

The report is based on data regularly collected from all operators in the Croatian electronic communications market. In certain cases HAKOM cannot observe irregularities in reports/data until several consequent periods are compared. As a result, HAKOM emphasises that minor discrepancies from actual data are possible.

HAKOM does not assume the responsibility for the quality of data reports delivered by the operators.

Fixed telephony services	Q4 2023	quarterly change Q4 2023 – Q4 2023	annual change Q4 2023 – Q4 2022
Total fixed telephony services revenue (EUR)	31.489.501 €	1,98%	-1,61%
Retail revenue	28.734.429 €	0,07%	-2,00%
Wholesale revenue	2.755.072 €	27,34%	2,63%
Total number of fixed lines	1.202.681	-0,78%	-2,50%
Number of subscribers ¹	1.115.144	-0,65%	-2,21%
CPS subscribers	20.421	1,57%	-34,63%
Fixed originating voice minutes ² (min)	257.158.542	4,49%	-12,70%
Stand-alone – fixed voice telephony subscribers	168.925	-2,64%	-12,16%
Number of bundled services subscribers – 2D	247.578	0,22%	-0,46%
Number of bundled services subscribers – 3D	362.244	-0,12%	-1,59%
Number of bundled services subscribers – 4D	243.758	0,95%	3,64%

¹ CPS (carrier pre-selection) subscribers are included

² includes all types of calls (local, national, international calls, calls to mobile networks and calls to VAS numbers)

Mobile telephony services	Q4 2023	quarterly change Q4 2023–Q3 2023	annual change Q4 2023 – Q4 2022
Total mobile telephony services revenue (EUR)	152.235.051€	2,91%	8,96%
Retail revenue	135.588.287€	11,66%	15,46%
Retail revenue - Residential	100.563.396€	11,41%	14,42%
<i>Prepaid subscribers</i>	23.757.808€	-0,10%	-1,40%
<i>Postpaid subscribers</i>	76.805.588€	15,53%	20,40%
Retail revenue - Business	35.024.891€	12,39%	18,53%
Wholesale revenue	16.646.764€	-37,20%	-25,30%
Total number of active subscribers (3G, 4G, 5G)³	4.562.734	-3,19%	1,84%
Residential	3.733.274	-4,08%	1,31%
<i>Prepaid subscribers</i>	1.518.909	-11,46%	-5,95%
<i>Postpaid subscribers</i>	2.214.365	1,74%	6,97%
Business	829.460	1,01%	4,29%
Mobile penetration ⁴	117,84%	-3,19%	1,84%
Mobile originating voice minutes⁵ (min)	2.727.060.629	2,48%	3,30%
International <i>roaming</i> traffic – own subscribers (min)	128.238.387	2,75%	-7,89%
International <i>roaming</i> traffic – foreign subscribers (min)	132.737.920	-72,98%	36,19%
Total SMS sent	214.490.655	-4,71%	-13,35%
Total MMS sent	1.573.426	1,76%	0,17%

³ Definition of active pre-paid subscriber: Subscriber who has used a mobile service or refilled the account in the last 90 days

⁴ Mobile penetration has been calculated according to the last census of population from 2021

Internet access services – retail level	Q4 2023	quarterly change Q4 2023 – Q3 2023	annual change Q4 2023 – Q4 2022
Total access services revenue (EUR)	189.938.718	0,71%	9,77%
<i>Fixed broadband revenue</i>	56.046.931	2,31%	6,00%
<i>Mobile broadband revenue</i>	133.673.340	0,04%	11,30%
<i>Satellite access revenue</i>	219.447	8,30%	294,51%
Total number of broadband subscriptions (lines)	6.556.802	-2,71%	6,12%
Fixed broadband subscriptions (lines)	1.113.945	1,28%	2,98%
<u>Copper access network</u>	633.873	-0,85%	-4,93%
<i>Access over own copper access network</i>	428.775	-1,78%	-2,80%
<i>xDSL based broadband using full local-loop unbundling</i>	45.922	8,87%	-18,03%
<i>xDSL based broadband using shared access</i>	2	0,00%	0,00%
<i>Bitstream access over copper access network (xDSL)</i>	159.174	-0,86%	-6,12%
<u>Fiber optic access network</u>	260.718	8,63%	33,45%
<i>Access over own fiber access network</i>	206.025	8,88%	31,89%
<i>Fiber unbundling access</i>	16.347	7,49%	26,19%
<i>Bitstream access over fiber optic access network</i>	38.346	7,78%	46,36%
<u>Cable access network</u>	173.459	-0,72%	-2,56%
<u>Fixed wireless access (FWA)</u>	36.325	-0,58%	6,44%
<u>Satellite access</u>	1.730	2,73%	195,22%

⁵ includes all types of calls (local, national, international calls, calls to mobile networks and calls to VAS numbers)

