



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 2022**

The Overview presents the data for the fourth quarter of 2022 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 2021 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 2019, 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 94% of the market, in terms of the number of subscribers, whereas the data for the remaining 6% of the market were estimated based on the data for 2021 collected in the annual questionnaires.

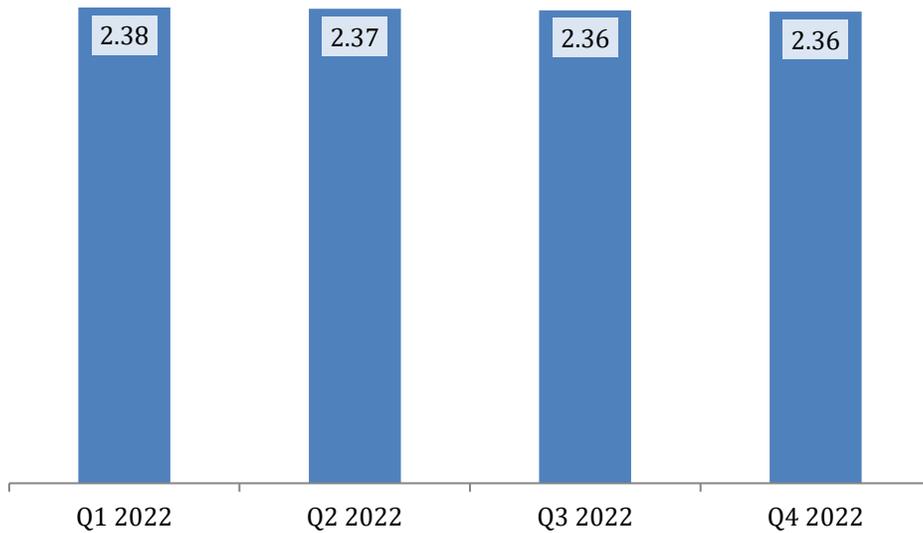
Quarterly electronic communications market indicators referring to media content distribution include the data for the leading operators that make up approximately 97% of the market, in terms of the number of subscribers, whereas the data for the remaining 3% of the market were estimated based on the data for 2021 collected in the annual questionnaires.

Quarterly electronic communications market indicators referring to bundled 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 2021 collected in the annual questionnaires.

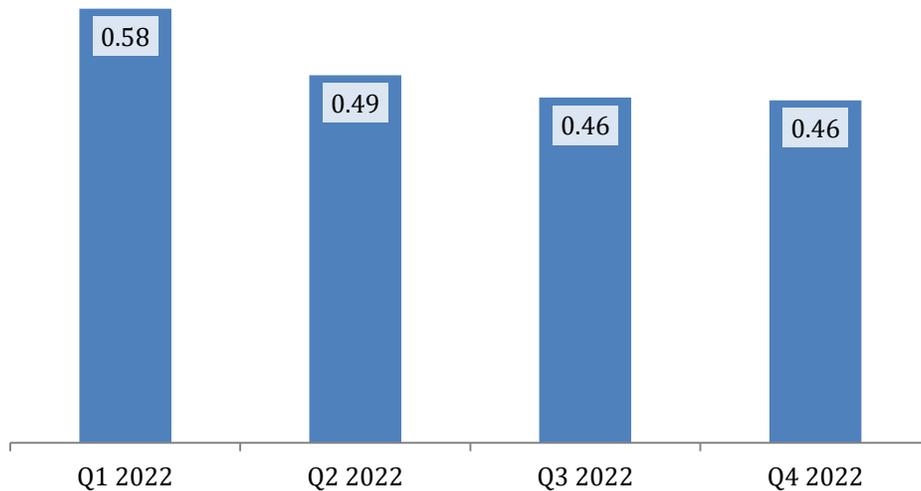
Public Fixed Telecommunications Networks and Services

Neither the number of fixed telephony subscribers nor the effectuated traffic in the fourth quarter of 2022 have significantly changed compared to the previous quarter. Approximately 2.36 million fixed telephony subscribers generated around 460 million minutes of traffic in the last observed quarter, which means that a fixed telephony subscriber on average spent 2.1 minutes a day on calls.

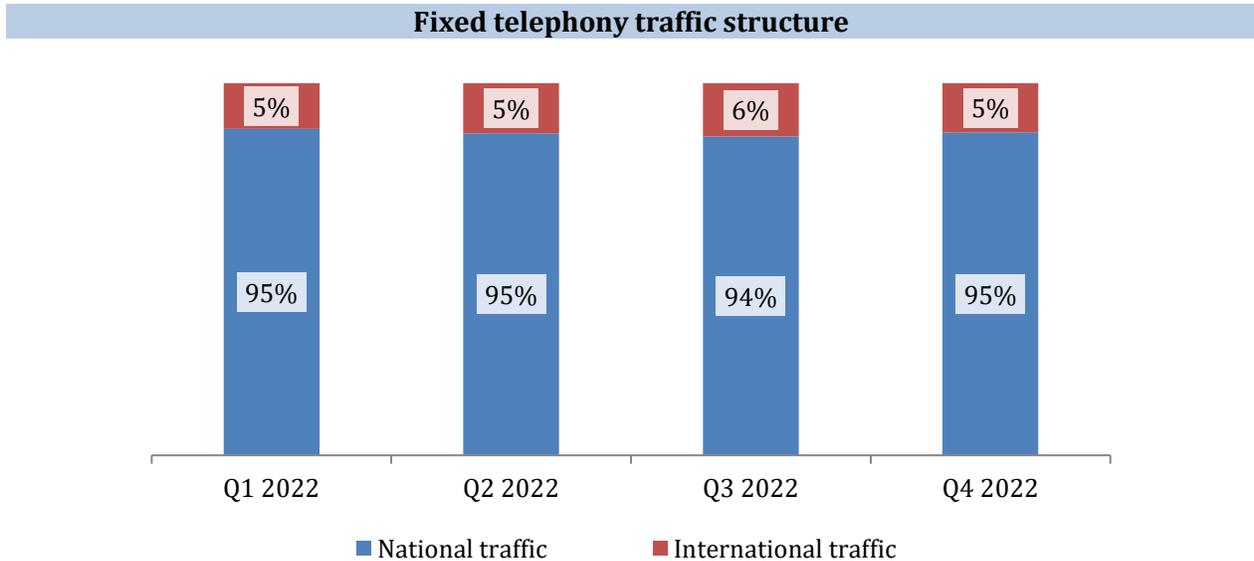
Number of fixed line subscribers (in million)



