NTT DoCoMo USA, Inc.
October 12, 2000

Growth of Mobile Phone in Japan
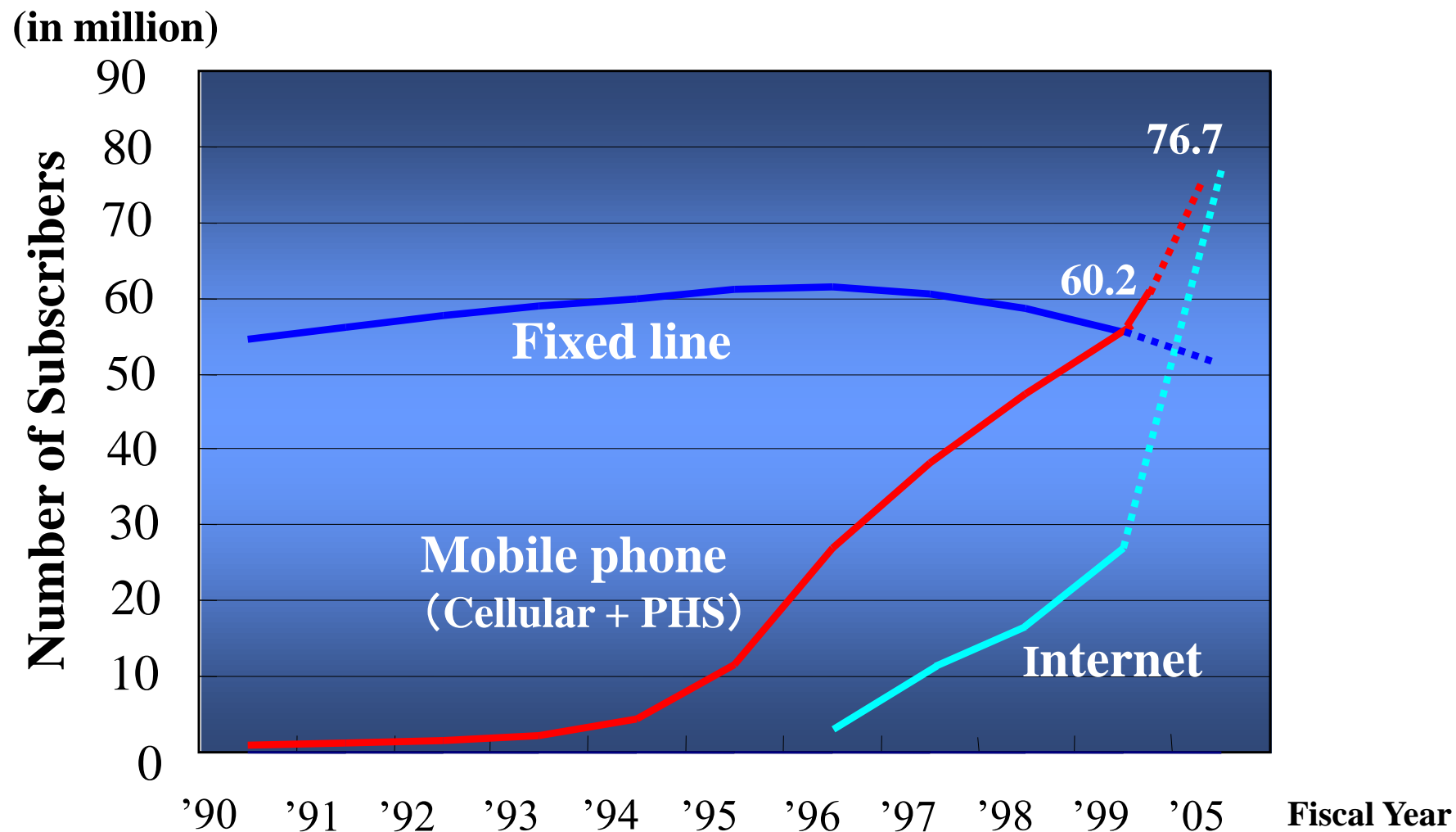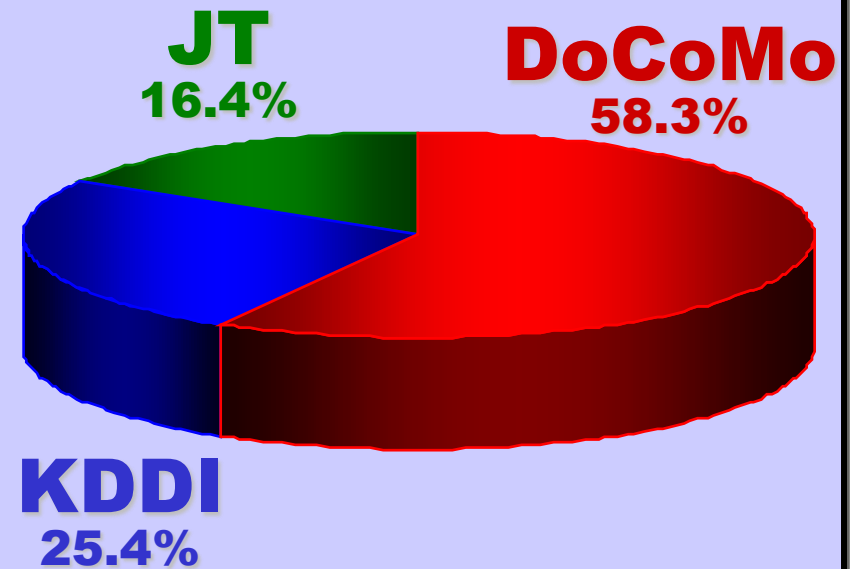
Penetration in Major Cellular Markets
As of March 2000

Finland, Norway, Denmark, Sweden, Italy, UK, Japan, France, Germany, USA

0   10   20   30   40   50   60   70   80

(%)

