

Monthly Operating Support System (OSS) Report of Mobile Services



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Royal Government of Bhutan

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1. Background

The Authority collects the monthly system generated Mobile Operating Support System (OSS) report from the Telecom Operators and does reviews on the average Mobile Quality of Service (QoS). Based on the system generated Mobile OSS reports, the Authority decides the locations of physical verification or a drive test and carries out the Mobile QoS drive test to monitor and report the QoS regularly. The Mobile OSS report contains the mobile QoS for both voice and data services which are based on and measured through the various parameters of key performance indicators (KPI) of Mobile services of the 20 dzongkhags.

These OSS reports contain both operator's averaged Operation Support system (OSS) reports for the month of August 2021.

2. Findings

The results and findings of OSS system generated reports submitted by both the telecom operators are presented below:

(i) B-Mobile OSS

B-Mobile monthly OSS for the month of August 2021									
Sl. No.	Location of Core Areas	CS drop rate (%)	PS drop rate (%)		CS success rate (%)	PS success rate (%)		DL user throughput (Mbps)	
		3G	3G	4G	3G	3G	4G	3G	4G
1	Thimphu	0.15	0.75	0.60	99.77	98.62	99.94	2.00	9.49
2	Paro	0.11	0.71	0.40	99.80	98.80	99.96	1.84	11.93
3	Haa	0.13	1.47	0.50	99.70	98.35	99.91	2.06	20.38
4	Wangdi	0.15	1.33	0.98	99.79	98.01	99.91	1.63	8.25
5	Gasa	0.06	1.72	0.66	99.88	98.95	99.93	1.72	30.30
6	Punakha	0.28	1.26	0.53	99.77	98.81	99.95	1.44	8.62

7	Chukha	0.19	0.95	0.81	99.75	98.34	99.93	2.60	16.30
8	Samtse	0.10	1.31	1.16	99.82	98.56	99.87	1.51	13.31
9	Sarpang	0.22	1.51	0.74	99.21	95.94	99.93	1.66	8.61
10	Dagana	0.07	1.26	0.77	99.77	98.60	99.88	1.45	20.58
11	Zhemgan g	0.17	1.65	0.63	99.71	98.13	99.91	1.24	23.47
12	Tsirang	0.22	1.47	0.65	99.66	98.76	99.94	2.14	16.38
13	Trongsa	0.79	1.36	1.04	99.52	96.97	99.90	1.54	17.00
14	Bumthan g	0.24	1.17	0.42	99.55	98.76	99.94	1.74	21.79
15	Sjongkhar	0.17	1.02	0.75	99.65	98.12	99.90	1.74	12.08
16	Pgytsel	0.10	1.01	0.58	99.73	98.51	99.95	1.90	13.91
17	Trashigan g	0.23	1.41	0.58	99.17	98.65	99.93	1.63	17.95
18	Tyangtse	0.16	0.92	0.71	99.68	98.69	99.92	2.07	11.17
19	Mongar	0.10	1.37	0.69	99.76	98.26	99.93	1.99	13.31
20	Lhuntse	0.11	0.94	0.59	99.73	98.24	99.94	1.03	19.33

(ii) Tashi Cell OSS

TICL monthly OSS for month of August 2021									
SI. NO	Region	CS drop rate(%)	PS drop rate(%)		CS RAB success rate(%)	PS RABsuccess rate(%)		DL user throughput(Mbps)	
		3G	3G	4G	3G	3G	4G	3G	4G
1	Bumthang	0.27	0.69	0.32	99.65	99.50	99.87	2.17	18.74
2	Chukha	0.19	0.73	0.36	99.75	99.11	99.82	2.00	15.21
3	Dagana	0.32	0.97	0.44	99.67	99.26	99.76	2.09	15.05
4	Gasa	0.48	1.63	0.41	99.51	99.04	99.86	1.51	12.67

5	Haa	0.28	0.85	0.30	99.66	99.21	99.86	1.93	20.24
6	Lhuntse	0.44	1.29	0.21	99.67	99.37	99.64	1.58	19.00
7	Mongar	0.26	1.18	0.40	99.71	99.32	99.72	1.67	15.77
8	Paro	0.34	0.84	0.27	99.73	99.15	99.86	1.88	16.37
9	Pemagatshel	0.35	1.01	0.35	99.73	99.30	99.60	1.60	15.09
10	Punakha	0.24	0.92	0.39	99.50	99.16	99.82	1.78	14.32
11	Samtse	0.26	1.14	0.52	99.62	98.92	99.76	1.39	11.59
12	Sarpang	0.27	1.20	0.26	99.56	98.59	99.69	1.56	13.06
13	SJongkhar	0.24	0.96	0.55	99.72	99.30	99.76	2.08	16.13
14	Thimphu	0.19	0.45	0.35	99.75	99.24	99.88	2.35	15.71
15	Trashigang	0.19	1.07	0.46	99.65	99.16	99.78	1.67	18.97
16	Trongsa	0.43	1.87	0.18	99.36	98.91	99.77	1.72	15.87
18	Trashi yangtse	0.19	1.08	0.16	99.66	99.27	99.74	1.79	18.72
17	Tsirang	0.40	1.41	0.33	99.59	98.57	99.70	1.38	13.94
19	Wangdi	0.25	0.98	0.32	99.54	99.17	99.83	1.82	15.34
20	Zhemgang	0.26	1.15	0.26	99.70	99.29	99.72	1.75	19.84

3. Analysis

- a. For both the operators, there were no issues of circuit switch (CS) drop rate as well as for packet switch (PS) drop rate for all dzongkhags.
- b. The average download data throughputs of BTL (4G) are meeting the standards in all dzongkhags whereas for 3G the throughputs which are below the standards are highlighted in red font.
- c. The average download data throughputs (4G) for TICL are meeting the standard in all dzongkhags whereas for 3G the throughputs which are below the standards are highlighted in red font.
- d. Meanwhile, wherever the 3G sites are co-located with the 4G sites, the QoS issues of 3G are taken care of by the presence of 4G services.

4. Recommendation/Follow up

The 3G sites are co-located with the 4G sites. And since there were no issues on the average download throughput on the 4G services, the 4G services will take care of the issues wherever the 3G sites are collocated with the 4G sites. For places like Zhemgang, Punakha, Lhuentse, Dangana, Samste and Tsirang to be included in KPI monitoring (drive test) for the upcoming plan.