

Mode [Fixed Duration]  $\geq 768$  Kbps & (iv). Table 4.9: Upload User Data Throughput in 3G Technology Locked Mode [Fixed Duration]  $\geq 128$  Kbps.

<b>UPLOAD USER DATA THROUGHPUT IN TECHNOLOGY AUTO DETECT MODE (FIXED DURATION)</b>								
<b>Road</b>	<b>Upload Data Throughput [Kbps]</b>				<b>Operator Position</b>			
	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>
<i>Quetta to Zhob</i>	16071.85	4620.93	17662.64	16913.76	Third	Fourth	First	Second
<i>Zhob to Quetta</i>	14445.73	5203.71	13526.88	16978.23	Second	Fourth	Third	First
<i>Lahore to Sargodha</i>	21187.7	6575.18	18402.93	14811.03	First	Fourth	Second	Third
<i>Lahore to Rawalpindi</i>	18033.43	6342.89	19589.29	21727.77	Third	Fourth	Second	First
<i>Lahore to Multan</i>	17483.04	6013.29	14095.94	15426.7	First	Fourth	Third	Second
<i>Islamabad to Kohat</i>	17803.1	7840.56	17885.7	15142.61	Second	Fourth	First	Third
<i>Mianwali to Bakhar</i>	15141.84	5827.45	12654.66	10180.92	First	Fourth	Second	Third
<i>Isamabad to D.I Khan</i>	17002.48	5702.02	12255.25	8878.16	First	Fourth	Second	Third
<i>T.M Panah to Jalalpur Pirwala</i>	17775.52	3989.82	11920.74	14897.28	First	Fourth	Third	Second
<i>Kot Sabzal to Multan</i>	21654.26	7437.34	12740.01	18210.53	First	Fourth	Third	Second
<i>Chakdara to Kalam</i>	18683.35	4234.95	17807.99	16642	First	Fourth	Second	Third
<i>Khuazakhela to Behsam</i>	6975.27	6775.59	15370.44	17500.71	Third	Fourth	Second	First
<i>Peshawer to DG Khan</i>	18349.59	7774.97	11452.81	16387.45	First	Fourth	Third	Second

Table 4.6: Upload User Data Throughput Technology Auto Detect Mode [Fixed Duration]  $\geq 768$  Kbps

<b>UPLOAD USER DATA THROUGHPUT IN TECHNOLOGY AUTO DETECT MODE (FIXED SIZE)</b>								
<b>Road</b>	<b>Upload Data Throughput [Kbps]</b>				<b>Operator Position</b>			
	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>
<i>Quetta to Zhob</i>	6192.3	4866.38	8297.9	7990.55	Third	Fourth	First	Second
<i>Zhob to Quetta</i>	5735.17	4672.48	4846.81	6611.92	Second	Fourth	Third	First
<i>Lahore to Sargodha</i>	7284.31	5435.75	8569.24	7638.65	Third	Fourth	First	Second
<i>Lahore to Rawalpindi</i>	5842.5	5562.8	7480.29	7910.14	Third	Fourth	Second	First
<i>Lahore to Multan</i>	6025.81	5177.9	5219.32	7250.36	Second	Fourth	Third	First
<i>Islamabad to Kohat</i>	6487.43	5883.52	7538.79	6746.31	Third	Fourth	First	Second
<i>Mianwali to Bakhar</i>	6502.4	5725.2	6815.23	6831.79	Third	Fourth	Second	First
<i>Isamabad to D.I Khan</i>	6772.27	5468.01	7257.92	7667.31	Third	Fourth	Second	First
<i>T.M Panah to J. Pirwala</i>	10779.64	9131.75	11876.7	11559.4	Third	Fourth	First	Second
<i>Kot Sabzal to Multan</i>	12354.28	10908.75	11046.4	14280.9	Second	Fourth	Third	First
<i>Chakdara to Kalam</i>	12192.52	9539.01	16882.8	13549.4	Third	Fourth	First	Second
<i>Khuazakhela to Behsam</i>	10621.75	10256.71	16878.4	13814.4	Third	Fourth	First	Second
<i>Peshawer to DG Khan</i>	12252.51	10169.19	12301.7	13733.1	Third	Fourth	Second	First

Table 4.7: Upload User Data Throughput Technology Auto Detect Mode [Fixed Size]  $\geq 768$  Kbps

<b>UPLOAD USER DATA THROUGHPUT IN 4G TECHNOLOGY LOCKED MODE (FIXED DURATION)</b>								
<b>Road</b>	<b>Upload Data Throughput [Kbps]</b>				<b>Operator Position</b>			
	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>
<i>Zhob to Quetta</i>	7942.43	4365.81	11787.94	14687.9	Third	Fourth	Second	First
<i>Lahore to Sargodha</i>	20419.17	5123.96	17036.05	9342.6	First	Fourth	Second	Third
<i>Lahore to Rawalpindi</i>	19569.5	5166.58	17938.07	14213.99	First	Fourth	Second	Third
<i>Lahore to Multan</i>	16635.89	5101.13	10309.4	8981.37	First	Fourth	Second	Third
<i>Islamabad to Kohat</i>	13382.39	7183.49	18471.69	13544.29	Third	Fourth	First	Second
<i>Mianwali to Bakhar</i>	8658.84	3307.68	10163.53	5274.95	Second	Fourth	First	Third
<i>Isamabad to D.I Khan</i>	14837.24	5260.72	11068.11	8835.63	First	Fourth	Second	Third
<i>T.M Panah to J. Pirwala</i>	13494.83	2348.09	10761.36	7004.57	First	Fourth	Second	Third
<i>Kot Sabzal to Multan</i>	19497.48	5972.93	9416.83	7929.4	First	Fourth	Second	Third
<i>Chakdara to Kalam</i>	14040.69	3438	16406.1	13690.82	Second	Fourth	First	Third
<i>Khuazakhela to Behsam</i>	8836.05	3128.51	11945.95	23244.33	Third	Fourth	Second	First
<i>Peshawer to DG Khan</i>	17372.47	5900.3	9532.04	7745.57	First	Fourth	Second	Third

