

# E-GOVERNANCE IN RURAL INDIA: NEED OF ICT

Mr. Shubham chauhan<sup>1</sup>, Mr. Priyank Singhal<sup>2</sup>

<sup>1</sup>Student, College of Computing Sciences And Information Technology, Teerthanker Mahaveer University, Moradabad

<sup>2</sup>Associate Professor, College of Computing Sciences And Information Technology, Teerthanker Mahaveer University, Moradabad

[sshubhamchauhan1@gmail.com](mailto:sshubhamchauhan1@gmail.com)

[priyank.computers@tmu.ac.in](mailto:priyank.computers@tmu.ac.in)

**Abstract**—In the rural areas in India, the internet connectivity is necessary to development. To develop these areas the people must be active over using information and communication techniques. The ICT like e-mail, audio video chat can be useful to development the villages, and are used to communication. These technologies change the rural people to the virtually urban people. The purpose of ICT is to collect the information from the different sources and provide a better interaction among the people. This paper reviews the requirement of ICT in villages. ICT can changes the people of villages in to a main frame of digital technology, as information communication technologies provide the wireless interaction between the government and business, governance to consumer, government to government agencies.

**Keywords**— Wireless network, Wi-MAX, ICT, E-Governance.

## I. INTRODUCTION

The information and communication techniques (ICT) are being increasing used by the government services to citizens. There is an important thing in business society and village areas that is connectivity. There is rapid growth of development information communication technologies in India. There are near about more than 80,000 internet cafes which are provides continuous internet access by using ICT like Electronic mail, audio, video communication, etc. But in village areas there are few people which are uses the internet over the broadband due to lace of cost. ICT also Provides the communication over the wireless network. One person can contact to other without still moving.

Mostly village India is large in development, education, health, entertainment services and the general living standard due to lack of Government support in creating ICT and Wireless infra-structure

to reach village masses. India is a land of geographically. Village areas in India has low literacy of using internet. The people in villages are have very poor literacy of internet user. India is a nation of villages. The village mass in the nation comprises the core of Indian society and also represents the real India. According to the Census Data 2001, there are 638,387 villages in India that represent more than 72 per cent of the total population. So development of these villages mass is one of the key areas of consideration in the government policy formulation. Village development which is concerned with economic growth and social justice, improvement in the living standard of the village people by providing adequate and quality social services and minimum basic needs becomes essential. The present strategy of village development mainly focuses on poverty alleviation, better livelihood opportunities, provision of basic amenities and infrastructure facilities through innovative programs of wage and self-employment etc.

The government of India has started many programs aimed at improving the standard of living in villages or village areas. To build village infrastructure, the government launched a time-

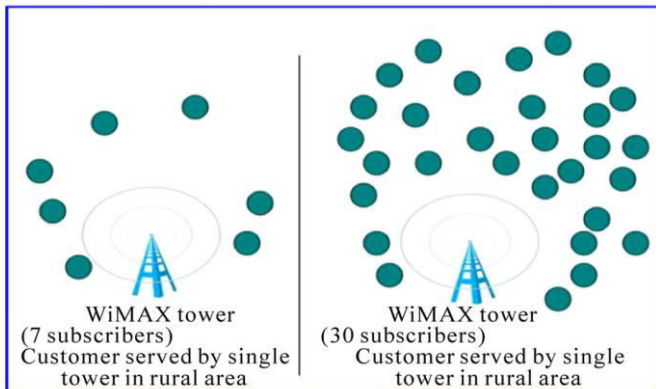


Fig: 4.1 wireless in rural and urban areas.

bound business plan for action called Bharat Nirman (External website that opens in a new window) in 2005. Under Bharat Nirman, action is proposed in the areas of Water Supply, Housing, Telecommunication and Information Technology, Roads, Electrification and Irrigation.

## II. NEED OF WIRELESS NETWORKS IN VILLAGE AREAS

The wireless connectivity has many advantages. Despite these advantages many village areas have not wireless connectivity. The village areas have homes which are sparse to each other. These homes are hinder to companies to development the wireless connections. A wireless network is a computer network that uses wireless data connections between network nodes. Wireless networking is a method by which homes, telecommunications networks and business installations avoid the costly process of introducing cables into a building, or as a connection between various equipment locations. Villages have low number of Wi-max towers. The more and more towers should be held in the villages due to this the internet connectivity will be strong. The rural people can be use the internet with continuous and with high speed and without loss of the network.



Fig: 4.2 Wi-max Tower.

## III. NEED OF E-GOVERNANCE APPLICATIONS

In Villages area has very low number of Wi-max connectivity. Mostly time the network is busy. In past people are have to use the paper work to send the message but now a days we can use E-mail to send the message. In village of India in when ICT was not develop then people would have to face many problems like, to make many type of certificates like birth certificate, death certificate, domicile, or others people was goes to city. Because these facilities was not provides in the villages, but now people can apply these type of services in villages by using information and communication techniques and some Governments applications

E-Governance is the technique of information and communication techniques for release government services to business, citizens or exchange of information, communication transactions, integration of various stand-alone systems and services between government-to-customer (g2c), government-to-business (g2b)

.E-governance applications are must necessary to development the village areas. The internet users can queries to government about any subject by using E-governance apps. E-Governance applications have an crucial role in rural development in India. The ratio of the villages is greater than urban areas in India. So it is need to develop to rural India. E-governance applications very important type of ICT to develop the villages.

