Abdul Hakeem	99.98%	99.98%	100.00%	100.00%	Yes	Yes	Yes	Yes
Kohat	N/A	N/A	100.00%	100.00%	N/A	N/A	Yes	Yes
Mirpur Khas	100%	100%	100%	N/A	Yes	Yes	Yes	N/A
Nowshera	N/A	N/A	100%	N/A	N/A	N/A	Yes	N/A
Pishin	N/A	N/A	100%	100%	N/A	N/A	Yes	Yes
Narowal	99.88%	100.00%	99.91%	100.00%	Yes	Yes	Yes	Yes
Note: N/A shows that during data testing, 4G/LTE network did not fall back on 3G network.								

Table 3.2: 3G Signal Strength -100dBm with 90% Confidence Level

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4.1. A total of **33,589 http download test attempts** made, out of which **25,458 were successful attempts** and rest of the **8040 were failed attempts**. The company wise detail is mentioned in **Table 4.1: Data Tests Statistics.**

Description	Jazz	Telenor	Ufone	ZonG	
TOTAL DATA TEST ATTEMPTS	8767	6793	7357	10672	
SUCCESSFUL DATA TEST ATTEMPTS	6560	6538	6010	6350	
FAILED DATA TEST ATTEMPTS	2116	255	1347	4322	
TEST ATTEMPTS SUCCESS RATIO	75.61 %	96.25 %	81.69 %	59.5 %	
USER DATA THROUGHPUT	4.983 Mbps	1.68 Mbps	6.028 Mbps	7.699 Mbps	
AVERAGE 4G SIGNAL STRENGTH (RSRP)	-82.4 dBm	-82.40 dBm	-81.7 dBm	-79.6 dBm	
AVERAGE 4G SIGNAL STRENGTH (RSCP)	-69.55 dBm	-69.99 dBm	-69.23 dBm	-68.55 dBm	
AVERAGE 4G SIGNAL STRENGTH (RXLEV)	-70.26 dBm	-74.07 dBm	-71.6 dBm	-66.20 dBm	

Table4.1: Data Tests Statistics.

4.2. **4G USER DATA THROUGHPUT.** As per Next Generation Mobile Service (NGMS) licenses awarded, licensees are required to meet <u>the threshold of minimum of 2Mbps of 4G User Data Throughput.</u> The results of Data Service QoS KPI i.e. User Data Throughput is shown in **Table4.2**: **4G User Data Throughput** ≥ **2 Mbps**.

City	4G User Data Throughput (Mbps)				Operator Position				
dity	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG	
Khanewal	12.11	6.63	N/A	14.61	Second	Third	N/A	First	
Muzaffargarh	8.07	11.92	3.67	16.47	Third	Second	Fourth	First	
Mastung	8.60	1.98	5.22	9.09	Second	Fourth	Third	First	
Loralai	4.89	0.83	6.14	8.52	Third	Fourth	Second	First	
Mansehra	10.32	1.95	22.85	11.93	Third	Fourth	First	Second	
Dera Allah Yar	5.25	1.04	3.08	10.55	Second	Fourth	Third	First	
Dera Murad Jamali	5.50	1.76	7.46	10.84	Third	Fourth	Second	First	
Mardan	14.10	2.71	8.01	15.07	Second	Fourth	Third	First	
Sargodha	11.75	3.91	19.47	24.20	Third	Fourth	Second	First	
Gujrat	9.67	5.46	17.60	18.77	Third	Fourth	Second	First	
Charsadda	16.00	4.29	18.19	18.50	Third	Fourth	Second	First	
Battagram	11.61	1.62	24.82	21.82	Third	Fourth	First	Second	
Abdul Hakeem	7.62	11.24	21.37	19.78	Fourth	Third	First	Second	

Kohat	15.81	3.22	3.93	20.59	Second	Fourth	Third	First
Mirpur Khas	10.25	2.42	11.22	10.75	Third	Fourth	First	Second
Nowshera	10.36	4.34	13.24	14.41	Third	Fourth	Second	First
Pishin	6.35	4.12	11.93	9.08	Third	Fourth	First	Second
Narowal	5.72	2.02	14.03	11.86	Third	Fourth	First	Second

Table 4.2: 4G User Data Throughput \geq 2 Mbps

4.3. **3G USER DATA THROUGHPUT.** As per Next Generation Mobile Service (NGMS) licenses awarded, licensees are required to meet <u>the threshold of minimum of 256Kbps of 3G User Data Throughput.</u> The results of Data Service QoS KPI i.e. User Data Throughput is shown in **Table 4.3**: **3G User Data Throughput ≥ 256Kbps.**

City	3G User Data Throughput (Kbps)				Operator Position				
City	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG	
Khanewal	2298.14	3093.60	5532.32	1658.83	Third	Second	First	Fourth	
Muzaffargarh	1779.01	3986.75	3905.47	1575.25	Third	First	Second	Fourth	
Mastung	N/A	N/A	1271.85	N/A	N/A	N/A	First	N/A	
Loralai	N/A	N/A	3427.75	1838.13	N/A	N/A	First	Second	
Mansehra	N/A	N/A	4169.90	N/A	N/A	N/A	First	N/A	
Dera Allah Yar	197.21	N/A	N/A	N/A	First	N/A	N/A	N/A	
Dera Murad Jamali	N/A	N/A	1699.99	340.64	N/A	N/A	First	Second	
Mardan	1961.57	N/A	3582.60	N/A	Second	N/A	First	N/A	
Sargodha	2877.17	2436.63	5032.19	2158.31	Second	Third	First	Fourth	
Gujrat	4000.44	1915.29	7833.52	1917.37	Second	Fourth	First	Third	
Charsadda	5702.56	N/A	4349.52	N/A	First	N/A	Second	N/A	
Battagram	N/A	N/A	2657.03	N/A	N/A	N/A	First	N/A	
Abdul Hakeem	3263.81	3934.14	5162.92	1825.31	Third	Second	First	Fourth	
Kohat	N/A	N/A	2176.56	312.18	N/A	N/A	First	Second	
Mirpur Khas	2821.61	522.37	3142.61	N/A	Second	Third	First	N/A	
Nowshera	N/A	N/A	4796.54	N/A	N/A	N/A	First	N/A	
Pishin	N/A	N/A	2073.39	1357.33	N/A	N/A	First	Second	
Narowal	3182.66	1218.23	5001.33	1736.52	Second	Fourth	First	Third	
Note: N/A shows that during data testing, 4G/LTE network did not fall back on 3G network.									

Table4.3: 3G User Data Throughput ≥ 256Kbps

4.4. During the survey, the deployed technologies by Cellular Mobile Operators (CMOs), Success Rate of http Transfer Download Tests, Data Technologies during the Data Sessions alongwith Technology Bands and Resource Block Utilization have been recorded. The details can been seen in attached graphs.