**Table 4.8: Upload User Data Throughput in 4G Technology Locked Mode [Fixed Duration]  $\geq$  768 Kbps**

<b>UPLOAD USER DATA THROUGHPUT IN 3G TECHNOLOGY LOCKED MODE (FIXED DURATION)</b>								
<b>Road</b>	<b>Upload Data Throughput [Kbps]</b>				<b>Operator Position</b>			
	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>
<i>Quetta to Zhob</i>	997.71	1890.55	2742.63	1196.13	Fourth	Second	First	Third
<i>Lahore to Sargodha</i>	654.73	1218.52	1783.34	634.46	Third	Second	First	Fourth
<i>Lahore to Rawalpindi</i>	724.45	1174.63	2345.99	608.85	Third	Second	First	Fourth
<i>Lahore to Multan</i>	1225.36	1224.81	1846.35	760.84	Second	Third	First	Fourth
<i>Islamabad to Kohat</i>	1322.19	1127.62	1515.2	847.25	Second	Third	First	Fourth
<i>Mianwali to Bakhar</i>	870.66	1105.53	1158.63	847.64	Third	Second	First	Fourth
<i>Isamabad to D.I Khan</i>	913.48	1040.11	1698.64	338.79	Third	Second	First	Fourth
<i>T.M Panah to J. Pirwala</i>	1776.22	2236.29	1173.86	665.92	Second	First	Third	Fourth
<i>Kot Sabzal to Multan</i>	1482.14	2305.9	1889.79	892.19	Third	First	Second	Fourth
<i>Chakdara to Kalam</i>	1151.39	917.79	1277.26	1651.27	Third	Fourth	Second	First
<i>Khuazakhela to Behsam</i>	322.8	975.77	2184.98	1761.51	Fourth	Third	First	Second
<i>Peshawer to DG Khan</i>	1007.85	1417.77	2184.26	1447.54	Fourth	Third	First	Second

**Table 4.9: Upload User Data Throughput in 3G Technology Locked Mode [Fixed Duration]  $\geq$  128 Kbps**

4.4. **WEBPAGE LOADING TIME.** As per Cellular Mobile Network Quality of Service (QoS) Regulations 2021, licensees are required to meet Webpage Loading Time threshold of 5 Seconds. The results of Webpage Loading Time is shown in **Table 4.10: Webpage Loading Time < 5 Seconds.**

<b>WEBPAGE LOADING TIME IN TECHNOLOGY AUTO DETECT MODE ON ROADS</b>								
<b>Road</b>	<b>Webpage Loading Time (Sec)</b>				<b>Compliant (Yes/No)</b>			
	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>
<i>Quetta to Zhob</i>	6.3	6.5	6.3	6.4	No	No	No	No
<i>Zhob to Quetta</i>	6.2	6.7	7.3	6.5	No	No	No	No
<i>Lahore to Sargodha</i>	5.8	7.0	5.3	5.6	No	No	No	No
<i>Lahore to Rawalpindi</i>	5	7	6	5	Yes	No	No	Yes
<i>Lahore to Multan</i>	6	7	6	6	No	No	No	No
<i>Islamabad to Kohat</i>	5.5	7.1	6.5	6.2	No	No	No	No
<i>Mianwali to Bakhar</i>	5.9	6.7	6.6	5.3	No	No	No	No
<i>Isamabad to D.I Khan</i>	6.1	7.2	6.6	6.1	No	No	No	No
<i>T.M Panah to J. Pirwala</i>	7.1	7.7	7.3	7.1	No	No	No	No
<i>Kot Sabzal to Multan</i>	6.5	7.1	6.8	6.1	No	No	No	No
<i>Chakdara to Kalam</i>	6.6	8.2	6.9	6.3	No	No	No	No
<i>Khuazakhela to Behsam</i>	6.2	7.7	6.5	5.9	No	No	No	No
<i>Peshawer to DG Khan</i>	6.6	7.7	7.5	6.6	No	No	No	No

**Table 4.10: Webpage Loading Time < 5 Seconds**

4.5. **LATENCY.** As per Cellular Mobile Network Quality of Service (QoS) Regulations 2021, licensees are required to meet threshold of 75 milliseconds of 4G/LTE Technology & 150 milliseconds of 3G Technology of Latency. The results of QoS KPI Latency is shown in (i). **Table 4.11: Latency in Technology Auto Detect Mode < 75 milliseconds,** (ii). **Table 4.12: Latency in 4G/LTE Technology Locked Mode < 75 milliseconds & (iii) Table 4.13: Latency in 3G Technology Locked Mode < 150 milliseconds.**

<b>LATENCY IN TECHNOLOGY AUTO DETECT MODE</b>								
<b>Road</b>	<b>Latency (milliseconds)</b>				<b>Compliant (Yes/No)</b>			
	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>	<b>Jazz</b>	<b>Telenor</b>	<b>Ufone</b>	<b>ZonG</b>
<i>Quetta to Zhob</i>	326	280	252	290	No	No	No	No
<i>Zhob to Quetta</i>	292	299	394	228	No	No	No	No
<i>Lahore to Sargodha</i>	261	234	217	225	No	No	No	No