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**A Conceptual Model for Interactive eHealth
Services through Worldwide Interoperability for
Microwave Access (Wimax)**

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Contents

- **Introduction**
- **Problem**
- **A Conceptual Model for Interactive E-Health Services**
- **Suggestions**
- **Summary**

Introduction

- **Recently, telecommunication network technologies and systems as well as the related services have been in a process of extremely rapid development .**
- **Worldwide Interoperability for Microwave Access (Wimax) is the International Telecommunication Union (ITU) recognized 3G technology**
- **With the launch of WiMax services in Pakistan, the subscribers to this service have become able to make video calls through special handsets while callers will be able to see live video/picture of each other in addition to voice conversation like videoconferencing.**

Cont:

- **As telecommunication networks change from wired networks to wireless networks.**
- **A variety of new services, which were impossible on legacy network, are being enabled by Wireless networks like WiMax**
- **It seems traditional telecommunications diffusion patterns are changing.**

Cont:

- **Data networks based on Wi Max have been widely accepted as a transport carrier for different traffic types including multimedia traffic such as voice, video, teleconference, and so on.**
- **Today's WiMax networks have become an important alternative to normal dialup internet services or fixed line broadband services availability networks in different cities of Pakistan.**

Cont:

- The users will also enjoy wireless broadband services and will be able to use Internet at much faster speed as compared to normal dialup internet services.

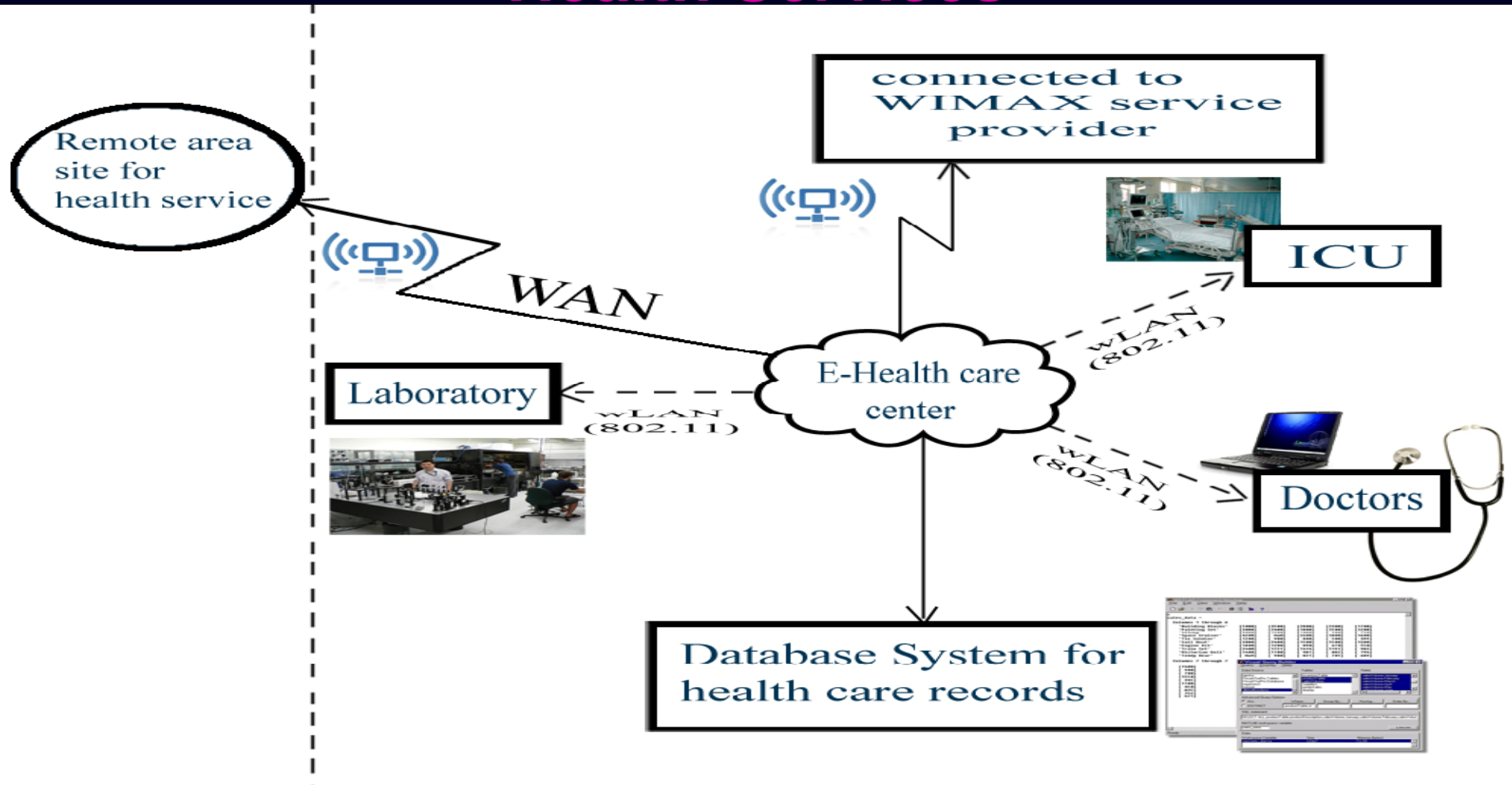
Problems

- In Pakistan the major communications are now to be connected through Wi Max.
- In Pakistan many telecommunication companies have launched their WiMax services such as M/s Wateen Telecom and Mytel
- In healthcare sector real time access of accurate patient data, including patient clinical histories, treatment protocols, and laboratory test results are being required.

Cont:

- **So why these services are not utilize by e-Health sector in Pakistan to get more benefits from new technology.**

A Conceptual Model for Interactive E-Health Services



A Conceptual Model for Interactive E-Health Services

- This model is mainly divided into two portion
 - ehealth Care Center
 - Remote area site for health services

A Conceptual Model for Interactive E-Health Services

ehealth Care Center

- Data base system used for to stored the real time health records
- Intensive Care Unit (ICU)
- Doctors which are connected to the ehealth care center through WiFi IEEE 802.11
- Laboratory is also connected to the ehealth care center through WiFi IEEE 802.11

A Conceptual Model for Interactive E-Health Services

Remote area site for health services

The remote area site can be connected to the Health Care center up to 30 miles (50 km) for fixed stations, and 3 - 10 miles (5 - 15 km) for mobile stations

Suggestions

- A review of the literature in the area of WiMax technology indicates that the impact of WiMax applications has not been widely studied and researched in healthcare sector.
- In this proposed model the authors suggest that a conceptual model for the implementation of WiMax technology in healthcare sector.

Cont:

- This model can be used for various purposes such as health care center can be connected to Doctors which are available within the hospital , laboratory activities can be monitored and simultaneously ICU is connected.
- All the real time records can be stored on data base server.
- Through this proposed WiMax based model will facilitate for the provision of e-health services in remote areas of Pakistan

Cont:

- This proposed model can play a very important role to provide the assistance to the healthcare providers located at the remote areas of Pakistan.

Summary

- Since Wi Max services can perform vital role to improve health services in Pakistan.
- In Pakistan most of the cities are connected through Wi Max facility.
- This technologies can support real time access of accurate patient data, including patient clinical histories, treatment protocols, and laboratory test results are being required

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Thank You