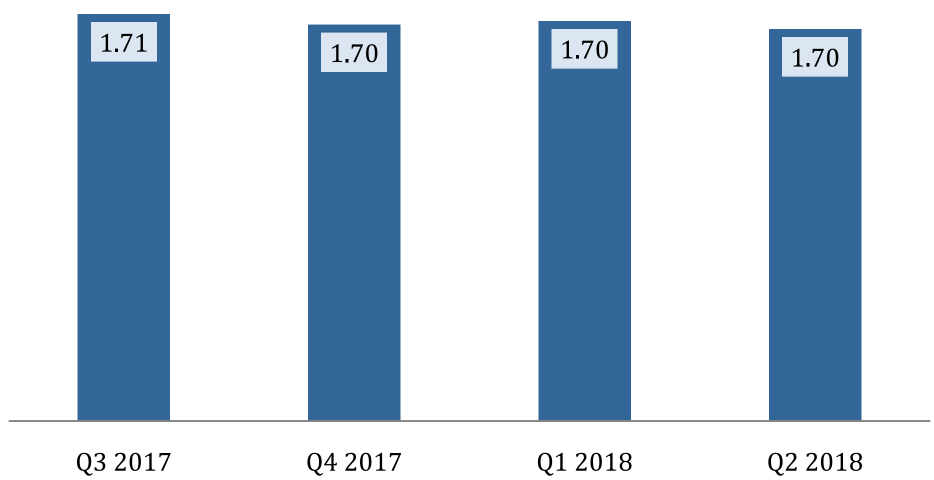


* Active mobile broadband subscribers include subscribers of data transmission services contracted together with voice services, or as an additional package to the voice tariff plan, whereas subscribers of other data transmission services represent mobile broadband transfer users with single service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

Media Content Distribution

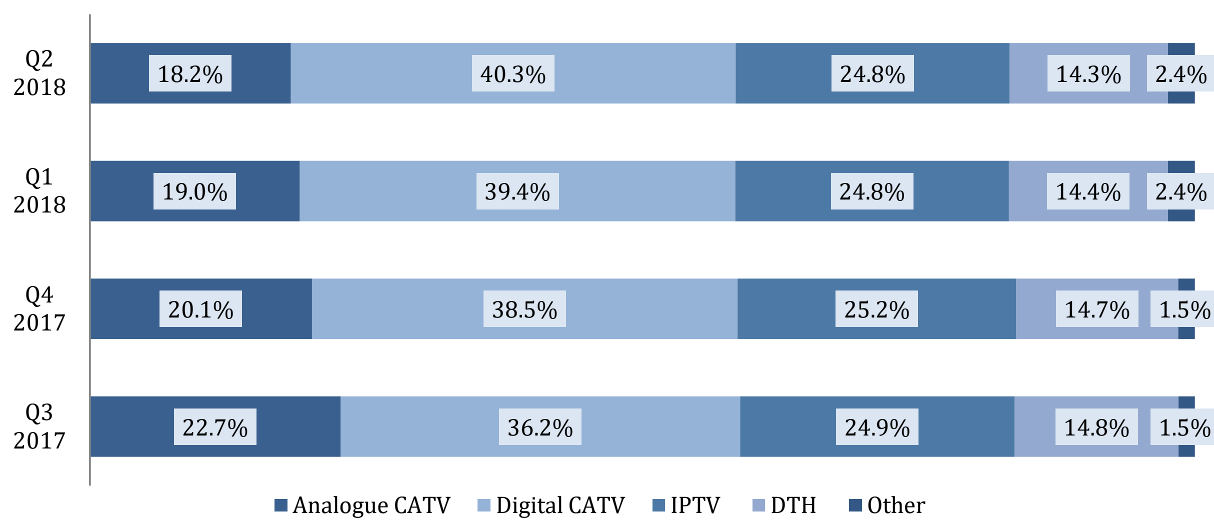
The number of media content distribution service subscribers has not changed in the observed period, amounting to 1.7 million in Q2 2018.

