

Report on the Mobile Voice and Data Tariff Implementation Monitoring (April - June 2021)



**BHUTAN INFOCOMM AND MEDIA AUTHORITY
ROYAL GOVERNMENT OF BHUTAN THIMPHU, BHUTAN**

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1. Background

The Bhutan InfoComm and Media Authority (Authority) as a regulator of the Information, Communications and Media sector in Bhutan, has been mandated with numerous functions related to ICT and Media services. One of the most important functions is to protect consumers of ICT and Media services, among others, the rates charged for, and the quality and variety of ICT services provided.

The ICT services are provided by the ICT Service Providers to the customers as per the approved rates and tariffs. However, till date, there was no monitoring activity carried out to verify whether the Service Providers provide and abide by the approved rates and tariffs.

Nevertheless, the Authority has now attempted to assess the tariff implementation of the Service Providers and it will mainly verify and validate whether the Service Providers are exactly providing the services to the customers as per the tariffs approved by the Authority.

2. Objectives

The main objective of this monitoring is to measure and verify;

- a. Mobile voice call charges implementation (assess whether the Service providers charges the voice calls as per the approved tariff),
- b. Mobile data allocation (assess whether the subscribed data volumes are provided as per the approved package/tariff),

3. Methodology

a. For Cellular/Mobile Voice and Data

(i) Voice Call Monitoring

- The voice call tariff implementation monitoring is carried out using Subscriber Identity Modules (SIMs).
- The random voice calls made using the SIMs and its billing charges are monitored taking into account the duration of voice calls, duration of the day, on-net or off-net calls etc.
- The detailed information of voice calls made by each SIM is recorded as shown in the table below.

Sl. No	Voice call from	Voice call to	On-net/off-net call?	Duration of the Day (Time of the call made)	Duration of call	Total billing charged	Tariff/unit charged	Approved Tariff Rate	Is the call charge as per the approved tariff?
1.	SIM of Operator 1 (BTL)	SIM of Operator 1 (BTL)							
2.	SIM of Operator 1 (BTL)	SIM of Operator 2 (TICL)							
3.	SIM of Operator 2 (TICL)	SIM of Operator 1 (BTL)							
4.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)							

- All the voice call data carried out by each SIMs as per the table above are compiled and analysed.

(ii) Cellular Data Charges Monitoring

- The voice call tariff implementation monitoring is carried out using SIMs.
- Each SIMs will be recharged/allocated with certain data packages. The data consumption then will be reset to 0.00MB immediately.
- As soon as the subscribed data package is consumed fully (100% consumption - when sms received), the volume of data consumed which is reflected by the mobile device is checked.
- The consumed data volume will be compared with the amount of data volume subscribed as shown in the table below.

Sl. No	Service providers	Total Package data allocated	Time of Package data allocated	Time of Package data consumed fully	Data volume consumed as per the App/Mobile device	Is the data package allocated as per the consumed data?
1.	TICL					
2.	BTL					

- All the data consumption information carried out by each SIMs as per the table above are compiled and analysed.

4. Monitoring Results

(i) Voice Call Monitoring Tests

The test results for voice call monitoring are mentioned in the table below:

Sl. No	Voice call from	Voice call to	On-net/Off-net	Duration of the Day (Time of the call made)	Duration of call	Total billing charged	Tariff/unit charged	Approved Tariff Rate	Is the call charge as per the approved tariff?
1.	SIM of Operator 1 (BTL)	SIM of Operator 1 (BTL)	On-net	1PM	30s = 2 unit	Nu. 0.7	0.35/unit	0.35/unit	Yes
2.	SIM of Operator 1 (BTL)	SIM of Operator 1 (BTL)	On-net	5:23 PM	39s = 3 unit	Nu. 1.35	0.45/unit	0.45/unit	Yes
3.	SIM of Operator 1 (BTL)	SIM of Operator 1 (BTL)	On-net	5:25 PM	5m 22S = 22unit	Nu. 9.90	0.45/unit	0.45/unit	Yes
4.	SIM of Operator 1 (BTL)	SIM of Operator 1 (BTL)	On-net	6:09 PM	2m 40S = 11 unit	Nu. 4.95	0.45/unit	0.45/unit	Yes
5.	SIM of Operator 1 (BTL)	SIM of Operator 1 (BTL)	On-net	5:57 PM	2m 47S = 12 unit	Nu. 5.40	0.45/unit	0.45/unit	Yes
6.	SIM of Operator 1 (BTL)	SIM of Operator 2 (TICL)	Off-net	11.54AM	13s = 1 unit	Nu. 0.35	0.35/unit	0.35/unit	Yes
7.	SIM of Operator	SIM of Operator 2	Off-net	12.06AM	26s = 2 unit	Nu. 0.70	0.35/unit	0.35/unit	Yes

	1 (BTL)	(TICL							
8.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	10:02 PM	25S = 2 unit	Nu. 0.90	0.45/unit	0.45/unit	Yes
9.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	10:01 PM	1m 23s = 6 unit	Nu. 2.62	0.45/unit	0.45/unit	Yes
10.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	8:20 PM	58s = 4 unit	Nu. 1.80	0.45/unit	0.45/unit	Yes
11.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	11:40 AM	1m 23s = 6 unit	Nu. 2.16	0.36/unit	0.36/unit	Yes
12.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	11:36 AM	3m 13s = 13 unit	Nu. 4.68	0.36/unit	0.36/unit	Yes
13.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	5:38 PM	29s = 2 unit	Nu. 0.72	0.36/unit	0.36/unit	Yes
14.	SIM of Operator 2 (TICL)	SIM of Operator 2 (BTL)	On-net	8: 26 PM	2m 21s = 10 units	Nu. 4.5	0.45/unit	0.45/unit	Yes
15.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	4:00 PM	4m 33s = 19 unit	Nu. 6.84	0.36/unit	0/36/unit	Yes
16.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	9:39 PM	2:23m = 10 units	Nu. 4.50	0.45/unit	0/45/unit	Yes
17.	SIM of Operator 2 (TICL)	SIM of Operator 2 (TICL)	On-net	7:02 PM	2m 25s = 10 units	Nu. 4.50	0.45/unit	0.45/unit	Yes
18.	SIM of Operator 2 (TICL)	SIM of Operator 1 (BTL)	Off-net	7:10 PM	1m 31s = 7 units	Nu. 3.15	0.45/unit	0.45/unit	Yes
19.	SIM of Operator 2 (TICL)	SIM of Operator 1 (BTL)	Off-net	11:32 PM	31s = 3 units	Nu. 1.08	0.36/unit	0.36/unit	Yes

