
MOBILE BROADBAND QUALITY OF SERVICE EXPERIENCE (QoSE) IN MYANMAR | 2017

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1 Summary

Price is not the only dimension that interests broadband users, regulators and policy makers. In July / August 2017 LIRNEasia together with its partners Myanmar ICT for Development Organization (MIDO) conducted a study to test the quality of mobile broadband. A crowd-sourced methodology was adopted and deployed via a Facebook campaign #BetterInternet, targeting Internet users in Myanmar. Over 9,000 tests were conducted using the [Netradar](#) app, covering all states and all operators in Myanmar.

The app provides a range of data for each test instance. This report provides data obtained for throughput and latency.

- Throughput, defined by the ITU as “an amount of user information transferred in a period of time” (ITU-T X.641 (97), 6.3.3.16), more commonly referred to as download or upload speeds (unit of analysis: Mbps).
- Latency, defined by the ITU as “... transmission delay for FEC (Forwarding Equivalence Class) encoding, decoding, interleaving and de-interleaving” (ITU-T G.972 (04), 3025) is also known as Round Trip Time (RTT). In essence is the time taken for packet to traverse the Internet to the destination server and reach the client (unit of analysis: ms).

The country-wide measurements represent the three major mobile operators, MPT, Ooredoo and Telenor, through all days of the work and at all hours, thus providing perspective on peak uses. The app also captured the technology of the network the devices connected to at the time the network diagnostics were being carried out, inter alia.

Key observations:

- Over 50 percent of the data represented users on 4G/LTE networks
- Poor latency even in instances where throughput (download speed and upload speed) was impressive
- High volatility in latency and throughput; i.e. tremendous range between the minimum and maximum results observed
- Eight percent of the data records used in the study indicated problems such as network unavailability and packet loss that also correspond to poor quality.

LIRNEasia has been benchmarking broadband quality of service experience in cities across South Asia and South East Asia since 2008. Please refer to our past work [here](#).

2 QoSE diagnostics of Mobile Broadband in Myanmar

2.1 Download Speed

Figure 1: Average download speed (Mbps)