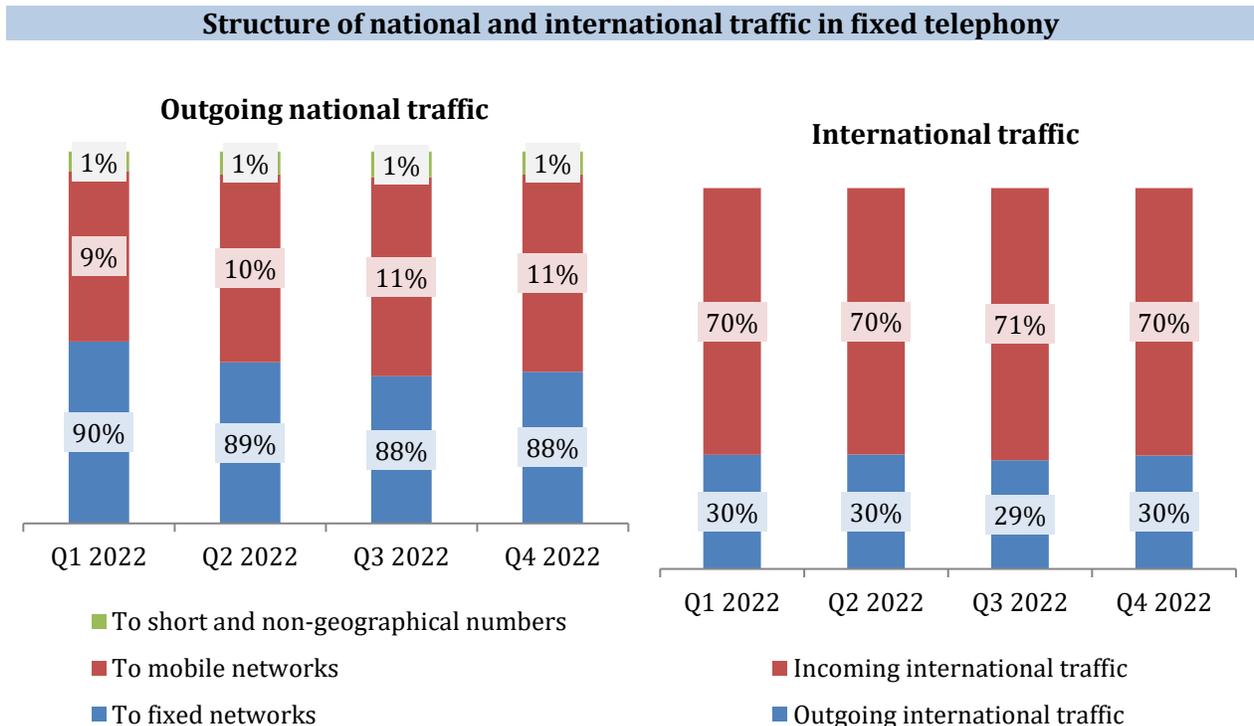
Total fixed telephony traffic (in billion minutes)



The subscriber structure has not significantly changed over the observed quarters: 87% of the fixed telephony subscribers in the fourth quarter of 2022 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 2022.

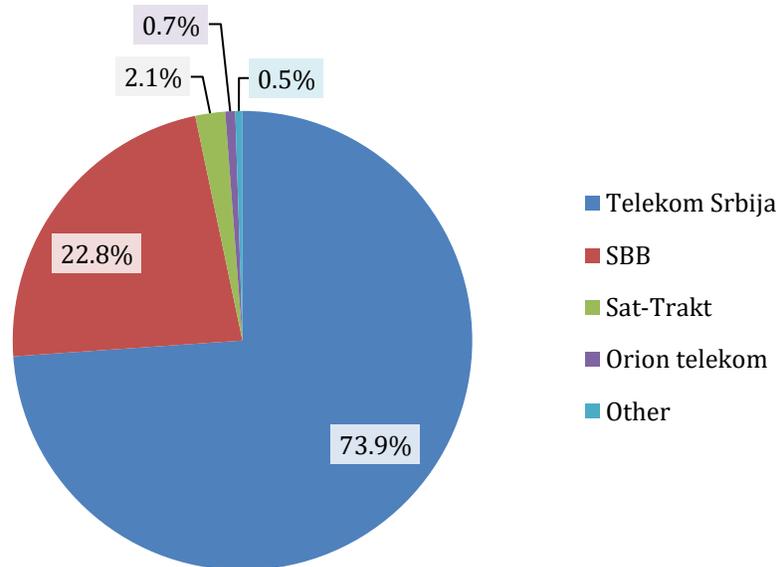


The outgoing calls from fixed network are mostly directed towards other fixed networks, while the international traffic is dominated by incoming calls.



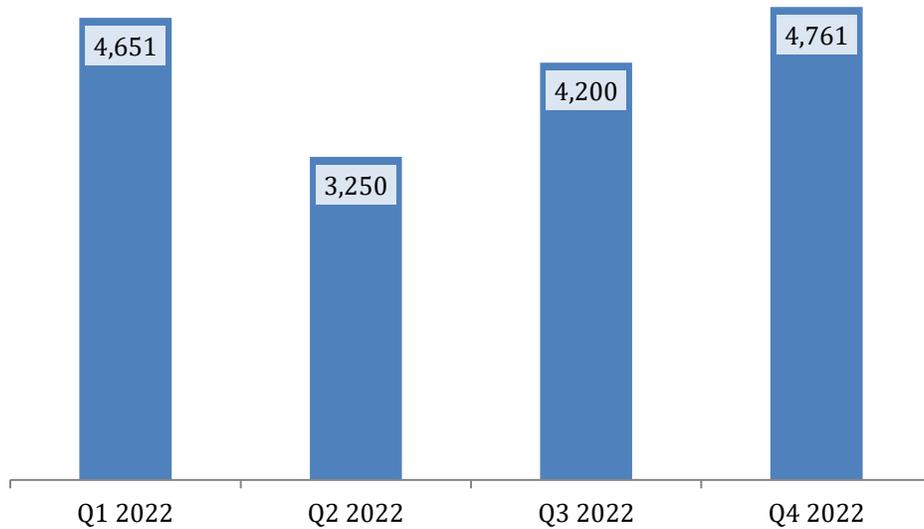
Below is shown the leading operators' market share in terms of the number of subscribers in Q4 2022.

Operators' market share by number of subscribers in Q4 2022



The number of portings in Q4 2022 was 4.8 thousand (around 1.6 thousand a month), showing a growth compared to the previous quarter.

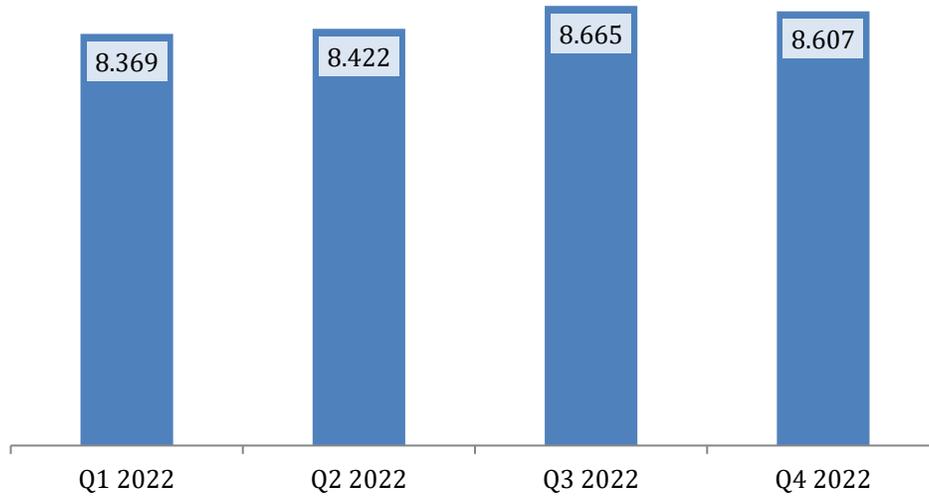
Fixed telephony number portings per quarter



Public Mobile Telecommunications Networks and Services

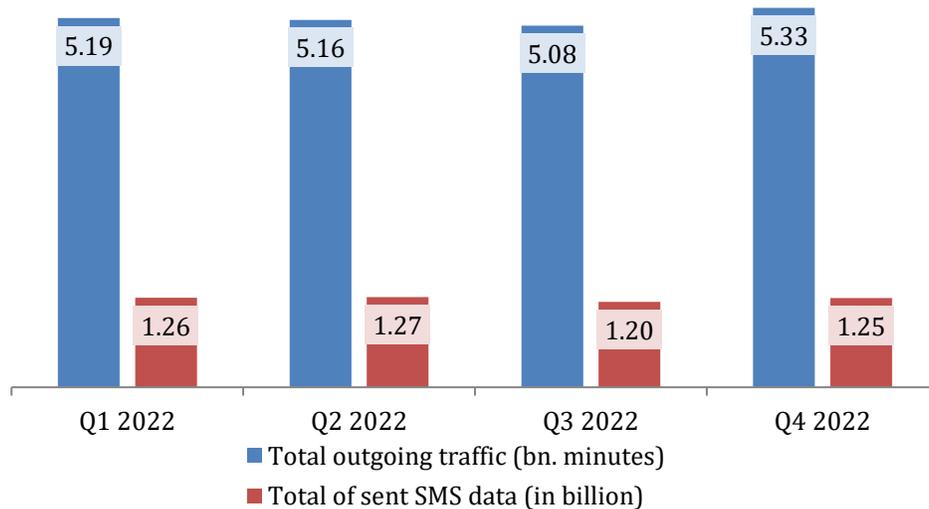
In the fourth quarter of 2022, there were approximately 8.607 million active mobile telephony subscribers that generated around 5.3 billion minutes of national and international traffic and sent around 1.25 billion SMS messages. On average, in Q4 2022, a mobile user spent around 6.8 minutes a day on calls and sent 1.6 text messages. On the mobile networks market, a slight decrease in the number of active mobile telephony subscribers has been observed during Q4 2022.

