| DOWNLOAD USER DATA THROUGHPUT IN TECHNOLOGY AUTO DETECT MODE (FIXED DURATION) |        |            |          |       |                   |         |        |        |  |  |
|-------------------------------------------------------------------------------|--------|------------|----------|-------|-------------------|---------|--------|--------|--|--|
| Road                                                                          | User 1 | Data Throu | ghput [M | bps]  | Operator Position |         |        |        |  |  |
| Roau                                                                          | Jazz   | Telenor    | Ufone    | ZonG  | Jazz              | Telenor | Ufone  | ZonG   |  |  |
| Hazara Motorway                                                               | 16.95  | 4.60       | 15.66    | 11.50 | First             | Fourth  | Second | Third  |  |  |
| Quetta To Karachi                                                             | 6.66   | 3.58       | 5.16     | 5.76  | First             | Fourth  | Third  | Second |  |  |
| Haripur To Taxila                                                             | 12.04  | 2.97       | 11.64    | 10.67 | First             | Fourth  | Second | Third  |  |  |
| Pindi Bhatian To Multan                                                       | 9.43   | 3.78       | 17.01    | 14.27 | Third             | Fourth  | First  | Second |  |  |
| Multan to Sukkur                                                              | 6.53   | 4.00       | 15.30    | 8.97  | Third             | Fourth  | First  | Second |  |  |
| Nowshera To Chitral                                                           | 17.17  | 3.26       | 15.90    | 15.81 | First             | Fourth  | Second | Third  |  |  |
| Swabi To Katlang                                                              | 18.82  | 2.95       | 2.31     | 6.28  | First             | Third   | Fourth | Second |  |  |
| Islamabad To Kohala                                                           | 16.20  | 5.47       | 10.59    | 17.95 | Second            | Fourth  | Third  | First  |  |  |
| Islamabad To Peshawar                                                         | 15.89  | 6.13       | 15.83    | 17.65 | Second            | Fourth  | Third  | First  |  |  |
| Lahore to Abdul Hakeem                                                        | 9.31   | 2.51       | 2.48     | 13.77 | Second            | Third   | Fourth | First  |  |  |
| Lahore to Islamabad                                                           | 15.42  | 6.20       | 19.08    | 24.83 | Third             | Fourth  | Second | First  |  |  |
| Lahore To Sialkot                                                             | 7.84   | 1.85       | 2.68     | 9.20  | Second            | Fourth  | Third  | First  |  |  |
| Rawalpindi To Turkham                                                         | 13.09  | 4.79       | 8.02     | 14.10 | Second            | Fourth  | Third  | First  |  |  |

Table4.2: Download User Data Throughput Technology Auto Detect Mode [Fixed Duration]  $\geq$  2Mbps

| DOWNLOAD USER DATA THROUGHPUT IN TECHNOLOGY AUTO DETECT MODE (FIXED SIZE) |       |           |          |       |                   |         |        |        |  |  |
|---------------------------------------------------------------------------|-------|-----------|----------|-------|-------------------|---------|--------|--------|--|--|
| Road                                                                      | User  | Data Thro | ughput [ | Mbps] | Operator Position |         |        |        |  |  |
| Roau                                                                      | Jazz  | Telenor   | Ufone    | ZonG  | Jazz              | Telenor | Ufone  | ZonG   |  |  |
| Hazara Motorway                                                           | 9.21  | 5.02      | 11.33    | 8.70  | Second            | Fourth  | First  | Third  |  |  |
| Quetta To Karachi                                                         | 2.59  | 2.18      | 3.00     | 2.98  | Third             | Fourth  | First  | Second |  |  |
| Haripur To Taxila                                                         | 8.58  | 3.75      | 8.48     | 9.06  | Second            | Fourth  | Third  | First  |  |  |
| Pindi Bhatian To Multan                                                   | 7.78  | 4.37      | 10.14    | 8.79  | Third             | Fourth  | First  | Second |  |  |
| Multan to Sukkur                                                          | 6.61  | 4.94      | 10.24    | 7.33  | Third             | Fourth  | First  | Second |  |  |
| Nowshera To Chitral                                                       | 6.12  | 4.06      | 8.66     | 9.36  | Third             | Fourth  | Second | First  |  |  |
| Swabi To Katlang                                                          | 9.67  | 2.36      | 3.09     | 6.20  | First             | Fourth  | Third  | Second |  |  |
| Islamabad To Kohala                                                       | 10.66 | 6.25      | 7.83     | 10.46 | First             | Fourth  | Third  | Second |  |  |
| Islamabad To Peshawar                                                     | 9.70  | 5.98      | 8.06     | 10.19 | Second            | Fourth  | Third  | First  |  |  |
| Lahore to Abdul Hakeem                                                    | 6.75  | 4.05      | 3.14     | 6.75  | Second            | Third   | Fourth | First  |  |  |
| Lahore to Islamabad                                                       | 8.64  | 5.52      | 11.34    | 12.42 | Third             | Fourth  | Second | First  |  |  |
| Lahore To Sialkot                                                         | 5.83  | 3.56      | 3.37     | 6.87  | Second            | Third   | Fourth | First  |  |  |
| Rawalpindi To Turkham                                                     | 7.10  | 4.27      | 6.30     | 6.99  | First             | Fourth  | Third  | Second |  |  |

