

Annual Report 2018-2019



Bangladesh Telecommunication Regulatory Commission



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ডিজিটাল বাংলাদেশ  
**Digital Bangladesh**



**Bangladesh Telecommunication Regulatory commission**



# ডিজিটাল বাংলাদেশ Digital Bangladesh

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ডিজিটাল বাংলাদেশ  
Digital Bangladesh



### **Prime Minister Sheikh Hasina**

“Digital Bangladesh is modern Philosophy of using appropriate technology in implementing all pledges of the government, including poverty eradication, ensuring quality education and health facilities, generating employment opportunities for the people”

*-Sheikh Hasina*



## **Mission**

**To facilitate connecting  
the unconnected through quality  
telecommunication services  
at an affordable price by  
introducing new  
technologies**





**Mustafa Jabbar  
Minister**

Posts & Telecommunication Division  
Ministry of Posts Telecommunication &  
Information Technology

## Message

The goal of Digital Bangladesh is to establish Bangabandhu's long cherished dream Sonar Bangla (Golden Bengal) through digital technology. It's the demand of time to build Digital Bangladesh through increasing the rate of education to ensure free flow of information, alleviating poverty, eliminating gender disparity, fair distributing resources, delivering national services everywhere; the key objective of Digital Bangladesh. It is inevitable to frame superhighway of digital connectivity in establishing Digital Bangladesh. Considering all aspects, the importance of telecommunication sector is immense. Digital Bangladesh and Telecommunication sector are the flowers on the same stalk. Modern telecommunication technologies and services like mobile phone, internet and satellite technology have made the standard of human's life easier and smoother. The GDP of Bangladesh is growing at an unimaginable pace among South Asian countries and at the same time the employment is being created. Bangladesh has set an exemplary example among developing countries. The digital divide at different levels between village-urban, men-women and the rich and the poor is declining. The government is determined to bring broadband internet at the doorstep of every house of the country to accelerate the elevation of economy. Bangladesh will not lag behind in building a knowledge-based society tackling the unimaginable challenges of the future technology-this is our vow.

Although Bangladesh, lagging hundreds of years behind in technology in the last ten and a half years based on agricultural economy with the title 'Crooked Plough Bangladesh', could not take part in the three industrial revolutions in the past, the country has achieved the ability to provide leadership in the platform of fourth industrial revolution, digital revolution or society 5.0 under the foresighted wise leadership of the Prime Minister Sheikh Hasina.

Our destination is to build Bangladesh as Bangabandhu's cherished dream Sonar Bangla (Golden Bengal) through digital technology. Bangladesh is moving forward towards that goal, 'Now is the time for ours, Now is the time for Bangladesh'. We must seize this historic opportunity to transform our national life.

I am extremely glad to know that Bangladesh Telecommunication Regulatory Commission (BTRC) is publishing the annual report for the 2018-2019 fiscal year with information on future action plans in building a knowledge-based democratic society, implementing the vision of Digital Bangladesh of the present government, developing telecommunication sector, modernizing and ensuring the access to services. I think this publication will be able to provide time-befitting guidance with latest picture of the telecommunication sector including telecommunication sector in the development of socio-economic and economic development as well as in the development and application of digital technology and other technologies. Bangladesh became a member of the International Telecommunication Union (ITU) in 1973 by the far-sighted decision of the father of the nation Bangabandhu Sheikh Mujibur Rahman. The ground station of Satellite was constructed at Betunia in 14 June 1975 under the excellent leadership of Bangabandhu. Today the telecommunication



sector has achieved a tremendous success under the dynamic leadership of the leader of the people Prime Minister Sheikh Hasina, the worthy successor of Bangabandhu. He had taken an initiative to launch satellite in space in 1997 but after 2001, it was cancelled due to the lack of far-sightedness of the then ruling party.

Subsequently, after the formation of a government under the leadership of Sheikh Hasina, an initiative for launching a satellite had been taken which was launched in space in 2018. We started our journey in 2009 with the dream of Digital Bangladesh. Today it is on the verge of implementation. Now mobile phone handset is in everyone's hand and 97% of the area is under mobile network. Bangladesh is now the eighth largest telecom market in the world.

I said at the initiation that the present government under the leadership of honorable Prime Minister Sheikh Hasina has made a tremendous success in the telecommunication sector in the last ten and a half years. Whereas in 2008 there were 46 million mobile subscribers, now the number of mobile subscribers crossed 16 crore. Internet subscribers were merely 4 million; now the number of mobile subscribers is 97 million. Where bandwidth usage was only 10 Gbps, it has now exceeded 12 hundred and fifty.

Bangabandhu satellite -1 was launched on May 12 last year from the Kennedy space center of Cape Canaveral, USA through Falcon-9 space craft under the leadership of Sajeeb Wazed Joy, Honorable ICT advisor to Prime Minister and under the supervision of Post and Telecommunication division with concerted efforts and hard labor of BTRC all officials. The flag of Bangladesh is flying in space. Mobile Number Portability and Tower Sharing initiatives are being implemented to protect the interest of subscribers and to contain healthy competition. IMEI datacenter has been established. We have completed the experimental activities of 5G. Spectrum management and the construction of other infrastructure have been started with the aim of implementing the launch of 5G service in the country in 2023.

Work is underway to provide broadband connectivity at hard-to-reach union level including haors, islands and chars. Stringent steps have been taken to stop selling and marketing of unregistered SIM cards and unauthorized mobile handsets to ensure the security of the state and the people. The lowest price of bandwidth has been reduced from Tk. 360 to Tk.180 so that ordinary internet users can get direct benefit. Talking as much as one wants for Tk.150, line rent waiver, and opportunity to talk to other operators for 52 Paisa per minute.

The connection fee for "Dot Bangla" domain has been reduced and made easier. Nagad digital financial service has been introduced through the Postal department to make the digital financial transactions easier. Work has been started to transform the postal offices across the country into digital post office. As the dream of Digital Bangladesh is a reality today, achieving customer's satisfaction by ensuring better service is also the goal of the current government. We are strongly determined to achieve this goal. Use and expansion of new advanced and modern digital services and to bring it to the doorsteps of the people inexpensively, BTRC will continue their efforts in the coming days with the great vow to build the country –This is my expectation.

Let us build the golden Bangla of Bangabandhu by establishing Digital Bangla inspired by the version 'My dear Bengal, I love you'

I wish the overall success of the annual report 2018-2019 publication.

Joy Bangla, Joy Bangabandhu

Long live Bangladesh



**Mustafa Jabbar**  
**Minister**

Posts & Telecommunication Division  
Ministry of Posts Telecommunication & Information Technology







**Chairman**  
Bangladesh Telecommunication  
Regulatory Commission  
BTRC

## Preface

Bangladesh has changed radically with the touch of information and technology. Telecommunication is undoubtedly the major moderator of this day change. Today, Bangladesh is navigating in an international arena with pride at this time of world completion in the 21st century. The present government has adopted Information and Communication Technology as one of the primary tools to become a middle-income country within 50 years of independence and implement the vision of building a developed and enriched 'Digital Bangladesh' according to the vision 2021 and 2041, and the activities are going on accordingly.

The government continues to take groundbreaking steps for telecommunication sector considering the immense power, influence and contribution of telecommunications. BTRC is working relentlessly in this regard. In continuation of the success of BTRC, this annual report has been published highlighting the achievement of 2018-2019, successes, details of activities and future action plans. I feel both delighted and proud to be able to publish this report.

I sincerely congratulate all the running partners involved in different activities of BTRC including innumerable valued subscribers, partners, public-private organizations, departments, various operators and license-holders and thank all the employees of BTRC.

Telecommunication is a wonder in the history of rapid changing modern civilization and innovations. Different technologies related to telecommunications especially mobile phone and internet technology have changed the lives of most people in Bangladesh along with the whole world. To building a knowledge-based society, a developed country, a prosperous digital society and transformed production system the role of telecommunication and information technology is undeniable.

Compete with the usage, expansion and the speed of the technology; new innovation, affordable, efficient and smart technology brought significant changes in income, employment and lifestyle of people along with happiness and also saved money. At the same time, revenue generation, investment and GDP have raised notably. BTRC has been making a significant contribution to the development of the country as before.

BTRC has deposited about Tk. 58 thousand crores of non-tax revenue to the government exchequer from its inception to June 2019. This income was nearly four thousand last fiscal year. Its direct and indirect contribution to the development of the country is immeasurable. BTRC is working relentlessly in technical infrastructure development of the telecommunication sector since its establishment in 2002. The current total manpower of the commission is a little over three hundred. The number of various licensed organizations is 3,306. It is a challenge to continue work for so many establishments with a small number of employees.



As a result of the tireless efforts of BTRC, almost 99% of the population and 97% of the geographical area of the country has come under the mobile network. At present, there are 160 million more active SIMs in the country which is 98% of the total population, and the number of internet subscribers is 96.1 million while the number of internet density is 57.44%. The subscriber of the mobile handset and the internet has increased by 1.8 million and 0.84 million respectively in the last year.

Data-based services have 76 million 3G subscribers and 20 million fourth-generation mobile technology-4G subscribers. People have chosen digital system in the financial transaction without relying on the conventional banking system and the main driving force of this progress is an advanced telecommunication system. The country's GDP per capita income was 728 USD in 2009, now stands at 2000 USD in touch with the improvement of the telecommunication system.

At present, the contribution of this sector to the GDP is 6.5 per cent. With the expansion of Smartphone and high-speed 3G and 4G internet, different sectors including education, health, agricultural, production, food, security, energy, transport, business-trade, advanced M-service and management in public-private services and E-governance have come within the reach of the people.

As a regulatory body, BTRC is now focusing more on customer-interest protection as well as standard, reliable, cheap and advanced telecom services. It is also conducting drive tests in different divisions and districts of the country combined with the advanced technology to provide customers with better and standard service and to improve the quality of telecom services. If the service of any operators is found below the mark, the action is being taken following the concern law and rules. In the meantime, tower sharing license was issued to four organizations in reducing public health risks and structural costs which is currently in effect. It was seen by measuring tower radiation in several districts that the EMF radiation grade in observing places is lower than the acceptable value which is not harmful to public health or the environment in line with the World Health Organization and The International Commission on Non-Ionizing Radiation Protection (ICNIRP) standards.

Work is in progress to set up a combined Telecom Monitoring System (TMS) at BTRC keeping the opportunity for constant observation and analysis of all indicators including monitoring the actual condition of telecom networks and services, verifying the quality of customer service as well as earning government revenue with an automated method.

The license of Mobile Number Portability Service (MNPS) was issued to maintain fair competition among mobile operators and above all, to protect the interest of subscribers through which subscribers are now being able to take the services of the operators of their choice. A total of half-million customers have taken this service till now through changing operators of their choice. The system of biometric SIM registration introduced for customer security has already gained wide popularity. The step of mobile handset registration along with biometric SIM registration has also been taken.

As a result of the NOC Automation and IMEI Database (NAID) system installation, now the customer can check for himself whether the used handset is registered or not, which enables them to check fake and original handset from the market before buying. This seems to have greatly reduced the level of crime using a mobile handset.

To ease customer-centric facilities and complaints, BTRC call centre (Short Code-100), special mobile number, accepting complaints by post and via email have been introduced. A public hearing has been organized to listen to customer complaints regarding telecommunication as part of a series of activities.



In addition to strengthening content, application, website/link, blog monitoring, quick, effective and timely action is being taken in coordination with law enforcement, security and detective agency. A high profile monitoring team has been formed including RAB, Police, and BTRC aiming to control illegal international call and drive has been intensified. Measures have been taken to identify illegal international calls as well as to stop it by applying different logics through bandwidth monitoring of operator's SIM box detection system and self-regulation method.

The frequency has been allocated in favor of 39 satellite televisions, 29 FM radios and 18 community radios till date including the fiscal year discussed. The frequency has been allocated for Bangabandhu Satellite activities. The mediation process is underway with a treaty between India and Bangladesh to resolve the issue of cross border interference caused at the border and the solution to some problems have already been resolved. A total of 14 nationwide Internet service providers (ISP) among all the licensed ISPs have received frequency allocation. Different public and private organizations have already started taking NOC for IoT device import in the context of the guidelines for import of IoT related device.

Besides, different organizations have applied for being enlisted as an IOT device importer to provide commercial service. At present, the certificate of Mobile Phone Handset Manufacturer and Vendor Enlistment was handed over to seven companies for producing and assembling handset production locally and six companies is marketing their handset in Bangladesh by assembling with success. To issuing amateur radio certificates, a total of 198 people were given certificates through examination.

The initiative has been taken to establish a national-level central National Equipment Identity Register as per the directive of the government considering few things seriously such as to control the entry of illegal mobile handset through the compulsory registration of all imported and locally assembled mobile handsets, to increase government revenue as well as to strength national security.

Action plan regarding '5G will be launched by 2021-2023' has been adopted in line with the goal and plan of the government election manifesto 2018. The commission has issued a total of 707 licenses in the fiscal year 2018-2019. Stringent legal action has been taken along with the case against various telecommunication operators and license holders as per the Public Demands Recovery Act-1913 and Bangladesh Telecommunication Regulation Act-2001 to collect government revenues. In the last fiscal year, a total of 56 cases were filed and 23 cases were disposed of by the Commission and in favor of Commission. For disposal of all existing different cases, various effective measures have been taken.

In case of any violation of law/ regulation or condition or direction by any license holder of the Commission, the issue of serving show cause notice according to the relevant section of the Telecommunications Regulation Act-2001 and subsequently imposing administrative fine as per law has been taken into account.

With a firm conviction to build a Sonar Bangla (Golden Bengal) of the father of the nation Bangabandhu Sheikh Mujibur Rahman and a Digital Bangladesh of the honorable Prime Minister Sheikh Hasina, Bangabandhu Satellite-1 is a unique milestone. With the visionary thinking and advice of Sajeeb Ahmed Wazed, the advisor to the honorable Prime Minister Sheikh Hasina, and under the supervision of the Department of Posts and Telecommunication, BTRC had taken the overall responsibility of building and launching the Bangabandhu Satellite -1.



Bangabandhu Satellite -1 started its journey to a specific orbit in space through falcon-9 launch vehicle located at Cape Carnival of Florida, the USA on May 12 2018. As a result, Bangladesh became the 57th country to join the elite club of the satellite. To operate Bangabandhu Satellite, different waves applied for including the coaxial of Terrestrial Satellite Service as well as all those services allocated as per the Bangladesh National Frequency Allocation Plan have already allotted in favor of Bangabandhu Satellite. Consequently, space information technology will spread in Bangladesh. The implementation of the vision of Digital Bangladesh is moving forward through foreign exchange earnings, rapid development, security, reliability and low-cost global coverage.

To ensure advanced, modern and people-friendly telecommunication services, collaboration in formulating a modern and progressive regulatory structure and timely reform of Bangladesh Telecomm Act- 2001 is necessary.

I hope that everyone will discharge their responsibilities and contribute in a united manner for the betterment of this sector from their respective positions. In addition to fulfilling the obligations of the Bangladesh Telecommunication Act, this published annual report will execute the demand of the people of all walks of life with potential investors, operators, journalists, experts, policymakers, customers for telecommunication related information and data as well as to help to be aware of their rights and everyone involved will benefit

In this case, BTRC will continue to perform its responsibilities with utmost dedication, efficiency and diligence and above all, I firmly believe that public interest will be kept high.



**Jahurul Haque**

Chairman

Bangladesh Telecommunication Regulatory Commission.





## Objectives of the Commission

In order to facilitate a quick and stable socio-economic development and to provide a dependable telecommunication service, Bangladesh Telecommunication Regulatory Commission (BTRC) was established on 31 January 2002, under the Bangladesh Telecommunication Regulatory Act-2001. The main objectives are:

- (a) To encourage the orderly development of a telecommunication system that enhances and strengthens the social and economic welfare of Bangladesh;
- (b) To ensure access to reliable, reasonably priced and modern telecommunication services including internet services for the greatest number of people, as far as practicable;
- (c) To ensure the efficiency of the national telecommunication system and its capacity to compete in both the national and international spheres;
- (d) To prevent and abolish discrimination in providing Telecommunication services, to progressively effect reliance on competitive and market oriented system, and in keeping with these objectives, to ensure effective control of the Commission;
- (e) To encourage the introduction of new services and to create a favorable atmosphere for the local and foreign investors who intend to invest in the telecommunication sector of Bangladesh.





## Formation of the Commission and Present Status

For the purpose of development and efficient regulation of the telecommunication system and telecom services in Bangladesh an independent Commission namely Bangladesh Telecommunication Regulatory Commission was established in 31/01/2002 said act.

According to section 10, sub section 1 of Bangladesh Telecommunication Act, 2001, the present Commission of BTRC member (2016-2017) are as under-

Sl. No.	Name	Designation
1.	Md. Jahurul Haque	Chairman
2.	Md. Rezaul Quader	Commissioner
3.	Md. Aminul Hasan	Commissioner
4.	Engr. Md. Mohiuddin Ahmed	Commissioner

According to the Telecommunication Act the Commission is assigned with various responsibilities. Out of those established, operating, regulating maintaining telecommunication establishments and providing various telecom services in the country are the major ones. Besides, fixing charges on the subscribers, ensuring the quality & availability of services for the subscribers and to ensure the people's rights are also other important tasks of the Commission. The social and economic behavioral pattern of the telecom service providers are also monitored by the Commission to ensure that the users are not subjected to harassment or discrimination.

As a statutory organization, the Commission has to maintain its official seal and continuity as provided in the Bangladesh Telecommunication Act, 2001, clause 6(9).The law vests the Commission with such responsibilities as procuring and keeping under possession of movable and immovable properties, transferring authority, right to execute agreements and accomplishing other activities within the purview of the telecom law.

The Telecommunication Act amendment bill has been passed in 2010. According to the bill approval of the government will be needed to provide telecom services, to route international calls, importing telecommunication equipment and transferring the ownership of such equipment's. Any violation shall be punished with an administrative me of maximum of 300 core or 10 years imprisonment or both.

According to the Act, if an operator keeps violating even after being fined of take 300 crores, the said operator would be further fined at the rate of taka 1 core per day as an administrative fine.

In case of individual, the Act has the provision of charging an administrative fine of talus 100 core and maximum imprisonment for 5 years.

After the Amendment of Bangladesh Telecommunication Regulatory Act 2001, Commission needs prior government approval to issue any telecom license. At the same time; such approval will also be required for transferring ownership or to cancel any license. Earlier, different tariffs, call charge and other charges used to be determined by BTRC, now if needs prior governmental approval. In such case the government will give decision within 60 days.



## Commission's Acquisition from Foundation (2002-2019)



## Commission's Acquisition from Foundation to June, 2019

According to the 4.2 clause of National Telecom Policy, 1998 foundation of an independent Regulatory Commission is said. By this trend to control telecommunication system by maintaining balance Bangladesh Telecommunication Rule, 2001 is acted. To Materialize the rule and development of telecommunication 'Bangladesh Telecommunication Regulatory Commission' has established at 31 January, 2002.

Development activities of BTRC from 2002-2003 and 2018-2019 are given below:

No.	Subject	2002 -2003	2018 -2019
1.	Tele Density	0.54%	97.46 %
2.	Internet Density	0.1%	57.44 %
3.	Number of 3G Mobile Subscribers	50.50 Lac	61.663 million
4.	Number of 4G Mobile Subscribers	-	19.131 million
5.	Number of Internet Subscribers	1 Lac	96.199 million
6.	Licensee Institutions	139	3212
7.	Internet Bandwidth Price(Tk.)	1 Lac 27 Thousand	625
8.	Revenue Income (TK.)	120.07 Crore	3058.88
9.	Network Coverage	50/64 Districts	64/64 Districts
10.	Dealer Position and Radio Communication Vendor Licence	31	634
11.	Frequency Allocation (Organization)	35	1024
12.	Upto June, 2019 around 39 Satellite Televisions got 6/9/12 Megahertz Satellite uplink frequency allocation at 5.85-6.425 Gigahertz.		



**Comparison of development activities  
between 2017-2018 & 2018-2019  
financial years at a glance**



Comparison of development activities 2017-18 & 2018-19

No.	Subject	2017-2018	2018-2019
01.	Tele Density	92.67 %	97.46%
02.	Internet Density	53.65 %	57.44%
03.	3G Number of Mobile Subscribers	06 Crore 48 Lac	16 Crore 17 Lac
04.	4G Number of Mobile Subscribers	50 Lac	1 Crore 91 Lac
05.	Number of Internet Subscribers	8 Crore 77 Lac	9 Crore 61 Lac
06.	Bandwidth Capacity	896.5 GBPS	1338.6 GBPS
07.	Usage of Bandwidth	736 GBPS	1018 GBPS
08.	Expansion of optical fibres	1,16,278.00 k.m	1,19,779.08 k.m
09.	Voice Call Charge (Average/Tk.)	0.45 Paisa	0.45 Paisa
10.	Internet Bandwidth Price (Tk.)	625	625
11.	Mobile Number ported	-	5,55,979
12.	Number of VOIP Operations	24	93
13.	Customer Complaint and percentage of resolved issues	5279 86.70%	11657 89.26%

❖ Revenue Income of 2018-2019 Financial Year is 3058.88 Crore Taka.



## Noteworthy Future Planning



## Future Planning Of BTRC at a Glance



Noteworthy Future Planning of BTRC are following

- 5G Frequency Allocation
- Digital Broadcasting Switchover
- Upgration and expansion of Spectrum monitoring System
- Unified Licensing
- Access Regulation
- Telecom Tower Sharing Guideline implementation
- National Equipment Identity Register (NEIR)

## Mentionworthy International Organizations related with Bangladesh Telecommunication Regulatory commission



International Telecommunity Union (ITU)



Asia pacific Telecommunity



Commonwealth Telecommunications Organisation



Global System for Mobile Communications



## Activities of BTRC in 2018-2019

To perform the regulatory responsibilities, BTRC is organized with five divisions and two directorates and one wing as below:

Bangladesh Telecommunication Regulatory Commission (BTRC)		
Divisions	Directorate	Wing
Administration	Enforcement and Inspection	Media and Publications wing
Systems and Services	Finance, Accounts & Revenue	
Spectrum		
Engineering and Operations		
Legal and Licensing		

## Administration Division





## Administration Division

Administration division deals with the tasks like manpower of the commission, appointment, promotion, posting, transfer, training, arrangements of meeting, seminars, office building maintenance, purchase and maintenance of office equipment's, purchase and maintenance of vehicles, IT activities, management of library and stores, protocol services, dispatch and other activities.

### Manpower:

The organogram of BTRC comprises of 455 various posts. The manpower of the Commission as on 30th June 2019 is appended below:

No.	Appointment	Grade	Post Authorized	Post Held	Post Vacant
1	Chairman	-	01	01	00
2	Vice-Chairman	-	01	00	01
3	Commissioner	-	03	03	00
4	Director General	3	06	05	01
5	Commission Secretary	4	01	01	00
6	Director	4	13	09	04
7	Deputy/Joint Director	5	38	25	13
8	Senior Asst./Asst. Director	6/9 35/37	91	72	19
9	Asst. Director	9	11	00	11
10	Personal Secretary	9	01	01	00
	<b>Total</b>		<b>166</b>	<b>117</b>	<b>49</b>
11	Administrative Officer	10	04	04	00
12	Deputy Assistant Director	10	71	35	36
13	Personal Officer	10	10	08	02
14	Store Officer	10	01	01	00
	<b>Total</b>		<b>86</b>	<b>48</b>	<b>38</b>
15	Personal Assistant	11	15	07	08
16	Auditor	11	01	00	01
17	Reporter	11	01	00	01
18	Photographer	11	03	01	02
19	Office Asst./Admin Asst./ Comp. Operator	11/13	29	14	15

No.	Appointment	Grade	Post Authorized	Post Held	Post Vacant
20	Draftsman	11	02	02	00
21	Protocol Assistant	11	01	01	00
22	Assistant Store Keeper	11	01	00	01
23	Receptionist/PABX Operator	11	02	01	01
24	IT/ Security Assistant	11	06	04	02
25	Lab Assistant	11	02	00	02
26	Accountant	13	03	02	01
27	Cashier	13	01	01	00
28	Transport Pool Mechanic	14	01	00	01
29	Library assistant	16	01	00	01
	<b>Total</b>		<b>69</b>	<b>33</b>	<b>36</b>
30	Driver	16/15	42	42	00
31	Driver Common Service	16/15	10	10	00
32	Record Keeper	18	01	01	00
33	Dispass Rider	18	05	03	02
34	Electrician/Technician	18	01	01	00
35	Photocopy Copier	19	01	01	00
36	Pump, Lift, Generator Operator	19	02	02	00
37	Cleaner	20	06	06	00
38	Office Assistant (Tea Bar Assistant)	20	06	06	00
39	Office Assistant (MLSS)	20	42	42	00
40	Plumber	In-total 15,800/-	01	00	01
41	Office Assistant	In-total 15,550/	15	00	15
42	Cleaner	In-total 15,550/	02	00	02
	<b>Total</b>		<b>134</b>	<b>114</b>	<b>20</b>
	<b>Total</b>		<b>455</b>	<b>312</b>	<b>143</b>

### Welfare activities for the staffs

In fiscal year 2018-2019, a sum of taka 14,95,857/- (Fourteen Lac ninety-five thousand eight hundred fifty-seven) has been distributed to 78 officers/employees from welfare fund of the Commission on the basis of their application to meet the expenses for treatment/education/marriage/natural disaster.



As per job specification, all officers of the Commission are connected with internet to keep themselves updated with the latest technologies. Arrangement of Wi-Fi has been made to provide continuous support to the office of the Commission, apart from this, the officers and the employees of the commission have been provided with mobile phone facility to keep them connected round the clock.

Officers and employees have been provided with transportation facilities from the Commission.

#### **Training:**

To Improve Quality and efficiency at 2018-2019 financial year 275 officers/ Staff are given 55 training within country.

#### **Vehicle Management**

Administration division carries out the task of purchasing necessary vehicles, their distribution, and maintenance of those on behalf of the Commission. This division is very much concerned to ensure the smooth transportation of the officers and the employees of the commission. There are four officers under a Director responsible for vehicle management of the Commission.

#### **Construction of BTRC own office Building at Agargaon**

To build own office of Bangladesh Telecommunication Regulatory Commission at 15/07/2008 Directorate of Public works allotted one acre of land at Agargaon administrative area (Plot#E 5/A). According to the allotment Directorate of Public works will complete the building and Architecture Directorate will make an architectural design and according to the Posts and Telecommunication division's order Architecture Directorate made an architectural design. Already construction of the boundary wall in aforesaid land by Directorate of Public works is done. At 2018-2019 financial year 43 crore taka from RDP allotment got permission along with 500.9 Lac taka from ADP. From ADP allotment 4870.00 Lac taka 4793.95 Lac taka was already outflowed which is 98.43% of total cost. Overall about 16% work is completed till June,2019.

#### **Information/Complaint Officer**

According to the rules of Bangladesh Information Right Act,2009 an officer of BTRC has been assigned to provide information on behalf of the Commission. The assigned officer provides the desired information on the basis of this Act. Besides, he attends Complaints from the public on telecom issues.



On receipt of the complaint, he addresses those to resolve by taking necessary steps. The information/complaint officer of the Commission is:

Name of the officer	Address	
	Office	Residence
<b>Md. Nahidul Hasan</b> Deputy Director Systems & Services Division	Bangladesh Telecommunication Regulatory Commission (BTRC) IEB Bhaban, Ramna, Dhaka-1000. Phone: +88029611111 Ext-423 Fax: +88029556677 Mobile: +8801552202770 Email: nahid@btrc.gov.bd	129/B, Khilgaon, Chowdhury Para Dhaka -1219

Name of the Alternative officer		
Name of the officer	Address	
	Office	Residence
<b>Md. Zakir Hossain Khan</b> Senior Assistant Director Media & Publications Wing	Bangladesh Telecommunication Regulatory Commission (BTRC) IEB Bhaban, Ramna, Dhaka-1000. Phone:+88029611111 Ext-242 Fax: +88029556677 Mobile: +8801552202840 Email: zakirkhan@btrc.gov.bd	146/1, Crescent Road, Kalabagan, Dhaka.



## Library

- A Modern and organized library exists in the Commission at 6th floor. It remains open from 9am to 5pm. It is known as the “Library and Information Resource Center” of BTRC.
- In BTRC Digital Library and Information Center there are many registered books. There are almost many books on telecommunication and IT of International Standard collected from home and abroad. Besides, all leading newspapers of the country and recent journals from home and abroad are also made available in this library. The officers and the employees of the Commission make good use of the library to keep them updated.
- At present there are 3,427 Technical and General registered books. At 2018-2019 about 761 books are collected and registered in the library. The following categories of books has been collected in the library according to the requirements of various branches of the commission:

SI No	Subject	No of Books
1.	Administration related	710
2.	New Technology, Services and tariff related	300
3.	Frequency Management related	480
4.	Technical and Operational Technology related	430
5.	Legal and licensing related	600
6.	Finance and Revenue related	247
7.	Others	660
	<b>Total books</b>	<b>3,427</b>

The Administration division has taken various steps to collect books on newer technologies and newly edited books from renowned publishers to increase the volume of books in the library.



## Information Technology (IT) Section

The Information Technology (IT) section is one of the most important sections in Bangladesh Telecommunication Regulatory Commission. IT section has always been working diligently to ensure the safe, uninterrupted, and efficient conduct of various activities of the Commission based on information and communication technology. The Commission has taken various initiatives to make the IT section information more secure with the addition of modern and up-to-date technologies. In addition to providing daily IT services from this section, all the officers / employees working in the commission are provided round-the-clock IT related advice and assistance. IT section has also been playing an important role in implementing various e-services adopted by the government. Currently, 01 (one) Senior Assistant Director, 01 (one) Assistant Director, 02 (Two) Deputy Assistant Director, 01 (one) Administrative Officer and 05 (Four) IT Assistant are working in the IT section.



According to the demand of the officers/employees of the commission, IT section adding, updating and monitor various systems regularly to provide modern ICT services. Among them there are significant activities are in below:

- ✦ Procurement IT related goods as per the requirement of the commission.
- ✦ Regular Maintenance of commission website ([www.btrc.gov.bd](http://www.btrc.gov.bd)).



- ✚ Supervision and maintenance of the Commission's Mail Server and Spam Filter.
- ✚ Provide IT related assistance to implement various e-services adopted by the government.
- ✚ Supervision and maintenance of the LAN & Wi-Fi network in commission.
- ✚ Web server, SIP Server, Antivirus server monitoring and maintenance.
- ✚ Monitoring and maintaining all other servers used by different division.
- ✚ Monitoring Voice E1 & Internet Fiber Connectivity.
- ✚ Monitoring and maintaining power system of server rooms.
- ✚ Maintaining the IP PBX system used for the official work conversation.
- ✚ Security Surveillance System (CCTV) monitoring and maintenance.
- ✚ Providing IT support in various programs, meetings, seminars, workshops organized by the Commission.
- ✚ Maintaining multifarious hardware including desktop computers, laptops, printers, scanners.
- ✚ Providing IT related advice in various meetings organized by different departments/agencies of the government.
- ✚ Provide consultation and support to all sections & departments of the Commission;
- ✚ Apart from the demand of the Commission, necessary actions are taken from the IT section to make internet based services more efficient and effective.

#### **The activities of the IT section in the financial year of 2018-19 are in below**

1. IT section provides comprehensive support to all levels of the Commission's e-Nothi users in order to make the services of the Commission more user-friendly, easy and effective as part of the implementation of the vision 2021 to build a Digital Bangladesh announced by the government. The following activities are carried out to implement e-Nothi system from IT section:
  - (a) Frequently contact with Access to Information (a2i) to manage the Commission's overall e-Nothi system activities.
  - (b) Support and solving various problems related to nothi system of the e-Nothi user.
  - (c) Provide training on e-Nothi system to the newly appointed officers/employees of the Commission.
  - (d) Exemption/Inclusion of Officers/Employees from Nothi System for Joining/Transfer.



- (e) Inform everyone about e-Nothi system updates through focal points of different departments/ sections.
  - (f) Prepare the report of the activity details of the users in the e-Nothi system as per the demand of different departments/sections of the Commission.
  - (g) Provide remote solution to various problems related to e-Nothi system of the officials of the monitoring station of the commission.
  - (h) Merged with [online.forms.gov.bd](http://online.forms.gov.bd) for direct acceptance of customer applications in the Commission's e-Nothi system.
  - (i) Encourage applicants to apply directly to the Commission through Online Forms and provide overall support if required.
2. IT Service & Support Management Software has been procured for proper execution of IT related services and management of IT equipment.
  3. The backup internet bandwidth has been increased from 40 Mbps to 60 Mbps to meet the demand of increased manpower of the Commission's and to provide uninterrupted internet bandwidth to others department servers.
  4. 25 (twenty five) Laptops, 25 (twenty five) Desktop Computer and 05 (five) laser printers have been purchased for commission's official work.
  5. The Central Monitoring Panel has been established for round-the-clock monitoring of Security Surveillance/CCTVs to make the internal security system of the Commission more advanced and secure than before.
  6. 04 (four) new multimedia projectors have been installed in the 5th, 6th and 7th floor commission meeting rooms for better multimedia projection in various meetings/seminars.
  7. Access Control System has been installed for Biometric and Face Detection for all the officers/ employees of the Commission. Leave management module for officers/employees has also been added to this System.
  8. 08 (eight) new Access Switches have been installed instead of some defective switch in the Local Area Network (LAN) of the Commission.
  9. In order to ensure uninterrupted power supply in the server room on the 5th and 7th floor of the commission, two new (two) online UPSs have been installed.
  10. Purchase 28 (twenty eight) new IP Phones based on the demand of the Commission's officers/employees.
  11. IT section coordinate and selected 02 (two) focal points officers of each department/section to keep the commission website regularly updated.
  12. In order to recruit manpower from the Commission, various activities related to recruitment including receive online application of candidates, verification and selection of applications, prepare list of eligible applicants, preparation of admit card have been carried out.



## Annual Performance Award of 2018-2019 Financial Year

To Increase interest on official work, motivation and honesty among the officials of Bangladesh Telecommunication Regulatory Commission 01 officer (Grade 01-10) and 01 Staff (Grade 11-20) are given best employee award in 2018-2019 financial year.

Best Officer (2018-2019)



**Touseef Shahriar**

Senior Assistant Director  
Systems and Services Division, BTRC

Best Staff (2018-2019)



**Mr. Nantu Chandra Das**

Office Shohayak  
Administration Division, BTRC

## **Systems & Services Division**



## Systems & Services Division

Protecting telecom subscribers' right is very important in current world. Bangladesh Telecommunication Regulatory Commission (BTRC) is committed to accelerate the implementation of Digital Bangladesh through the progressive development of telecommunication sector and protect the interests as well as the rights of telecommunication subscribers. Already BTRC is well known as a customer-friendly government agency at home and abroad for taking various initiatives and successful implementation. Systems and Services (SS) Division is working to provide full-time telecommunication services, value added services and tariff approval. This division is also responsible for monitoring the services, market communication & promotional activities of cellular mobile network operators (MNOs), maintain the bilateral relationship with the Ministry of Post, Telecommunications and Information Technology, other government organizations/offices and circulates SMS countrywide for national interests. Beside this, SS division performs various specialized activities such as promoting a competitive market for telecommunication service providers, introducing new services and ensuring an amiable atmosphere for the investors by preparing directives and guidelines. In addition, this division arranges counselling & dispute settlement among telecommunication license holders, vendors, third party service providers and customers through maintaining a complaint centre. BTRC is the focal point of various organizations like International Telecommunication Union (ITU), Asia Pacific Telecommunity (APT), Commonwealth Telecommunications Organization (CTO), Internet Corporation for Assigned Names and Numbers (ICANN) and Global System for Mobile Communications Association (GSMA). SS Division represents Bangladesh in various types of ICT and Telecommunications workshops, seminars, forums, meetings etc in home and abroad. A brief description of the various functions of the division is presented below.

### 1. Value-added services:

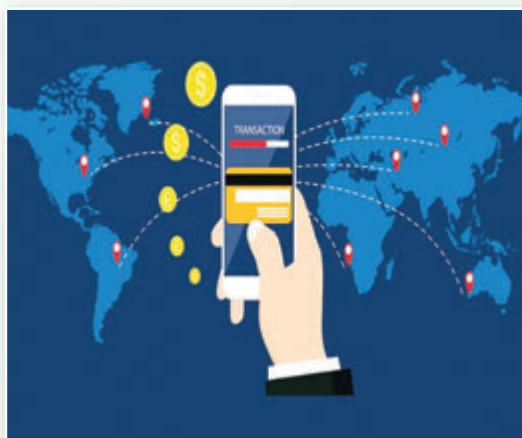
SS division works to promote innovation of the telecommunication services, create spaces for the new technologies, automate the life style & introduce new value-added services for increasing subscriber's satisfaction. Telecom operators have heightened their standard to the international level by extending various value-added services beyond their basic services. Recently, many third-party service providers have come forward to provide old and conventional value-added services by creating local entrepreneurs. On the other side, based on the customer satisfaction level, the licensed operators have introduced various innovative services to ensure their uniqueness from the other operators.

Earlier the SMS based value added services were conventional but now a days the services like Interactive Voice Response (IVR), Unstructured Supplementary Service Data (USSD), Application Protocol Interface (API), Wireless Application Protocol (WAP) etc. are widely introduced and practised. Some of the recently approved Value-Added Services (VAS) and related activities by BTRC are furnished below:



### a) Mobile Financial Services:

The mobile financial service is making significant contributions to the economy of the country by bringing about a periodic change in economic transactions. In order to provide mobile financial services, web / international recharge, e-ticketing, inward remittance, utility bill payment, mobile-banking etc. are operated under the joint operation of mobile operator with commercial bank with the convenience of e-banking



(approved by Bangladesh Bank in related matters). By which a large number of citizens are covered under banking benefits it has been possible to come.

- Core network equipment, access network equipment, annual spectrum fee, license fee, revenue sharing and other cost component for USSD services like voice and SMS service. In order to enable mobile network operators to provide better services through MFS providers, a BTRC has recently released instructions on MFS. The following charges are incurred for Session Based USSD Pricing for Digital Financial Services as per the above specifications:

SL	Description	Charge in BDT (per session)
1	Successful Revenue Generating Transaction	0.85 (Excluding VAT, SD, Tax)
2	Successful Non-Revenue Generating Transaction	0.40 (Excluding VAT, SD, Tax)

- As per the licensing guidelines, mobile network operators will share 5% of revenue earned from MFS with government and BTRC and 8% as Social Responsibility Fund (SOF). That is, the introduction of Session based USSD Pricing for Digital Financial Services will increase the revenue of the government.