Number of media content distribution service subscribers (million)



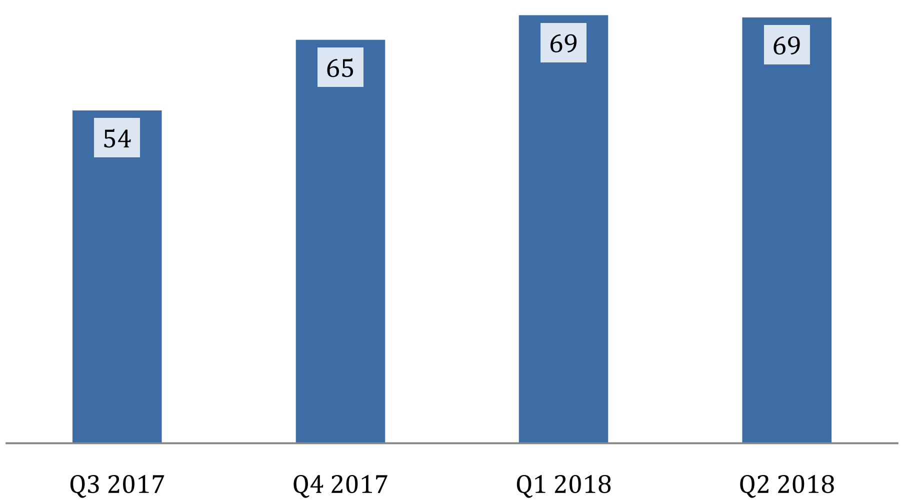
In Q2 2018, the majority of subscribers used CATV distribution, either analogue or digital (58%), whereas wireless network or Internet content distribution were least used.

Media content distribution subscribers by type of distribution



The number of fulfilled requests for additional services, including video on demand (VoD), content recording, TV on mobile devices, playback etc, has remained at the same level as in Q1 2018 and amounts to approximately 69 million requests, or around 20 requests a month per user. The number of realized VoD requests in Q2 2018 was around 2 million.

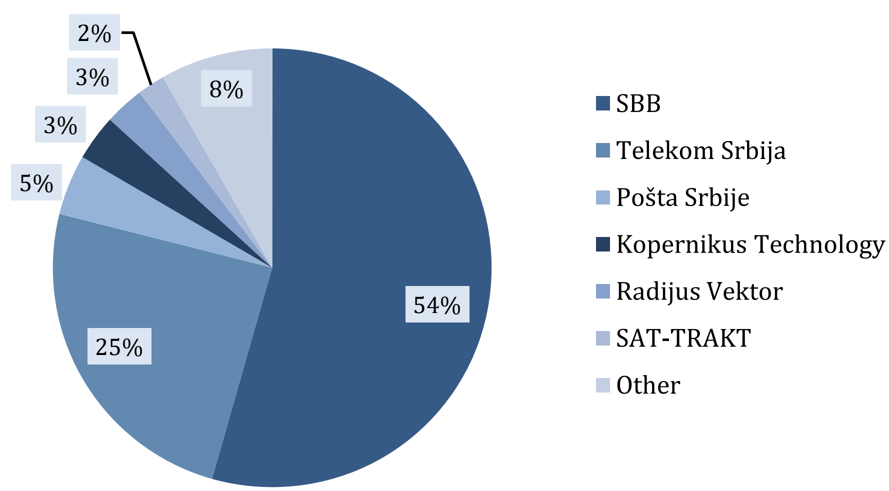
Number of realized requests for additional services (million)



In Q2 2018, around 30% of media content distribution subscribers with the possibility to have additional channels, subscribed to such programmes.

There haven't been any significant changes in market shares during the last observed period, in terms of the number of subscribers. The leading operators make up approximately 92% of the media content distribution market.

