

## Mobile Internet in Japan

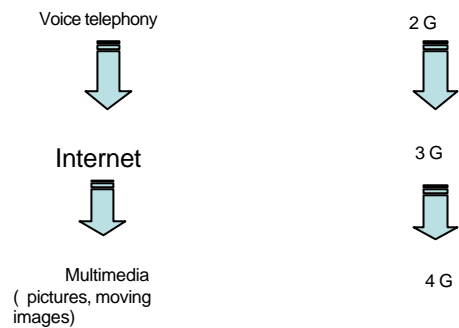
\* \* Mobile Internet & UMTS\* \*  
Global Forum 2003  
6<sup>th</sup> November 2003 in Rome

Shigehiko Naoe  
Chuo University

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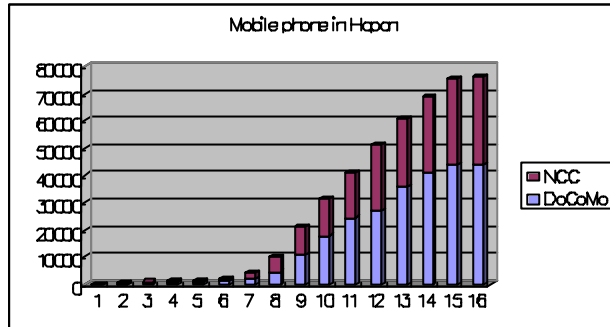
## Development of Mobile phone Service



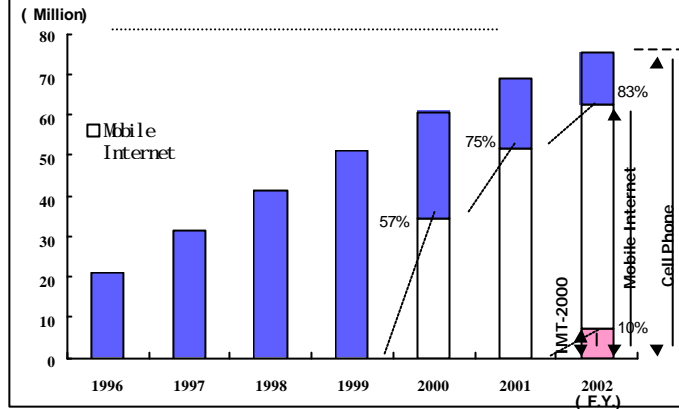
## Mobile Business in Japan

- Market
  - DoCoMo (PDC / W-CDMA)
  - AU(KDDI) (CdmaOne / CDMA2000)
  - J-Phone (Vodafone) (PDC / W-CDMA)
  - Tu-Ka (KDDI) (PDC)
- Penetration (September / 2003)
  - Mobile Phone (78,590 )
  - Mobile Phone Internet ( 66,280 )
  - 3G (11,289; au/10,203 Docomo/1,002)

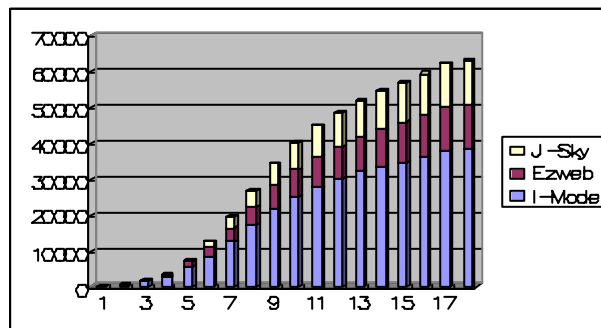
### Mobile Phone Market 1988/March~2003/March