(ii) Mobile Data Charges Monitoring Tests

The test results for voice call monitoring are mentioned in the table below:

Sl. No	Service providers	Total Package Data Allocated	Time of Package Data Allocated	Time of Package Data Consumed Fully	Data volume consumed as per the App/Mobile device	Is the data package allocated as per the consumed data?	Difference in data volume not provided	Percentage of data volume shortage	Remarks
1.	TICL (*Mobile # not reflected for confidentiality)	660MB for Nu.49 package	9.04AM 26th May 2021	9.07AM 30th May 2021	648MB	No	12MB	1.818%	Screenshots in Annexure 1
2.	TICL *	260MB for Nu. 19 package	4.55PM 1st June 2021	4.15PM 2nd June 2021	265MB	Yes	NA	NA	Screenshots in Annexure 2
3.	TICL	2720MB for Nu. 199 package	9.15PM 14th June 2021	11.17PM 30th June 2021	2720MB	Yes	NA	NA	Screenshots in Annexure 3
4.	TICL	8260 MB for Nu. 499 package	10:55PM 7th June 2021	12:32AM 18th June 2021	7980 MB	No	280MB	2.39%	Screen shot in the Annexure 4
5.	TICL	1330 MB for Nu. 99 package	9:55PM 24th June 2021	10:08AM 25th June 2021	1290 MB	No	40MB	3.00%	Screen shot in the Annexure 5
6.	BTL	660MB for	12.00 Noon	4:08PM	648MB	No	12MB	1.818%	Screenshots in the

		Nu.49 package	June 2021	11th June 2021					Annexure 6
7.	BTL	1330MB for Nu.99 package	4:15 PM June 2021	3.26PM 15th June 2021	1310 MB	No	20MB	1.504%	Screenshots in the Annexure 7
8.	BTL	8260 MB for Nu. 499 package	7:32 PM 11th June 2021	12:03AM 19th June 2021	7890 MB	No	370MB	4.48%	Screen shot in the Annexure 8
9.	BTL	2720MB for Nu. 199 package	22nd June 2021	25th june 2021	2600 MB	No	120MB	4.412%	Screenshot in annexure 9

5. Conclusion

(i) Voice Call Analysis

The voice call charges for both On-net and Off-net, of both the operators were monitored and analysed based on charges per unit.

It is found that the voice call charges are implemented as per the approved tariffs.

(ii) Mobile Data Monitoring Analysis

a. The following five data packages have been monitored for TICL

- Nu. 19 package
- Nu. 49 package
- Nu. 99 package
- Nu. 199 package
- Nu. 499 package

From which it is found that the Nu. 49, Nu. 99 and Nu. 499 package did not receive the complete subscribed data volume.

b. The following four data packages have been monitored for BTL

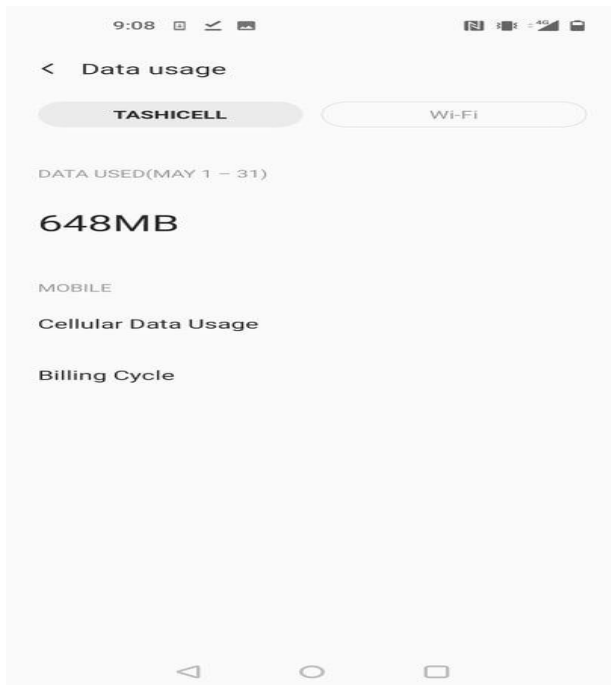
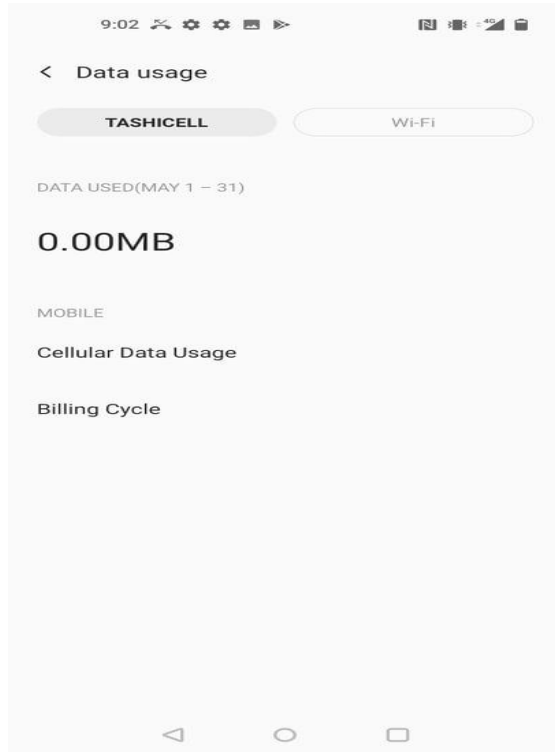
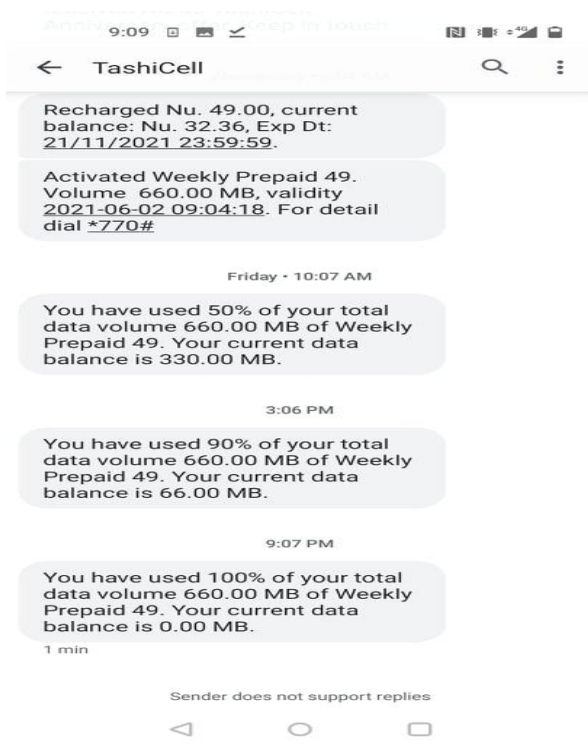
- Nu. 49 package
- Nu. 99 package
- Nu. 199 package
- Nu. 499 package