Total number of active mobile telephony subscribers (in million)

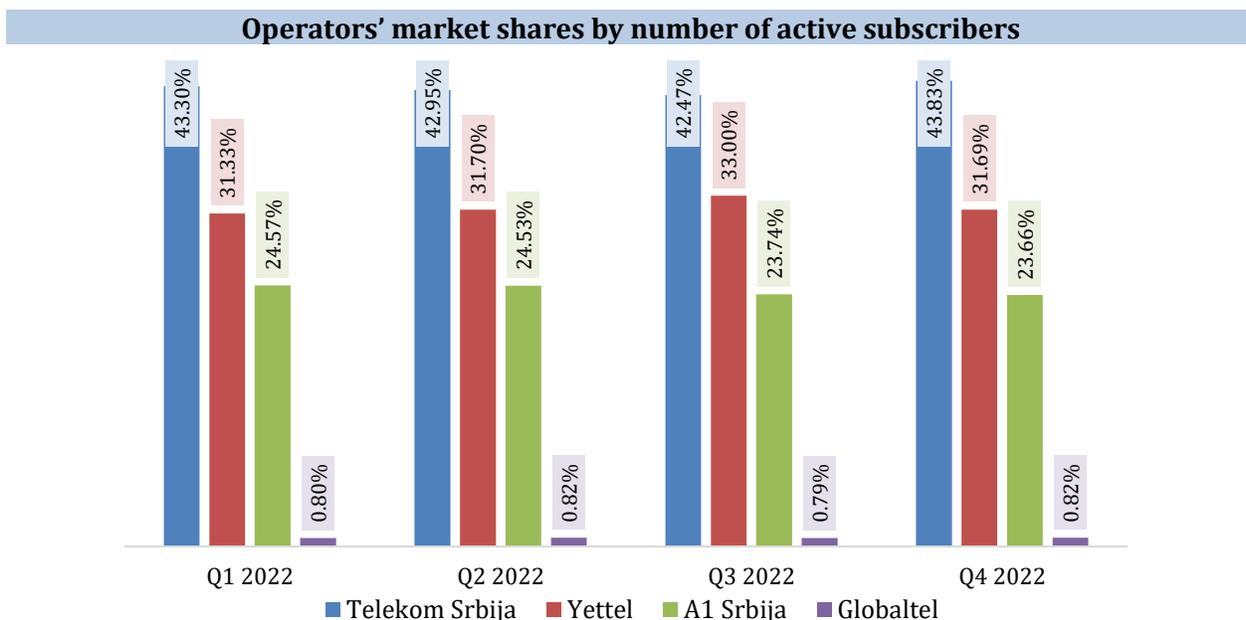


In Q4 2022, both the effectuated voice traffic in mobile networks and the SMS traffic were higher than in the previous quarter.

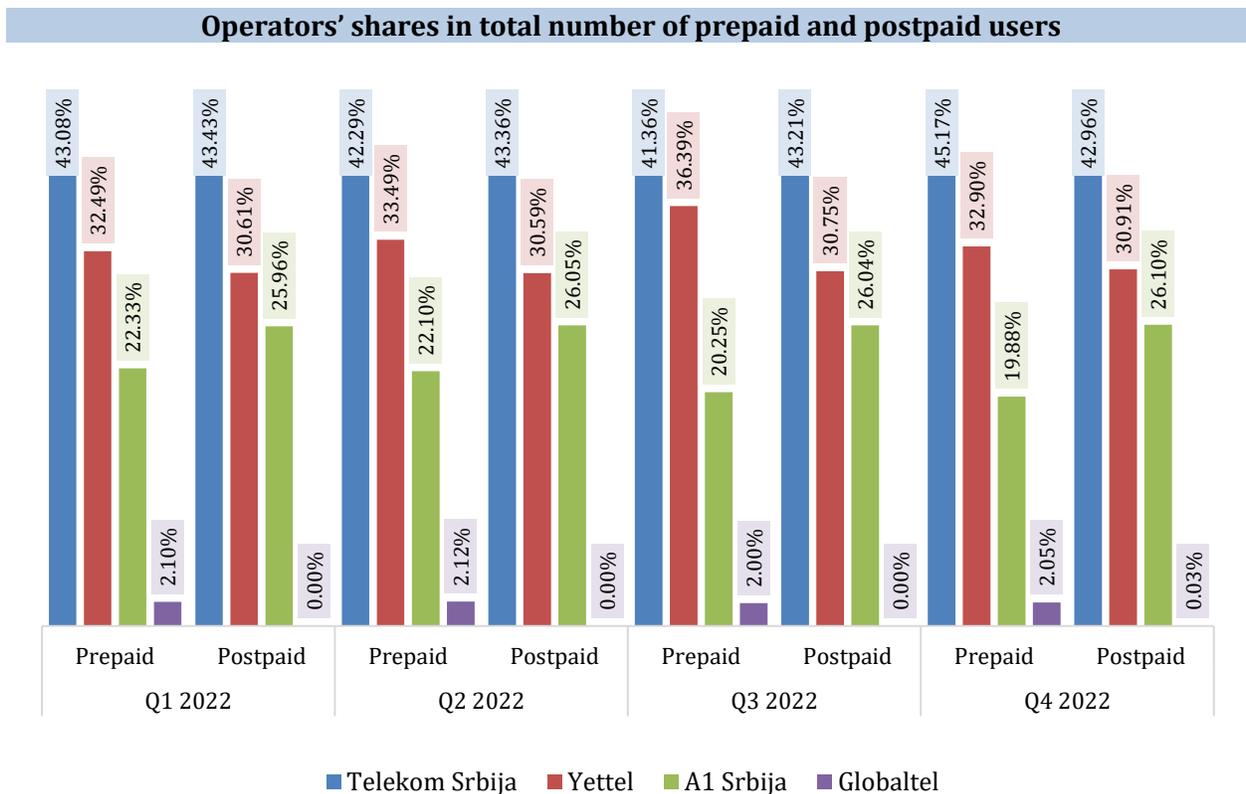
Generated voice and SMS mobile telephony traffic



