

INDUSTRIAL ANALYSIS REPORT

We will be a company which provides free internet facility in villages using mobile platform.

Current infrastructure of Internet: [where the world is headed]

Let us start with the procedure of how internet works right from the local computer. Home computers connect to the ISP using telephone cables or broadband Internet connections.

- The first step is to login into the ISP using the user information provided to you by your ISP. Here, you enter the username, password and telephone number of the ISP.
- Once the ISP receives your information in its modem pool, it verifies if you are an authentic user or not.
- Once the user authentication process is done, the ISP provides you with a dynamic IP address using the DHCP.
- If you have bought a static IP from your ISP, then this step is not required. However, buying a static IP will cost you a lot.
- Now, you are allowed to browse any web page through your web browser. When you type in the name of the URL on the address bar, you are actually requesting for the IP address of the server machine, that holds those web pages.
- The information is received at the modem pool. Once this information is received, the ISP connects the subscriber to the modem pool.
- The requested server machine is reached through an array of dedicated lines and routers.
- Once the ISP finds the required IP address, it transfers the requested web pages to the source IP address.

Trends in the world: Next billion people are going to use internet for the first time via mobile. It's super valuable if we can make Internet free on these devices. So we are going to define protocols for these phones to communicate among themselves as if there is Internet and there will be just one central computer to do all the data fetching from Internet.

Free internet using the mobile platform:

So the idea is to put one computer in a village and that alone is connected to Internet ISP now rest of the mobile phones connect to this and interchange data among themselves to avoid the need to connect elsewhere. Most of the needs I have in a village are served by people around me. So we make Internet free for every one using just one computer, now with this approach we are an ISP but only at village level.

Computer Science problem here:

How many mobile phones must be on to have a 100 percent connectivity in a network of N nodes is the computer science question here. And the thing we try to do is much more than just phone calls. In phone only a buffer for 2 seconds is stored in the company's server when I call you or msg you. It doesn't store information.

Why do we want to do this?

Say I want to call cobbler, potter, farmer, doctor, teacher, retailer, police and have conversations this is going to be immensely useful. They have means of communication currently but this is going to be so much better. Villages are small communities so I believe it is feasible to make such solutions. And this cannot be implemented successfully in cities because the needs are not known particularly.

Value addition is so much in villages as opposed to doing in cities because the needs in a village are specifically known.

And we will earn money only when the villagers earn money.

All this happens automatically irrespective of the village you are in for almost zero cost. There are a lot of details to be worked out here. As we can see there definitely scope to cut down cost significantly.

So we will be the company to write software on mobile phones, so that the people in villages don't have to use internet for their needs. It can work in cities too but it's hard because in cities we won't know the needs exactly. And here even if they people have to use internet it's much lesser usage because you have already cached the information in local server based on the patterns of their usage and needs and all the needed information we store it on local servers.