Table4.3: Download User Data Throughput Technology Auto Detect Mode [Fixed Size]  $\geq$  2Mbps

| DOWNLOAD USER DATA THROUGHPUT IN 4G/LTE TECHNOLOGY LOCKED MODE (FIXED DURATION) |        |                             |       |       |        |                   |        |        |  |  |  |
|---------------------------------------------------------------------------------|--------|-----------------------------|-------|-------|--------|-------------------|--------|--------|--|--|--|
| Road                                                                            | User I | User Data Throughput [Mbps] |       |       |        | Operator Position |        |        |  |  |  |
| ROAU                                                                            | Jazz   | Telenor                     | Ufone | ZonG  | Jazz   | Telenor           | Ufone  | ZonG   |  |  |  |
| Hazara Motorway                                                                 | 10.58  | 1.12                        | 18.06 | 10.32 | Second | Fourth            | First  | Third  |  |  |  |
| Haripur To Taxila                                                               | 7.29   | 0.58                        | 0.94  | 9.80  | Second | Fourth            | Third  | First  |  |  |  |
| Pindi Bhatian To Multan                                                         | 8.31   | 2.12                        | 15.90 | 9.50  | Third  | Fourth            | First  | Second |  |  |  |
| Multan to Sukkur                                                                | 3.73   | 2.45                        | 14.70 | 6.19  | Third  | Fourth            | First  | Second |  |  |  |
| Nowshera To Chitral                                                             | 10.38  | 1.52                        | 8.70  | 10.91 | Second | Fourth            | Third  | First  |  |  |  |
| Swabi To Katlang                                                                | 19.35  | 1.04                        | 9.33  | 5.45  | First  | Fourth            | Second | Third  |  |  |  |
| Islamabad To Kohala                                                             | 8.49   | 2.12                        | 2.57  | 0.26  | First  | Third             | Second | Fourth |  |  |  |
| Islamabad To Peshawar                                                           | 6.08   | 2.22                        | 4.64  | 5.22  | First  | Fourth            | Third  | Second |  |  |  |
| Lahore to Abdul Hakeem                                                          | 5.84   | 1.70                        | 13.40 | 9.51  | Third  | Fourth            | First  | Second |  |  |  |
| Lahore to Islamabad                                                             | 10.06  | 4.34                        | 16.84 | 16.16 | Third  | Fourth            | First  | Second |  |  |  |
| Lahore To Sialkot                                                               | 2.86   | 1.65                        | 10.38 | 7.10  | Third  | Fourth            | First  | Second |  |  |  |

| DOWNLOAD USER DATA THROUGHPUT IN 4G/LTE TECHNOLOGY LOCKED MODE (FIXED DURATION) |                             |         |       |       |                   |         |       |       |  |
|---------------------------------------------------------------------------------|-----------------------------|---------|-------|-------|-------------------|---------|-------|-------|--|
| Pond                                                                            | User Data Throughput [Mbps] |         |       |       | Operator Position |         |       |       |  |
| Road                                                                            | Jazz                        | Telenor | Ufone | ZonG  | Jazz              | Telenor | Ufone | ZonG  |  |
| Rawalpindi To Turkham                                                           | 7.51                        | 2.52    | 6.10  | 12.40 | Second            | Fourth  | Third | First |  |

Table 4.4: Download User Data Throughput 4G/LTE Technology Locked Mode [Fixed Duration] ≥ 2Mbps

| DOWNLOAD USER DATA THROUGHPUT IN 3G TECHNOLOGY LOCKED MODE (FIXED DURATION) |                             |         |         |         |                   |         |        |        |  |  |
|-----------------------------------------------------------------------------|-----------------------------|---------|---------|---------|-------------------|---------|--------|--------|--|--|
| Road                                                                        | User Data Throughput [Kbps] |         |         |         | Operator Position |         |        |        |  |  |
| Road                                                                        | Jazz                        | Telenor | Ufone   | ZonG    | Jazz              | Telenor | Ufone  | ZonG   |  |  |
| Hazara Motorway                                                             | 1955.9                      | 1478.29 | 2348.89 | 1393.01 | Second            | Third   | First  | Fourth |  |  |
| Haripur To Taxila                                                           | 697.27                      | 1385.09 | 2399.72 | 131.66  | Third             | Second  | First  | Fourth |  |  |
| Pindi Bhatian To Multan                                                     | 1647.03                     | 1904.81 | 2680.02 | 918.04  | Third             | Second  | First  | Fourth |  |  |
| Multan to Sukkur                                                            | 1643.6                      | 3147.14 | 1587.1  | 646.08  | Second            | First   | Third  | Fourth |  |  |
| Nowshera To Chitral                                                         | 1180.13                     | 1417.41 | 1677.85 | 1907.97 | Fourth            | Third   | Second | First  |  |  |
| Swabi To Katlang                                                            | 1938.08                     | 1339.16 | 1252.98 | 622.78  | First             | Second  | Third  | Fourth |  |  |
| Islamabad To Kohala                                                         | 3422.54                     | 2336.79 | 2627.78 | 2007.15 | First             | Third   | Second | Fourth |  |  |
| Islamabad To Peshawar                                                       | 2976.32                     | 1305.6  | 3068.88 | 1434.13 | Second            | Fourth  | First  | Third  |  |  |
| Lahore to Abdul Hakeem                                                      | 2121.33                     | 1535.92 | 2092.59 | 989.21  | First             | Third   | Second | Fourth |  |  |
| Lahore to Islamabad                                                         | 2739.34                     | 2975.32 | 4634.16 | 2048.26 | Third             | Second  | First  | Fourth |  |  |
| Lahore To Sialkot                                                           | 2157.72                     | 928.77  | 1924.17 | 818.9   | First             | Third   | Second | Fourth |  |  |
| Rawalpindi To Turkham                                                       | 2253.39                     | 1546.59 | 2377.6  | 1472.11 | Second            | Third   | First  | Fourth |  |  |