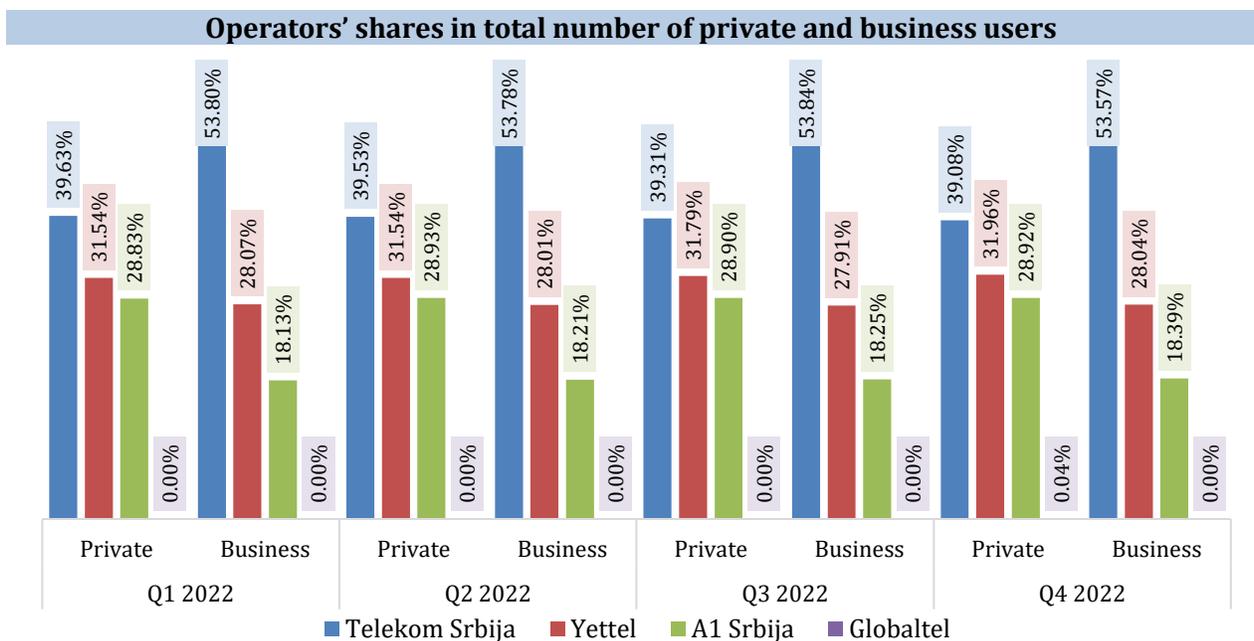
Below are the operators' shares in the total number of active subscribers.



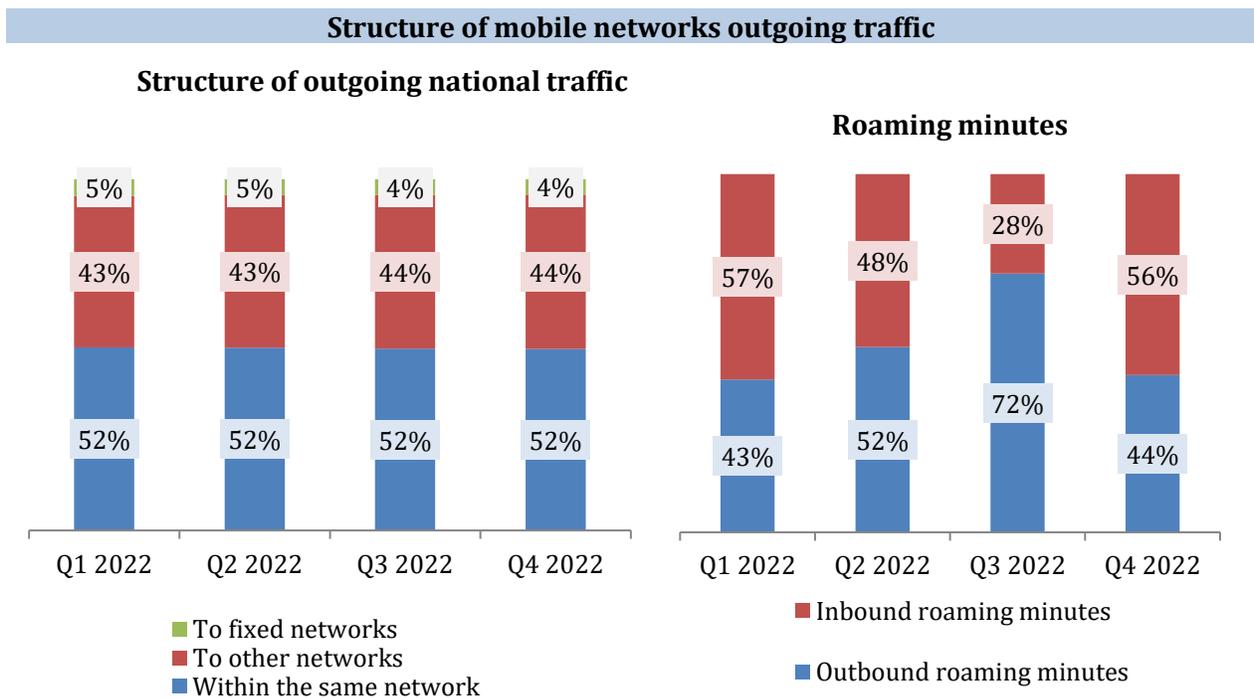
The number of postpaid subscribers, reaching 5.234 million in Q4 2022 is showing an increase compared to the previous quarter, while the number of prepaid users, amounting to 3.373 million dropped in comparison to the previous quarter. Below are the operators' shares in the volume of postpaid and prepaid subscribers.



The postpaid users structure in Q4 2022 has not changed significantly compared to the previous quarters. The number of private postpaid users amounts to 3.834 million and the number of business postpaid subscribers 1.4 million. Below are the operators' shares in the total number of private and business subscribers.

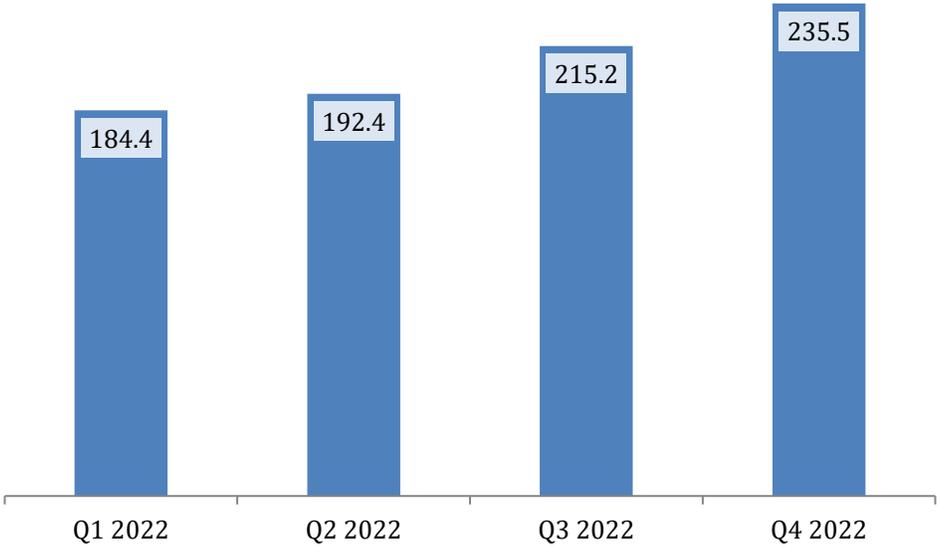


Most of the outgoing traffic in the fourth quarter of 2022 was generated within the same mobile network (52%). As for the roaming, more traffic was generated by the national mobile subscribers abroad than the users from abroad.



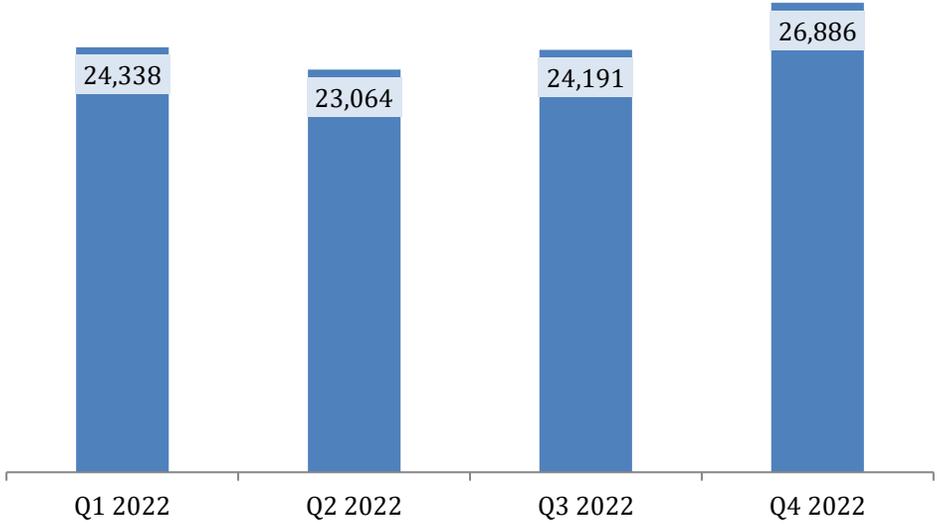
Data transmission over mobile network has increased in the analyzed period, amounting to 235.5 million GB in the fourth quarter of 2022, which means that a mobile broadband subscriber used on average around 366 MB daily, or approximately 10.84 GB a month.