Global Mobile

3
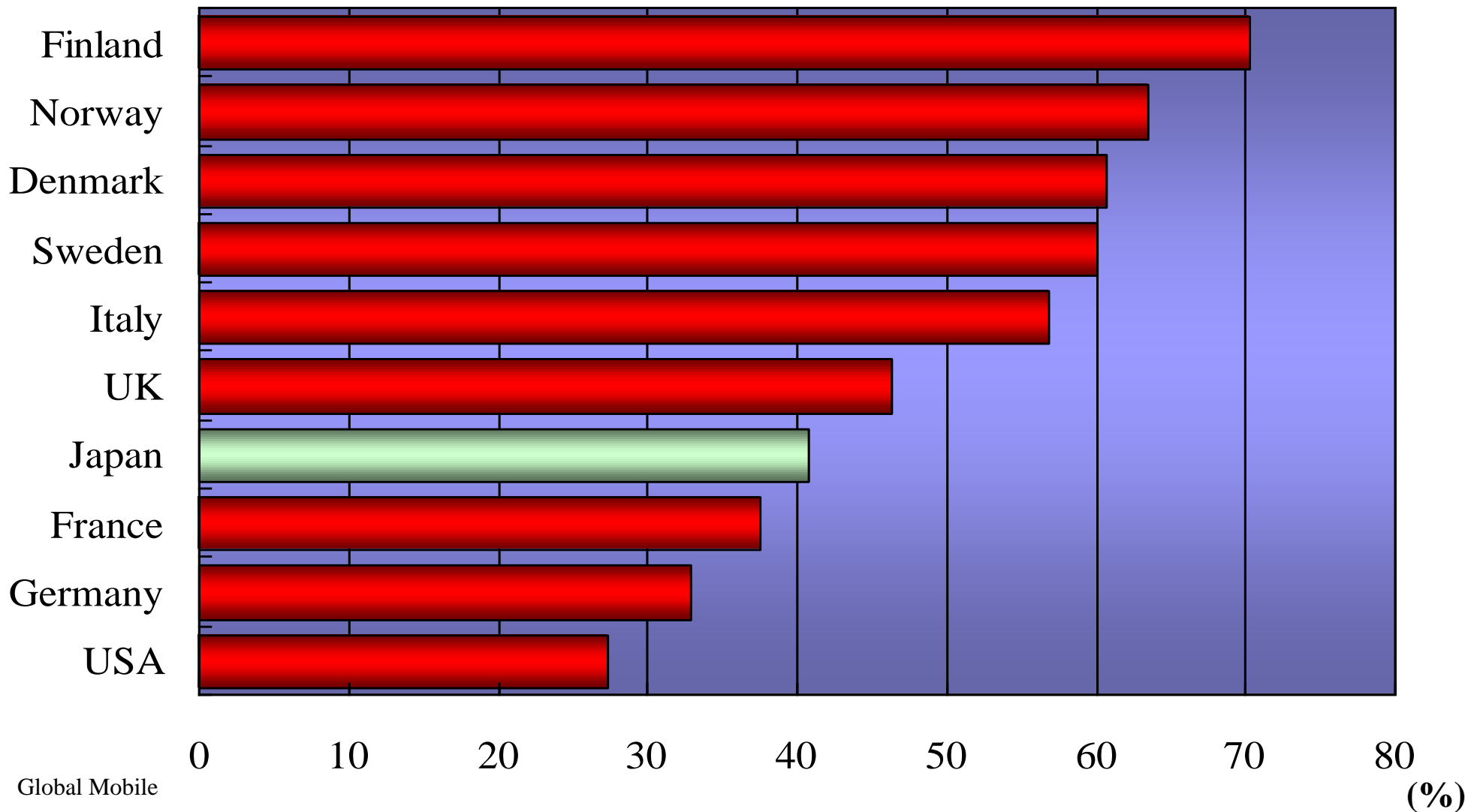
Voice to Non-voice Communications

Market size

Data

Challenging the Mobile Frontier

Voice

Convenience of mobile communications
-Anytime, anywhere, anyone-

1999

2010
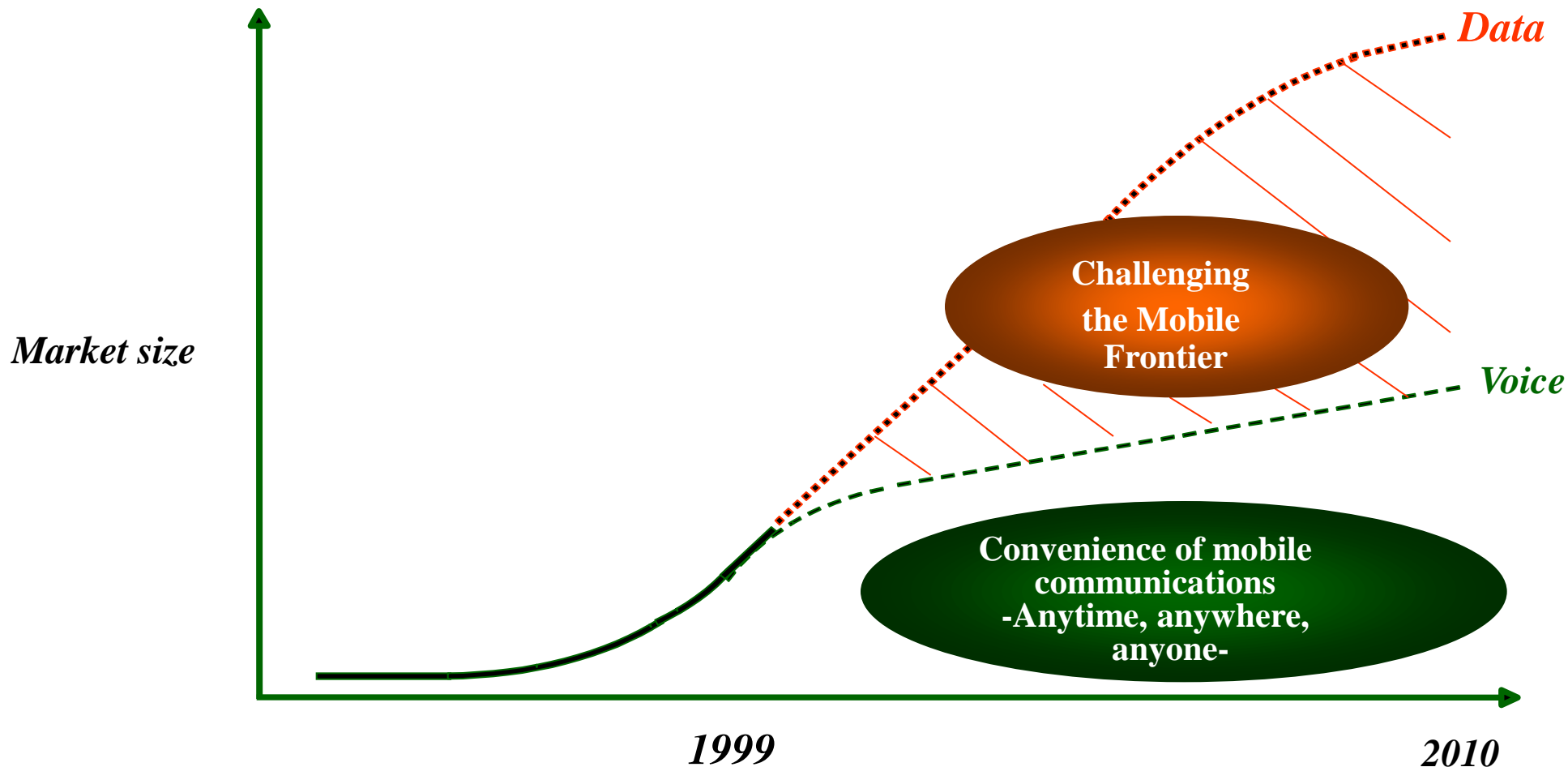
Growth of Mobile Multimedia

Three directions of growth:
Person-to-person, person-to-machine, machine-to-machine

