

LATENCY IN TECHNOLOGY AUTO DETECT MODE								
Road	Latency (milliseconds)				Compliant (Yes/No)			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
<i>Lahore to Rawalpindi</i>	255	242	221	223	No	No	No	No
<i>Lahore to Multan</i>	242	237	304	239	No	No	No	No
<i>Islamabad to Kohat</i>	243	246	257	295	No	No	No	No
<i>Mianwali to Bakhar</i>	337	262	307	268	No	No	No	No
<i>Isamabad to D.I Khan</i>	255	342	285	314	No	No	No	No
<i>T.M Panah to J. Pirwala</i>	242	243	319	218	No	No	No	No
<i>Kot Sabzal to Multan</i>	232	220	319	211	No	No	No	No
<i>Chakdara to Kalam</i>	280	238	262	223	No	No	No	No
<i>Khuazakhela to Behsam</i>	588	266	471	270	No	No	No	No
<i>Peshawer to DG Khan</i>	269	260	308	246	No	No	No	No

Table 4.11: Latency in Technology Auto Detect Mode < 75 milliseconds

LATENCY IN 4G/LTE TECHNOLOGY LOCKED MODE								
Road	Latency (milliseconds)				Compliant (Yes/No)			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
<i>Zhob to Quetta</i>	165	103	104	151	No	No	No	No
<i>Lahore to Sargodha</i>	66	85	88	69	Yes	No	No	Yes
<i>Lahore to Rawalpindi</i>	87	90	88	216	No	No	No	No
<i>Lahore to Multan</i>	95	98	80	98	No	No	No	No
<i>Islamabad to Kohat</i>	82	87	87	154	No	No	No	No
<i>Mianwali to Bakhar</i>	160	133	119	114	No	No	No	No
<i>Isamabad to D.I Khan</i>	108	116	117	141	No	No	No	No
<i>T.M Panah to J. Pirwala</i>	69	93	131	79	Yes	No	No	No
<i>Kot Sabzal to Multan</i>	70	89	106	69	Yes	No	No	Yes
<i>Chakdara to Kalam</i>	97	97	115	106	No	No	No	No
<i>Khuazakhela to Behsam</i>	198	130	123	217	No	No	No	No
<i>Peshawer to DG Khan</i>	112	116	111	103	No	No	No	No

Table 4.12: Latency in 4G/LTE Technology Locked Mode < 75 milliseconds

LATENCY IN 3G TECHNOLOGY LOCKED MODE								
Road	Latency [milliseconds]				Compliant (Yes/No)			
	Jazz	Telenor	Ufone	ZonG	Jazz	Telenor	Ufone	ZonG
<i>Quetta to Zhob</i>	513	996	458	391	No	No	No	No
<i>Lahore to Sargodha</i>	607	493	521	137	No	No	No	Yes
<i>Lahore to Rawalpindi</i>	489	389	506	136	No	No	No	Yes
<i>Lahore to Multan</i>	351	496	446	117	No	No	No	Yes
<i>Islamabad to Kohat</i>	577	453	445	285	No	No	No	No
<i>Mianwali to Bakhar</i>	381	930	492	375	No	No	No	No
<i>Isamabad to D.I Khan</i>	574	600	467	371	No	No	No	No
<i>T.M Panah to J. Pirwala</i>	169	1185	292	107	No	No	No	Yes
<i>Kot Sabzal to Multan</i>	243	1025	509	111	No	No	No	Yes
<i>Chakdara to Kalam</i>	521	693	518	387	No	No	No	No
<i>Khuazakhela to Behsam</i>	642	561	521	683	No	No	No	No
<i>Peshawer to DG Khan</i>	643	719	585	399	No	No	No	No

Table 4.13: Latency in 3G Technology Locked Mode < 150 milliseconds

4.6. During the survey, the deployed technologies by Cellular Mobile Operators (CMOs), Success Rate of http Transfer Download Tests and Resource Block Utilization have been recorded. The details can be seen in attached graphs.

VOICE CALLS – COMPLIANCE (YES/NO)							
Operator	*Voice KPIs	Islamabad to D.I Khan	T.M Panah to J. Pirwala	Kot Sabzal to Multan	Chakdara to Kalam	Khuazakhela to Behsam	Peshawer to DG Khan.
Jazz	NA	Yes	Yes	Yes	Yes	No	Yes
	SA	No	Yes	Yes	Yes	No	No
	CCT	Yes	Yes	Yes	Yes	No	Yes
	CCR	No	Yes	No	Yes	Yes	Yes
	MOS	Yes	Yes	Yes	Yes	No	No
	ISHO	Yes	Yes	No	No	Yes	Yes
	RSSR	Yes	Yes	Yes	Yes	Yes	Yes
Telenor	NA	No	Yes	Yes	Yes	Yes	Yes
	SA	No	No	No	No	No	No
	CCT	No	Yes	Yes	Yes	Yes	Yes
	CCR	No	No	No	Yes	No	No
	MOS	No	Yes	Yes	Yes	Yes	Yes
	ISHO	Yes	No	No	No	Yes	No
	RSSR	Yes	Yes	Yes	Yes	Yes	Yes
Ufone	NA	No	Yes	Yes	Yes	No	Yes
	SA	No	No	Yes	Yes	No	No
	CCT	Yes	No	No	Yes	Yes	Yes
	CCR	No	Yes	Yes	Yes	Yes	No
	MOS	No	No	No	Yes	No	No
	ISHO	No	No	No	Yes	No	No
	RSSR	Yes	Yes	Yes	Yes	Yes	Yes
ZonG	NA	No	Yes	Yes	Yes	No	Yes
	SA	No	Yes	Yes	Yes	No	No
	CCT	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	No	Yes	Yes	Yes	Yes	No
	MOS	Yes	Yes	Yes	Yes	Yes	Yes
	RSSR	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	N/A	N/A	N/A	N/A	N/A	N/A
* 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