DESCRIPTION				JAZZ	TELENOR	UFONE	ZONG
LOCKED MODE	4G	DATA TRANSFER TEST	DOWNLOAD ATTEMPTS	958	956	958	957
			DOWNLOAD SPEED (Mbps)	17.125	3.957	10.491	16.64
			UPLOAD ATTEMPTS	950	950	950	950
			UPLOAD SPEED (Mbps)	15.551	5.12	12.042	9.786
		PING TEST	ATTEMPTS	966	966	966	965
			LATENCY (msec)	**94.06**	**98.66**	**100.63**	**114.71**
		AVERAGE 4G SIGNAL STRENGTH (RSRP) dBm		-84.8	-87.5	-88.2	-86.1
	3G	DATA TRANSFER TEST	DOWNLOAD ATTEMPTS	469	840	773	837
			DOWNLOAD SPEED (Mbps)	2.063	2.532	2.65	2.175
			UPLOAD ATTEMPTS	405	825	755	826
			UPLOAD SPEED (Mbps)	0.86	1.5	2.006	0.964
		PING TEST	ATTEMPTS	918	918	917	918
			LATENCY (msec)	**477.66**	**661.44**	**502.52**	**253.64**
		AVERAGE 3G SIGNAL STRENGTH (RSCP) dBm		-74.88	-74.25	-74.91	-72.5

Table 4.1: Data Tests Statistics

4.2.　**DOWNLOAD USER DATA THROUGHPUT.**　As per Next Generation Mobile Service (NGMS) licenses, licensees are required to meet <u>the threshold of minimum of 3 Mbps of 4G/LTE & 512 Kbps of 3G Download User Data Throughput.</u> The results of Data Service QoS KPI i.e. Download User Data Throughput is shown in (i). **Table 4.2: Download User Data Throughput Technology Auto Detect Mode [Fixed Duration] ≥ 3 Mbps,** (ii). **Table 4.3: Download User Data Throughput Technology Auto Detect Mode [Fixed Size] ≥ 3 Mbps**, (iii). **Table 4.4: Download User Data Throughput 4G/LTE Technology Locked Mode [Fixed Duration] ≥ 3 Mbps** & (iv). **Table 4.5: Download User Data Throughput 3G Technology Locked Mode [Fixed Duration] ≥ 512 Kbps**.

DOWNLOAD USER DATA THROUGHPUT IN TECHNOLOGY AUTO DETECT MODE (FIXED DURATION)								
Road	Download Data Throughput [Mbps]				Operator Position			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
Quetta to Zhob	20.00	6.55	13.97	27.33	Second	Fourth	Third	First
Zhob to Quetta	18.77	6.75	6.83	11.77	First	Fourth	Third	Second
Lahore to Sargodha	25.84	4.85	18.39	21.23	First	Fourth	Third	Second
Lahore to Rawalpindi	22.23	5.09	9.70	22.20	First	Fourth	Third	Second
Lahore to Multan	18.52	7.77	15.98	16.04	First	Fourth	Third	Second
Islamabad to Kohat	30.69	5.46	12.42	15.65	First	Fourth	Third	Second
Mianwali to Bakhar	26.47	7.04	13.30	27.44	Second	Fourth	Third	First
Isamabad to D.I Khan	24.80	6.12	10.50	14.89	First	Fourth	Third	Second
T.M Panah to Jalalpur Pirwala	13.91	3.99	13.45	25.50	Second	Fourth	Third	First
Kot Sabzal to Multan	26.66	6.10	8.05	24.34	First	Fourth	Third	Second
Chakdara to Kalam	22.67	9.53	15.12	30.24	Second	Fourth	Third	First
Khuazakhela to Behsam	27.97	**2.67**	15.64	23.38	First	Fourth	Third	Second
Peshawer to DG Khan	15.19	4.75	15.64	37.54	Third	Fourth	Second	First

Table4.2: Download User Data Throughput Technology Auto Detect Mode [Fixed Duration] ≥ 3 Mbps

DOWNLOAD USER DATA THROUGHPUT IN TECHNOLOGY AUTO DETECT MODE (FIXED SIZE)								
Road	Download Data Throughput [Mbps]				Operator Position			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
Quetta to Zhob	8.45	6.77	9.25	11.67	Third	Fourth	Second	First
Zhob to Quetta	8.29	6.67	5.70	10.30	Second	Third	Fourth	First
Lahore to Sargodha	11.26	5.22	11.52	11.03	Second	Fourth	First	Third
Lahore to Rawalpindi	11.29	5.52	8.11	11.33	Second	Fourth	Third	First

