REPUBLIC OF SERBIA

RATEL

REGULATORY AUTHORITY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES

AN OVERVIEW OF THE ELECTRONIC COMMUNICATIONS MARKET

IN THE REPUBLIC OF SERBIA

The Fourth Quarter of 2023

The Overview presents the data for the fourth quarter of 2023 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 business entities that perform electronic communication activities in the Republic of Serbia, whereas the data for the rest of the market were estimated based on the data for 2022 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 Regulator shall not be held responsible for the correctness of the data submitted by the business entities in the quarterly and annual questionnaires.

Quarterly electronic communications market indicators referring to fixed telephony include the data on the business entities 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 generated traffic.

Quarterly electronic communications market indicators referring to mobile telephony include the data on three business entities providing public mobile electronic communications services.

Quarterly electronic communications market indicators referring to Internet services include the data for the leading business entities that make up approximately 97% of the market, in terms of the number of subscribers, whereas the data for the remaining 3% of the market were estimated based on the data for 2022 collected in the annual questionnaires.

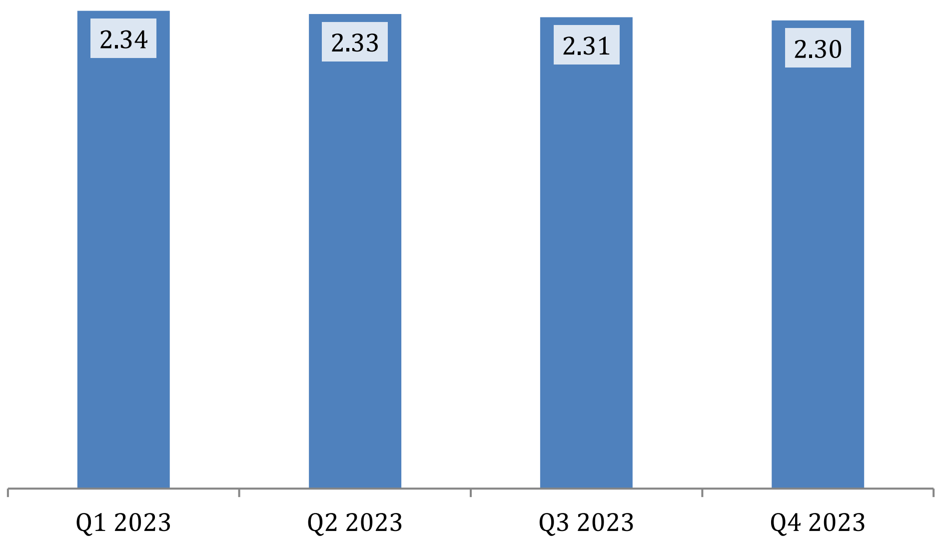
Quarterly electronic communications market indicators referring to media content distribution include the data for the leading electronic communications network operators of media content distribution that make up approximately 99% of the market, in terms of the number of subscribers, whereas the data for the remaining 1% of the market were estimated based on the data for 2022 collected in the annual questionnaires.

Quarterly electronic communications market indicators referring to bundled services include the data for the leading business entities that make up approximately 99% of the market, whereas the data for the remaining 1% of the market were estimated based on the data for 2022 collected in the annual questionnaires.

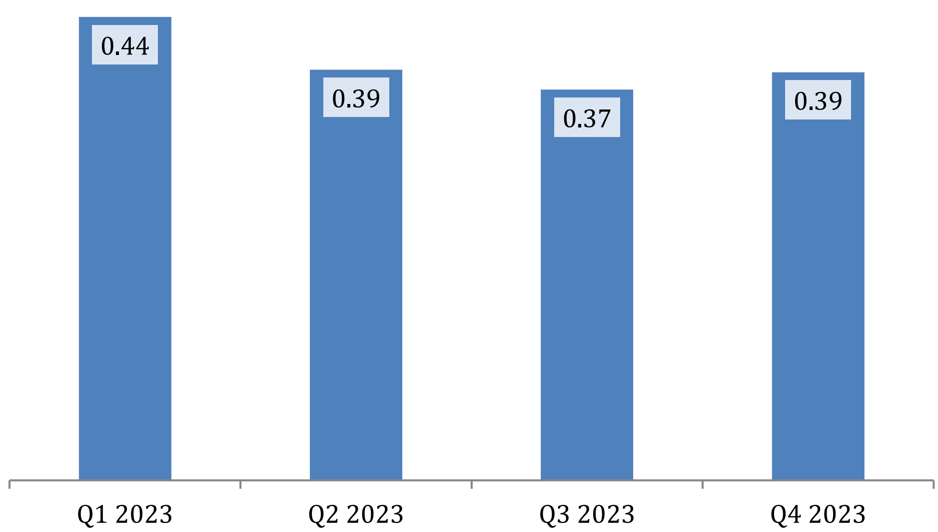
Public Fixed Telecommunications Networks and Services

While the number of fixed telephony subscribers in the fourth quarter of 2023 has decreased, the generated traffic traffic has been on a modest rise. Approximately 2.3 million fixed telephony subscribers generated around 390 million minutes of traffic in the last observed quarter, which means that a fixed telephony subscriber on average spent 1.9 minutes a day on calls.

Number of fixed line subscribers (in million)

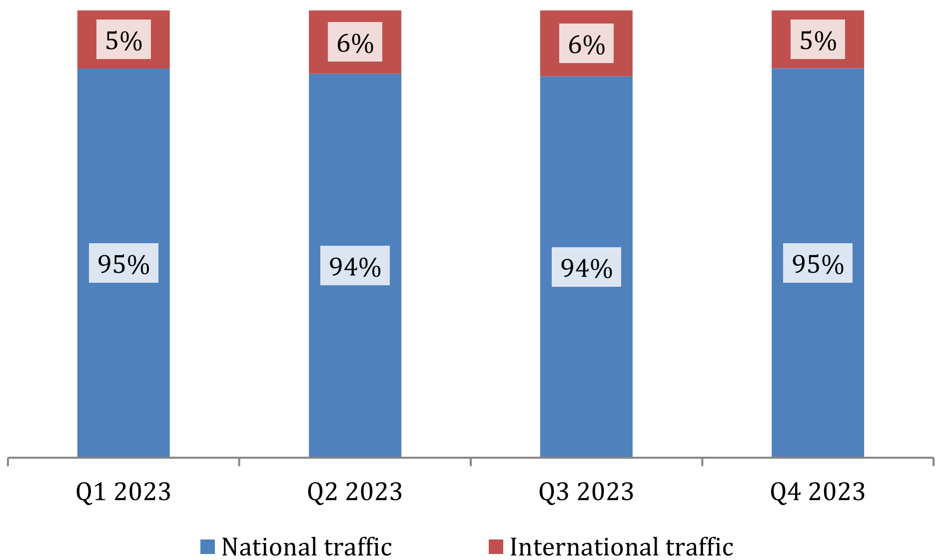


Total fixed telephony traffic (in billion minutes)



