

Mobile Computing and Wireless Technology

1. What is Mobile Computing
2. Framework of Mobile Computing



Why Mobile Computing

- Freedom from geographical boundaries
 - Receive E-mail on road
 - Constant access to office's network
 - Real-time access to business software
- Reduce the Time Cycle of many Activities
- Reduced size, cost and power requirements of equipments



HOW TO DEFINE???

- **Mobile computing** is a generic term describing one's ability to use technology while moving, as opposed to portable computers, which are only practical for use while deployed in a stationary configuration.
- Many types of mobile computers have been introduced since the 1990s, including the:
 - Wearable computer
 - Personal digital assistant / Enterprise digital assistant
 - Smart phone
 - Carputer
 - UMPC
 - Pocket PC

DIFFERENT COMPUTING DEVICES

Steve Mann's "wearable computer" and "reality mediator" inventions of the 1970s have evolved into what looks like ordinary eyeglasses.





Limitations of mobile computing

- ❑ **Insufficient bandwidth**
- ❑ **Security standards**
- ❑ **Power consumption**
- ❑ **Transmission Interferences**
- ❑ **Potential Health Hazards**
- ❑ **Human Interface with devices**



QUALITY OF DATA

- Mobile computing enables immediate validation of the data
- It reduces the transcription error for survey like applications
- Using networking, information can be made available in near real-time
- Very fast turn around time from data collection to analysis and reporting. This can translate into significant cost saving.



Framework of Mobile Computing

Mobile Computing is expanding in four dimensions:

- Wireless delivery technology and switching methods (Radio, Cellular, Satellite, Wireless LAN)
- Mobile Information Access devices (laptop, notebook to Palmtops, PDA)



Framework of Mobile Computing

- Mobile Data Internetworking Standards and Equipment.
 - Weak connection, Dropout, Insufficient capacity
 - Digital Cellular Standards for Data Communications
- Mobile computing-based business applications (Mail-enabled and information service)



Examples of Mobile Computing

- Now you give Example of mobile computing.