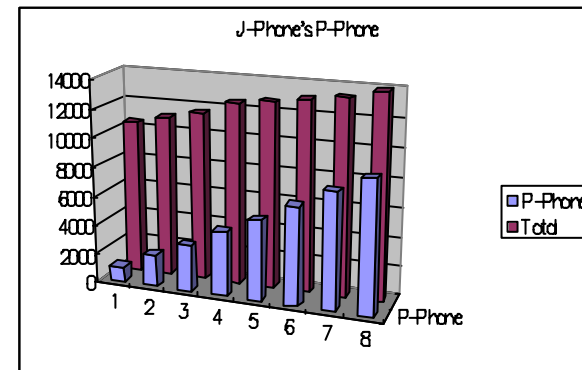
### Status of Mobile Phone in Japan

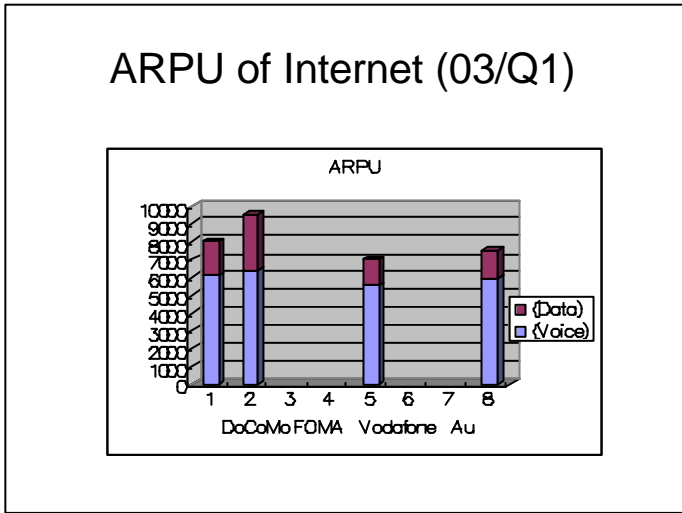
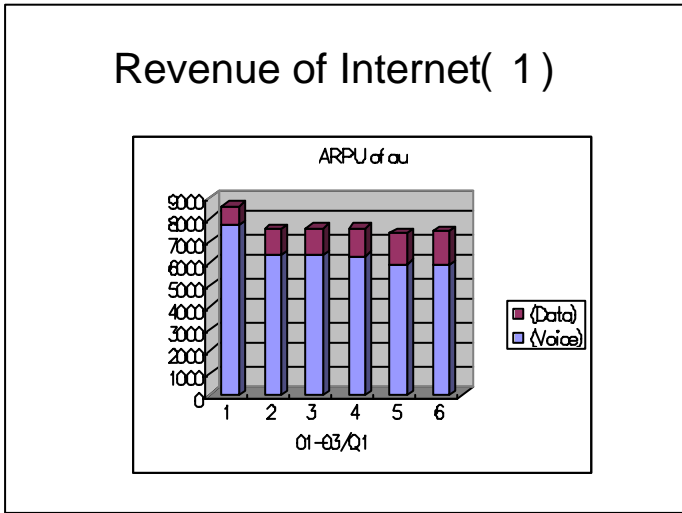
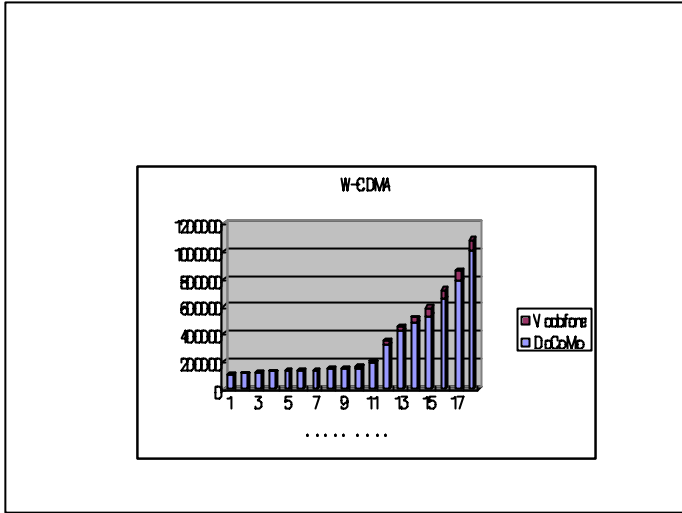
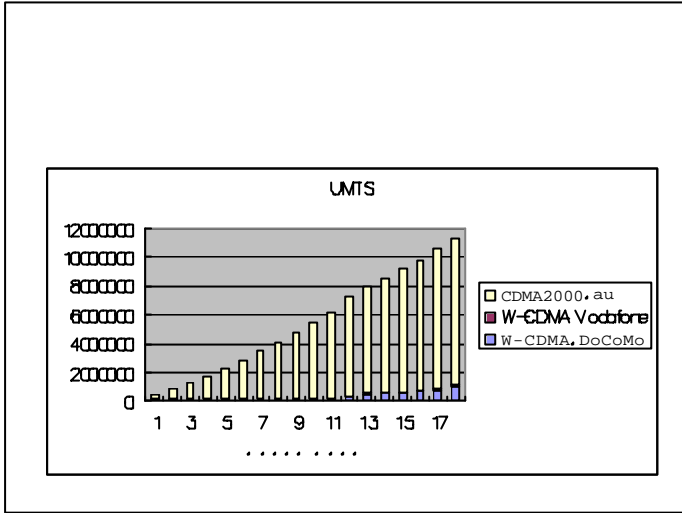