Person-to-Person

MM mail

e-mail

Voice

Gateway

DoCoMo Network
PDC/PDC-P/PHS/ W-CDMA

Net browsing   i-mode

Tele-metering

Remote Operation

GPS

MMD

ITS

Person-to-machine

Automatic Control

Machine-to-machine

5
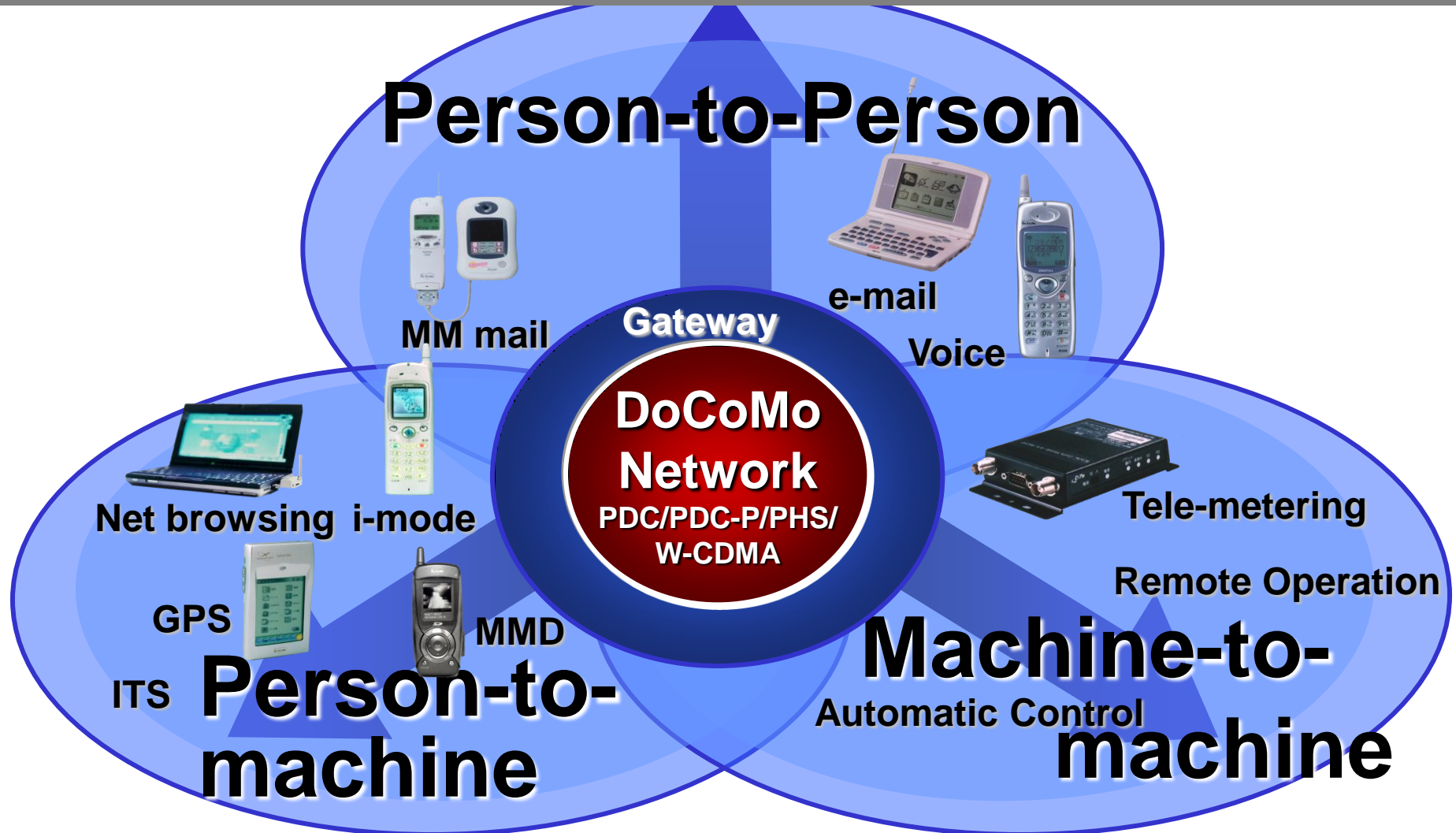
Features of i-mode

- *Packet based telecommunication charge (PDC-P)*

- *HTML based, the world standard*
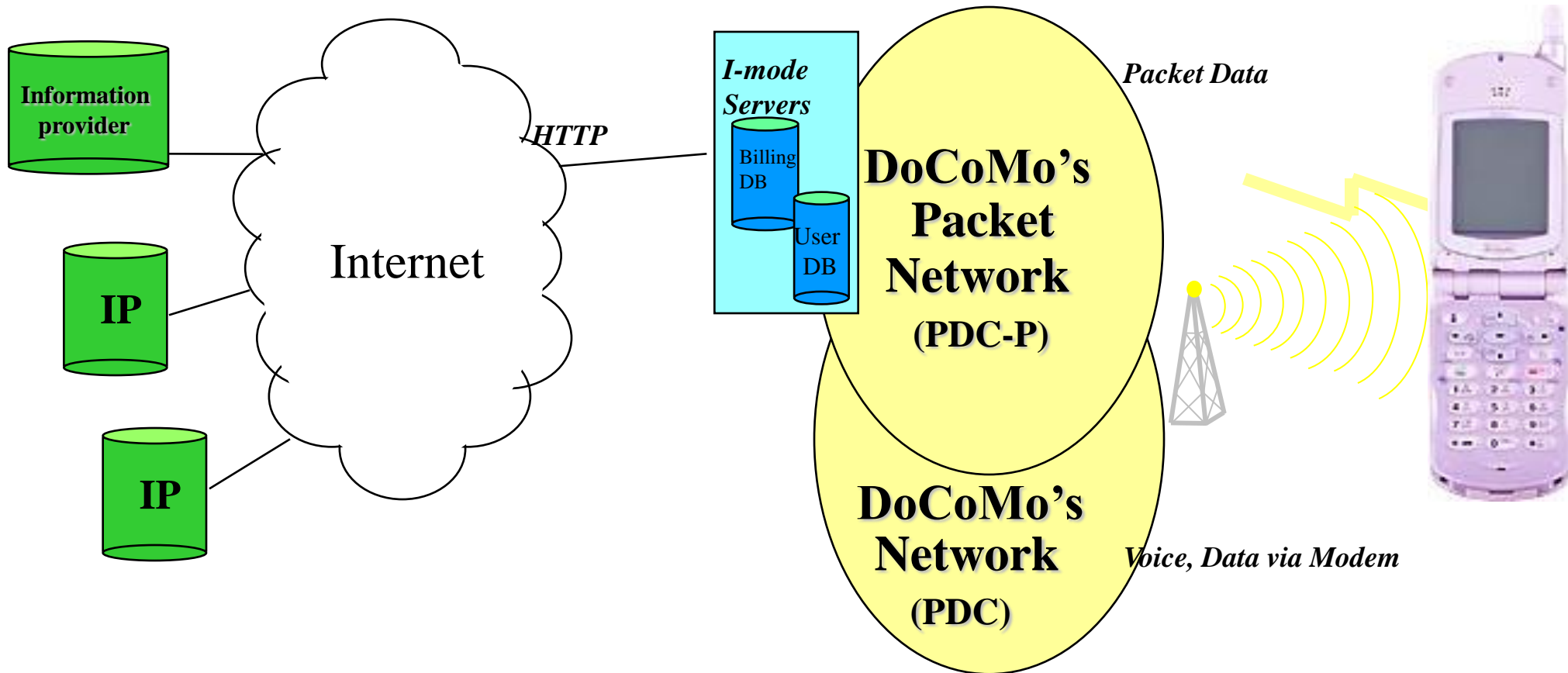
i-mode Subscriber Growth

