

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 2020	quarterly change Q4 2020 – Q3 2020	annual change Q4 2020 – Q4 2019
<b>Total fixed telephony services revenue (HRK)</b>	<b>276.053.962</b>	<b>-1,40%</b>	<b>-7,18%</b>
<i>Retail revenue</i>	<i>243.520.756</i>	<i>-0,42%</i>	<i>-4,11%</i>
<i>Wholesale revenue</i>	<i>32.533.206</i>	<i>-8,17%</i>	<i>-25,16%</i>
Total number of fixed lines	1.297.139	-0,08%	-2,23%
Stand-alone – fixed voice telephony subscribers	449.085	-3,62%	21,37%
Number of subscribers <sup>1</sup>	1.231.186	0,18%	-1,30%
CPS subscribers	40.425	-2,41%	-19,53%
Fixed originating voice minutes <sup>2</sup> (min)	461.586.230	20,64%	13,36%

<sup>1</sup> CPS (carrier pre-selection) subscribers are included

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

Mobile telephony services	Q4 2020	quarterly change Q4 2020 – Q3 2020	annual change Q4 2020 – Q4 2019
<b>Total mobile telephony services revenue (HRK)</b>	<b>1.067.734.061</b>	<b>8,32%</b>	<b>-1,00%</b>
<b>Retail revenue</b>	872.526.838	11,99%	-3,29%
<i>Retail revenue - Residential</i>	663.852.259	11,44%	0,70%
<i>Prepaid subscribers</i>	244.201.913	8,15%	-2,88%
<i>Postpaid subscribers</i>	419.650.347	13,46%	2,92%
<i>Retail revenue - Business</i>	208.674.577	13,76%	-14,12%
<b>Wholesale revenue</b>	195.207.223	-5,50%	10,73%
<b>Total number of active subscribers<sup>3</sup></b>	<b>4.375.699</b>	<b>-2,15%</b>	<b>-0,66%</b>
<u>Residential</u>	3.615.947	-2,66%	-1,19%
<i>Prepaid subscribers</i>	1.861.056	-6,34%	-6,68%
<i>Postpaid subscribers</i>	1.754.891	1,57%	5,38%
<u>Business</u>	759.752	0,38%	1,96%
Mobile penetration <sup>4</sup>	102,12%	-2,15%	-0,66%
Mobile originating voice minutes <sup>5</sup> (min)	3.033.963.469	11,09%	26,31%
International <i>roaming</i> traffic – own subscribers (min)	157.290.865	6,75%	-8,59%
International <i>roaming</i> traffic – foreign subscribers (min)	67.073.074	-78,06%	-21,00%
Total SMS sent	347.542.944	-8,74%	-23,72%
Total MMS sent	2.540.475	-1,67%	-0,49%

<sup>3</sup> Definition of active pre-paid subscriber: Subscriber who has used a mobile service or refilled the account in the last 90 days. This definition applies to all operators. Before 2011 each operator used a different active pre-paid subscriber definition (90/180/270 days).

<sup>4</sup> Mobile penetration has been calculated according to the last census of population from 2011

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

Broadband access services <sup>6</sup>	Q4 2020	quarterly change Q4 2020 – Q3 2020	annual change Q4 2020 – Q4 2019
<b>Total access services revenue (HRK)</b>	<b>1.217.823.009</b>	<b>-8,95%</b>	<b>5,30%</b>
<i>Fixed broadband revenue<sup>7</sup></i>	461.331.755	0,50%	-8,54%
<i>Mobile broadband revenue</i>	756.491.254	-13,89%	16,01%
<b>Total number of broadband subscriptions (lines)</b>	<b>5.629.745</b>	<b>-0,20%</b>	<b>17,81%</b>
<b><i>Fixed broadband subscriptions (lines)</i></b>	<b>1.030.973</b>	<b>0,40%</b>	<b>-10,72%</b>
<i>Own copper access</i>	428.469	-0,12%	0,03%
<i>xDSL based broadband using full local-loop unbundling</i>	121.886	-3,79%	-11,30%
<i>xDSL based broadband using shared access</i>	59	25,53%	227,78%
<i>FttX – own infrastructure</i>	126.614	5,45%	19,70%
<i>Bitstream (xDSL, FttX)</i>	151.724	-0,58%	-2,84%
<i>Cable broadband</i>	168.016	2,02%	0,63%
<i>Fixed wireless access (FWA)</i>	28.830	0,80%	-81,41%
<i>Other</i>	5.375	3,09%	7,41%
<b><i>Mobile broadband subscriptions<sup>8</sup></i></b>	<b>4.598.772</b>	<b>-0,33%</b>	<b>26,90%</b>
<i>Residential</i>	3.554.161	-0,54%	33,27%
<i>Dedicated data subscriptions (cards/modems/keys etc.)</i>	365.997	15,62%	153,66%