### b) Call Center Based Information/Help Line:

Information services like Health Line, Agriculture Info, Education Line, Legal Line, Blood Bank Info, Travel Line etc. are provided by call center based on information service. Different operators including local entrepreneurs are rendering these services. SS division monitors the operators' helpline to protect customers' right.





### c) Tracking Service:

Prior to issuing Global Positioning System (GPS) based tracking services, the Commission is obliged to obtain tariff approval. Subject to the approval of the Ministry, the tariff approval letter was issued from the Department of Systems and Services in connection with the application of the licensed entities. In addition to GPS, these licensed companies offer such tracking services using Location Based Services (LBS) technology.

At present, the number of Vehicle Tracking Service License is 37.

### d) News Alert Service:

In order to keep the people updated with latest news of home and abroad, news services have been introduced through SMS, IVR based News/Alert Service. To provide this kind of services, SS division formulates specific policies for the operators.



### e) International Payment And Recharge Service:

To give the facilities to the Bangladeshi people living outside of Bangladesh such as Middle East, America, England; SS division provides no objection certificates (NOC) for International Payment & Recharge Service (IPRS) for providing the facilities of paying mobile air time top up and utility bills. According to the provisions of BTRC and Bangladesh Bank, after getting clearance, organizations can provide services to such users through their website, apps, agent and resellers.

### f) IPTv and Video On Demand Service :

Internet Protocol television (IPTV) is the delivery of television content over Internet Protocol (IP) networks. Recently, ISPs in Bangladesh are being allowed to experimentally provide IPTV services on test and trial basis. The 30th Meeting of the DNCC was held in the Prime Minister's office chaired by the Honorable Prime Minister's Chief Secretary on 30th October, 2018. In that meeting this following decision was made: "All types of IP based data services (Streaming service, IPTV, Video-on-Demand, etc.) will be considered as part of Internet and telecommunications data services and ISP operators can provide all such services. BTRC will promptly issue the necessary notice in this regard and will notify the

Prime Minister's Office.” To implement the decision of the 8th meeting of the DNCC, Commission took decision to allow all ISP operators to provide Streaming Service. IPTV, Video on Demand (VOD) services (subject to Commission permission). Accordingly, all ISP operators were notified by letter and after receiving application from ISPs, IPTV Service Provider Permission (on test and trial basis) is issued by Systems and Services Division. Determination of required tariff of IPTV Service is under process with the Ministry. Currently, 24 ISPs are granted to provide IPTV service and 20 ISPs are granted to provide Video on Demand service on test and trial basis.

### **g) Apps Based Calling Service**

Nationwide IPTSP operators are approved by the Commission for the Apps-based Calling Service. Currently, an IPTSP operator called Intercloud is providing an Apps-based Calling Service called Brilliant Connect. Note that up to six IPTSP operators have been approved for Apps-based Calling Service. These IPTSP operators are Intercloud Ltd., Amber IT Ltd., Link3 Ltd., Bdcom Ltd., ICC Communications Ltd., BD com online Ltd. And Metronet Ltd. Using the Apps-based Calling Service, customers are enjoying a variety of services from Apps to Apps and from Apps to mobile phones.

## **2 .Formulation of Telecommunication Guidelines/Directives**

According to Bangladesh Telecommunication Regulatory Act-2001, Section 31(2) (Ta), directives are provided by the Commission for enhancing the proper environment and customer satisfaction in telecommunications system. On behalf of the BTRC, SS division initiates various guidelines, directives and other regulatory documents. Recent promulgated directives and guidelines are under process along with other important activities of BTRC. Few of them are given below:

### **a) Subscriber Registration Process**

Subscriber re-registration of mobile phones through Biometrics Verification, conducted nationwide from 1st December, 26th, with the approval of the appropriate authority of the Government, has been completed on May 7th. A Central Biometrics Verification Monitoring System was set up at the Commission to monitor the said verification activities and to apply various regulatory tools to the said system. The Disaster Recovery (DR) server was installed at the data center (DC) of the Central System and Bangladesh Submarine Cable Company Limited located in Tejgaon in a designated room at the BTRC office. The Central Biometrics Verification Monitoring Platform has been fully launched on June 3, 2010. As a result, it is possible to fully monitor the SIM / RIM registration, re-registration, de-activation, replacement,





change of ownership and other related activities of all mobile operators and from time to time, the Commission has made it easier to impose rules on SIM / RIM. Re-registration has been completed in the SIM Biometrics system of a total of 25 million and 4,000 subscribers till the date of 3-5-20. Unregistered SIMs have been disconnected from June 1st. However, there is an opportunity to re-activate these SIMs through proper registration.

## b) Mobile Number Portability Guideline

Mobile Numbers Portability (MNP) is a popular value-added service in the telecommunications world. To speed up the telecommunication services many countries around the world have already launched the MNP. MNP allows the mobile subscribers to retain the existing mobile number when the subscriber shifted from one mobile operator to another. Although MNP is a value-added service but it is considered as a "Regulatory Tools" in the telecommunication world. Basically it has been introduced to reduce the scope of the monopoly/exclusive business for mobile phone operators and increase competitive market amongst them. MNP has been introduced in such countries where the competition is comparatively higher. As a whole the MNP benefits the customers in such types of competitive market. However, during induction phase of the MNP, mobile operators in almost all countries remain concerned as every operator's priority is to retain its own customers. However, initially every mobile operator of almost countries has reluctance about to launch MNP.



Press conference on Mobile Number Portability (MNP)

Already commission has introduced a directive on Mobile Number Portability which is yet to be implemented. However, on the basis of mobile operator's application to extend the time for launching the service, a steering committee comprising MNOs, interconnection exchange (ICX) and the International Gateway (IGW) has been formed. According to Committee's report and the opinion of public consultation organized by the commission, it has been decided to introduce MNP in Bangladesh through a third party. In this regard a draft guideline has been sent to Post and Telecommunication division for approval. After finalization of the guideline BTRC received permission from the ministry to issue MNP licenses. Later, the postal and telecommunications department approved the revised guideline and sent it to the commission. This resulted in the issuance of a Mobile Number Portability (MNP) license to an organization called Infozillion Teletech BD in light of the guidelines approved by the ministry from the Commission. Based on the Directives of the MNP issued by the BTRC, the concerned partners complete their own platform-making activities. The MNP began its commercial activities on October 7, 2011 and the Honorable Prime Minister of the Government of the People's Republic of Bangladesh inaugurated the Mobile Number Portability (MNP) service on October 27. It is important to note that the total number of ports up to June 30 in 2019 is 485695.

### c) Tower Sharing Policy

According to the present practice in Bangladesh, different mobile operators are establishing their own towers as per their choice. This helps us to get good network. At the same time it seems that tower locations are chosen without mutual coordination between operators as many towers are located in small area.



All license holders are in a frame with Honorable minister, secretary and chairman BTRC

This causes serious threat to people and nature with the increasing level of radiation. In some cases, the tower is being set up on the cultivated land, due to which the amount of cultivated land is decreasing. Also it is increasing the demand of



electricity connections. Considering all things, the Commission has taken initiatives to prepare a guideline on “Tower Sharing”. Considering the total number of towers and shared Towers, various parameters/resources, different models of tower sharing and its advantage/disadvantages a draft copy of “Tower Sharing” Guideline has been sent to Post & Telecommunication Division by commission for approval. After that post and telecommunication division sent a letter with direction. According to the ministry’s direction, commission has sent the amended draft guideline to Post & Telecommunication Division. Now “Tower Sharing” guideline is under process in Post & Telecommunication Division for approval.

#### **d) ILDTS Policy**

In the light of the decision of the DNCC meeting for the review of International Long Distance Telecommunication Services (ILDTS) Policy 2010, ITU consultants discussed with stakeholders in December 2017 and March 28, 2018. Accordingly, on March 28, 2018 ITU's advisors filed a report for the 'Public Consultation' with the BTRC. On June 18, 2018, a report prepared by ITU's consultants was sent to the BTRC, based on the views of the telecom industry / stake holders.

A committee has been constituted by the BTRC following the direction of the ministry in this regard. In the context of Bangladesh, a committee has been working to prepare the recommendations by making necessary corrections / refinements with the priority of the local entrepreneurs. If implemented, it is expected that the scope of providing licensing services to existing Bangladeshi entrepreneurs will expand. As a result, they will be encouraged by new investments. At the same time, the opportunity for foreign investors to participate in a dynamic, transparent and efficient telecommunication system will be created in the long run so foreign investment will be greatly encouraged. In a nutshell, a similar telecommunication system will attract huge amount of domestic and foreign investment in Bangladesh as in other countries.

#### **(E) Significant market power**

From the Commission on 9/12/2018, according to the Bangladesh Telecommunication Regulatory Commission (Significant Market Capability) Regulations, 2018, a committee was formed to determine the effective market capability of cellular mobile phone operators. Subsequently, the recommendations of the committee constituted to determine the direct market power of the Commission from the Commission's Systems and Services division were presented at the 223 Commission meeting, considering the number of subscribers, the annual revenue earned and the wave allotted by the Commission. Grameenphone Limited was declared as a significant market capability operator by the Commission on 10/02/2019. On 9/8/19, the list of taxable and excluding lists was sent to Grameenphone Limited as the operator of the Retail Mobile Services market with significant market potential. Thereafter, on 12/05/19, Grameenphone Limited was





given notice of certain directives towards the retail mobile service related market operators of 'significant market capability' and, on the last 30/05/2019, On 9/8/19, Grameenphone Limited was instructed to take up the role of 'Significant Market Capability' operator in the retail mobile services market.

### 3. Others Important Activities

Besides, carrying out the above activities, SS division is also performing some other activities of which the important ones are discussed below:

#### a) National Security Related Activities

BTRC & telecom operators are constantly assisting Law Enforcement Agencies (LEAs), Anti Corruption Commission, Customs, Courts & other offices/organizations for protecting the national security of Bangladesh. As a part of these activities, support/information is provided for the purpose of Call Detail Record (CDR), Subscribers Acquisition Form, Location Based Tracking, VoIP/Illegal telecommunication service detection, unregistered connection (SIM/ RUIM) termination etc. Besides this, for national security, biometric verification process has already been completed to ensure mobile subscriber's registration.

#### b) Formation of BD-CSIRT

Computer offense and punishment provision has been mentioned in Bangladesh Telecommunication Regulatory Act, 2001 section 66 to 74. Under section 16, the power has been delegated to BTRC to form a committee for performing such kind of work. Bangladesh Computer Security Incident Response Team (BD-CSIRT) has been formed for protecting anything which imperils the security of the nation and Internet based offence like Data Intrusion, Identity Theft, Malware Infection and Cyber Crime. BD-CSIRT provides the Vulnerability Scanning Service to other organizations. Lots of anti-government and anti-religion content for which objections are raised from NTMC and different govt. organizations are blocked through IIG, except any 'Dynamic-link' based content/hosting repository.

#### c) Public Awareness Related Activities

This division is responsible for sending free SMS to nationwide (only national level facts/activities) in response to the request by various ministries, government, international, multinational, service oriented and educational offices/organizations for enhancing public awareness. For implementing the task, Cellular Mobile Operators play an important and praiseworthy role.

#### d) Complaint Management Task Force

Development of telecommunication sector in Bangladesh's is growing progressively. Along with the development of the telecommunication system, the number of service



providers and users of the telecommunication operator has increased. For that the complaints of subscribers regarding services of operators increased. The access network service operators have their own customer care centers for resolving customer complaints. But there are some services / problems that are not directly related to operators, such as online social media. Meanwhile, due to the widespread expansion of the Internet and smart phones and also the increasing interest, the activities of the miscreants in online have increased greatly. User's unconsciousness to use Facebook, Twitter, YouTube etc is basically responsible for unhealthy situation. To get rid-off the situation people are continuously knocking the commission for solving these issues and related consultations.

However if the petitioner does not get proper compensation, or if neglected/ or his right is not preserved, he has the scope of informing the commission. In addition to conventional post, email and web based media; the short code '100' has recently been introduced to take the complaints directly through the call. By calling directly to the short code, subscribers in the country can submit any outstanding complaints or suggestions regarding telecommunication services to BTRC. '100' is a timely addition of BTRC to receive subscriber's complaint. The details of complaints received through the BTRC call center, settlement number, number of outstanding complaints etc. is summarized in the table below.

Table-1 Summary:

Duration	Complaint Received	Complaint Resolved	Complaint Pending	Resolution %
1 July 2018 30 June 2019	10528	9373	1155	89%

Table-2 Modality:

Name of the Medium	How a plaintiff can reach the medium	Available during
Short code -100	Call 100 by using any Bangladeshi number	24 Hours 7days in a week (24/7)
Complaint BOX	Complaint BOX in BTRC Website	24 Hours 7days in a week (24/7)

#### e) Social Obligation Fund

Social Obligation Fund (SOF) Rules'-2014 was formulated by the Government of Bangladesh on 14/12/2014. Under the provisions of the Bangladesh Telecommunications Regulation Act, 2001of 21(k) the following projects are funded under the stated funds for the establishment of special telecommunication system to tackle or manage disasters, including the implementation of projects adopted for the people of the deprived areas of telecommunications and information and communication technology facilities:



1. An initial amount of Tk. one hundred crore has been provided for the implementation of the project called "Establishment of Connected Bangladesh Network" in the remote areas adopted by Bangladesh Computer Council. The total expenditure for this project has been estimated at Tk. four hundred seventy seven crore.
2. An initial amount of Tk fifty crore has been provided along with Teletalk Bangladesh Limited for the implementation of the project titled "Establishment of High Speed Mobile Broadband Network in Haor and Binh Region" by Teletalk Bangladesh Limited. The total expenditure for this project has been estimated at around Tk one hundred eighty three crore.
3. An initial allocation of Tk. Twenty crore was given for implementation of the project titled "Establishment of network in island area through satellite" proposed by Bangladesh Communication Satellite Company Limited. The total expenditure for this project has been estimated at around Tk. Forty four crore.

#### **F. Review of International Call Termination Rate**

International Gateway (IGW) operators are always conducting their business within the government fixed tariff range. Although there is no direct negative business effect on IGWs operators but recently competition has increased as many entrepreneurs are being interested in this business. Thereby, the self-sustainability of IGW business became interrupted. So keeping correlation with competitive market systems, IGW operators are terminating international call at a lower rate than the fixed price which is contrary for sustainable business in this sector in long run. The main reason of this situation is by pass government's revenue through call-termination by illegal route. For this, IGW operators are facing business trouble. Considering the mentioned issues, Commission has sent a proposal to Ministry for international call termination rate on experimental basis as USD 0.015 per minute (revenue share calculated on USD 0.015). With approval of the government, the experimental international call termination rate is minimum USD 0.015 per minute (minimum rate; revenue share calculated on USD 0.015) . On 01/12/2016, a committee was formed with the representative of Post and Telecommunication Division, BTRC, Finance Ministry and National Revenue Board for reviewing international call termination rate, revenue sharing model and amendment of guidelines. The committee was asked to submit a proposal with reset international call termination rate, revenue sharing model and related guidelines to the BTRC on the basis of market, demand and present situation. Committee members called for several meetings and discussed and reviewed the issue in details. At the same time, in order to take the opinion regarding this issue, committee has consulted with the



concerned operators such as IGW operators - IOF, Interconnection Exchange (ICX) operators and mobile operators Forum-AMTOB in different time. Considering all the facts, committee has submitted a proposal to commission. From the Commission on the last 22/2/2018, the lowest Call Termination Rate (Floor Rate) was fixed at USD 0.0175 / min, the highest Call Termination Rate (USD 0.0250 / minute). It is also decided that the minimum call termination rate will be Revenue Shares at USD 0.0175/ min.

### **g) Cost Modelling**

Achieving economic growth is very important by ensuring affordable telecom services as well as creating a favorable environment for business and investment in telecom sector. For this purpose, cost modelling was modeled by ITU for voice calls for 2G services in 2010. Now 4G services have been launched in Bangladesh. Besides, the demand for the internet has increased. Reducing internet price is very important to increase internet penetration. The current internet tariff is a maximum of 1tk / MB, which is the lowest ever. In that context, the decision has taken to create a data Cost modelling with the help of International Telecommunication Union (ITU). After the decision of 192nd commission meeting, cost modelling process has started. In June 2017, Stakeholders' workshop was held with the presence of ITU expertise. In that workshop, details of the 'Data Request template' which were sent by ITU were presented to representatives of stakeholders. Accordingly, 'Data Request template' has already sent for collecting data. Accordingly, the operators sent the data request template to the commission. ITU specialist has monitored, analyzed and scrutinized the data. Final Product of Cost Modeling has been handed over to BTRC. Regarding the cost model report, the BTRC Chairman informed the ICT Advisor to the Honorable Prime Minister. Checking the submitted reports and current market conditions: The next procedural aspects are being reviewed.

### **h) Public hearing**

In accordance with the provisions of the Bangladesh Telecommunication Regulation Act, 2010 of 87(1) and as a national purification strategy, a public hearing on the activities of telecommunication services and regulatory bodies was organized on June 12, 2019. In order to carry out the activities of the Public hearing Program, the Daily Prothom Alo and the Daily Star was published on 26/21/21. The public hearing, including representatives of the organization from various professional, consumer rights associations, online registered participants, media and other good people participated in the mass protest. Online registration was free from the last 24/05/2019 to 03/06/2019 to participate in the public hearing. During that period, 202







Public hearing 2019

applicants sent 1319 questions. There were 165 registered questioners in the program. In addition, representatives of various government non-governmental organizations, media and law enforcement agencies participated in the mass protest. Representatives at the public hearing questioned various issues and were given answers from the Commission. Initiatives have been taken to publish answers to every question registered on the BTRC website. In addition, instructions were given to the operators concerned to resolve various complaints of the customers. As complaints about service delivery are an ongoing issue, organizing such mass hearings is also part of the responsibility of the Commission which is being divided by the Systems and Services Department.

i) Determination of logical service and tariff of cellular mobile phone service:

Tariffs for various services of mobile phone operators have been determined through Cost Model, under the supervision of the Commission, to create a healthy competitive market among the telecommunication service providers, and to provide reasonable and affordable telecommunication services to the customers of the telecommunication service. Telecommunication services companies operate their businesses within the stipulated tariff. The following is a tariff chart of the various services of mobile phone operators:



### Voice Tariff Chart:

SL (1)	Description (2)	Voice Tariff (Excluding VAT & all other charges) (3)	Remarks (4)
1	Maximum Tariff	BDT 2.00/min (Any-net)	
2	Minimum Tariff	BDT 0.45/min (Any-net)	
3	Interconnection Charge for Off-net call	BDT 0.14/ min (ICX BDT 0.04/min & Terminating Operator- BDT 0.10/min)	Applicable for all ANS (MNO, PSTN & IPTSP)

### Revenue and Investment (Mobile Operator): 2018-19

SL	Mobile operator	Revenue (Tk. In crore)	Investment (Tk. In crore)	Remarks
1.	Grameenphone Limited	111,93.51	822.35	
2.	Banglalink Digital Communications Ltd.	33,89.38	3,524.20	
3.	Robi Axiata Ltd.	52,37.66	1,513.75	
4.	Teletalk Bangladesh Limited	6,11.26	522.62	
	<b>Total</b>	<b>204,31.81</b>	<b>6382.92</b>	



## Spectrum Division



## Spectrum Division

### Introduction

Current telecommunication system has been changing rapidly due to innovation of modern technology. In the same time, the demand for subscribers' mobility and higher data rate are also accelerating. In order to meet these increasing demand, usage of radio frequencies in different spectrum bands have become a necessity. From the very beginning, Spectrum Division has been working on current and future demand of different spectrum bands, search for new spectrum, make them usable, creating guideline and taking correct and efficient decisions on these and other relative issues. As the expansion of telecommunication industry is depending in these issues, in order to have a sophisticated and efficient telecommunication system, we need a proper planning and feasible spectrum planning which will help in the expansion of this industry and will create an investment friendly environment. At present, Spectrum Division has been doing this task efficiently.

Currently, spectrum department has been working on spectrum allocation for different radio services, as well as spectrum surveillance and management. In last 2018-2019 financial year, apart from regular activities of spectrum department some other new projects have been completed. In the next sections, detailed description of these programs and activities performed to provide various Terrestrial and Satellite Radio Communication Services from this Division, will be described.

### 2. Activities of Spectrum Management Department

#### 2.1 National Frequency Allocation Plan

Though spectrum is a limited natural resource, the domain of its need and use is enormous. It has huge demand all over the world. When the same frequency is used in neighboring countries or by different technologies, there are possibilities of interference. In order to avoid such occurrence, every country has its own frequency allocation plan depending on technology-based spectrum management in different ITU regions. This plan is known as National Frequency Allocation Plan (NFAP). After BTRC was established, initially NFAP was prepared by UK based consulting firm 'Interconnect Communication' in the year 2004, financed by the World Bank aided project 'Strengthening the Regulatory Capacity of BTRC'. Due to evolving technology and to ensure best use of radio frequency, NFAP was modified again in 2010 by another UK based consulting firm 'Helios Technologies Ltd'. Later on, it was revisited and revised for the 3rd time with the help of ITU expert during the fiscal year 2018-2019. According to ITU Radio-Regulation, the 9 KHz to 275 GHz frequency band has been reserved for various services in NFAP. When frequency users/ operators apply to the Commission for spectrum, Commission assigns the frequency to the eligible users by consulting the NFAP and thus ensures appropriate and timely use of spectrum.





ITU consultant Dr. Azim Fard is discussing with the officials of Spectrum Division regarding NFAP revision

## 2.2 Procedure of Spectrum Allocation

According to the Bangladesh Telecommunication Control Act, 2001 the Commission shall have absolute authority regarding the allotment of radio frequency or using radio equipment. The Spectrum Management Division assigns frequency upon application to the Commission for the assignment of spectrum, in a prescribed form duly filled up, along with the payment of spectrum assignment fees and inclusion of necessary papers. The application is then reviewed on the basis of National Frequency Allocation Plan (NFAP) as per Section 56 (1) of the Bangladesh Telecommunication ACT, 2001. Thereafter, it is placed to the Spectrum Management Committee (SMC) for their opinion. The SMC comprises of 13 (Thirteen) members from the university, concerned security agencies of the government, concerned ministry and representatives from BTRC. The Commissioner of the Spectrum Division and Director of the Spectrum Management Directorate are respectively the convener and member secretary of the committee.

It is worth mentioning that the sole responsibility of assigning spectrum belongs to the commission. According to the decision of the Commission the spectrum is assigned to the applicant. During 2018-2019 fiscal year, 05 (five) SMC meetings took place on 13 August 2018, 6 November 2018, 10 December 2018, 7 February 2019 and 2 April 2019. During these meetings, decisions regarding frequency assignment for various government and non-government organizations were taken with due deliberations.

## 2.3 Cross Border Interference

Most of the international borders of Bangladesh are shared with India except some part in the southeast region which is with Myanmar. Due to the nature of radio waves a coordinated use of spectrum in border areas with neighboring countries is very important. Otherwise, there is a chance of frequency interference. Also due to





the zigzag or spiral borderline of Bangladesh, the chances of creating interference with neighboring countries are more. Cross border interference, arising in any border areas of the world generally resolved through discussions among the affected administrations. Till date, cross border interference issues between Bangladesh and India, has been resolved through discussions between the countries and some issues are still pending. The table below gives the glimpse of these activities performed during last 2017-2018 fiscal year:

Sl. No.	Description of interference	Step taken	Result
1	Complain of frequency interference in the assigned spectrum of cellular mobile phone operator Airtel in the district near the border of Bangladesh named B-Baria, Comilla, Hobiganj, Chandpur was received. The interference was caused by Indian cellular mobile phone operator Reliance Jio which confirmed by the investigation conducted by BTRC.	During 08-12 August, 2016 under the leadership of Chairman, BTRC and in the presence of the Director General of Spectrum Division a bilateral meeting between BTRC and Telecom Regulator Authority of India (TRAI) was held in New Delhi in India.	Officials of Reliance Jio, India agreed to work in collaboration with Airtel, Bangladesh to mitigate the frequency interference in Border area. Result: Frequency interference has been resolved.
2	Complain on interference received in Rangpur, Nilphamari, Gaibandha, Dinajpur, Lalmonirhat, Kurigram and Naogaon District in the assigned frequency of Cellular mobile phone operator Grameenphone. Through a joint investigation of BTRC and Grameenphone it was observed that the interference was originated from an unknown source in Shiliguri, India.	Officials from Grameen Phone, Airtel of Bangladesh and Reliance Jio of India were present in that meeting.	In the meeting the Indian authority ensured that steps had been taken to stop the transmission from the Shilliguri of India. Result: Frequency interference has been resolved.
3	Report of an interference received in the assigned frequency of a Cellular Mobile Phone Operator and a Broadband Wireless Access Operator of Bangladesh in border area. The incident was notified to Indian Authority.	Meetings were held with the Indian authorities during 23-25 August, 2017 under the leadership of Director General of Spectrum Division BTRC, Brig. Gen. Md. Nasim Parvez.	According to the decision taken in the meeting both countries agreed to prepare and follow a Standard Operating Procedure (SOP) regarding radio frequency usage in border areas through mutual coordination. A draft SOP is prepared with due consultation amongst MNOs and sent to Indian Authority for their remark

Initiatives taken to resolve Cross-Border interference



Bilateral meeting between India and Bangladesh regarding Cross Border Interference in New Delhi, India during 2017-2018

## 2.4 Terrestrial Services in Bangladesh

According to Radio Regulation issued from International Telecommunication Union (ITU) all radio communication services have been defined as Terrestrial Service except Space Radiocommunication and Radio Astronomy. The following section gives a detail description of different Terrestrial Services in Bangladesh:

### 2.4.1 2G and 3G cellular mobile phone services

Since the last decade of the previous century, 825-845/870-890, 885-890/930-935, 890-915/935-960 and 1710-1785/1805-1880 MHz frequency bands are being used for cellular mobile phone services using 2G technology. With this technology, subscribers are able to use low-speed data service alongside the voice call. In order to spread high-speed mobile broadband service to the people of distant corners of the country, 35 MHz frequency have been assigned to 5 (five) Mobile Phone Operators to provide services through 3G technology in the year 2013. Most of the operators have achieved their 3G network rollout target before the time limit with the support of the Spectrum Division of BTRC. As a result, 3G mobile phone service is also available in other cities including all districts headquarters of Bangladesh, along with 2G mobile phone service. 3G subscribers are availing high speed internet, enjoying television in mobile, video conferencing service and video on demand service.

#### 2.4.1.1 Technology Neutrality in 800, 900, 1800 & 2100 MHz Band

In 2017-2018 fiscal year, initiatives have been taken to introduce 'Technology Neutrality' in the frequency assigned to the cellular mobile phone operators of the country from 800, 900, 1800 & 2100 MHz spectrum band. After successfully introducing this feature, spectral efficiency of the spectrum increased and cellular mobile phone operators are now able to provide 2G, 3G and 4G/LTE services in the same spectrum with little investment. The following table presents the amount of





technology neutral frequency assigned to the cellular mobile phone operators to provide 2G, 3G and 4G/LTE cellular mobile phone service

Name of the Operator	Assigned Frequency without Technology Neutrality Feature	Assigned Frequency with Technology Neutrality Feature		
	800 MHz Band (MHz)	900 MHz Band (MHz)	1800 MHz Band (MHz)	2100 MHz Band (MHz)
Grameenphone Ltd	---	7.4	19.6	10
Robi Axiata Ltd	---	9.0	17.4	10
Banglalink Digital Communication Ltd	---	5.0	15.6	10
Teletalk Bangladesh Ltd	---	5.2	10	10
Pacific Bangladesh Telecom Ltd.	8.82 (Dhaka Central Zone) 6.30 (Rest of the Bangladesh)	---	---	---

#### 2.4.2 Introduction of 4G/LTE Service in Bangladesh

With a view to keep pace with the progressive global development in the field of technology, Bangladesh is also moving ahead with the inception of 4G/LTE in the country. On 19 February 2018, Grameenphone Ltd., Robi Axiata Ltd., Banglalink Digital Communications Ltd. and Teletalk got the 4G-license in order to use relevant frequency and radio-communication apparatus. According to the related guideline the licensed operators are obligated to provide 4G/ LTE coverage to the Divisional Headquarters within 09 (nine) months, to the 30 percent districts within 24 (twenty-four) months and to all districts with 36 months of obtaining the license. In order to provide better 4G/ LTE experience to the people of the country required spectrum in 900, 1800 and 2100 MHz band has been auctioned on 13 February 2018. Besides technology neutrality has been provided to the existing spectrum assigned in favor of the operators. Due to the introduction of 4G/ LTE service, the people from remote and distant corner of the country will be able experience the benefits of high speed mobile broadband service which in turn will take the country a step ahead towards Digital Bangladesh.

#### 2.4.3 PSTN Service

In order to reach fixed phone services to the door steps of the people of the country in parallel to mobile phone services, PSTN license was provided to 14 (fourteen) organizations. In this context, spectrum from CDMA 450 MHz, CDMA 800MHz and CDMA 1900 MHz band had been assigned to those organizations according to their demands. But later on, assigned spectrum of some PSTN operators had been cancelled due to their involvement in different illegal activities. Due to the lack of financial investment and failure to expand the network coverage, many operators have minimized their services or stopped completely. At present other than the state-owned operator Bangladesh Telecommunications Company Limited (BTCL) and privately-owned Banglaphone Limited, other PSTN operators do not have citable activity. To ensure the effective use of unused spectrum BTRC already cancelled the frequency in favor of all PSTN operators except BTCL



#### 2.4.4 Broadband Wireless Access Service

In order to provide internet access to everywhere in Bangladesh, especially in the underserved area, two Broadband Wireless Access (BWA) licenses has been awarded in 2008 through open auction. Augere Wireless Broadband Bangladesh Ltd. and Banglalion Communications Ltd. each had been awarded 35MHz of spectrum from 2.3GHz & 2.5GHz band respectively as licensee in that auction. To aggregate the proliferation of the service, later on, Bangladesh Internet Exchange Ltd. has been awarded with the third BWA license with 40MHz spectrum from 2.6GHz band in 2013. Though primarily WiMAX was the technology to be used for BWA service, due to the technological evolution, LTE has been allowed to the licensees to provide the faster internet service throughout the nation especially in rural area. It has been possible to bring down 75% of the district towns of Bangladesh under wireless broadband network but due to the popularity of mobile internet service, the number of broadband subscribers in Bangladesh dropped down to 0.1 million. Under this circumstance, consulting with the ministry, BTRC has implemented the reduced bandwidth price as planned. Broadband wireless Access (BWA) service operators has potentials to improve the telecommunication infrastructure and proliferate the internet service at the grassroot level of Bangladesh.

#### 2.4.5 Wireless Internet Service Provider

BTRC has issued license to 14 (Fourteen) Internet Service Providers to provide wireless internet service for data communication in Bangladesh. 11 (eleven) of the ISPs received assignment on 3.5 GHz Band. Out of these 11, additional assignment in 800 MHz and 5.6 GHz were issued for Bangladesh Internet Exchange Ltd., X-Net Ltd. and ADN Telecom Ltd. by Commission. Apart from this, frequencies from 5.2 and 5.6 GHz are assigned to Beximco and BDCOM Online Limited. furthermore, a case is going on with Poly Trade who is currently holding frequencies in 2300 MHz Band.

The list of these ISPs is given below.

Serial No.	Name of the Organization	Assigned Frequency			
		TX (MHz)	RX (MHz)	UL/ DL	Bandwidth
1.	AAMRA Network Ltd.	3407-3410.5	3507-3510.5	3.5/3.5	7
2.	BRACNet Ltd.	3410.5-3417.5	3510.5-3517.5	7/7	14
3.	Agni Systems	3421-3428	3521-3528	7/7	14
4.	Bangladesh Internet Exchange Ltd.	806-816	847-857	10/10	20
		3428-3435	3528-3535	7/7	14
		3435-3442	3535-3542	7/7	14
5.	Tackyon Ltd.	3442-3449	3542-3549	7/7	14
6.	Link3 Technologies Ltd.	3449-3456	3549-3556	7/7	14
7.	X-Net Ltd.	3456-3470	3556-3570	14/14	28
		5500-5560	5600-5660	60/60	120
8.	Square Informatics Ltd.	3470-3477	3570-3584	7/7	14
9.	ADN Telecom Ltd.	3477-3484	3577-3584	7/7	14
		5670-5685			15
10.	Ranks ITT Ltd.	3484-3491	3584-3591	7/7	14
11.	Access Telecom Ltd.	3491-3498	3591-3598	7/7	14
12.	Beximco	5260-5275		15	15
13.	BDCOM Online Ltd	5660-5670		10	10

List of Wireless Internet Service Providers in Bangladesh



All of these ISP's provide reports to BTRC according to form prescribed by the BTRC. Through these reports, it is possible to evaluate the operation performance of these ISP's. As a consequence and according to the instruction from Government the unused spectrum assigned to these ISP's are revoked to ensure the best use of spectrum.

#### **2.4.6 Terrestrial Television Broadcasting**

In Bangladesh only Bangladesh Television (BTV) is providing terrestrial television broadcasting service. BTV is using 174-230 MHz spectrum in VHF band for this transmission. It is to be noted that, worldwide Analog Broadcasting System is dissolving in various countries and digital Broadcasting system with more advantages is introducing in lieu of that. Due to the spectral efficiency in digital terrestrial television broadcasting system, more channels can be accommodated in the same amount of spectrum comparing to analog technology. Moreover, in future the production of analog broadcasting transmission equipment is likely to be close down. Considering all these, BTRC has completed procedures of reserving spectrum of 522-614 MHz UHF band for Digital Terrestrial Service in Bangladesh. As a result various television broadcasting organizations will be able to provide different services including improved picture and sound, interactivity, video on demand and datacasting by using spectrum in digital terrestrial broadcasting system in future.

#### **2.4.7 FM Radio Broadcasting**

Radio wave is an easily accessible medium of mass communication. It is possible to send important news, news of development works, entertainment etc. to the people of the distant corner of the country very conveniently with the help of this medium. FM Radios being a very popular means of broadcasting, it is now easily possible to create common public opinion for welfare of the society, create awareness against rumor and superstitions, make people aware against militant activities, promote the importance of public education, industry, culture, music, history, tradition, sports etc. For this purpose, the license to operate FM radio broadcasting is provided from the Ministry of Information (Mol). Those who have been awarded the license to establish and operate FM radio broadcasting from the Mol, seek frequency to BTRC and spectrum is assigned from 87.5 to 108 MHz band i.e. 'FM band' from BTRC according to National Frequency Allocation Plan (NFAP). Each organization has a spectrum allocation of 200 kHz for broadcast in the FM band and 200 KHz has been kept unallocated between two operators, which is working as a guard band. As a result, it would be possible to provide spectrum allotment to 51 (fifty-one) spots in the FM band. Till 2018-2019 fiscal years, licenses have been issued to state owned 'Bangladesh Betar' and 28 (twenty eight) non-government organizations for FM radio broadcasting. List of 29 (twenty nine) government and non-government organizations who have been assigned spectrum from BTRC for FM radio broadcasting are as follows:



Serial	Organization name	Allocated frequency
1	Bangladesh Betar (Chottogram, Khulna, Rajshahi, Sylhet, Rangpur, Dhaka)	88.80 MHz
	Bangladesh Betar (Chottogram, Khulna, Rajshahi, Sylhet, Rangpur, Dhaka)	90.00 MHz
	Bangladesh Betar (Thakurgaon, Gopalganj, Mymensingh)	92.00 MHz
	Bangladesh Betar (Dhaka)	97.60 MHz
	Bangladesh Betar (Khulna)	100.00 MHz
	Bangladesh Betar (Comilla)	101.20 MHz
	Bangladesh Betar (Dhaka, Khulna)	102.00 MHz
	Bangladesh Betar (Dhaka, Rangamati)	103.20 MHz
	Bangladesh Betar (Comilla)	103.60 MHz
	Bangladesh Betar (Dhaka, Rajshahi, Bandarban)	104.00 MHz
	Bangladesh Betar (Dhaka, Sylhet, Barishal)	105.00 MHz
	Bangladesh Betar (Barishal)	105.20 MHz
	Bangladesh Betar (Chottogram, Rangpur)	105.40 MHz
	Bangladesh Betar (Dhaka)	106.00 MHz
2	Radio Furty Limited	88.00 MHz
3	Uniwave Broadcasting Limited (Radio Amar)	88.40 MHz
4	Ayna Broadcasting Corporation Limited (ABC Radio)	89.20 MHz
5	Radio Broadcasting FM Limited (Radio Today)	89.60 MHz
6	Dhaka FM Limited (Dhaka FM)	90.40 MHz
7	Asian Radio Limited (Asian Radio)	90.80 MHz
8	Radio Dhoni Limited (Radio Dhoni)	91.20 MHz
9	Peoples Radio Limited (Peoples Radio)	91.60 MHz
10	Asiatic Marketing Communications Limited (Radio Shadhin)	92.40 MHz
11	Gangchil Media Limited (Radio Bhumi)	92.80 MHz
12	Enrich Net (Pvt) Limited (Radio Next)	93.20 MHz
13	Vision Technologies Limited (Radio Dinrat)	93.60 MHz
14	Araf Apparels ( Radio Dhol)	94.00 MHz
15	AKC(Pvt) Limited (Jago FM)	94.40 MHz
16	Bangla Radio	95.20 MHz
17	Innovation (Radio Edge)	95.60 MHz
18	Media City Limited (City FM)	96.00 MHz
19	Radio Masala Limited (Radio Masala)	96.40 MHz
20	CIUS Pvt. Limited (Radio Prime)	96.80 MHz
21	Broadcast World Bangladesh Limited (Times Radio )	97.20 MHz
22	Ratul Media and Communication Limited (Desh Radio)	98.00 MHz
23	Radio 71 Limited (Radio 71)	98.40 MHz
24	Media Today Limited (Radio City)	99.60 MHz
25	Dhansiri Communicaton Ltd. (Radio Active)	100.40 MHz
26	Tune Bangladesh (Colours FM)	101.60 MHz
27	East West Media Group Ltd. (Radio Capital)	94.80 MHz
28	Radio Masti (Radio Amber)	102.40 MHz
29	Gold FM (Sufi FM)	102.80 MHz

List of FM Radio Operators





Recently, it was observed by the Spectrum Monitoring Directorate that some FM radio stations were using extra frequency beyond their assignment. Therefore, warning was issued to those non-complaint FM radio stations. Even after issuing the warning letter, 08 (eight) organizations kept on using extra frequency and after identifying this extra usage, BTRC sent show cause letters to those organizations. Those organizations have also been restrained from using frequency for an interim period. In spite of this restriction order, 04 (four) organizations were found using spectrum to whom 'Administrative Fines' was imposed. As a result of regular spectrum monitoring, it is possible by all FM radio broadcasters to broadcast according to their frequency assignment.

