

- b. **NON-COMPLIANCE.** The towns where CMOs remained non-compliant is mentioned in **Table 4.2: Non-Compliance of 4G User Data Through > 2Mbps.**

S. #.	Operator	Towns	
		Count	Names
1.	Telenor	3	Gujar Khan, Pattoki, Kot Addu
2.	Ufone	1	Tando Muhammad Khan

**Table 4.2: Non-Compliance of 4G User Data Throughput > 2Mbps**

4.2. **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 analysis of 3G User Data Throughput Survey Results revealed that all CMOs remained compliant of minimum threshold value of 256 Kbps at all 08 x surveyed towns.

## VOICE SERVICE

5.1. 7 x QoS KPIs have been measured while testing voice services. The results of voice QoS KPIs are as under:

- a. **NETWORK ACCESSIBILITY.** All CMOs have achieved the QoS KPI Network Accessibility > 99% in all 08 x surveyed towns.
- b. **SERVICE ACCESSIBILITY.** The analysis of QoS KPI Service Accessibility of > 98% in all 08 x surveyed towns revealed following.

- i. **COMPLIANCE.** The towns where CMOs remained compliant is mentioned in **Table 5.1: Compliance of Service Accessibility > 98%**

S. #.	Operator	Towns	
		Count	Names
1.	Jazz	5	Taxila, Gujar Khan, Abdul Hakeem, Nooriabad, Tando Muhammad Khan
2.	Telenor	1	Nooriabad
3.	Ufone	3	Abdul Hakeem, Nooriabad, Tando Muhammad Khan
4.	ZonG	4	Pattoki, Abdul Hakeem, Kot Addu, Tando Muhammad Khan

**Table 5.1: Compliance of Service Accessibility > 98%**

- ii. **NON-COMPLIANCE.** The towns where CMOs remained non-compliant is mentioned in **Table 5.2: Non-Compliance of Service Accessibility > 98%.**

S. #.	Operator	Towns	
		Count	Names
1.	Jazz	3	Pattoki, Kot Addu, Jahangira
2.	Telenor	7	Taxila, Gujar Khan, Pattoki, Abdul Hakeem, Kot Addu, Tando Muhammad Khan, Jahangira
3.	Ufone	5	Taxila, Gujar Khan, Pattoki, Kot Addu, Jahangira
4.	ZonG	4	Taxila, Gujar Khan, Nooriabad, Jahangira

**Table 5.2: Non-Compliance of Service Accessibility > 98%**

- c. **CALL CONNECTION TIME.** The analysis of QoS KPI Call Connection Time of < 6.5 Seconds in all 08 x surveyed towns revealed following.
- i. **COMPLIANCE.** The towns where CMOs remained compliant is mentioned in **Table 5.3: Compliance of Call Connection Time < 6.5 Seconds.**

S. #.	Operator	Towns	
		Count	Names
1.	Jazz	7	Taxila, Gujar Khan, Pattoki, Kot Addu, Nooriabad, Tando Muhammad Khan, Jahangira
2.	Telenor	8	Taxila, Gujar Khan, Pattoki, Abdul Hakeem, Kot Addu, Nooriabad, Tando Muhammad Khan, Jahangira
3.	Ufone	7	Taxila, Gujar Khan, Pattoki, Abdul Hakeem, Nooriabad, Tando Muhammad Khan, Jahangira
4.	ZonG	8	Taxila, Gujar Khan, Pattoki, Abdul Hakeem, Kot Addu, Nooriabad, Tando Muhammad Khan, Jahangira

**Table 5.3: Compliance of Call Connection Time < 6.5 Seconds**

- ii. **NON-COMPLIANCE.** The towns where CMOs remained non-compliant is mentioned in **Table 5.4: Non-Compliance of Call Connection Time < 6.5 Seconds.**

S. #.	Operator	Towns	
		Count	Names
1.	Jazz	1	Abdul Hakeem
2.	Ufone	1	Kot Addu

**Table 5.4: Non-Compliance of Call Connection Time < 6.5 Seconds**

- d. **CALL COMPELETION RATIO.** The analysis of QoS KPI **Call Completion Ratio of > 98%** in all 08 x surveyed towns revealed following:

- i. **COMPLIANCE.** The towns where CMOs remained compliant is mentioned in **Table 5.5: Compliance of Call Completion Ratio > 98%.**

S. #.	Operator	Towns	
		Count	Names
1.	Jazz	8	Taxila, Gujar Khan, Pattoki, Abdul Hakeem, Kot Addu, Nooriabad, Tando Muhammad Khan, Jahangira
2.	Telenor	6	Pattoki, Abdul Hakeem, Kot Addu, Nooriabad, Tando Muhammad Khan, Jahangira
3.	Ufone	8	Taxila, Gujar Khan, Pattoki, Abdul Hakeem, Kot Addu, Nooriabad, Tando Muhammad Khan, Jahangira
4.	ZonG	8	Taxila, Gujar Khan, Pattoki, Abdul Hakeem, Kot Addu, Nooriabad, Tando Muhammad Khan, Jahangira

**Table 5.5: Compliance of Call Completion Ratio > 98%**

- ii. **NON-COMPLIANCE.** The towns where CMOs remained non-compliant is mentioned in **Table 5.6: Non-Compliance of Call Completion Ratio > 98%.**

S. #.	Operator	Towns	
		Count	Names
1.	Telenor	2	Taxila, Gujar Khan

**Table 5.6: Non-Compliance of Call Completion Ratio > 98%**

- e. **END-TO-END SPEECH QUALITY / MEAN OPINION SCORE.** The analysis of QoS KPI **End-to-End Speech Quality/ Mean Opinion Score of > 3** in all 08 x surveyed towns revealed following.

- i. **COMPLIANCE.** The towns where CMOs remained compliant is mentioned in **Table 5.7: Compliance of Mean Opinion Score > 3.**