

## M- Commerce

---

- ❑ M-commerce (mobile commerce) is the buying and selling of goods and services through wireless handheld devices such as cellular telephone and personal digital assistants (PDAs). Known as next-generation e-commerce, m-commerce enables users to access the Internet without needing to find a place to plug in.
  - ❑ The emerging technology behind m-commerce, which is based on the Wireless Application Protocol (WAP), has made far greater strides in Europe, where mobile devices equipped with Web-ready micro-browsers are much more common than in the United States.
-

## M- Commerce

---

- ❑ M-commerce can be seen as means of selling and purchasing of goods and services using mobile communication devices such as cellular phones, PDA s etc, which are able to connect to the Internet through wireless channels and interact with e-commerce systems
  - ❑ M-commerce can be referred to as an act of carrying-out transactions using a wireless device
  - ❑ It is understood as a data connection that results in the transfer of value in exchange for information, services or goods
-

## M- Commerce

---

- ❑ It can also be seen as a natural extension of e-commerce that allows users to interact with other users or businesses in a wireless mode, anytime/anywhere.
  - ❑ It can be perceived to be any electronic transaction or information interaction conducted using a mobile device and mobile network thereby guaranteeing customers virtual and physical mobility, which leads to the transfer of real or perceived value in exchange for personalized, location-based information, services, or goods.
  - ❑ M-commerce can also be seen and referred to as wireless commerce.
  - ❑ It is any transaction with a monetary value that is conducted via a mobile telecommunications network.
-

## M- Commerce

---

- ❑ M-commerce can also be seen and referred to as wireless commerce.
  - ❑ It is any transaction with a monetary value that is conducted via a mobile telecommunications network .
  - ❑ An ability to access an IT-System whilst moving from one place to the other using a mobile device and carry out transactions and transfer information wherever and whenever needed to.
-

## Mobile commerce from the Customer's point of view

---

- ❑ The customer wants to access information, goods and services any time and in any place on his mobile device.
  - ❑ It can use his mobile device to purchase tickets for events or public transport, pay for parking, download content and even order books and CDs.
  - ❑ It should be offered appropriate payment methods. They can range from secure mobile micropayment to service subscriptions.
-

## Mobile commerce from the Provider's point of view

---

- ❑ The future development of the mobile telecommunication sector is heading more and more towards value-added services. Analysts forecast that soon half of mobile operators revenue will be earned through mobile commerce.
  - ❑ Consequently operators as well as third party providers will focus on value-added-services. To enable mobile services, providers with expertise on different sectors will have to cooperate.
  - ❑ Innovative service scenarios will be needed that meet the customer's expectations and business models that satisfy all partners involved.
-

# M-Commerce Terminology

---

## ☐ Generations

- ☐ 1G: 1979-1992 wireless technology

- ☐ 2G: current wireless technology; mainly accommodates text

- ☐ 2.5G: interim technology accommodates graphics

- ☐ 3G: 3<sup>rd</sup> generation technology (2001-2005) supports rich media (video clips)

- ☐ 4G: will provide faster multimedia display (2006-2010)

