

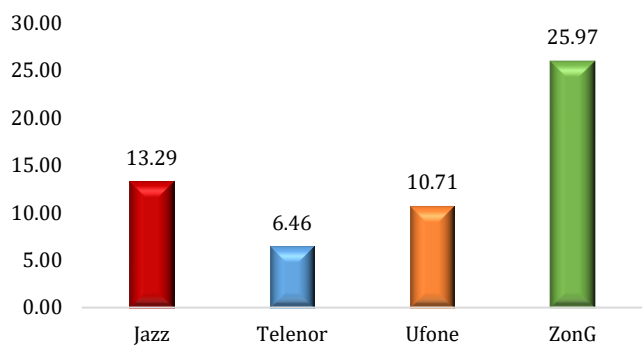
<i>CMO</i>	KPIs	Threshold	KARACHI CENTRAL	KARACHI KEMARI	KARACHI MALIR	NANKANA SAHIB	NOWSHERA	MURIDKE	SWABI
<i>Jazz</i>	NA	$\geq 99\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CSSR	$\geq 98\%$	Yes	Yes	Yes	Yes	No	Yes	Yes
	CCT	≤ 7.5 sec	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MOS	≥ 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	$\geq 98\%$	N/A	Yes	Yes	N/A	Yes	Yes	Yes
	RSSR	$> 98\%$	Yes	No	Yes	Yes	Yes	Yes	Yes
<i>Telenor</i>	NA	$\geq 99\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CSSR	$\geq 98\%$	Yes	Yes	Yes	Yes	No	No	No
	CCT	≤ 7.5 sec	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	No	No
	MOS	≥ 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	$\geq 98\%$	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	RSSR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Ufone</i>	NA	$\geq 99\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CSSR	$\geq 98\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCT	≤ 7.5 sec	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MOS	≥ 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	$\geq 98\%$	N/A	N/A	N/A	N/A	No	N/A	N/A
	RSSR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>ZonG</i>	NA	$\geq 99\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CSSR	$\geq 98\%$	Yes	Yes	Yes	Yes	Yes	Yes	No
	CCT	≤ 7.5 sec	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MOS	≥ 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	$\geq 98\%$	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	RSSR	$> 98\%$	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) $\geq 98\%$, Mean Opinion Score (MOS) > 3 , Inter System Hand Over (ISHO) $> 98\%$ & RAB Setup Success Rate (RSSR) $> 98\%$

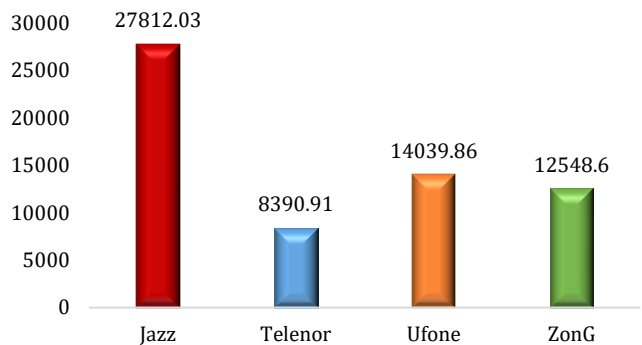
Table 5.1: Voice QoS KPIs Compliance Level

QUALITY OF SERVICE SURVEY RESULTS (4G) – NANKANA SAHIB

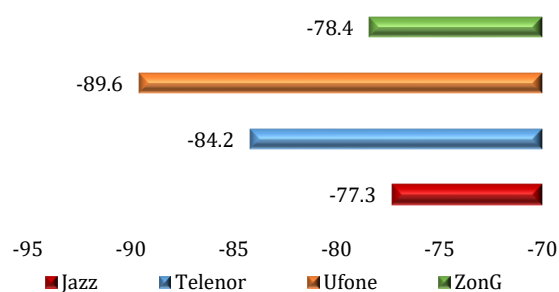
User Data Throughput Download (4G) > 3 Mbps



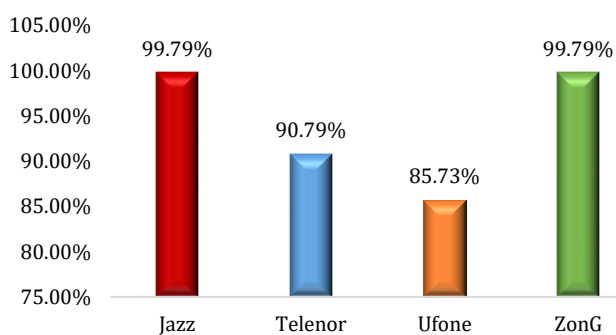
User Data Throughput Upload (4G) > 768 Kbps



Signal Strength (RSRP) > -100dBm



Signal Strength (RSRP) Confidencel Level > 90%



Latency (4G) <75 ms