## 2.4.8 Community Radio Broadcasting

In order to improve the quality of life of the people of certain geographical locality having similar socio-economic standard and cultural heritage by providing various information, Ministry of Information (MoI) issued Community Radio Installation, Transmission and Policy-2008. Under this policy, Ministry of Information (MoI) has issued approval/licenses to 31(thirtyone) organizations for Community Radio broadcasting services till 2018-2019 fiscal year. Among those, 18 (eighteen) non-government organizations have been assigned spectrum from 87.5-108 MHz band from BTRC according to National Frequency Allocation Plan (NFAP). The 18 (Eighteen) licensed organizations from Ministry of Information who have been assigned spectrum are as follows:

SI. No.	Name of the Community Radio	Region	Assigned Frequency
01.	RDRS Bangladesh	Kurigram	99.20 MHz
02.	CCD Bangladesh	Rajshahi	
03.	Young power in Social Action	Chittagong	
04.	BRAC	Moulvibazar	
05.	LDRO	Bogra	
06.	Nalta Hospital and Community Health Complex	Satkira	
07.	Barendra radio	Naogaon	
08.	Srijoni Bangladesh	Jhenaidah	
09.	Krishi Tothya Service	Borguna	
10.	EC Bangladesh	Munshiganj	
11.	Eklab	Teknaf	
12.	Dip Unnayan Shangstha	Noakhali	
13.	Broadcasting Asia of Bangladesh	Khulna	98.80 MHz
14.	Proyash Manob Unnayan Society	ChapaiNababganj	
15.	Mass Line Media Center	Borguna	
16.	SKS Foundation	Gaibandha	99.00 MHz
17.	Coastal Association for Social Transformation (Coast Trust)	Bhola	
18.	Aparajeyo Bangladesh (Jago Bahe Radio Pirgonj)	Rangpur	

List of Community Radios in Bangladesh

The approved output power of community radio transmitter is 100 watt and its coverage area is 17 (seventeen) KM. In order to connect distant population of the country under the benefit of community radio, policy to increase the output power of the transmitter from 100 watt to 250 watt is under process. If the output power is increased, the coverage area will also increase and more people could be served with information. As the community radio will serve in a specific area only, the community radio service is being provided by reusing the 03 (three) FM frequencies with 200 KHz bandwidth. These are 98.80 MHz, 99.00 MHz and 99.20 MHz.

#### **2.4.9 Professional Mobile Radio Service (PMR)**

PMR is the short form of Professional Mobile Radio Service. Professional mobile radio Also known as Private Mobile Radio (PMR) in the UK, Land Mobile Radio (LMR) in the North America, which are basically field radio communications systems. PMR service is actually two way radio transceiver. According to International Telecommunication Union (ITU) regulation and National Frequency Allocation Plan (NFAP) of Bangladesh, Spectrum of PMR service in HF Band (3-30 MHz) and VHF Band (30-300 MHz) are reserved for walkie-talkie. Moreover some part of UHF Band (300-3000 MHz) is also used for PMR service. Beside this, for Citizen Band 26-27 MHz and for Short Business Radio (SBR) 245-246 MHz frequencies are used in shared basis only for walkie-talkie to walkie-talkie communication without repeater. At present, all in the above cases 12.5 KHz bandwidth is used for this service.

#### **Usage of PMR**

There is no alternative of using frequency to ensure effective, uninterrupted and secure communication. To ensure the security of government/ non-government/ private organizations, office-court, security agencies and law enforcing agencies of the government, United Nations Missions, diplomatic agencies, the use of walkie-talkie has immense importance.) Currently 814 (Eight Hundred and Fourteen) institutions are assigned frequencies in different bands. Among those most of the institutions have been assigned frequencies in HF, VHF and UHF band to communicate using base station, repeater and walkie-talkie. In the year 2018-2019, 115 (One Hundred and Fifteen) institutions are assigned frequencies in licensed and unlicensed band (SBR and CB band, who are providing security in small scale). Additionally, with reference to NFAP, 02 (two) organizations are temporarily using frequencies in VHF band for research and development purpose. The usage of PMR is increasing day by day for the following reasons:

1. Point to Point and Point to multipoint communication system.
2. Easy to maintain privacy.
3. Push to talk facility.
4. Wide area coverage.
5. Uninterrupted communication.
6. Usage in HF, VHF & UHF Bands
7. last but not the least, Safer Communication Medium.





#### **2.4.10 Governmental Radio Service**

Some frequency bands are reserved for National Security Agencies and Law Enforcement Departments in National Frequency Allocation Plan (NFAP) of Bangladesh. These frequency bands are known as Governmental Radio Band. In order to provide security to the people and to maintain law and order, these frequencies are used by Bangladesh Army, Bangladesh Air force, Bangladesh Navy, Bangladesh Police, Border Guard Bangladesh, Bangladesh Ansar and VDP, Coast Guard, Fire Service and Civil Defense.

#### **2.4.11 ISM Radio Service**

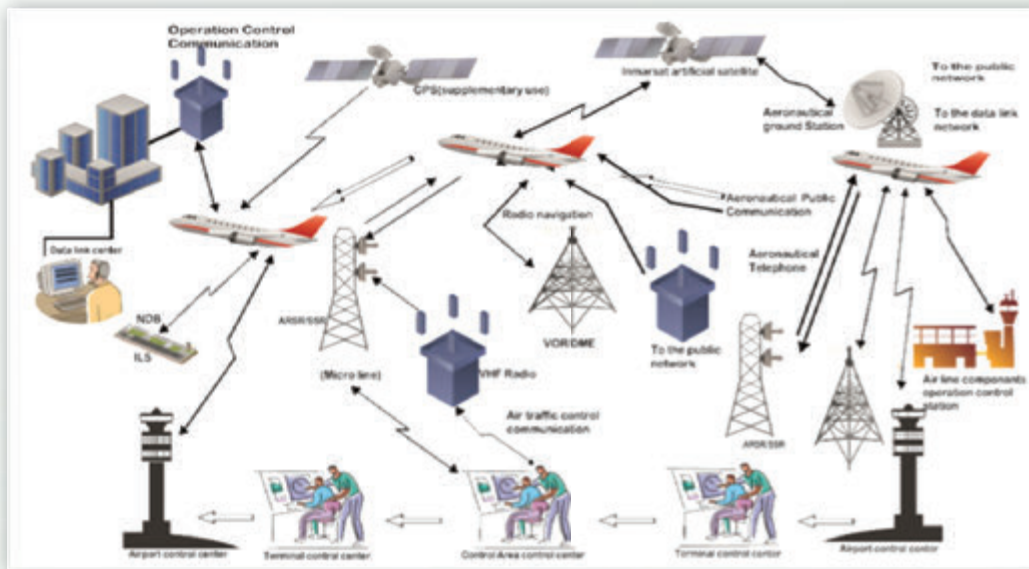
Under the National Frequency Allocation Plan (NFAP) of Bangladesh, 13.553-13.567 MHz, 26.957-27.283 MHz band, 40.66-40.70 MHz band, 2.40-2.483 GHz band and 5.725-5.850 GHz band are identified as Industrial, Scientific and Medical (ISM) bands. ITU Radio Regulations have identified such ISM bands as Deregulated bands. BTRC however, allows these bands to be used for telecommunications under specific conditions. Many commercial organizations, government bodies, ISPs etc. use these bands for radio links on a shared bandwidth basis. In particular, ISPs providing Wi-Fi services are major users of the 2.40-2.483 GHz band. Recently, a policy guideline to provide service using 2.40-2.483GHz and 5.725-5.850 GHz bands has published. In this guideline, the domain of using wireless devices of short ranges and low energy consumption has been specifically addressed so that applicants intend to use this band will have a definite idea.

#### **2.4.12 Aeronautical Radio Service**

As per NFAP of Bangladesh, 108.000 MHz to 117.975 MHz and 118.00 to 136.00 MHz spectrum are generally used for Aeronautical radio service. For safe and smooth flying in the sky, as well as landing of an aircraft, it is very important to communicate with air to air, air to ground and also ground to air. Spectrum is also needed in the aircraft and ground station for internal communication. The spectrum, which is used for above purpose is known as Aeronautical Band. In the aforesaid spectrum 108.000 MHz to 117.975 MHz is used for Instrumental Landing System (ILS) and 118.00 to 136.00 MHz spectrum is used for air to air, air to ground and also ground to air communications.

As per Radio Regulation of ITU, 960.00 MHz to 1215.00 MHz spectrum is used for measuring the distance and to align the aircraft with the right track in the air. BTRC also provides Call Sign and 'License to Operate Radio Communications Equipment' to local airlines companies after getting the appropriate revenue and maintaining the proper procedure.





Aeronautical Radio Communication System

#### 2.4.13 Maritime Service

The Maritime Mobile Service is an internationally-allocated radio service providing for safety of life and property at sea and on inland waterways. usually, there are five types of user:

- 1 fishing Trawler
- 2 fishing vessel
- 3 ocean going ship
- 4 oil tanker
- 5 merchant ship

HF and VHF bands are reserved for Maritime Radio service as per ITU radio regulation's Appendix 17 and 18. 2182 KHz and 156.800 MHz frequencies are used for distress call and safety services in maritime operations.

Apart from these, 4116 KHz and 8207 KHz (bandwidth is 3 KHz) in the HF band and 156.325 MHz and 157.375 MHz (bandwidth is 25 KHz) under VHF marine band are used as carrier frequency.

Now a day's ultra-modern satellite technology named Global Maritime Distress and Safety System (GMDSS) is being used for the communication of coastal stations with ocean going ship. Differential Global Positioning System (DGPS) is installed by BIWTA (Bangladesh Inland Water Transport Authority) using satellite technology within the territory of Bangladesh. Determination of geo-location, hydrographic, water transport, survey, dredging of any place within the land of Bangladesh and related works are being possible to accomplish for the efficient usage of the this system.



#### 2.4.14 Amateur Radio Service

Amateur radio (also known as ham radio) uses designated radio frequency spectrum for purposes of private recreation, non-commercial exchange of messages, wireless experimentation, self-training and emergency communication. Amateur radio is used to specify persons interested in radio technique solely with a personal aim and without direct pecuniary interest and to differentiate it from commercial broadcasting, public safety (such as police and fire brigade) or professional two-way radio services (such as maritime, aviation, taxis etc.). Amateur may serve as one of the important means of telecommunication in case of natural disasters or other emergencies. In order to increase the number of amateur radio operators, BTRC took an examination for issuing Amateur Radio License on 08 December, 2018. The result published on 27 December, 2018 where 198 (One Ninety Eight ) examinees succeeded and already they have received passing certificate. At present, the procedures of Amateur Radio license along with call-sign and importation of radio equipment to the applicant are in process. At present there are 395 (Three Ninety five) Amateur Radio Operators in Bangladesh.



Amateur Radio Examination 2018

#### **2.4.15 Issuance of NOC for Wireless Devices and Issuance of Dealer Possession and Radio Equipment Vendor Enlistment**

In order to import any type of radio devices, it is mandatory to take prior permission from BTRC according to Bangladesh Telecommunication Regulatory Act, 2001 (Amended 2010) and Import Policy 2012-2015. Importation of Radio equipment without the prior permission of BTRC is contrary to Law. There is provision to give financial penalty with imprisonment for the law breakers. Application procedure to import radio equipment is published in the website of BTRC for public convenience. No Objection Certificate (NOC) is issued for import radio equipment after verify the received application.

For importation of mobile phone handset importers are given 'Radio Equipment Importer and Vendor Enlistment Certificate' by spectrum division. By 'Radio Equipment Importer and Vendor Enlistment Certificate' mobile phone handset/others Radio Equipment importers are registered. By 'Radio Equipment Importer and Vendor Enlistment Certificate' enlisted/registered importers get permission for importation of all Radio Equipment like USB Modem, HF, VHF, UHF, Walkie-Talkie, Base/Repeaters, Cellular Mobile Phone, Fixed Wireless Phone etc. Till now more than nine fifty hundred importers are given 'Radio Equipment Importer and Vendor Enlistment Certificate'.

#### **2.4.16 Internet of Things (IoT)**

In recent times there has been a huge change in various fields including daily life by the welfare of the technology through digitalization. The latest and more significant addition to the growing excellence of technology is Internet of Things (IoT). IoT devices are SIM (Subscriber Identity Module) supported or SIM less sensor devices. These sensors use the mobile operators' network or SRD (Short Range Device) and ISM (Industrial, Scientific & Medical) frequencies to collect data. In order to use SIM supported IoT devices at Mobile Network in the country as well as the IoT devices connected without SIM 433.05-434.79 MHz, 866-868 MHz, 922-925 MHz, 2400-2483.5 MHz, 5725-5875 MHz frequencies are initially identified according to the National Frequency Allocation Plan (NFAP) of Bangladesh and considering the expansion of the IoT device in other countries of the world. Recently the guidelines for importing IoT devices in Bangladesh have been issued by Spectrum Division. Already various government and non-governmental organizations have started receiving No Objection Letter (NOC) for importing IoT devices. In addition to offer services commercially various organizations are applying for enlisting as the IoT Device Importers.

#### **2.4.17 Mobile Phone Importation in Bangladesh and Locally Produced/Assembled Sets**

In the previous section it has been mentioned that, for importing and marketing mobile phone handset in Bangladesh, "Radio Equipment Importer and Vendor Enlistment" Certificate is awarded by the Commission. As the mobile phone handset is a radio equipment, so the Enlisted Vendor need to take prior permission from the Commission





for importing and marketing such equipment. At present Bangladesh has more than 15 crore mobile connections and it is increasing day by day. As Bangladeshi market is a lucrative for mobile phone handset business, for this reason 2.5 to 3 crore handsets are legally imported in every year. A large amount of valuable foreign currency is going to abroad in each year to import near about three crore mobile phone handsets.

It is to be noted that, the mobile phone handset market of the country is near about 10 (ten) thousand crore taka. BTRC has already issued an instructions for Establishment of Mobile Phone Handset Assembling and Manufacturing plant in Bangladesh to save the huge amount of foreign currencies. As per the instructions BTRC is awarding "Mobile Phone Handset Manufacturer and Vendor Enlistment" certificates to the interested organizations for assembling and manufacturing mobile phone handset plant in Bangladesh. So far, "Mobile Phone Handset Manufacturer and Vendor Enlistment" certificate has awarded to 02 (two) organizations for assembling and manufacturing mobile phone handset locally. Some other organizations are also applied to the Commission for this type of certification, which are under process. Till to date, 02 (two) organizations named "Walton" and "Samsung" have successfully assembling and marketing mobile phone handsets in Bangladesh. The current scenerio of assembling and manufacturing mobile phone handset is given in the below the table:

SI	Name of the organization	Year of Certificate awarding	Category of Certificate	Brand	Quantity of assembled and manufactured mobile handsets		
					Feature Phone	Smart Phone	Total
01.	Walton DG Tech Industries	2017	A	Walton	2848750	480250	3329000
02.	Fair Electronics Ltd	2018	A	Samsung		-	-
03.	Edison Industries Ltd.	02-08-2018	A	Symphony	100000	640000	740000
04.	Carl Care Technology BD Ltd.	02-08-2018	A	Itel, Techno	1284400	555500	1839900
05.	Al-amin & Brothers	05-11-2018	A	5 Star	320000	13050	333050
06.	Anira International Ltd.	19-12-2018	A	Winstar, Titanic, Discovery, Hotwav, Hotmax, Kechaoda	98200	10000	108200
07.	OK Mobile Ltd.	10-04-2019	A	OK Mobile	-	-	-
08.	Best Tycoon BD Enterprise Ltd	16-06-2019	A	VIVO	-	-	-
09.	Grameen Distribution Ltd.		A		-	-	-
10.	Banglatronics Technology Ltd.		A		-	-	-
<b>Total</b>					<b>183600</b>	<b>290,860</b>	<b>474,460</b>

Mobile phone handset production in the Fiscal year 2018-2019.



Officials of Spectrum Division of BTRC are inspecting a Manufacturing/Assembling plant

Following benefits can be obtained by Establishing Mobile Phone Handset Assembling and Manufacturing plant in Bangladesh:

1. It will be possible to save a large amount of valuable foreign currency.
2. The new employment will be created in the country.
3. Efficient technical man power will be created in the country
4. It will be possible to prevent the government revenue loss by reducing illegal import.
5. It will be possible to get desirable foreign investment.
6. Local investors will get new arenas for investment.
7. End user will get the opportunity to use mobile phone handset at lower price.
8. Tele-density will be increased.
9. The growth of internet user will be increased significantly because of mobile phone handset availability at lower price. It is to be noted that, 10% the growth of internet user, GDP growth will be additional 1%, as a result the socio economic scenerio of the country will improve rapidly.
10. Instead of importing mobile phone handset, it will be possible to earn foreign currency by exporting.
11. All of above, the country will go ahead to build digital Bangladesh by building knowledge based nation.

## 2.5 Satellite Services in Bangladesh

In Radio Regulation issued from International Telecommunication Union (ITU), Space Radiocommunication is defined as, any radiocommunication involving the use of one or more space stations or the use of one or more reflecting satellites or other objects in space. According to this definition, the details of Satellite Service existing in Bangladesh are given below:

### 2.5.1 Frequency Assignment for the Operation of Bangabandhu Satellite-1

On 12 May 2018, at around 2:14 am, 'Bangabandhu Satellite', the first geostationary satellite of Bangladesh has been launched. By launching the Satellite, Bangladesh





has emerged as the 57th satellite launched country and also unveiled a new horizon in the spectrum management system of this country, simultaneously.



After launching Bangabandhu Satellite, radio frequency will be needed for its program operations. In this regard, on 28 March 2017, spectrum department has organized a meeting with the Bangabandhu Satellite Project. In this meeting, the spectrum department has advised and assisted the 'Bangabandhu Satellite Project' to apply for spectrum needed for ground station operations at BTRC. After receiving the Application for License of Radio Communication Apparatus, Application Verification fee, Information/Network Plan regarding on possible location of equipment from the project director's office, In order to allocate required spectrum for satellite operation and management, BTRC has taken the following steps mentioned below:

- ❖ Since, most of the required frequencies needed for proper operations of Bangabandhu Satellite have already been allocated to different government and non-government organization, spectrum department has organized few meetings on last 09/08/2017, 20/08/2017, 07/09/2017 and 17/09/2017 to allocate frequency for Bangabandhu Satellite's ground station.
- ❖ In these four meetings mentioned above, several discussions have been taken place on Terrestrial and Satellite Service Co-existence among the spectrum department, representatives from the Satellite Project and the representatives from operators of different government/private mobile phone operator, PSTN and BWA using the frequencies now necessary for Bangabandhu Satellite.
- ❖ Later, All the technical aspects of the allocation of frequencies for Bangabandhu Satellite have been analyzed by the spectrum department.
- ❖ Spectrum allocation for operational program of Bangabandhu Satellite has been placed in 75th Spectrum Management Committee (SMC) meeting. In this SMC meeting, after a rigorous discussion, the decision has made that the application for spectrum allocation will be placed for grant under certain spectrum sharing conditions on the next commission meeting.

<b>Name of the Satellite</b>	Bangabandhu Satellite – 1	
<b>Orbital Location</b>	199.1 degree East	
<b>Details of the Transponder</b>	C-band Transponder-14 (fourteen)	Ku-band Transponder-26 (twenty-six)
<b>Frequency Band</b>	C-band 4500-4800 MHz 6725-7025 MHz	Ku -band 12750-13250 MHz 14500-14800 MHz 10700-10950 MHz 11200-11450 MHz 11700-12000 MHz

- ❖ Later, on the 210th commission meeting, the decisions made on 75th SMC meet-ing regarding on spectrum allocation of Bangabandhu Satellite has been ap-proved.

### 2.5.2 Satellite Television Broadcasting

Basically the satellite television broadcasting license is issued from the Ministry of Information. In the context of permission of Information Ministry, Frequency is assigned to concerned Satellite Television Operators. Up till now, Satellite uplink frequency bandwidth 6/9/12 MHz from 5.85-6.425 GHz band has been assigned to 38 (thirty eight) satellite televisions. The name of frequency assigned Satellite Television Channels are given below:

Sl.No.	Name of the TV Channel	Sl.No.	Name of the TV Channel
1	BTV	20	Gazi Television Limited (GTV)
2	BTV World	21	Mohna Television Ltd
3	Diganta Media Ltd (Diganta TV)	22	My TV
4	Multimedia productions company Ltd (ATN Bangla)	23	SA Television Ltd (SA TV)
5	Ekushe Television (ETV)	24	Channel-9
6	Impress Telefilm Ltd (Channel I)	25	Bijoy Television Ltd
7	International Television Limited	26	Times Media Ltd (Channel 24)
8	National Television Ltd (RTV)	27	Asian Telecast Ltd (Asian TV)
9	Shamol Bangla Media Ltd (Bangla Vision)	28	Birds Eye Media & Communication Ltd (Gaan Bangla)
10	Boishakhi Media Ltd (Boishakhi TV)	29	Kazi Media Ltd (Dipto TV)
11	Desh Television (Desh TV)	30	Rongdhonu Media Ltd
12	Islamic television Ltd	31	ATV Ltd (ATV)
13	Jamuna Television Ltd	32	Barindo Media Ltd (Resesa TV)
14	ATN News Ltd	33	Jadu Media Ltd
15	Independent Television Ltd	34	East West Media Group Ltd (News 24)
16	Maasranga Television Ltd	35	Channel-21 (Broadcast World Bangladesh)
17	Samay Television Ltd	36	Dhaka Bangla & Communication Ltd (DBC)
18	Ekattur Media Ltd (71 TV)	37	Bangla Television Ltd
19	Millennium Media Ltd. (Titas Tv)	38	Glob Multimedia Ltd. (Global Tv)
		39	Citizen Television Ltd

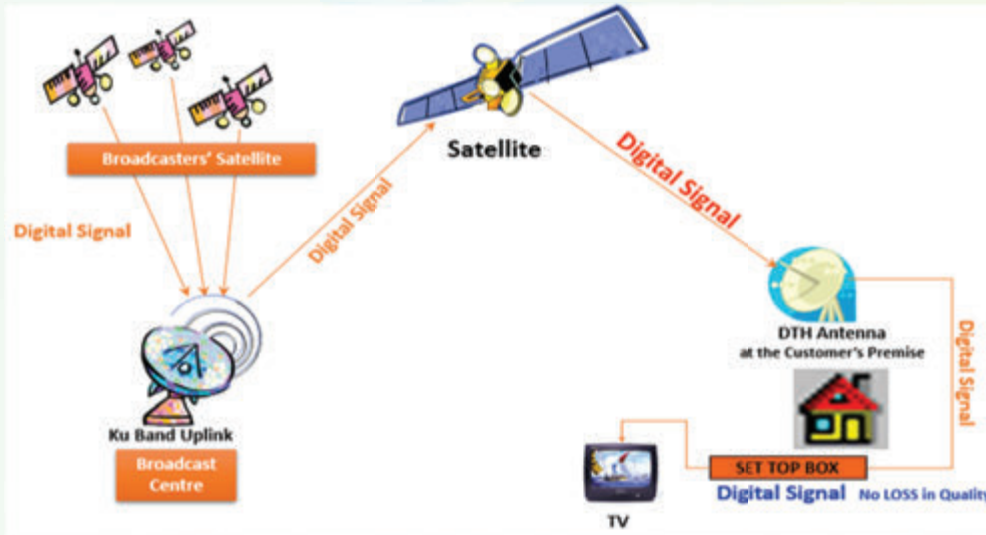
List of Satellite Television Broadcasters in Bangladesh



The assigned frequency of Islamic Television Ltd. and Digonto Media Ltd. have been suspended for the violation of Broadcasting policy.

### 2.5.3 Direct to Home Service

On last 12/11/2013, In order to provide Direct to Home (DTH) Service, Information Ministry has given license to two private company, BEXIMCO Communications Limited and Bayer Media Limited. In this context, on 26/04/2015, BTRC has given permission to BEXIMCO Communications Limited on spectrum allocation, earth station and radio equipment usage under certain condition. After getting permission from BTRC, BEXIMCO Communications Limited has successfully started their transmission service but the other company (Bayer Media) not been able to start their transmission operation yet. By providing DTH service in our country, using a set-up box, the subscriber can choose their preferred satellite channels. The subscriber can enjoy high picture and sound quality in television channels due to DTH's ultra-modern technology. Since, in this technology, the subscriber can receive transmitted programs directly from the satellite by using a set-up box, the inhabitants of the rural area where cable tv network is not available, can enjoy satellite television channels.



DTH Network

### 2.5.4 VSAT Service

Very Small Aperture Terminal (VSAT) is a wireless communication system that uses a combination of a small antenna and satellite terminal equipment. It is possible to provide high speed data and voice service very easily and uninterruptedly from any place of the world by broad and narrow band wireless service using orbital satellite. As an alternative of terrestrial, it provides various facilities. VSAT helps building cost effective unique communication network in any dispersed area. VSAT networks offer value-added satellite-based services capable of supporting the Internet, data, LAN, voice/fax communications and can provide powerful, dependable private and public network communications. At present, there are 04 (four) VSAT Providers (Hub License), 02 (two) VSAT provider Licensee, 16 (sixteen) VSAT User Licensee in our country. The VSAT providers (Hub license) provides satellite communication services to the users like Embassies, Corporate Offices, Banks, Branch offices etc.

### 3. Activities of Spectrum Monitoring Department

Fair and appropriate usage of Spectrum is very much essential as it is truly an important and limited national resource. Proper spectrum management and timely spectrum monitoring- these two issues are very important in order to ensure optimal utilization of spectrum. Spectrum monitoring activities are conducted through the spectrum monitoring department under the spectrum division of BTRC. There is a central fixed monitoring station at Dhaka under this spectrum monitoring department. There are also 05 other fixed monitoring stations located in Chattagram, Sylhet, Khulna, Rangpur and Bogura. Besides 06 fixed monitoring stations, 05 mobile monitoring stations and 01 portable monitoring station were also procured for the spectrum monitoring department of BTRC. These mobile monitoring stations are used to take prompt actions in regards to resolve frequency interference issues and has strengthened the overall capacity of spectrum monitoring department.

Frequency in the range from 20 MHz to 3 GHz can be monitored with the help of these 12 monitoring stations. All the stations were established in the year 2009 under the project named "Strengthening the regulatory capacity of BTRC". The project was successfully completed on 31 December 2009. Upon the successful completion of the project BTRC can now ensure the proper utilization of spectrum assigned to different types of telecommunication services users and providers irrespective of government or private entities. At present, with these monitoring stations BTRC regularly monitor and resolve interference claims brought up by mobile operators, FM operators, BWA operators, government agencies etc. The capability of spectrum monitoring ensures optimal utilization of spectrum and to perform spectrum management tasks very efficiently.

With a view to strengthen the monitoring capacity 10 sets handheld spectrum monitoring devices were procured very recently in the year 2017. Using these latest devices both detection and DF (Direction Finder) of the frequency ranges from 20MHz to 6GHz. These devices are very effective in spectrum monitoring and thereby locating the target source accurately. In addition, modernization of the spectrum monitoring system is under consideration to increase the range of existing monitoring capacity.

Likewise, the past few years, significant numbers of monitoring actions were conducted during the 2018-2019 fiscal year. All these were performed using the statistical data, interference allegations from different stakeholders and by conducting regular monitoring activities. Some remarkable spectrum monitoring activities were taken during the said fiscal year. During November, 2018 a joint initiative have been taken to resolve the interference problem in 900 MHz frequency of the Mobile Phone Operator 'Banglalink'. This successful activity took place in the district of Mymensing where monitoring representatives from BTRC and Banglalink conducted the entire operation. They had detected the source of interference and thus resolved the problem. Moreover, illegal use of unauthorized jammer and network booster/ repeater, by individuals/ institutions, have increased a great deal which are causing serious problem in the authorized usage. In the above context, Radio Spectrum Monitoring Teams of BTRC are taking various necessary measures regularly to restrict these types of usage and are very successful in doing so.





Therefore, complaints from licensed operators and users have significantly reduced. It is to be noted that, BTRC has devoted optimum effort in educating and informing general mass through its Official Website, Facebook Page and as well as in the prominent dailies regarding different types of abuse of radio equipment such as- illegal import, sale, usage, etc. A Standard Operating Procedure (SOP), to solve the international spectrum interference issues, is prepared and duly sent to our biggest neighbor India for their important comment/ remark. With this SOP in place, cross-boarder interference issues amongst neighboring countries of Bangladesh can be identified and resolved accordingly.



Spectrum Monitoring Activity of 2018-2019 Fiscal Year

#### 4. Other Activities of Spectrum Division

##### 4.1 Implementation of NOC Automation and IMEI Database (NAID) System

Government already gave instruction to prepare and maintain IMEI Database for the mobile phone sets that has been imported into the country. In its continuation, Spectrum Division of BTRC has taken the initiative to implement this system. This system will provide the facilities of obtaining 'Online' import permission from BTRC by mobile phone importers. Approximately 500 (five hundred) mobile phone importers will receive the NOC 'Online' using this system. In addition, during the customs clearance of these mobile phone sets, customs officials will also be able to verify the legitimacy of the sets. In future, using this database, people from different corners of the country will be able to verify the authenticity of their mobile phone sets.

Financed by BMPIA, on the January 22 2019, NAID system was inaugurated by the honorable Minister of Post and Telecommunication Division and established in BTRC premises with the technical supervision, engineering and overall coordination of BTRC in order to ensure protection of revenue, convenience in importing mobile phone legally. preparing and maintaining IMEI database, etc. To avoid duplication and to add convenience NAID is integrated with the E-nothi system. Further, for efficient operation and submission of the application, BTRC's concerned officials along with personnel from enlisted vendors received hands-on training on the entire NAID system.

As the system is implemented and currently operational, mobile vendors can apply and receive necessary NoC definitely faster than before. Moreover, any mobile imported legally and purchased locally can be found in the IMEI database using text in the format following: KYD<Space>15 Digit IMEI Number of the phone to be bought, which is to be sent to 16002 using any mobile operators' network in Bangladesh. A web-interface for the Customs Authority is included, by which they can verify IMEI numbers before handset clearance. Thus, activity of importing fake mobile phones can be prevented. NAID is considered as the primary establishment for implementing National Equipment Identity Register (NEIR) as NAID's IMEI database will be integrated with mentioned system as an input.

#### **4.2 National Equipment Identity Register (NEIR)**

Commission has taken a policy level decision on preparing a NEIR. It will provide multi faced facilities in addition to the enhancement of ensuring national security and public safety. Spectrum Division of BTRC has started taking initiatives in this regard. Presently, Spectrum Division is ensuring the authentic IMEI number while giving permission for importing standard mobile phone sets to our country. For this, NAID is implemented and it is considered as the 1st phase of establishing an NEIR. In the 2nd phase, each MNOs are going to establish Equipment Identity Registers (EIR) in their own network. An instruction for implementing EIR will be issued by BTRC very soon. All the EIRs are to be integrated with the central system, that is NEIR. As the NEIR system will be connected to different databases, it will be a very handy asset for the government of Bangladesh. Various government and non-government institutions like mobile operator, law enforcement organizations, customs, etc will be requiring services form NEIR, so that, connectivity to be established as per demand and availability under the guidance of the commission. Furthermore, BTRC has initiated the process of procuring NEIR system and which is already included in the yearly procurement plan of BTRC.

NEIR will ensure registration of all the handsets and it will introduce a control for any handsets to get an entry into the mobile network. Registration of handsets will ensure proper identification, thus related illegal activities will be reduced. Finally, importing handset illegally will be discouraged and thus government will be getting increasing amount of revenue.

#### **4.3 Allocating 5G spectrum for introducing 5th generation mobile services in Bangladesh**

As per the Election manifesto 2018, the ruling Government has committed to introduce 5G within 2021-2023. BTRC has already started working according to the mentioned commitment of the government. This newer edition of mobile technology will bring huge data throughput. Additionally, Spectral efficiency, Mobility and Net-work Dimensioning will be significantly improved. Mobile subscriber will no longer be human only, as all the machines will talk each other through the service called the Internet of things (IoT). In this context, A well-known technology Vendor has demonstrated the 5G use cases and services in 26 GHz. Currently, 2.6 GHz and 3.5 GHz are considered as the chief selection for 5G. In the upcoming World





Radio Conference 2019 (WRC-19) with the mentioned bands (2.6 and 3.5 GHz), higher bands like 26-28 GHz, 32 GHz, 38 GHz, 40 GHz and 43 GHz are being planned for and going to be discussed and allocated for 5G. South Korea, Ireland, Spain, United Kingdom, Australia, etc have already issued 5G license. Each country has assigned almost 100 MHz from 3300-4200 MHz Band and almost 800 MHz from 26-28 GHz or beyond.

Few of the countries are planning to give frequency from 2.6 GHz. Appropriate allocation of Frequency and infrastructure readiness are key to 5G implementation. Commission is hopeful and firm in belief for the introduction of 5G along with other achievers.

ITU is putting significant effort for harmonization of spectrum use through the region as cost effective use of the spectrum greatly depends on it. Alongside, as per the guideline of ITU, Bangladesh is planning for 5G keeping in mind that most efficient and updated techniques are introduced to best utilize this scarce and precious resource for the country. Along with other countries, planning for 5G spectrum assignment is already underway here in Bangladesh. We have enough frequency in the milli-meter wave who are currently under consideration.



## Engineering and Operations Division



## Engineering and Operations Division

Engineering and Operations (E&O) Division deals with different telecom systems establishment, operation & maintenance and standardization aspect in the telecommunication sector. E&O division monitors and ensures technical implementation of the licensing guidelines. This division plays the key role in BTRC to set the technical standards and criteria of telecommunication services. E&O Division monitors and analyzes voice and data traffic, bandwidth usages of ANS and Gateway operators and assists the Commission in revenue assurance aspect. E&O division sets standards on Quality of Service (QoS) monitor the standards of telecommunication services provided by operators to ensure that such services conform to the standards set by the commission. In addition, this department is involved with formulation of guidelines for exposure to harmful EMFs from various instruments used in BTS and High Frequency on the human body and the environment, and also conducts regular radiation measurement activities in this regard. Numerous initiatives taken by this division in the call-center industry so the said industry develops faster to play the important role in the telecom sector. E&O division has developed the web based Interactive GIS Map with optical fiber network of different operators across the country. This division regulates interconnection among the telecom operators and resolves interconnection disputes. E&O division issues NOC (No Objection Certificate) to import non-radio telecommunication equipment in Bangladesh. Besides, E&O division plays an important role in determining and analyzing telecommunication indicators for Bangladesh.

E&O division formulates the national numbering plan to be followed in the field of telecommunications of Bangladesh and assigns numbers to the various gateway and ANS operators accordingly. This division also allocates short codes for national emergency services and to other public and private organizations. E&O division monitors the telecommunication infrastructure development in the country and ensures proper implementation of Infrastructure Sharing Guidelines in order to confirm the optimal utilizations of telecom resources in the country.

**Ongoing activities of Engineering and Operations Division are as follows:**

### Growth of 4G Technology in Bangladesh

On February 19, 2018, the Government issued 4G licenses to four mobile operators, including the state-owned operator Teletalk with a view to provide high-speed mobile internet services to the doorsteps of the mass people. Soon after getting the license, Grameenphone, Robi and Banglalink launched 4G service in certain areas of the country.

Prior to license awarding BTRC allocated 4G spectrum on 13 February, 2018 through auction. Mobile operators are now enjoying technology neutral facility in the proliferation of telecommunication services as the Government has allowed such facilities with the assigned spectrum.



In order to fulfill the rollout obligations set forth in 4G license and to meet commercial requirements, mobile operators are expanding their 4G network coverage across the country at a rapid pace. Meanwhile, 4G services have been launched in all divisional and district cities and nearly in all upazilas of the country. To offer 4G services, operators have installed 19,583 4G e-NodeB by the end of June 2019. However, 4G coverage is made available in some limited areas of district and upazila cities so far. It is to be noted that the number of 4G subscribers in the country is increasing dramatically. At the end of June' 2019, the number of 4G subscribers has crossed 19.131 million.

4G network has enabled the users of the country to experience full HD video streaming, high quality video calling, super-fast downloading, high-fidelity music streaming and other internet services.

Through the rapid expansion of 4G network across the country, it would be possible to reduce digital divide between rural and urban areas and to achieve remarkable progress in agriculture, education and other economic sectors of the country. The 4G network is expected to expand across the country very soon due to numerous effective measures already taken by the Government especially more specifically the inclusion of tech- neutral provisions and infrastructure sharing facilities to mobile operators.

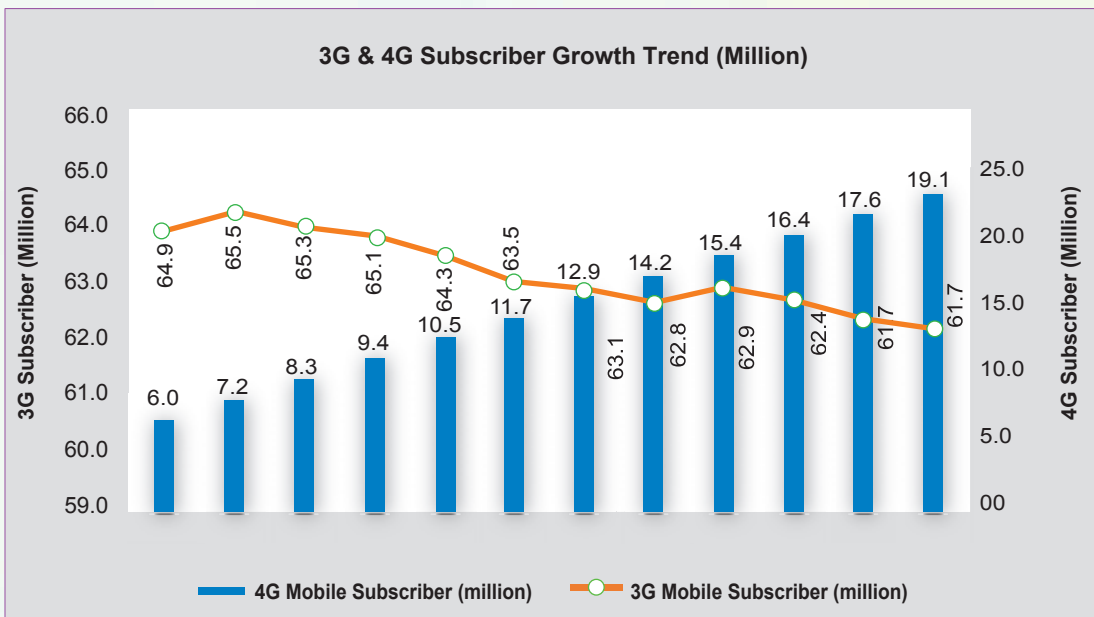
### **Expansion of 3G Network**

In order to provide 3G services to mass people, 3G license was issued to four mobile operators on 08 September, 2013 through auction. State-owned mobile operator Teletalk has been providing 3G services to the end user in Bangladesh since October, 2012. In accordance with the licensing guidelines, all 3G operators are expanding their 3G network at a rapid move. By this time, all 3G licensees have completed their network expansion in all divisions and districts along with almost all upazilas of Bangladesh. Till June, 2019 there are a total of 61.663 million 3G subscribers in Bangladesh.