From which it is found that all the packages (Nu. 49, Nu. 99 and Nu. 499 package) did not receive the complete subscribed data volume.

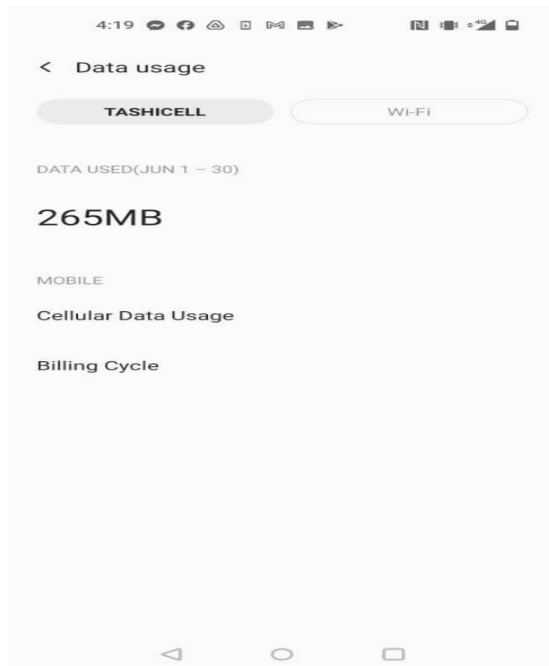
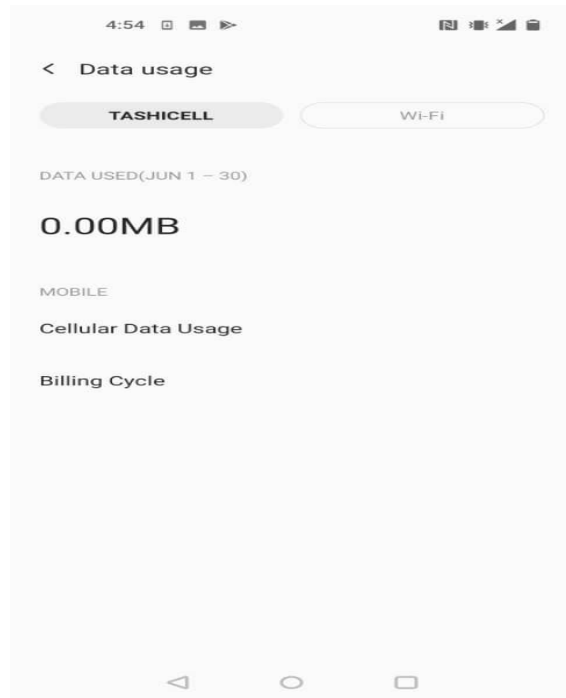
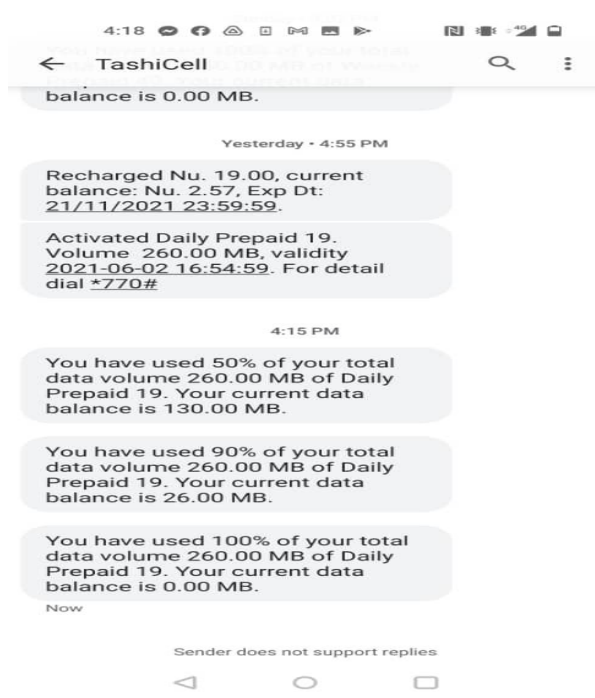
6. Recommendations

- a. Since it is found that the operators are providing the incomplete data volume for some of the data packages, the operators to be shared with the individual report and seek justifications on the incomplete data volume.
- b. It is recommended to issue a warning or directive mentioning that if the same is repeated, the regulatory sanctions to be imposed to the operators as per the ICM Act 2018.
- c. The operators may also be called for face-to-face meetings to seek clear justification.