#### IV. NEED OF WIMAX IN VILLAGE AREAS

Wi-MAX is one of the hottest broadband wireless technologies around today. Wi-MAX systems are expected to deliver broadband access services to residential and enterprise customers in an economical way. In village India's areas has an important role. In villages many internet users are with the wireless but people are not use internet over the broadband due to high cost. Wi-Max developed to provide wireless broadband access to buildings, either in competition to existing wired networks or alone in currently unreserved village or thinly populated areas. It can also be used to connect WLAN hotspots to the Internet. Wi-MAX is also intended to provide broadband connectivity to mobile devices. It would not be as fast as in these fixed applications, but expectations are for about 15 Mbps capacity in a 3 km cell coverage area. With Wi-MAX, users could really cut free from today's Internet access arrangements and be able to go online at broadband speeds, almost wherever they like from within a Metro Zone. Wi-MAX could potentially be deployed in a variety of spectrum bands: 2.3GHz, 2.5GHz, 3.5GHz, and 5.8GHz. Village areas has very low connectivity.

##### a) IEEE 802.16

The 802.16a standard for 2-11 GHz is a wireless metropolitan area network (MAN) technology that will provide broadband wireless connectivity to Fixed, Portable and Nomadic devices. It can be used to connect 802.11 hot spots to the Internet, provide campus connectivity, and provide a wireless alternative to cable and DSL for last mile broadband access.

#### V. STRENGTH OF WI-MAX IN VILLAGE AREA

A Wi-max is an ICT which release the higher-speed connectivity for the long distance areas. Wi-max is the most suitable to supply the broad band access to the villages. Wi-max is suitable for the solar light. It is more reliable than radio spectrum. The Wi-max uses the small part of the electricity. The main advantage of this is it can be run low battery and more reliable, solar power is enough for it. Wi-max

can be extends the area near about fifty kilometres with the seventy megabytes per seconds.

The Wi-max is the wired infrastructure of hosts with the central admin. Wi-max has the limitations that are it shares the band width among the users. At this stage the bit rate will slow and the speed will decrease due to long distance. Wi-max extends up to fifty kilometres from a single base station with speed seventy megabyte per second. It is independent on wired infrastructure of Wi-max. You can setup the big number of Wi-max towers in the matter of days. In compare to other modes of broadband connectivity Wi-max.

#### VI. THE BENEFITS OF ICT OVER WIRELESS

The wireless network is the collection of hosts. One host is connects to each other without central administrator. The wireless network is the complement of the information and communication techniques. If we want to use the network so we will have to use some types of information and communication technique like E-mail which stand for electronic mail, the electronic mail is use to send the text document, photo to the any host. Others are applications, audio or video chat etc. By using ICT over wireless networks people can communicate to each other, people can provide the education, Health, Agriculture. The information and communication techniques are serves the service to people without moving from one place to another place, in other words a person can use the services of ICT without changing mobility. Government allow to use their services over using ICT, which are very use full for the village development. There are some applications like m passport, digital India, my Gov, MEA India, BHIM, These applications are use to different purposes. These applications are provides the interaction to the government. These are the web based applications, which uses the internet.

#### VII. DEVELOPMENT OF VILLAGES

Villages have low literacy of net users than urban areas. Now the people in villages areas can be registered for the birth certificate, death certificate,

domicile etc. There is no need for going to the city for register these services. Government facilitates these services for development villages. There must be some government applications which connect the rural people to the government members like Gram head with each other. Due to this all the rural peoples can interact with the government members. We should involve the women decision making in all activities. Rural areas should be development for agriculture department. Agriculture needs some problem like the material of agriculture. There should be develop some facilities for agriculture areas which improve the agriculture.

The present power ministry is busy electrifying many more villages than one had expected. But we need to look at solar power for rural areas. It can transform villages in areas of irrigation and domestic needs. Irrigation should get priority which will sort out domestic needs. Need substantial funding. Villages live by farming and if irrigation works farming will boom. Basic health care is what Sri Lanka has managed to introduce in its villages. India has failed in providing health care and medical facilities. More than 60-70% of villagers are abjectly dependent on nearby cities for basic medication. Villages require at least 1-2 man clinics to start with, expanding to medium size hospitals. Potable water. Health and hygiene are inextricable India's overall illiteracy can be traced to its villages. Overcrowded schools in some villages (Arunachal Pradesh) low attendance in many village schools (Bihar, UP).. Some villages lack even primary schools. It's often difficult to get parents to send their children to schools. It's the mindset.. Roads. Accessibility to urban centers. Accessibility to other villages. Prime the village for online activities. *The Net will be their window to the world.*: The federal government decision to set up the Indian Post Payment Bank will have substantial impact on villages. It will become operational next year.

The department plans to set up 5,000 ATMs all over the country -- apart from third party insurance and other services by the bank. India Post Payment Bank is likely to also facilitate payments of central

and state governments as well as municipal dues and fees of educational institutions. A village with such a facility will radically change the way it does business and execute its projects. So there. What's needed and the immense problems they face. It needs commitment at the federal and state levels. Not from one man alone but it'll take one determined man to get things moving. In India there are villages within villages, there are villages that exist at a stone's throw from each other. Often one of the villages is a ghetto. People from there can't use even the basic facilities of the nearby village. They can't enter it. To get to someplace they have to take a detour of the village. Hindu temples, the focal point of social activity in a Hindu village, are barred to the residents of the ghetto village.

#### VIII. CONCLUSION

India is the country which has mostly village in states. These villages must be develop in the way of E-Governance. In the villages the people are not well educated compare than urban areas. But now a days many persons uses the internet over wireless and also using E-Governance applications. These applications provides the interaction of the village citizens to the government. To communicate or queries to he government agents governments provides some apps over using ICT. So the ICT are necessary in village areas. So, if we wants to use the government apps, we must be using internet services but there is less connectivity in the villages of India. So to develop the village areas the connectivity and use of ICT is necessary. This paper highlights the necessity of ICT in remote areas i.e. villages (our real homes).

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