Table 4.5: Download User Data Throughput IN 3G Technology Locked Mode [Fixed Duration] ≥ 256Kbps

4.3. UPLOAD USER DATA THROUGHPUT. As per Cellular Mobile Network Quality of Service (QoS) Regulations 2021, licensees are required to meet the threshold of minimum of 512Kbps of  $\underline{4G/LTE}$  & 64Kbps of 3G of Upload User Data Throughput. The results of Data Service QoS KPI i.e. Upload User Data Throughput is shown in (i). Table 4.6: Upload User Data Throughput Technology Auto Detect Mode [Fixed Duration]  $\geq$  512Kbps, (ii). Table 4.7: Upload User Data Throughput Technology Auto Detect Mode [Fixed Size]  $\geq$  512Kbps, (iii). Table 4.8: Upload User Data Throughput in 4G/LTE Technology Locked Mode [Fixed Duration]  $\geq$  512Kbps & (iv). Table 4.9: Upload User Data Throughput in 3G Technology Locked Mode [Fixed Duration]  $\geq$  64Kbps.

| UPLOAD USER DATA THROUGHPUT IN TECHNOLOGY AUTO DETECT MODE (FIXED DURATION) |          |                   |          |          |        |         |        |        |  |  |
|-----------------------------------------------------------------------------|----------|-------------------|----------|----------|--------|---------|--------|--------|--|--|
| Road                                                                        | Auto     | Operator Position |          |          |        |         |        |        |  |  |
| Roau                                                                        | Jazz     | Telenor           | Ufone    | ZonG     | Jazz   | Telenor | Ufone  | ZonG   |  |  |
| Hazara Motorway                                                             | 14587.87 | 5416.84           | 15077.61 | 13642.47 | Second | Fourth  | First  | Third  |  |  |
| Quetta To Karachi                                                           | 8491.89  | 3801.03           | 10367.01 | 11640.69 | Third  | Fourth  | Second | First  |  |  |
| Haripur To Taxila                                                           | 11230.98 | 3653.45           | 17372    | 10498.46 | Second | Fourth  | First  | Third  |  |  |
| Pindi Bhatian To Multan                                                     | 18223.57 | 4808.59           | 15714.5  | 18452.18 | Second | Fourth  | Third  | First  |  |  |
| Multan to Sukkur                                                            | 13614.95 | 4384.23           | 11527.43 | 16233.88 | Second | Fourth  | Third  | First  |  |  |
| Nowshera To Chitral                                                         | 15235.01 | 5250.9            | 10240.83 | 14477.26 | First  | Fourth  | Third  | Second |  |  |
| Swabi To Katlang                                                            | 10775.42 | 5762.55           | 2093.47  | 9508.54  | First  | Third   | Fourth | Second |  |  |
| Islamabad To Kohala                                                         | 15324.11 | 5745.56           | 11357.11 | 13673.78 | First  | Fourth  | Third  | Second |  |  |
| Islamabad To Peshawar                                                       | 19723.39 | 5862.22           | 22065.95 | 13875.12 | Second | Fourth  | First  | Third  |  |  |
| Lahore to Abdul Hakeem                                                      | 18904.1  | 5752.4            | 2110.75  | 21756.6  | Second | Third   | Fourth | First  |  |  |
| Lahore to Islamabad                                                         | 17620.53 | 5773.94           | 19572.67 | 17343.71 | Second | Fourth  | First  | Third  |  |  |
| Lahore To Sialkot                                                           | 18184.6  | 5559.8            | 2451.13  | 20152.1  | Second | Third   | Fourth | First  |  |  |
| Rawalpindi To Turkham                                                       | 17573.25 | 7585.72           | 10333.83 | 15882.4  | First  | Fourth  | Third  | Second |  |  |

Table 4.6: Upload User Data Throughput Technology Auto Detect Mode [Fixed Duration] ≥ 512Kbps