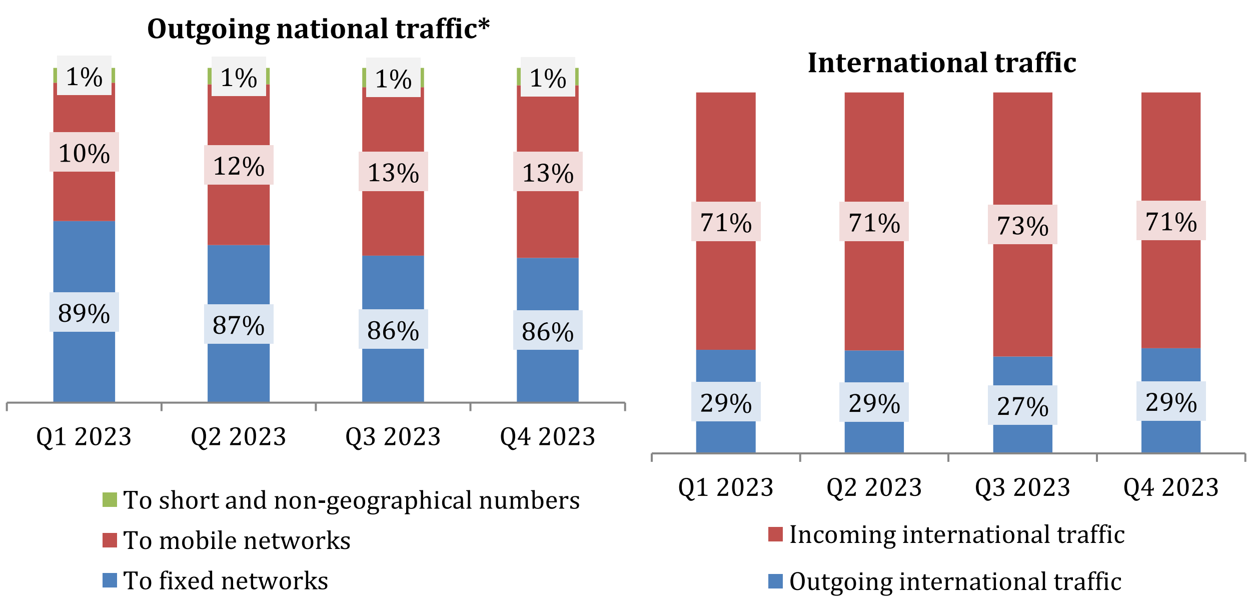
The subscriber structure has not significantly changed over the observed quarters: 87% of the fixed telephony subscribers in the fourth quarter of 2023 are natural persons, i.e. private users. In all observed quarters, the largest share of the fixed telephony traffic is accounted for by the national traffic, with 95% in Q4 2023.

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.

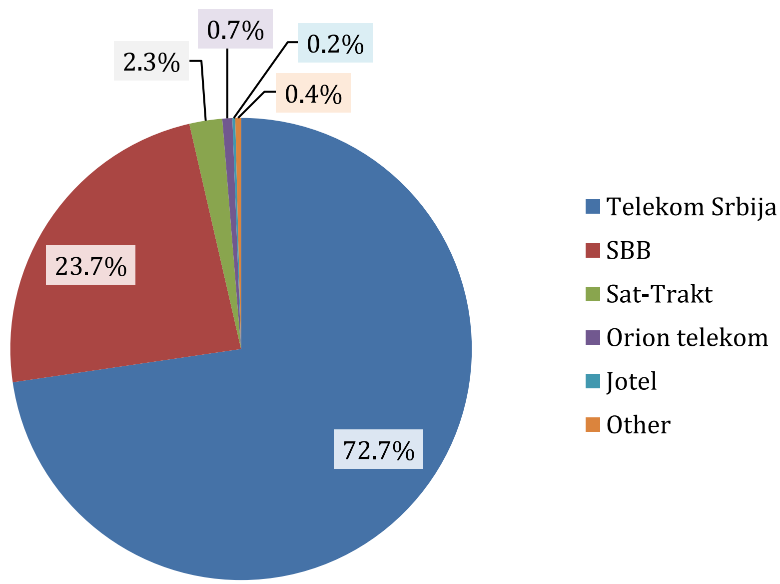
Structure of national and international traffic in fixed telephony



** Data for the second quarter of 2023 were amended due to subsequent corrections submitted by business entities.*

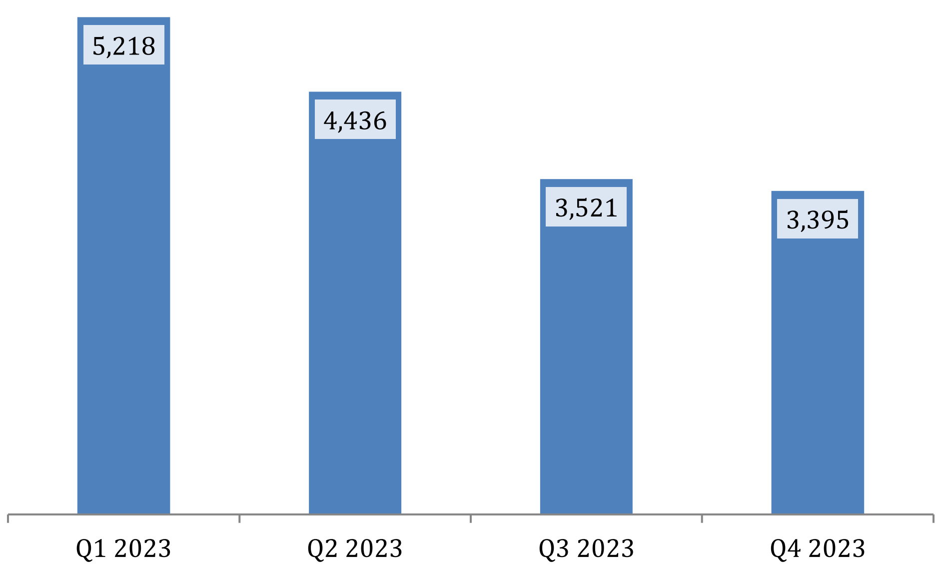
Below is shown the leading business entities’ market share in terms of the number of subscribers in Q4 2023.

Business entities’ market share by number of subscribers in Q4 2023



The number of portings in Q4 2023 was 3.4 thousand (around 1.1 thousand a month), marking a drop compared to the previous quarter.

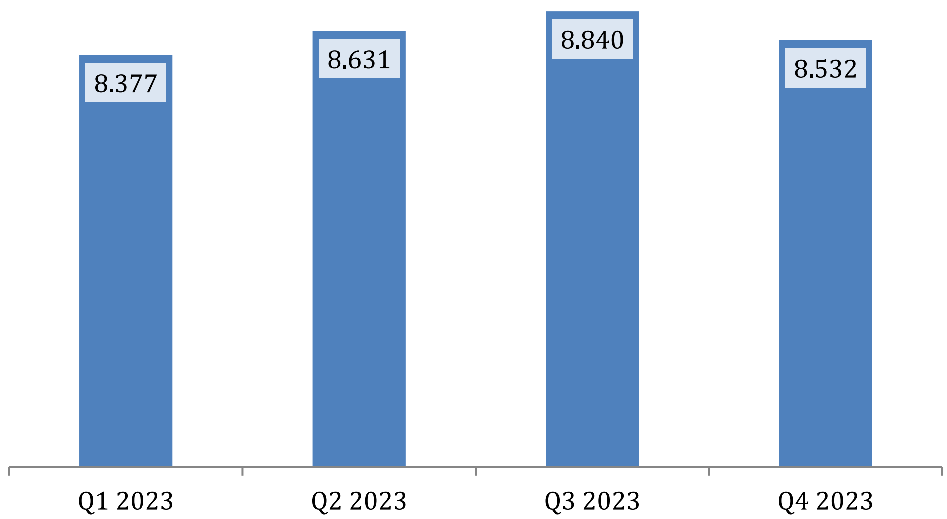
Fixed telephony number portings per quarter