Current Status of i-mode (as of Sep. 19, 00)

NTT DoCoMo

i-mode subscribers
12,087,496

Application Alliance Partners
623 companies (9/11)

Corporate Use

Intranet and VPN Packages already available

23,099 voluntary i-mode internet web sites, including 20 search engines!

Service Image （Contents Portfolio)

NTT DoCoMo

DoCoMo "i-mode" (PDCP)

call (PDC)

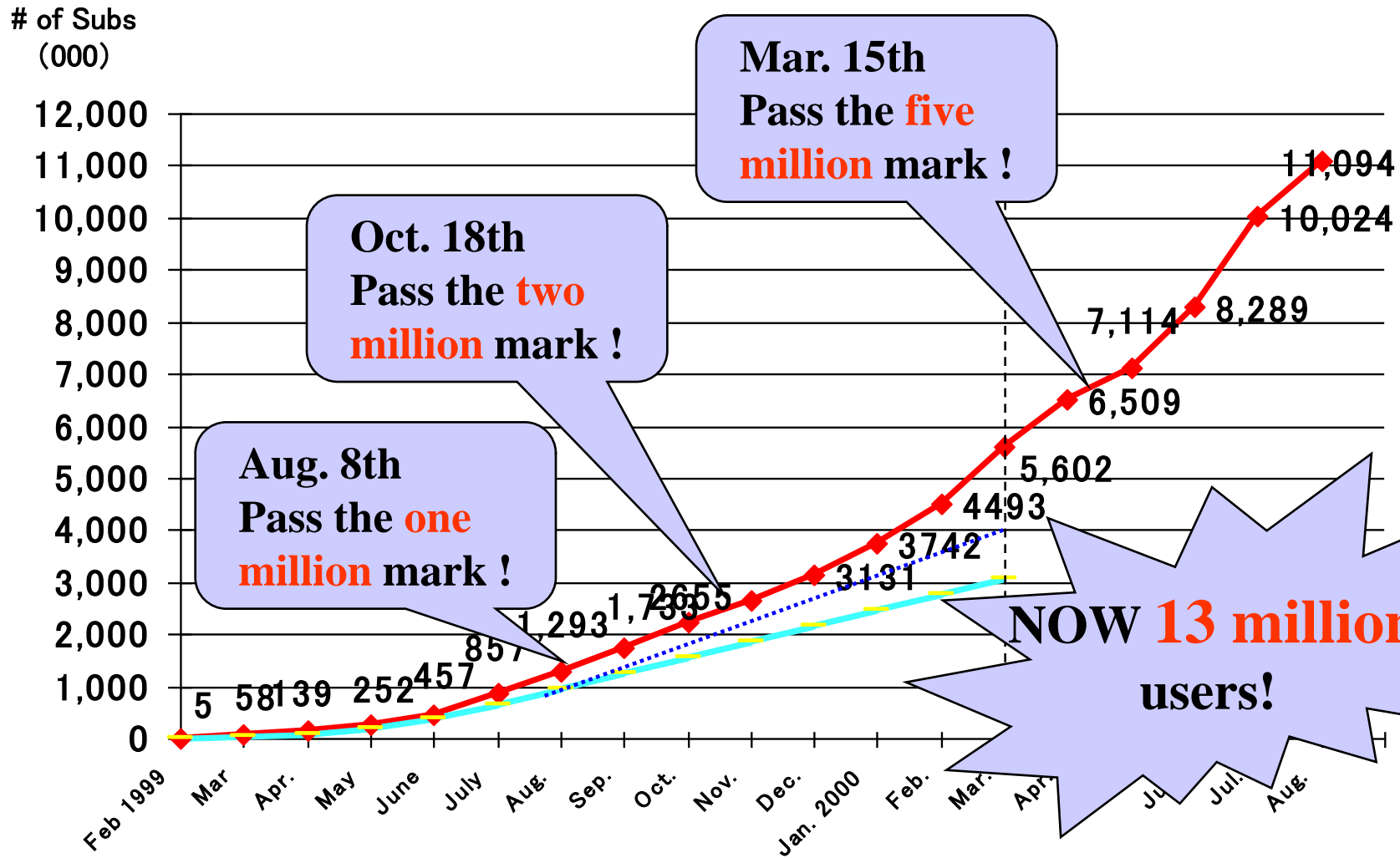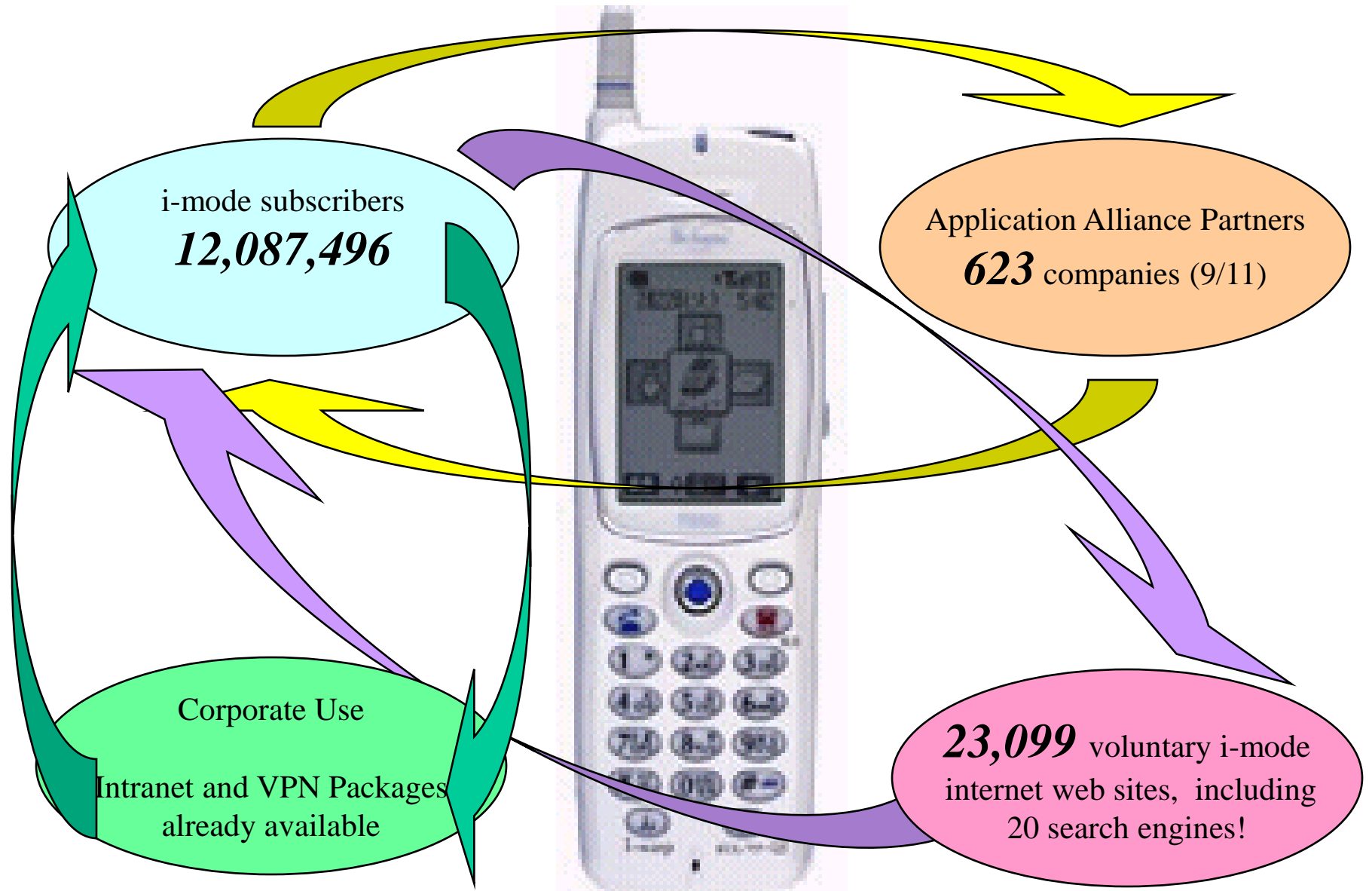**mail (incl. e-mail)**