The statistics of the increment of 3G subscribers in last one year i.e. from July, 2018 to June, 2019 is given below:

3G Mobile Subscriber		
Month	3G Subscriber (Million)	Growth rate (%)
July, 2018	64.862	5.978
August, 2018	65.470	7.240
September, 2018	65.333	8.277
October, 2018	65.146	9.447
November, 2018	64.284	10.463
December, 2018	63.544	11.669
January, 2019	63.056	12.946
February, 2019	62.776	14.175
March, 2019	62.861	15.391
April, 2019	62.442	16.386
May, 2019	61.715	17.635
June, 2019	61.663	19.131



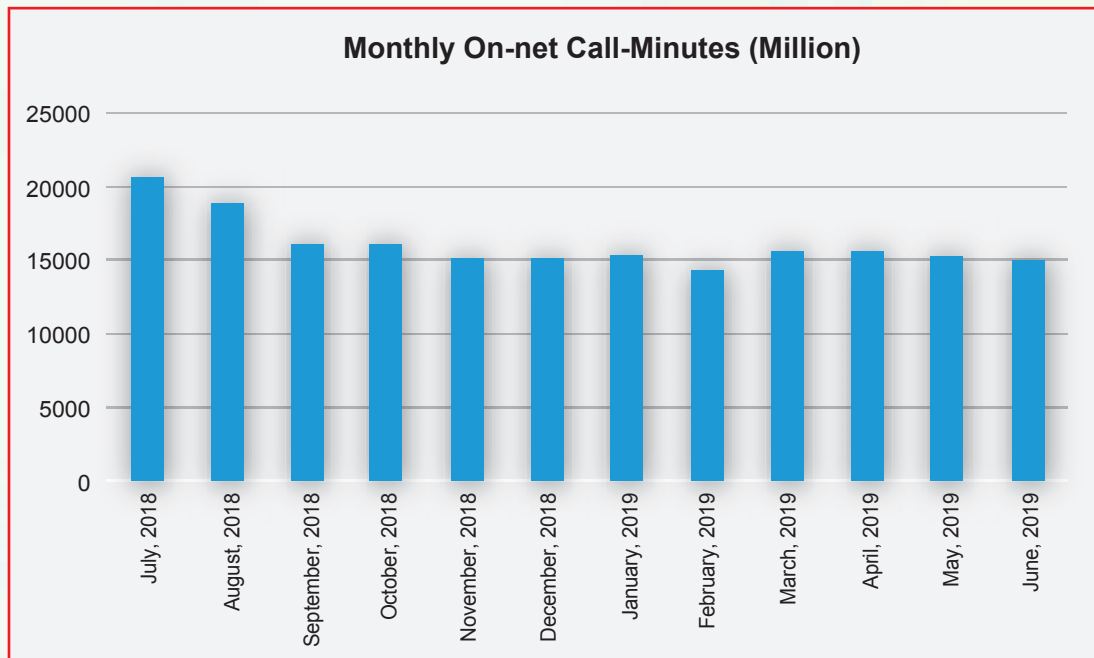
The maximum internet speed in 2G technology was up to 64 Kbps, while in 3G technology internet speed ranging from 512 Kbps to 4Mbps. By 3G service it is possible to provide high speed internet connection to the mass people of Bangladesh. Subscribers are now able to avail the services of e-commerce, e-banking, e-education, e-agriculture, e-health, e-governance and teleconference through high speed mobile internet.



## On Net Call Minutes

A significant amount of traffic is being managed through the operators' own network, which is called on-net traffic. The amount of on-net call minutes in July, 2018 was 20662.975 million minutes which later stood at 15077.496 million minutes in June, 2019.

Month	On-Net Call Minutes (Million)
July, 2018	20662.975
August, 2018	18952.186
September, 2018	16075.628
October, 2018	16053.701
November, 2018	15103.641
December, 2018	15058.422
January, 2019	15334.942
February, 2019	14337.485
March, 2019	15536.116
April, 2019	15536.116
May, 2019	15368.930
June, 2019	15077.496

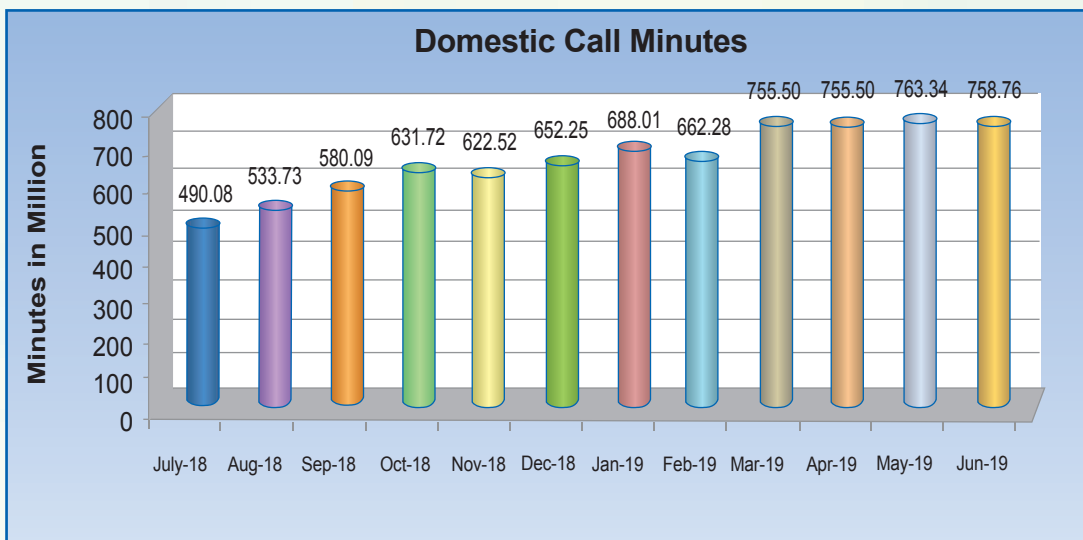




### Off-net call minutes

The total number of off-net or internal call minutes conducted through ICX in July 2018 was 490.08 crore minutes which stood at 758.76 crore call minutes in June, 2019. The following are the monthly statistics of calls made through ICX:

Month	Off-net Call minutes (crore)
July-18	490.08
August-18	533.73
September-18	580.09
October-18	631.72
November-18	622.52
December-18	652.25
January-19	688.01
February-19	662.28
March-19	755.50
April-19	755.50
May-19	763.34
June-19	758.76

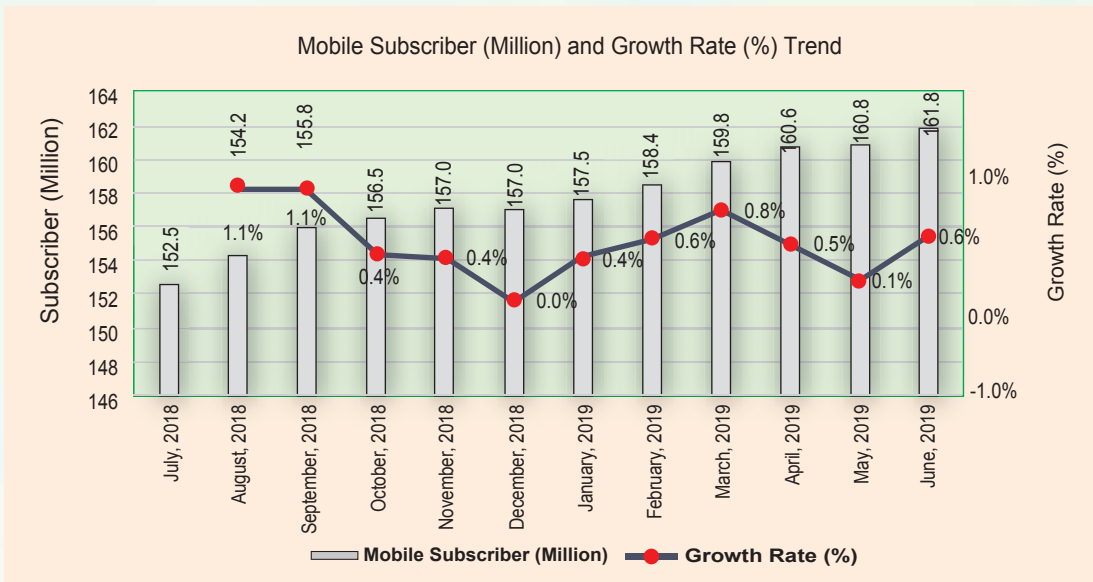


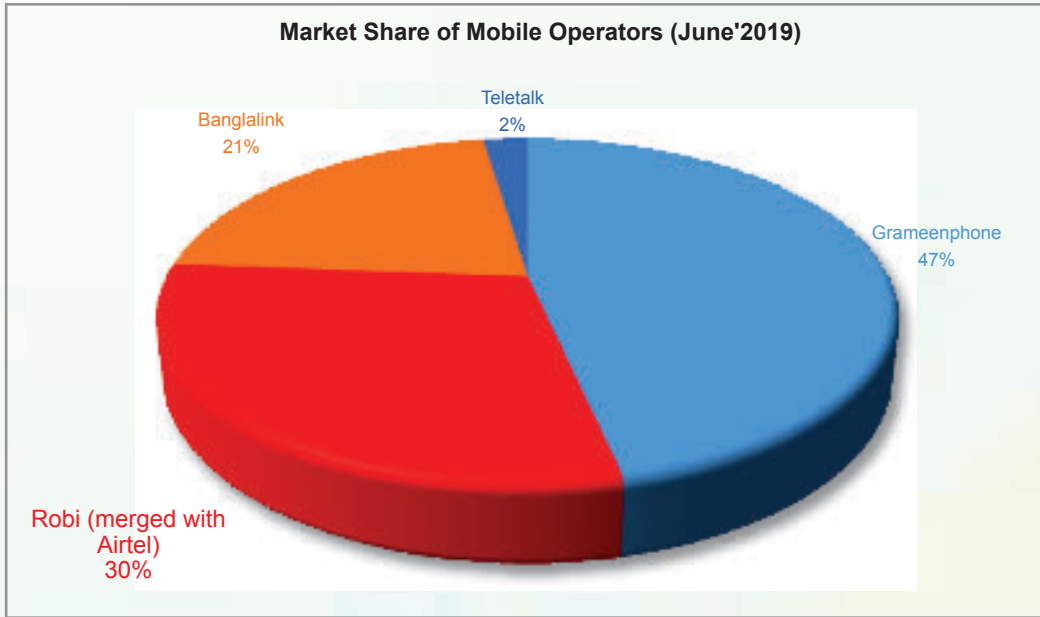
## Data and Information Review

Number of Mobile Subscribers, Growth Rate and Market Share:

In June, 2019 mobile subscriber increased to 161.772 million. Statistics on mobile subscription of the last fiscal year is given below:

Mobile Subscriber		
Month	Mobile Subscriber (Million)	Growth Rate (%)
July, 2018	152.527	-
August, 2018	154.179	1.1%
September, 2018	155.810	1.1%
October, 2018	156.469	0.4%
November, 2018	157.048	0.4%
December, 2018	156.989	0.0%
January, 2019	157.544	0.4%
February, 2019	158.438	0.6%
March, 2019	159.780	0.8%
April, 2019	160.590	0.5%
May, 2019	160.829	0.1%
June, 2019	161.772	0.6%





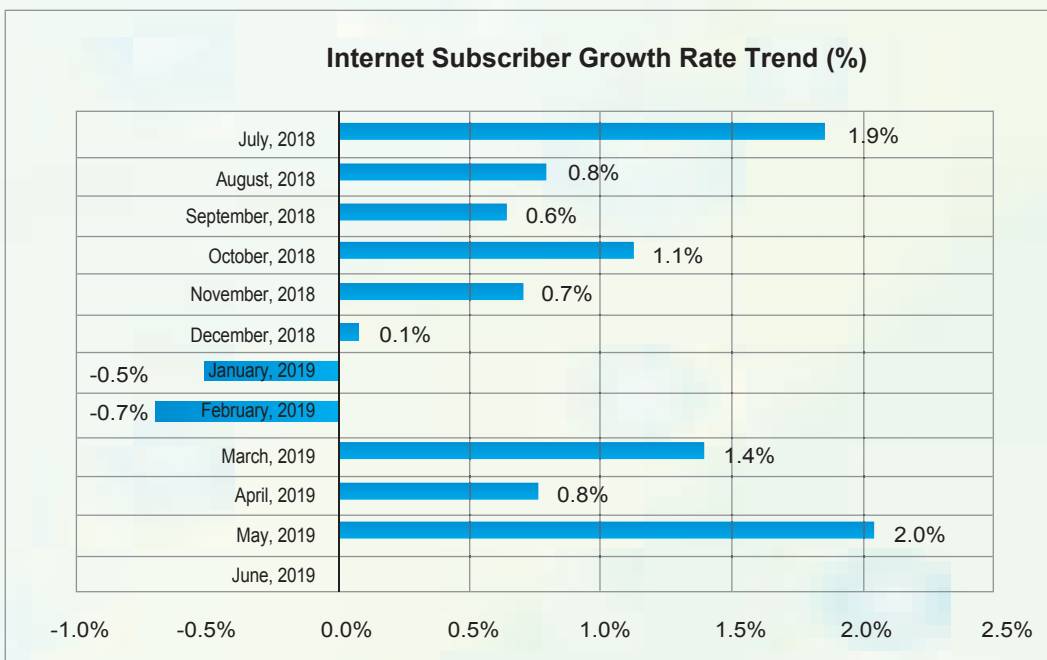
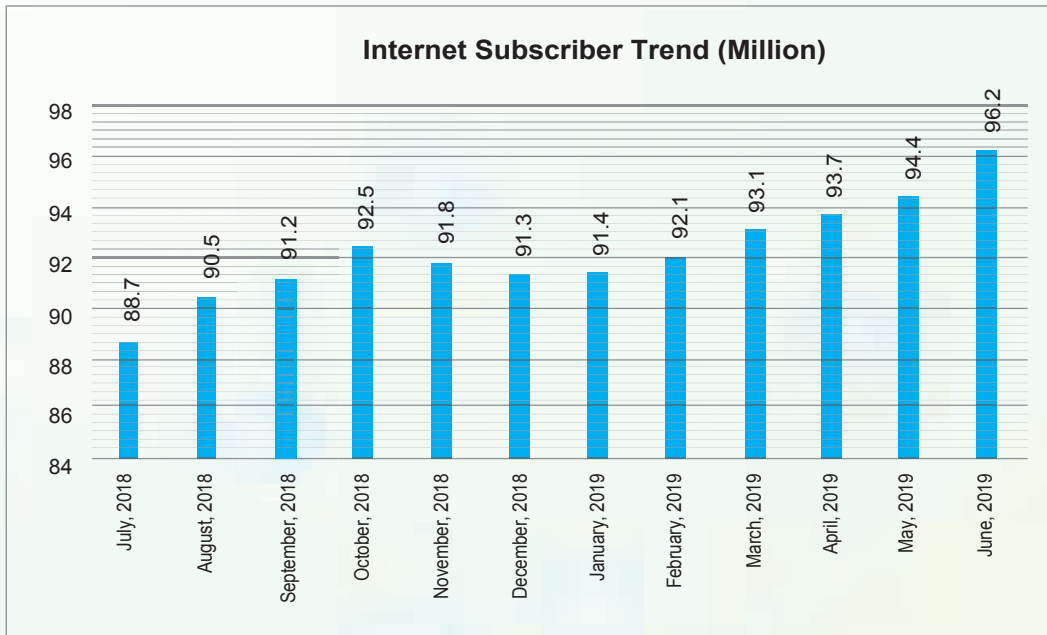
### Internet User, Internet Density and Growth Rate

During the fiscal year 2018-19, internet especially mobile internet subscriber has increased substantially. The total number of Internet Subscribers has reached 96.199 million at the end of June, 2019. In June 2019, Teledensity and Internet Density are 97.46% and 57.44% respectively.

Statistics on Internet Subscriber of the last fiscal year is below

Internet Subscriber		
Month	Subscriber Million	Growth Rate (%)
July, 2018	88.687	-
August, 2018	90.501	2.0%
September, 2018	91.194	0.8%
October, 2018	92.466	1.4%
November, 2018	91.818	-0.7%
December, 2018	91.348	-0.5%
January, 2019	91.421	0.1%
February, 2019	92.061	0.7%
March, 2019	93.102	1.1%
April, 2019	93.702	0.6%
May, 2019	94.445	0.8%
June, 2019	96.199	1.9%





### National Numbering Plan & Short Code

To meet the ever-growing challenges of the telecom industry and in conformity with the ITU standards, BTRC formulated the Bangladesh National Numbering Plan in 2017. In the Numbering Plan, the dialing procedure is followed by ITU-T recommendation E.164.



According to the National Numbering Plan, the numbering format of different operators is as follows:

SI no	Name of the operators	Subscriber Number in Each Zone
1.	BTCL	2-T-XYZ-ABCDE [100 (XY) exchanges of 10 Lac capacity in ea ch Zone or even 1000 (XYZ) exchanges of 1 Lac Capacity]
2.	M/s Pacific Bangladesh Telecom Ltd. (Citycell)	11 - ABCDEFGH [100 million capacity for each all over country]
3.	M/s Teletalk Bangladesh Ltd.	15 - ABCDEFGH
4.	M/s Robi Axiata Ltd. (Two Prefix)	16 - ABCDEFGH & 18 - ABCDEFGH
5.	M/s Grameenphone Ltd. (Two Prefix)	13 - ABCDEFGH & 17 - ABCDEFGH
6.	M/s Banglalink Digital Communicatios Ltd. (Two Prefix)	14 - ABCDEFGH & 19 - ABCDEFGH
7.	M/s. Worldtel Bangladesh Ltd.	30-T-XY-ABCDE
8.	M/s. Westec Ltd.	31-T-XY-ABCDE
9.	M/s. One Tel Communication Ltd.	33-T-XY-ABCDE
10.	M/s. Bangla Phone Ltd.	35-T-XY-ABCDE
11.	M/s. Tele Barta Ltd.	36-T-XY-ABCDE
12.	M/s. National Telecom Ltd.	37-T-XY-ABCDE
13.	M/s. S.A Telecom System Ltd.	39-T-XY-ABCDE
14.	M/s. Jalalabad Telecom Ltd.	40-T-XY-ABCDE
15.	M/s. Nextel Telecom Ltd.	41-T-XY-ABCDE
16.	M/s. Integrated Service Ltd.	42-T-XY-ABCDE
17.	M/s. Ranks Telecom Ltd.	44-T-XY-ABCDE
18.	Broadband Wireless Access (BWA)	61X-ABCDEFG [10 (X) operators of 10 million capacity for each all over country]
19.	Internet P rotocol Telephony Service Provider (IPTSP)	96XX-ABCDEF [10 (XX) operators of 01 million capacity for each all over country or licensed zone]



The E&O division allocates short codes to operators/ organizations for offering special/ value added services. Short codes are special telephone numbers, significantly shorter than full telephone numbers that can be used to address SMS, MMS or dial up service from mobile phones or fixed phones. Short codes are designed to be easier to read and to remember than normal telephone numbers. Short codes are unique to each operator at the technological level. Short codes are widely used for value-added services. As per Numbering Plan, level '1' is used for accessing special/value added services like emergency services, supplementary services, enquiry and operator-assisted services etc. In addition, some codes have been set for the operation of intraoperator networks. However, the BTRC is working on a series of intra-operator network codes to make it easier for the general public to use the code.

### Notable Short Codes assigned by BTRC

SN	Organization Name	Allocated Short Code	Type of Service
1	BTRC	100	Complain Service
2	Access to Information (a2i) Programme	333	Government Service Information
3	Bangladesh Election Commission	105	E-Information Service
4	Anti-Corruption Commission	106	Complaining of corruption and information service
5	Post and Telecommunication Division	111	Emergency Service Call Center
6	Bangladesh Police	999	National Help Desk Service
7	Bangladesh Railway	131	Railway Information Service
8	Ministry of Women & Children Affairs	109	Help Line Service
9	Disaster Management Bureau (DMB)	1090	Early Warning and Disaster Management Information Dissemination Service
10	Ministry of Social Welfare	1098	Child help line
11	Foreign Ministry	10929	Help Line Service
12	Civil Aviation Authority	13601	Flight Information Service
13	Bangladesh Parjatan Corporation	13803	Travel Related Service
14	Bangladesh Tourist Police	13888	Tourist Help Line Service



SN	Organization Name	Allocated Short Code	Type of Service
15	Deputy Commissioner's Office, Kurigram	16100	Stop Child Marriage Service
16	Dhaka North City Corporation	16101	Citizen Help Line
17	Chittagong City Corporation	16104	Citizen Help Line
18	Directorate of Education	16105	Help Line Service
19	Statistic and Information Division, Ministry of Planning	16106	Help Line service
20	BRTA	16107	Help line service
21	Bangladesh Human Rights Commission	16108	Help line service
22	Chittagong Development Authority (CDA)	16112	Help line service
23	Ministry of Land	16122	Information & Help Line Service
24	Ministry of Agriculture	16123	Information & Help Line Service
25	Dhaka Power Distribution Company Limited (DPDC)	16116	Customer Care Service
26	Ministry of Religious Affairs	16220	Hajj Information Service
27	Management Information System (MIS), Directorate General of Health Services (DGHS), Ministry of Health and Family Welfare	16263	e-Health Information Service
28	Department of Labour	16356	Help Line service
29	Department of Inspection for Factories and Establishments	16357	Help Line service
30	Microcredit Regulatory Authority	16394	Customer Care Service
31	MoLaw, Justice and Parliament (Legal AID)	16430	Legal Services
32	National Board of Revenue	16555	Customer Care Service
33	Chittagong Port Authority	16563	Help Line Service
34	Central Procurement Technical Unit	16575	Electronic Government Procurement, e-GP Service
35	Sonali Bank Ltd	16639	Customer Care Service
36	IDCOL	16653	Customer Care Service
37	Palli Sanchay Bank	16654	Customer Care Service

SN	Organization Name	Allocated Short Code	Type of Service
38	Industrial and Infrastructure Development Finance Company (IIDFC) Ltd	16647	Customer Care Service
39	Foster Corporation Limited	16648	e-Information Service
40	Trade International Ltd	16649	Customer Care Service
41	Saif Power Tech Ltd	16650	Customer Care Service
42	Royal Green Limited	16651	Customer Care Service
43	Enrich Technology Bangladesh	16652	e-Entertainment & Infotainment Service
44	IDCOL	16653	Customer Care Service
45	Palli Sanchay Bank	16654	Customer Care Service
46	Jubilant Golden Harvest Ltd.	16656	Customer Care Service
47	Mir Cement Ltd	16657	Customer Care Service
48	MobiTips	16658	Customer Care Service
49	Meridian Finance & Investment Limited	16659	Customer Care Service
50	Chomotkar Digital Limited	16661	e-Infotainment Service
51	Premier Cement Mills Limited	16662	Customer Care Service
52	X-Ceramics Limited	16663	Customer Care Service
53	Gr8Geek Solution	16664	e-Infotainment Service
54	State University of Bangladesh	16665	Information Service (Voice & SMS)
55	True Workstation Ltd.	16667	e-Infotainment Service
56	CellTek ProDigital Limited	16668	e-Infotainment Service
57	MJL Bangladesh Limited	16669	Customer Care Service
58	United Nations High Commission for Refugees (UNHCR)	16670	PoCs to UNHCR
59	Directorate General of Family Planning (DGFP)	16767	Help Line Service
60	Asgar Ali Hospital	10602	Emergency Medical Service
61	Enam Medical Coolage	10603	Emergency Medical Service
62	LAB AID Ltd.	10606	Emergency Medical Service
63	Al Haramain Hospital Pvt Ltd	10607	Emergency Medical Service
64	Ad-din Hospital	10610	Emergency Medical Service
65	Ibrahim memorial Diabetes Center	10614	Emergency Medical Service



SN	Organization Name	Allocated Short Code	Type of Service
66	The IBN SINA Trust	10615	Emergency Medical Service
67	Square Hospital Ltd.	10616	Emergency Medical Service
68	Bangladesh Eye Hospital and Institute	10620	Emergency Medical Service
69	Apollo Hospital	10678	Emergency Medical Service
70	United Hospital	10666	Emergency Medical Service
71	Ibrahim Cardiac Hospital & Research Institute	10677	Emergency Medical Service
72	STS Hospitals Ltd	10679	Emergency Medical Service
73	Bangladesh Specialized Hospital Ltd.	10633	Emergency Medical Service
74	Hello Doctor BD	10646	e-Health for First Aid
75	BRB Hospitals Limited	10647	Customer Care Medical Service

As per Bangladesh National Numbering Plan 2017 for toll free services, the number series has been set as 0800 and the number structure is as follows:

Prefix+SCP CODE+ IN

SCP = Signaling Control Point

IN = Intelligent Network.

A separate policy has already been formulated from BTRC for the use of Short Code in Inter-Network Service. Details are available on the website [www.btrc.gov.bd](http://www.btrc.gov.bd).



## Electro Magnetic Field Radiation (EMF-Radiation)

Public awareness about the impact of harmful Electro Magnetic Field Radiation (EMF-Radiation) emitted from the Mobile Towers (Base Transceiver Station-BTS) on human bodies and the environment is increasing rapidly. The mobile-subscribers are very active in this regard through various social media.

As the regulator of telecommunication services, one of the most important issues of BTRC and the Government now is to analyze and control the impact of EMF-Radiation. The High-Court division of the honorable Supreme-Court has directed the Commission to take effective steps in formulating and regulating guidelines on the exposure of harmful EMF emitted from BTS to human bodies and environment. BTRC has already prepared a draft guideline on "Limiting Exposure to Radiation of Electromagnetic Fields (9kHz to 300GHz)" to reduce the risk of EMF-Radiation in the country and sent it to the Ministry of Posts, Telecommunications and Information Technology for necessary approval. This issue is now awaiting for observation and judgement of the High-Court division of the honorable Supreme-Court. In addition, BTRC has instructed all mobile operators to comply with standards set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and World Health Organization (WHO) for controlling EMF-Radiation levels from Mobile Towers.



Figure: EMF-Radiation Measurement Equipment

2 (two) units of Radiation Measurement Equipment have already been procured by the BTRC to measure the level of EMF-Radiation in accordance with Public Procurement Rules PPR-2008. The level of EMF-Radiation generated from mobile towers located in different areas are being examined by using these Radiation Measurement Equipment. Recently, BTRC measured the level of EMF-Radiation emitted from tower set up by mobile phone operators at Ramna area in Dhaka city and in Jamalpur district. The measured level of EMF-Radiation is much lower than standard of WHO and ICNIRP, which is acceptable and not harmful to public health or the environment.





Officials of E&O, BTRC are conducting EMF-Radiation Measurement activities at various locations.

### The Result of EMF Radiation Measurement

Recently BTRC monitored the level of EMF Radiation emitted from the towers set up by mobile phone operators in Dhaka city and in Jamalpur district headquarters. The monitoring activities tested the levels of EMF radiation following the standards of the International Commission on Non-Ionizing Radiation Protection (ICNIRP), World Health Organization (WHO) and International Telecommunication Union (ITU).

The results of EMF Radiation Measurement at Ramna in Dhaka city is given below:

Parameters	Values
Location (within 5 meters from the tower)	Lat: 23.73399 Long: 90.40154 IEB Building
Standard Value (W/Sq.m) [ICNIRP-GP]	2.871
Measured Value (W/Sq.m) [Max]	0.1061
Exposure Ratio (Measured/ICNIRP limit) in %	3.69%
Compliant (Yes/No)	Yes

The results of EMF Radiation Measurement in Jamalpur district is given below:

Parameters	Values
Location ( within 5 meters from the tower)	Lat:24.93236 Long:89.93926
Standard Value (W/Sq .m) [ICNIRP -GP]	2.871
Measured Value (W/Sq.m) [Max]	0.0268
Exposure Ratio (Measured/ICNIRP limit) in %	0.93%
Compliant (Yes/No)	Yes

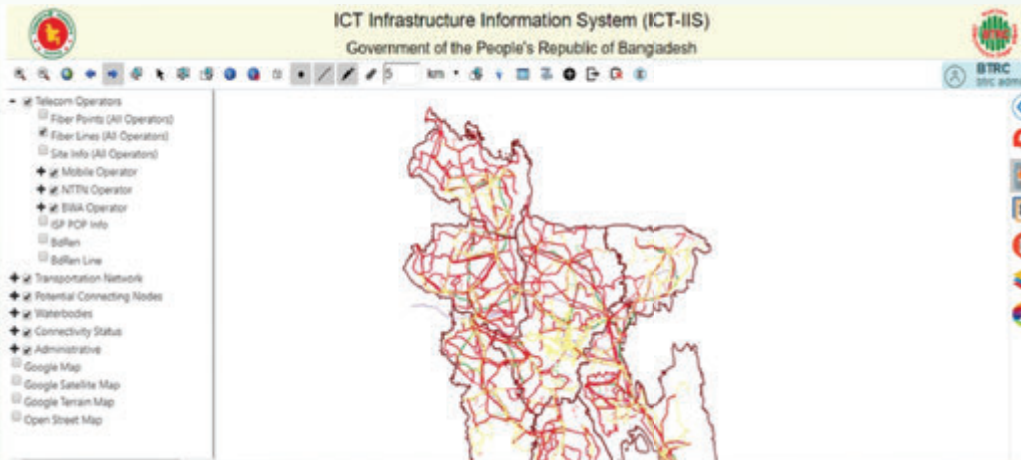
A comparative analysis of the measure data with the ICNIRP standard shows that the standard of EMF radiation in the above places is much lower than the acceptable standard. According to WHO and ICNIRP standards, it is not harmful to public health or the environment.

#### **Interactive GIS Map for ICT Infrastructure Information System (ICT-IIS)**

Vision of digital Bangladesh demands a nationwide, independent, strong infrastructure base which will transmit data up to the rural lives. The key component of these infrastructures is optical fiber network. Since 1997, as there was no separate license for building transmission lines, optical fiber cables had been installed by the mobile operators for their nationwide coverage.

Even though telecom-operators have optical fiber infrastructures at their own but due to lack of any combined information bank it was not possible for the policy makers to make any decision regarding the proper utilization of the access resources. The requirement of this combined optical fiber infrastructure has been identified at the Domestic Network Co-ordination Committee meeting presided by the principle secretary and as a result of the decision taken by the Committee BTRC was given the tasks to set-up such an interactive GIS map which could reserve countrywide information for optical fiber network infrastructure.





ICT Infrastructure Information System (ICT-IIS) Platform

Under the supervision of BTRC, the Interactive GIS Map is so prepared that contains the information about the optical fiber of all operators in different layers of the map. It is worth mentioning here that as part of Digital Bangladesh vision, the Government has taken steps to bring all the institutions under the Broadband Network connectivity up to the grassroots level across the country. To achieve the goal, BTRC has prepared this Interactive GIS Map by gradually integrating all the departments, districts, upazilas, unions, primary and secondary schools, community clinics, post offices, etc. at the grassroots level with the physical Broadband Network connections. Interactive GIS Map is playing a pivotal role in the implementation of any project related to public/private connectivity. With the prior approval of BTRC's E&O division, various organizations will be able to use the relevant information of the Interactive GIS Map.

### Telecom Monitoring System (TMS)

BTRC is working with a view to set-up an Integrated Telecom Monitoring System (TMS) in order to accomplish the tasks to witness all Telecom operators' network, to oversee the real-time status & performance of the telecommunication services, to verify the QoS (Quality of Service) indicators and to have an automated verification process for the revenue earned by the Government so that it could substantially monitor and analyze all relevant parameters in all these said aspects. Primarily, the implementation of this proposed TMS system is approved by the Commission through its 212th meeting. Besides, necessary budget is allocated for this purpose. The following are the key functions of the proposed system:

- It will create scope to live monitoring of operators' network. The quality of network service could be monitored more accurately and the actual status of customer service experiences could be known instantly. In addition, a clear idea on the revenue due to the Government would be calculated on a daily basis.
- It will be a helpful tool to verify whether the operator is implementing the tariff which is truly approved by the BTRC. Besides, it will identify the subscribers how they are benefitted or suffered with a package and all relevant complaints could be mitigated successfully.



- All indicators and reports related to telecommunications will be processed automatically, which will make the procedure easier for BTRC to send reports more effectively and promptly to all incumbent Government bodies. This will also help in taking decisions more judiciously at the policy-making level.
- It will be possible to take immediate action by knowing whether the telecommunication network has been damaged or disconnected in any particular area.

### Quality of Service (QoS)

Quality of Service (QoS) refers to the ability of a network or service to satisfy the end user. It is the indicators of the performance of a telecommunication network and of the degree to which such network conforms to some specified standards. Recommendation ITU-T E.800 provides a set of commonly used terms to represent the overall acceptability of an application or service as perceived by the end-user.

BTRC is working with the highest priority to measure the QoS of ANS operators with the aim to protect consumer interest and to improve the overall service quality. In this regard BTRC issues QoS directives to the MNOs from time to time. Moreover, a comprehensive regulations titled by “The Bangladesh Telecommunication Regulatory Commission (ANS Operator’s Quality of Service) Regulations, 2018”- is issued to the entities including MNO, ISP, PSTN operators. BTRC has defined threshold for Call drop, Data throughput (Data speed), network coverage and other KPIs in these regulations so that the respective operators shall comply with the specified QoS benchmarks. Mobile operators have been preserving the records and submitting reports to the Commission on monthly basis on its compliance to the QoS standards specified in these regulations. The Commission is assessing the quality of services continuously through inspection and issues instructions as required.

It is worth mentioning here that BTRC has been conducting drive test to measure the QoS parameters (image attached).

BTRC has procured QoS monitoring tools from Finland based company Anite Finland Ltd.



Using the tools, BTRC is measuring Call Drop, Data Throughput, Network Coverage and other KPIs of Mobile Cellular and Broadband Wireless Access (BWA) services in specific areas without taking any help from operators. User experience while using various social apps such as Facebook and Youtube is also being measured. Error or any deviations observed from such Measurement results would be comparable to actual user experiences and thus the operators would be directed to improve their network parameters to achieve better network coverage and better delivery of the services to their subscribers.

The QoS result of mobile phone operators obtained through drive test at different locations of Bangladesh is mentioned below.

KPI Name	Benchmark	GP	Robi	Banglalink	Teletalk
Service Coverage	Out-door Coverage City Corporation Area $\geq -80$ dBm	-55.74	-58.38	-55.76	-60.04
Call setup success rate (%)	$\geq 97\%$	99.04%	97.89%	99.82%	99.12%
Call Drop rate (%)	$\leq 2\%$	3.38%	1.35%	0.58%	1.58%
Mean Opinion Score (MOS)	$\geq 3.5$	3.61	3.47	3.73	3.63
Call setup time	$\leq 7$ sec	10.14	6.15	7.69	7.11
Data Throughput (FTP)	DL(3G) $\geq 2$ Mbps	3.08	3.16	3.38	1.63
	UL (3G) $\geq 128$ Kbps	2007	1792	1679	901
Data Throughput (FTP)	DL(4G) $\geq 7$ Mbps	5.88	5.91	5.18	-
	UL (4G) $\geq 1$ Mbps	2.55	2.50	2.33	-



Mobile Operators Quality of Services (QoS) Drive Test Result of Barisal Division.

No of Samples: 700 (Approx)

KPI Name	Benchmark	GP	Robi	Banglalink	Teletalk
Service Coverage	Out-door Coverage Area >= -80dBm	-57.82	-67.83	-63.41	-67.93
Call setup success rate (%)	>=97%	98.99%	98.21%	96.23%	95.12%
Call Drop rate (%)	<=2%	0.88%	0.15%	0.15%	7.92%
Mean Opinion Score (POLQA-MOS)	>=3.5	3.61	3.34	3.69	3.08
Call setup time	<=7sec	7.86	7.1	7.65	7.82
Data Throughput (FTP)	DL(3G) >= 2 Mbps	2.61	2.61	2.59	1.5
	UL (3G)>=128 Kbps	993.28	901.12	696.32	768
Data Throughput (FTP)	DL(4G) >= 7 Mbps	5.1	4.89	3.56	-
	UL (4G)>=1 Mbps	1.39	1.72	1.03	-

Mobile Operators Quality of Services (QoS) Drive Test Result of Khulna Division.

No of Samples: 1,500 (Approx)

KPI Name	Benchmark	GP	Robi	Banglalink	Teletalk
Service Coverage	Out-door Coverage Area >= -80dBm	-61.19	-65.57	-58.82	-67.51
Call setup success rate (%)	>=97%	99.76%	99.10%	99.18%	98.36%
Call Drop rate (%)	<=2%	0.44%	0.40%	0.61%	2.33%
Mean Opinion Score (POLQA- MOS)	>=3.5	3.63	3.3	3.79	3.44
Call setup time	<=7sec	8.09	6.3	7.91	7.88
Data Throughput (FTP)	DL(3G) >= 2 Mbps	2.26	1.8	2.22	1.34
	UL (3G)>=128 Kbps	1085.4	1075.2	1239.1	860.16
Data Throughput (FTP)	DL(4G) >= 7 Mbps	4.63	5.29	4.96	-
	UL (4G)>=1 Mbps	1.89	2.46	1.81	-



Mobile Operators Quality of Services (QoS) Drive Test Result of Rajshahi Division.

No of Samples: 1,800 (Approx)

KPI Name	Benchmark	GP	Robi	Banglalink	Teletalk
Service Coverage	Out -door Coverage Area $\geq -80\text{dBm}$	-55.63	-62.63	-61.60	-63.84
Call setup success rate (%)	$\geq 97\%$	99.78%	97.65%	99.05%	97.56%
Call Drop rate (%)	$\leq 2\%$	1.35%	0.39%	0.28%	2.94%
Mean Opinion Score (POLQA -MOS)	$\geq 3.5$	3.55	3.34	3.66	3.59
Call setup time	$\leq 7\text{sec}$	5.96	6.24	5.77	6.79
Data Throughput (FTP)	DL(3G) $\geq 2\text{ Mbps}$	3.42	3.36	2.81	1.87
	UL (3G) $\geq 128\text{ Kbps}$	1980.93	1917.90	1391.03	863.84
Data Throughput (FTP)	DL (4G) $\geq 7\text{ Mbps}$	6.69	6.75	5.10	
	UL (4G) $\geq 1\text{ Mbps}$	4.75	4.59	2.77	

Mobile Operators Quality of Services (QoS) Drive Test Result of Rangpur Division.

