

## MOBILE BROADBAND SERVICE

4.1. **4G USER DATA THROUGHPUT.** As per Next Generation Mobile Service (NGMS) licenses awarded, licensees are required to meet the threshold of minimum of 2Mbps of 4G User Data Throughput and 256Kbps of 3G User Data Throughput. The analysis User Data Throughput revealed that all **CMOs remained compliant of the minimum of 2Mbps threshold value on all 16 x surveyed Motorways / Highways / Inter Cities Roads.**

## 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.** Except Ufone at Rawalpindi to Attock road, other CMOs have achieved the QoS KPI **Network Accessibility > 99%** on all 16 x surveyed Motorways / Highways / Inter Cities Roads.
- b. **SERVICE ACCESSIBILITY.** The analysis of QoS KPI **Service Accessibility of > 98%** on 16 x surveyed Motorways / Highways / Inter Cities Roads revealed following.
  - i. **COMPLIANCE.** The Motorways / Highways / Inter Cities Roads where CMOs remained compliant is mentioned in **Table 5.1: Compliance of Service Accessibility > 98%**

S. #.	Operator	Motorways / Highways / Inter Cities Roads	
		Count	Names
1.	Jazz	1	Hyderabad to Badin
2.	Telenor	4	GT Road Peshawar to Rawalpindi, Lahore to Pattoki, Multan to Bahawalpur, Hyderabad to Mirpur Khas
3.	Ufone	2	Multan to Bahawalpur, Hyderabad to Badin
4.	ZonG	8	Rawalpindi to Chakwal, Lahore to Pattoki, Multan to Abdul Hakeem, Multan to Bahawalpur, Hyderabad to Badin, Hyderabad to Mirpur Khas, Karachi to Sanghar, Sukkur to Nawabshah

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

- ii. **NON-COMPLIANCE.** The Motorways / Highways / Inter Cities Roads where CMOs remained non-compliant is mentioned in **Table 5.2: Non-Compliance of Service Accessibility > 98%.**

S. #.	Operator	Motorways / Highways / Inter Cities Roads	
		Count	Names
1.	Jazz	15	GT Road Peshawar to Rawalpindi, Rawalpindi to Attock, Rawalpindi to Chakwal, Lahore to Mianwali, Lahore to Narowal, Lahore to Pattoki, Lahore to Multan, Multan to Abdul Hakeem, Multan to Bahawalpur, Multan to Kot Addu, Hyderabad to Mirpur Khas, Karachi to Nawabshah, Karachi to Sanghar, Sukkur to Nawabshah, Sukkur to Larkana
2.	Telenor	12	Rawalpindi to Attock, Rawalpindi to Chakwal, Lahore to Mianwali, Lahore to Narowal, Lahore to Multan, Multan to Abdul Hakeem, Multan to Kot Addu, Hyderabad to Badin, Karachi to Nawabshah, Karachi to Sanghar, Sukkur to Nawabshah, Sukkur to Larkana
3.	Ufone	14	GT Road Peshawar to Rawalpindi, Rawalpindi to Attock, Rawalpindi to Chakwal, Lahore to Mianwali, Lahore to Narowal, Lahore to Pattoki, Lahore to Multan, Multan to Abdul Hakeem,

S. #	Operator	Motorways / Highways / Inter Cities Roads	
		Count	Names
			Multan to Kot Addu, Hyderabad to Mirpur Khas, Karachi to Nawabshah, Karachi to Sanghar, Sukkur to Nawabshah, Sukkur to Larkana
4.	ZonG	8	GT Road Peshawar to Rawalpindi, Rawalpindi to Attock, Lahore to Mianwali, Lahore to Narowal, Lahore to Multan, Multan to Kot Addu, Karachi to Nawabshah, Sukkur to Larkana

**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 the surveyed Motorways / Highways / Inter Cities Roads revealed following.

- i. **COMPLIANCE.** The Motorways / Highways / Inter Cities Roads where CMOs remained compliant is mentioned in **Table 5.3: Compliance of Call Connection Time < 6.5 Seconds.**

S. #	Operator	Motorways / Highways / Inter Cities Roads	
		Count	Names
1.	Jazz	5	GT Road Peshawar to Rawalpindi, Rawalpindi to Chakwal, Lahore to Pattoki, Hyderabad to Badin, Hyderabad to Mirpur Khas
2.	Telenor	15	Rawalpindi to Attock, Rawalpindi to Chakwal, Lahore to Mianwali, Lahore to Narowal, Lahore to Pattoki, Lahore to Multan, Multan to Abdul Hakeem, Multan to Bahawalpur, Multan to Kot Addu, Hyderabad to Badin, Hyderabad to Mirpur Khas, Karachi to Nawabshah, Karachi to Sanghar, Sukkur to Nawabshah, Sukkur to Larkana
3.	Ufone	13	GT Road Peshawar to Rawalpindi, Rawalpindi to Attock, Lahore to Mianwali, Lahore to Pattoki, Lahore to Multan, Multan to Abdul Hakeem, Multan to Bahawalpur, Hyderabad to Badin, Hyderabad to Mirpur Khas, Karachi to Nawabshah, Karachi to Sanghar, Sukkur to Nawabshah, Sukkur to Larkana
4.	ZonG	14	Rawalpindi to Attock, Rawalpindi to Chakwal, Lahore to Narowal, Lahore to Pattoki, Lahore to Multan, Multan to Abdul Hakeem, Multan to Bahawalpur, Multan to Kot Addu, Hyderabad to Badin, Hyderabad to Mirpur Khas, Karachi to Nawabshah, Karachi to Sanghar, Sukkur to Nawabshah, Sukkur to Larkana

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

- ii. **NON-COMPLIANCE.** The Motorways / Highways / Inter Cities Roads where CMOs remained non-compliant is mentioned in **Table 5.4: Non-Compliance of Call Connection Time < 6.5 Seconds.**

S. #	Operator	Motorways / Highways / Inter Cities Roads	
		Count	Names
1.	Jazz	11	Rawalpindi to Attock, Lahore to Mianwali, Lahore to Narowal, Lahore to Multan, Multan to Abdul Hakeem, Multan to Bahawalpur, Multan to Kot Addu, Karachi to Nawabshah, Karachi to Sanghar, Sukkur to Nawabshah, Sukkur to Larkana
2.	Telenor	1	GT Road Peshawar to Rawalpindi
3.	Ufone	3	Rawalpindi to Chakwal, Lahore to Narowal, Multan to Kot Addu
4.	ZonG	2	GT Road Peshawar to Rawalpindi, Lahore to Mianwali

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