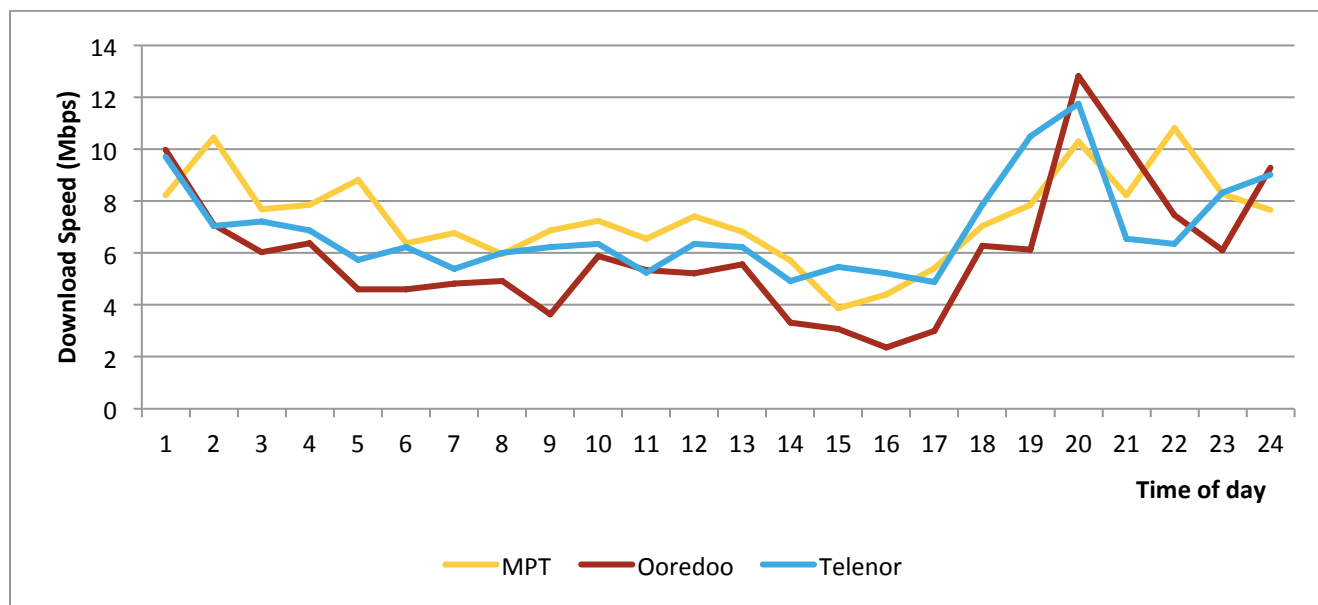


Figure 2: Average download speed (Mbps) 3G vs 4G