No of Samples: 1,100 (Approx)

KPI Name	Benchmark	GP	Robi	Banglalink	Teletalk
Service Coverage	Out-door Coverage Area $\geq -80\text{dBm}$	-55.54	-62.57	-61.06	-63.94
Call setup success rate (%)	$\geq 97\%$	99.91%	99.64%	99.45%	98.73%
Call Drop rate (%)	$\leq 2\%$	0.45%	0.18%	0.27%	0.55%
Mean Opinion Score (POLQA -MOS)	$\geq 3.5$	3.53	3.32	3.68	3.67
Call setup time	$\leq 7\text{sec}$	5.31	6.18	5.59	7.28
Data Throughput (FTP)	DL(3G) $\geq 2\text{ Mbps}$	3.72	3.65	2.38	1.99
	UL (3G) $\geq 128\text{ Kbps}$	2571.19	2765.84	1207.58	1207.94
Data Throughput (FTP)	DL(4G) $\geq 7\text{ Mbps}$	6.88	6.51	4.68	
	UL (4G) $\geq 1\text{ Mbps}$	3.76	4.40	2.31	



## International Gateway (IGW)

There are a total of 23 IGW operators including incumbent BTCL to route all types International calls to ensure better revenue sharing of the government from international calls. IGW operators BTCL, Bangla Trac Communications Ltd., Novotel Ltd. and Mirtel Limited started their commercial operations in September, 2008. Later Commission awarded 25 new IGW licenses to the operators.

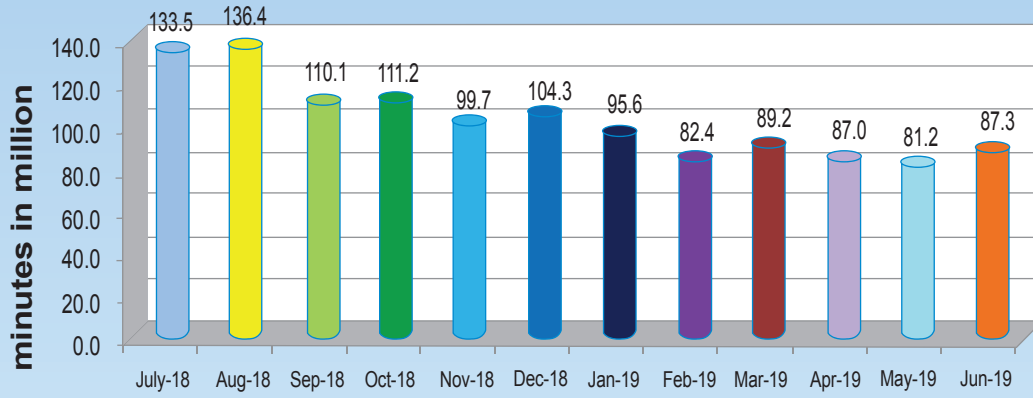
Statistics on International call Volume of the last fiscal year is given below:

Month	International Incoming Call Minutes	International Outgoing Call Minutes
July- 18	1,334,975,734	16,228,701
August- 18	1,363,762,021	18,004,393
September- 18	1,110,680,969	13,994,155
October- 18	1,111,617,466	24,006,714
November- 18	997,450,374	21,865,625
December- 18	1,042,693,195	22,392,293
January- 19	955,739,527	23,439,404
February- 19	824,144,672	22,047,472
March- 19	891,601,253	22,830,296
April- 19	870,431,155	23,214,191
May- 19	812,360,993	21,559,709
June- 19	872,834,423	22,286,497

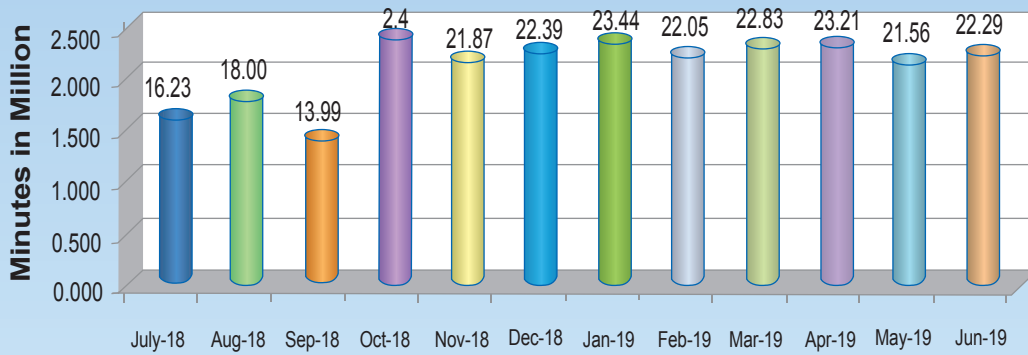
In July, 2018 total International incoming call minutes routed through IGWs were 133.34 Crore which reached to 87.17 Crore call minutes by June 2019. On the other hand, the total international outgoing call minutes were 1.27 Crore in July 2018 and 0.89 Crore in June,2019. One of the major reasons for the decline in international inbound calls is the use of popular OTT services such as Viber, IMO, Whatsapp, etc. The use of traditional telecommunication services is declining as people and expatriates can communicate almost free of cost using these internet-based services. However, through this, the use of internet bandwidth in the country has increased tremendously and internet-based services are being expanded to the grassroots.



### International Incoming Call Minutes



### International Outgoing Call Minutes



### Interconnection Exchange (ICX)

To ease the management of international and domestic calls, 3 ICXs have been in operation including incumbent operator BTCL since 2008. Later, with the direction of the Government, BTRC awarded 23 ICX licenses to the operators. Routing of calls through ICXs has simplified the interconnection scenario between different operators and enabled the regulator with more transparent platform to monitor & analyze the call volume handled by different mobile, PSTN and IPTSP operators to ensure proper revenue sharing mechanism for the Government.

### Broadband Wireless Access (BWA)

To increase the Broadband services all over the country, the Commission awarded Broadband Wireless Access (BWA) licenses to Banglalion Communication Ltd (BCL) and Augere Wireless Broadband Bangladesh Ltd (AWBBL) in 2008 and Bangladesh Internet Exchange Ltd. (BIEL) in 2013. The number of Internet subscribers, especially mobile Internet, has increased at a significant rate during the 2018-19 financial year. WiMAX operators started losing customer, after introducing of 3G in 2013 and 4G in 2018. At present, there are no significant numbers of customers belonging to only one BWA operator amongst three operators of the said service. As of June, 2019, Banglalion Communication Ltd has 5290 subscribers.

### International Internet Gateway (IIG)

To effectively manage the international Internet bandwidth, International Internet Gateway (IIG) licenses have been introduced by BTRC. Two such gateways, BTCL and Mango Teleservices Ltd have started their operation after getting licenses from BTRC since 2008. Subsequently, another 35 companies were issued IIG licenses in 2012. But, 3 operator's IIG licenses have been canceled recently. At present, a total of 28 organizations, along with the preceding two organization are carrying out IIG operational activities.

At present, all IIG licensees are functioning their operations after getting 1040.60 Gbps from BSCCL and ITC operators. which have been taken from BSCCL and International Terrestrial Cable (ITC) operators. Recent status of IIGs are shown as follows:

Sl. No.	Subject	Information
1	Number of License	34
2	In Operation	28
3	Total Capacity	1040.60 Gbps
4	Total Uses Bandwidth	1018.65 Gbps





### Optical Fiber Expansion Network / Interconnection

In 1989, Pacific Bangladesh Telecom Ltd (PBTL) first introduced CDMA based mobile network in Bangladesh. Later on, five operators have been mobile license based on GSM band. In order to expand own network coverage across the country, these operators started installing their own optical fiber network and expanded the said network up to Upazila level.

Later on, the decision to award licenses of optical fiber network across the entire country by issuing Nationwide Telecommunication Transmission Network (NTTN) guidelines in 2008. Basically, in order for building a common network across the country by separating access layer from the transmission layer, these licenses were issued.

Fiber@Home Limited received NTTN license on 7th January 2009. At the same time, gradually the responsibilities to expand network in all Upazila across the country have been erranded to all licensees. Roll out obligations for ten years for licensees have been fixed by BTRC. With effect of this, 5% of 1st year, 10% of 2nd year, 20% of 3rd year, 30% of 4th year, 40% of 5th year and 100% of 10th year Upazila coverage are kept compulsory for rolling out of optical fiber network. There is a provision for financial penalty for failing to fulfill the said target and in that light, BDT 10 crores have been kept in BTRC as Performance Bank Guarantee (PBG). Later on, Summit Communications Limited has been awarded NTTN license under the same terms and conditions on 9th December 2009. The present status of Fiber@Home Limited and Summit Communications Limited are as follows:

#### Fiber@Home Limited

Year wise rollout target of Fiber@Home Limited as per NTTN guideline is as follows:

Year	License Obligation	Year wise Fiber@Home's upazilla Coverage
2011(1st year)	5% i.e. 24 Upazilas	20 Upazilas
2012 (2nd year)	10% i.e. 48 Upazilas	Additional 24 i.e. total of 49 Upazilas
2013 (3rd year)	20% i.e. 97 Upazilas	Additional 49 i.e. total of 98 Upazilas
2014 (4th Year)	30% i.e. 145 Upazilas	Additional 47 i.e. total of 115 Upazilas
2015 (5th Year)	40% i.e. 194 Upazilas	Additional 54 i.e. total of 199 Upazilas
2020 (10th Year)	100% i.e. 492 Upazilas	i.e. within next 5 years total additional coverage 293 Upazilas

Present Status of Fiber@Home Limited is as follows:

- Network Coverage: 44,212 km. (by own arrangement)
- Upazila Coverage: 491
- District Coverage: 64
- Lease Fiber (PGCB) 2,971 km (as NSP)
- Swapping Fiber (BTCL) 479 km.



### Summit Communications Limited

Year wise rollout target of Summit Communication Limited as per NTTN guideline is as follows:

Year	License Obligation	Year wise Fiber@Home's Upazila Coverage
2011 (1st year)	5% i.e. 24 Upazilas	25 Upazilas
2012 (2nd year)	10% i.e. 48 Upazilas	Additional 24 i.e. total of 49 Upazilas
2013 (3rd year)	20% i.e. 97 Upazilas	Additional 66 i.e. total of 115 Upazilas
2014 (4th Year)	30% i.e. 145 Upazilas	Additional 40 i.e. total of 159 Upazilas
2015 (5th Year)	40% i.e. 194 Upazilas	Additional 98 i.e. total of 257 Upazilas
2020 (10th Year)	100% i.e. 492 Upazilas	i.e. within next 5 years total additional coverage 235 Upazilas

### Present Status of Summit Communications Limited is as follows

- Network Coverage: 41,592.80 km. (Underground & Overhead OFC by own arrangement)
- Upazilas Coverage: 492
- District Coverage: 64
- Lease Fiber (PGCB) 1,684 km (as NSP)

In this regard, Summit Communications Limited and Fiber@Home Limited have installed network in 64 Districts & 492 Upazilas and 64 Districts & 491 Upazilas respectively as NTTN operator.

### Expansion of Optical Fiber Network of Mobile Network Operators

After the issuance of the licenses, Mobile Network Operators have built network coverage across the country by expanding optical fibers. Later on, by issuing the NTTN Guidelines in 2008, the responsibilities for the installation of optical fiber across the country with the obligation to do the job in Upazilas within the specific time period have been erranded to NTTN licensees instead of expanding own optical fiber network by the Mobile Network Operators. As a result, the optical fiber installation process has been stopped completely by Mobile Network Operators. In some cases, the expansion of optical fiber network in some few access layers has been completed as per the approval from the Commission where NTTN network is not available.



Installed optical fiber network coverage in terms of length of Mobile Operators are as follows:

### **BTCL**

Approximately 23,500 km expansion network by optical fiber in 64 districts across the country. Besides, 108 along with 1104 Union Parishad which is 1212 in total has been connected through “Optical Fiber Cable Network Development in 108 Union Parishad Project” and “Optical Fiber Cable Network Development in 1000 Union Parishad Project” respectively. Furthermore, the installation of optical fiber network in districts, upazilas and unions level across the country is continuing under the “Wireless Broadband Network for the Digital Bangladesh (4G, LTE) Project”. BTCL is also expanding their network by different projects the implementation of the ICT department.

### **Bangladesh Railway**

The two cores of optical fiber with the length of 2009 km which is spread across the country have been leased to Grameenphone by the Bangladesh Railway in 1997. Later on, Grameenphone Ltd. installed 32/48 core optical fiber based on different places by upgrading those in own expenditure as the underground fiber optic expired and from that network, Grameenphone Limited provided 4 core optical fiber to Bangladesh Railway for the uses of the signaling. Recently, Bangladesh Railway has completed the installation of 48 core optical fiber of 409 km. At present, the optical fiber cable installed along the railway line of Bangladesh Railway is 2,569 km.

### **PGCB**

Power Grid Company of Bangladesh Ltd. (PGCB) is supplying power through the nationwide High Voltage Grid Line. The company has set up optical fiber of 5,760 km wide network of the OPGW (Optical Ground Wire), through a high-voltage transmission line in 197 upazilas across the country. Fiber Optic Networks expanded by PGCB are 8, 12, 24, 32, 24 or 48 core respectively. Very little part of the said fiber is used for signaling. Due to which there is sufficient access capacity remains as surplus. In order to ensure optimal use of the assets, PGCB has leased a Dark Fiber for telecom services to different telecom operators with the approval of BTRC. It is be mentioned that all telecom operators have around 79 thousand km nationwide optical fiber network across the country.

### **Call Centre**

Call Centre is one of the most promising sectors in Bangladesh. To address the necessity for promoting ‘Call Center’ in Bangladesh for generating employment and earning foreign currency, Call Center commenced its journey in 2008. With the participation of local entrepreneurs and Non-Resident Bangladeshis the industry has began to flourish. The expansion of this sector has been encompassed in the domestic market along with the international market. At present, call centers of different countries along with US, Canada, UK, Australia and other countries are operating services in Bangladesh. In 2008, 2009, 2010 and 2014, BTRC along with



Bangladesh Association of Call Centers & Outsourcing (BACCO) discussed in details & mentioned initiatives for the existing opportunities and what to do in future to familiarize call center in global market by participating the World BPO ITO Forum. Although the sector started with just 700 employees, the number of workers in this sector is more than 50 thousand more. In 2008, the income from this sector was \$4 million, which is expected to reach \$100 million by 2021.

Apart from licensing at a nominal price and simultaneously providing Revenue Sharing Holidays with the age of 3 to 5 years, 60 percent of the discount for purchasing of the Bandwidth (IP/ IPLC) of call centers carrying the incentive of the development of BTRC. At present, ITC organizations have started functioning along with submarine cable for international connection, the opportunity for redundant path of the bandwidth usage has been created which will play an important role in the development of art of call center.

A comparative statistic of the call center industry is mentioned below:

Description	2016-2017	2017-2018	2018-2019
Existing Call Centre Licensee/Registration	201	240	278
Operational International Call Centres	65	70	92
Operational Domestic Call Centres	32	40	186
Employment	30,000+	40,000+	50,000+

Bangladesh has huge prospects for business process outsourcing (BPO) and call center business. The entrepreneurs will be encouraged and the path for earning foreign currency along with the employment of innumerable educated unemployed youth of the country will be possible for the active initiatives and various incentives provided by BTRC.

### Internet Service Provider (ISP)

ISP Operators are playing important role in providing internet to broadband internet service. ISPs are playing an effective role in providing digital Literacy, spreading ICT education and increasing internet penetration in Bangladesh. ISP Operators have commenced new technologies for the continuing ongoing demand of the subscribers whose arena spreaded from offline E-mail to high speed multimedia service. Total Internet solutions; i.e. Dial UP, Cable, Wireless & DSL Broadband internet connection for distant and corporate clients, data connectivity (L2/L3 Connectivity, IP-VPN & MPLS-VPN, MPLS & SDH) and other services like domain registration, web design, web hosting, managed network solutions, network security solutions, DNS Parking, video conferencing, email hosting, streaming and FTP server related services are being provided by the ISPs.



Total 1771 ISP Licenses are available in six categories in Bangladesh. Most of the districts in Bangladesh came under the facilities of internet services. At present approximately 1278 ISPs in different categories are providing services by getting bandwidth from IIG and ISPs. ISP operators are providing services through both by wireless and optical fiber. The present status of ISPs at a glance are as follows:

IS.	Type Of License	Licensed ISP	In Operation
1.	Nationwide	133	110
2.	Central Zone	84	70
3.	Zonal	224	157
4.	Category-A	734	572
5.	Category-B	98	66
6.	Category-C	498	302
<b>Total</b>		<b>1771</b>	<b>1278</b>

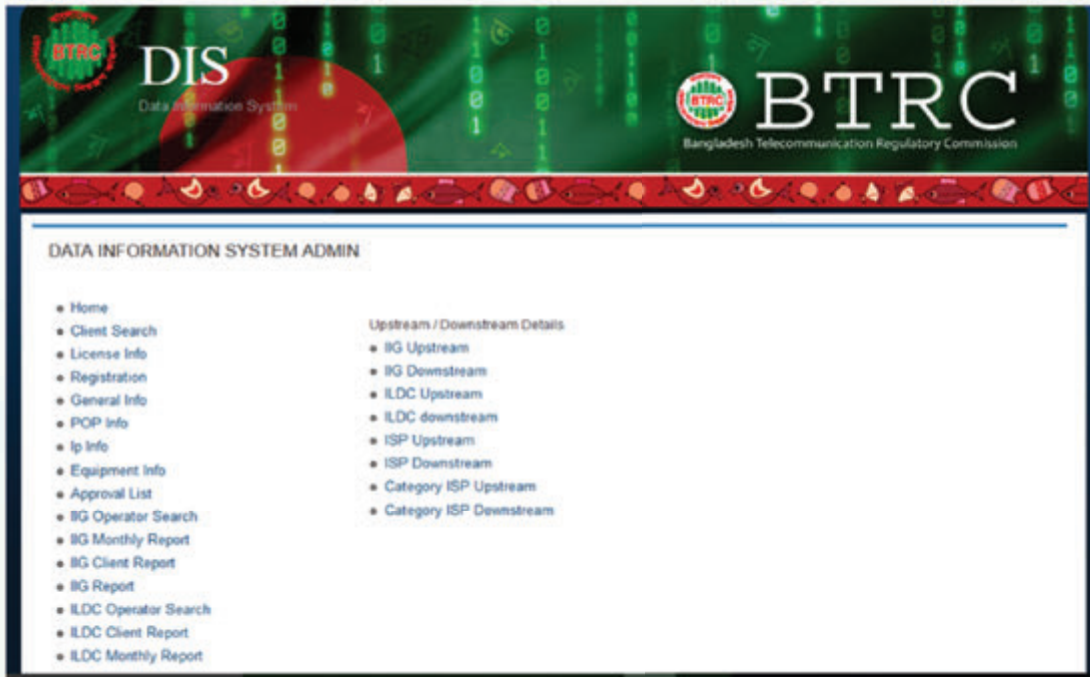
#### Data Information System (DIS)

Data Information System (DIS) is an online media to receive operational activities of International Long Distance Cable (ILDC), International Internet Gateway (IIG), Internet Service Provider (Nationwide/ Central Zone/ Zonal) and Category (A/B/C). At present, the ITC, IIG and ISP operators are directly submitting their monthly bandwidth information as well as used telecom equipment, PoP, IP and other general information to the Commission by using DIS system. Data collection process of ISP operators is under process.

It will ensure the reception of information rapidly and will reduce the use of paper if the said system functions fully. Apart from providing information as per the demand of the parliamentary committee or ministry, the revenue collection of the government from IIGs will be increased by many times as the information relating to this sector are ensured.







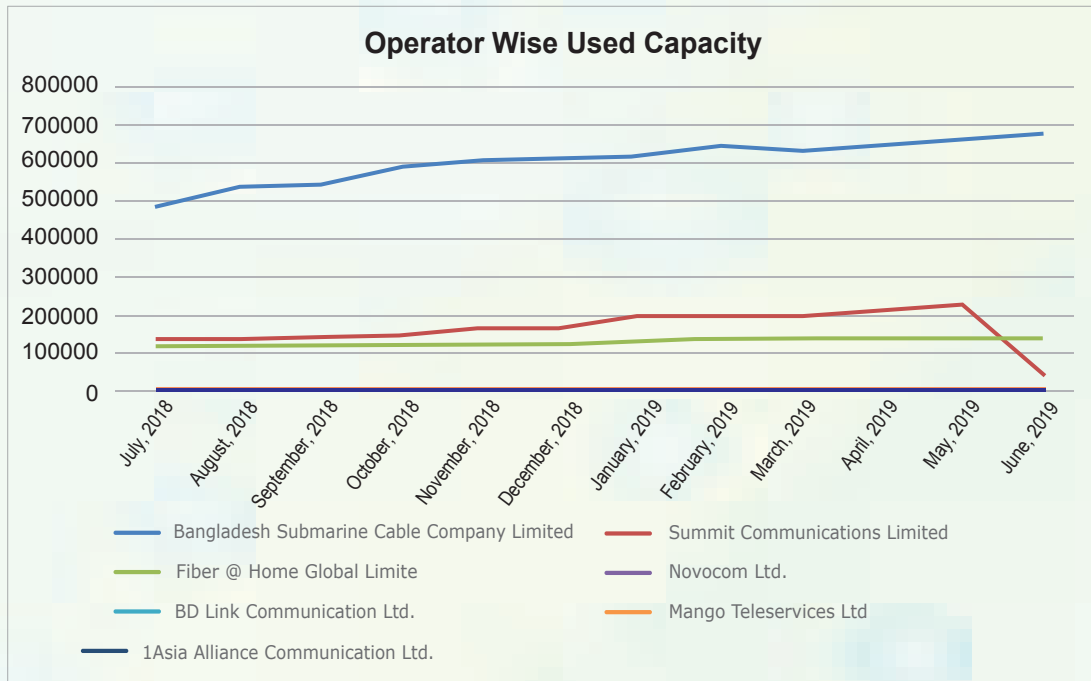
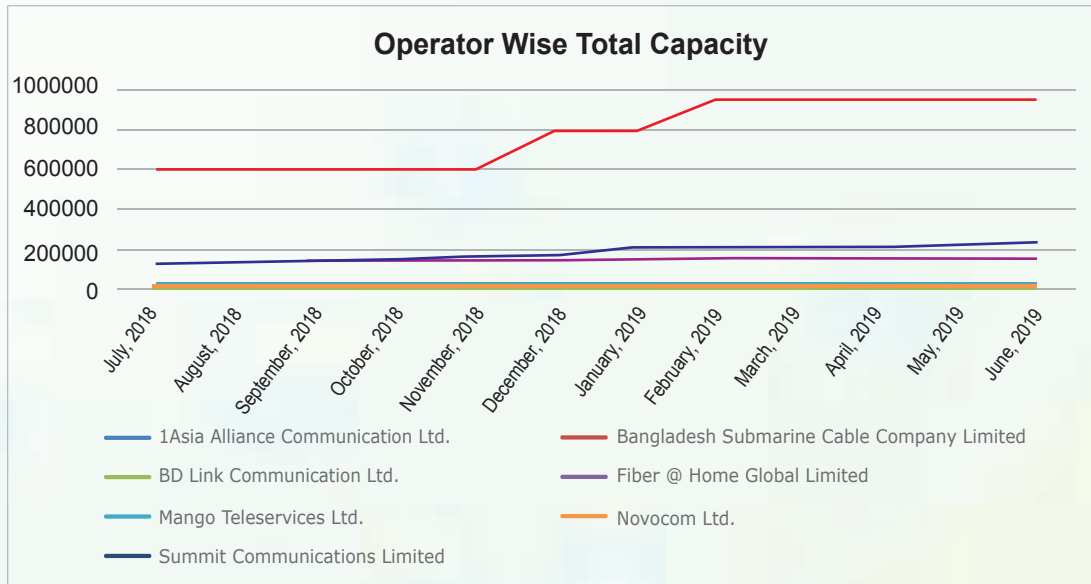
## Submarine Cable and International Terrestrial Cable System

In order for international connectivity competitive impact prevails at the bandwidth price as the only state-owned submarine cable operator BSCCL as a SEA-ME-WE-4 consortium member along with six new ITC operators have come into operation. Besides, Service quality of ITC and BSCCL are improving day by day for being the market competitive. ITC operators are now carrying out gateway data and voice services to different locations of Bangladesh by installing PoPs by following Infrastructure Guidelines. It is to be mentioned that the capacity of all operators in July, 2018 was 896.5 Gbps. Then the capacity increased in May, 2019 which was 1338 Gbps.

An agreement between BSCCL and Bharat Sanchar Nigam Limited (BSNL) was duly signed on 6th January, 2015 in the presence of the both honorable Prime Ministers of Bangladesh and India at the time of the official tour of Indian Prime Minister in Bangladesh. Both the Prime Ministers of Bangladesh and India inaugurated the unofficial supply of bandwidth over video conferencing on 23th March, 2016. Primarily, as per the very agreement BSCCL supplied 10Gbps IP Bandwidth to Tripura province of India. In order to meet up the present increasing demand and for direct connection in new destination, BSCCL joined in SEA-ME-WE-5 consortium. At present SEA-ME-WE-5 has started its operational activities in Bangladesh. For this reason, opportunity has been opened up in the world communication system for connecting more distant people, educational institutions and industrial factories.

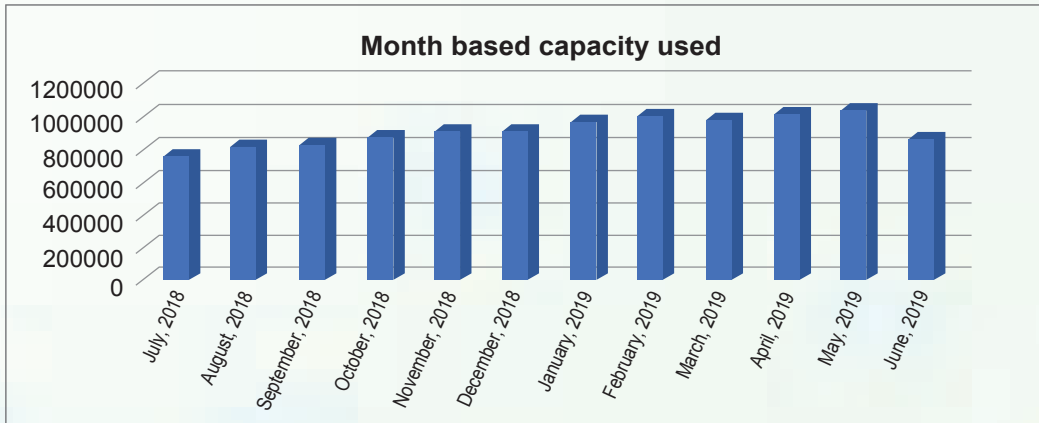


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### Infrastructure Sharing

In order to use the infrastructure of the telecom services providers based on sharing principle, Infrastructure Sharing Guideline has been formulated from BTRC. The prime objectives of infrastructure sharing are to ensure the best usage and to build environment friendly infrastructure. The best use of network infrastructure along with the reduced investment relating to these Telecom Service Providers can be ensured if the infrastructures are built on shared basis. As a result, the path for providing services has been opened up at the fastest time with affordable price.

Opportunity for sharing passive infrastructure is possible while active infrastructure sharing has been kept refrained. Mobile network operators are signing agreements amongst themselves and they are using tower, sites, fiber cable, generators by sharing principle as passive equipment in different cases.

It is to be noted that as per the Government's instruction, an amended draft guideline has been sent to ministry of Post & Telecommunication with keeping the provision if the opportunity of active sharing might be opened or not. Proposal for sharing Multi Operator Radio Access Network (MORAN) except spectrum of mobile operators has been proposed in the draft guideline.

### Tower Sharing License

In order to ensure the best use of tower for providing telecommunication services, to protect the health and environment hazard for installing towers in different places that causes the radiation, to protect the reduction of cultivated land and to reduce the use of electricity, Tower Sharing License have been issued in favor of four organizations with the approval of government. Instruction for taking activities has been provided after vetted the agreement between Tower Sharing and mobile Network Operator under the terms and conditions of the related guideline of the very license.



### National Internet Exchange

In order to limit the usages of International Bandwidth and to increase the usages of domestic bandwidth, National Internet Exchange license have been issued to some organizations with the approval from government. For this reason, usage of domestic content will be increased and the latency will be decreased while the inspiration of the subscribers will be increased in terms of using Local Web Browsing, And the expenditure of foreign currency will be decreased. Local traffic will be routed domestically with the decreased latency for web browsing if all ISP are connected with National Internet Exchange (NIX). As a result, the field of new content will be widened along with the reduced cost.

Type of license	Total number of licenses	Operational
National Internet Exchange	07	04

### Video conferencing

Through video conferencing, various governmental and non-governmental organizations communicate with their branch offices and other affiliates located in or outside the country. The Commission has issued instructions regarding the conduct of video conferencing. BTRC grants video conferencing approval subject to payment of necessary documents and applicable fees as per the said instructions. The demand for video conferencing from various corporate organizations, educational institutions, government and non-government organizations and NGOs is constantly increasing. It is to be noted that no fee has been fixed for video conferencing on non-commercial basis.

### NOC to Import Telecommunication Equipment

According to "Bangladesh Telecommunication Regulation Act, 2001" and "Import Policy 2015-2018", pre-approval was given to import non-wireless equipment used in telecommunication work from the Engineering and Operations Department in favor of various organizations. In order to get approval for import of such non-wireless telecommunication equipment / parts, the importing companies need to apply according to the said policy. No fee is applicable for such application. Under this department, a large number of telecommunication equipment such as switches, routers, servers, modems, power supply equipment, rectifiers, cables, etc. have been approved for import in the last financial year. BTRC is playing a helpful role in maintaining the quality of telecommunication equipment in the internal market of Bangladesh.



## Legal and Licensing Division





## Legal and Licensing Division

Legal and Licensing (LL) Division of Bangladesh Telecommunication Regulatory Commission (BTRC) is comprises with two Directorates, one is Legal and another is Licensing. Two Directors perform in two Directorates as Directorate head and a Director General performs as Divisional head of Legal and Licensing (LL) Division. Licensing directorate takes necessary steps to issue, renew, amend and cancel all kinds of licenses relating to telecommunication and to make different regulations under the provisions of the Bangladesh Telecommunication Regulation Act, 2001. On the other hand, Legal Directorate conducts all the cases filed on behalf of or against the Commission, provides legal opinions and explanations to resolve the complications arising out of the Guidelines and Licenses and assists the Commission in any legal matters when required. Activities and duties of Legal and Licensing (LL) Division are as follows in short:

### Legal Directorate

Legal Directorate performs implementation of all decisions of the Commission relating to legal issues, giving legal advice on all matters as per requirement of the Commission, legal vetting of proposed contracts, hearing of complaints and dealing with issues relating to show-cause notice, to assist the Government for drafting regulations, guidelines and licenses, dealing with the cases lodged on behalf of and against the Commission in the Supreme Court and other Courts of Bangladesh, to perform all activities in the light of the decision of the Commission relating to regulations, provides legal advices and legal opinions to other Divisions of the Commission to perform their activities in legal manner, provides legal opinion and vet on behalf of the Commission Acts, rules, regulations and policy relating to telecommunications, information technology and same as others sent from different Ministries, resolve dispute between the licensees, conduct inspection on violation of licensing conditions, inform the ministry about cases, dealings with different law firms and senior lawyers, appoint lawyers in different cases, submit charge sheet/FRT after investigation, sanction charge sheet/FRT submitted by investigation officer of different police station, takes necessary steps to examine the illegal VoIP equipment seized in the cases filed under the Bangladesh Telecommunications Regulation Act, 2001 in different police stations of the country, prepare affidavit, and any other issues of the Commission.

### Noted necessary laws related to regulate telecommunication services

There have been enacted laws in different times to regulate the development and technological progress of telecommunication services. Some of those laws are noted as follows:

1. The Telegraph Act, 1885;
2. The Wireless Telegraphy Act, 1933;
3. The Bangladesh Telecommunication Regulation Act, 2001;
4. তথ্য ও যোগাযোগ প্রযুক্তি আইন, ২০০৬;
5. কেবল টেলিভিশন নেটওয়ার্ক পরিচালনা আইন, ২০০৬;
6. টেরেস্ট্রিয়াল টেলিভিশন সম্প্রচার সুবিধা সংরক্ষণ আইন, ২০০৯;
7. পর্নোগ্রাফি নিয়ন্ত্রণ আইন, ২০১২;
8. প্রতিযোগিতা আইন, ২০১২ and
9. সাইবার নিরাপত্তা আইন ২০১৫;



## Amendments of The Bangladesh Telecommunication Regulation Act, 2001

Amendments of The Bangladesh Telecommunication Regulation Act, 2001 have been taken from time to time by considering the interest of the country and importances of telecommunication development are as follows in short:

SL No	Amendment	Ordinance /Act	Effectiveness /Duration
1	1 <sup>st</sup> amendment	Ordinance 1 of 2005	Repealed by Ordinance 7 of 2006 and duration was till 10-12-2005.
2	2 <sup>nd</sup> amendment	Ordinance 7 of 2006	Effective from 11-12-2005 to till date.
3	3 <sup>rd</sup> amendment	Ordinance 58 of 2008	Was Effective from 22-12-2008 to 24-02-2009.
4	4 <sup>th</sup> amendment	Ordinance 41 of 2010	Effective from 01-08-2010 to till date.

## Policies related to regulate telecommunication services

Policies are taken by the government in different times for the implementation of the laws concerning telecommunications services and at a time for the proper blooming and regulate of this service sector. These policies are as follows:

1. National Telecommunications Policy, 1998; 2. ILDTS Policy, 2007; 3. National Broadband Policy, 2009; 4. ILDTS Policy, 2010; 5. বাংলাদেশ টেলিযোগাযোগ নিয়ন্ত্রণ কমিশন (তৎপর্ষপূর্ণ বাজার ক্ষমতা) প্রবিধানমালা, ২০১৮; 6. The Bangladesh Telecommunication Regulatory Commission (ANS Operator's Quality of Service) Regulations, 2018

## Rules/Orders related to regulate telecommunication services

To perform the duties and activities of Commission, Government executes Rules/Orders time to time. These Rules/Orders are as follows:

১. সামাজিক দায়বদ্ধতা তহবিল বিধিমালা, ২০১৪
২. আমদানী নীতি আদেশ ২০১৫-২০১৮

## Regulations send for government approval

To perform the duties and activities of Commission, Commission has introduced several regulations regarding issue license for serving the telecommunication services, interconnection, service regulation for Commission's Officers/ Employees and procedure of implementation of such regulation. Daily activities of the Commission are regulated by these regulations. For carrying out the objectives of Bangladesh Telecommunication Regulation Act, 2001 the Commission formulates the Regulations and thereafter, notifies in the official gazette with prior approval of the Government under Sections 18(4), 24(2)(b), 31(2)(q), 32, 36(6), 38, 49(3)(b), 54(1), 55(3), 57(1), 65, 75, 87(3) and 99 of the said Act, consistent with this Act and the Rules made by the Government. The drafts of the following regulations were prepared by the Commission and sent to the Ministry of Post, Telecommunications and Information Technology for approval:



1. The Bangladesh Telecommunication Regulatory Commission's Officers/ Employees Welfare and Joint Insurance Fund Regulations;
2. The Bangladesh Telecommunication Regulatory Commission (License) Regulations;
3. The Bangladesh Telecommunication Regulatory Commission (Telecommunication Competition) Regulations;
4. বাংলাদেশ টেলিযোগাযোগ নিয়ন্ত্রণ কমিশন (বিটিআরসি) এর কর্মচারী অবসর ভাতা প্রবিধানমালা;
5. বাংলাদেশ টেলিযোগাযোগ নিয়ন্ত্রণ কমিশন (বিটিআরসি) এর কর্মচারী সাধারণ ভবিষ্যৎ তহবিল প্রবিধানমালা;

**The following Regulations are effective now**

1. The Bangladesh Telecommunication Regulatory Commission (Licensing Procedure) Regulations, 2004 (BTRC Regulation No. 1 of 2004).
2. The Bangladesh Telecommunication Regulatory Commission (Interconnection) Regulations, 2004 (BTRC Regulations No. 2 of 2004).
3. The Bangladesh Telecommunication Regulatory Commission (Employees) Service Regulations, 2005.
4. The Bangladesh Telecommunication Regulatory Commission Amendment no 1 of 2005 of the BTRC Licensing Procedure Regulations, 2004 (Regulations No. 1 of 2004).
5. The Bangladesh Telecommunication Regulatory Commission Amendment no 1 of 2007 of the BTRC Licensing Procedure Regulations, 2004 (Regulations No. 1 of 2004).
6. The Bangladesh Telecommunication Regulatory Commission (Administrative Fine) Regulations, 2007 (BTRC Regulation No. 2 of 2007).
7. The Bangladesh Telecommunication Regulatory Commission Interconnection (Amendment) Regulations, 2008 (BTRC Regulation No 1 of 2008).
8. The Bangladesh Telecommunication Regulatory Commission Interconnection (Licensing Procedure) (Amendment) Regulations, 2008 (BTRC Regulation No. 2 of 2008).
9. The Bangladesh Telecommunication Regulatory Commission (Licensing Procedure) (Second Amendment) Regulations, 2008 (BTRC Regulation No. 3 of 2008).
10. The Bangladesh Telecommunication Regulatory Commission (Licensing Procedure) (Amendment) Regulations, 2009 (BTRC Regulation No. 1 of 2009 to perform the duties and activities).
11. বাংলাদেশ টেলিযোগাযোগ নিয়ন্ত্রণ কমিশন এর কর্মচারী প্রবিধানমালা, ২০০৯।
12. বাংলাদেশ টেলিযোগাযোগ নিয়ন্ত্রণ কমিশন (তাৎপর্যপূর্ণ বাজার ক্ষমতা) প্রবিধানমালা, ২০১৮।
13. The Bangladesh Telecommunication Regulatory Commission (ANS Operator's Quality of Service) Regulations, 2018.



