**Problem Identification**

**1.1 Introduction**

BTCL **(Bangladesh Telecommunications Company Limited)**, formerly known as BTTB, started its journey on July 1, 2008.

The Telegraph Branch of the Post and the telegraph division was established in 1853 in British India and was subsequently administered by the Telegraph Act-1885. The Telegraph branch was rebuilt in 1962 in East Pakistan.

1971, after Bangladesh's independence, The Department of Telegraph and Telephone of Bangladesh was established under the Ministry of Post and Telecommunication. This company was transformed into a main company called 'Telegraph and Telephone Board' by the promulgation of the Telegraph and Telephone Ordinance 1975. In the application of the order of 1979, Telegraph and Telephone Board was converted to Bangladesh Telegraph and Telephone Board (BTTB), as the Government Department. From July 1, 2008, according to Telecommunications Policy, 1998, BTTB was converted into a limited company - Bangladesh Telecommunication Company Limited on other orders.

The Bangladesh government initially owns all shares of BTCL, but it will sell the shares to the public next year. The value of BTCL is estimated to be 15,000 crore Tk. BTCL has a total of 12,636 officers and employees.

**1.2 Services Provided by BTCL**

According to BTRC, there are 28 licenses for telecom services among which BTCL acquired 11. BTCL provides two types of customer services,

* Telephone Service
* Internet Service

**1.2.1 Telephone Service**

* **Local call**: (Same or multi-exchange) (call rate: 10 paisa/minute)
* **NWD: Nation Wide Dialing**, (call rate: 10 paisa/minute)
* **ISD: International Subscribers’ Dialing** (From an ISD phone, dial 00, then country code and number)
* **ISDN: Integrated Services Digital Network**. BTCL provides Value Added Services (VAS) like Call barring, Abbreviated dialing, Call Conference, telephony, get up call (Alarm), Subscriber  
  absence message facilities, Call establish facilities to busy subscriber, Hotline facilities, Call  
  Forwarding, Temporary disconnection for the asking, DND message etc.

**1.2.2 Internet Service**

* **Bcube:** It uses ADSL2+ technology. ADSL2+ Modem with single/ multiple LAN  
  ports and/or wifi router is available in market and can also be purchased from outsourcing partners.Price may vary from Tk. 2000 to 8000.
* **Band Connection/Leased Line connection:** BTCL operates copper, optical fiber, and microwave networks throughout the country. In the year 2000, BTCL also offered Digital Data Network (DDN) service to provide point-to-point domestic data connection and International Private Leased Circuit (IPLC) termination within Bangladesh. DDN nodes provide data circuits ranging from 64Kbps to 2Mbps. The subscriber is linked through telephone cable (copper local loop DSL). The optical and microwave networks serve as the exchange's transmission backbone. DDN service is provided in 41 district headquarters through 71 nodes. More than 1000 high-speed point-to-point leased line internet and business connectivity connections are now available, with 60% of them in operation.
* **Click2Net:** Available around the country. There is no need to apply, only a dial-up modem is required. The charge is Tk.0.15/min (multi metering) and is included in the monthly phone bill. There is no registration, no connection fee, and no E-mail account required. 0101234,

User ID: btcl, Password: btcl.

* **GPON:** The Bangladesh Telecommunication Company Limited (BTCL) has launched prepaid services for telephone and a **high-speed Gigabit Passive Optical Network** (GPON) connection which is becoming famous among the consumers these days.

**1.2.3 Miscellaneous Services**

* **Web Service**

1. .bd registration

2. Web hosting

3. DNS parking

* **Gateway Service**  
   1. International Gateway (IGW)  
   2. Interconnection eXchange (ICX)  
   3. International Internet Gateway (IIG)

**1.3 Problem Identification**

**1.3.1 Managerial problems:**

* Existing HR department not capable to complete tasks properly
* Existing HR personnel cannot compete with other companies

**1.3.2 User’s Problem:**

User satisfaction should be the one of the prime goals of an organization. But BTCL can ot fulfill the user needs properly which is a great bummer to their advance. The basic problems gathered from the users are as follows,

**1.3.2 (a)**

**Telephone based issues:**

* Cable-based landline system is redundant and troublesome
* High rate of call drops
* Total dependency on physical underground copper wire system
* Digital Data Network problem.

**1.3.2 (b)**

**Internet based issues:**

* Power failure of ADSL and LLI machines
* Too much fluctuation in ADSL speed and latency
* Not enough support stuffs are available when asked

**1.4 Conclusion:**

In this chapter a general overview was given about the BTCL system, its services and services related problems. From the chapter we get a clear idea of how the system works and what major and minor issues are present which are needed to be looked upon. There is no system which is out of problems so there might be some of them which are being recorded in this chapter. Although all the problems couldn’t be identified, the major problems were sorted out thoroughly.

**Initial Feasibility Study**

**2.1 Introduction**

A feasibility study evaluates a system proposal based on its ability to work, impact on the organization, ability to meet user needs, and effective use of resources. The study's goal is not to solve the problem, but to gain an understanding of its scope. The problem definition is crystallized during the study, and the aspects of the problem to be included in the system are determined. As a result, costs and benefits are estimated with greater precision at this stage. The feasibility study yields a formal proposal.

**2.1 Mission and Vision of BTCL**

**2.1.1 Mission of BTCL**

The vision of BTCL is to transform the company into a vibrant, dynamic organization that will lead the country's telecommunications sector by establishing a sound and cost-effective telecommunications infrastructure.