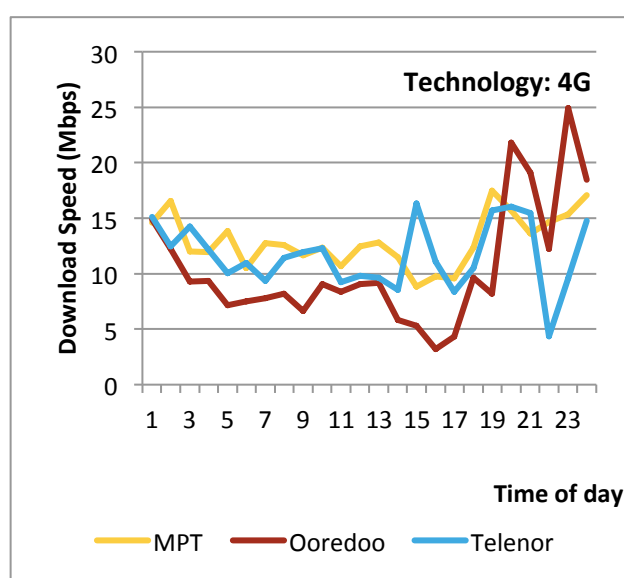
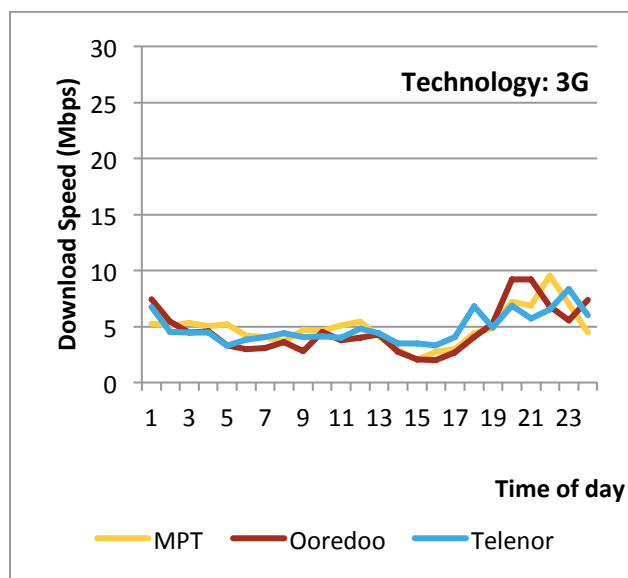
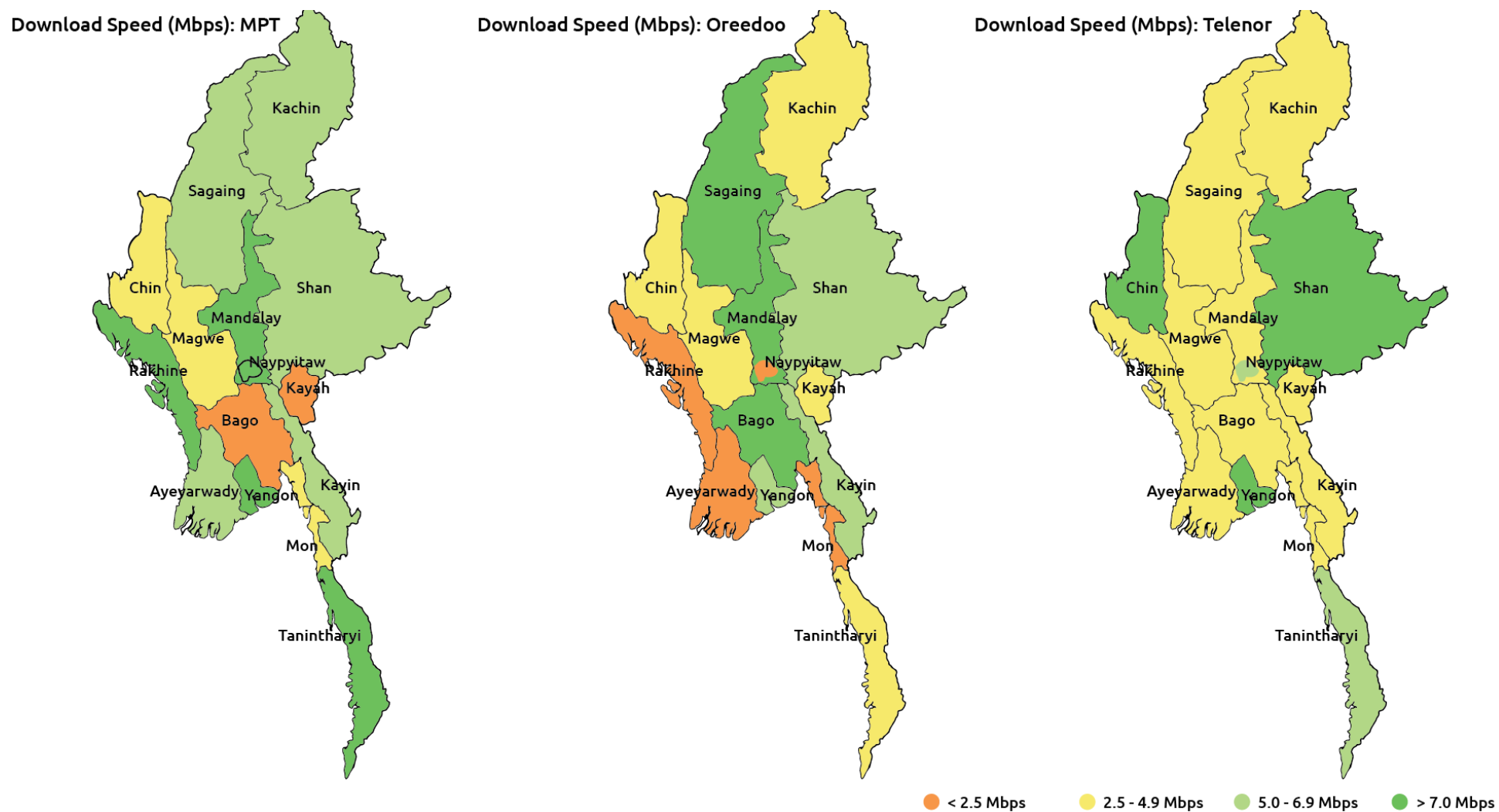