Public Mobile Telecommunications Networks and Services

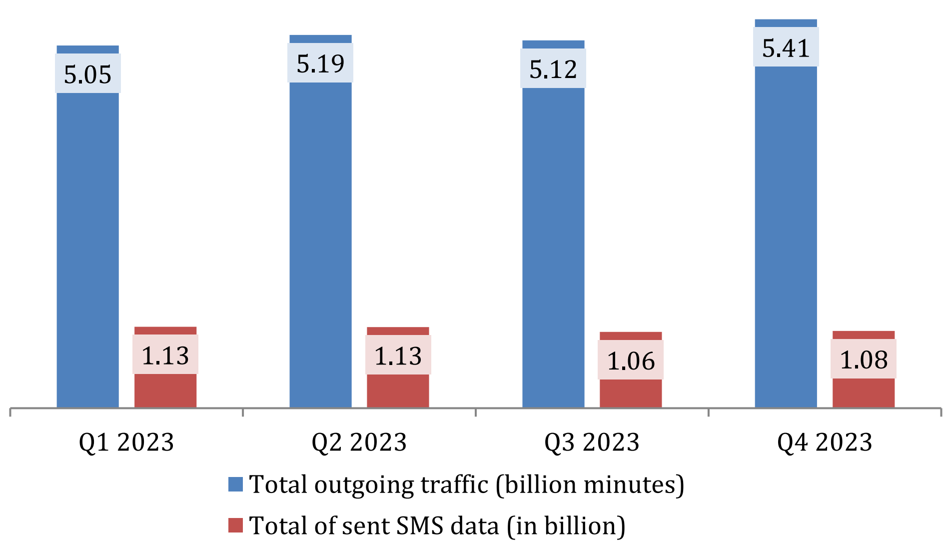
In the fourth quarter of 2023, there were approximately 8.532 million active mobile telephony subscribers that generated around 5.41 billion minutes of national and international traffic and sent around 1.08 billion SMS messages. On average, in Q4 2023, a mobile user spent around 7 minutes a day on calls and sent 1.4 text messages. On the mobile networks market, a decrease in the number of active mobile telephony subscribers has been observed during Q4 2023.

Total number of active mobile telephony subscribers (in million)



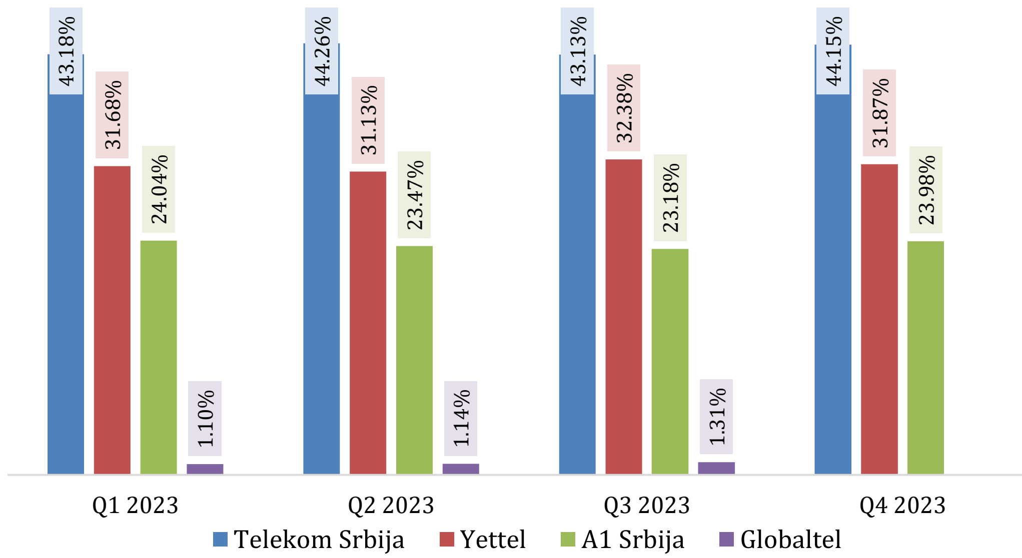
In Q4 2023, both the generated voice traffic in mobile networks and SMS traffic were higher than during the previous quarter.

Generated voice and SMS mobile telephony traffic



Below are the business entities' shares in the total number of active subscribers.

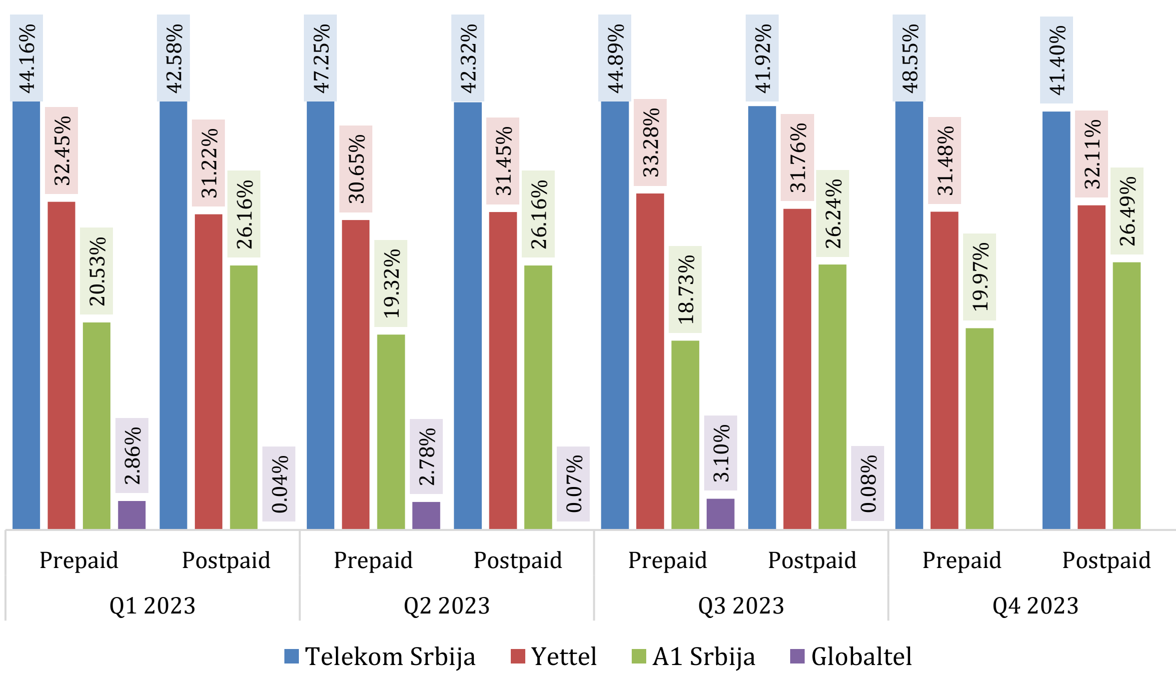
Business entities' market shares by number of active subscribers*



** In Q4 2023, business entity Globaltel was acquired by business entity Telekom Srbija*

The number of postpaid subscribers, amounting to 5.245 million in the fourth quarter of 2023, has modestly increased compared to the previous quarter, whereas the number of prepaid users, amounting to 3.287 million, has marked a drop compared to Q3 2023. Below are the business entities' shares in the volume of postpaid and prepaid subscribers.

