

In the name of Allah Most Gracious Most Merciful

Verily We have granted thee a manifest Victory: That Allah may forgive thee thy faults of the past and those to follow; fulfill His favor to thee; and guide thee on the Straight Way; And that Allah may help thee with powerful help. It is He who sent down Tranquility into the hearts of the Believers that they may Add Faith to their Faith; for to Allah belong the Forces of the heavens and the earth; and Allah is full of Knowledge and Wisdom;



(AL - QURAN 48:1-4)

“My Lord “ Have mercy on them (Parents) both as they did care for me when I was little.

(AL – QURAN xvii : 24)

Dedicated to:

“ My Loving Parents”

Whose care cherished my life and their blessings always led me the right path and
success.

I owe to them all what I have.

And

“My Respected Teachers”

Who were perpetual source of inspiration for me.

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It is a universal truth that the intensity of love, affection and warmth of one's inner feelings cannot be measured by verbal means. Real regards and fondness for some personality can only be visualized and perceived. But in this civilized age the only media to communicate one's inner feelings to other fellows are the words. Therefore I have tried to clad my inner feelings into following words.

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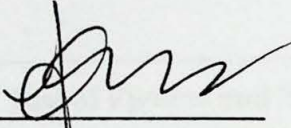
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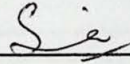
The account of acknowledgement will remain incomplete if I do not express my sincere appreciation indebtedness and gratitude to my wonderful parents whose deep love and utmost care cherished my life. Their prayers and concern have always been a source of inspiration and encouragement to me throughout my academic career.

Certificate

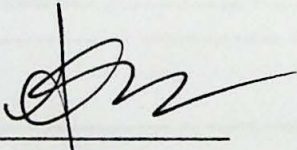
We accept the work contained in this report as a confirming to the required standard for the partial fulfillment of the degree of MCS in the subject of Communication and Networks.



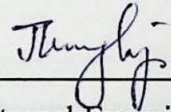
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Abstract

The applications, which are based on network, have become critical for any business. The downtime of a network becomes even more costly. The network slow-down, loss of bandwidth, network congestion and packet loss can easily translate into hundreds of thousands of rupees in lost revenue and productivity. To make sure round-the-clock availability of network for users, network administrators need proven solutions that detect and resolve bottlenecks before they become problems.

This project is to make a program that puts the Ethernet hardware (NIC) into promiscuous mode (receive all frames mode). Putting a NIC in this mode is useless unless there is software to receive a copy of all the frames on the network and process them to get the required statistics for the network administrators, which would help them improve the performance of existing network or design a new network for optimum performance.

The software called "Net Monitor" was developed to put the NIC in the promiscuous mode. The frames received are decoded and processed in order to get useful information and statistics. The contents of network traffic are displayed so that the network administrator can figure out what is going on and take appropriate measures accordingly. This information will also determine operational efficiency of the network and the performance can thus be optimized through better design.