**The duties performed by Legal Directorate are detailed herein below**

- 1) Implementation of all decisions of the Commission relating to legal issues.
- 2) Advise and assist the Commission regarding legal issues and cases.
- 3) Supervise, investigate and conduct the cases lodged on behalf of and against the Commission in the lower court of 64 districts of Bangladesh by licensees.
- 4) Approve the charge sheet/ final report in the cases filed by law and order controlling agency, to submit by investigating officer to the court to the provision of section 78(9) of the Bangladesh Telecommunication Regulation Act, 2001.
- 5) Present the seizure listed documents and goods before the court, in the cases filed under the Bangladesh Telecommunication Regulation Act, 2001.
- 6) To take steps for giving technical experts opinion regarding seizure listed documents and goods as per the requirements of investigating officer, in the cases filed under the Bangladesh Telecommunication Regulation Act, 2001.
- 7) Advise and prepare the witnesses in different cases.
- 8) Conduct hearing and settle the dispute of inter operator and licensee in arbitration cases lodged before the Commission.
- 9) Submission before the court on behalf of Commission according to the provision of section 80(7) the Bangladesh Telecommunication Regulation Act, 2001.
- 10) Prepare the Para-wise statements of cases and submit before the court.
- 11) Dealing with the cases lodged on behalf of and against the Commission in the Supreme Court and other Courts of Bangladesh
- 12) Compilation the power for swear affidavit in writ cases and submit before the court.
- 13) To take steps to give vokalatnama for appointment of lawyers on behalf of Commission.
- 14) Preserve the seizure listed documents and goods as per the direction of the court seized by law and order controlling agency.
- 15) Assist the lawyers and law chambers appointed by Commission in conducting cases.
- 16) Vetting of show-cause notice for the violation of licensing conditions as the legal action.
- 17) Examine the activities regarding show-cause notice vetting by other division of Commission.
- 18) Vetting all kinds of rules, regulations, guidelines, license, directions, permit, agreement and memorandum of understanding with other legal documents of Commission.
- 19) Assist the Commission in amending all regulatory rules and law.
- 20) Conduct inspection on violation of licensing conditions.
- 21) Present the agenda relating to legal issues to the Commission meeting for decision.
- 22) Do all activities relating to investigation according to the Code of Criminal Procedure, 1898 as follows:



- a) Lodge the cases in violation of the Bangladesh Telecommunication Regulation Act, 2001.
  - b) Appoint investigation officer.
  - c) Collect FIR and other related documents from concern police station and court.
  - d) Visit place of occurrence and take statements of eye witness.
  - e) Verify the PCPR of the accused persons.
  - f) Arrest the accused persons and take legal steps before the court.
  - g) Present the seizure listed documents and goods before the court.
  - h) Maintain diary of proceedings in investigation.
  - i) Assist the investigation officer appointed from police station or other law and order controlling agency in the case filed under the Bangladesh Telecommunication Regulation Act, 2001.
  - j) Present the update information time to time regarding investigation before Commission.
  - k) Taking approval from Commission before submitting investigation report.
  - l) Submit investigation report (Charge sheet or Final report) before court.
- 23) Filing PDR cases for recovery of outstanding dues according to the Public Demand Recovery Act, 1913 and section 26(1) of the Bangladesh Telecommunication Regulation Act, 2001.
  - 24) Appoint certificate officer in PDR cases according to section 26(2) of the Bangladesh Telecommunication Regulation Act, 2001.
  - 25) Provide legal opinion and vet on behalf of the Commission on Acts, Rules, Regulations and Policy relating to telecommunications, information technology and others sent from different ministries.
  - 26) Any other activities ordered by superior authority.

### Appointed Law Chambers and Senior Lawyers of the Commission

For dealings the cases of Commission, the following law chambers and senior lawyers are attached with Legal and Licensing Division:

#### 1) Legal Adviser

Lex Counsel  
BSEC Bhaban (Level- 10),  
102 Kazi Nazrul Islam Avenue,  
Karwan Bazar, Dhaka- 1215.

#### 2) Panel Law Chambers/Lawyers

##### a) For High Court:

- i. Mr. Robiul Alam Budu, Rm no. 303 (old), Supreme Court Bar Association Bhaban, Dhaka-1000
- ii. Mr. Badrul Islam, Rm no. 216 (annex), Supreme Court Bar Association Bhaban, Dhaka-1000





- iii. Mr. Abdul Mabud Masum, 32/6, East Nayatola, Shantinagar, Ramna, Dhaka
- iv. Mr. A. K. M. Almgir Parvez Bhuiyan, Flat# 3C, 560 North Ibrahimpur, Shikkhak Malancha Bhaban, Kafrul, Dhaka Cantonment
- v. Mr. Mohammad Nazrul Islam Khandakar, Rm no. 806 (annex), Supreme Court Bar Association Bhaban, Dhaka-1000

**b) For Lower Court:**

- i. Mr. Abdullah Abu, Kazi Garden, 52 North Road, Kalabagan, Dhanmondi, Dhaka
- ii. Mr. Iqbal Ahmed Khan, A-22, Underground Parjoyar Center, Dhaka Judge Court, Dhaka
- iii. Mr. Md. Mahbubor Rahman, Suite # 8/37C Eastern Plaza Commercial Complex, Hatirpool, Dhaka-1205
- iv. Mr. Md. Emanur Rahman, 42, North Road, Thana-Kalabagan, Dhaka-1209 and Syed Rezaur Rahman & Associates, Rm no. 08, 6-7 Court House Street, Dhaka Bar Building (2nd Floor), Dhaka-1100
- v. Mr. Muhammad Abu Sayeed Siddique, Rm No. A/26, Parjoyar Center, 22, Court House Street, Dhaka-1000
- vi. Mr. Belayet Hossain, 59, Flat-4/A, Tejkunipara, Tejgaon, Dhaka-1215
- vii. Mr. Mynul Islam, Hyder Mansion, Rm. No. 07 (GF), 14/1, Court House Street, Dhaka-1000
- viii. Mr. Rubel Paul, 42 Dewanji Pukur Lane, Dewan Bazar, Kotowali, Chittagong and Rm. No. 310 (2nd Floor), Ainjibi Annex Bhaban-1, Court Hill, Chittagong

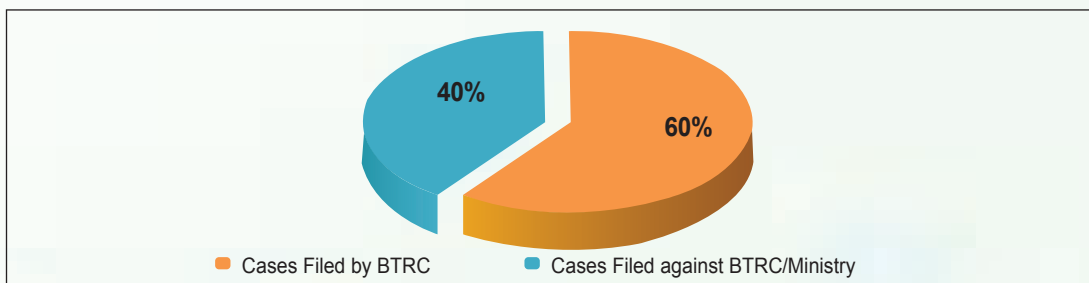
**Cases filed against and on behalf of the Commission in the financial year 2018-2019:**

Generally, the Commission may resort to the honorable Court whenever The Bangladesh Telecommunication Regulation Act, 2001 is violated by any offender. On the other hand, the aggrieved persons/ organization may also file cases against the Ministry/ BTRC in both lower and higher judiciary. The pending cases in the Courts lodged by or against the Ministry/ Commission in the financial year 2018-2019 are described below:

Sl.	Name of the Court	Nature of Suit/ Cases	On behalf of BTRC	Against BTRC/ Ministry	Total Suit/ Cases
1.	Subordinate Court	Civil	00	00	56
2.	Subordinate Court	Criminal	28	00	
3.	Honb'le High Court Division	Writ Petition, Company Matter, Quashment	00	19	
4.	Honb'le Appeal Division	Appeal	06	03	
Total Number of Suit/Cases			<b>34</b>	<b>22</b>	



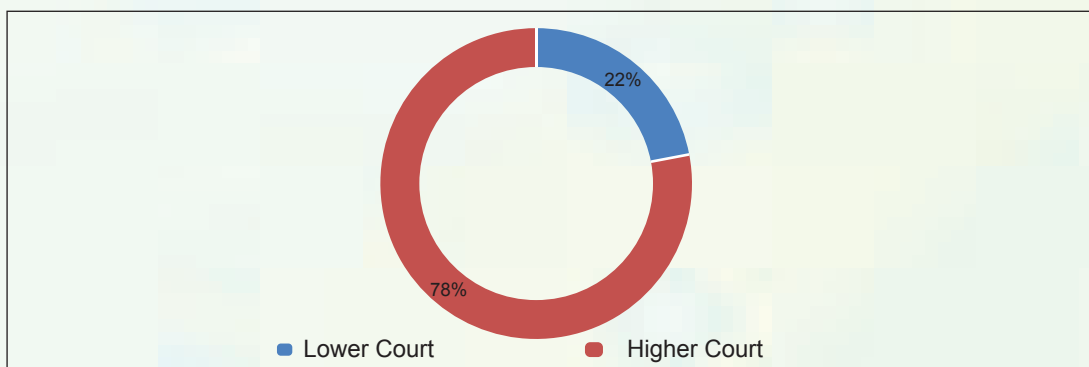
### Statistics of Cases filed against and on behalf of the Commission in the financial year 2018-2019:



### Cases disposed in the financial year 2018-2019:

Sl No.	Name of the Court	Nature of Suit/ Cases	No. of disposed of Cases
1	Subordinate Court	Civil	00
2	Sessions Court	Criminal	05
3	Hon'ble High Court Division	Writ Petition, Contempt Petition	14
4	Hon'ble Appeal Division	Appeal	04
Total Number of Suit/Cases			23

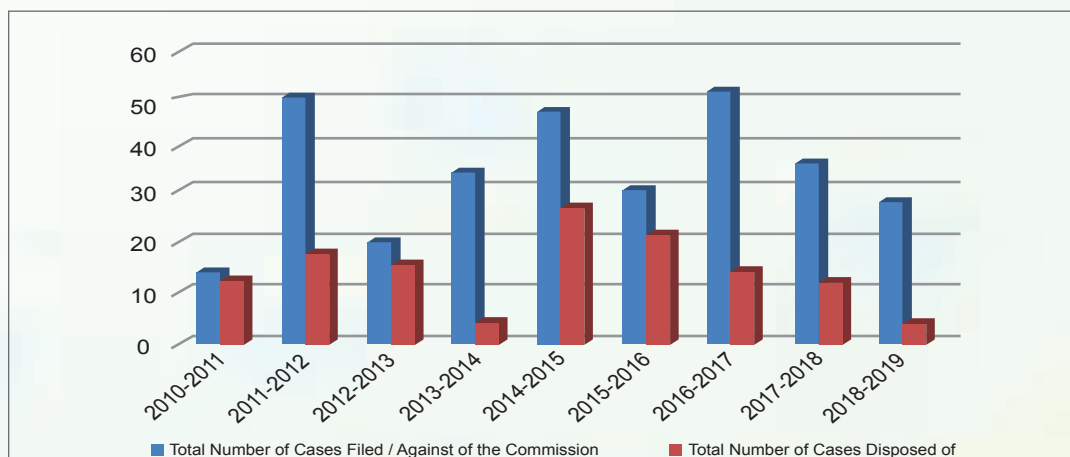
### Chart of disposed of Cases in the financial year 2018-2019:



### Cases filed and disposed against and on behalf of the Commission from the financial year 2010-2011 to 2018-2019:

Sl No	Financial year	Cases filed	Cases disposed of
1.	2018-2019	28	05
2.	2017-2018	36	12
3.	2016-2017	52	15
4.	2015-2016	30	21
5.	2014-2015	48	27
6.	2013-2014	33	5
7.	2012-2013	20	16
8.	2011-2012	51	18
9.	2010-2011	14	12

### Cases filed and disposed against and on behalf of the Commission from the financial year 2010-2011 to 2018-2019:



### Role of BTRC to settle the pending Cases in the lower judiciary

BTRC takes legal action against any person for providing telecom service without having any license or permit from the Commission. Generally, criminal action is taken against the offender by lodging G.R cases to the concerned police station. In order to achieve positive result in favor of Commission and to protect Government interest, this Directorate always guides and cooperates with the complainants and the investigation officers in the legal proceedings. Moreover, employees like Assistant Director to Director of the Commission submit their statements and documents in person before the Court through appointed lawyer under section 80(7) of the Bangladesh Telecommunication Regulation Act, 2001. It is to be noted that the Commission lodges certificate cases as per the provisions of the Public Demands Recovery Act, 1913 and conducts such cases actively for recovery of outstanding against different non-compliant operators. Moreover, the suits filed against Commission demanding compensations in different cases are actively contested by the officer of the Commission in cooperation with the appointing lawyers. As a result, almost hundred percent judgments go in favor of the Commission.

### Approval of CS/FR in the illegal VoIP related criminal cases

According to section 61, 78 and relative sections of The Bangladesh Telecommunication Regulation Act, 2001, the authority has given its power to the law enforcement authority to take necessary legal actions to combat illegal VoIP. According to section 78(9) of The Bangladesh Telecommunication Regulation Act, 2001, investigating officer has an obligation to take approval from the Commission prior to submit their investigation report to the Court. Commission takes necessary steps by communicating with every police station and courts via letters to maintain such obligation. For the purpose of section 78(9) of the Bangladesh Telecommunication Regulation Act, 2001 Commission empowered Director General (LL) to give written approval or necessary legal order/orders after analyzing case diary (CD), supplementary case diary (SCD), charge sheet (CS) or final report (FR).



### **Role of BTRC to settle the pending Cases in the higher judiciary**

This Division conducts various cases filed against the Commission by any individual/ organization. It may be mentioned that the aggrieved persons generally seek relief by filing Writ of Mandamus and Writ of Certiorari under the writ jurisdiction of the Honorable High Court Division of the Supreme Court of Bangladesh. Relief is also sought by filing criminal revisions against the orders for framing of charge by the Court of Sessions. To contest the cases, LL Division prepares affidavit in opposition for filing to the concerned Bench and conducts the hearing through concerned law chamber. Besides, the preliminary tasks such as preparing letter of authorization for swearing the affidavit, power (Vakalatnama) and notice, and collection of all documents for making annexure to the concerned affidavit in opposition, are also performed by the LL Division. As a result, around 86.39% judgments are passed in favor of the Commission.

### **Administrative Fine**

In case of any violation of any conditions of any license or directives or provisions of the Act/ Regulations by the licensee, LL Division issues a show cause notice to the concern licensee under sections 31(l), 46(3)(c), 46(3)(d), 63(3), 64(3), 65 of the Bangladesh Telecommunication Regulation Act, 2001 and the related Licensing conditions for putting forward their statement. If the reply of the licensee is not satisfactory, it is placed to the Commission for taking decision of imposing fine to the concern licensee. Legal and Licensing Division execute the decision of the Commission.

### **Dispute Resolution**

If any operator or a subscriber lodges a well-founded complaint to the Commission about another operator, the Commission may, within 7(seven) days of receipt of such complaints, direct the concerned party to redress/ resolve the grievance/ matter. The LL division may also summon the concerned operators to resolve the dispute amicably. If any dispute arises among the Licensees or Operators, the Commission may take step to resolve the matter under the provision of section 31(2)(f), 31(2)(r) of the Bangladesh Telecommunication Regulation Act, 2001 and Regulation 10 of the Bangladesh Telecommunication Regulatory Commission (Interconnection) Regulations, 2004. It is obligatory for the licensees of the Commission to abide by the decision of the Commission regarding any dispute among the licensees. At present, there have some dispute resolution among the operators under process in the Commission.



## Licensing Directorate

Licensing directorate takes necessary steps to issue, renew, amend and cancel all kinds of licenses relating to telecommunication and to make different regulations under the provisions of The Bangladesh Telecommunication Regulation Act, 2001. Licensing directorate also implements all decisions of the Commission relating to licenses, with prior approval of the Government. These include issuance/ revalidation/ renewal/ suspension/ cancellation/ surrender/ amendment/ merger of licenses and amendment of licensing conditions. On behalf of the Commission, this directorate performs all activities relating to obtaining Government approval for invitation of application for licenses, acceptance of proposal, evaluation of application, issuance and renewal of license, to update the information relating to the licenses on BTRC website etc.

### Activities of Licensing Directorate

#### Some important activities of this directorate are as follows

- 1) Implementation of all decisions of the Commission relating to licenses.
- 2) Invitation of application for licenses through advertisement.
- 3) Acceptance of the proposal/application for license and evaluation of application/ proposal.
- 4) Sending of the license evaluation report to the Ministry for approval.
- 5) Preparing of license as per the decision of Ministry.
- 6) Issuance of all types of license.
- 7) Renewal of all types of license.
- 8) Endorsing license annually.
- 9) Issuance of show-cause notice upon violation of licensing conditions.
- 10) Issuance of all types of guidelines.
- 11) Assisting in audit activities of Commission.
- 12) Assisting in preparation of different types of licensing report including annual report.
- 13) Updating and preserving all information regarding issuance and cancellation of license and publishing the updates on BTRC website.
- 14) Implementation of the decision of Commission relating to issuance/ revalidation/ renewal/ suspension/ cancellation/ surrender/ amendment/ merger of licenses and amendment of licensing conditions.
- 15) Doing all activities regarding impose of licensing conditions.
- 16) Taking steps to approve the different types of telecommunication service in consistence with the policy of the Government.
- 17) Approving the changes in name and address of licensing organization.
- 18) Presenting agendas relating to license to the Commission meeting for decision.
- 19) Implementation decision of the Commission meeting.
- 20) Execution of the Compulsory Implementation Order.
- 21) Releasing, preserving and deduction of Bank guarantee relating to roll out.
- 22) Communication with ministry and implementation of the decision regarding license.
- 23) Handling the share transfer issue.
- 24) Settling the issue regarding merger of company.
- 25) Completing any other activities by order of superior authority.

### Issuance of License

The Bangladesh Telecommunication Regulatory Commission (Licensing Procedure) Regulations, 2004 (BTRC Regulation No. 1 of 2004) has compiled in view of issued license to the organization serving telecommunication service in consistent with and



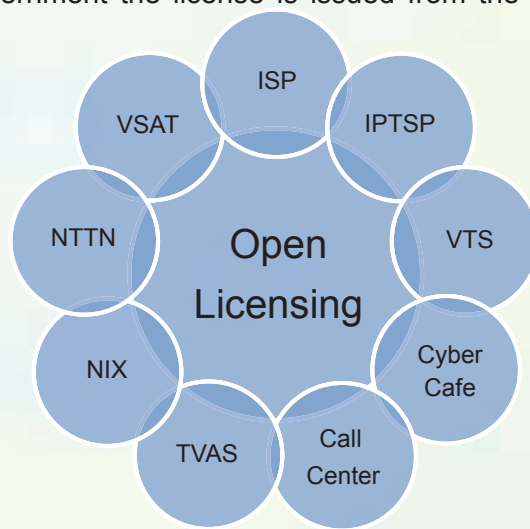


implementation of the Bangladesh Telecommunication Regulation Act, 2001. According to the said licensing regulation, license for telecommunication service has been issued by bidding/ auction and open procedure.

### 1. Open Licensing procedure

The licenses for providing ISP, IPTSP call center, vehicle tracking, NTTN, NIX and VSAT services are issued by the Commission following the open licensing procedure. After receiving the applications for these licenses, a committee detailed by the Commission inspects the applicants' establishment to verify the legal requirements and submit a report to the commission. A report basing on the committee's proceeding is sent to the government for the approval for issuance of license. After obtaining approval of the government the license is issued from the Commission.

Here, the types of licenses issued by the Commission through open licensing procedure are given below as flowchart:



### 2. Bidding/auction licensing procedure

The licenses limited in number are awarded through bidding system. Generally, the licenses are awarded according to the guidelines made for licensing procedure for every type of license. The Commission forms an evaluation committee for proper scrutiny and examination of applications applied for each type of license. The concerned evaluation committee evaluates all applications and recommends for the eligible applicants. This division sends the aforesaid views/ recommendation to the MoPTIT for obtaining prior approval of the government to take subsequent action. As a valuable and precious property of the country, spectrum related licenses are awarded by bidding or auction. The auction is done following the procedure described in the concerned guidelines which is duly approved by the Commission and the government.



Here, the types of licenses issued by the Commission through bidding licensing procedure are given below on flowchart:

Here, the types of licenses issued by the Commission through bidding licensing procedure are given below on flowchart:



Since the formation time of Commission to 30th June, 2018 with the view of issued various license the following guidelines issued:

Category	Name of the Guidelines	Issue No.
<b>PSTN</b>	Regulatory and Licensing Guidelines for PSTN Operator License, 2004	
<b>2G Cellular Mobile</b>	Regulatory and Licensing Guidelines for GSM Cellular Mobile Telecommunication Services	BTRC/LL/New Cellular Mobile (218)/2005-1729, Dated: 05-10-2005
<b>Central Zone PSTN</b>	Regulatory and Licensing Guidelines for PSTN Services in Central Zone	BTRC/LL/Central Zone/PSTN (227)/ 2006-1916, Dated: 23-03-2006
<b>IGW</b>	Regulatory and Licensing Guidelines for International Gateway (IGW) Services	BTRC/LL/IGW(247)/2007-3447, Dated: 08-10-2007
<b>ICX</b>	Regulatory and Licensing Guidelines for Interconnection Exchange (ICX) Services	BTRC/LL/ICX(248)/2007-3448, Dated: 08-10-2007
<b>IIG</b>	Regulatory and Licensing Guidelines for International Internet Gateway (IIG) Services	BTRC/LL/IIG(249)/2007-3452, Dated: 16-10-2007
<b>PSTN Conversion</b>	Zonal PSTN License থেকে National License এ Conversion করার পদ্ধতি ও সম্ভাব্য শর্তাবলী	BTRC/LL/PSTN Conversion (235)/ 2006-2996, Dated: 04-07-2007
<b>Infrastructure Sharing</b>	Amended Guidelines for Infrastructure Sharing	BTRC/LL/INF-Sharing (304)/2008-227, Dated: 07-07-2007
<b>BWA</b>	Regulatory and Licensing Guidelines for Broadband Wireless Access Services in Bangladesh	BTRC/LL/BWA(275)/2008-1033, Dated: 06-08-2008
<b>NTN</b>	Regulatory and Licensing Guidelines for National Telecommunication Transmission Network	BTRC/LL/NT-TN(307)/2008-1346, Dated: 30-11-2008
<b>IPTSP</b>	Regulatory and Licensing Guidelines for Internet Protocol Telephony Service Provider License	BTRC/LL/IP Telephony (276)/2008-260, Dated: 15-04-2009
<b>VTS</b>	Regulatory and Licensing Guidelines (Amended) for Vehicle Tracking Service	BTRC/LL/Vehicle Tracking (311)/2008-277, Dated: 26-04-2009
<b>Call Center</b>	Amended Guidelines on Call Center Licensing	BTRC/LL/Call Center/Licensing Procedure(268)/2008-503(1), Dated: 14-07-2009
<b>ITC</b>	Regulatory and Licensing Guidelines for International Terrestrial Cable (ITC) Systems and Services in Bangladesh	BTRC/LL/ITC(369)/2008-178, Dated: 31-03-2011
<b>SC</b>	Regulatory and Licensing Guidelines for Submarine Cable Systems and Services	BTRC/LL/SC(270)/2008-177, Dated: 31-03-2011
<b>NIX</b>	Regulatory and Licensing Guidelines for issuing License to National Internet Exchange	BTRC/LL/NIX(387)/2011-845, Dated: 27-06-2012



<b>IGW</b>	Regulatory and Licensing Guidelines for Invitation of Proposals/Offer for Issuing License for Establishing, Operating and Maintaining International Gateway (IGW) Services in Bangladesh	BTRC/LL/IGW(383)/2011-69, Dated: 20-10-2011
<b>ICX</b>	Regulatory and Licensing Guidelines for Invitation of Proposals/Offer for Issuing License for Interconnection Exchange (ICX) Services Establishing, Operating and Maintaining Services in Bangladesh	BTRC/LL/ICX(384)/2011-700, Dated: 20-10-2011
<b>IIG</b>	Regulatory and Licensing Guidelines for Invitation of Proposals/Offer for Issuing License for Establishing, Operating and Maintaining International Internet Gateway (IIG) Services in Bangladesh	BTRC/LL/IIG(385)/2011-701, Dated: 20-10-2011
<b>2G Cellular Mobile (Renewal)</b>	Regulatory and Licensing Guidelines for Renewal of Cellular Mobile Phone Operator License for Establishing, Operating and Maintaining Cellular Mobile Phone Systems and Services in Bangladesh	BTRC/LL/Mobile/License Renewal (342)/2009-563, Dated: 11-09-2011
<b>VSP</b>	Regulatory and Licensing Guidelines for issuing License to VoIP Service Provider (VSP) in Bangladesh	BTRC/LL/VSP(392)/2012-88, Dated: 22-07-2012
<b>3G</b>	Regulatory and Licensing Guidelines for Invitation of Proposals/Offer for Issuing License for Establishing, Operating and Maintaining 3G Cellular Mobile Phone Services in Bangladesh	BTRC/LL/3G Guideline (394)/ Part-1/ 2012-148, Dated:14-02-2013
<b>MNP</b>	Regulatory and Licensing Guidelines for Mobile Number Portability Services in Bangladesh.	14.32.0000.007.81.013.15.87, Dated:15-06-2016
<b>Tower Sharing</b>	Regulatory and Licensing Guidelines for issuing License for Tower Sharing in Bangladesh	14.32.0000.007.81.014.15.480 Dated: 01-04-2018
<b>4G</b>	Regulatory and Licensing Guidelines for 4G/LTE Cellular Mobile Phone Services in Bangladesh	14.32.0000.007.51.081.17.1592 Date: 04-12-2017
<b>2100, 1800 and 900 MHz Bands Spectrum Auction</b>	Guidelines for Invitation To Proposal/Offer for Assignment of Spectrum From 2100, 1800 and 900 MHz Bands To Cellular Mobile Phone Service Operators and Issuing Radio Communications Apparatus License In Bangladesh	14.32.0000.007.51.061.15.1593 Date: 04-12-2017
<b>TVAS</b>	Regulatory Guidelines For Issuance of Registration Certificate For Providing Telecommunication Value Added Services (TVAS) In Bangladesh	14.32.0000.702.51.001.18.92, Date: 31-05-2018

**A brief description of the service of licenses issued by the Commission is provided below:**

- 1. International Gateway (IGW) License:** This license has been issued with the view to earn government revenue by routing international voice transmission through legal routes. The Commission has issued 24 (Twenty four) IGW licenses with the prior approval of the government.
- 2. Interconnection Exchange (ICX) License:** For the convenience of call management of both international and domestic voice calls, ICX licenses have been issued. The Commission issued 26 (Twenty Six) ICX licenses with the prior approval of the government.
- 3. International Internet Gateway (IIG) License:** IIG licenses have been issued in order to ensure proper use of internet bandwidth and to analyse different usage of the internet subscribers. The Commission, with the prior approval of the government has issued 35 (Thirty Five) IIG licenses. All IGW operators have been performing their activities abiding by rules & regulations.
- 4. Broadband Wireless Access (BWA) License:** This license has been issued to link the rural people of the country with the information super highway by providing high speed data services along with the voice services through mobile phones. The Commission has issued 4 (Four) BWA licenses.
- 5. International Terrestrial Cable (ITC) License:** The idea is to link up with the neighboring country to connect with the international super highway through them i.e., submarine cable by laying optical fiber network within the country. Through this service, uninterrupted telecommunication services of both data and voice can be ensured around the globe. 7 (Seven) ITC licenses have been issued with the prior approval of the Government.
- 6. Public Switched Telephone Network (PSTN) Operator License:** This license was issued in order to reach fixed phone services to the door steps of the people of the country in parallel to provide mobile phone services. In PSTN, people are served with telecommunication services by using wire and WLL system. The commission has cancelled a number of PSTN licenses and some of the PSTN operators has surrendered their PSTN licenses to the Commission. Besides that, 05 (five) PSTN operator licenses was cancelled in 2010 due to illegal call termination. However, as per decision of the Government, the license cancellation order has been withdrawn for 3 (Three) PSTN Operators i.e. Ranks Telecom Limited, National Telecom Limited and World Tel Bangladesh Limited and 02 (Two) of the remaining PSTN Operators i.e. Dhaka Telephone Company Limited and Peoples Telecommunication and Information Services Limited were not able to comply with the decision of the Government and hence, their PSTN license cancellation order withdrawal opportunity has been held postponed. The Commission has issued 12 (Twelve) PSTN licenses.



- 7. National Telecommunication Transmission Network (NTTN) License:** BTRC has issued NTTN licenses for building a unique and common telecommunication extension network and for its maintenance throughout the country. The Commission, with the prior approval of the Government has issued 5 (Five) NTTN licenses.
- 8. Vehicle Tracking Services (VTS) License:** This service enables to locate all types of transports of the entire country through mobile phone. The technology of GPS and cellular mobile phone system used in this field. 41 (Forty one) Vehicle Tracking Services licenses and 1 (One) Vehicle Tracking Service Approval have been issued with the prior approval of the Government.
- 9. Internet Protocol Telephony Service Provider (IPTSP) License:** Internet Protocol Telephony is commonly known as IP Telephony by which voice calls can be transformed into data packets to transmit from one point to another through internet. Through this telecommunication system a voice call can be made in a cheap rate by using internet. The Commission, with the prior approval of the government has issued 34 (Thirty Four) IPTSP licenses.
- 10. Internet Service Provider (ISP) License:** ISP operators provide the service of dialup, cable, wireless and DSL broadband internet connection, data connectivity to various organizations and to individual subscribers. They also provide other services like domain registration, web design, web hosting, managed network solution, network security solution, DNS parking, video conference, e-mail hosting etc. The Commission issued 1792 (One thousand seven hundred ninety-two) ISP licenses with the prior approval of the Government.
- 11. Call Center License:** A Call center can provide services like exchange of information, conducting business, marketing etc., to a third party by using telecommunication facilities and internet. Call center is one of the promising sectors of Bangladesh. Call Center was introduced as a new era of earning foreign exchange and to create employment opportunity in Bangladesh since 2008. Recently with the prior approval of the Government the Commission introduces call center registration instead of license by excluding call center from telecom service. In the mean time, 280 (Two Hundred Eighty) organizations have registered for providing different categories' service-related call center. It is expecting that for the above-mentioned decision all kind of call center will developed and it will contribute in socio economic sector of the country.





- 12. National Internet Exchange (NIX):** National Internet Exchange is the neutral peering point of internet service providers. The main objective of having NIX is to ensure routing of domestic internet traffic. NIX would help the development of local contents, web hosting and ease the routing of domestic traffic and thereby would minimize use of international bandwidth to save foreign currency. The Commission, with the prior approval of the government has issued 07 (Seven) National Internet Exchange (NIX) licenses.
- 13. Telecommunication Value Added Services (TVAS):** Bangladesh Telecommunication Regulatory Commission (BTRC) has issued the Guidelines to provide Telecommunication Value Added Services (TVAS) in Bangladesh as per the approval of the Government on 25-03-2018. The name of the Guideline is "Regulatory Guidelines for Issuance of Registration Certificate for Providing Telecommunication Value Added Services (TVAS) in Bangladesh" (14.32.0000.702.50.001.18.921, Dated: 31-05-2018). Mobile phone plays an important role to the development of economy. TVAS includes voice, SMS and data. SMS, USD, IDR and ring back tone through smart phone APPS enables their caller to listen music, sports, news, etc. while waiting. After certain growth in telecom sector through voice services in the developed and developing countries, the main drivers of further telecommunication growth is non-voice services. Different application services like, gaming, video and audio streaming, news, cricket updates, online voting, chatting, etc. are becoming popular. The services are customized as per the individual taste and requirement. High bandwidth multimedia content service, mobile TV, online gaming and different types of applications like- e-Governance, e-Learning, e-Health, e-Commerce, etc. are very popular. This Guidelines is prepared to create transparent, skilled, safe, affordable TVAS providing environment. This will help to introduce innovative telecom services thus will work as incentives and driving force to the ICT sector. At the same time, it will create software/application development organizations and IT based service market to export also. As per the "Regulatory Guidelines for Issuance of Registration Certificate for Providing Telecommunication Value Added Services (TVAS) in Bangladesh" Commission has already issued 133 certificates.
- 14. VoIP Service Provider (VSP):** VoIP is a voice conversation system over internet or internet network protocol. Here voice data are transmitted using packet switch network instead of dedicated circuit switch voice transmission line. The Commission, with the prior approval of the government has issued 881 (Eight Hundred Eighty One) VoIP service Provider (VSP) licenses.



### Status of the licenses in the year of 2018-2019

The Commission has issued various licenses in the financial year of 2018-2019 for providing various telecom services like Vehicle Tracking Services, Internet protocol Telephony Service Provider, MNP, 4G/LTE, NIX, ISP and Call Center etc. A total of 773 (Seven hundred seventy-three) different licenses were issued by the Commission in this financial year. The description is given below:

Sl	Category of License	FY 2018 -2019
1.	International Gateway (IGW) Services	01
2.	National Internet Exchange (NIX)	01
3.	Broadband Wireless Access (BWA)	01
4.	Vehicle Tracking Services [Service License: 41, Service Approval: 01]	7
5.	Internet Service Provider – Nationwide	14
6.	Internet Service Provider – Central Zone	19
7.	Internet Service Provider – Zonal [South-East:12, South-West:14, North-East:21, North-West: 23]	70
8.	Internet Service Provider – Category A	191
9.	Internet Service Provider – Category B	57
10.	Internet Service Provider – Category C	240
11.	Call Center Registration Certificate	39
12.	Telecommunication Value Added Services (TVAS)	133
<b>Total Number of Present Licenses</b>		<b>773</b>



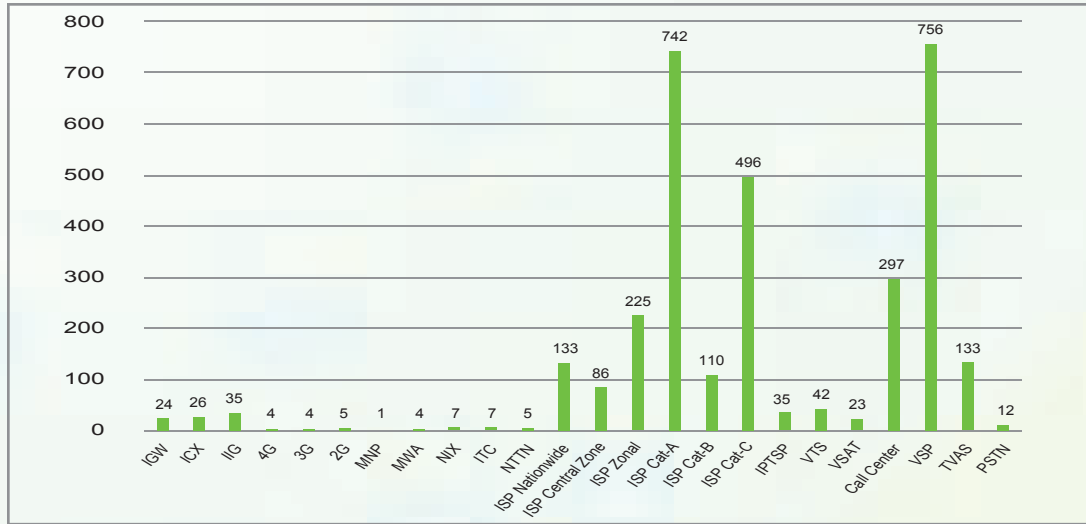
### Status of Different Active Licenses

The list of different licenses issued from BTRC that are active as on 30 June, 2019 is mentioned below:

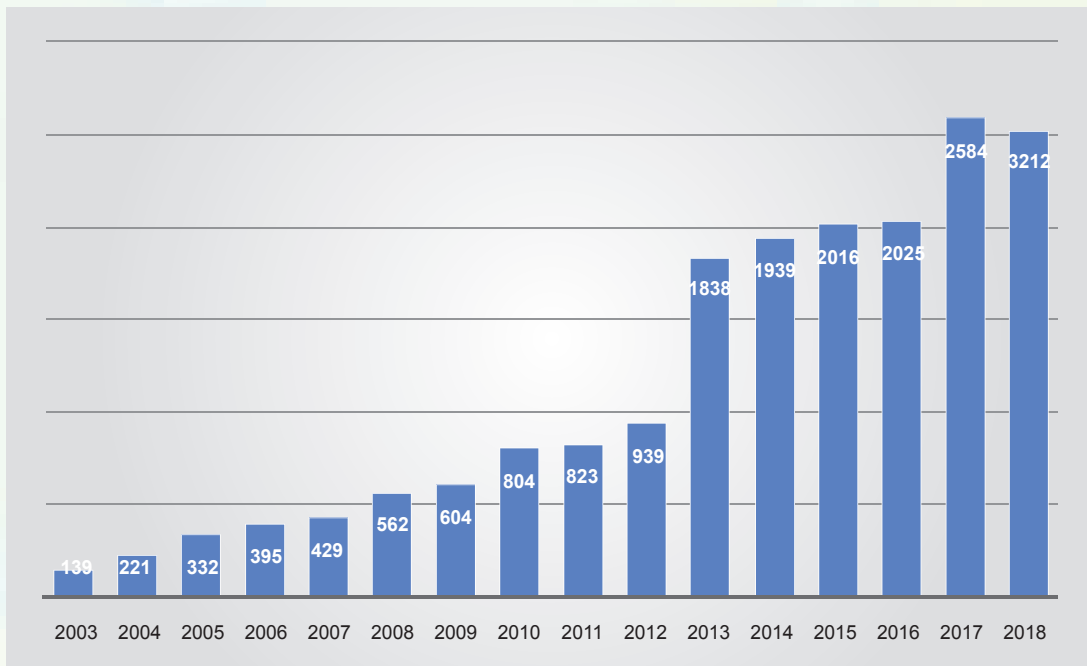
SI	Category of License	Licensee
1.	International Gateway (IGW) Services	24
2.	Interconnection Exchange (ICX) Services	26
3.	International Internet Gateway (IIG) Services	35
4.	Mobile Number Portability (MNP)	1
5.	Broadband Wireless Access (BWA)	4
6.	Cellular Mobile Telecom Operator	5
7.	3G Cellular Mobile Phone Services Operator	4
8.	4G/LTE Cellular Mobile Phone Services Operator	4
9.	International Terrestrial Cable (ITC) Services	7
10.	Public Switched Telephone Network (PSTN) Operator [National: 04, Zonal: 07, Rural: 01]	12
11.	VoIP Service Provider	756
12.	Nationwide Telecommunication Transmission Network (NTTN) Service Provider	5
13.	National Internet Exchange (NIX)	7
14.	Vehicle Tracking Services [Service License: 41, Service Approval: 01]	42
15.	Internet Protocol Telephony Service Provider – Nationwide	32
16.	Internet Protocol Telephony Service Provider – Central Zone	2
17.	Internet Protocol Telephony Service Provider – Zonal [South-East: 01, South-West: 00, North-East: 00, North-West: 00]	1
18.	Internet Service Provider – Nationwide	133
19.	Internet Service Provider – Central Zone	86
20.	Internet Service Provider – Zonal [South-East: 53 South-West: 61, North-East: 58 North-West: 53]	225
21.	Internet Service Provider – Category A	742
22.	Internet Service Provider – Category B	110
23.	Internet Service Provider – Category C	496
24.	VSAT User	17
25.	VSAT Provider	3
26.	VSAT Provider with HUB	3
27.	Call Centre License	17
28.	Call Center Registration Certificate	280
29.	Telecommunication Value Added Services (TVAS)	133
<b>Total Number of Present Licenses</b>		<b>3,212</b>



### Statistics of issued license by the Commission.



The Year-Based License issued by the Commission from the commencement to 30 June, 2019.