High Quality Access	7.840	2,74%	13,49%
Mobile broadband subscriptions (3G, 4G, 5G etc)	5.442.857	-3,49%	6,79%
<i>Residential (3G and 4G)</i>	3.307.436	-10,06%	-7,01%
<i>Dedicated data subscriptions (cards/modems/keys etc.)</i>	169.579	-22,01%	23,25%
<i>Mobile phones⁶</i>	2.943.240	-9,51%	-8,36%
<i>M2M</i>	2	0,00%	-50,00%
<i>Broadband access at fixed location via mobile network</i>	194.615	-6,19%	-6,15%
<i>Residential(5G)</i>	817.762	24,15%	143,19%
<i>Dedicated data subscriptions (cards/modems/keys etc.)</i>	15.875	44,07%	871,54%
<i>Mobile phones</i>	790.708	23,66%	139,14%
<i>M2M</i>	0	NaN	NaN
<i>Broadband access at fixed location via mobile network</i>	11.179	35,50%	180,46%
<i>Business (3G and 4G)</i>	1.107.037	-2,70%	-0,28%
<i>Dedicated data subscriptions (cards/modems/keys etc.)</i>	132.796	-1,58%	2,11%
<i>Mobile phones</i>	659.109	-4,06%	-0,12%
<i>M2M</i>	264.931	0,46%	-3,54%
<i>Broadband access at fixed location via mobile network</i>	50.201	-3,54%	10,22%
<i>Business (5G)</i>	210.622	27,20%	125,07%
<i>Dedicated data subscriptions (cards/modems/keys etc.)</i>	13.889	30,22%	141,25%
<i>Mobile phones</i>	170.337	27,01%	125,32%
<i>M2M</i>	24.743	28,12%	116,13%
<i>Broadband access at fixed location via mobile network</i>	1.653	10,57%	112,74%

⁶ Number of subscribers which have made an internet mobile connection in the last 90 days through mobile phones

xDSL with hybrid service	92.976	-3,99%	-8,81%
Number of standalone internet access service subscribers	4.083.947	-4,57%	2,66%
Number of bundled services subscribers – 2D	391.015	0,29%	2,40%
Number of bundled services subscribers – 3D	418.242	0,15%	0,57%
Number of bundled services subscribers – 4D	243.758	0,95%	3,64%
Broadband traffic (TB)	1.176.977	5,38%	26,63%
<i>Fixed broadband traffic (TB)</i>	<i>846.577</i>	<i>11,84%</i>	<i>28,26%</i>
<i>Mobile broadband traffic (TB)</i>	<i>330.400</i>	<i>-8,22%</i>	<i>22,63%</i>

Television services	Q4 2023	quarterly change Q4 2023 – Q3 2023	annual change Q4 2023 – Q4 2022
Television services revenue (EUR)	32.917.955€	2,37%	7,25%
Cable TV revenues	5.023.633€	-8,64%	-11,03%
IPTV revenues	19.623.956€	4,78%	14,97%
Satellite revenues	4.022.263€	2,64%	-0,82%
Digital terrestrial TV revenues	3.081.309€	0,95%	-2,57%
Own OTT service revenues	1.166.793€	21,81%	53,48%
Total number of pay-TV subscriptions (lines)	915.704	-0,18%	-0,04%
Cable reception	146.953	-1,63%	-5,09%
<i>Residential</i>	<i>143.240</i>	<i>-1,66%</i>	<i>-5,19%</i>
<i>Business</i>	<i>3.713</i>	<i>-0,54%</i>	<i>-0,77%</i>
IPTV	495.107	0,70%	2,13%

<i>Residential</i>	468.447	0,68%	2,29%
<i>Business</i>	26.660	0,88%	-0,70%
Satellite reception (SAT TV)	126.032	-2,87%	-4,40%
<i>Residential</i>	117.149	-2,07%	-4,92%
<i>Business</i>	8.883	-12,41%	3,10%
Digital terrestrial reception – pay TV	95.102	-1,43%	-6,00%
<i>Residential</i>	94.141	-1,50%	-6,10%
<i>Business</i>	961	6,19%	5,72%
Own OTT service	52.510	4,92%	20,84%
<i>Residential</i>	44.580	6,01%	26,96%
<i>Business</i>	7.930	-0,81%	-4,92%
Stand-alone – TV subscribers	142.968	-1,53%	30,44%
Number of bundled services subscribers – 2D	86.078	-1,35%	-0,73%
Number of bundled services subscribers – 3D	300.765	0,08%	0,42%
Number of bundled services subscribers – 4D	243.758	0,95%	3,64%

**The "RH households with digital terrestrial reception only" indicator will no longer be reported from Q1 2023. As HAKOM does not collect the mentioned data but only estimates it based on other collected data and certain assumptions that do not have to be entirely correct, it will no longer be reported to avoid confusion and possibly wrong conclusions about the trend of the mentioned indicator.*

***The values of individual indicators in this report may differ from previously published values due to corrections and/or subsequently submitted reports by individual operators.*