Figure 3: Average download speed by State by Operator



2.2 Upload Speed

Figure 4: Average upload speed (Mbps)

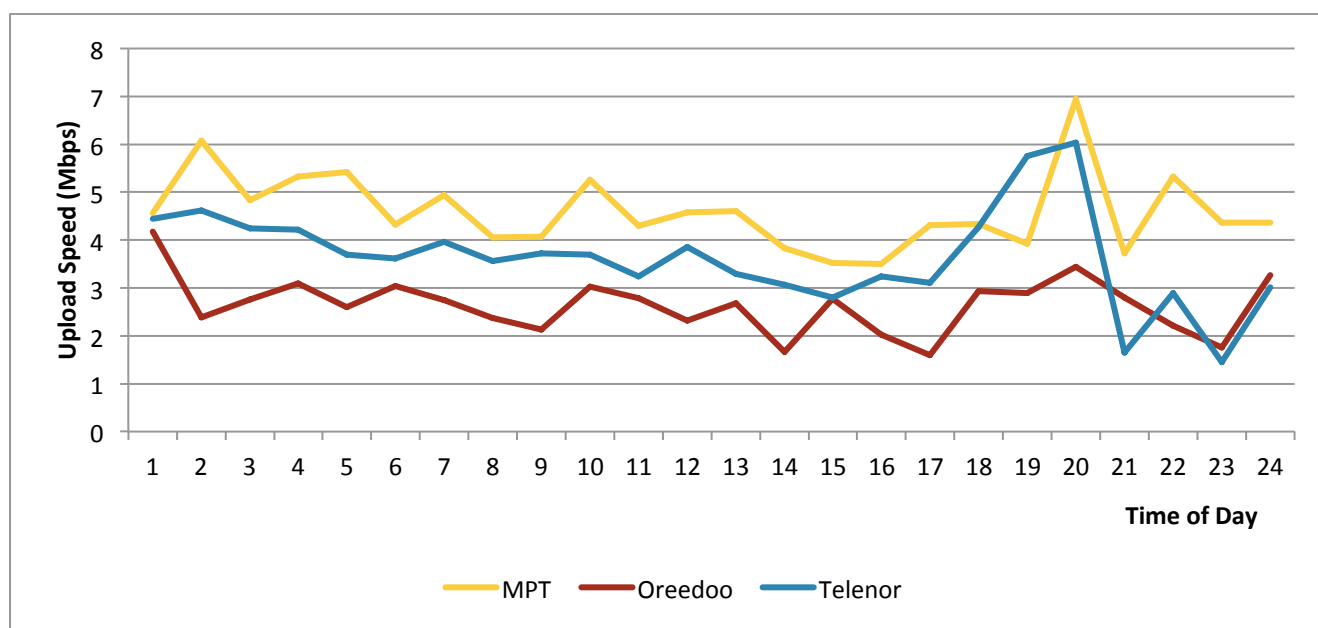