### Share Transfer and Merger of Licensee of the year of 2018-2019

On receipt of an application from any operator regarding transfer of their share or to merge with other operator/ company/ entity, LL division, on behalf of the Commission, examines the application in reference to section 37(2)(i) of The



Bangladesh Telecommunication Regulation Act, 2001. If the applicant fulfills the conditions mentioned therein, the report is forwarded to the MoPTIT for prior approval of government.

### **License Cancellation, Withholding and Issuance of Enforcement Order**

If any Licensee/ Operator fail to comply with or violate any of the applicable licensing conditions of The Bangladesh Telecommunication Regulation Act, 2001, the LL division takes steps for cancellation/ withholding as per section 46 of The Bangladesh Telecommunication Regulation Act, 2001. The process requires the LL division to issue a show cause notice to the licensee asking him/ her to explain within 30 (Thirty) days specifying the reasons as to why the license will not be cancelled/ suspended. If the licensee does not reply or if the reply given by the licensee/ operator is not considered satisfactory, then the matter is sent as a report to MoPTIT according to the provisions laid in section 46 (3) of the Act. The Commission takes necessary action basing on the government decision.

Besides, if any licensee/ holder of a certificate or permit violates any provision of this Act or its regulations or any other condition of operation or service provision as provided in the license/ permit or has procured the license/ permit/ technical acceptance certificate by furnishing a false information, the Commission may direct the licensee/ holder of the permit or certificate to show cause within 30 days as to why an enforcement order shall not be issued license/ permit/ certificate shall not be cancelled. If the licensee fails to reply or if the reply given is not deemed satisfactory, then a decision is sought on the matter from the Commission under section 63(3) of the Act. This Division also informs the licensee/ operator of decision of the Commission regarding any permit or administrative fines/ suspension/ cancellation.

### **Renewal of License**

The license renewal is done as per Section 38 of Bangladesh Telecommunication Regulation Act 2001, the condition laid down in the license on the payment of such fees as may be prescribed in the license or relevant circular/ administrative orders issued by the Commission and on the basis of performance of the licensee, a report is sent to the government. Finally, on the approval of the MoPTIT, the license renewal activities are completed.





In 2018-2019, a total of 729 (Seven hundred Twenty-Nine) licenses have been renewed; list of which are shown below.

S/ No.	Category of licenses	No. of Renewed Licensee
1	Internet Service Provider- Nationwide	05
2	Internet Service Provider- Zonal	06
3	VSAT User	09
4	VSAT Provider with Hub	02
5	VSAT Provider	02
6	Call Center Registration Certificate	05
7	Vehicle Tracking Services	01
8	VOIP Service Provider (VSP)	649
9	Internet Service Provider- Category: A	39
10	Internet Service Provider- Category: C	11
<b>Total</b>		<b>729</b>

#### **Amendment of Conditions of License.**

In order to fulfill the objective of section 39 of The Bangladesh Telecommunication Regulation Act, 2001, the Commission may, amend any condition of any of the license subject to the prior approval of government. When the Commission, on its own initiative, issues any amendment in the conditions of a license, LL division serves a notice to the licensee informing the reasons for the proposed changes with a scope to submit his/ her comments. In response, if there is any reply/ comment from the licensee, the changes/ amendments are sent to the MoPTIT in the form of a report by LL division. The Commission takes necessary steps on the decision of the Government. Besides these, the Government may take step to change the condition of license by its own accord or operators may apply to change the condition for reasonable ground to the Government/ Commission.



## Finance, Accounts & Revenue Division



## Finance, Accounts & Revenue Division

Finance, Accounts and Revenue division is the pivotal division of Bangladesh Telecommunication Regulatory Commission (BTRC). The main functions of this division are to prepare income and expenditure budget of the commission; Revenue Collection; ensure salary allowance; preparation and payment of travel bills; internal audit; payment of purchase/supply bill of all logistics services of the commission; deposition of Income tax, VAT and surplus money to government treasury; preparation of income-expenditure statement, Cash flow and Balance Sheet etc.

BTRC is responsible for collection of non-tax revenue of the government. The main sources of income are the collection of License fee, License Renewal fee, Revenue Sharing and Spectrum Charge as well as service charge from various telecom licensees of the Commission such as Mobile Operators, PSTN, IGW, ICX, IIG, ISP & VSAT licensees etc. In addition, the division is responsible for revenue collection and any kind of communication/correspondence with the various telecom licensees.

### 1. Synopsis of income and expenditure accounts of the financial year 2018-2019

In the financial year 2018-2019, the target of revenue collection of the commission was taka 3,025.00 crore. Administrative expenditure target was taka 193.52 crore and capital expenditure target was taka 263.23 crore. The total expenditure budget was taka 456.75 crore. In the fiscal year 2018-2019, actual revenue collection was taka 3,058.88 crore where administrative expenditure was taka 145.68 crore and capital expenditure was taka 155.183 crore inclusively 300.86 crore as expenditure. The re-payment against loan of Bangabandhu Satellite Systems is 198.16 crore which is included into the total expenditure. A lot of money was saved in expenditure sector due to strict compliance of the expenditure control. As a result 2,758.02 crore has been deposited in the government treasury where the target of deposits money was 2,568.25 crore, which is 189.77crore more than the target.

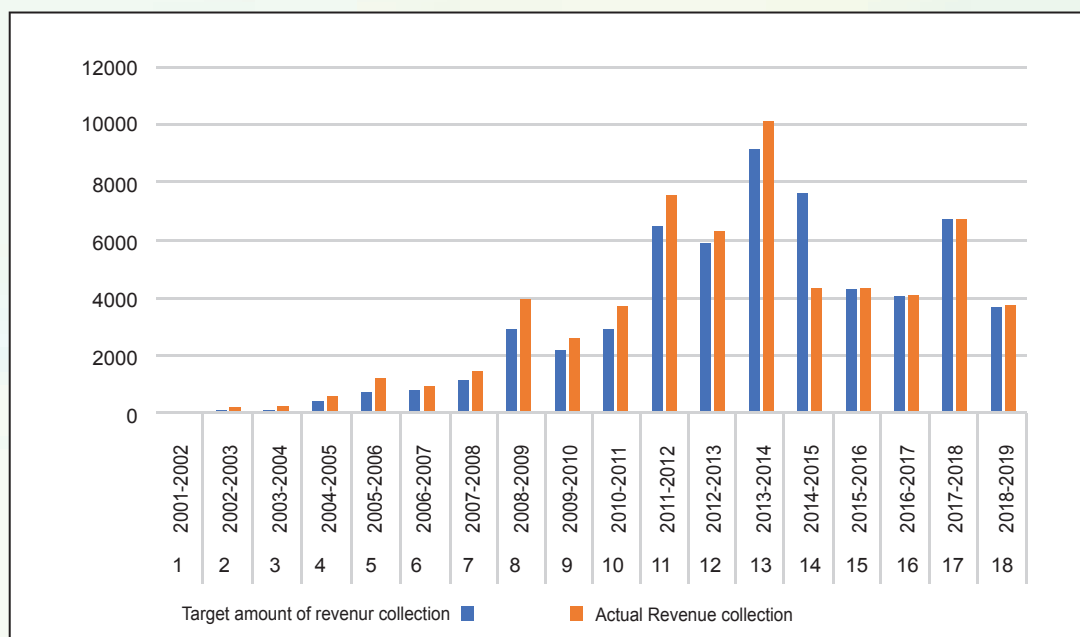
### 2. Revenue collection details in the year of 2018-2019

S/N	Description	Actual Revenue (Taka in Crore)
01	License fee	146.31
02	Revenue Sharing	1,916.06
03	Spectrum Charge	813.18
04	License Acquisition Fee	118.10
05	Income from Application & Evaluation fee	1.77
06	Income from Administrative fine & Illegal Operation	10.17
07	Income from late fee	15.09
08	Merger fee	1.13
09	Other Income	37.06
<b>Total Revenue</b>		<b>3,058.88</b>

### 3. A Comparative feature of revenue collection since Formation of BTRC

S/N	Financial Year	Target amount of revenue collection (Taka in crore)	Actual Revenue collection (Taka in Crore)
01	2001-2002	4.26	3.45
02	2002-2003	89.00	120.07
03	2003-2004	91.00	147.85
04	2004-2005	270.00	357.14
05	2005-2006	449.25	735.70
06	2006-2007	512.31	565.61
07	2007-2008	1,501.92	1,677.85
08	2008-2009	2,547.68	3,195.38
09	2009-2010	2,135.35	2,370.98
10	2010-2011	2,556.74	3,047.28
11	2011-2012	6,302.57	6,957.70
12	2012-2013	5159.32	5404.69
13	2013-2014	9497.00	10,085.35
14	2014-2015	7,000.00	4,219.19
15	2015-2016	4,181.10	4,207.94
16	2016-2017	4,060.00	4,066.48
17	2017-2018	6,444.86	6,445.36
18	2018-2019	3025.00	3,058.88
<b>Total</b>		<b>55,827.36</b>	<b>56,666.90</b>

Revenue collection (taka in crore) by Chart:



Relevantly noted that, BTCL's due to BTRC is about 1,585.13 crore for revenue sharing and Teletalk Bangladesh Ltd. due is about 1,575.15 crore for 3G spectrum assignment fee. If both the operators had paid the arrears, the amount of revenue of the commission would have increased further.

#### 4. Information System Audit

According to the provisions of Bangladesh Telecommunication Regulatory Act 2001, Information System Audit of the Mobile Operators is mandatory to execute in the proper way. As part of that, Auditing of the Mobile Operators is going on now. Auditing of Grameen Phone and Robi Axiata Limited has already been completed starting from the fiscal year 2015-16. The starting formality of information system audit of Banglalink and Airtel is under process now.

#### 5. Social Obligation Fund

Social obligation Fund (SOF) has been formed according to the provisions of the clause 21-KA of Bangladesh Telecommunication Regulatory Act 2001 (Amended Act 2010). The fund has been raised for extending telecom facilities for the underprivileged population i.e. to the telecom facility deprived area. This would also develop the socio-economic condition, alleviate poverty and contribute to the economic progress of the country. The receivable amount of money from the following sources is deposited in this fund:

- I. Government grant,
- II. Any other native, overseas or international organization's grant,
- III. Subscription from the telecom and radio stakeholders and
- IV. Contribution from any other legal sources.

Money of SOF is being deposited in a scheduled bank, as determined by the commission. According to the provision of the licensing guideline, the mobile operators have to subscribe at the rate of 1% on their gross audited revenue to the SOF. This fund is to be invested with the approval of the commission in order to make telecommunication facilities available to the poor and to the people of remote areas where there is deprivation of Telecom facilities. An amount of taka 1,499.60 crore has so far been collected as on 30th June'2019 and deposited in the SOF account.

#### 6. Steps taken for the welfare of officers/staff

- (A) Contributory Provident Fund (CPF): CPF scheme has been introduced for the welfare of officers and staff of BTRC. According to CPF Rules -1979, 10% of basic of each officer/staff is deducted from monthly pay. The Commission also pays equal contribution i.e. 10% from Commission's fund to the employee's CPF Fund Account. A total amount of taka 11.50 crore has been deposited in the CPF account as on 30th June'2019.





- (B) Medical Assistance: In case of illness, an employee or dependent members of his family including dependent parents are provided medical assistance in the form of money usually not exceeding one month's basic pay of that employee. The amount is payable to the employee on production of doctor's prescription, medical test report and vouchers in support of purchase of medicine.
- (C) Trustee Board: According to the provisions of Benevolent Fund & Group Insurance ordinance, 1982, Group insurance & Benevolent Fund has been formed for the welfare of the officers/staff of the Commission. The Commission has formed an eleven (11) member Trustee Board with one Commissioner as the Chairperson for a three year term. The Trustee Board maintains Benevolent and Group Insurance fund according to the rules and procedures of benevolent fund & Group Insurance Ordinance-1982. The Trustee Board is to submit its report along with expenditure statement to the Commission within two months at the end of every financial year.
- (D) Pension, Allowance & Pensioner Benefit Scheme: The Commission has introduced Contributory Provident Fund for the benefit of the employees. The Commission has also formed Employees Gratuity Fund to extend retirement benefit to the employees immediately after retirement.

## 7. Annual Audit

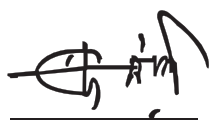
According to the provision of Article 27(2) of Bangladesh Telecommunication Regulatory Act, 2001, Annual Income and Expenditure Account of the Commission is to be audited by a registered Chartered Accountant Firm within 60 (sixty) days after the closing of each financial year and to be forwarded it to the Ministry in order to produce before the parliament within the next 60 (sixty) days. Besides, the Auditor General of Bangladesh conducts Audit of accounts of BTRC after the expiry of each financial year according to the provision of Bangladesh Constitution.



**Bangladesh Telecommunication Regulatory Commission (BTRC)**  
**Statement of Financial Position**  
As at 30 June 2019

Particulars	Notes	Amount in BDT.	
		30.06.2019	30.06.2018
<b>Assets</b>			
<b>Non-current assets:</b>		<b>26,978,225,097</b>	<b>35,533,114,397</b>
Property, Plant and Equipment	4.00	85,576,243	71,918,554
<b>SRCB-IDA Credit 3790-BD</b>			
Projects Assets (IDA PART)	4.01	234,750,973	308,377,682
Satellite System		26,657,897,881	35,152,818,161
<b>Current Assets:</b>		<b>5,488,974,400</b>	<b>53,833,814,305</b>
Advances, Deposits and Pre-payments	5.01	20,046,631	40,366,833
Receivable from Operators	5.02	3,151,583,810	6,312,814,382
Other Receivables	5.03	4,002,678	4,851,512
Cash and Bank Balances	5.04	2,313,341,282	47,475,781,578
<b>Total Assets</b>		<b>32,467,199,497</b>	<b>89,366,928,702</b>
<b>Fund and Liabilities:</b>			
<b>Project Fund:</b>		<b>12,893,919,328</b>	<b>8,057,967,445</b>
Project (SRCB-IDA 3790-BD) Fund	6.00	455,631,100	455,631,100
Satellite Launching Project		12,438,288,228	7,602,336,345
<b>Fund Account:</b>		<b>1,713,108,274</b>	<b>885,657,760</b>
Benevolent Reserve Fund	7.01	1,901,008	1,678,301
Gratuity Fund	7.02	107,177,686	74,893,361
Group Insurance Fund	7.03	80,853,685	58,734,536
Pension Fund	7.04	1,029,192,031	750,351,562
Capital Expenditure Fund	7.05	493,983,865	
<b>Current Liabilities:</b>		<b>4,269,849,992</b>	<b>53,166,229,406</b>
Sundry Creditors	8.01	97,893,118	102,443,642
Payable to GOB Consolidated Fund	8.02	4,171,956,875	53,063,785,764
<b>Non-Current Liabilities:</b>			
Long term loan from HSBC	9.00	13,590,321,903	27,257,074,092
<b>Total Fund and Liabilities</b>		<b>32,467,199,497</b>	<b>89,366,928,702</b>

The annexed notes form an integral part of these financial statements.



Md. Delowar Hossain  
Deputy Director



Ashis Kumar Kundu  
Director



Subrata Roy Mitra  
Vice Chairman



Md. Jahurul Haque  
Chairman

Place: Dhaka  
Dated: 29 February 2020

**mabs&j**  
MABS & J Partners  
Chartered Accountants

A member of  
**Nexia**  
International

**Bangladesh Telecommunication Regulatory Commission (BTRC)**  
**Statement of Income and Expenditure**  
For the year ended 30 June 2019

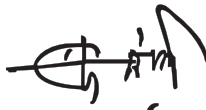
Particulars	Notes	Amount in Taka	
		FY 2018-2019	FY 2017-2018
<b>Income:</b>			
Fees and charges	9.00	29,936,449,183	63,008,352,074
Administrative fines and late fees	10.00	252,588,088	436,496,072
Merger Fees-Mobile Operator		-	-
Finance income	11.00	365,871,101	987,030,822
Other income	12.00	33,928,972	21,760,769
<b>Total Income (A)</b>		<b>30,588,837,344</b>	<b>64,453,639,738</b>
<b>Expenditure:</b>			
Salary and benefits	13.00	208,274,711	195,197,850
Provident fund revenue expenses	14.00	14,745,975	12,623,296
Communication expenses		8,601,977	9,918,390
Legal expenses		14,494,891	9,543,506
Rents (Office and Accommodation)		78,211,983	79,071,600
Repairs and maintenance	15.00	5,561,341	6,702,357
Traveling expenses	16.00	40,616,815	35,286,657
Fuel expense (Petrol and CNG)	17.00	7,816,880	7,886,800
Electricity, Water and Gas	18.00	4,677,320	4,839,296
Administrative expenses	19.00	126,201,205	97,642,334
Satellite preparatory project	20.00	95,577,979	156,673,428
Training expenses	21.00	2,440,081	4,485,517
Printing & publication and stationery	22.00	4,451,236	3,179,460
Vehicle registration, insurance & tax expenses		2,384,773	1,894,215
Seminar and workshop		15,157,132	10,175,879
Computer software expenses		1,198,067	3,083,670
Depreciation expenses	4.00	12,055,499	7,749,251
Depreciation expense: SRCB IDA Project	4.01	73,626,709	73,626,709
Depreciation: Satellite Asset	4.02	1,190,220,970	
Gratuity expenses		30,000,000	20,000,000
Recreation allowances		1,145,140	1,901,630
Pension Expenses		250,000,000	750,000,000
Bank charges		210,409	307,763
Satellite Revenue Expense		455,514,449	
Advertisement & publicity expenses		1,606,683	2,675,383
Map Purchase		1,459,056	673,750
Miscellaneous expenses		775,419	568,134
<b>Total Expenditure (B)</b>		<b>2,647,026,699</b>	<b>1,495,706,875</b>
Excess of income over expenditure transferred to GOB consolidated fund account (A-B)		<b>27,941,810,645</b>	<b>62,957,932,863</b>
		<b>30,588,837,344</b>	<b>64,453,639,738</b>
<b>Amount transferred to GOB Consolidated Fund Account:</b>			
Excess of income over expenditure		27,941,810,645	62,957,932,863
Depreciation on Satellite Asset		1,190,220,970	
<b>Total amount transferred to GOB Consolidated Fund Account</b>		<b>29,132,031,615</b>	<b>62,957,932,863</b>

The annexed notes form an integral part of these financial statements.

			
Md. Delowar Hossain Deputy Director	Ashis Kumar Kundu Director	Subrata Roy Mitra Vice Chairman	Md. Jahurul Haque Chairman

**Bangladesh Telecommunication Regulatory Commission (BTRC)**  
**Statement of Cash Flows**  
For the year ended 30 June 2019

Particulars	Amount in Taka	
	FY 2018-2019	FY 2017-2018
<b>Cash Flows from Operating Activities:</b>		
Excess of Income over Expenditure	27,941,810,645	62,957,932,863
<b>Adjustment for:</b>		
Exchange Loss-HSBC Loan	232,807,215	
Depreciation Expense	1,275,903,177	81,375,960
	<b>29,450,521,038</b>	<b>63,039,308,823</b>
<b>Changes in:</b>		
Receivables from operators	3,161,230,573	(502,266,649)
Other Receivables	848,834	(3,574,022)
Advances, Deposits and Pre-payments	20,320,203	18,630,616
Sundry Creditors	(4,550,524)	(77,953,445)
Project (SRCB-IDA 3790-BD) Fund	-	-
Benevolent Reserve Fund	222,707	380,722
Pension Fund	278,840,469	750,351,562
Gratuity Fund	32,284,325	22,057,344
Group Insurance Fund	22,119,149	11,714,291
<b>Cash generated from Operating Activities</b>	<b>3,511,315,735</b>	<b>219,340,419</b>
<b>A. Net Cash from Operating Activities</b>	<b>32,961,836,773</b>	<b>63,258,649,242</b>
<b>Cash Flows from Investing Activities:</b>		
Acquisition of Furniture & Fixture	(1,393,397)	(809,231)
Acquisition of Office Equipment	(1,876,474)	(2,770,696)
Acquisition of Computer & Printer	(3,824,491)	(2,889,408)
Acquisition of Office Decoration	-	(564,880)
Acquisition of LAN Network Equipment	(676,925)	(376,000)
Telecom Equipment	(18,002,442)	(15,139,253)
Vehicles	-	(12,320,000)
Fire Extinguisher	(58,980)	
Reimbursement of overpayment on acquisition of Telecom Equipment	119,523	
Satellite System	(88,962,653)	(293,407,725)
<b>B. Net Cash Used in Investing Activities</b>	<b>(114,675,839)</b>	<b>(328,277,193)</b>
<b>Cash Flows from Financing activities:</b>		
Repayment of Long Term HSBC Loan	(1,669,945,559)	
Fund Transferred to GOB Accounts	(76,339,655,670)	(32,469,154,458)
<b>C. Net Cash used in Financing Activities</b>	<b>(78,009,601,228)</b>	<b>(32,469,154,458)</b>
<b>D. Net increase/(decrease) in Cash at Bank Balances (A+B+C)</b>	<b>(45,162,440,295)</b>	<b>30,461,217,590</b>
Opening Cash and Bank Balances	47,475,781,578	17,014,563,988
<b>F. Closing Cash at Bank Balances (D+E)</b>	<b>2,313,341,283</b>	<b>47,475,781,578</b>



Md. Delowar Hossain  
Deputy Director



Ashis Kumar Kundu  
Director



Subrata Roy Mitra  
Vice Chairman



Md. Jahurul Haque  
Chairman

Place: Dhaka  
Dated: 29 February 2020

A member of  
**Nexia**  
International

**mabs&j**  
MABS & J Partners  
Chartered Accountants

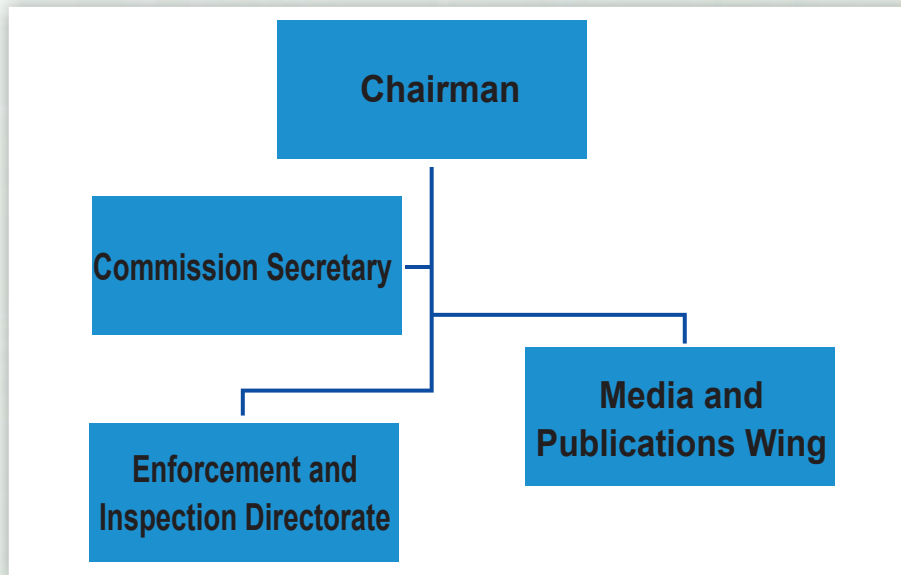
## Media and Publications Wing





## Media and Publications Wing

In order to establish effective and continuous communication between Bangladesh Telecommunication Regulatory Commission and the general people, and also to keep the authority informed about the public opinion, the Media and Publications wing of BTRC is working in close coordination with various print, electronic and online media and news agencies. Apart from keeping the people informed about the functions and principles of BTRC, this wing is also working to bring the telecom related news stories published in various media to the attention of the relevant authority. This wing also works as the public relations branch of BTRC. Apart from highlighting the successes and prospects of the country's telecommunications sector, this wing is also pledge bound to inform the people about the modern telecommunications services and to bring the news and information about new and updated technologies at the subscriber level. The Media and Publications Wing is attached to the office of the Chairman and it is currently working under the supervision of the Commission Chairman through a team comprising a Senior Assistant Director, a Reporter and two Photographers.



Chairman's office and attached directorate and wing.

### Notable activities accomplished by the Media and Publications Wing during the Fiscal Year 2018/19 are

1. Producing a total of 358 press clippings combining important news stories published in major national dailies, circulating them up to the director level of BTRC and taking necessary measures as per the instructions of the Honorable Chairman.
2. Monitoring telecom related news, information and feature stories broadcasted in major TV Channels, radios, news agencies and online media and bringing them to the attention of the authority concerned.
3. Arranging media coverage for various functions, achievements, successes and observations of important days by BTRC.
4. Arranging meetings, interviews and press conferences for the mass media.
5. Preparing 12 month reports and circulating them up to the Director level.



6. Throughout the year 2018-19, there have been lots of inquiries from the journalists about the successes, achievements and activities of BTRC. Numerous news stories have been published and broadcasted in the media during this period, a few of which are presented below:

Print and Online Media		
Serial No.	Media	Topic of the Notable Published News Item
1	Prothom Alo	<ol style="list-style-type: none"> <li>1. Regarding the Launch of mobile handset IMEI database.</li> <li>2. Embargo on advertisement for Grameenphone</li> <li>3. Regarding the identification of illegal 2 million SIM/RUIMs.</li> <li>4. High Court directive to control mobile tower radiation.</li> <li>5. Statutory dues to Grameenphone and Robi.</li> <li>6. Regarding mass hearing of BTRC.</li> <li>7. Imposing no charge on Mobile Financial Service transaction.</li> <li>8. High Court directive to block all porn sites.</li> <li>9. Regarding the commercial launch of MNP services</li> <li>10. Awarding tower sharing license.</li> <li>11. Blocking 54 online news portals.</li> <li>12. Inauguration of successful test-trial of 5G</li> <li>13. News of Launching IPTV service.</li> <li>14. Downgrading 3G/4G network in voting time</li> <li>15. Commercial launch of Banghabondhu Satellite</li> <li>16. Regarding Illegal VOIP.</li> <li>17. Discontent in parliament regarding Gramee-phone call drop.</li> <li>18. Ban on Mobile Call Rate increase by High court.</li> <li>19. Regarding drive test of 4G service.</li> <li>20. News on Cyber crime.</li> <li>21. Surveillance on Social Networking sites.</li> <li>22. Decrease of International incoming call rate.</li> </ol>
2	Kaler Kantho	<ol style="list-style-type: none"> <li>1. Registration of SIM/RUIM through digital system.</li> <li>2. Statutory dues of Grameenphone and Robi.</li> <li>3. Regarding the launch of mobile handset IMEI Database.</li> <li>4. Downgrading 3G/4G network in voting time.</li> <li>5. Imposing ban on Call Rate increase by High court.</li> </ol>



Print and Online Media		
Serial No.	Media	Topic of the Notable Published News Item
		<ol style="list-style-type: none"> <li>6. Blocking 54 online news portals</li> <li>7. Regarding complaints of users at BTRC call center.</li> <li>8. High court directive to shut down all porn sites</li> <li>9. News on 4G service drive test.</li> <li>10. Commercial launch of Banghabandhu Satellite.</li> <li>11. Mass hearing by BTRC regarding telecom service and activities of the regulatory body.</li> <li>12. High court directive to control mobile tower radiation.</li> <li>13. Commercial launch of MNP service</li> <li>14. Regarding Invalid SIM/RUIM termination.</li> <li>15. News regarding Skype closure.</li> <li>16. Regarding IGW license.</li> </ol>
3	The Daily Star	<ol style="list-style-type: none"> <li>1. On the subject of launching mobile handset IMEI database.</li> <li>2. Downgrading 3G/4G network in voting time.</li> <li>3. Successful experimental opening of 5G.</li> <li>4. Blocking 54 online news portals.</li> <li>5. Imposing no charge on Mobile Financial Service transactions.</li> <li>6. Terminating 2 million illegal SIM/RUIMs.</li> <li>7. Related Cyber crime.</li> <li>8. High court directive to block all porn sites.</li> <li>9. Ban on Grameenphone to publish advertisement.</li> <li>10. Statutory dues to Grameenphone and Robi.</li> <li>11. Concerning the reduction of International Incoming call.</li> <li>12. In the context of Launching IPTV service.</li> <li>13. Monitoring social media contents.</li> <li>14. Regarding outstanding payment to city cell.</li> <li>15. Mass hearing in regard to telecommunication services and regulatory body activities.</li> </ol>
4	Samakal	<ol style="list-style-type: none"> <li>1. News on Mobile SIM use by Rohingas .</li> <li>2. Regarding surveillance through social media.</li> <li>3. Test trail of 5G service.</li> <li>4. Blocking 54 online news portals.</li> <li>5. Regarding Cyber crime.</li> <li>6. High Court directives to block all porn sites</li> <li>7. Regarding mobile handset IMEI database Launch.</li> <li>8. Downgrading 3G/4G network in voting time.</li> <li>9. Terminating invalid SIM/RUIM.</li> <li>10. Terminating Skype service.</li> </ol>

Print and Online Media		
Serial No.	Media	Topic of the Notable Published News Item
		<ol style="list-style-type: none"> <li>11. Charge determination of Mobile financial Service.</li> <li>12. Revenue generation of Mobile Operators.</li> <li>13. Mass hearing of BTRC.</li> </ol>
5	Janakantha	<ol style="list-style-type: none"> <li>1. Inauguration of successful experiment of 5G.</li> <li>2. Fixing no charge on Mobile Financial Service transaction.</li> <li>3. News on Call drops of Grameenphone.</li> <li>4. Blocking 54 online news portals.</li> <li>5. News on connecting all the TV channels with the Banghabondhu satellite.</li> <li>6. Launch of IMEI database for Mobile Handset.</li> <li>7. High court directive to block all porn sites.</li> <li>8. Mass Hearing by BTRC.</li> <li>9. Regarding the launch of IPTV services</li> <li>10. Launching of MNP Services.</li> <li>11. Ban on mobile call rate increase by High court.</li> <li>12. Drive test of 4G services.</li> <li>13. News on dangling cables of Dhaka City.</li> <li>14. Receiving complaints at BTRC call centre.</li> </ol>
6	Amader Somoy	<ol style="list-style-type: none"> <li>1. High court directive to block all porn sites.</li> <li>2. Commercial Launch of MNP Services.</li> <li>3. Awarding Tower Sharing Licence by BTRC</li> <li>4. Blocking 54 online news portals.</li> <li>5. Inauguration of successful experiment of 5G</li> <li>6. Launch of IMEI database for mobile phone.</li> <li>7. Embargo on GP's advertising</li> <li>8. Terminating 2 million invalid SIM/RUIM</li> <li>9. High court directive to control mobile tower radiation.</li> <li>10. Statutory dues to Grameenphone and Robi.</li> <li>11. Public sufferings for call drop.</li> </ol>
7	The New Age	<ol style="list-style-type: none"> <li>1. News on mobile subscribers on the rise.</li> <li>2. About mass hearing by BTRC.</li> <li>3. Fixing no charge on Mobile Financial Service transactions.</li> <li>4. Commercial Launch of Banghabondhu Satellite.</li> <li>5. Tax withdrawal on mobile internet.</li> <li>6. On the topic of experimental inauguration of 5G.</li> <li>7. Regarding the High court's ban on mobile call rate increase.</li> </ol>



## Print and Online Media

Serial No.	Media	Topic of the Notable Published News Item
		<ol style="list-style-type: none"> <li>8. Launch of MNP services.</li> <li>9. Regarding the launch of Mobile phone IMEI database.</li> <li>10. The directive of High court to block all porn sites.</li> <li>11. Related to drive test of 4G service.</li> <li>12. In regard to Cyber crime.</li> <li>13. Statutory dues to GrameePhone and Robi.</li> <li>14. News on introduction of IPTV service.</li> </ol>
8	Ittefaq	<ol style="list-style-type: none"> <li>1. Launching of IMEI database for Mobile Handset</li> <li>2. Discontent in parliament regarding GrameePhone call drop.</li> <li>3. Receiving complaints at BTRC call center.</li> <li>4. Directive of High court to block all porn sites</li> <li>5. Blocking 54 online news portals.</li> <li>6. Outstanding dues from GP and Robi.</li> <li>7. Downgrading 2G/3G network in voting time.</li> <li>8. Reducing the price of Bandwith.</li> <li>9. Regarding Cyber crime</li> <li>10. More than 15 SIM/RUIM closing instructions related</li> <li>11. Issues of IGW licence.</li> <li>12. Closure of Illegal SIM/RUIM.</li> </ol>
9	Jugantor	<ol style="list-style-type: none"> <li>1. News on bandwidth price reduction.</li> <li>2. Celebration of world telecommunication day.</li> <li>3. Inauguration of commercial activities of Bangbandhu Satellite.</li> <li>4. Termination of 20 lakh illegal SIM/RUIM</li> <li>5. Regarding Cyber Crime</li> <li>6. High court directive to block all porn sites</li> <li>7. Embargo on GrameePhone on Advertisement</li> <li>8. Outstanding dues of GrameePhone and Robi</li> <li>9. Reduction of International Incoming Call</li> <li>10. Launching of IPTV service</li> <li>11. New application of IGW license</li> <li>12. Call rate increase of GrameePhone</li> <li>13. illegal VOIP related</li> </ol>
10	Bonik barta	<ol style="list-style-type: none"> <li>1. High court directive to block all porn sites.</li> <li>2. Regarding drive test of 4G service.</li> <li>3. Inauguration of commercial activities of Bangbandhu Satellite</li> </ol>



## Print and Online Media

Serial No.	Media	Topic of the Notable Published News Item
		<ol style="list-style-type: none"> <li>4. Mass hearing regarding Telecommunication service and the activities of regulatory body</li> <li>5. High court directive to control mobile tower radiation.</li> <li>6. Successful experimental opening of 5G</li> <li>7. Regarding the launch of Mobile Phone IMEI database</li> <li>8. Regarding the ban on Grameenphone advertisement</li> <li>9. Termination of 2 million invalid SIM/RUIM</li> <li>10. In the context of not fixing charges for Mobile Financial Service transactions.</li> <li>11. Outstanding dues of Mobile Phone operator Grameenphone and Robi</li> <li>12. News on seizing illegal mobile phone from Shajahal International Airport</li> <li>13. Regarding the launch of Walton mobile factory</li> <li>14. News on dangling cable in the city</li> <li>15. Price reduction of Internet bandwidth</li> </ol>
11	The Independent	<ol style="list-style-type: none"> <li>1. High court directive to block all porn sites.</li> <li>2. Blocking 54 online news portals.</li> <li>3. Outstanding dues of Mobile Phone operator Grameenphone and Robi.</li> <li>4. Downgrading 2G/3G network in election time.</li> <li>5. Successful experimental opening of 5G</li> <li>6. In the context of not fixing charges for Mobile Financial Service transactions</li> <li>7. Regarding call drop of Grameenphone.</li> <li>8. News on connecting all the TV channels on the Banghabondhu satellite.</li> <li>9. News on Cyber crime</li> </ol>
12	Financial Express	<ol style="list-style-type: none"> <li>1. Successful experimental opening of 5G.</li> <li>2. Ban on Mobile Call Rate increase by High court.</li> <li>3. Launching of MNP service.</li> <li>4. Opening of Mobile Phone IMEI Database.</li> <li>5. High court directive to block all porn sites.</li> <li>6. Regarding drive test of 4G.</li> <li>7. Mass hearing regarding Telecommunication services and the activities of regulatory body.</li> <li>8. High court directive to control mobile tower radiation.</li> </ol>



## Print and Online Media

Serial No.	Media	Topic of the Notable Published News Item
		<ol style="list-style-type: none"> <li>9. Commercial launching of MNP services</li> <li>10. Colsure of 2 million Illegal SIM/RUIM</li> <li>11. Skype closure related.</li> </ol>
13	Bangladesh Protidin	<ol style="list-style-type: none"> <li>1. Opening of Mobile Phone IMEI Database</li> <li>2. Downgrading 2G/3G network in election time.</li> <li>3. Ban on Mobile Call Rate increase by High court</li> <li>4. Blocking 54 online news portals.</li> <li>5. Receiving complaints at BTRC call centre.</li> <li>6. High court directive to block all porn sites.</li> <li>7. Regarding drive test of 4G.</li> </ol>
14	Daily Manab Zamin	<ol style="list-style-type: none"> <li>1. High court directive to block all porn sites.</li> <li>2. Closure of 2 million Illegal SIM/RUIM.</li> <li>3. News on Cyber crime</li> <li>4. Embargo on Grameenphone Advertisement.</li> <li>5. Statutory dues to Grameenphone and Robi.</li> <li>6. Regarding the reduction of International incoming call.</li> </ol>
15	Daily Inqilab	<ol style="list-style-type: none"> <li>1. Ban on Mobile Call Rate increase by High court.</li> <li>2. Blocking 54 online news portals.</li> <li>3. Regarding Launch of MNP service</li> <li>4. Opening of Mobile Phone IMEI Database.</li> <li>5. High court directive to block all porn sites.</li> <li>6. Regarding drive test of 4G.</li> <li>7. Mass hearing regarding Telecommunication services and the activities of regulatory body.</li> </ol>
16	Dhaka Tribune	<ol style="list-style-type: none"> <li>1. Mass hearing regarding Telecommunication services and the activities of the regulatory body.</li> <li>2. Regarding the use of Mobile phone by Rohingas.</li> <li>3. Fixing no charges for Mobile Financial Service transactions.</li> <li>4. High court directive to block all porn sites.</li> <li>5. Commercial launch of MNP service.</li> <li>6. Issuing tower sharing license.</li> <li>7. Blocking 54 online news portals.</li> </ol>
17	Jaijai Din	<ol style="list-style-type: none"> <li>1. Fixing no charges for Mobile Financial Service transactions.</li> <li>2. Terminating 2 million illegal SIM/RUIMs.</li> <li>3. Regarding Cyber crime.</li> <li>4. High court directive to block all porn sites.</li> <li>5. Embargo on Grameenphone Advertisement.</li> <li>6. Statutory dues of Grameenphone and Robi.</li> </ol>