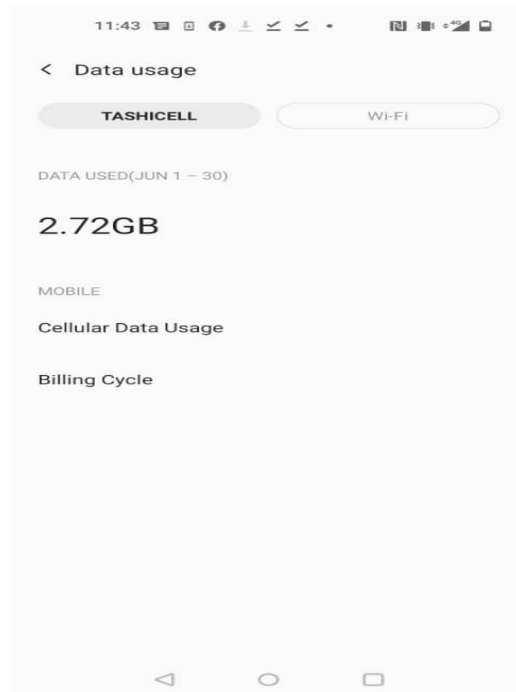
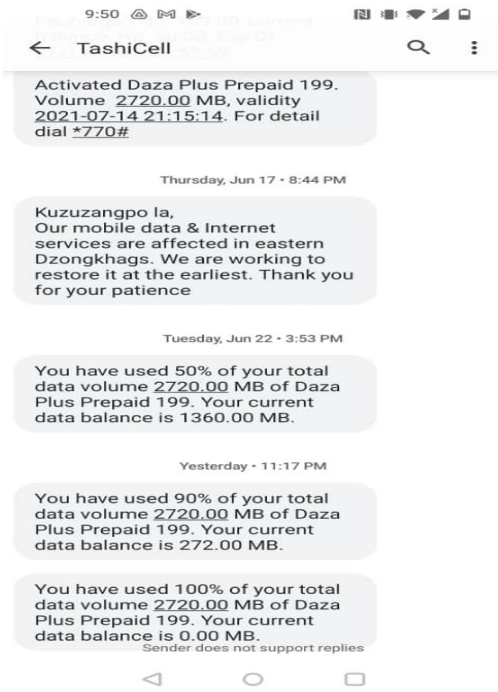
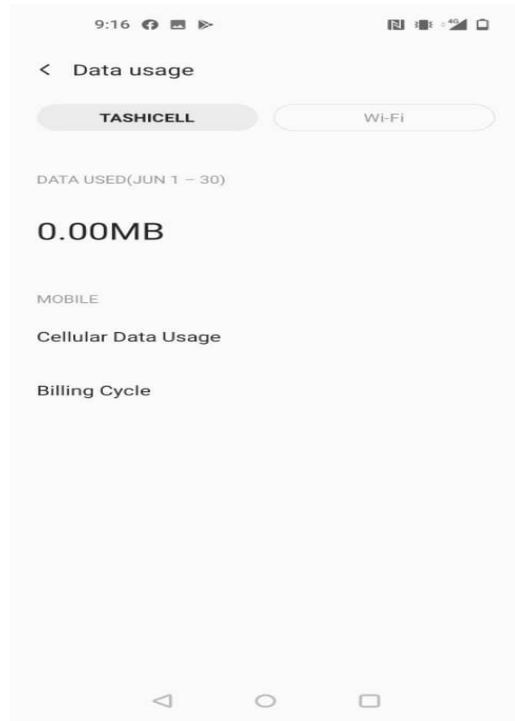
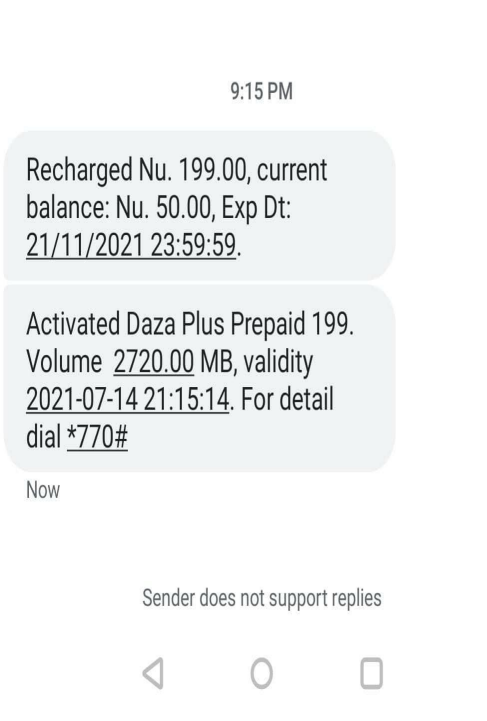
Annexure - 1 (TICL - 49 package)