**2.1.2 Vision of BTCL**

BTCL strives to provide telecom services to the nation using cutting-edge technology at an affordable price without sacrificing quality. The following steps are being taken to provide customers with enhanced values:

* Improvement in customer service
* Develop proper infrastructure to meet the demand of telephone connection
* Develop and maintain institutional efficiency
* Adapt to modern marketing principles and practices
* Employ modern planning in networking
* Proper revenue management

**2.2 Objectives of BTCL**

* To interact in the telecommunications business by acquiring, operating, managing, improving, installing, selling, and reselling both local and long-distance communication services.
* To carry out programs relating to the development and operation of other services, such as data network delivery and other newly invented telephone services
* To provide subscribers with convenient access to a reliable domestic and international telecommunications network.
* To carry out the activities outlined in the Memorandum of Association, for example.

**2.3 Feasibility study of the findings**

**2.3.1 Feasibility study of Managerial Problems**

**Statement of the problem :** Existing HR department not capable to complete tasks properly

**Summary of findings :** The problem is worth solving.

**Details of findings :**

The available HR personnel are not capable of taking the work-load of the huge consumer count. That is why in many cases it is seen that if some are working on an issue in a certain area, there might be a chance of a consumer staying in halt to get their support. In simple words, parallel support can not be assured because of this problem.

**Recommendations and conclusions:**

To properly divide the HR department and recruit as per need of each department so that parallel support can be assured throughout the coverage area.

**Statement of the problem :** Existing HR personnel cannot compete with other companies

**Summary of findings :** The problem is worth solving.

**Details of findings :**

As per modern civilization, and each day new ideas are getting introduced to the industry, personnels are needed to be trained up to cope with the modern problems. Such as the current personnel can not compete with the other similar companies’ marketing strategy which is opposed to reaching the organizational goal.

**Recommendations and conclusions:**

To properly train up the HR and marketing department to cope with newly introduced marketing and managerial policies so that the company can compete with the updated eco system of management.

**2.3.2 Feasibility study of User’s Problems**

**Statement of the problem :** Telephone based issues

**Summary of findings :** The problems are worth solving.

**Details of findings :**

* These days, wireless networks are relatively common and simple to utilize. Physical wire networks and connections are extremely mistake prone. Any physical issue requires a lot of effort and time to resolve, but wireless network connection issues are considerably simpler. The majority of people favor using wireless networks. But the BTCL network is built on actual wire. As a result, the present BTCL system may deploy the 4G wireless network.
* The issue of call drop is a serious one in modern times. Call drop is an annoying phrase used in phone services. There is a high likelihood that a call could be dropped due to a physical wire issue because the connection process is entirely dependent on physical wire. Users always desire a constant flow of call time. As a result, the network should be designed as robust as feasible.
* As copper wire is slow in data transmission and is expensive to use and maintain, this method of connection is outdated as compared to the modern world. Besides because of underground copper wires, signal transmission issues are pretty common.
* Most customers nationwide want this service. However, DDN service is not offered nationwide. The implementation of this service by BTCL has already begun in accordance with its objective and vision.

**Recommendations and conclusions:**

* 4G wireless technology is difficult to maintain and extremely expensive to install. Therefore, knowledge and personnel with technical experience are required.
* Even though building a strong network is expensive in terms of time and money-consuming, it supports BTCL's goal and vision. Additionally, BTCL is working to build the network day by day.
* It is preferable to switch to a contemporary method to address the copper wire-related difficulty. Changing to an optical fiber-based system is a good solution to deal with the problem. BTCL has already begun converting to the GPON technology, which is based on optical fiber.
* Both the company and the user can benefit financially from DDN service.

**Statement of the problem :** Internet based issues

**Summary of findings :** The problems are worth solving.

**Details of findings :**

* All internet users prefer uninterrupted usage of the system. However, consistent internet use is impeded by power outages. There aren't enough resources available to offer constant internet service. Electricity is a necessary component of the entire internet infrastructure. Continuous internet service is hampered by electrical power issues.
* Internet users need to consistently experience high speeds. It is quite annoying when speed and latency fluctuate. Internet speed cannot remain constant when ADSL is fluctuating. The user's day-to-day operations are hampered. This issue may arise as a result of physical cable issues or power outages.
* Customers desire services that are less disruptive. The entire system needs to be adequately maintained to deliver interruption-free service. Users also demand services and information that are always up to date. However, the system is not effectively maintained. Users consequently receive subpar service. Users almost usually favor systems that are upgraded and maintained.

**Recommendations and conclusions:**

* The issue can be resolved by offering a backup power supply.
* Network fluctuations may happen as a result of a weak network. Therefore, this issue can be resolved by deploying optical fiber and strengthening networks.
* Costly maintenance and system upgrades need the hiring of additional specialized engineers. Therefore, the issue can be resolved by upgrading the system maintenance department.

**2.4 Conclusion**

We looked for potential answers to the difficulties outlined in this chapter. We made an effort to offer solutions in accordance with the system's available resources. In order to better understand the system that is the subject of our project, a better feasibility study has been attempted. The apparent user needs, the available resources, and the potential effects of the candidate system on the companion system are all being closely watched. Even while analysis is for figuring out what has to be done to fix the BTCL phone and internet problems, these issues can be resolved by BTCL authorities taking the right actions as soon as possible. Additionally, the system is monitored, the issues are tried to be identified and assessed, but no solutions or recommendations are supplied because further investigation is required.