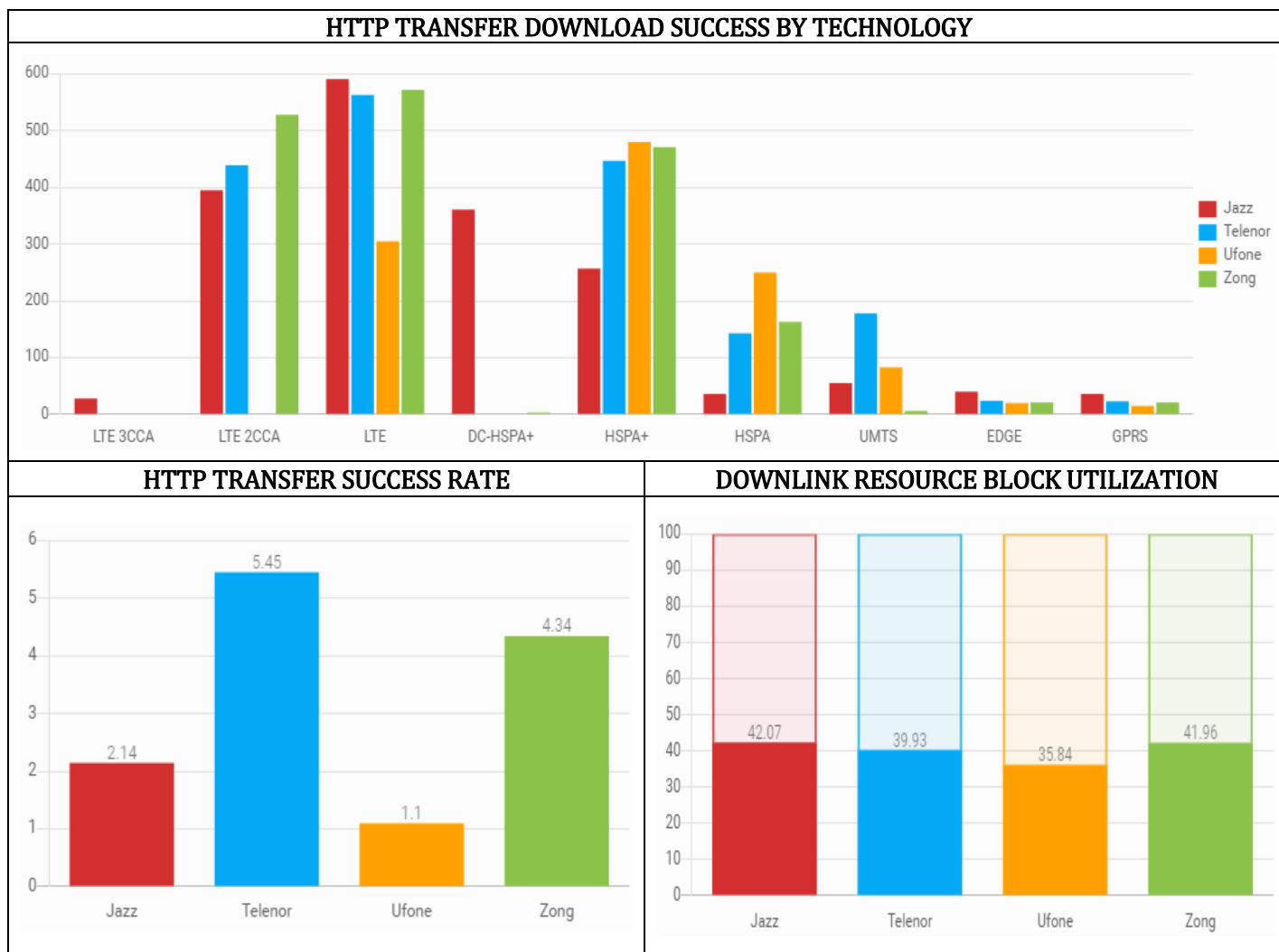


4.3. **3G USER DATA THROUGHPUT.** As per Next Generation Mobile Service (NGMS) licenses awarded, licensees are required to meet the threshold of minimum of 256Kbps of 3G User Data Throughput. The results of Data Service QoS KPI i.e. User Data Throughput on 8 x surveyed roads is shown in **Table4.2: 3G User Data Throughput \geq 256 Kbps**.

Road Name	User Data Throughput (Mbps)				Operator Position			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
Karachi to Kotri	1981.13	2756.01	2184.63	705.58	Third	First	Second	Fourth
Multan to Sadiqabad	2444.61	3894.85	1767.03	945.42	Second	First	Third	Fourth
Lahore to Kharian	2635.73	1630.93	4702.69	2197.61	Second	Fourth	First	Third
Sukkur to Dadu	2749.16	3103.98	1444.37	1425.42	Second	First	Third	Fourth
Sukkur to Jacobabad	3143.59	3298.55	1487.58	1350.21	Second	First	Third	Fourth
M-14 Motorway	2033.62	1727.25	2227.00	1286.35	Second	Third	First	Fourth
Rawalpindi to Bhimber	2680.37	1254.91	1744.99	1042.25	First	Third	Second	Fourth
Rawalpindi to Muzaffarabad	2854.64	2200.68	2864.53	902.91	Second	Third	First	Fourth

Table4.2: 3G User Data Throughput \geq 256 Kbps

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 be seen in attached graphs.



VOICE CALLS ROADS – COMPLIANCE (YES/NO)									
Operator	*Voice KPIs	Karachi to Kotri	Multan to Sadiqabad	Lahore to Kharian	Sukkur to Dadu	Sukkur to Jacobabad	M-14 Motorway	Rawalpindi to Bhimber	Rawalpindi to Muzaffarabad
Jazz	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SA	Yes	No	No	No	No	No	No	No
	CCT	Yes	No	Yes	Yes	No	Yes	Yes	No
	CCR	Yes	No	Yes	No	Yes	No	Yes	No
	MOS	Yes	No	Yes	No	No	No	No	No
	ISHO	Yes	Yes	No	Yes	Yes	Yes	Yes	No
	RSSR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Telenor	NA	No	Yes	Yes	Yes	Yes	No	Yes	Yes
	SA	No	No	No	No	No	No	No	No
	CCT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	No	No	Yes	No	Yes	No	No	No
	MOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	ISHO	N/A	Yes	N/A	Yes	N/A	Yes	No	N/A
	RSSR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ufone	NA	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
	SA	No	Yes	No	No	Yes	No	No	Yes
	CCT	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
	CCR	No	Yes	Yes	Yes	Yes	No	No	No
	MOS	Yes	No	Yes	No	Yes	No	Yes	No
	ISHO	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	RSSR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ZonG	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SA	Yes	Yes	No	Yes	Yes	No	No	No
	CCT	Yes	Yes	Yes	Yes	Yes	No	Yes	No
	CCR	Yes	Yes	Yes	Yes	Yes	No	No	No
	MOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	RSSR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
* Note Voice QoS KPIs: Network Accessibility (NA) > 99%, Service Accessibility (SA) > 98%, Call Connection Time (CCT) ≤ 7.5 Seconds, Call Completion Ratio (CCR) ≥ 98%, Mean Opinion Score (MOS) > 3, Inter System Hand Over (ISHO) > 98% & RAB Setup Success Rate (RSSR) > 98%									

Table 5.2: Voice QoS KPIs Compliance Level