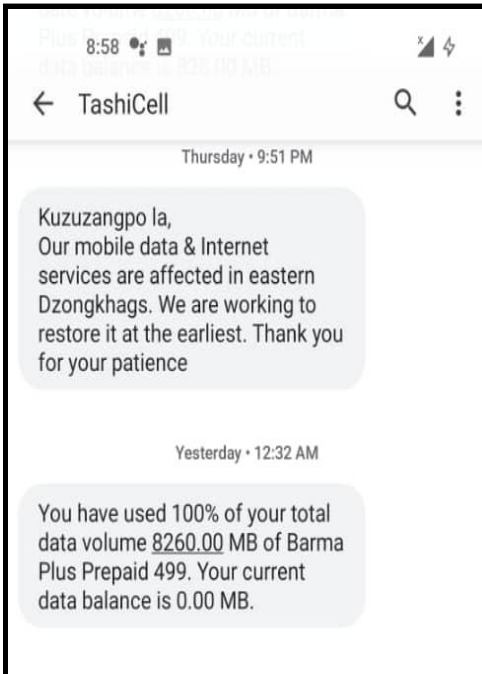
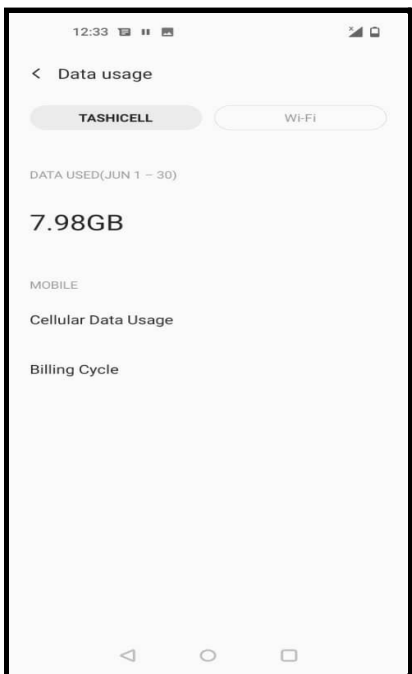
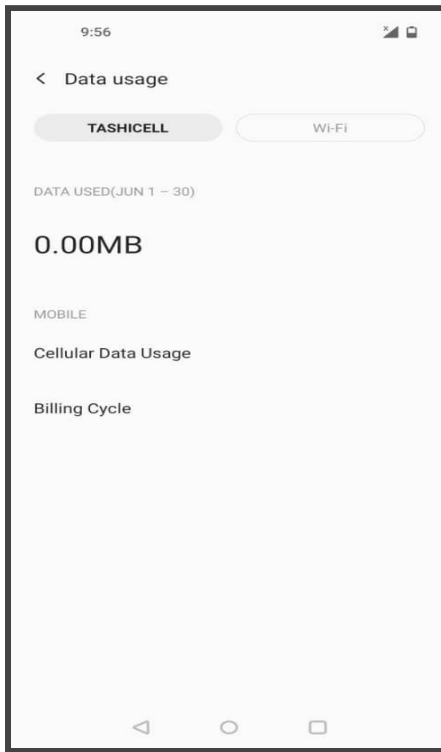
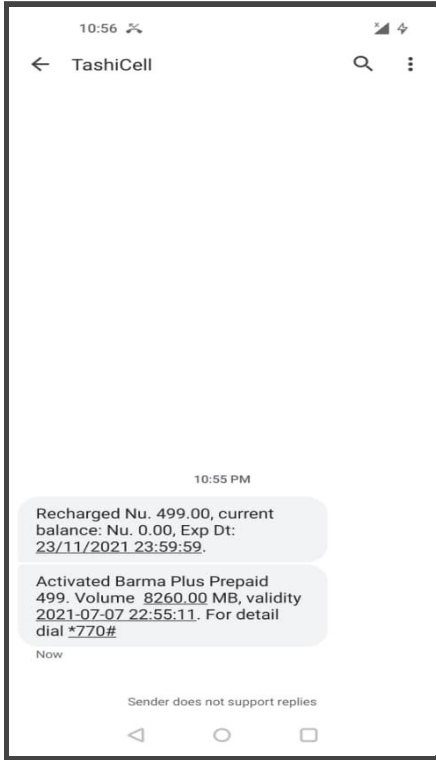
Annexure - 2 (TICL - 19 package)



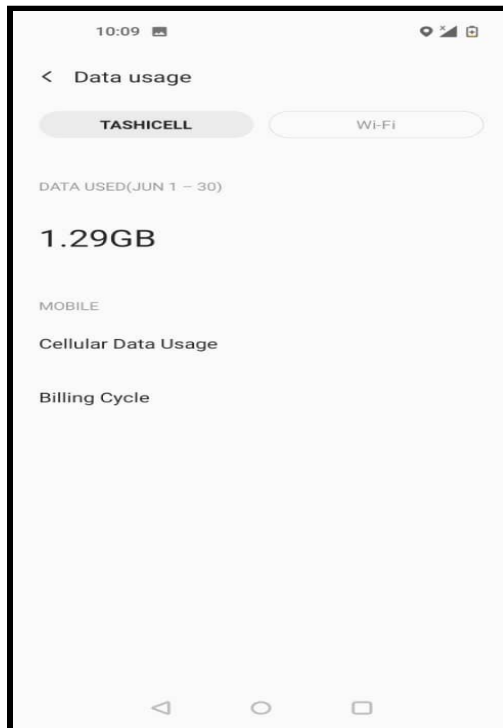
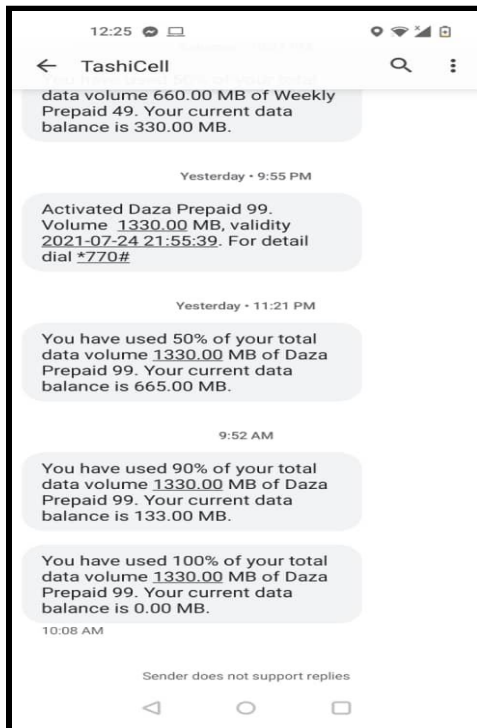
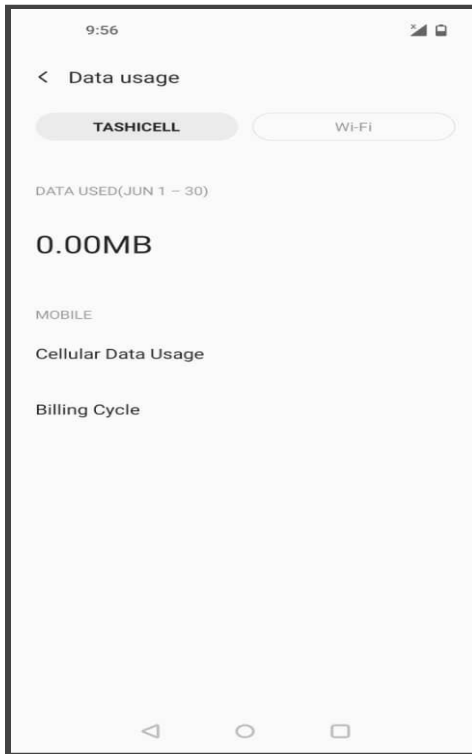
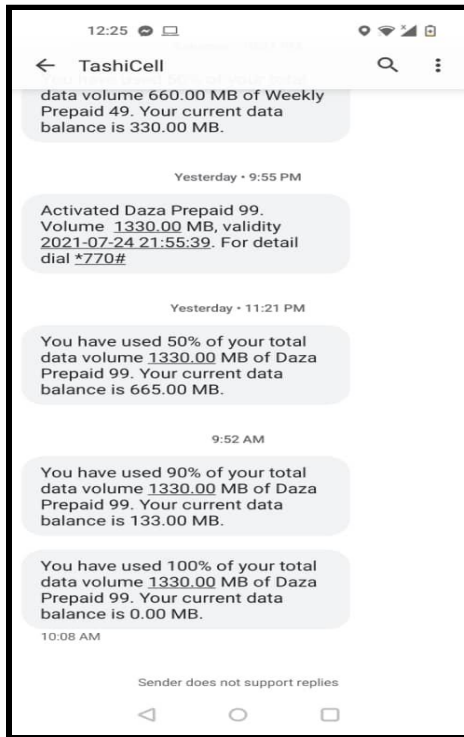
Annexure - 3 (TICL - 199 Package)