Mobile Internet traffic (in million GB)



The number of mobile telephony number portings was around 27 thousand in the fourth quarter of 2022, or approximately 9 thousand per month, representing an increase compared to the previous quarter.

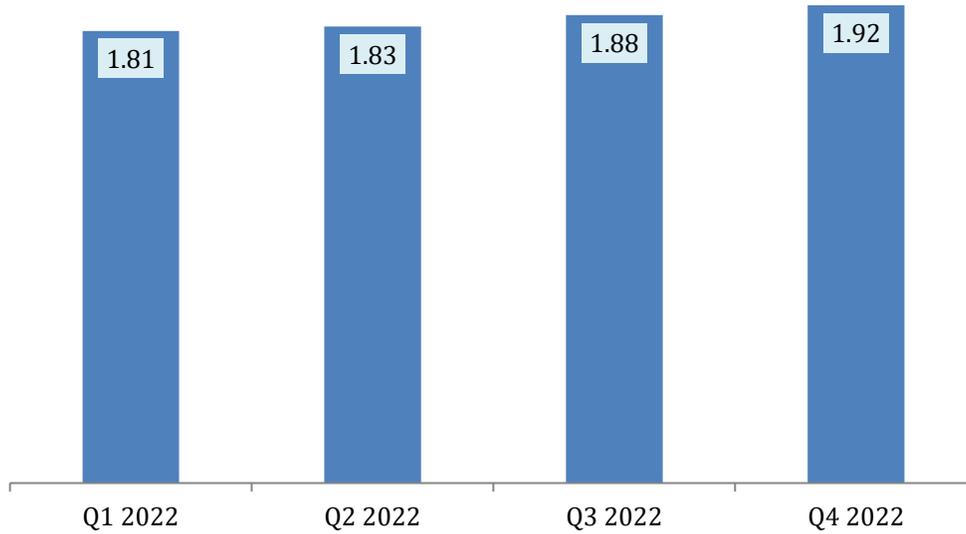
Mobile telephony number portings per quarter



Broadband Internet Access

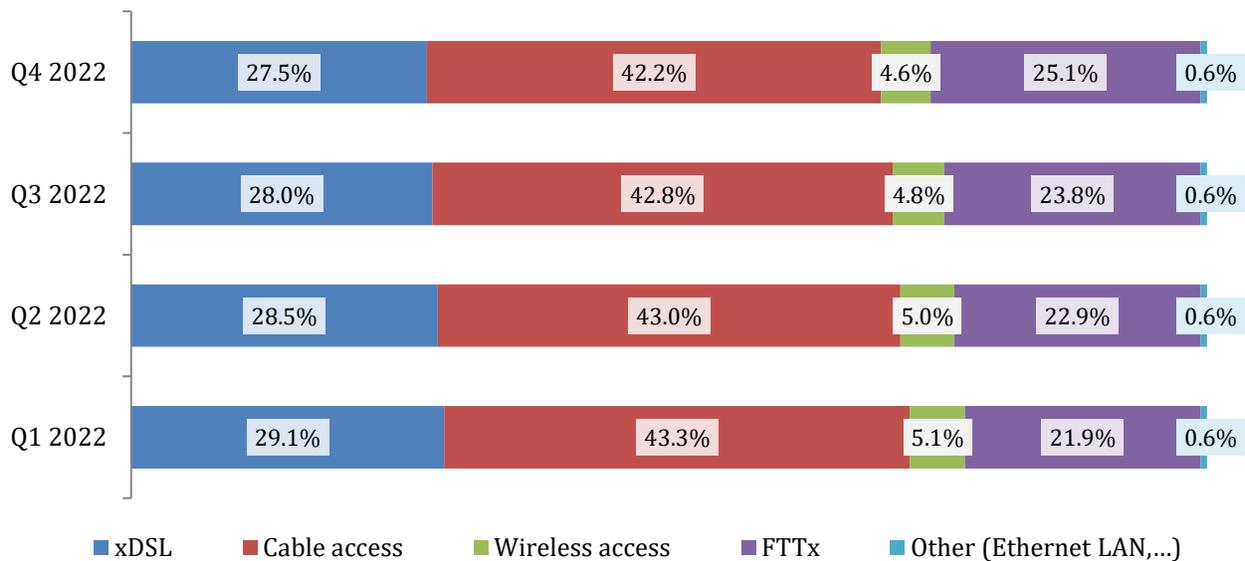
Compared to the previous quarter, the number of fixed broadband Internet access users in Q4 2022 has slightly increased, reaching approximately 1.92 million subscribers.

Number of fixed broadband Internet subscribers (in million)

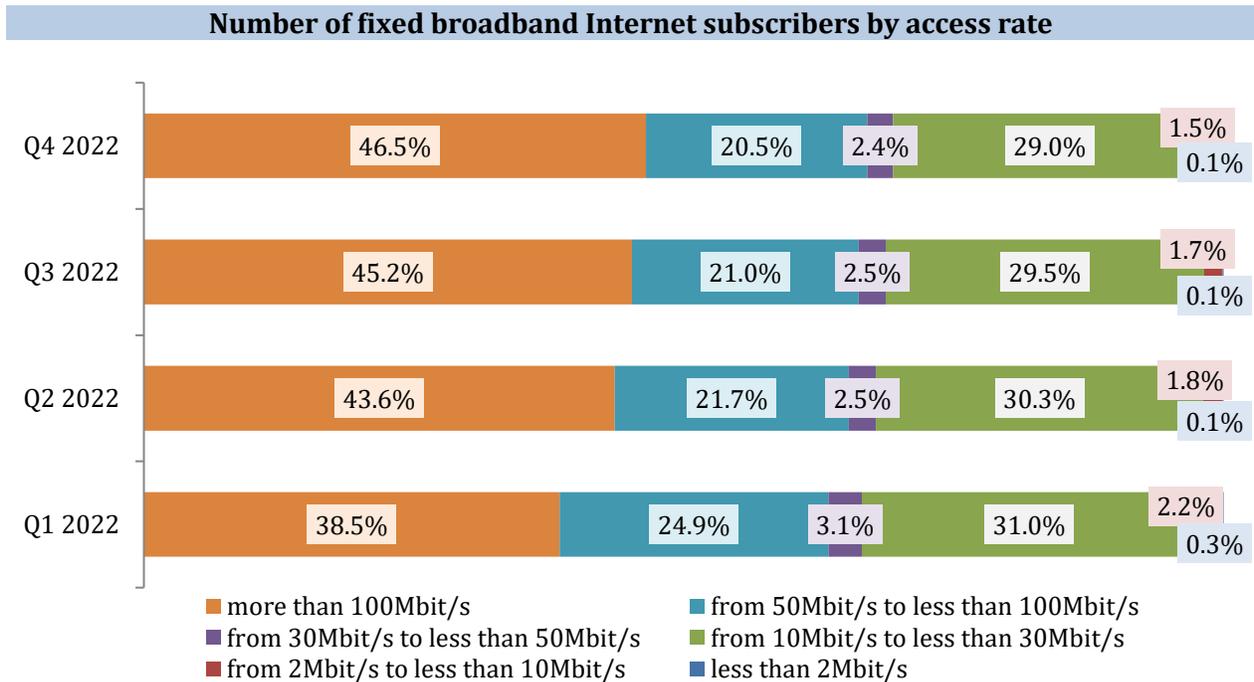


Most fixed broadband Internet subscribers have xDSL or cable access, with the number of both xDSL subscribers and cable access subscribers showing a slight drop in the analyzed period.

