

## Written questions to the Ministry of Information and Communications

### *Issue 1: Telecommunication connectivity and service standards*

The number of call drops and failure to access internet on both data cards and mobile phone have been visible and increasing for some time now. Even as we make references to G2C services available online and continue to bring more online services like online banking and mobile banking, significant number of users have been expressing frustration at the quality of service. This is worst in Thimphu. Bhutan Telecom Corporation continues to refer, as in the past, to on-going works to unclog the network. However, it has not had any positive impact.

With decreasing reliability of service, many online services that the Royal Government advocates may not be accessible. The problems have, ironically, become more acute after the increase in taxes on mobile phone and internet services.

The National Council would like to know if the Royal Government has put in place any service regulatory standards that are comparable to ones applicable to such businesses in other parts of the world. What has it done to address this problem?

### **Answers:**

- Quality of Service (QoS) for mobile and internet services is regulated based on the parameters set out by Bhutan InfoComm and Media Authority (BICMA) while issuing the service provider license. However, with advancement in technology and increase in the Telecom/ICT users in the country, the existing parameters were found to be insufficient and require improvement and addition of new parameters.
- Concerns with regard to poor Quality of Service was discussed with BICMA and the Service providers (BTL & TICL) by the Ministry of Information and Communications. As a result, BICMA recently signed an agreement with Telecom Operators (BTL & TICL) on the revised QoS standard.
- As per the agreement, the operators are to plan and execute actions to resolve the congestion issues. In an effort to monitor the service quality, BICMA collects the Key Performance Indicators (KPIs) for each Base Station Transceivers (BTS) in Thimphu along with the daily raw data and provides feedback to the operators to undertake corrective measures to improve the service quality.

- Some of the initiatives taken by the operators to improve the quality of services are as follows:

1. Bhutan Telecom:

- a. Deployed 180 Access Point in Thimphu to offload 3G congestions. To improve the access network services provided through the radio, backhaul cables are currently being replaced by fibre optics.
- b. Installed Auto Diesel Generators in areas which experiences frequent power disruption.
- c. Following infrastructure upgradation works are being carried out, which will be completed by end of August 2016:
  - Upgradation of 3G Backhaul network from 1.5 Gbps to 3 Gbps which will improve service.
  - Erection of 5 new 3G towers in Thimphu
  - Erection of 17 additional 3G towers in other Dzongkhags
  - Installation of 800 APs t in Thimphu
  - Installation of 200 APs in rest of the Dzongkhags where there are network congestions

2. Tashi InfoComm:

- a. Launched 4G services in Thimphu, Paro and Phuntsholing, which is intended to reduce the traffic on 3G network leading to a better service experience for all the users.
- b. Network upgradation in Thimphu under progress as the congestion is most experienced in the Dzongkhag only as of now.

In addition, the Department of IT & Telecom (DITT), MoIC is in the process of drafting regulations for QoS. The final draft is ready to be submitted to the Office of Attorney General for review. The regulation is expected to put in place a systematic mechanism for monitoring the QoS along with latest parameters to be used for measurement.

**Issue -2: E-library**

**Response:**

Ministry of Education is the lead agency for implementation of e-library initiative. DITT being an implementer of the ongoing Government Data Center (GDC) project, is one of the stakeholders for eLibrary project, lead by Ministry of Education. eLibrary services will be hosted in the Data Center space at the Thimphu Tech Park Ltd.

Following progress have been made on the DITT/MoIC's role pertaining to e-library project:

- Data Center space, for eLibrary equipment, has been identified at Data Center facility in the Thimphu Tech Park Ltd.
- Upon GNHC's advice, DITT/MoIC agreed to accommodate the recurrent costs for the next six months, including rack space, power costs and Internet costs (Internet cost at the IT park only). It is estimated that DITT will be able to accommodate between Nu. 1.8 million to Nu. 2 million for the next six months from the Government Data Centre Project.
- DITT is working in close consultation with GNHC and rendering necessary support to Contractor to expedite the implementation of project.
- Installation and commissioning of the e-library at Thimphu Tech Park would be completed and the sites would be up and running in 12 identified schools and 3 colleges by June 30, 2016.
- eLibrary Data Center will become functional by July 15, 2016. Other sites would be implemented subsequently.
- Any other details required may be obtained from the Ministry of Education.