Annexure - 4 (TICL -499 Package)



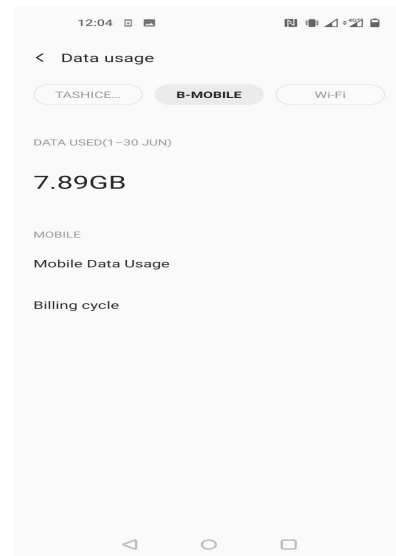
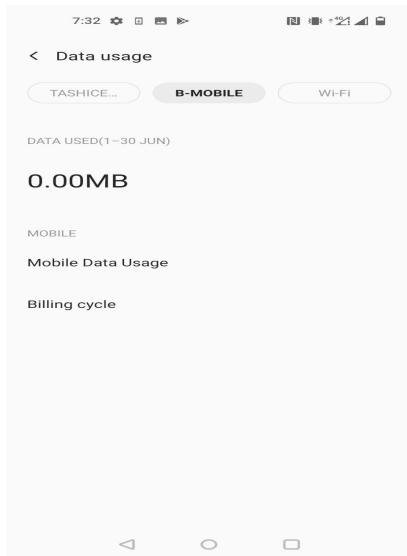
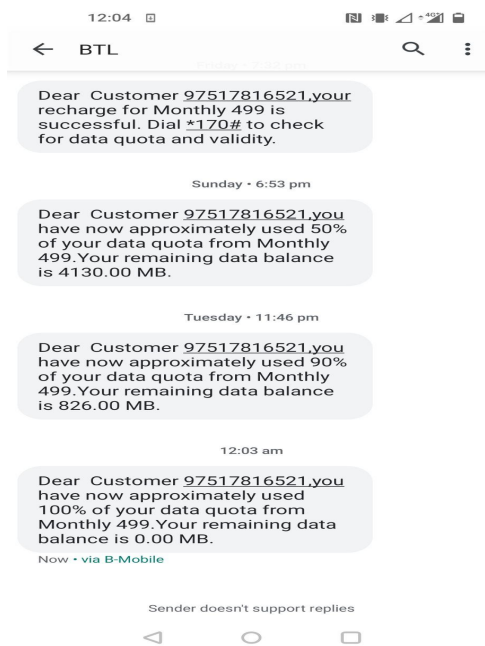
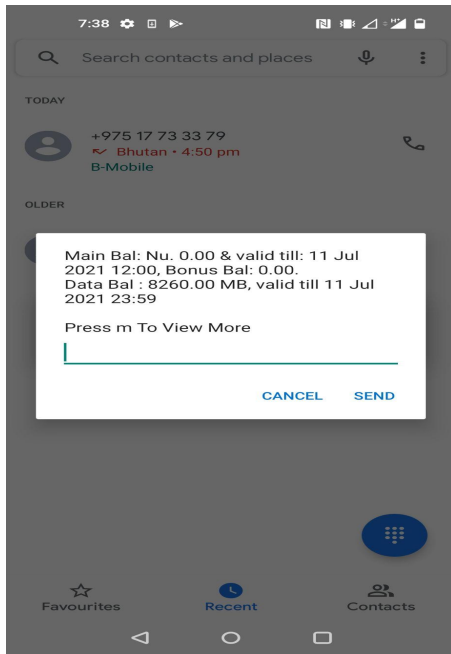
Annexure - 5 (TICL-99 Package)



Annexure - 7 (BTL - 99 Package)

The image displays a sequence of events related to a mobile data package. It starts with a text message from BTL on Monday at 10:44 pm, informing the customer that they have used 52% of their data quota and that a recharge for Monthly 99 is successful. This is followed by two more messages on Tuesday, showing the usage increasing to 93% and then 100% by 9:47 pm. A final message at 4:15 pm confirms the recharge is successful. The second column of screenshots shows a continuation of the text messages from BTL on Friday, Saturday, and Sunday, tracking the usage from 51% to 91% and finally 100% by 3:25 pm. The bottom row shows two screenshots of the 'Data usage' settings for B-Mobile. The first shows 3.69GB used out of a 5.00GB limit, and the second shows 5.00GB used out of a 5.00GB limit, indicating the package has been fully utilized.

