

# 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 December 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

OSS KPI report of BTL for the month of December,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	0.21	0.57	0.41	99.67	98.09	99.95	1.89	7.68
2	Paro	0.13	0.42	0.36	99.09	97.65	99.96	2.02	10.50
3	Haa	0.11	1.42	0.48	99.54	97.81	99.90	1.88	20.07
4	Wangdi	0.20	0.92	0.72	99.84	98.23	99.95	1.88	8.71
5	Gasa	0.08	1.78	0.47	99.94	99.08	99.95	1.91	26.80
6	Punakha	0.40	1.00	0.49	99.83	98.60	99.95	1.53	6.48
7	Chukha	0.27	0.60	0.73	99.79	98.26	99.92	2.85	15.68

8	Samtse	0.16	0.76	1.09	99.87	98.76	99.87	1.71	14.62
9	Sarpang	0.21	1.10	0.95	99.65	97.88	99.90	1.91	9.23
10	Dagana	0.07	1.19	0.96	99.77	96.55	99.88	1.63	16.37
11	Zhemga ng	0.27	1.24	0.58	99.85	97.16	99.92	1.65	22.19
12	Tsirang	0.31	1.01	0.62	99.57	98.49	99.94	1.80	13.05
13	Trongsa	0.34	1.14	0.62	99.77	98.39	99.92	1.80	19.23
14	Bumtha ng	0.36	1.06	0.43	99.53	98.15	99.95	1.84	23.14
15	Sjongkh ar	0.21	0.92	0.69	99.84	98.25	99.93	2.01	9.59
16	Pgytsel	0.21	0.96	0.61	99.84	98.19	99.94	1.63	12.29
17	Trashig ang	0.51	1.21	0.71	99.70	98.07	99.91	1.85	17.04
18	Tyangts e	0.23	0.85	0.76	99.15	97.46	99.91	2.59	13.26
19	Mongar	0.12	1.27	0.66	99.93	98.58	99.92	2.21	12.86
20	Lhuntse	0.17	1.17	0.57	99.89	97.57	99.94	1.85	18.79

**(ii) Tashi Cell OSS**

TICL monthly OSS report for December 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	Bumtha ng	0.62	1.23	0.32	99.99	99.07	99.86	2.17	15.14
2	Chukha	0.14	0.76	0.38	99.84	98.79	99.81	1.94	12.90
3	Dagana	0.29	0.94	0.43	99.70	99.12	99.77	1.55	11.81
4	Gasa	0.84	1.92	0.58	99.46	99.14	99.81	1,71	10.23
5	Haa	0.87	0.53	0.28	98.63	98.07	99.85	1.71	16.96
6	Lhuntse	0.45	1.70	0.74	99.67	99.35	99.16	1.52	15.87
7	Mongar	0.37	1.63	0.41	99.70	99.20	99.69	1.50	13.07
8	Paro	0.43	0.69	0.28	99.78	99.34	99.87	1.96	13.72
9	Pemagat	0.37	0.95	0.29	99.84	99.30	99.57	1.39	12.55

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10	Punakha	0.51	1.13	0.38	99.47	99.07	99.78	1.75	12.63
11	Samtse	0.43	1.54	0.52	99.48	98.42	99.77	1.62	10.80
12	Sarpang	0.46	1.42	0.23	99.43	98.54	99.72	1.61	10.74
13	Sjongkhar	0.17	0.99	0.48	99.84	99.32	99.76	1.99	13.63
14	Thimphu	0.24	0.58	0.41	99.84	99.37	99.88	2.10	13.65
15	Trashigang	0.36	1.56	0.44	99.79	99.24	99.77	1.74	17.54
16	Trongsa	0.17	0.88	0.22	99.82	99.43	99.73	1.76	16.05
18	Trashiyangtse	0.26	1.78	0.14	99.55	98.96	99.69	1.59	14.32
17	Tsirang	0.93	1.71	0.29	98.81	98.13	99.62	1.51	9.59
19	Wangdi	0.69	1.56	0.31	99.33	98.54	99.83	1.73	14.29
20	Zhemgang	0.31	1.52	0.28	99.63	99.25	99.47	1.71	15.34

### 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 (3G and 4G) of both the operators are meeting the standards for all the 20 dzongkhags except for Pemagatshel Dzongkhag where TICTL's 3G download throughput is lower than set standard.
- c. 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**

Both the telecom operators have maintained the 4G QOS standards for this month.

Meanwhile, the previous month's 4G downlink throughput issues of TICL at Singye Dzong in Lhuentse and, Sorapong and Thajong site in Zhemgang were resolved based on the individual BTS OSS report.