Figure 5: Average upload speed (Mbps) 3G vs 4G

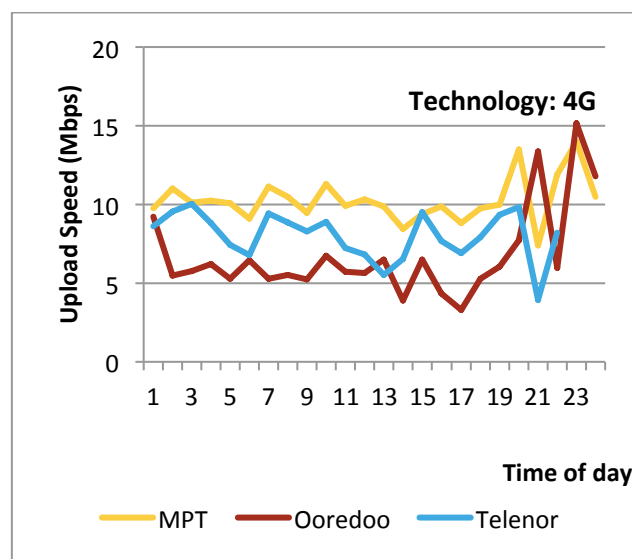
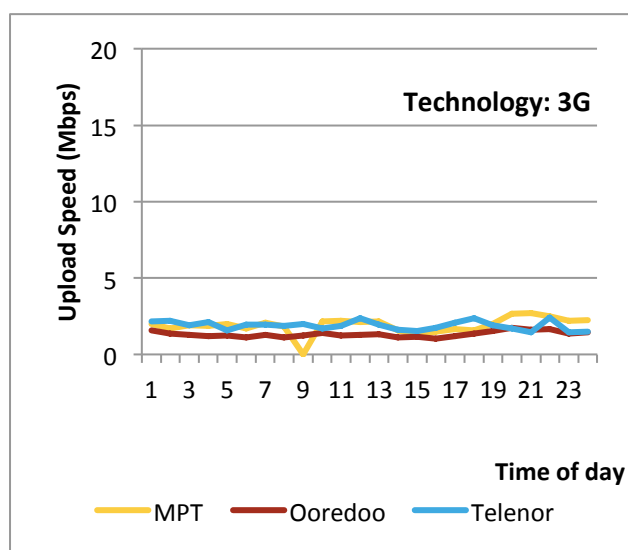
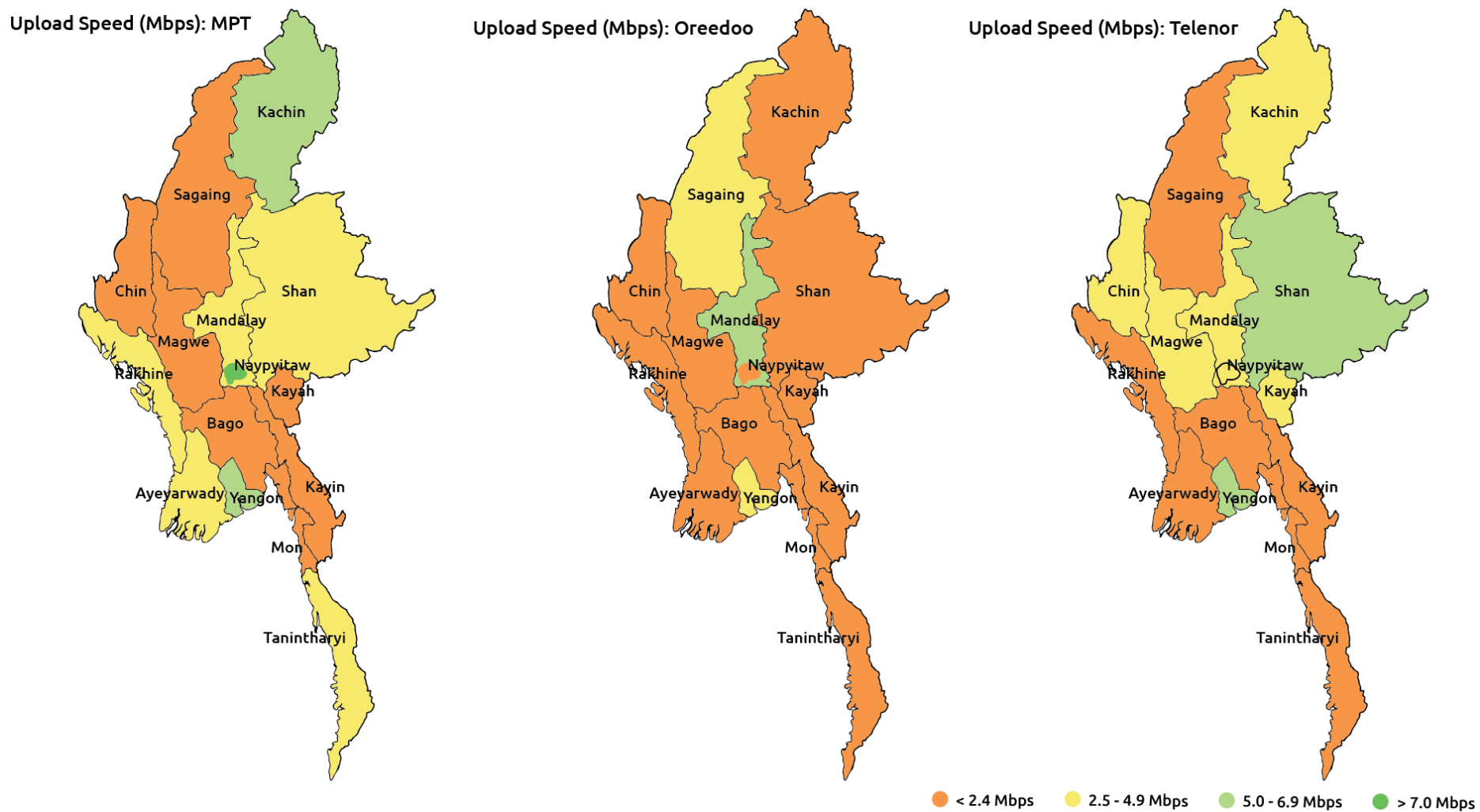


