

<i>CMO</i>	KPIS	THRESHOLD	BATAGRAM	BESHAM	DADU	DASKA	DERA ALLAH YAR	GHOTKI
<i>Jazz</i>	NA	$\geq 99\%$	Yes	Yes	Yes	Yes	Yes	Yes
	CSSR	$\geq 98\%$	Yes	Yes	Yes	Yes	No	Yes
	CCT	≤ 7.5 sec	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	Yes
	MOS	≥ 3	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	$\geq 98\%$	N/A	N/A	Yes	Yes	N/A	Yes
	RSSR	$> 98\%$	N/A	N/A	Yes	Yes	Yes	Yes
<i>Telenor</i>	NA	$\geq 99\%$	Yes	Yes	Yes	Yes	Yes	Yes
	CSSR	$\geq 98\%$	Yes	Yes	Yes	No	No	Yes
	CCT	≤ 7.5 sec	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	No
	MOS	≥ 3	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	$\geq 98\%$	N/A	N/A	N/A	N/A	N/A	N/A
	RSSR	$> 98\%$	N/A	N/A	Yes	Yes	Yes	Yes
<i>Ufone</i>	NA	$\geq 99\%$	Yes	No	Yes	Yes	Yes	Yes
	CSSR	$\geq 98\%$	Yes	Yes	Yes	Yes	Yes	Yes
	CCT	≤ 7.5 sec	Yes	No	Yes	Yes	Yes	Yes
	CCR	$> 98\%$	No	Yes	Yes	Yes	Yes	Yes
	MOS	≥ 3	Yes	No	Yes	Yes	Yes	Yes
	ISHO	$\geq 98\%$	Yes	N/A	N/A	N/A	N/A	N/A
	RSSR	$> 98\%$	Yes	N/A	Yes	Yes	Yes	Yes
<i>ZonG</i>	NA	$\geq 99\%$	Yes	Yes	Yes	Yes	Yes	Yes
	CSSR	$\geq 98\%$	Yes	Yes	Yes	Yes	Yes	Yes
	CCT	≤ 7.5 sec	Yes	Yes	Yes	Yes	Yes	Yes
	CCR	$> 98\%$	Yes	Yes	Yes	Yes	Yes	Yes
	MOS	≥ 3	Yes	Yes	Yes	Yes	Yes	Yes
	ISHO	$\geq 98\%$	N/A	N/A	N/A	N/A	N/A	N/A
	RSSR	$> 98\%$	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 5.2: Voice QoS KPIs Compliance Level

SMS SERVICE

6.1. A total of **20,433 SMS sending attempts** were conducted, out of which **20,372 SMS** were **successfully transmitted** by A-Party while **20,203 SMS** were **successfully received** at B-Party. The company wise SMS Statistics are shown in **Table 6.1: SMS Statistics**

DESCRIPTION	JAZZ	TELENOR	UFONE	ZONG
SMS SEND REQUEST	5134	5070	5111	5118
SMS SUCCESSFULLY TRANSMITTED	5125	5040	5104	5103
SMS SUCCESSFULLY RECEIVED	5105	4941	5074	5083
SMS RECEIVE SUCCESS RATE (%)	99.44	97.46	99.28	99.32
END-TO-END DELIVERY TIME (Sec)	3.07	3.22	2.87	2.7

Table 6.1: SMS Statistics

Operator		Jazz		Telenor		Ufone		ZonG	
SMS KPI		Success Rate	Delivery Time	Success Rate	Delivery Time	Success Rate	Delivery Time	Success Rate	Delivery Time
Surveyed Cities	BATTAGRAM	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	BESHAM	Yes	Yes	No	Yes	No	Yes	Yes	Yes
	DADU	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	DASKA	No	Yes	No	Yes	Yes	Yes	Yes	Yes
	DERA ALLAH YAR	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	GHOTKI	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	ISLAMABAD	No	Yes	No	Yes	No	Yes	Yes	Yes
	JHANG	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	KHUSHAB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	MUZAFARGARH	No	Yes	Yes	Yes	No	Yes	Yes	Yes
	MIRPUR KHAS	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	NOWSHERA	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	OKARA	Yes	Yes	No	Yes	Yes	Yes	No	Yes
	PESHAWAR	No	Yes	No	Yes	Yes	Yes	No	Yes
	QUETTA	Yes	Yes	No	Yes	No	Yes	No	Yes
	SEHWAN	No	Yes	No	Yes	No	Yes	Yes	Yes
	THATTA	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Table 6.2: SMS QoS KPIs Compliance Level

6.2. The SMS Send Request & Successful Reception by Technology, Average Success Rate & End to End Delivery Time and Delivery Duration by Technology are shown in the graphs.