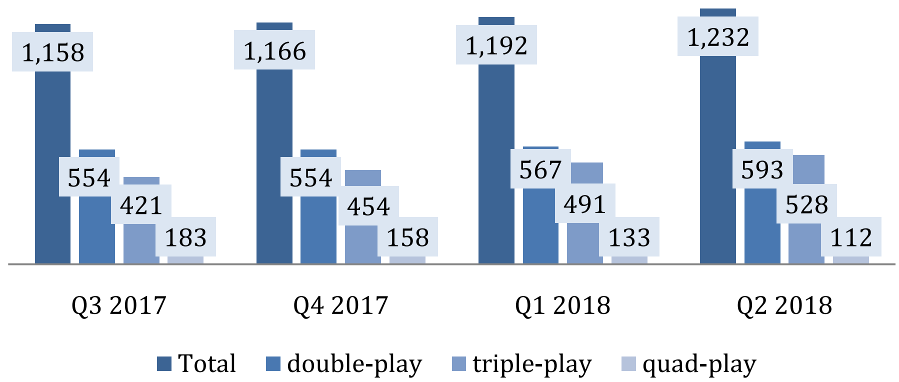
Operators' market share in terms of number of subscribers in Q2 2018



Bundled Services

The number of bundled service subscribers in Q2 2018 is on the rise, reaching almost 1.2 million. Packages offering two services were most used, whereas least used were quad-play packages that additionally include mobile telephony.

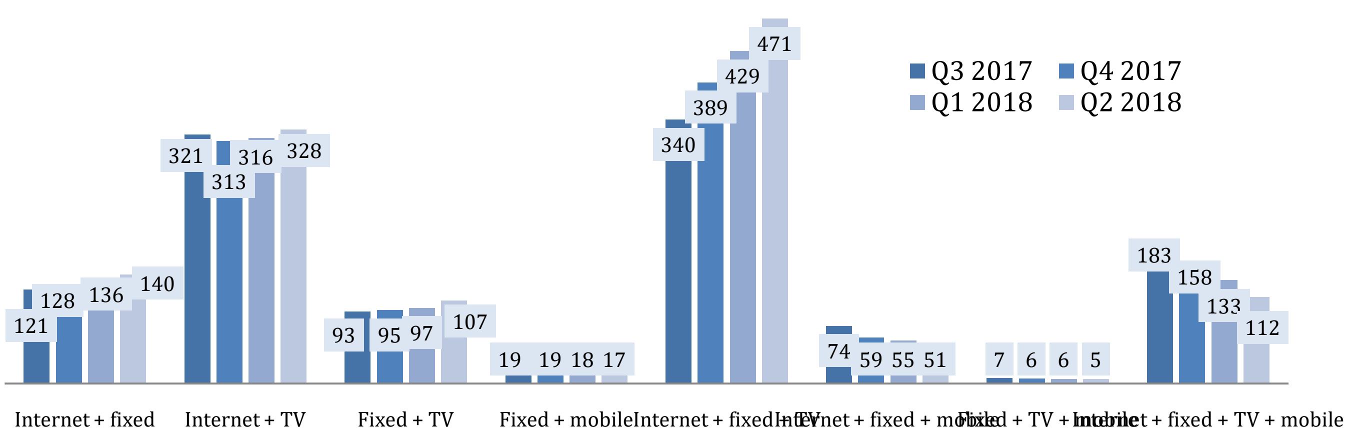
Number of bundled service users (thousands)



Most subscribers of double-play bundles used packages offering broadband Internet and media content distribution (around 55%), whereas the most popular triple-play package included broadband Internet, fixed telephony and media content distribution (around 89%). The number of quad-play subscribers was in decline during the observed period – which was expected, as this service package has not been available on the market to new subscribers since mid 2017.

In terms of type of service, the most popular are triple-play packages with Internet, fixed telephony and media content distribution (around 10% users), whereas bundles offering mobile telephony services have dropped – as expected, again, as they have not been available on the market since mid 2017.

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



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

Share of bundled and stand-alone services purchased in Q2 2018