Figure 6: Average upload speed by State by Operator



2.3 Latency

Figure 7: Average latency (ms)

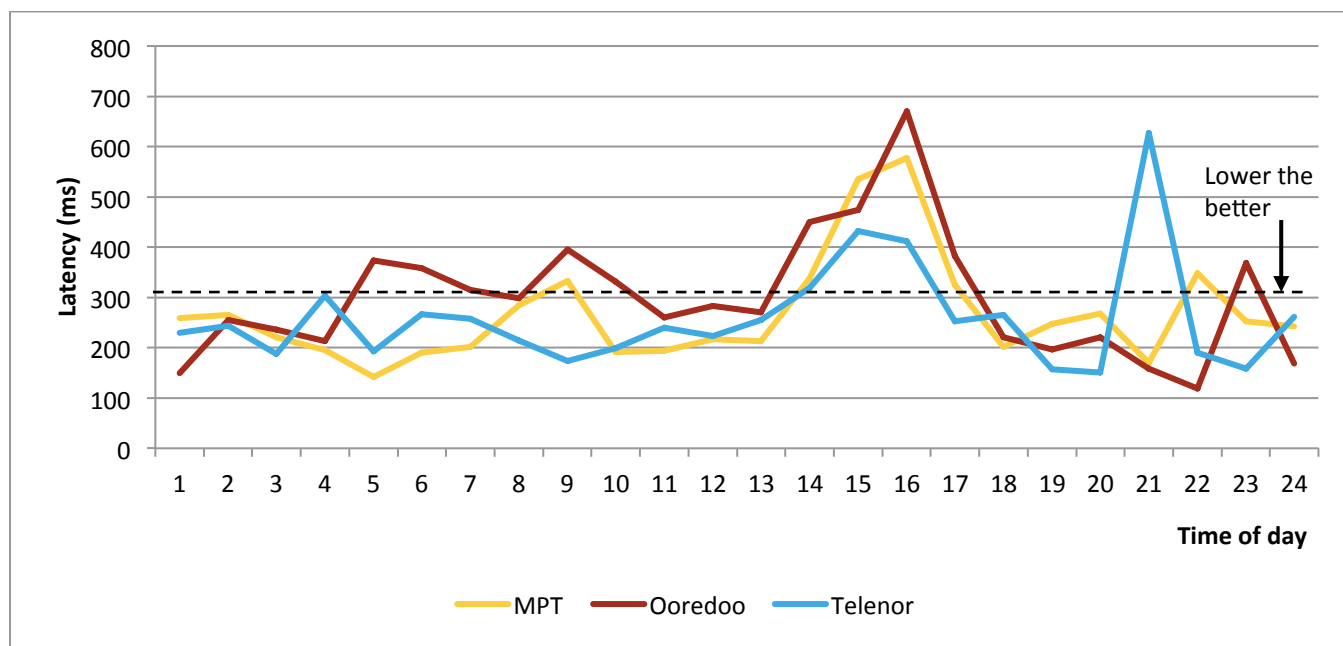


Figure 8: Average latency (ms) 3G vs 4G

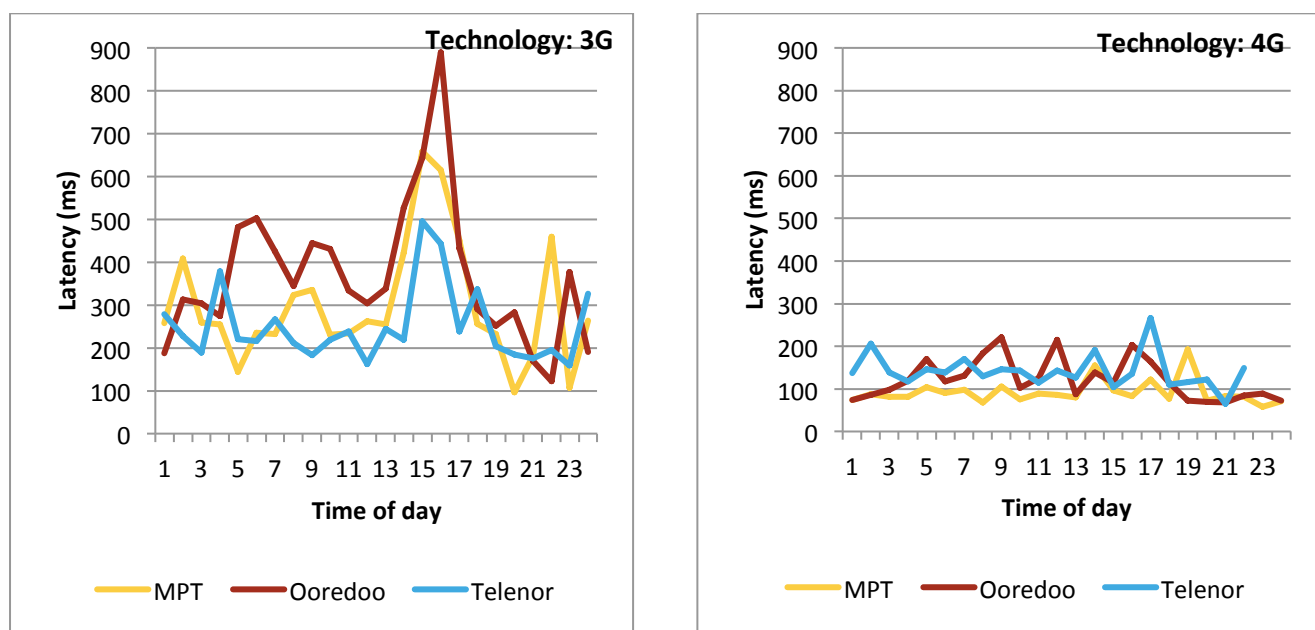


Figure 9: Average latency by State by Operator