### IP Phone Development Quarterly 99/3~03/3



### J-Sky Phone with Camera 01/June~03/March





## Turning Points of Mobile Internet

- 1996 SMS Deployment
- 1999 i-Mode, EZweb, & J-Sky
- 2000 Phone with Camera by Vodafone
- 2001 Java based applications
- 2002 3G Deployment

## Development of Non-Voice Services

- SMS & Music download
  - SMS Take over SMS of Pager
  - Music download for Ringing tone
- Mobile Internet by Packet switching
  - i? Mode( DoCoMo)
  - J ? Sky(J- Phone; Vodafone)
  - EZWeb(au; KDDI& TuKa group)
- Color Display Applications
  - Photo & Movie Mail by built-in-camera
  - Game download

## Mobile Internet Application(1)

- Applications
  - Photo Mail applications
  - Movie Mail applications
  - GPS Location information applications
  - Video Distribution applications
  - Application download applications
    - i Appli (DoCoMo)
    - Ezplus (au KDDI)
    - Java service (Vodafone)

## Mobile Internet Application(2)

- B2B
  - Packaged Software (Sales support)
  - Custom Made (Re-mail/Scheduler)
- B2C
  - Download( Music/Animation/Game)
  - E-commerce (Books/Ticket/Auction)
  - Information service (News/Location/Shops)
- C2C
  - Picture & Movie Mail

## Mobile Internet Application(3)

- i-Mode Applications
  - Ticket shops
    - Railway seat reservation
    - Event seat reservation
  - Shopping
    - Convenient Store
    - Railway Ticket
  - Vending Machine Shopping
    - Coca Cola & Others

## 3G Mobile Internet Application

- Mobile internet
- Mobile Commerce
- Mobile Office SOHO
- Location Service
- Visual Phone
- Music & Image Transmission
- Car Multimedia

### Cost of Mobile Internet Services

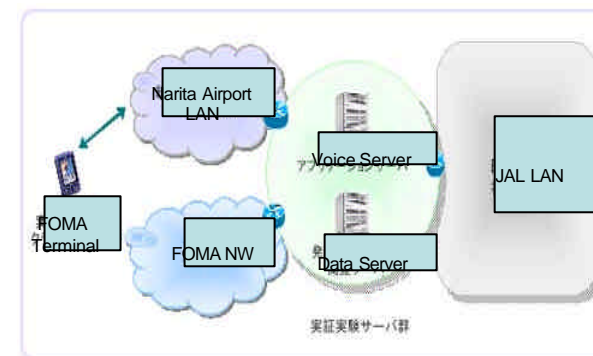
#### 2G Applications

- Net banking : Free-1 €/month
- Chaku-mero service: 1-2 €/month (Ring melody downloading service)
- Game downloading service : 1-3 €/month
- Sending pictures : Only data-transfer charges
- News delivery service : 1-2 €/month
- Train timetable searching service : Free-1 €/month
- Ticket booking/purchase service : Free-1 €/month

#### 3G Applications

- Video news delivery service : 1-3 €/month
- Videophone service : 1 €/3 minutes
- Mobile English lesson service : 32 €/unit (25 minutes)

## New DoCoMo i-Mode Application for Airport Information



## New FOMA Applications

- Mobile business solutions by FOMA
  - Re-Mail & Mail Abstraction
  - Data-base synchronization
  - Web Camera Gateway
  - Web Remote Watching
  - Mobile Scheduler with GPS location info'
- Application for Public Use
  - Video phone ?
  - Network Game?

## Question for 3G & FOMA

- Ambiguity of Mobile Internet Market
  - Future Revenue of Mobile Internet Services
  - Competition with WiFi (Public Wireless LAN)
  - Lack of Killer Business Applications
  - Int'l Roaming; Where & When in the World
- Web application
  - Download application (Java application)
  - Mobile E-commerce Business Model

## Conclusion

- Key of Mobile Internet development
  - Critical Mass & Bandwagon
  - Killer Application & Cost of service
  - Terminals; Mobile phone or Mobile PC
- Uncertainty on Future Market
  - Who will organize the Bandwagon?
  - Chicken & Egg
    - Critical Mass and Cost of Service?
    - Function of Mobile Phone & Applications?
    - Contents & literacy