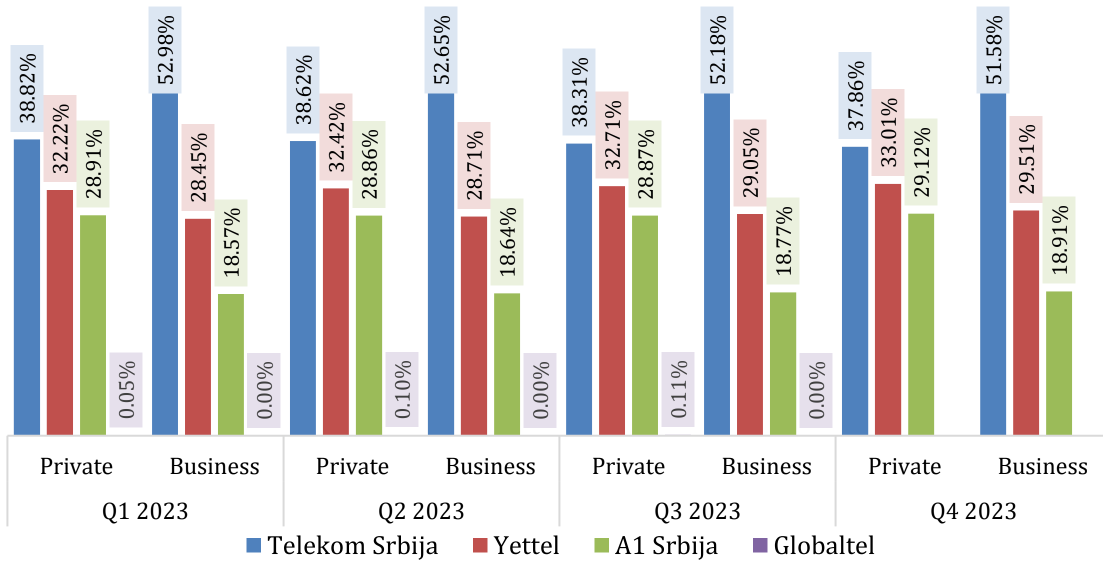
Business entities' shares in total number of prepaid and postpaid users*



** In Q4 2023, business entity Globaltel was acquired by business entity Telekom Srbija.*

The postpaid users structure in Q4 2023 has not changed significantly compared to the previous quarters. The number of private postpaid users amounts to 3.893 million and the number of business postpaid subscribers to 1.352 million. Below are the business entities' shares in the total number of private and business subscribers.

Business entities' shares in total number of private and business users*

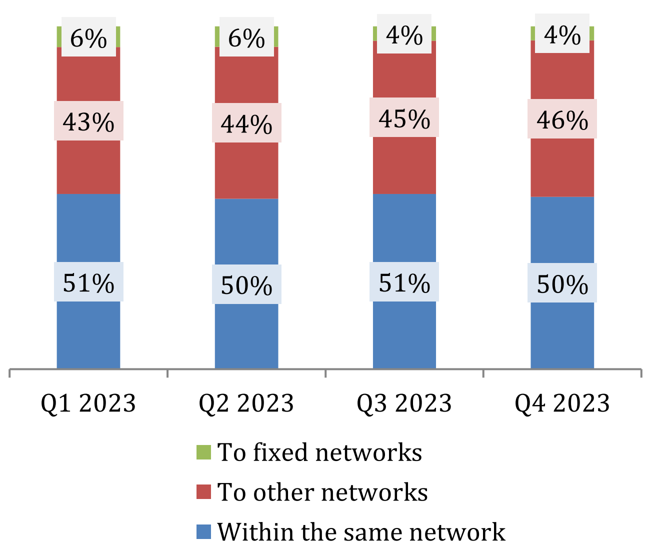


** In Q4 2023, business entity Globaltel was acquired by business entity Telekom Srbija*

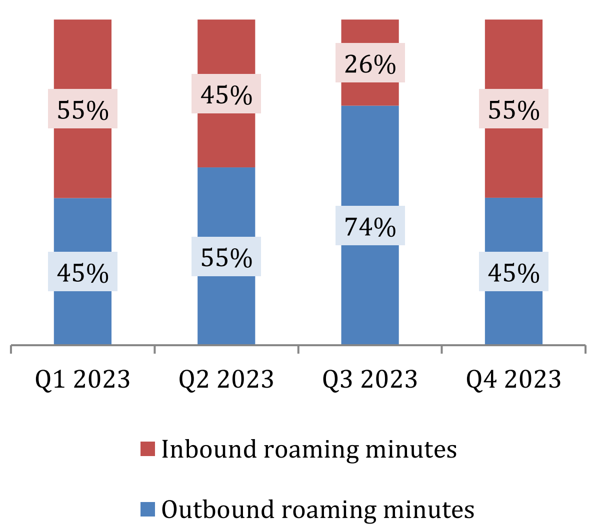
Most of the outgoing traffic in the fourth quarter of 2023 was generated within the business entity's own mobile network (50%). As for the roaming, more traffic was generated by the users from abroad than by the national mobile subscribers abroad.

Structure of mobile networks outgoing traffic

Structure of outgoing national traffic

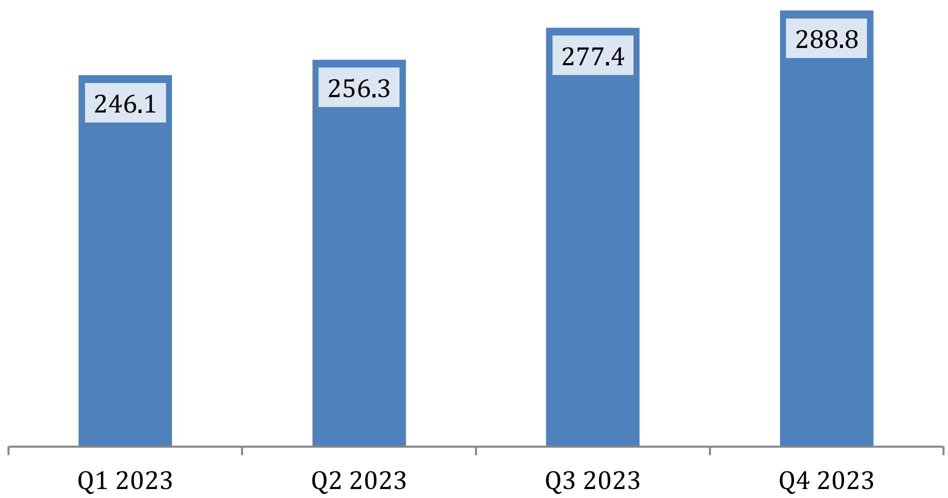


Roaming minutes



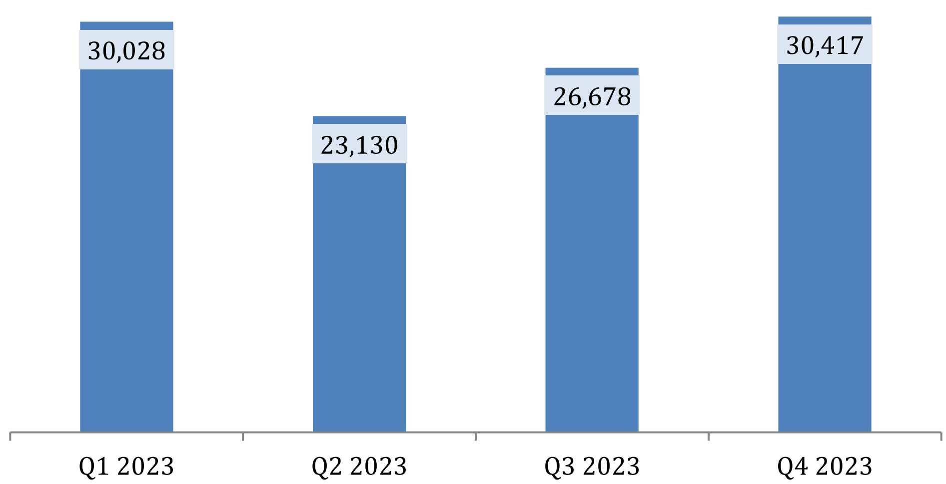
Data transmission over mobile network has increased in the analyzed period, reaching 288.8 million GB in the fourth quarter of 2023, which means that a mobile broadband subscriber used on average around 436 MB daily, or approximately 12.9 GB a month.

