

Monthly Operating Support System (OSS) Report of Mobile Services



Bhutan InfoComm and Media Authority
Royal Government of Bhutan

March 2022

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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 March 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 March,2022									
SI. 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	0.13	0.34	0.46	99.83	98.80	99.94	1.93	7.97
2	Paro	0.09	0.29	0.33	99.88	98.97	99.96	1.94	10.44
3	Haa	0.11	0.89	0.36	99.28	97.57	99.91	2.11	18.86
4	Wangdi	0.12	0.68	0.57	99.85	97.67	99.95	1.69	10.94
5	Gasa	0.06	1.46	0.46	99.92	98.85	99.94	1.67	21.19
6	Punakh	0.66	0.52	0.44	99.81	98.71	99.95	1.56	9.84

	a								
7	Chukha	0.29	0.41	0.67	99.72	98.45	99.92	2.64	13.45
8	Samtse	0.27	0.48	0.87	99.86	98.97	99.89	1.75	15.56
9	Sarpang	0.46	0.59	0.79	99.49	97.63	99.93	1.95	11.01
10	Dagana	0.10	0.93	0.66	99.90	97.40	99.90	1.64	17.31
11	Zhemga ng	0.11	0.73	0.54	99.89	98.10	99.93	1.51	20.94
12	Tsirang	0.27	0.57	0.46	99.82	98.95	99.95	2.05	16.87
13	Trongsa	0.18	0.64	0.56	99.86	98.26	99.93	1.82	17.45
14	Bumtha ng	0.20	0.66	0.42	99.70	98.96	99.95	1.78	19.31
15	Sjongkh ar	0.18	0.37	0.77	99.85	98.48	99.93	2.14	10.67
16	Pgytsel	0.10	0.49	0.54	99.90	98.59	99.95	1.75	17.08
17	Trashig ang	0.36	1.12	0.58	99.76	98.04	99.93	1.96	17.45
18	Tyangts e	0.31	0.51	0.57	98.08	95.88	99.93	2.24	16.18
19	Mongar	0.19	0.87	0.53	99.87	98.49	99.93	2.20	19.91
20	Lhuntse	0.13	0.68	0.46	99.87	97.79	99.95	1.84	17.47

(ii) Tashi Cell OSS

TICL monthly OSS report for March 2021									
SI. 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	Bumtha ng	0.41	1.14	0.31	99.43	99.44	99.16	2.10	15.43
2	Chukha	0.16	0.78	0.35	99.91	99.17	99.32	1.81	11.80
3	Dagana	0.31	1.04	0.41	99.74	99.44	99.40	1.68	10.06
4	Gasa	1.61	1.70	1.60	99.42	99.39	99.92	1.51	9.28
5	Haa	0.99	1.19	0.28	98.85	98.60	99.14	1.75	15.57
6	Lhuntse	0.47	1.88	0.14	99.64	99.63	99.35	1.42	15.61

7	Mongar	0.32	1.55	0.36	99.76	99.47	99.76	1.51	12.16
8	Paro	0.30	0.74	0.23	99.92	99.66	99.03	1.93	13.72
9	Pemagat shel	0.34	0.95	0.29	99.91	99.69	99.07	1.50	11.50
10	Punakha	0.74	1.45	0.48	99.26	99.26	99.17	1.78	11.24
11	Samtse	0.44	1.52	0.56	99.57	98.92	99.34	1.40	9.36
12	Sarpang	0.43	1.40	0.20	99.57	99.18	99.23	1.68	10.76
13	Sjongkh ar	0.34	1.07	0.57	99.87	99.73	99.14	1.94	13.14
14	Thimph u	0.18	0.52	0.33	99.84	99.80	99.64	2.15	11.74
15	Trashiga ng	0.45	1.71	0.45	99.87	99.25	95.31	1.65	17.25
16	Trongsa	0.32	1.29	0.43	99.69	99.48	99.49	1.77	14.42
18	Trashi yangtse	0.38	1.07	0.16	99.26	98.88	99.52	1.53	13.14
17	Tsirang	0.90	1.13	0.31	98.96	98.00	98.81	1.33	8.02
19	Wangdi	0.95	1.85	0.37	99.13	98.82	99.36	1.67	13.10
20	Zhemga ng	0.40	1.79	0.58	99.58	99.40	98.83	1.47	14.58

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 4G the averaged download throughput of both operators are meeting the standard whereas there are some Dzongkhags where the averaged download throughput for TICL (3G) is lower than the set criteria (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

The telecom operators have paid the sanctions imposed by Authority and also submitted the densification and expansion plans to improve the network QoS. However, the Telecom operators shared the concerns and challenges of not being able to acquire the physical sites approval from the relevant agencies, which thus affects in enhancing the network QoS initiatives.