

# UNBOUND CONNECTIVITY IN THE REGIONAL TOWERS WITH THE EFFICIENT NETWORK SIGNALS

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## ABSTRACT

*In the advance development of mobile network technology, the number of mobile operators and their customers has increased in a high ratio. This leads to huge network traffic. Because of this reason, providing proper network signal strength for a specific mobile operator plays a major key role. Lot of methods has been implemented by the mobile operators to boost their network. But still this problem is not completely addressed when it comes to mobile network signals strength. In this paper, a new idea for the mobile network is proposed. If this new idea is implemented by any mobile operator, the customer of that operator can be assured with efficient signal strength. With this idea, even the mobile operators are benefitted by the huge increase in their customers. Basic concept of this paper is to boost the signal strength of specific mobile operator in an efficient way and also to provide free talk time for the customers of that mobile operator surrounded in the same antenna.*

**Keywords:** Free connectivity region, Network boosting, Booster and cards, efficient network signal strength.

## 1. INTRODUCTION

In the past few years wireless communication has got a huge scope for its development .The number of mobile operators are rising ,but even now there is a problem with the transmission of efficient mobile network signals .Even in the area where the towers are built for transmission of network signals are also failed in providing the efficient network signal strength in some area and also its noticed that there is a huge increase of the mobile users .So its required to make some implementation to boost the mobile network signal strength and to avoid the network signals traffic. Actually when we deal with the boosting, the very common thing that is noticed is that the boosting causes the increase of radiations which is most dangerous to living beings health .So we have proposed a new idea which can boost the mobile network signal in such a way that, only the frequencies of the mobile signals will increase, whereas their will not be a huge increment in the emission of radiations. Even though if there is an increase in the radiations, it won't cause much disorder, as already India has adopted strict limit for radiation from base transceiver station to be very low, which is 1/10th of the international norms [1]. And it's clear from the 13 member's dot committee in 2014 that, till now there has been no major effect on human health from the limit of radiations that has been adopted in India [2].

Now a days it's noticed that some of the mobile network operator are advertising about open network, which is of providing a network of specific operator when the request level is above some threshold,

which may vary according to the network operators. But it's just like installing a new antenna to that area with the same frequency range. Previously, MTS had given an offer to its user, such that when the user activates this offer, he will be provided communication between MTS users for free of cost. But it had a limitation that MTS had used CDMA technology. From the survey, we will come to know that, there is still a scope towards providing communication between the users in the same tower for free of cost for lifetime, with no constraints as literature.

## 2. PROPOSAL



Fig 1. Network boosting device

The proposal in this paper is made for benefit of mobile network users and mobile network operators. The proposal is to provide an efficient mobile network signals and also to provide a free connectivity between the users when they are getting the signals from the same antenna. Firstly, any of the mobile operator can be chosen, and this proposal is collaborated with their network, so that it can boost their mobile network signals strength and also make an arrangement to provide free connectivity to the users connected through same antenna. For mobile network boosting, already there exist many implementations like, black haul boosting[3], multipath fairness increase of efficiency[4], Pico-cells boosting[5], for the boosting techniques boosters(devices) are used to increase the strength of the mobile signals. In the boosters (fig 1) there will be a slots to insert a boosting cards, so the idea is to develop the boosters to increase the number of slots. For example, it's like using an octal core devices in the place of quad core devices, which handles the performance more smoothly than the quad core. This devices will be placed at some particular distance from the tower, so that it receives the signals and boost it out. By this the mobile network signal strength will be increased more efficiently. And now when it comes to free connectivity, we are proposing an idea for the user that when a user uses the simcard of the newly collaborated network and calls the other user who is in the same region using the same simcard, then there will be no charges for them. Though some mobile operators allow this facility already, but it is only for maximum three to six months, that is just for marketing; which in our idea can be given permanently. The people in that region (where the newly collaborated network antenna is installed) will be internally connected with the tower signals provided the authentication number of the simcard are stored in the tower to provide free call charges among those stored, so that it can be easy to provide a free connectivity for all the user using the newly collaborated network simcards. The free connectivity is provided to attract the customers, so that the number of users will be increased to newly collaborated network operator.

## 3. PRACTICAL APPROACH

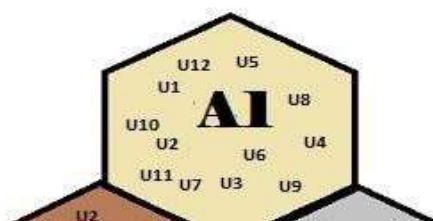


Fig 2. Practical approach

let us consider three areas A1,A2,A3 where the newly collaborated network tower is installed and U1,U2,U3,U4,.....be the users of that area(refer fig 2) using the simcards of the newly collaborated network .The boosters are installed in all the three areas to boost the network to make the signal strength more efficient. If any of the user of area A1 calls the other user in the same area, then the call cost will be null. When the users of area A1 calls the users of another area (A2/A3) call cost will depend on the collaborated mobile network operator. And it will be the similar process for other areas A2 and A3. By this the number of users will be increased for that mobile network.

#### 4. ALGORITHM

Here is a simple algorithm approach for the proposal that clearly pictures out the things to do. (Algorithm is with reference to figure 2)

- Step 1: Collaborating with any one of the mobile network operator.
- Step 2: Figure out the network coverage area.
- Step 3: Install the boosters within some particular distance circumference.
- Step 4: synchronize the simcard authentication number and store in that area towers.
- Step 5:

If (A1.U calls A1.U || A2.U calls A2.U || A3.U Calls A3.U)

Call cost =0;

Else

Call cost=charges of collaborated network;

#### 5. STATISTICAL ANALYSES

It's more important to think into the business statistics before implementing any idea. In the mobile network operator company's there is a term a called 'MOU' which means minutes of usage [6]. It is calculated daily in the companies to calculate the revenue. Now just imagine that our idea is implemented in one of the university where the strength is of 1000 mobile users. In that area if we provide the efficient network signals and free connectivity to the total area of the university, then we can expect minimum 800 mobile users will starting using our network. Consider one in an average talks for 30-40 minutes daily, then for 800 users it will be 24000-32000 minutes daily. And like this if we implement in all the

universities, IT companies, and industrial areas then that company will get huge profit. As the number of user's increases, the minutes of usage will increase, with this profit also increases.

## 6. CONCLUSION

In the current smartphones world, the mobile network operators are experiencing a very poor network signal strength, many had got irritated with these signals, and they started changing their simcards very often. Which has made difficult to maintain the contacts and to maintain the updated database for the requirements of online securities. So it's required to take an immediate measure to avoid all these limitations. After implementing the proposed idea, the mobile users can experience the efficient mobile network signals than before and the users will be internally connected with all the users of same network in their area. Even for the mobile network operator there will be increase in the number of customers, with this their revenue can be enhanced. So if any average company implements this idea there is all chances of getting into the top in the list of mobile network operator.

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