

Press Release for National Fiber Monitoring System

The Ministry of Information and Communications (MoIC) is pleased to inform the general public that the Ministry has recently implemented a Fiber Monitoring System(FMS) to monitor the National Fiber Network.

The Ministry of Information and Communications(MoIC), Royal Government of Bhutan, has invested heavily in execution of the National Broadband Master Plan Implementation Project (NBMP) to establish an optical fiber backbone network throughout the country. The project has connected 18 Dzongkhags with Optical Ground Wire (OPGW) cables and remaining two Dzongkhags and 201 Gewogs with All Dielectric Self Supporting (ADSS) cables. The operation and maintenance (O&M) of the national fiber network is operated and maintained by the Bhutan Power Corporation (BPC).

The Government has provided a pair of dark fibers to Telecom Service Providers (TSPs) and Internet Service Providers (ISPs) for free. They provide their Internet and Telecom services using the dark fibers leased to them. The optical fiber network is operated and maintained by BPC during major breakages. Before FMS the fiber faults such as fiber breakages and fiber bends were detected manually which takes a lot of manpower and man hours. Whenever the fiber network is down, the relevant Dzongkhag officials lodge complaints to BPC. BPC officials visit the affected areas and study the causes of network downtime and identify the fiber breakages. After detecting the fiber faults, the fibers are then rectified by the team. However, there were situations when BPC officials were called to remote areas to rectify fiber faults when actually the problems weren't related to fiber faults. This not only wastes the officials' time but also O&M resources.

Considering the issues faced by the O&M team during rectification, the FMS was implemented since December 2019 to provide 24*7 monitoring of National fibers. Currently the scope of the FMS is as follows:

- Monitor one core of dark fiber connecting BPC substations.
- Monitor one core of active fiber connecting either Gewog centres (GC) or Community centres(CC).

With the FMS in place, the O&M team are benefited by the following:

- 24*7 monitoring of national fibers.
- SMS alerts are received by the O & M team during fiber breakages.
- The O&M teams can also determine the outage duration of a particular fault.

The Ministry shall also look into expanding the scope of FMS in future so that all the fiber cores are monitored by the system. The Ministry is positive that with the FMS in place the reliability of National fibers can be improved and connectivity services to citizens will be more reliable.