Print and Online Media		
Serial No.	Media	Topic of the Notable Published News Item
18	Share Biz	<ol style="list-style-type: none"> <li>1. Mass hearing by BTRC.</li> <li>2. Regarding illegal VOIP.</li> <li>3. Statutory dues to Mobile operator Grameenphone and Robi.</li> <li>4. Issue of blocking 54 online news portals.</li> <li>5. Launch of mobile phone IMEI database.</li> <li>6. Regarding VAT registration of Google, Face book and YouTube.</li> <li>7. Downgrading 3G/4G network in voting time.</li> <li>8. High court's ban on mobile call rate increase.</li> <li>9. Regarding tax withdrawal on SIM card.</li> <li>10. Related to drive test of 4G.</li> <li>11. As to cyber crime.</li> <li>12. News on Social media surveillance.</li> <li>13. On reduction of International Incoming call.</li> </ol>
19	Daily Sun	<ol style="list-style-type: none"> <li>1. Statutory dues to Mobile operator Grameenphone and Robi.</li> <li>2. Downgrading 3G/4G network in voting time.</li> <li>3. Issue of blocking 54 online news portals.</li> <li>4. Connecting all TV channels of the country with Banghabandhu Satellite.</li> </ol>
20	Sokaler khobor	<ol style="list-style-type: none"> <li>1. Statutory dues to Mobile operator Grameenphone and Robi.</li> <li>2. Issue of blocking 54 online news portals.</li> <li>3. Launch of mobile phone IMEI database.</li> <li>4. Regarding VAT registration of Google, Facebook and YouTube.</li> </ol>
21	Amader Orthoniti	<ol style="list-style-type: none"> <li>1. Fixing no charge on mobile financial service transactions.</li> <li>2. Concerning mobile phone call rate.</li> <li>3. Tax withdrawal on SIM card</li> <li>4. Launch of mobile phone IMEI database.</li> <li>5. Regarding mass hearing by BTRC.</li> </ol>
22	The Asian Age	<ol style="list-style-type: none"> <li>1. Launch of mobile phone IMEI database.</li> <li>2. Regarding High court directive to block porn sites.</li> <li>3. Drive test on 4G service</li> <li>4. Statutory Dues to Mobile operator Grameenphone and Robi.</li> <li>5. SMP related.</li> </ol>
23	New Nation	<ol style="list-style-type: none"> <li>1. High Court bans on increasing mobile call rates.</li> <li>2. High court directive to block online news portals.</li> </ol>



Print and Online Media		
Serial No.	Media	Topic of the Notable Published News Item
24	Somoyer Alo	<ol style="list-style-type: none"> <li>1. Mass hearing by BTRC regarding telecom services.</li> <li>2. Experimental inauguration of 5G service.</li> <li>3. As to blocking online news portals.</li> <li>4. Related to blocking porn sites.</li> <li>5. Regarding seizing illegal mobile handsets from Shajalal International Airport.</li> <li>6. SMP instructions on Grameenphone.</li> </ol>
25	Bhorer kagoj	<ol style="list-style-type: none"> <li>1. Issue of blocking 54 online news portals.</li> <li>2. Related to cyber crime.</li> <li>3. Regarding High court directive to block porn sites.</li> </ol>
26	Daily Manobkantha	<ol style="list-style-type: none"> <li>1. Regarding the shutdown of City cell.</li> <li>2. Owing money of government to mobile operators.</li> <li>3. Launch of commercial activities of Banghabandhu Satellite.</li> </ol>
27	Bdnews24.com	<ol style="list-style-type: none"> <li>1. SMP instructions on Grameenphone.</li> <li>2. Commencement of Mobile phone IMEI database.</li> <li>3. Discontent in parliament regarding the call drop of Grameenphone.</li> <li>4. Regarding High court directive to block porn sites.</li> <li>5. Blocking 54 online news portals.</li> <li>6. Statutory dues to Mobile phone operator Grameephone and Robi.</li> <li>7. Downgrading 3G/4G network in voting time.</li> <li>8. Concerning the reduction of Bandwidth price.</li> <li>9. Related Cyber crime.</li> <li>10. Regarding IGW license.</li> <li>11. Fixing no charge on mobile financial service transactions.</li> <li>12. As to 4G services drive test.</li> </ol>
28	Banglanews24.com	<ol style="list-style-type: none"> <li>1. Statutory dues to Mobile phone operator Grameephone and Robi.</li> <li>2. Launching of Mobile Phone IMEI Database.</li> <li>3. Downgrading 3G/4G network in voting time.</li> <li>4. Blocking 54 online news portals.</li> <li>5. Regarding High court directive to block porn sites.</li> </ol>

Print and Online Media		
Serial No.	Media	Topic of the Notable Published News Item
		<ol style="list-style-type: none"> <li>6. Regarding the drive test of 4G service.</li> <li>7. Launch of commercial activities of Banghabandhu Satellite.</li> <li>8. Mass hearing by BTRC regarding telecommunication services and the activities of regulatory body.</li> <li>9. High court directive to control mobile tower radiation.</li> <li>10. Imposing SMP rules and regulations on Grameenphone.</li> </ol>
29	Tech Shohor	<ol style="list-style-type: none"> <li>1. Launch of Mobile Phone IMEI Database.</li> <li>2. Imposing SMP rules and regulations on Grameenphone.</li> <li>3. Terminating 2 million illegal SIM/RUIMs.</li> <li>4. Statutory dues to Mobile phone operator Grameephone and Robi.</li> <li>5. Mass hearing of BTRC.</li> <li>6. Fixing no charge on mobile financial service transactions.</li> <li>7. Regarding High court directive to block porn sites.</li> <li>8. Commercial launch of MNP services.</li> <li>9. On awarding tower sharing license.</li> <li>10. Issue of blocking 54 online news portals.</li> <li>11. Successful experimental inauguration of 5G.</li> <li>12. Launch of Commercial activities of Banghabandhu Satellite.</li> <li>13. Related to illegal VOIP.</li> <li>14. Embargo on mobile call rate increase by High court.</li> <li>15. Regarding the drive test of 4G service.</li> <li>16. News on cyber crime.</li> <li>17. Surveillance on social networking sites.</li> </ol>
30	Bangla Tribune	<ol style="list-style-type: none"> <li>1. News on the drive of BTRC against ISP licensed establishments.</li> <li>2. Imposing fine on selling unregistered SIM.</li> <li>3. Terminating illegal/clone SIM.</li> <li>4. Statutory dues to Mobile phone operator Grameephone and Robi.</li> <li>5. Blocking 54 online news portals.</li> <li>6. Fixing no charge on mobile financial service transactions</li> <li>7. Commercial launch of MNP services.</li> <li>8. Related to tower sharing license.</li> <li>9. Successful experimental test of 5G.</li> <li>10. About mobile call rate increase.</li> <li>11. Mass hearing of BTRC.</li> </ol>





Serial No.	Media	Topic of the Notable Published News Item
<b>News Agencies</b>		
31	BSS	1. Important news on successful test of 5G network, commercial launching of Banghabandhu Satellite, blocking porn sites, MNP and other telecom related reports.
32	UNB	1. Important news on successful test of 5G network, commercial launching of Banghabondhu Satellite, blocking porn sites, MNP and other telecom related reports.
<b>Electronic Media</b>		
33	Somoy TV	<ol style="list-style-type: none"> <li>1. Successful experimental inauguration of 5G.</li> <li>2. Launching of Mobile Phone IMEI Database.</li> <li>3. Statutory dues to Mobile phone operator Grameephone and Robi.</li> <li>4. Downgrading 3G/4G network in voting time.</li> <li>5. Commercial launch of Banghabondhu Satellite.</li> <li>6. Discontent in parliament regarding the call drop of Grameenphone.</li> <li>7. Ban on mobile call rate increase by High court.</li> <li>8. Regarding the mass hearing of BTRC.</li> </ol>
34	Jamuna Television	<ol style="list-style-type: none"> <li>1. High court directive to control mobile tower radiation.</li> <li>2. Launching of Mobile Phone IMEI Database.</li> <li>3. Statutory dues to Mobile phone operator Grameephone and Robi.</li> <li>4. Downgrading 3G/4G network in voting time.</li> <li>5. Commercial launch of Banghabandhu Satellite.</li> <li>6. Discontent in parliament regarding the call drop of Grameenphone.</li> <li>7. Ban on mobile call rate increase by High court.</li> <li>8. Regarding the mass hearing of BTRC.</li> <li>9. Concerning mobile tower sharing license.</li> </ol>
35	Chanel-i	<ol style="list-style-type: none"> <li>1. Launching of Mobile Phone IMEI Database.</li> <li>2. Statutory dues to Mobile phone operator Grameephone and Robi.</li> </ol>
36	Independent TV	<ol style="list-style-type: none"> <li>1. Launching of Mobile Phone IMEI Database.</li> <li>2. Statutory dues to Mobile phone operator Grameephone and Robi.</li> </ol>

Electronic Media		
Serial No.	Media	Topic of the Notable Published News Item
37	MyTV	<ol style="list-style-type: none"> <li>1. Launching of mobile phone IMEI database.</li> <li>2. Statutory dues to Mobile phone operator GrameePhone and Robi.</li> </ol>
38	Ekattor TV	<ol style="list-style-type: none"> <li>1. Launching of mobile phone IMEI database.</li> <li>2. Statutory dues of Mobile phone operator GrameePhone and Robi.</li> <li>3. Regarding mass hearing of BTRC.</li> <li>4. Report on Cyber Crimes.</li> </ol>
39	Channel-24	<ol style="list-style-type: none"> <li>1. Fixing no charges on mobile financial service transactions.</li> <li>2. Launching of mobile phone IMEI database.</li> <li>3. Statutory dues to Mobile phone operator GrameePhone and Robi.</li> <li>4. Concerning call rate increase.</li> </ol>
40	Gazi TV	<ol style="list-style-type: none"> <li>1. Launching of mobile phone IMEI database.</li> <li>2. Statutory dues to Mobile phone operator GrameePhone and Robi.</li> </ol>
41	Ekushey TV	<ol style="list-style-type: none"> <li>1. Opening of mobile phone IMEI database.</li> <li>2. Statutory dues to Mobile phone operator GrameePhone and Robi.</li> </ol>
42	NTV	<ol style="list-style-type: none"> <li>1. Opening of mobile phone IMEI database.</li> <li>2. Statutory dues to Mobile phone operator GrameePhone and Robi.</li> </ol>

07. An experimental exhibition of the fifth generation wireless super speed communication system or 5G was held in Bangladesh on 25 July 2018. The China tech company Huawei made this experiment at Hotel Sonargaon in the capital. The 'Bangladesh 5G-summit' was also held at the same venue on the same day. ICT advisor to the Honorable Prime Minister Mr. Sajeeb Ahmed Wazed Joy inaugurated this summit being present as the Chief Guest.



A part of the guests at the 5G experimental exhibition and summit.

08. The round table of the ITU-BTRC Asia Pacific Regulators-2018 was held at Hotel Radisson Blue Water Garden in Dhaka from 6 to 7 August 2018. Besides, the 18th APT Policy and Regulatory Forum (PRF-18) was also held in the same venue from 8-9 August 2018. A total of 130 representatives from the heads of regulatory bodies of the ITU member states including Asia Pacific region, organizational heads, operators, Telecom and ICT experts took part in the two-program. Post, Telecommunication and Information Technology Minister Mr. Mustafa Jabbar inaugurated the program being present as the Chief Guest while Secretary General of APT Ms. Areewan Haorangshi, and ITU's Regional Director of Asia Pacific Region Mr. Ioani Koroivuki were present among others.





Some pictures of the inaugural ceremony of the ITU-BTRC Asia Pacific Regulators Roundtable.

09. The service of Mobile Number Portability (MNP), a service to change operator by keeping the number unchanged, was launched through a press conference at BTRC's main conference room on the 1st of October 2018. This service will be provided by Infozillion, a joint consortium of Bangladesh and Slovenia, which obtained license from BTRC recently. The chairman of BTRC Md. Jahurul Haque made this announcement in presence of the Journalists.



Press Conference of BTRC regarding the launch of MNP service.

10. Bangladesh Telecommunication Regulatory Commission (BTRC) and Rapid Action Battalion (RAB) jointly conducted drives against illegal VOIP in six residential establishments under Mohammadpur, Adabor, Badda and Uttara Paschim Thana in the capital from 9 September 2018 to 20 September 2018. They recovered 10,947 SIMs and illegal VOIP equipments worth Tk. 37 lakh. Eight people were arrested in this connection.



In addition, the same team jointly conducted drives in 26 establishments under Dhaka and Chittagong districts stretching from 14 October 2018 to 1 November 2018. A total of 42,150 SIMs and illegal VOIP equipments worth Tk. 12.3 million were recovered arresting 24 people in this connection. The commission informed the media that such kind of drive by the Commission had been more successful than before with the use of technology.



Press Conference -8 October 2018.





Press Conference -11 November 2018.

11. The Thales Alenia Space, the aerospace manufacture of French, has handed over the control, ownership and patent of Banghabondhu -1 Satellite to the government at the office of Banghabondhu Satellite Communication Company Limited in Dhaka on 9 November 2018. The former acting chairman of BTRC Mr. Jahurul Haque took the ownership on behalf of government. Later, this ownership was handed over to the Banghabondhu Satellite Communication Company Limited (BSCCI), the only state-run company to provide satellite services.



Ownership transfer ceremony of the country's first communication satellite  
Banghabondhu-1.

12. When all other communication remain closed and unsuccessful, the operators of Armature radio can play a special voluntarily role with their communication technology to combat natural and national emergency disasters like earthquake, Tsunami, Cyclone and various disasters including floods. In addition, they can maintain communications with other countries in the world as per rules and can assist the authorities concerned by establishing information and communication system. A written test was held at BTRC with the aim of licensing the Amateur Radio in the country on 8 December 2018. A total of 286 candidates from across the different parts of the country took part in the examination. A press conference was held in this regard to inform the people of the country regarding the necessity and usages of this license. Journalists from different media houses precipitated in the conference.





The chairman of the commission Mr. Jahurul Haque is speaking at a press conference on the occasion of the test to issue amateur radio license. Examinees and Journalists participating in the event are visible.

13. The chairman of the BTRC exchanged views with the concerned media personnel in this sector on various important issues of the telecommunication sector at different times. In sequel to this, the chairman of the commission met the journalists of TRNB (Telecom Reporters Network of Bangladesh), a platform of telecom Journalists, in a view exchange meeting on the occasion of New Year greeting-exchange on 16 January 2019. The journalists through this meeting shared their valuable informative opinions regularly to accelerate the activities of the commission. The journalists assisted by the media and publication wing of the commission are successfully performing their duties to inform the people of the different development activities of the commission raising various problems of the telecommunication sector and ways to solve them.



Senior officials of the commission at the New Year greeting exchange meeting with the journalists of the telecom sector related organization TRNB.



14. The International Mobile Equipment Identity (IMEI) database was inaugurated for the first time in the country on 22 January 2019. IMEI stands for the unique 15 digits number of a mobile phone used to identify the mobile handset. This database will help the users know whether the handset is original or it has the approval of the BTRC. Through this database, the users will be able to verify the handset while purchasing by checking the commission's database. Post, Telecommunication and Information Technology Minister Mr. Mustafa Jabbar announced the opening of this database through a press conference.



The inauguration of the International Mobile Equipment Database (IMEI) and subsequent press conference.



15. The Bangladesh Telecommunications Regulatory Commission has inaugurated the construction of its own building on 13 March 2019. The 12-storey building is being constructed on the commission's own land at Agargaon in the capital. Post, Telecommunication and Information Technology Minister Mr. Mustafa Jabbar inaugurated this construction work as the Chief Guest.



Honorable Post and Telecommunication Secretary, Honorable Chairman of BTRC and Chief Engineer of Public Works sitting on the stage with Honorable Minister and Guests arriving at the inaugural ceremony.

16. All those journalists and organizations who reach peoples doorsteps through reporting on the various activities, successes, and development-oriented initiatives of the Bangladesh Telecommunication Regulatory Commission, Telecom Reporters Network Bangladesh (TRNB) is notable among them. All the members of the newly formed committee paid a courtesy meet with BTRC Chairman Mr. Jahurul Haque on 29 April 2019, and all of them got acquainted with the chairman.



Members of the Telecom Reporters Network of Bangladesh (TRNB) with Honorable Chairman of BTRC.



17. Bangladesh celebrated the 50th anniversary of the world telecommunication and Information Association Day-2019 on May 17, 2019 in a proper manner and dignity like other 193-member countries of United Nations body-organization, International Telecommunication Union .The theme of this year is 'Bridging the Standardization Gap' which simply means maintaining international standards in the field of information technology , that is, The way in which the quality of the product or service is determined, It should be used everywhere in the same sense. BTRC and Post, Telecommunication and ICT ministry organized special events to celebrate the day in due dignity and make the theme meaningful. Post, Telecommunication and Information Technology Minister Mr. Mustafa Jabbar inaugurated the main program at Hotel Intercontinental on May 18, 2019 afternoon.



Opening Ceremony on the occasion of World Telecommunication and Information Association Day-2019, Hotel Intercontinental, Dhaka.

In addition, professional assistance was provided with arranging important roundtable on telecommunication policy, updating media about the activities of the removal of dangling cable on electric polls, information about MoU between private organizations and BTRC as well as coordinating different meetings of the BTRC Chairman and preparing reports and speeches for him.





## Enforcement and Inspection Directorate





## Enforcement and Inspection Directorate

The telecommunication of Bangladesh has emerged as the fastest expanding and potential sector. Due to the relentless and careful efforts of the BTRC, the telecommunications sector has played an important role in keeping the national economy active by providing the highest amount of revenue to the national revenue in the past years. That is why the telecommunication sector has increased manifold. The Enforcement and Inspection Directorate has been playing an important and meaningful role in maintaining discipline and good governance in the telecommunications sector of Bangladesh. The fields are as follows:

- Prevent VoIP activities, including invalid call terminations,
- Identifying unauthorized telecommunication service providers installation and terminating their activities,
- Terminating and monitoring the Illegal SIM / RIM registration,
- Impose penalties for irregular activities to provide telecommunication services, etc.

### The main functions of the E&I Directorate:

- To take various steps to inspect, examine and identify the telecommunication infrastructure to prevent illegal telecommunication activities within Bangladesh;
- Conduct expeditions with effective measures to restrain illegally terminated international calls through the use of technology;
- Inspection of telecommunication operators telecom installation and analysis of various information submitted;
- Ensuring that mobile operators are using the self-regulation system properly to prevent illegal VoIP;
- Overseeing the SIM Box Detection System installed in BTRC;
- Conduct operations to seize unauthorized telecommunication services / mobile sets and take effective measures to stop their activities;
- Taking necessary steps to prevent RIM / SIM registration process with incorrect/ Defective/ False/ Wrong information;
- Take action to restrict/terminate the activities of any organization/person if he does not pay its revenue to BTRC or illegally performs telecom activities;
- To work collaboratively, providing technical assistance to the law enforcing agencies to prevent illegal telecommunication activities.



- To monitor whether telecom operators are violating Bangladesh Telecommunications Regulation Act 2001 (Amendment 2010) and take appropriate action;
- Observe and confirm whether the telecom operators comply with the licensing terms and the directives issued from BTRC from time to time;
- Take necessary steps to prevent illegal VoIP, including international call terminations on illegal routes and provide legal and technical assistance to other law enforcement agencies when needed;
- To assist in all kinds of work related to the committee constituted by the Commission called “Telecommunication Establishment, Inspection, Identification and Investigation Committee”;
- To take legal action against any person/organization providing illegal telecommunication services.
- Regularly collect and verify reports from telecom operators regarding their activities;

The following are the details of the most important activities undertaken by the Directorate here at present:

#### **(1) Activities have taken to prevent illegal call termination**

To prevent illegal call termination, the BTRC has set up a high-powered monitoring committee to strengthen the control of illegal activities in the telecom sector. Nominated officials of law enforcement agencies including the BTRC are directly involved with this committee. The following are the steps taken by the Commission to prevent the misuse of VoIP technology:

- (a) Expedition to detect invalid VoIP deployments
- (b) SIM Box Detection System
- (c) Self Regulatory System

#### **The steps are discussed in detail as follows**

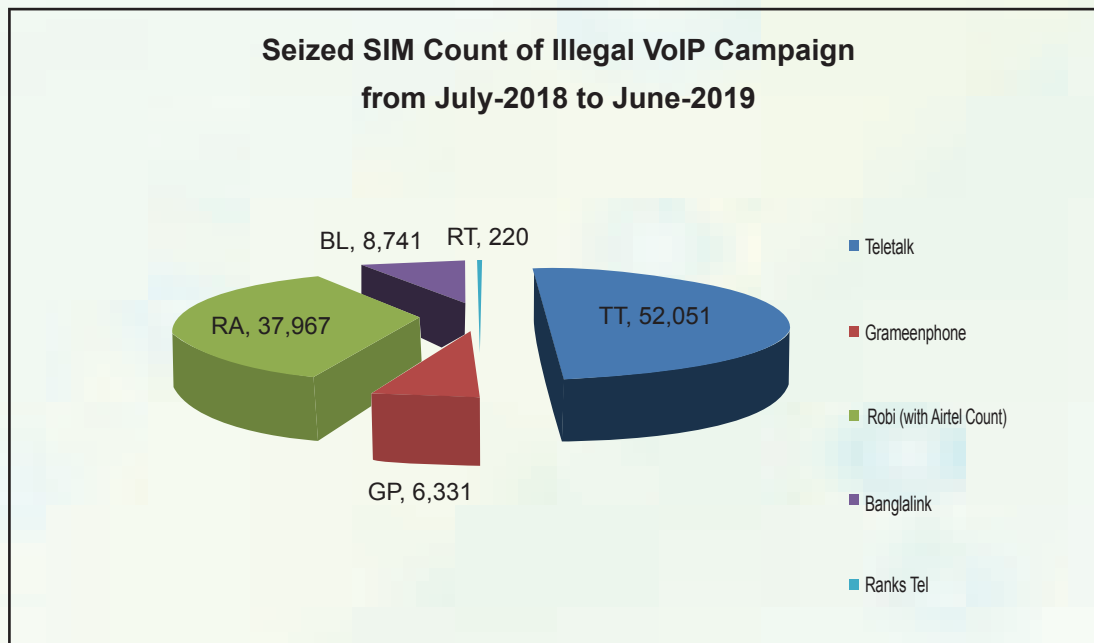
##### **(a) Expedition to detect invalid VoIP deployments:**

The BTRC is conducting regular operations with law enforcement agencies to identify illegal VoIP technology and deployment managers. Typically, channel box, gateway, server, SIM card registered with false/incorrect/wrong information, computer with other relevant equipment's are seized in such expedition. The total number of operations carried out in the financial year of 2018-2019n is 93. A large number of channel boxes, gateways, servers and SIM card registered with false/incorrect/wrong information were seized through the operation. Only the SIM cards from the seized goods are taken into the custody of the BTRC for a period for



necessary examination, all remaining seized equipment and the accused (if any) were immediately handed over to the nearest police station and case filed. After filing the case, the confiscated evidence remains in favour of the investigating officer concerned and the SIM cards were returned to the investigating officer. The following is an overview of the VoIP operation conducted this year:

serial	Operator Name	Number of SIM	Operation Summary	Seized Equipment's
1	Grameen Phone	6331	1. Number of Operation-93 2. Case Filled-77	1. GSM Gateway 2. SIM Card 3. Computer 4. Router 5. Modem 6. LAN Switch 7. Mobile Handset 8. Laptop
2	Banglalink	8741		
3	Robi Axiata	37,967		
4	Teletalk	52,051		
5	Rankstel	220		
<b>Total</b>		<b>105,310</b>		



Some images from the operation conducted against illegal VoIP:



**(b) SIM Box Detection System:**

BTRC has set up a SIM Box detection system for all cellular mobile operators to discourage illegal SIMBox users. Most recently, as per the instructions of BTRC, virtual circuits are extended with additional hits increment in that SIMBox Detection System. As a result, BTRC is playing an effective role in identifying more suspicious SIM /RUIM. For immediate deactivation of all these identified SIMs / RUIMs, Instructions are also given from this directorate.

**(c) Self Regulatory System:**

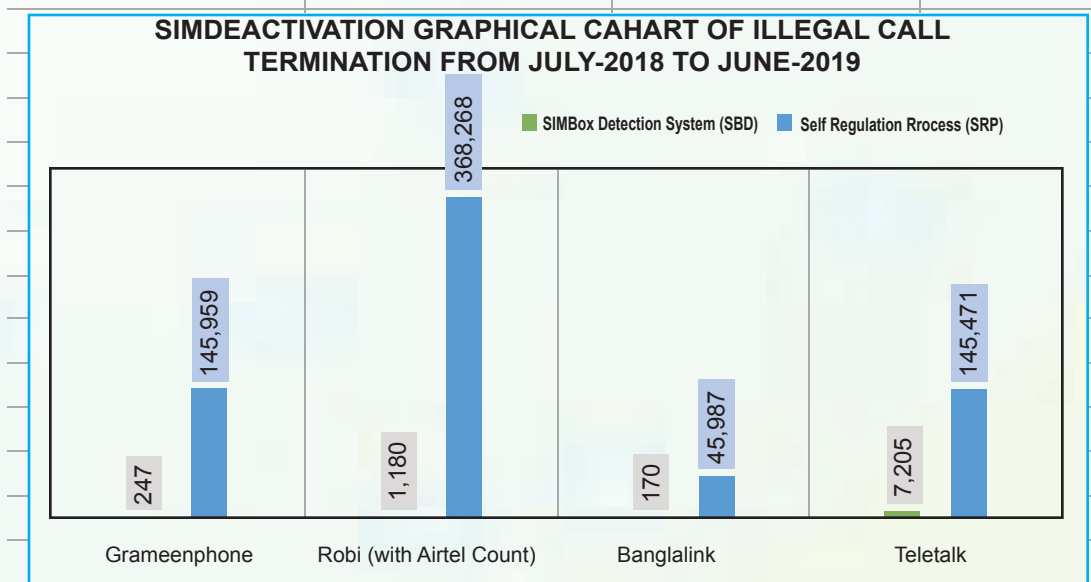
As part of a series of different measures taken at different times to prevent illegal VoIP, some logic has been laid down by the commission to identify and stop the SIM/RUIM used in illegal VoIP. These logics allow each mobile operator to identify the SIM/RUIM used in the illegal VoIP by operating it repeatedly at a certain time interval every day. As per the instructions of the Commission, the concerned operator has an obligation to identify and deactivate the said SIM/RUIM. Considering the situation, these logics are reviewed or changed by the Commission from time to time. As a result, the use of SIM/RUIM in illegal VoIP is being discouraged.

The number of SIMs / RIMs seized in Symbox Detection System and Self-Regulation method for the financial year 2018-2019 is mentioned below:

Serial No.	Operator Name	Number of deactivated SIM/RUIM		Total
		SIMBox Detection System	Self-Regulation Method	
1	GrameenPhone	247	145959	146,206
2	Robi(with Airtel)	1180	368268	369,448
3	Banglalink	170	45987	46,157
4	Teletalk	7205	145471	152,676
<b>Total</b>		<b>8,802</b>	<b>7,05,685</b>	<b>7,14,487</b>



Graphical Chart of SIM / RUIM seized in SIMBox Detection System and Self-Regulation method for the financial year 2018-2019 is as follows:



**(2) Concerning the fine imposed on SIMs with a longer lifespan than specified:**

Mobile phone operators are fined if they do not turn off the SIMs detected in the SIMBox detection system for illegal call termination within the stipulated time. Three mobile phone operators have already been fined. Organization Names are as follows:

- a) GrameenPhone Limited.
- b) Robi Axiata Limited.
- c) Teletalk Bangladesh Limited.

**(3) Regular Inspection Activities:**

BTRC constantly inspect various installations of the licensees and thus telecom operators are now becoming aware of the proper use of their network. As a result, BTRC officials can be sure that the licenses, guidelines and instructions are being implemented properly. Besides, inspections are conducted regularly at various telecom establishments based on newspaper reports and information obtained from various sources.

**(4) Operations against illegal ISP Operators:**

The operation has been conducted based on complaints at different times of the financial year 2018-2019. During BTRC inspection, a total of 05 illegal internet service provider (ISP) was found involved with illegal connection. BTRC team disconnect and seized the illegal equipment and filled cases in the local police station as follows:





Serial no.	Person/Organization Name	Case details	Place of occurrence
1.	MD. Ariful Islam	Sonadanga Model Thana, Case No#22, Date: 04/10/2018;	Shibbari, Khulna.
2.	a) md. Selim b) kamal hossain	Chakbazar Model Thana, Case No#09, Date:21/03/2019;	Chakbazar, Dhaka.
3.	a) Md. Ashrafuzzaman mitu matbar b) Md. Sharif, c) Md. Kabir d) Md. Tanvir, e) Md. Sabbir, f) Dish Afzal g) Md. Sabuj and anonymous 4/5 person.	Kamrangichar Thana, Case No#26, Date: 14/05/2019;	Kamrangichar, Dhaka. Mirpur-2, Dhaka.
4.	a) Md. Babu b) Md. Joy	Mirpur Model Thana, Case No#15/388, Date: 13/06/2019;	Mirpur-2, Dhaka.
5.	a) Md. Aunik b) Md. Choton	Mirpur Model Thana, Case No#12/385, Date: 11/06/2019;	Mirpur-2, Dhaka.

A total of 18 illegal internet service providers have been inspected and fined at the following rates including disconnection of illegal connections based on submitted complaints at different times of the 2018-2019 financial year:

SI	Company Name	Location	Type of License	Amount of Fine (Tk)
1	Stargate Communications Ltd.	Dhaka	Nationwide ISP	1,00,000/- (One lac)
2	Maya Cyber World	Rangpur	Category-B ISP	50,000/- (Fifty thousand)
3	Dhaka Fiber Net Ltd	Dhaka	Central Zone ISP	1,00,000/- (One lac)
4	J. F. Optical Service	Dhaka	Central Zone ISP	1,00,000/- (One lac)
5	Zx Online Ltd	Dhaka	Central Zone ISP	50,000/- (Fifty thousand)
6	Net Café	Dhaka	Category-A ISP	5,000/- (Five thousand)
7	WiMS Online	Rangpur	Category-A ISP	50,000/- (Fifty thousand)
8	Cybernet Communications Ltd	Savar	Category-C ISP	50,000/- (Fifty thousand)
9	Triangle Communications Ltd.	Dhaka	Nationwide ISP	2,00,000/- (Two lac)
10	Media & Multimedia	Dhaka	Central Zone ISP	3,00,000/- (Three lac)
11	Circle Network	Savar	Nationwide ISP	5,00,000/- (Five lac)
12	Mega City Link	Dhaka	Category-A ISP	1,00,000/- (One lac)
13	Speed Link	Dhaka	Category-A ISP	10,000/- (Ten thousand)
14	Asia Net	Dhaka	Central Zone ISP	1,00,000/- (One lac)
15	JS Network	Dhaka	Category-A ISP	5,000/- (Five thousand)
16	M/s Rafin Satellite	Dhaka	Central Zone ISP	3,00,000/- (Three lac)

### (5) Conducting Operation through SIMBox Geolocation Finder

Under the agreement executed with LATRO Inc., a US-based vendor to prevent illegal VoIP, the operation of identifying illegal VoIP was started. Under that agreement, the operation is planned to run in six phases, The fifth phase has already been completed.

The details of the operation are given below:

List of the case filled, seized SIM card & equipment of each mobile operator										
Date	No of Case filled	SIMBox	GP	Robi/Airtel	Banglalink	Rankstel	Banglalion	Teletalk	Total SIM card	Comments
16/09/2018-20/09/2018	6	69	1414	3897	426	120	15	5075	10947	First Phase, Dhaka
14/10/2018-31/10/2018	27	160	3373	17518	6199	100	0	15860	43050	Second Phase, Dhaka & Chottogram
02/12/2018-11/12/2018	19	92	626	5034	116	0	0	4480	10256	Third Phase, Dhaka & Chottogram
03/02/2019-13/02/2019	13	51	161	2233	73	-	-	2060	4527	Fourth Phase, Dhaka, Comilla & Feni.
31/03/2019-11/04/2019	12	56	342	6789	108	-	-	23737	30976	Fifth Phase, Dhaka
<b>Total</b>	<b>87</b>	<b>467</b>	<b>6128</b>	<b>36334</b>	<b>7041</b>	<b>220</b>	<b>15</b>	<b>53496</b>	<b>103234</b>	

### (6) Future plan

To prevent illegal call termination action has been taken to set up Automated Self Regulation Monitoring Platform and Deep Packet Inspection (DPI) Monitoring Platform. POC of both platforms has been completed at the end of the respective operators. As a result, it is expected to prevent illegal call termination at a massive rate.

### (7) Conclusion

Public awareness is essential along with the immediate measures taken by the commission to curb crime in the telecom sector. All illegal telecommunication activities and call terminations are declining and government revenue is increasing at a significant rate through the steps like SIMBox Geolocation Finder, Telecommunication Installation Inspection etc. are taken by Enforcement & Inspection Directorate.



Countrywide mobile phone network coverage:

1997  
3/64  
Districts



2000  
30/64  
Districts



2002  
50/64  
Districts



2004  
61/64  
Districts



At present  
64/64  
Districts







**World Telecommunication And  
Information Society Day (WTISD-2019)**





## World Telecommunication And Information Society Day (WTISD-2019)

Bangladesh Observed the world Telecommunication and Information Society Day (WTISD-2019) like others countries on May, 17,2019 with the theme “Bridging the Standardization Gap”. This day is celebrated for increasing consciousness among people about information and technological development. For this purpose at 18 May, 2019 a programme was arranged at Hotel Intercontinental, Dhaka and chief guest of the program was Honorable Minster of Posts, Telecommunications and Information Technology Ministry Mr. Mustafa Jabbar. As special guest Mr. Zunaid ahmed palak, MP; Hon'ble State Minister for ICT Division Ministry of Post, Telecommunications and information technology and Posts and Telecommunications division's secretary Mr Ashoke Kumar Biswas were present. The Chairman of Bangladesh Telecommunication Regulatory Commission Md. Jahurul Haque chaired the function.



Honorable Minster of Posts, Telecommunications and Information Technology Ministry Mr. Mustafa Jabbar and others guests as on world Telecommunication and Information Society Day (WTISD-2019)

At 17 May,1865 International Telecommunication Union was established and from 17 May,1969 World Telecommunication Day is celebrating. Then at ITU Conference which held in November 2006 decision of celebrating World Telecommunication and Information Society Day was taken. Worth mentionable 50 th year of world Telecommunication and Information Society Day was celebrated at 2019.

5G related presentation was given by representative of different organizations on standardization of telecommunication service and present situation of Bangladesh at this programme. Moreover at this programme mobile operator, vendor and stackholder related to Bangladesh's telecommunication sector discussed on 5G Mobile technology-Challenges and Opportunities,Growth of digital economy and ICT Standarization. A commemorative stamp was published and Television talkshow and special supplement at newspaper are arranged to celebrate the day.







A commemorative stamp was published to celebrate this day



Online essay competition was also arranged and prize was given by Honorable Minister of Posts, Telecommunications and Information Technology Ministry Mr. Mustafa Jabbar among the winners to celebrate this day.



prize was given by Honorable Minister of Posts, Telecommunications and Information Technology Ministry Mr. Mustafa Jabbar among the winners to celebrate this day.

## Different Activities

### Annual picnic and 17 th anniversary of BTRC

At 8<sup>th</sup> March, 2019 annual picnic of BTRC was arranged at “Nandan Park” situated in Baroipara at Chandra, Nabinagar highway of Ashulia thana to strengthen the relationship among BTRC officials and their family members. Different types of sports, cultural programs and raffle draw was held at this time.



Some precious moments of BTRC family



## Conclusion

Bangladesh Telecommunication Regulatory Commission is working relentlessly to accelerate the social and economic development through orderly control and create an investment friendly-environment of the telecommunication sector in achieving goal in line with policy of the government. Hopefully, if the current pace of the development continues, Bangladesh will become a digital technology based middle-income country by 2021 and a developed and prosperous country by 2041.

Bangladesh Telecommunication Regulatory Commission (BTRC) has been performing its vested duty smoothly. As a result, by June 2019, tele density in the country has increased by 98.7%, internet density by 98.87%, mobile subscribers by 160 million and internet subscribers by 96.1 million. In addition, the price of internet bandwidth per Mbps has been reduced to no more than Tk. 600.

In the current fiscal year, BTRC has garnered praise by collecting highest non-tax revenue. In addition to revenue collection, BTRC has played a leading role in generating employment, increasing mobile financial service, and creating domestic-foreign investment as well as it has made an effective contribution to the international arena of telecommunications.

A good number of steps and initiatives have been taken by BTRC in various sectors including launch of advanced 4G/LTE technology, preparation for 5G, effective steps for the successful implementation of Mobile Number Portability, formulation of Tower Sharing Guidelines, instruction issued on infrastructure sharing obligations., Drive conducted to clamp down various illegal VoIP, uses of SIMbox and logic method in self-control, reduction to the price of various voice call and SMS, launch of high-tech telecommunication service in remote areas of the country by providing applicable spectrum and spectrum neutrality, opening a combined license system and formulation of national telecommunication policy in a timely manner.

With the use of mobile phone and internet, exchanging text, picture, audio-video, video conferencing, E-commerce, mobile banking, reading online, entertainment, watching TV or reading news have become a habit for the people of the country. To make all these services more dynamic and readily available, BTRC is working tirelessly to bring 3G as well as 4G service to the doorsteps of the people. As a result, users are being able to receive important services quickly and easily like E-commerce, E-banking, E-education, E-agricultural, E-health, E-governance and teleconference using high-speed internet by mobile phone which is playing an important role in the welfare of the people and in increasing the revenue of the government.

BTRC is committed to take initiatives on various issues including creating more investment and employment in the telecommunication sector, providing high-speed internet facility and mobile broadband for all, rendering quality and more affordable mobile service, introducing invented new services, strengthening global cyber security, protecting child online, implementing environment-friendly telecom technology, establishing emergency telecommunication system to deal with natural calamities and disasters, prioritizing telecommunication sector to climate change and sustainable development goals (SDGs) 2015 subsequent all global agenda.

The knowledge and insight gained from the best practices and the previous year's experiences of BTRC in providing telecommunication services will act as a stepping stone to its challenging journey. With the cooperation of all, BTRC will move forward with a racy step.





INTERNET  
OF THINGS

5G



## Bangladesh Telecommunication Regulatory Commission

IEB Bhaban, Ramna, Dhaka-1000, Bangladesh

Phone : 880-2-961 1111, Fax : 880-2-955 6677

Web : [www.btrc.gov.bd](http://www.btrc.gov.bd)

সূত্র: নীতিমূলক দ্বি-বর্তন  
নথীসংখ্যা: ০৯৯৬০০১০০০