

Monthly Operating Support System (OSS) Report of Mobile Services



**Bhutan InfoComm and Media Authority
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 May 2022.

2. Findings

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

(i) B-Mobile OSS

BTL monthly OSS report for May, 2022									
Sl. No	Region	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	0.11	0.37	0.35	99.82	98.78	99.93	2.22	11.52
2	Paro	0.16	0.35	0.28	99.87	98.65	99.94	2.11	12.58
3	Haa	0.09	0.95	0.31	99.82	98.60	99.92	2.18	22.45
4	Wangdi	0.09	0.67	0.49	99.86	97.77	99.94	1.89	12.52
5	Gasa	0.10	1.26	0.65	99.91	99.00	99.89	2.28	25.89
6	Punakha	0.86	0.64	0.34	99.79	98.83	99.95	1.62	12.42
7	Chukha	0.14	0.40	0.57	99.87	98.68	99.91	3.02	14.81
8	Samtse	0.31	0.58	0.84	99.83	98.61	99.89	1.92	17.84
9	Sarpang	0.44	0.68	0.61	99.73	97.97	99.92	2.04	14.16
10	Dagana	0.07	1.10	0.59	99.90	97.11	99.90	1.73	20.39
11	Zhemgang	0.12	0.91	0.49	99.88	97.79	99.92	1.51	26.54
12	Tsirang	0.21	0.57	0.43	99.84	98.89	99.94	2.33	17.71
13	Trongsa	0.18	0.63	0.46	99.86	98.50	99.91	2.06	21.87
14	Bumthang	0.29	0.69	0.38	99.70	98.84	99.95	1.82	18.11

15	Sjongkhar	0.19	0.50	0.70	99.84	98.11	99.90	2.18	13.13
16	Pgytsel	0.09	0.56	0.45	99.90	98.43	99.94	1.98	22.67
17	Trashigang	0.35	0.99	0.53	99.73	98.47	99.93	2.11	15.74
18	Tyangtse	0.10	0.45	0.43	99.88	99.33	99.94	3.01	21.14
19	Mongar	0.16	0.75	0.50	99.89	98.32	99.92	2.39	21.34
20	Lhuntse	0.08	0.54	0.38	99.94	98.56	99.96	1.91	20.66

(ii) Tashi Cell OSS

TICL monthly OSS report for May, 2022									
Sl. No.	Region	CS drop rate (%)	PS drop rate (%)		CS RAB success rate (%)	PS RAB success rate(%)		DL user throughput (Mbps)	
		3G	3G	4G	3G	3G	4G	3G	4G
1	Bumthang	0.25	0.82	0.33	99.75	99.76	99.85	2.26	16.20
2	Chukha	0.12	0.75	0.36	99.96	99.47	99.80	2.03	13.04
3	Dagana	0.23	0.94	0.41	99.90	99.80	99.75	2.12	12.24
4	Gasa	0.46	1.49	0.99	99.95	99.75	98.68	1.53	9.95
5	Haa	0.36	1.15	0.26	99.52	99.56	99.85	1.98	18.08
6	Lhuntse	0.31	1.45	0.22	99.86	99.76	99.53	1.71	16.83
7	Mongar	0.26	1.43	0.37	99.93	99.75	99.75	1.92	13.12
8	Paro	0.37	0.84	0.28	99.94	99.78	99.87	2.11	15.68
9	Pemagatshel	0.44	1.17	0.27	99.93	99.75	99.65	1.72	12.81
10	Punakha	0.21	0.76	0.39	99.93	99.77	99.76	2.00	13.96
11	Samtse	0.20	1.04	0.52	99.85	99.63	99.68	1.68	11.88
12	Sarpang	0.32	1.23	0.19	99.72	99.13	99.76	1.69	11.99
13	Sjongkhar	0.30	1.11	0.56	99.94	99.76	99.71	1.97	14.00
14	Thimphu	0.20	0.48	0.38	99.95	99.81	99.87	2.37	13.30
15	Trashigang	0.19	1.58	0.43	99.81	99.61	99.79	1.98	17.38
16	Trongsa	0.17	1.12	0.22	99.86	99.73	99.80	2.02	16.21
18	Trashi yangtse	0.19	1.46	0.15	99.82	99.57	99.65	1.97	14.75
17	Tsirang	0.39	1.31	0.29	99.63	99.11	99.67	1.58	10.65
19	Wangdi	0.30	1.18	0.28	99.82	99.66	99.81	1.96	16.00
20	Zhemgang	0.20	1.39	0.38	99.84	99.72	99.68	1.71	18.33

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. For both 3G and 4G the averaged download throughput of both operators are meeting the standard

4. Recommendation/Follow up

- a. The average OSS report is within the benchmark.
- b. The Authority is following up with the OSS of each BTS located at Phuentsholing and Samtse for the Month of May since the KPI (particularly data throughput) for both operators were found to be below benchmark when the Authority carried out drive test monitoring.