<sup>6</sup> From Q1 2020 subscriptions that are realized on chosen fixed location over the mobile network, which do not satisfy minimum obligations related to guaranteed speed, will not be reported under the number of fixed broadband subscriptions anymore. Until now, these subscriptions were reported under the fixed wireless access category. They are reported under mobile broadband subscriptions and corresponding indicators instead.

<sup>7</sup> Dial up revenue is also included

<sup>8</sup> Due to a change in the reporting system, one operator had a deviation in the number of users reported in previous periods.

<i>Mobile phones</i> <sup>9</sup>	3.188.159	-2,12%	26,38%
<i>M2M</i>	5	0,00%	-82,76%
<i>Business</i>	1.044.611	0,40%	9,16%
<i>Dedicated data subscriptions (cards/modems/keys etc.)</i>	168.370	-0,69%	13,09%
<i>Mobile phones</i> <sup>10</sup>	615.667	-0,16%	7,08%
<i>M2M</i>	260.574	2,48%	11,81%
Number of bundled services subscribers – 2D	313.594	-3,06%	-34,53%
Number of bundled services subscribers – 3D	300.037	2,84%	6,88%
Number of bundled services subscribers – 4D	299.189	2,05%	10,96%
Stand-alone – broadband subscribers	113.703	-14,03%	-18,64%
<b>Broadband traffic (GB)</b>	<b>612.836.302</b>	<b>8,06%</b>	<b>51,32%</b>
<i>Fixed broadband traffic (GB)</i>	423.136.121	12,40%	35,02%
<i>Mobile broadband traffic (GB)</i>	189.700.180	-0,51%	107,13%
<b>Television services</b>	<b>Q4 2020</b>	<b>quarterly change Q4 2020 – Q3 2020</b>	<b>annual change Q4 2020 – Q4 2019</b>
<b>Television services revenue (HRK)</b>	<b>207.803.048</b>	<b>0,99%</b>	<b>2,83%</b>
<b>Total number of pay-TV subscriptions (lines)</b>	850.981	1,59%	2,52%
<b>Cable reception</b>	180.517	1,07%	2,07%
<i>Residential</i>	176.433	1,11%	1,82%
<i>Business</i>	4.084	-0,73%	14,40%
<b>IPTV</b>	444.129	0,71%	1,72%

<sup>9</sup> Number of subscribers which have made an internet mobile connection in the last 90 days through mobile phones

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<i>Residential</i>	420.276	0,77%	1,85%
<i>Business</i>	23.853	-0,33%	-0,50%
<b>Satellite reception (SAT TV)</b>	145.165	-0,78%	-1,08%
<i>Residential</i>	137.330	-0,01%	-0,72%
<i>Business</i>	7.835	-12,58%	-6,93%
<b>Digital terrestrial reception – pay TV</b>	81.170	13,18%	16,21%
<i>Residential</i>	80.478	13,79%	16,82%
<i>Business</i>	692	-29,96%	-27,62%
Stand-alone – TV subscribers	101.814	-10,64%	-27,49%
RH households with digital terrestrial reception only <sup>11</sup>	629.524	-2,08%	-3,22%

<sup>11</sup> RH households with digital terrestrial reception only = (1.520.026 (number of households in the Republic of Croatia according to the last census of population from 2011) – 2,6% households without TV) – (number of Cable receptions + number of IPTV + number of Satellite receptions + digital terrestrial reception\_pay TV)