---

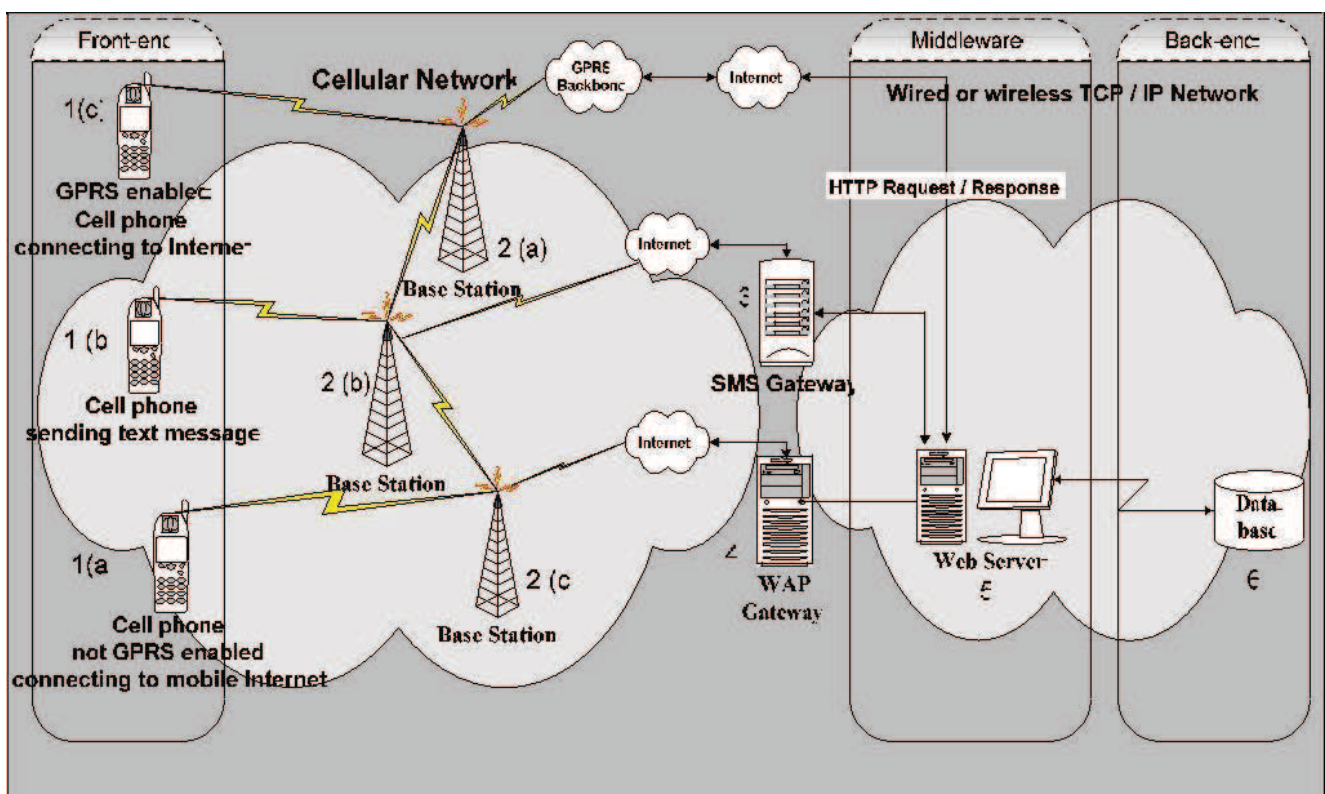
# Terminology and Standards

---

- ❑ GPS: Satellite-based Global Positioning System
  - ❑ PDA: Personal Digital Assistant—handheld wireless computer
  - ❑ SMS: Short Message Service
  - ❑ EMS: Enhanced Messaging Service
  - ❑ MMS: Multimedia Messaging Service
  - ❑ WAP: Wireless Application Protocol
  - ❑ Smart phones—Internet-enabled cell phones with attached applications
-



# M- Commerce Structure



## Pros of M- Commerce

---

- ❑ M-commerce is creating entirely new service opportunities - such as payment, banking, and ticketing transactions - using a wireless device .
  - ❑ M-commerce allows one-to-one communication between the business and the client and also business-to-business communication .
  - ❑ M-commerce is leading to expectations of revolutionary changes in business and markets.
  - ❑ M-commerce widens the Internet business because of the wide coverage by mobile networks.
-

## Cons of M- Commerce

---

- ❑ Cell phones have small screen displays and that might be irritating to someone who has the experience of the desktop environment.
  - ❑ Another issue that can be seen as a disadvantage to m-commerce is the limitation in bandwidth. The GSM technology has the data rate of 9.3 Kbps and the current 3-G technology offers a data rate goes up to 2 Mbps.
  - ❑ Mobile devices use batteries as their form of power supply . Normally, power for a cell phone battery lasts up to 2-3 days depending on how new the battery is. It then gives the owner the burden of having to remember to recharge it every now and then.
-

## Cons of M- Commerce

---

- ❑ Mobile devices do not have enough processing power and the developer has to be careful about loading an application that requires too much processing. Also, mobile devices do not have enough storage space. The developer has to be also concerned about the size of his application in the due process of development.
  - ❑ Mobile appliances are quite vulnerable to theft, loss and corruptibility. Security solutions for mobile appliances must, therefore, provide for security under these challenging scenarios.
-

# Mobile Payment System

---

- ❑ Mobile Payment can be offered as a stand-alone service.
  - ❑ Mobile Payment could also be an important enabling service for other m-commerce services (e.g. mobile ticketing, shopping, gambling...)
    - ❑ It could improve user acceptance by making the services more secure and user-friendly.
    - ❑ In many cases offering mobile payment methods is the only chance the service providers have to gain revenue from an m-commerce service.
-