Annexure - 8 (BTL- 499 Package)

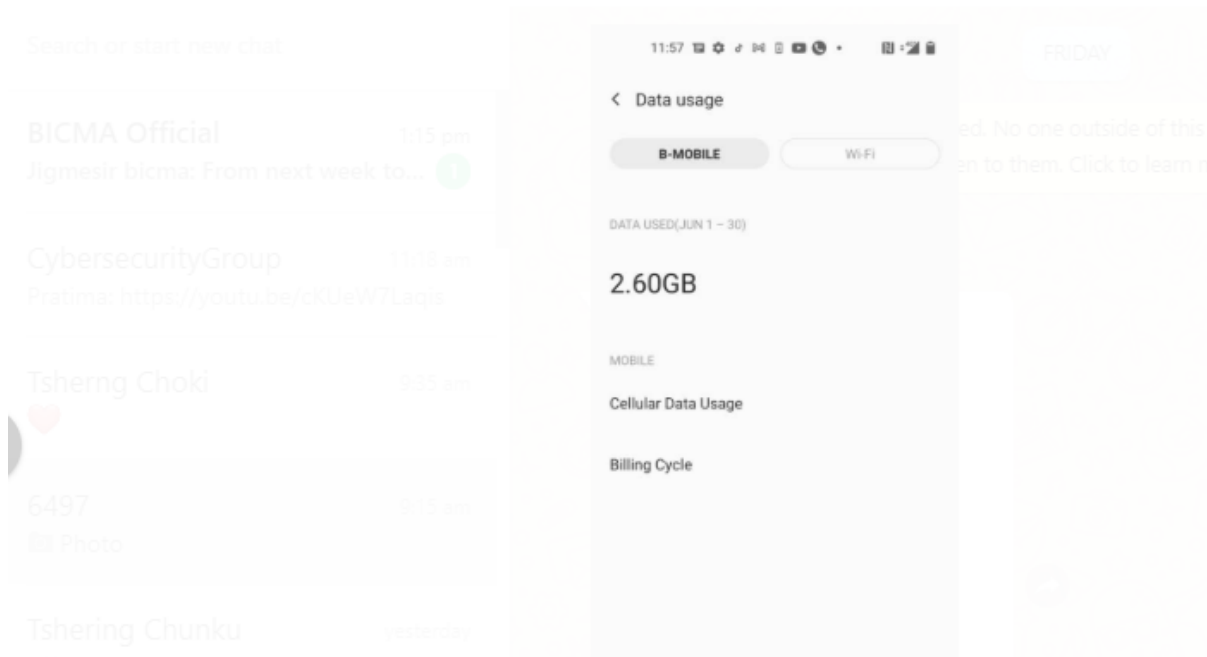


Annexure - 9 (BTL - 199 package)

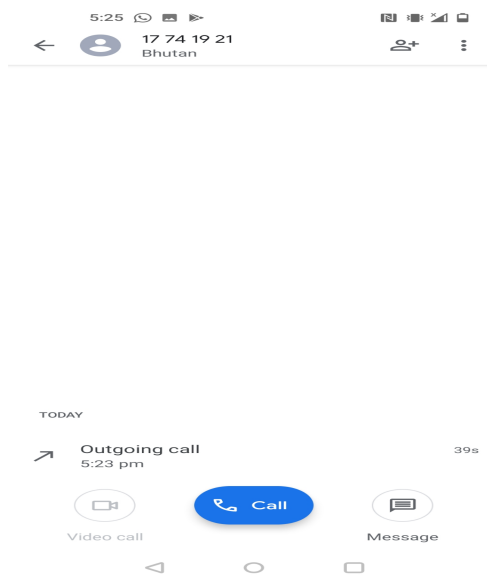
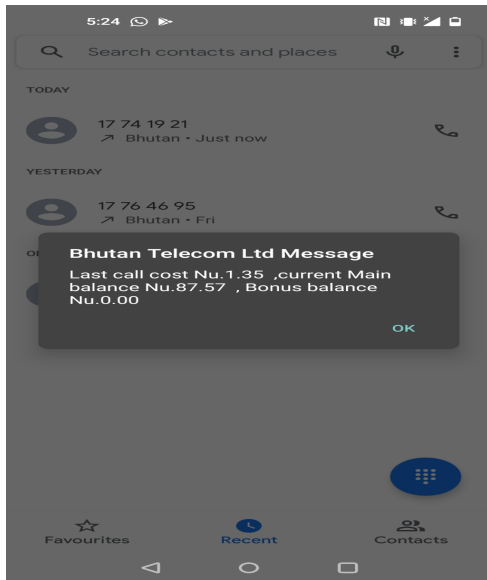
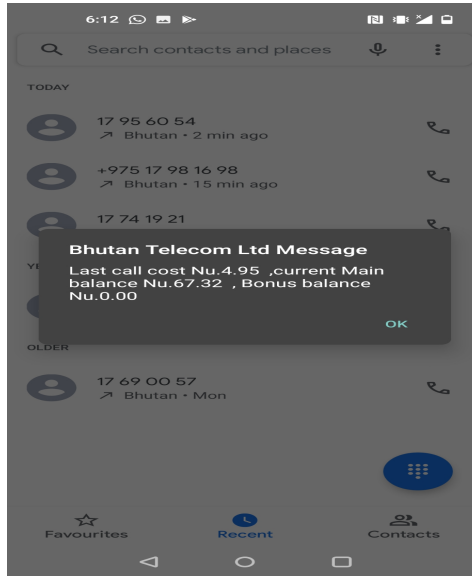
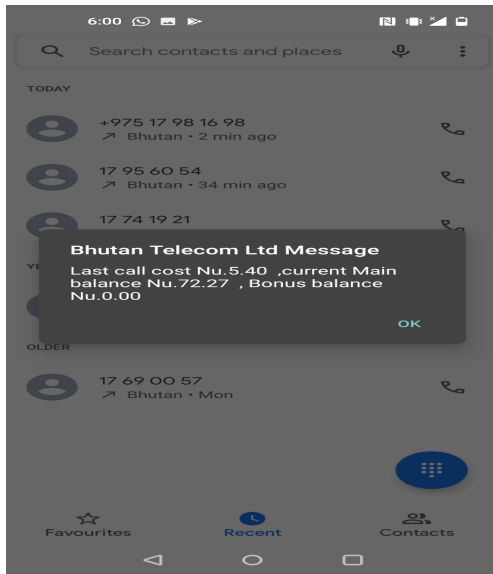