Mobile Internet traffic (in million GB)



The number of mobile telephony number portings was around 30 thousand in the fourth quarter of 2023, or approximately 10.14 thousand per month, representing an increase compared to the previous quarter.

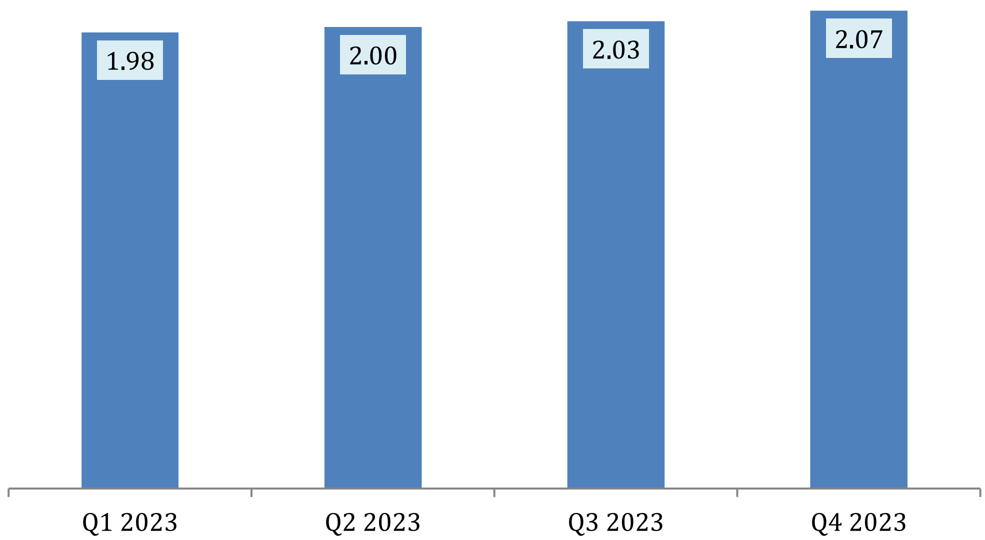
Mobile telephony number portings per quarter



Broadband Internet Access

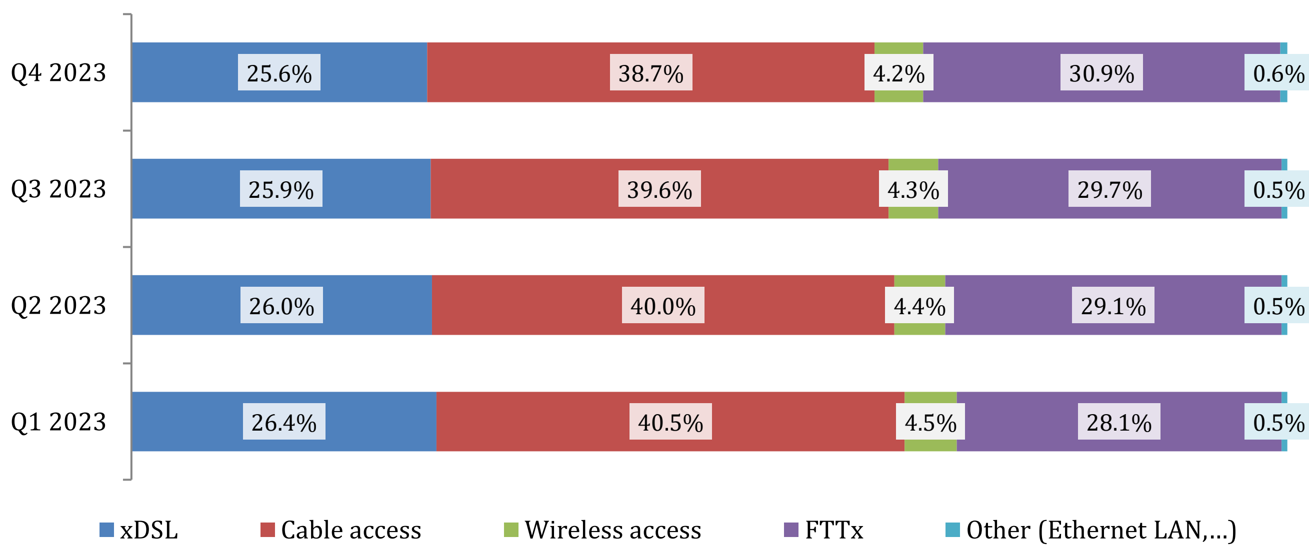
Compared to the previous quarter, the number of fixed broadband Internet access users in Q4 2023 has slighly increased, reaching approximately 2.07 million subscribers.

Number of fixed broadband Internet subscribers (in million)



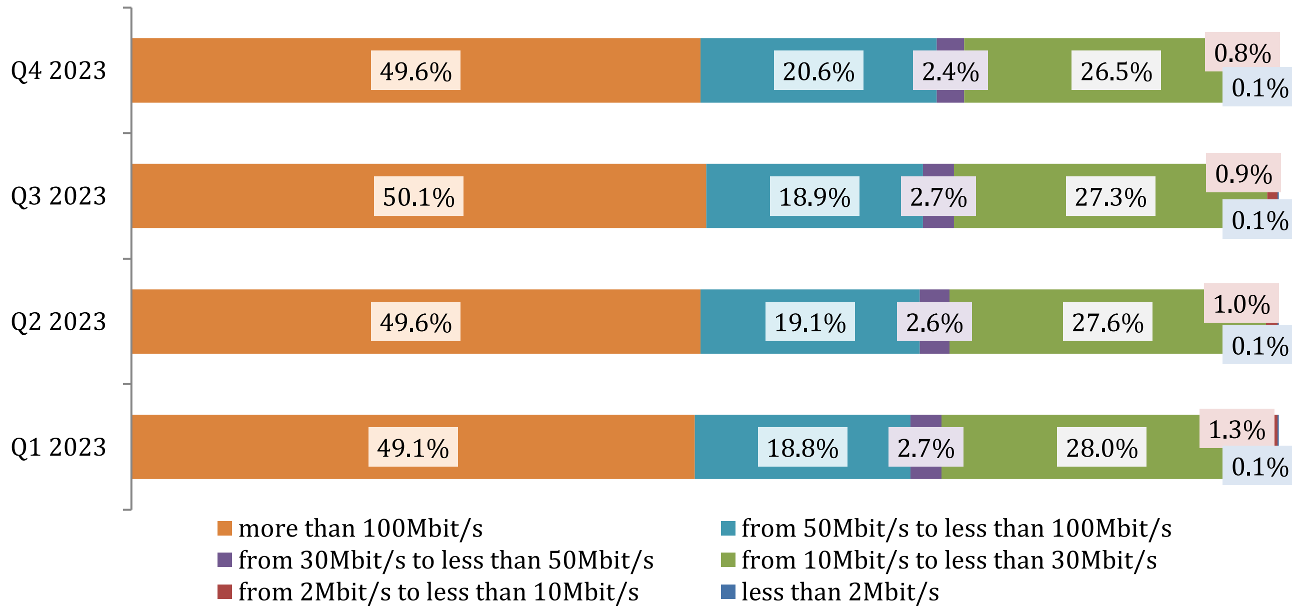
Most fixed broadband Internet subscribers have cable access and FTTx, with the share of both xDSL subscribers and cable access subscribers slightly decreasing in the analyzed period.

