

Voice Service Cities - Compliance (Yes/No)									
Operator	KPIs	Astore	Gilgit	Ghakuch	Hunza	Jaglot	Khaplu	Shigar	Skardu
Jazz	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCT	Yes	No	Yes	No	Yes	Yes	No	Yes
	CCR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Telenor	NA	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
	SA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCT	No	No	No	No	No	No	No	No
	CCR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ufone	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCT	Yes	No	Yes	Yes	Yes	No	Yes	Yes
	CCR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zong	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCT	No	Yes	Yes	No	Yes	Yes	Yes	No
	CCR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SCOM	NA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	SA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	RSSR	No	No	No	No	No	Yes	No	No

Table 3.2: City Wise Voice QoS KPIs Compliance Level.

SMS SERVICE

4.1 A total of 5000 SMS sending attempts were conducted to gauge the performance of SMS service in Gilgit Baltistan. CMO wise SMS statistics are shown in **Table 4.1: CMO Wise SMS Statistics**.

DESCRIPTION	Jazz	Telenor	Ufone	Zong	SCOM
SMS SEND REQUEST	1000	1000	1000	1000	1000
SMS RECEIVE SUCCESS RATE	99.81%	100%	100%	100%	100%
END-TO-END DELIVERY TIME	10.5	10.98	7.48	11.46	5.58

Table 4.1: CMO Wise SMS Statistics

DATA SERVICES SIGNAL STRENGTH

5.1 During the survey, SCOM data services were tested in technology locked mode, wherein 4G and 3G signal strength samples were recorded on survey routes. As per Next Generation Mobile Service (NGMS) Licenses and Cellular Mobile Network Quality of Service (QoS) Regulations 2021, licensees are required to meet the threshold of -100dBm or above with 90% confidence level for RSRP and RSCP.

The Confidence Level and Compliance of signal strength is shown in **Table 5.1: Data Services Signal Strength -100dBm with 90% Confidence Level in Gilgit Baltistan.**

City	Average RSRP (4G)		Compliant (Yes/No)	Average RSCP (3G)		Compliant (Yes/No)
	Signal Strength	90% Confidence Level		Signal Strength	90% Confidence Level	
Gilgit	-79	99%	Yes	-64.39	99.90%	Yes
Jaglot	-82	93.10%	Yes	-69.6	99.90%	Yes
Hunza	-89.1	89.10%	No	-78.18	98.90%	Yes
Ghakuch	-86	94%	Yes	-79.1	100%	Yes
Astore	-83.13	92.66%	Yes	-64.9	100%	Yes
Skardu	-89.46	91.20%	Yes	-76.6	99.90%	Yes
Shigar	-91	86.10%	No	-86	91.40%	Yes
Khaplu	-90.2	75.5%	No	-77.3	100%	Yes

Table 5.1: Data Services Signal Strength -100dBm with 90% Confidence Level in Gilgit Baltistan.

USER DATA THROUGHPUT

6.1 As per Next Generation Mobile Service (NGMS) Licenses and Cellular Mobile Network Quality of Service (QoS) Regulations 2021, licensees are required to meet the threshold of minimum of 2Mbps of 4G User Data Throughput and a of minimum of 256Kbps of 3G User Data Throughput. The results of Data Service QoS KPI i.e. User Data Throughput is shown in **Table 6.1: User Data Throughput in Gilgit Baltistan.**

City	SCOM	
	User Data Throughput (4G) > 2Mbps	User Data Throughput (3G) > 256kbps
Gilgit	2.34	551.6
Jaglot	2.14	715.1
Hunza	2.11	516.5
Ghakuch	2.89	776.9
Astore	2.40	2966
Skardu	4.89	2046
Shigar	2.56	633.9
Khaplu	3.18	1018

Table 6.1: User Data Throughput in Gilgit Baltistan

SURVEY MAPS & GRAPHICAL RESULTS

7.1 The 4G/LTE (RSRP) 3G (RSCP) and 2G (RxLev) Signal Strength samples recorded during drive test on survey routes and plotted on maps. Coverage Maps of Voice Services Signal Strength are shown at **Annex-A**, Voice & SMS QoS KPIs survey results in graphical form are shown at **Annex-B**. Data Services Signal Strengths of SCOM are shown at **Annex-C** wherein **Annex-D** contains Data Services QoS KPIs survey results for 8x cities of Gilgit Baltistan.

STANDING IN SURVEY

8.1 CMOs have been prioritized/ placed at 1st, 2nd, 3rd, 4th & 5th position in each category i.e. Mobile Network Coverage, Mobile Broadband Service and Voice Service based upon the compliance level against each QoS KPI in each category in 8 x surveyed cities.