## Mobile Payment System (cont.)

---

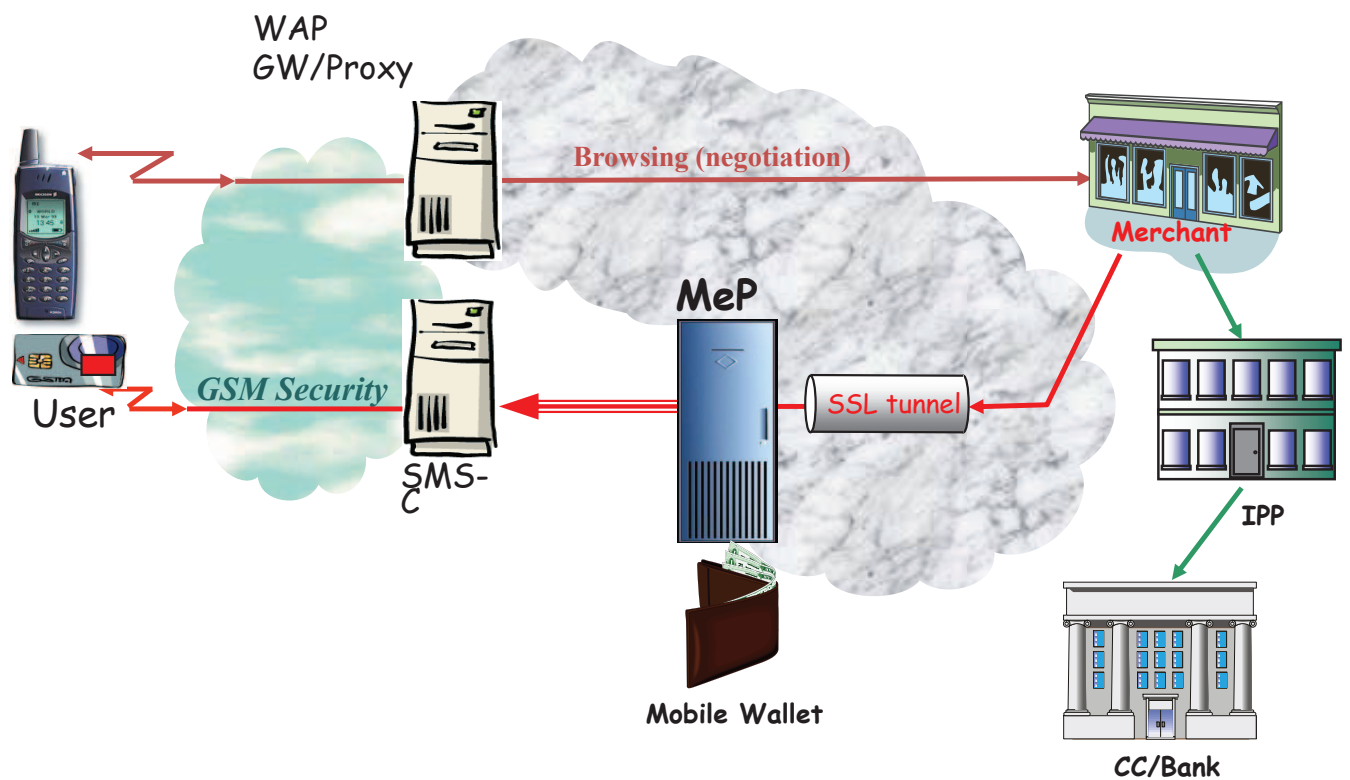
- ❑ the consumer must be informed of:
    - ❑ what is being bought, and
    - ❑ how much to pay
    - ❑ options to pay
  - ❑ the payment must be made
  - ❑ payments must be traceable.
-

# Mobile Payment System (cont.)

---

- ☐ Customer requirements:
    - ☐ a larger selection of merchants with whom they can trade
    - ☐ a more consistent payment interface when making the purchase with multiple payment schemes, like:
      - ☐ Credit Card payment
      - ☐ Bank Account/Debit Card Payment
  - ☐ Merchant benefits:
    - ☐ brands to offer a wider variety of payment
    - ☐ Easy-to-use payment interface development
  - ☐ Bank and financial institution benefits
    - ☐ to offer a consistent payment interface to consumer and merchants
-

# Payment via Internet Payment Provider





# Payment via integrated Payment Server

