

# **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 January 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

OSS KPI report of BTL for the month of January,2022									
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	0.38	0.41	99.77	98.27	99.94	1.78	7.46
2	Paro	0.08	0.29	0.31	99.89	98.74	99.96	1.96	10.77
3	Haa	0.10	1.14	0.36	99.69	98.22	99.90	1.92	20.47
4	Wangdi	0.11	0.74	0.62	99.87	97.79	99.95	2.43	12.59
5	Gasa	0.07	1.43	0.45	99.95	98.93	99.95	1.90	28.06
6	Punakha	0.71	0.54	0.46	99.81	98.56	99.96	1.88	9.42
7	Chukha	0.27	0.42	0.69	99.76	98.42	99.93	2.76	15.56

8	Samtse	0.21	0.51	0.76	99.86	98.59	99.89	1.77	17.25
9	Sarpang	0.34	0.58	0.73	99.63	97.94	99.93	1.85	11.12
10	Dagana	0.11	1.36	0.94	99.88	97.02	99.89	1.54	17.27
11	Zhemga ng	0.12	0.81	0.59	99.90	98.05	99.93	2.05	23.23
12	Tsirang	0.31	0.70	0.57	99.71	98.78	99.95	1.61	17.68
13	Trongsa	0.19	0.64	0.59	99.85	98.25	99.93	1.93	21.91
14	Bumtha ng	0.10	0.59	0.44	99.81	98.97	99.95	1.94	22.23
15	Sjongkh ar	0.22	0.46	0.73	99.82	98.24	99.93	2.24	11.54
16	Pgytsel	0.14	0.54	0.61	99.84	98.42	99.95	1.59	19.91
17	Trashig ang	0.35	1.06	0.70	99.74	98.04	99.91	1.99	16.97
18	Tyangts e	0.23	0.50	0.72	99.41	98.03	99.93	2.62	20.15
19	Mongar	0.12	0.63	0.85	99.48	97.44	99.83	2.20	20.30
20	Lhuntse	0.21	0.73	0.54	99.38	96.12	99.96	1.75	20.68

**(ii) Tashi Cell OSS**

<b>TICL monthly OSS report for January 2022</b>									
<b>Sl. NO.</b>	<b>Region</b>	<b>CS drop rate(%)</b>	<b>PS drop rate(%)</b>		<b>CS RAB success rate(%)</b>	<b>PS RAB success rate(%)</b>		<b>DL user throughput(Mbps)</b>	
		<b>3G</b>	<b>3G</b>	<b>4G</b>	<b>3G</b>	<b>3G</b>	<b>4G</b>	<b>3G</b>	<b>4G</b>
1	Bumtha ng	0.33	1.04	0.26	99.72	99.51	99.99	2.27	14.81
2	Chukha	0.10	0.84	0.34	99.92	99.01	99.78	1.85	10.84
3	Dagana	0.29	1.08	0.39	99.71	99.34	99.76	1.49	9.99
4	Gasa	2.04	4.10	2.93	99.07	98.99	99.74	1.49	9.33
5	Haa	0.93	1.77	0.26	98.07	98.47	99.85	1.73	15.43
6	Lhuntse	0.38	1.81	0.14	99.65	99.62	99.29	1.41	16.00
7	Mongar	0.28	1.66	0.37	99.77	99.51	99.72	1.50	12.03
8	Paro	0.33	0.68	0.21	99.91	99.62	99.88	1.94	13.61

9	Pemagat shel	0.38	0.95	0.28	99.90	99.62	99.54	1.47	11.17
10	Punakha	0.98	1.90	0.50	98.59	98.83	99.78	1.60	10.32
11	Samtse	0.49	1.72	0.51	99.49	98.93	99.78	1.40	9.47
12	Sarpang	0.51	1.54	0.22	99.50	99.07	99.67	1.61	9.96
13	Sjongkhar	0.32	0.92	0.47	99.90	99.70	99.76	2.07	12.69
14	Thimphu	0.24	0.66	0.33	99.88	99.65	99.85	2.08	10.76
15	Trashigang	0.19	1.72	0.30	99.92	99.57	99.79	1.71	19.74
16	Trongsa	0.29	0.95	0.20	99.95	99.67	99.75	1.73	14.88
18	Trashiyangtse	0.23	1.61	0.13	99.75	99.48	99.74	1.60	14.17
17	Tsirang	1.04	1.46	0.29	98.63	98.27	99.63	1.17	7.43
19	Wangdi	1.05	1.93	0.40	98.89	98.18	99.80	1.57	12.99
20	Zhemgang	0.28	1.84	0.47	99.67	99.49	99.47	1.43	14.19

### 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 except for Gasa, 3G CS drop rate of TICL was not meeting the standard.
- b. The averaged 4G download throughput of both operators are meeting the standard whereas there are some Dzongkhags where the download throughput for 3G network is lower than the set criteria (which is highlighted in red font).
- 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. However, due to the complaints received from the public of poor QoS during the Lockdown period, the Authority carried out the physical KPI drive test monitoring in Thimphu core areas.