INDEPENDENT QUALITY OF SERVICE SURVEY IN PAKISTAN – CITIES

SECOND QUARTER 2023

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INDEPENDENT QUALITY OF SERVICE SURVEY REPORT

INTRODUCTION

1.1. In order to measure the performance and service quality of Cellular Mobile Operators (CMOs), an independent Quality of Service (QoS) Survey has been carried out in Nineteen (19) x Cities of Balochistan, Khyber Pakhtunkhwa, Islamabad Capital Territory (ICT), Punjab and Sindh during 2nd Quarter i.e. April~ June 2023. The names of cities along with survey dates are mentioned in **Table 1.1: QoS Survey Cities & Dates**:

S. #.	City	Province	Days	Survey Dates
1	QUETTA	BALOCHISTAN	3	8th/9th~16th May,2023
2	GAWADAR		2	15th ~16th May,2023
3	KUCHLAK		3	23rd ~25th May,2023
4	MACH		4	29th May ~ 1st June,2023
5	PISHIN		4	5th ~8th June,2023
6	CHARSADDA	KHYBER PAKHTUNKHWA	4	2nd ~5th May,2023
7	HANGU		4	15th ~18th May,2023
8	LOWER DIR		3	22nd ~24th May,2023
9	ABBOTTABAD		3	31st May ~2nd June,2023
10	MANSEHRA		3	5th ~7th June,2023
11	ISLAMABAD	ICT	6	2nd~5th,8th~9th May,2023
12	BAHAWALPUR	PUNJAB	3	2nd ~ 4th May,2023
13	SHEIKHUPURA		3	3rd~5th May,2023
14	KOT RADHA KISHAN		3	23rd~25th May,2023
15	PASROOR		3	8th~9th, 30th May,2023
16	SARGODHA		4	23rd~26th May,2023
17	SUKKUR	SINDH	3	2nd~4th May,2023
18	MATIARI		3	2nd~4th May,2023
19	UMERKOT		4	23rd~26th May,2023

Table 1.1: QoS Survey Dates

DRIVE TEST DETAILS

2.1. The QoS survey was carried out using Automated QoS Monitoring & Benchmarking Tool i.e. **"SMARTBENCHMARKER**". Drive test teams selected survey routes in such a manner to cover main roads, service roads and majority of sectors/colonies. During the survey, mobile handsets for Voice Calls, SMS were kept in technology auto detect mode, whereas, in case of Mobile Broadband/Data Sessions, the mobile handsets were kept both in auto detect and as well as locked mode.

MOBILE NETWORK COVERAGE

3.1. 4G / LTE SIGNAL STRENGTH. During the survey, while conducting data test in technology auto detect mode as well as locked mode, 4G/LTE signal strength samples were recorded on survey routes. As per Next Generation Mobile Service (NGMS) licenses, licensees are required to meet the threshold of -100 dBm or above of Reference Signal Receive Power (RSRP) with 90% confidence level. City wise compliance of 90% Confidence Level of signal strength is shown in (i). **Table 3.1: 4G Signal Strength Technology Auto Detect Mode -100 dBm with 90% Confidence Level** & (ii). **Table 3.2: 4G Signal Strength Technology Locked Mode -100 dBm with 90% Confidence Level.**