DOWNLOAD USER DATA THROUGHPUT IN TECHNOLOGY AUTO DETECT MODE (FIXED SIZE)								
Road	Download Data Throughput [Mbps]				Operator Position			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
Lahore to Multan	10.43	6.39	8.96	9.60	First	Fourth	Third	Second
Islamabad to Kohat	13.41	5.05	8.36	9.65	First	Fourth	Third	Second
Mianwali to Bakhar	12.36	6.68	7.86	13.22	Second	Fourth	Third	First
Isamabad to D.I Khan	11.92	5.14	8.23	10.17	First	Fourth	Third	Second
T.M Panah to Jalalpur Pirwala	8.24	4.00	8.14	11.78	Second	Fourth	Third	First
Kot Sabzal to Multan	12.54	5.88	6.48	12.10	First	Fourth	Third	Second
Chakdara to Kalam	11.72	7.02	9.22	13.92	Second	Fourth	Third	First
Khuazakhela to Behsam	12.84	3.64	10.45	12.89	Second	Fourth	Third	First
Peshawer to DG Khan	10.31	5.05	11.92	14.85	Third	Fourth	Second	First

Table4.3: Download User Data Throughput Technology Auto Detect Mode [Fixed Size] ≥ 3 Mbps

DOWNLOAD USER DATA THROUGHPUT IN 4G/LTE TECHNOLOGY LOCKED MODE (FIXED DURATION)								
Road	Download Data Throughput [Mbps]				Operator Position			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
Zhob to Quetta	10.99	6.68	8.38	7.16	First	Fourth	Second	Third
Lahore to Sargodha	15.10	3.09	15.32	17.38	Third	Fourth	Second	First
Lahore to Rawalpindi	15.50	3.25	9.44	18.97	Second	Fourth	Third	First
Lahore to Multan	13.38	6.01	13.35	14.59	Second	Fourth	Third	First
Islamabad to Kohat	20.93	3.33	5.85	12.40	First	Fourth	Third	Second
Mianwali to Bakhar	4.09	**2.15**	**2.41**	5.53	Second	Fourth	Fourth	First
Isamabad to D.I Khan	7.80	**1.73**	3.57	5.48	First	Fourth	Fourth	Second
T.M Panah to Jalalpur Pirwala	15.06	3.56	12.93	17.99	Second	Fourth	Third	First
Kot Sabzal to Multan	23.11	5.79	16.11	18.16	First	Fourth	Third	Second
Chakdara to Kalam	21.41	**1.82**	17.64	25.99	Second	Fourth	Third	First
Khuazakhela to Behsam	**0.65**	**1.76**	17.12	13.84	Fourth	Fourth	First	Second
Peshawer to DG Khan	22.32	3.59	6.30	22.58	Second	Fourth	Third	First

Table 4.4: Download User Data Throughput 4G/LTE Technology Locked Mode [Fixed Duration] ≥ 3 Mbps

DOWNLOAD USER DATA THROUGHPUT IN 3G TECHNOLOGY LOCKED MODE (FIXED DURATION)								
Road	Download Data Throughput [Kbps]				Operator Position			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
Quetta to Zhob	3310.09	4286.82	4032.73	2410.64	Third	First	Second	Fourth
Lahore to Sargodha	3109.03	2239.95	3814.86	1973.73	Second	Third	First	Fourth
Lahore to Rawalpindi	2208.67	1811.03	3327.1	2389.37	Third	Fourth	First	Second
Lahore to Multan	2510.27	2388.08	2496.11	1689.42	First	Third	Second	Fourth
Islamabad to Kohat	3416.89	1884.31	2135.95	1955.74	First	Fourth	Second	Third
Mianwali to Bakhar	2093.44	2138.59	1721.02	1854.36	Second	First	Fourth	Third
Isamabad to D.I Khan	2166.22	1313.63	2360.81	1475.1	Second	Fourth	First	Third
T.M Panah to Jalalpur Pirwala	3290.86	2219.17	1482.73	1876.5	First	Second	Fourth	Third
Kot Sabzal to Multan	2945.38	4460.73	2350.35	2852.61	Second	First	Fourth	Third
Chakdara to Kalam	2945.38	4460.73	2350.35	2852.61	Second	First	Fourth	Third
Khuazakhela to Behsam	4138.82	1307.93	2418.62	2297.68	First	Fourth	Second	Third
Peshawer to DG Khan	1823.3	1517.58	1911.81	2037.49	Third	Fourth	Second	First

Table 4.5: Download User Data Throughput IN 3G Technology Locked Mode [Fixed Duration] ≥ 512 Kbps

4.3.   UPLOAD USER DATA THROUGHPUT. As per Cellular Mobile Network Quality of Service (QoS) Regulations 2021, licensees are required to meet the threshold of minimum of 768 Kbps of 4G/LTE & 128 Kbps of 3G of Upload User Data Throughput. The results of Data Service QoS KPI i.e. Upload User Data Throughput is shown in (i). Table 4.6: Upload User Data Throughput Technology Auto Detect Mode [Fixed Duration] ≥ 768 Kbps, (ii). Table 4.7: Upload User Data Throughput Technology Auto Detect Mode [Fixed Size] ≥ 768 Kbps, (iii). Table 4.8: Upload User Data Throughput in 4G/LTE Technology Locked