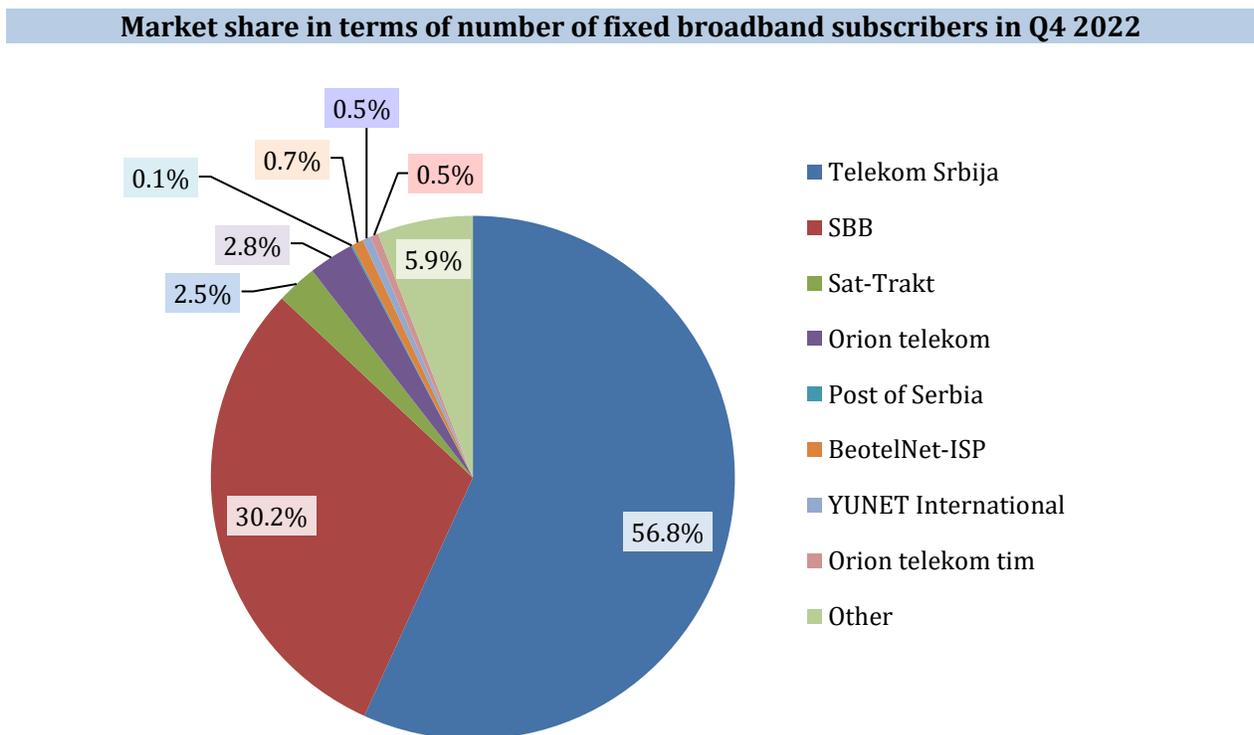
Number of subscribers by type of access



In Q4 2022, the majority of subscribers used Internet speed of more than 100 Mbit/s and between 10 Mbit/s to less than 30 Mbit/s.

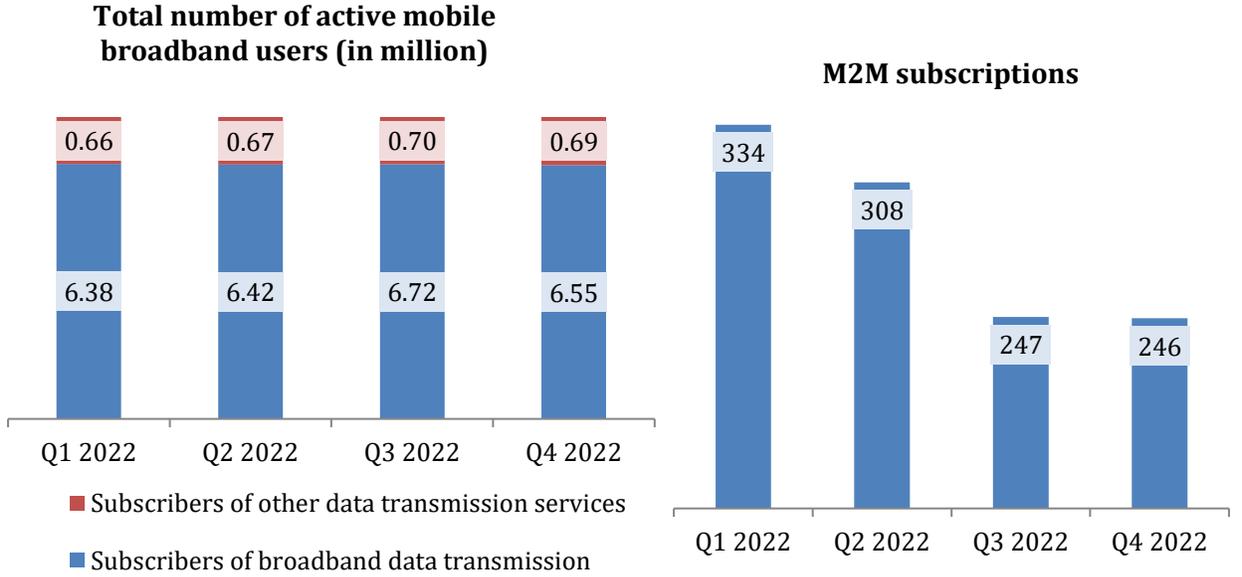


The following figure shows the leading operators' market shares for Q4 2022, in terms of the number of subscribers.



The number of active mobile broadband subscribers in the fourth quarter of 2022 has decreased compared to the previous quarter, amounting to 7.24 million. The number of M2M subscriptions has dropped, with 246 thousand subscribers in Q4 2022.

Number of active mobile broadband users and M2M subscribers

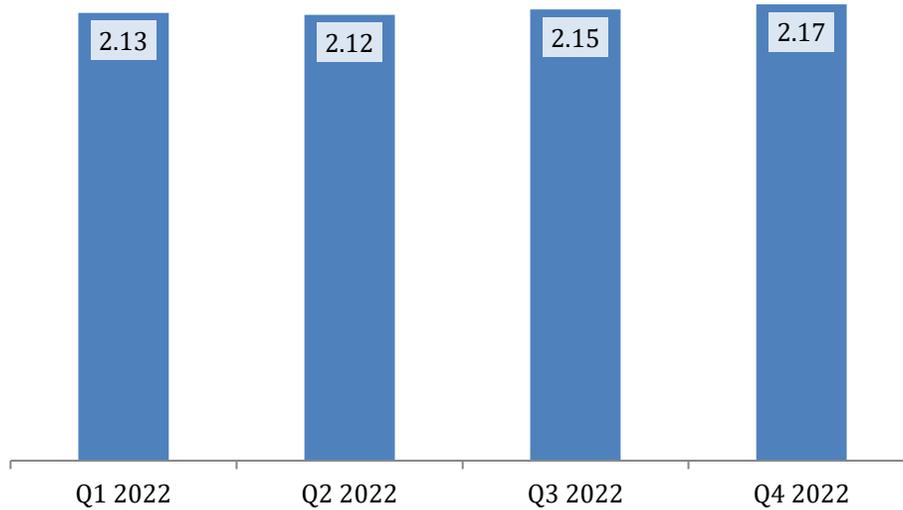


**Active mobile broadband users include subscribers of data transmission services contracted together with voice services, or as an additional package to the voice tariff plan, whereas subscribers of other data transmission services represent mobile broadband transfer users with single service agreement,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