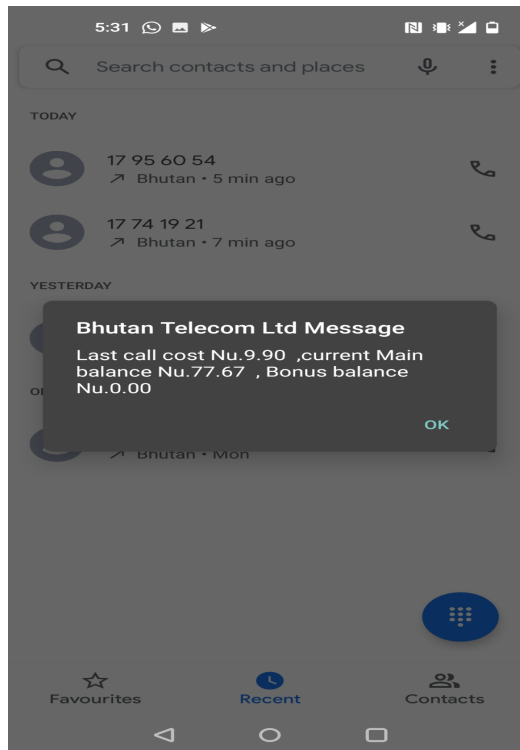
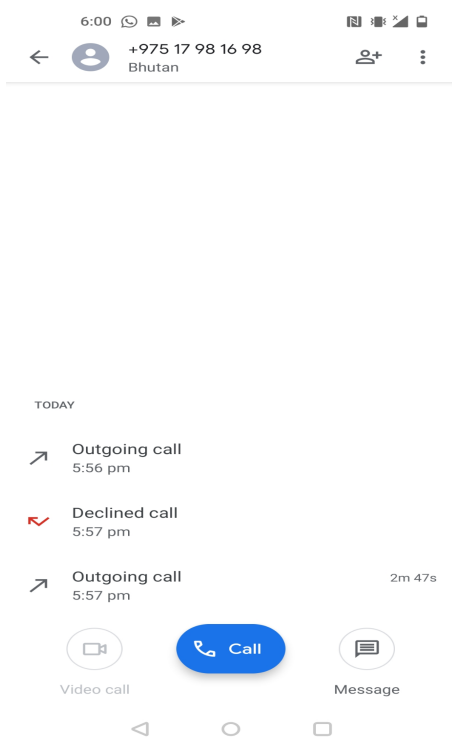
6497

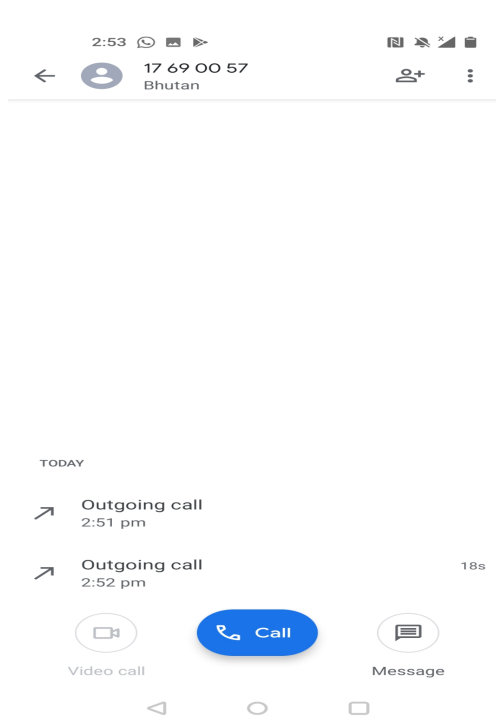
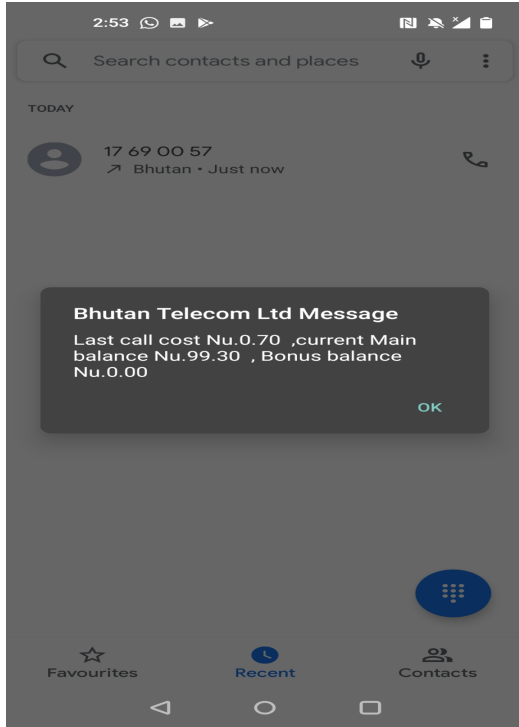
25/06/2021 at 8:59 am



Annexure 10 (BTL Voice Call Screenshots)







Annexure 11: (TICL Voice Call Screenshots)