Internet Web Sites

Transaction
- Banking
- Security Trading
- Ticket Reservation
- Airline Information/Reservation
- Credit Card Information
- Book Sales   etc.

Information
- News Updates
- Weather Information
- Sports News
- Stock Quotes
- Business/Technology News
- Town Information
- Horse Racing Information   etc.

Data base
- Telephone Directory Search (Yellowpage)
- Restaurant Guide
- Dictionary Service
- Cooking Recipe   etc.

Entertainment
- Network Game
- Character Download
- Horoscope   Ringing Tone Download
- Karaoke Information/ Song Check
- FM Radio/TV Information
- Club Event Information   etc.

Information Bill Collection System for IP

Portal Service Based on User Profile DB

Cellular-phone Network
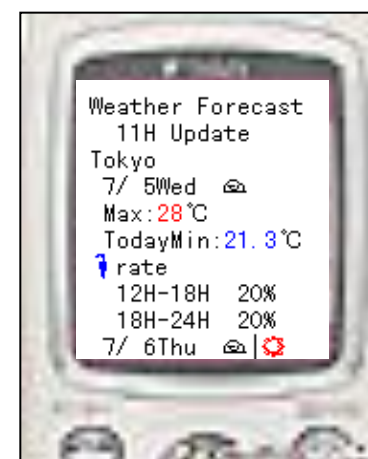
Contents Examples (English Content)