Media Content Distribution

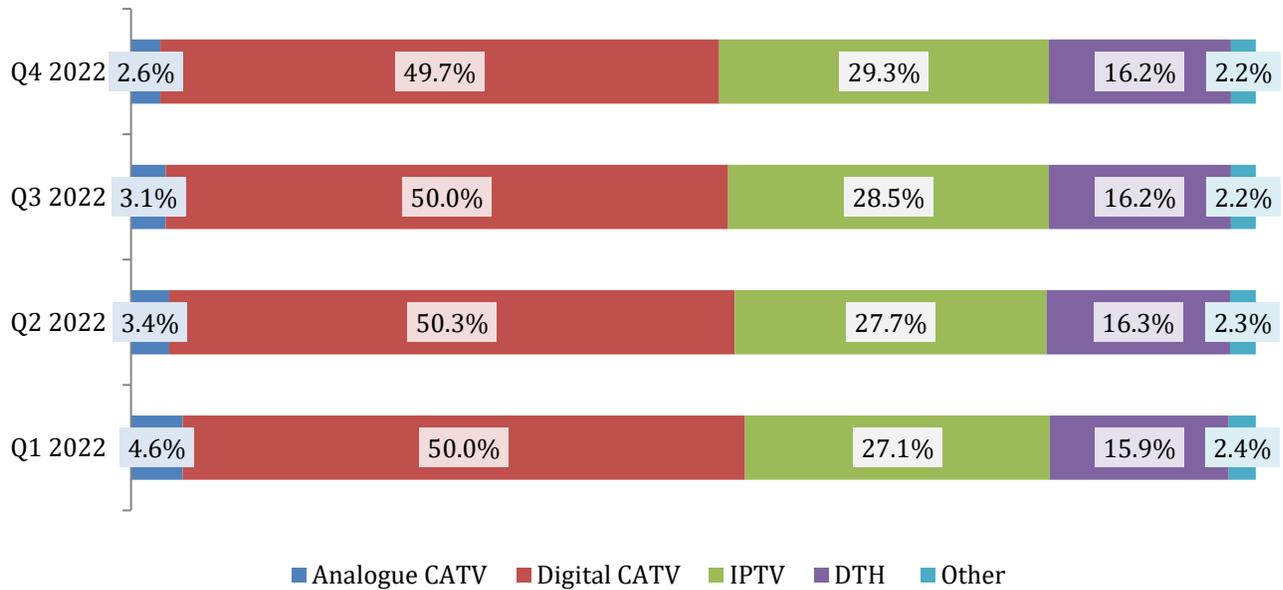
Compared to the previous period, the number of media content distribution service subscribers increased in Q4 2022, amounting to approximately 2.17 million.

Number of media content distribution service subscribers (in million)



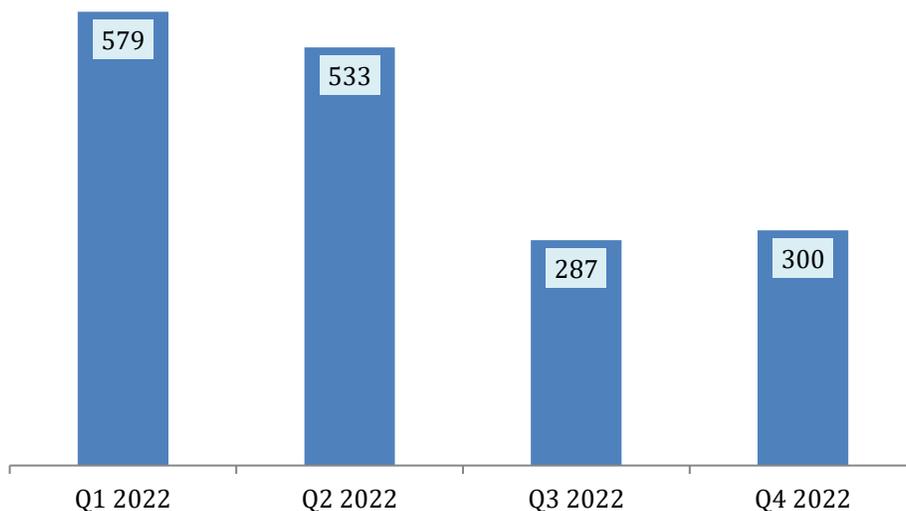
In the fourth quarter of 2022, most subscribers used digital CATV distribution (around 50%). The number of IPTV subscribers is on the rise, while the number of DTH subscribers remained on the same level as in the previous quarter. The wireless network and Internet media content distribution services 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 increased in Q4 2022 compared to Q3 2022, amounting to approximately 300 million requests, or some 57 requests per user a month. The number of met VoD requests in Q4 2022 was around 7.9 million.

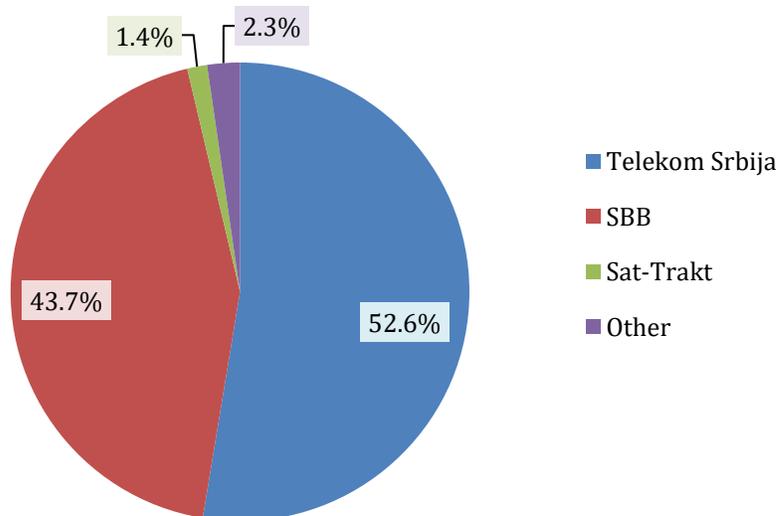
Number of met requests for additional services (in million)



In the fourth quarter of 2022, around 30% of media content distribution subscribers with the possibility to have additional channels, subscribed to such programmes.