Number of subscribers by type of access



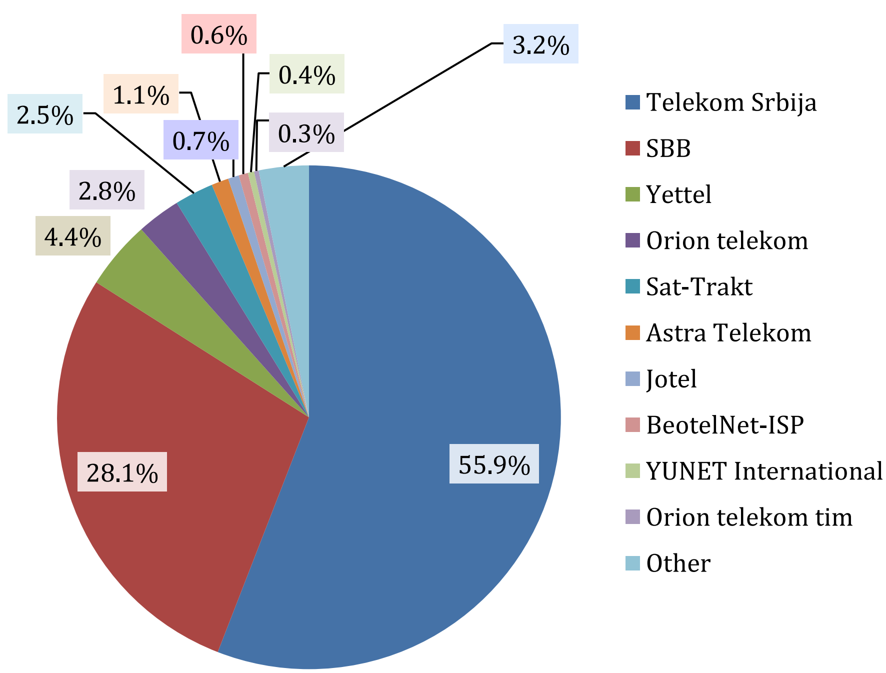
In Q4 2023, the majority of subscribers used Internet speed of more than 100 Mbit/s and between 10 Mbit/s to less than 30 Mbit/s.

Number of fixed broadband Internet subscribers by access rate



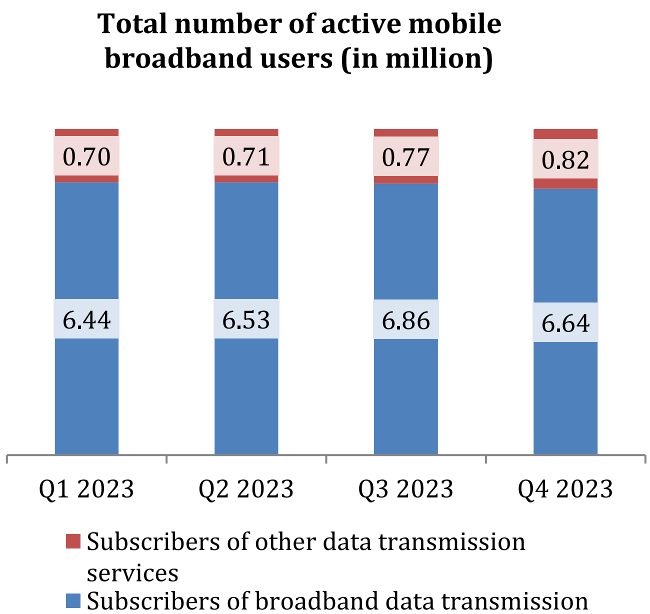
The following figure shows the leading business entities' market shares for Q4 2023, in terms of the number of subscribers.

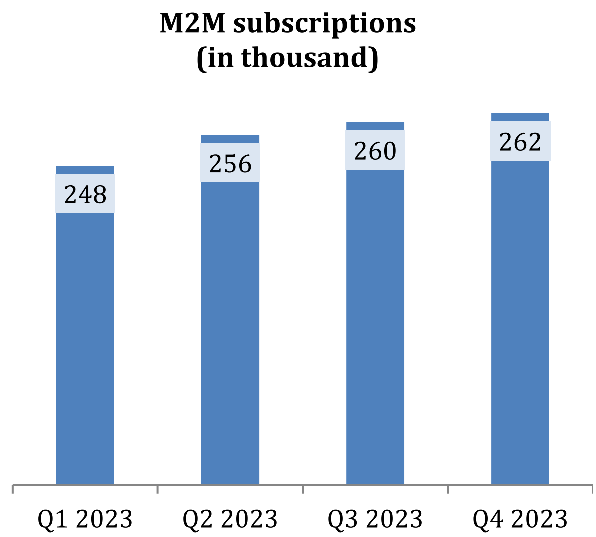
Market shares in terms of number of fixed broadband subscribers in Q4 2023



The number of active mobile broadband subscribers in the fourth quarter of 2023 has decreased compared to the previous quarter, amounting to 7.46 million. The number of M2M subscriptions remains on the rise, with 262 thousand subscribers in Q4 2023.

Number of active mobile broadband users and M2M subscribers



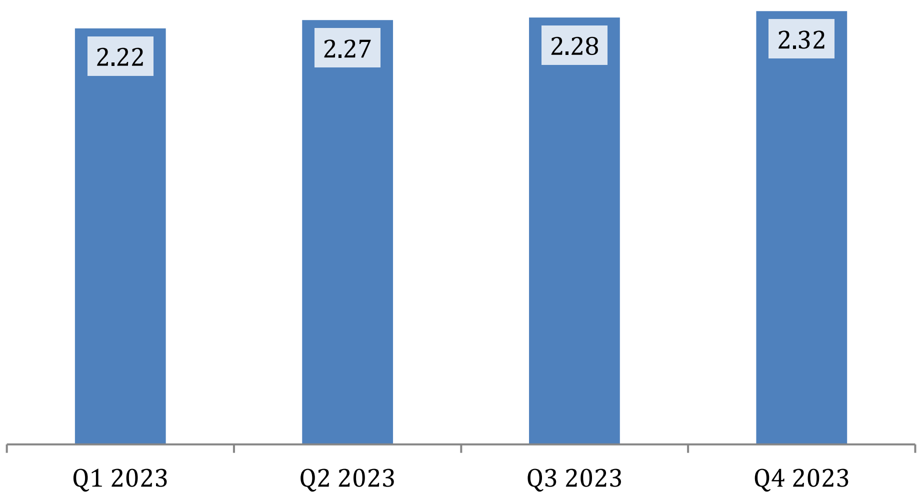


**Active mobile broadband users include subscribers of data transmission services contracted together with voice services, or as an additional package to the voice tariff plan, whereas subscribers of other data transmission services represent mobile broadband transfer users with single service agreement,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