© CNN

© Bloomberg

© Dow Jones

© Weathernews

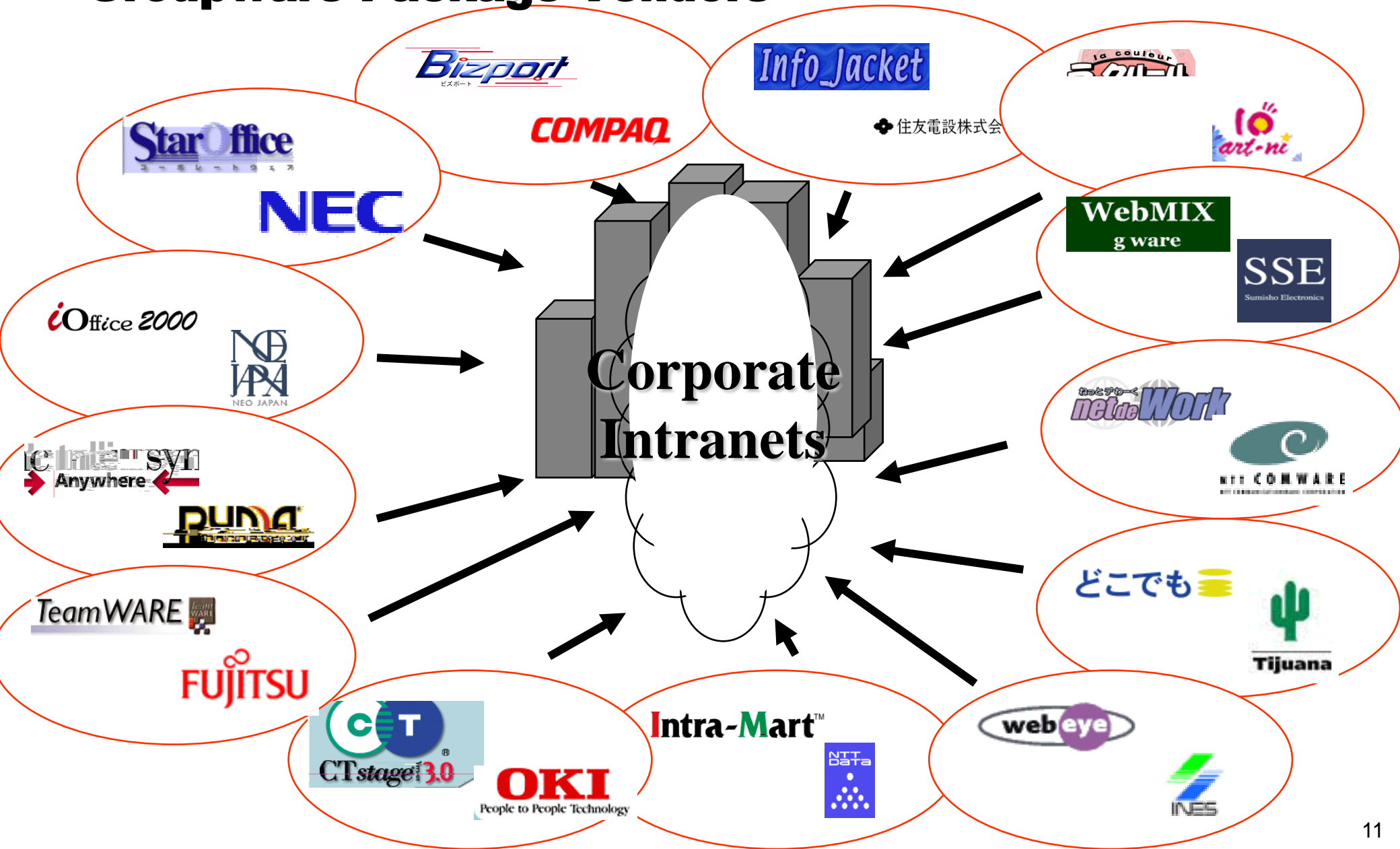© Osaka Gas

© Colin Talcroft

© Hudson

© Northwest Airlines

Corporate Use of i-mode: Intranet and Groupware Package Vendors

Intranet Application using "i-mode"

- *Intranet Packages using i-mode are already in the market (from the autumn of 1999).*

- *Case Study; DAT Japan Inc.*

  All delivery persons contact the center by web and e-mail.

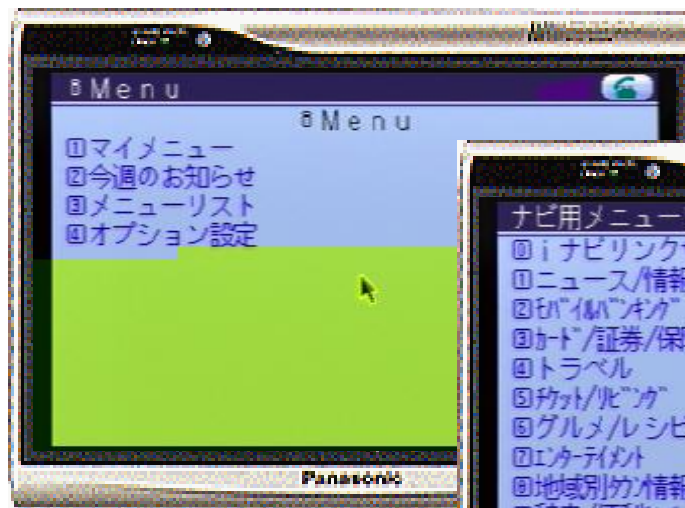 *Reduced 90% of phone and operator cost only by investing $90,000 to construct web based application.*

© Mainichi Shimbun

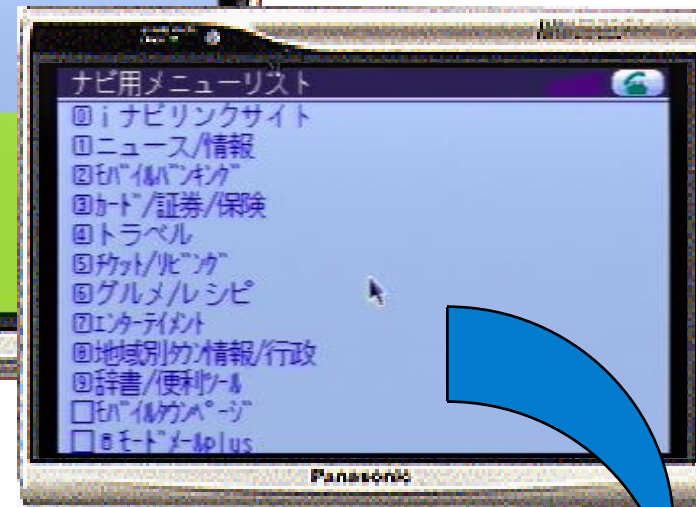# i-mode supportable car navigation system

P502i

CN−DV2520I

i-mode top page

i-mode menu list

With the i-mode supportable car navigation system, by connecting an i-mode terminal to the system the user can enjoy i-mode content, and take advantage of location-based services.

Business Model for i-mode (Current & Future)