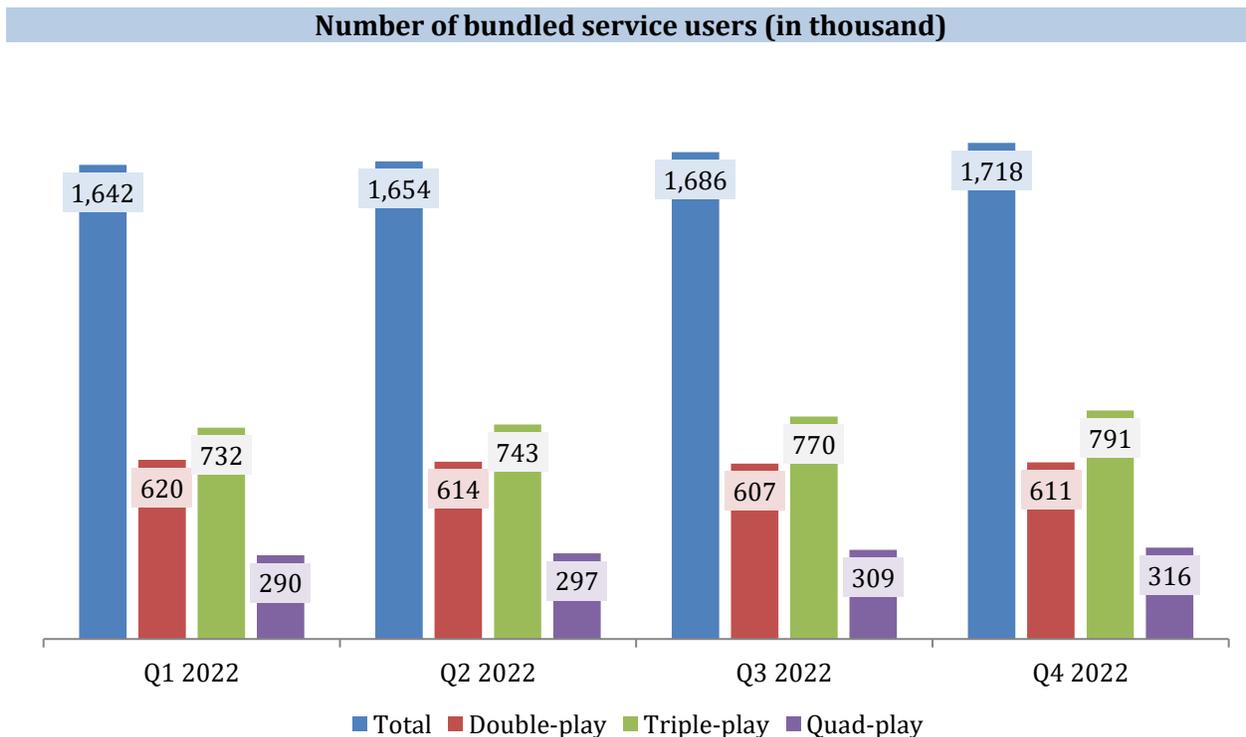
The following figure shows the leading operators' market shares for Q4 2022, in terms of the number of subscribers.

Operators' market share in by number of subscribers in Q4 2022



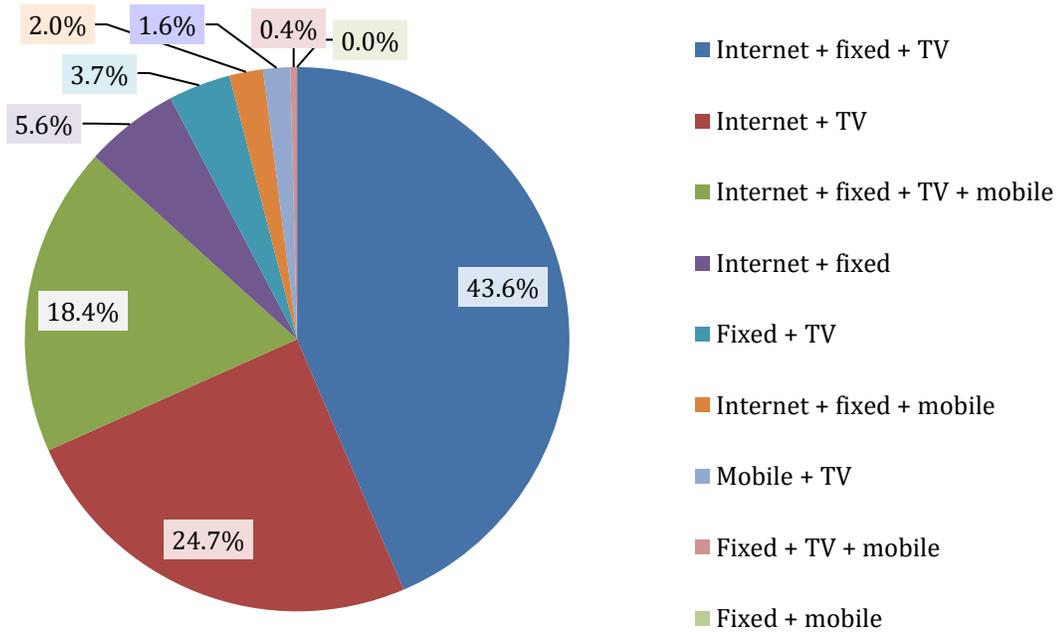
Bundled Services

The number of bundled service subscribers in Q4 2022 has increased compared to the previous quarter, reaching approximately 1.72 million. Packages offering three services were most used, whereas least used were packages with four services.



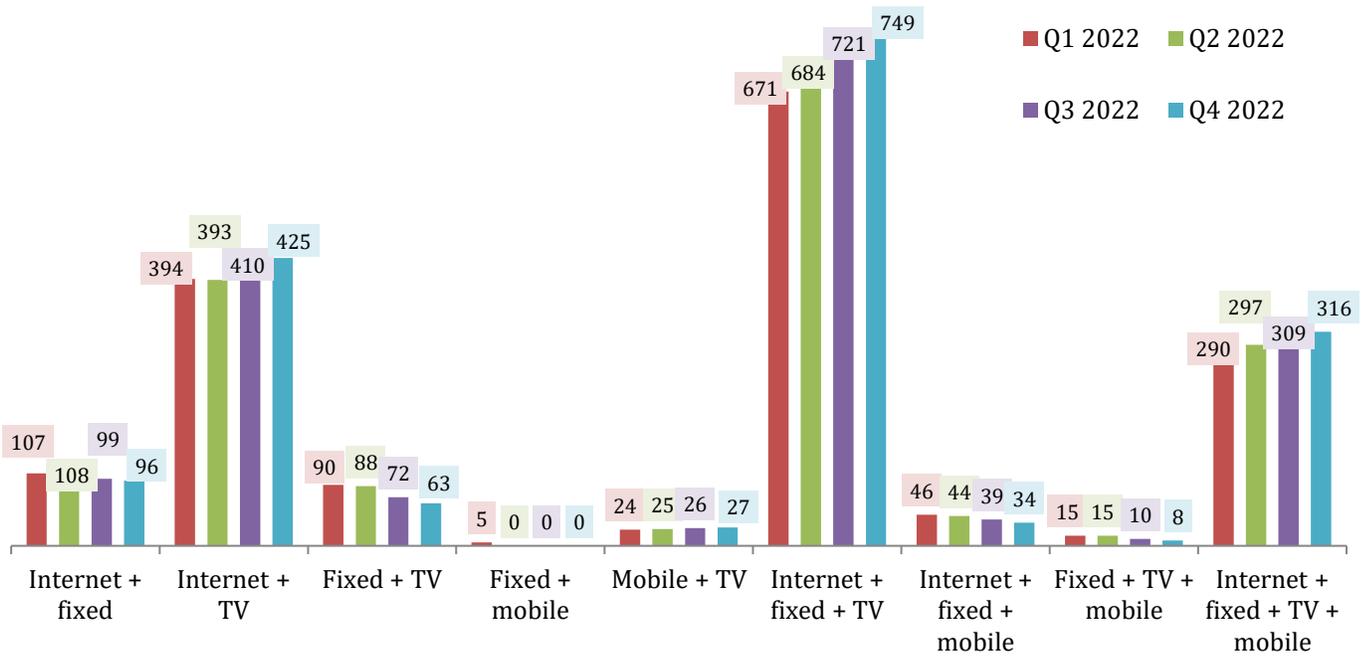
Of all bundled services offered by operators in Q4 2022, the most popular was the package with broadband Internet access, fixed telephony and TV, followed by a double-play offering broadband Internet access and TV, as well as the only available quad-play package including broadband Internet access, fixed telephony, TV and mobile telephony. The biggest growth in the fourth quarter of 2022 was achieved by a triple-play offering broadband Internet, fixed telephony and TV. A double-play with fixed and mobile telephony, a triple-play offering fixed and mobile telephony and TV, as well as a package including mobile telephony and TV had the lowest number of subscribers. The shares of different bundled services in terms of the number of subscribers are given below.

Share of bundled services in Q4 2022



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.

Share of stand-alone and bundled services purchased in Q4 2022