Media Content Distribution

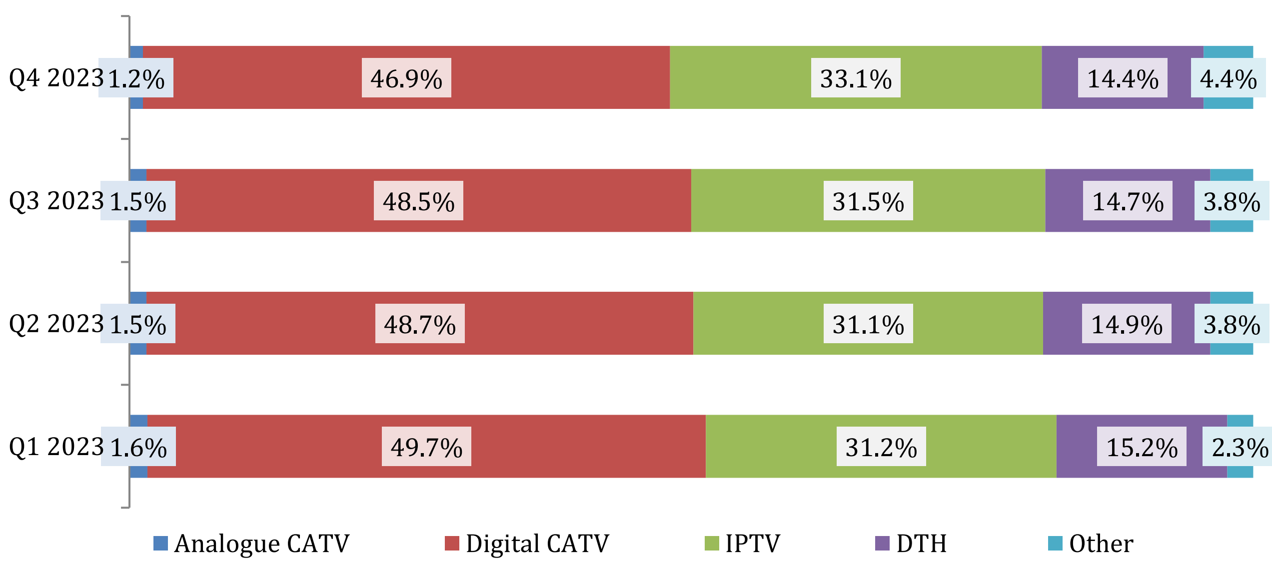
Compared to the previous period, the number of media content distribution service subscribers increased in Q4 2023, reaching approximately 2.32 million.

Number of media content distribution service subscribers (in million)



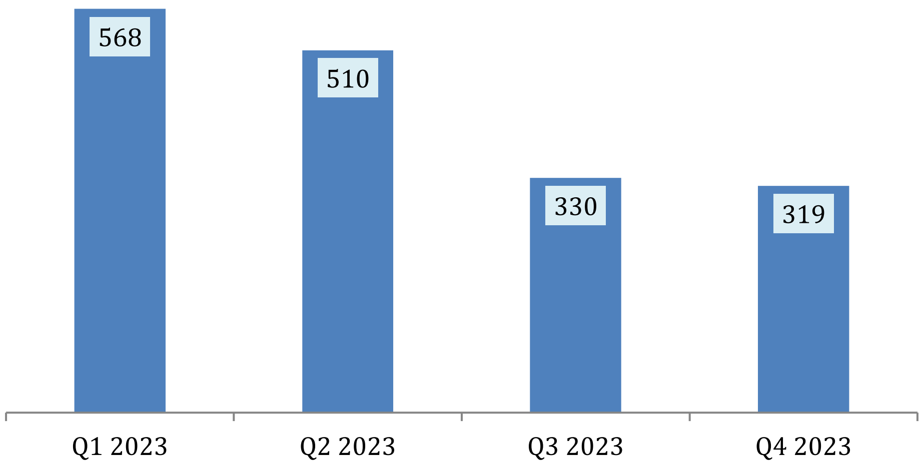
In the fourth quarter of 2023, most subscribers used digital CATV distribution (around 47%). The number of IPTV subscribers has been on the rise, while that of DTH subscribers has slightly decreased compared to the previous quarter. The least number of subscribers is connected to analogue CATV (around 1.2%). The media content distribution via Internet and wireless network were the least used in Q4 2023 (around 4.4%).

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 decreased in Q4 2023 compared to Q3 2023, reaching approximately 319 million requests, or some 54 requests per user a month. The number of met VoD requests in Q4 2023 was around 10.5 million.

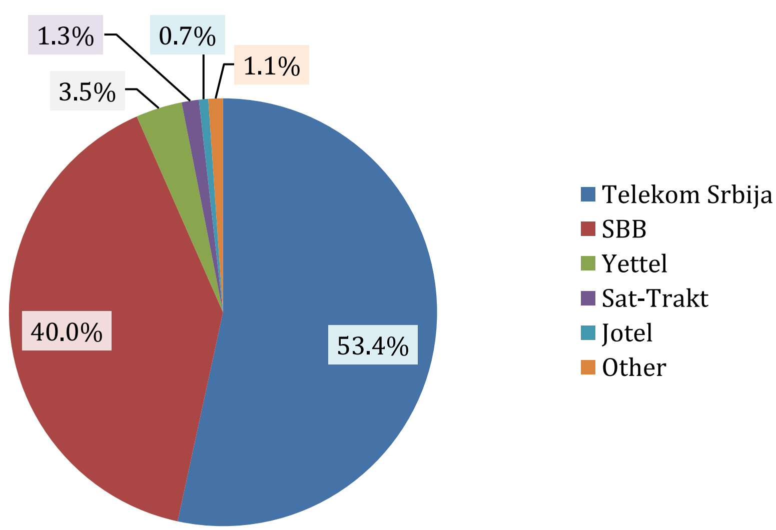
Number of met requests for additional services (in million)



In the fourth quarter of 2023, around 29% of the media content distribution subscribers with the possibility to have additional channels, subscribed to such programmes.

The following figure shows the Q4 2023 market shares of the electronic communications network operators for media content distribution, in terms of the number of subscribers.

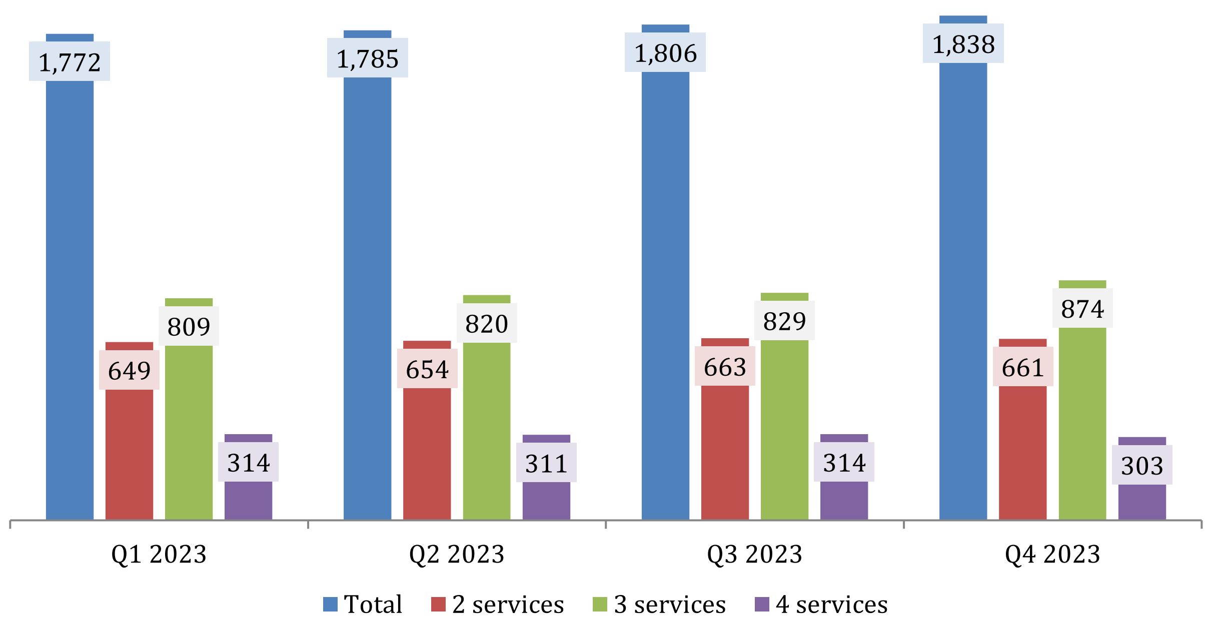
Market shares of electronic communications network operators for media content distribution by number of subscribers in Q4 2023