Expanding our revenue source to include portal business

Source / Type	End-users	IPs
Direct revenue	**Revenue from traffic**	**Portal usage fee** / **Advertising revenue** [1]
Commission		**m-commerce commission** [2] / **Proxy collection charges**
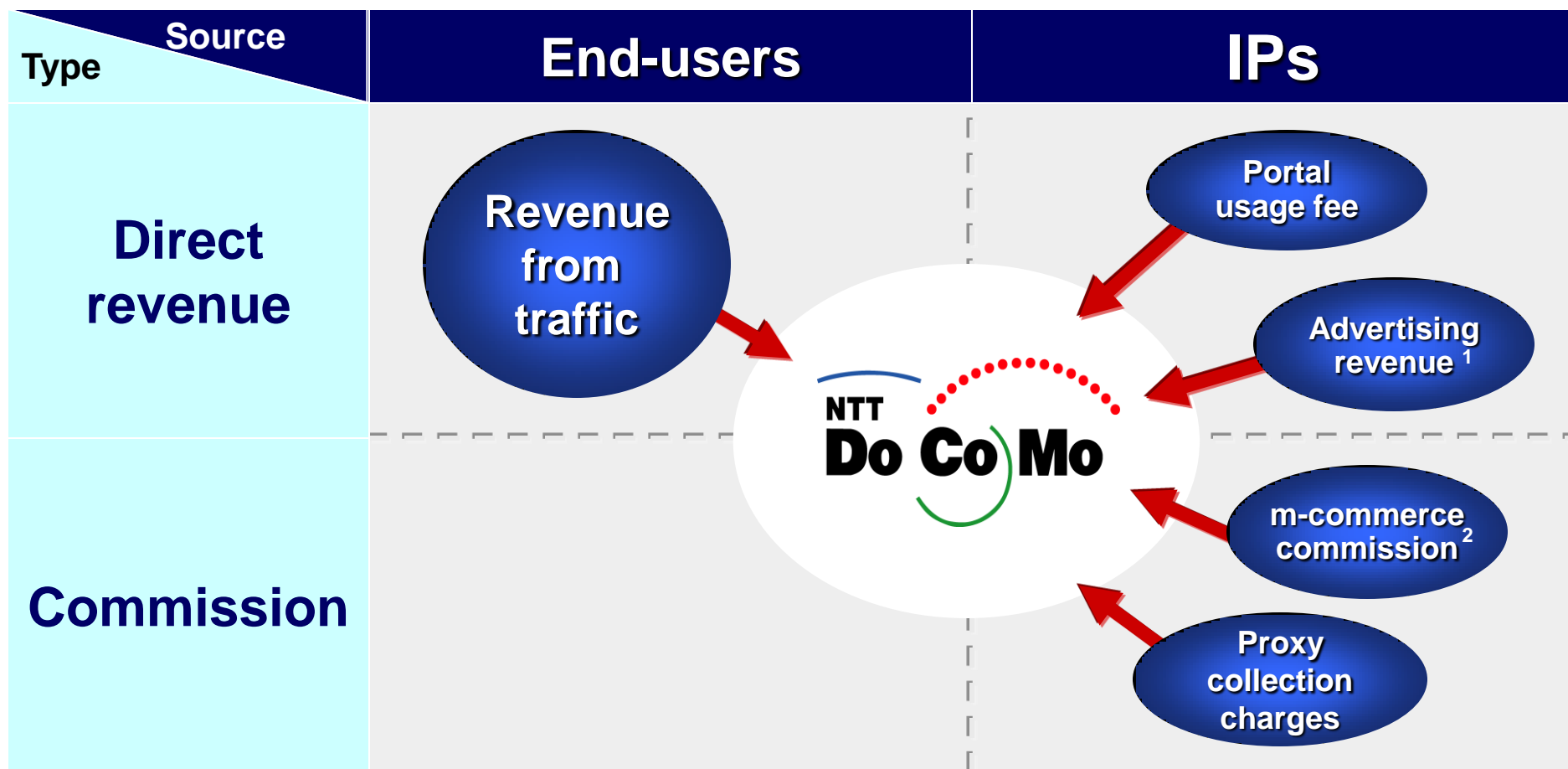
1. Establishment of an advertising agent, D2 Communications (6.2000)
2. Stake in an Internet-only bank JapanNet (Planned by first half of fiscal 2000), Establishment of Payment First for settlement (6.2000)

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"i-mode" Developing Strategy

IMT‐2000

Rich (Visual, High Speed)

i-mode Car-Navi

Java

Colored LCD

Intranet

- Music

- Video

Intranet Packages

i-mode launch

- Game

- TV Conference

Web access

Groupware
- Schedule Management
- Work flow Management
- Electronic Bulletin Board System
- Electronic Conference
- File Sharing

- Car navigation systems using i-mode

Security function

- TV Telephone

- Homepage

- Agent function

- Mobile TV
- Interactive TV

tal Link

- e-mail

Feb. 1999 | Fall, 1999 | Spring, 2000 | Fall, 2000 | Spring, 2001

Java Capable i-mode Phone

- *Java enables application/content providers to distribute software (applets) to cellular phone.*

- *You will be able to download applets such as interactive games, client agent software to manage servers, or security enhancing module and so on.*

- *Commercialization would be in late 2000.*
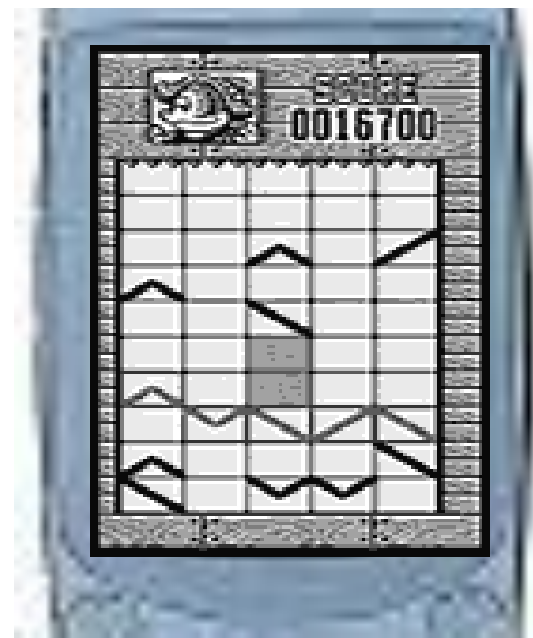
Handsets for Initial W-CDMA Service

Providing handsets with 3G features (e.g., CCD camera)

Small basic handset	**Visual Phone**	**Data-dedicated terminal**
Images		
Features		

Small basic handset — Features
- **High-quality voice**
- **High-speed data**
  384k downstream packet
  64k non-restricted digital
- **Still picture**
- **Video clipping**

Visual Phone — Features
- **High-quality voice**
- **Videophone**
- **High-speed data**
  （same as small basic handset）
- **Still picture**
- **Video clipping**
- **Video delivery**

Data-dedicated terminal — Features
- **High-speed data**
  384k downstream packet
  64k non-restricted digital

