Letter of Transmittal

August 27, 2014

Dr. Sazzad Hossain

Professor and Head of the Department

Dept. of Computer Science and Engineering

University of Liberal Arts Bangladesh

**Subject: Submission of Internship Report**

Dear Sir,

This is my pleasure to submit m internship report on “A Study of High Speed Mobile Communication in Teletalk Bangladesh Ltd.”It is a great opportunity for me to acquire knowledge from System Operations, Teletalk Bangladesh Ltd.

I have concentrated my best efforts to achieve the objectives of the study and hope that my endeavor will serve the purpose. I will be highly grateful and oblige if you kindly accept my work and evaluate it with you sagacious judgment. Thank You.

Sincerely Yours,

Refat Muhammad Fahad Zaman

ID # 103014034

Dept. of Computer Science and Engineering

Approval

It is certified that Refat Muhammad Fahad Zaman, student of Department of Computer Science and Engineering, University of Liberal Arts Bangladesh, have submitted the project titled **“A Study of High Speed Mobile Communication in Teletalk Bangladesh Ltd.”** towards partial completion of the requirements for the award of the degree of Bachelor of Science in Computer Science and Engineering.

He have approached a report that states high speed mobile communication in our country from Teletalk Bangladesh Ltd, where we are moving towards Third Generation (3G) telecommunication networks support servicesfrom GSM in a user friendly way. His work is found to be excellent and their enthusiasm, attitude and aptitude towards project are appreciated. We wish them success in all their endeavors.

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| **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**(Supervisor)**Mr. Sajib Roy**LecturerDept. of Electrical and Telecommunication EngineeringUniversity of Liberal Arts Bangladesh | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**(Chairman)**Dr.** **Sazzad Hossain**Professor and Head of the DepartmentDept. of Computer Science and EngineeringUniversity of Liberal Arts Bangladesh  |

Declaration

I have done my undergraduate Internship on “**A Study of High Speed Mobile Communication in Teletalk Bangladesh Ltd.**” I think the practical approach of this project has great potential and flourishing future in the field of High Speed Mobile Communication. Despite of the time constraints and other problems, I have tried my best to make the project as logical as we could.

I have not submitted the matter embodied in this dissertation for the award of any other degree. None of the element, partly or fully, of this has been submitted elsewhere for the award of any Degree or Diploma. Any material reproduced in this paper has been properly acknowledged.

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First of all, I acknowledge the praise to the Almighty, the most beneficent, most merciful. I would like to express our gratitude to all those who gave us the possibility to complete this project. I deeply indebted to my intern supervisor **Mr. Sajib Roy** for his essential guidance, precious advice and endless support during the growth of this thesis work. Moreover, I would also like to show my gratitude to him for encouraging me to defend our final project by approving this work. I would also like to thank my department chairman, **Dr. Sazzad Hossain**, for his support.

I would always remain grateful to **Mr. Sarifuzzaman**, Manager, System Operations of Teletalk Bangladesh Ltd. (TBL) for allowing me to do this internship under his instruction. He has given me opportunities to learn about precious technology of GSM, 3G network and services. He was always there with all the documents, tutorials and information that I needed to provide into this report. I am also grateful to other employees of Teletalk Bangladesh Ltd, who helped me during my intern period.

I want to thank my parents, family members and friends for their gallant concerns and their inestimable support during these years of my study. Finally, I want to thank the Department of Computer Science and Engineering of my prestigious University of Liberal Arts Bangladesh, for giving me such an opportunity to carry on my research work.

Abstract

To account for their ever growing massive subscriber base, the telephone operator in Bangladesh, Teletalk Bangladesh Ltd. (TBL) has signed their contract with Huawei Technologies to be their sole vendor for their base station (BTS) modules and equipments. This means that there would be a mass nationwide network change and modernization to 3G network and this is one of their biggest projects to date. In this internship report I have included the general details and description of how Teletalk is managing and implementing such a transformation operation. I have mainly focused on GSM network operations such as base transceiver site BTS PAT and have provided detailed briefs of the BTS modules and devices, how they are installed in the sites and how they are commissioned after installation. The report is finally concluded by discussing the benefits of the nationwide PAT project and analyzing the financial revenues incurred last year and present year due to their ongoing network modernization.

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About Teletalk Bangladesh Ltd. (TBL)

Teletalk Bangladesh Limited is a public limited company, registered under the Registrar of the Joint stock companies of Bangladesh. Total shares owned by the Government of the Peoples Republic of Bangladesh.

They continue to grow and engage our customers through our clear commitment to offering high quality products and services as well as leading customer retention and loyalty programmers. Teletalk continues to be a part of the revolution that’s connecting millions of Bangladeshi people and around the world.

Teletalk Bangladesh limited was established keeping a specific role in mind. Teletalk has forged ahead and strengthened its path over the years and achieved some feats truly to be proud of, as the only Bangladeshi mobile operator and the only operator with 100% native technical and engineering human resource base, Teletalk thrives to become the true people’s phone – “Amader Phone”.

Basic objectives for which the Company was formed are highlighted here under:

* To provide mobile telephone service to the people from the public sector
* To ensure fair competition between public and private sectors and thereby to safeguard public interest
* To meet a portion of unmitigated high demand of mobile telephone
* To create a new source of revenue for the government.

Teletalk Bangladesh Ltd started its commercial operation on 31 March 2005 with skyscraping expectation. One long year has passed since Teletalk started its commercial operation. Considering the time of operation of other existing operators in this field, this period might seem to be small, but considering the first year of operation of an operator it’s pretty significant a time. Probably it’s the right times to asset the achievements it has made – compare them with what it could have achieved and also to scrutinize the opportunities and threats which are looming over.

The most remarkable success of Teletalk is the slump in Tariff Structure. As soon as Teletalk announced its tariff the long-lasting oligopoly between other private mobile operators were shattered. Healthy competition came into the mobile I market causing almost 50%, if not more, reduction in price both in terms of SIM price and usage rate. The slump in price made mobile phone affordable even for the low-income group of people. Using a mobile phone soon became a necessity; it’s no more a luxury.