Bundled Services

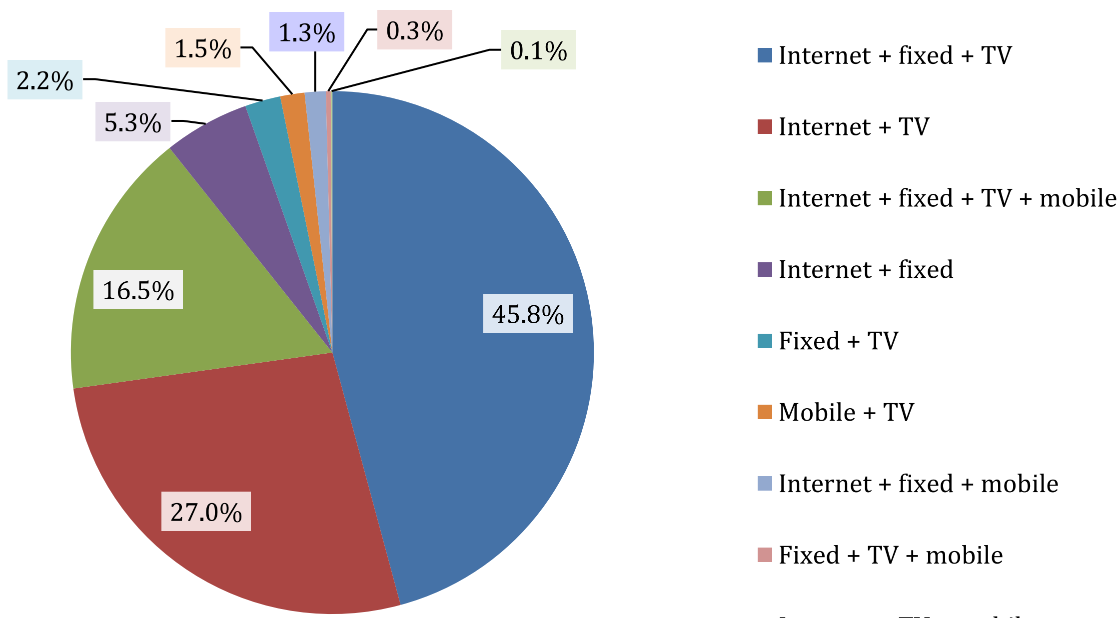
The number of bundled service subscribers in Q4 2023 has increased compared to the previous quarter, reaching approximately 1.838 million. Packages offering three services were most used, whereas least used were packages with four services.

Number of bundled service users (in thousand)



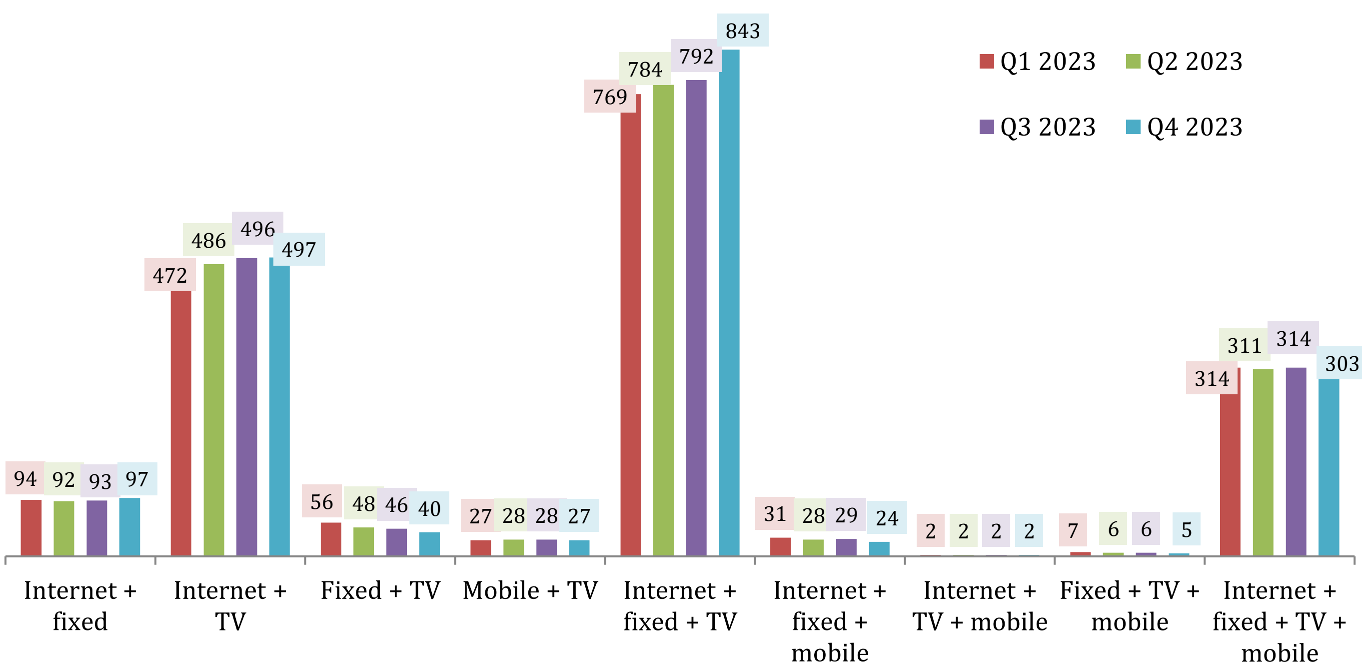
Of all bundled services offered by operators in Q4 2023, the most popular was the package with broadband Internet access, fixed telephony and TV, followed by a double-play offering broadband Internet access and TV, as well as the only available quad-play package including broadband Internet access, fixed telephony, TV and mobile telephony. The biggest growth in the fourth quarter of 2023 was achieved by a triple-play with broadband Internet, fixed telephony and TV. Another triple-play offering fixed and mobile telephony and TV, as well as a package including Internet access, TV and mobile telephony had the lowest number of subscribers. The shares of different bundled services in terms of the number of subscribers are given below.

Distribution of bundled services in Q4 2023



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

Number of bundled service users by type of service (in thousand)



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

Distribution of stand-alone and bundled services purchased in Q4 2023