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W-CDMA Services Envisaged

384kbps is planned to enable transmission of video/music

Video-mail, Videophone

Visual Communication

Interactive services with videophone

Contents with still and moving pictures

Delivery of visual contents

Downloading Music

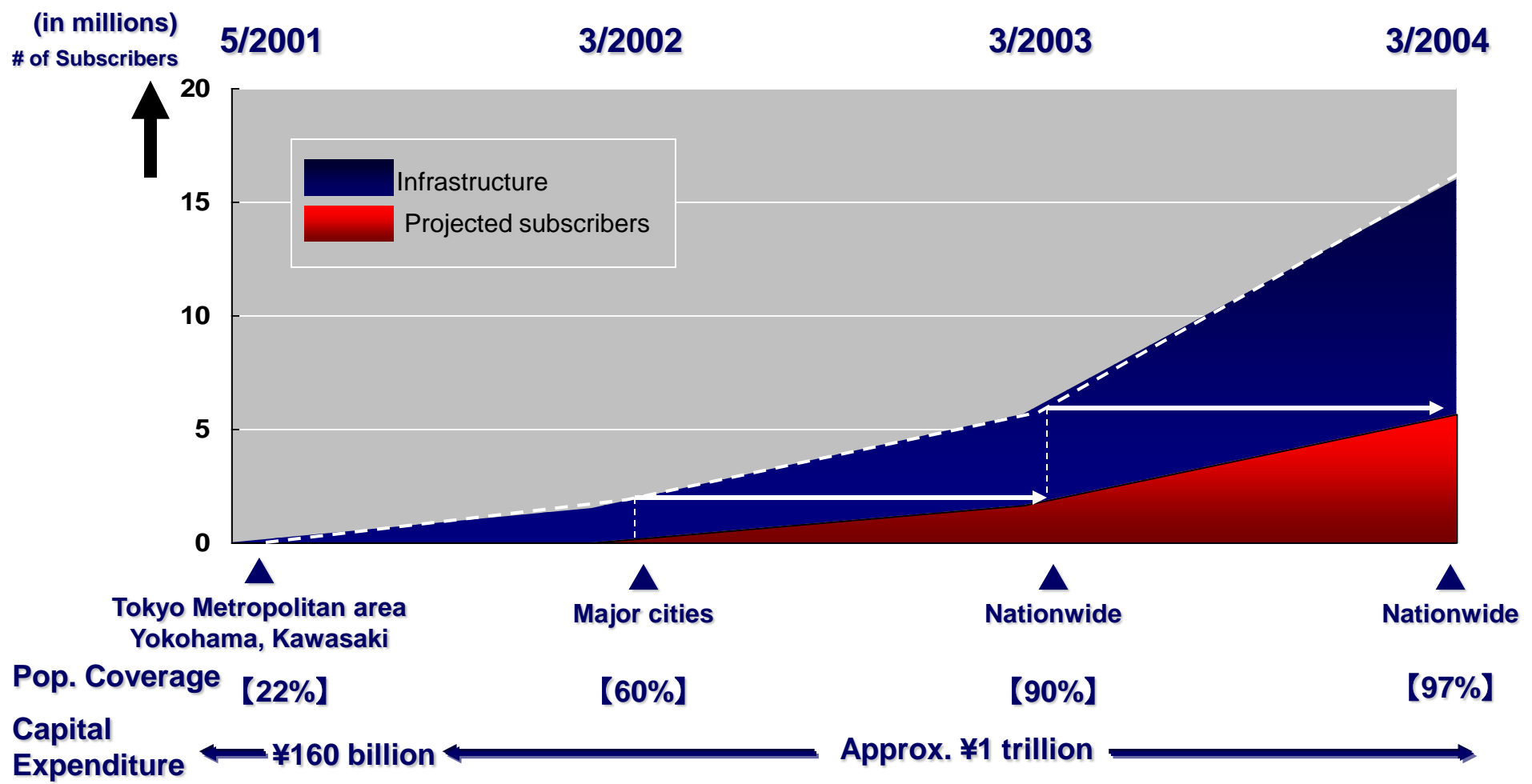**Delivery of music contents**

Album title
Artist
Record label

Price ¥XXX
[BUY]
{Listen}]

Now Downloading

Choose the music you want, and download it!

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W-CDMA Proposed Rollout Plan

Nationwide Coverage (97%) within three years from launch

(in millions) # of Subscribers

| 5/2001 | 3/2002 | 3/2003 | 3/2004 |

- Infrastructure
- Projected subscribers

Tokyo Metropolitan area Yokohama, Kawasaki — Major cities — Nationwide — Nationwide

Pop. Coverage 【22%】 【60%】 【90%】 【97%】

Capital Expenditure ← ¥160 billion → ← Approx. ¥1 trillion →

Appendices

Operating Data

	3/1997	3/1998	3/1999	3/2000	3/2001E
Subscribers (in thousands)	10,960	17,984	23,897	29,356	33,380
Market share (%)	52.5	57.0	57.5	57.4	—
Churn Rate (%)	1.66	1.97	1.75	1.61	1.40
ARPU (¥)[1]	12,570	10,800	9,270	8,620	7,940
MOU (minutes)	158	155	164	177	185
i-mode subscribers （in thousands）	—	—	48	5,603	13,740

(Left vertical label: Cellular Service)

1. Excluding packet revenue

Financial Data

in hundreds of millions of yen, except percentage data

	3/1997	3/1998	3/1999	3/2000	3/2001E
Operating revenue	19,628	26,261	31,183	37,186	41,470
EBITDA	5,153	8,159	9,995	11,580	12,480
ROCE (%)	16.1	25.7	23.5	19.8	21.4
ROE (%)	32.4	74.8	21.3	13.9	14.8
Debt ratio (%)	92.2	86.2	38.0	30.0	20.8
Free cash flow	▲2,929	▲1,097	▲4,710	859	▲140
Capital expenditure	7,333	7,287	8,458	8,760	9,430

Terminals

N502it

· Send/receive mail up to 250
  2-byte characters
· View home page

Weight: approx. 98g
  Size: 93mmH × 48mmL × 22mmT
(Height, thickness when folded)

P-in

· Card-type PHS
· 64kbps Data rate

Weight: approx. 50g（body only）
  Size: 114.6mmH × 54mmW × 14.5mm
（Body only; with antenna folded）

P-in Comp@ct

· Very small and light at 17g
· PDA-ready power saver
· Two interfaces:
    PCMCIA or Compact Flash
· 64kbps Data rate

Weight: approx. 17g
  Size: 51.4mmH × 42.8mmL × 6.0mmT

Naviewn'

· Expanded GPS
  location/map
  navigation function
· PIM function
· Data transmission
· Linkage with PC

Weight: approx. 220g（including battery）
  Size: 153mmH × 82mmL × 18mmT
（22mm for the antenna）

camessepetit

· Send/receive mail
  with still pictures
· Photo-taking function
· Picture editing
  function

Weight: approx. 170g
（With pen and AA battery attached）
Size: 109mmH × 69mmW × 33mmT
（not including attachments）

MMD Terminal
For Monitoring Service

· PHS64kbps/32kbps
  PIAFS2.0 transmission
  functions
· Select music and check
  information with browser
· Downloading music
· Data management
  w/ SD memory card

Weight: approx. 105g
  Size: 104mmH × 58mmW × 25mmT

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