



Smart Cloud Strategy in Japan



November 2010

Yasu TANIWAKI

Division Director, ICT Strategy Division

Ministry of Internal Affairs and Communications

JAPAN

Deployment of Broadband Infrastructure

Status of Broadband Deployment (household coverage estimate within service area)

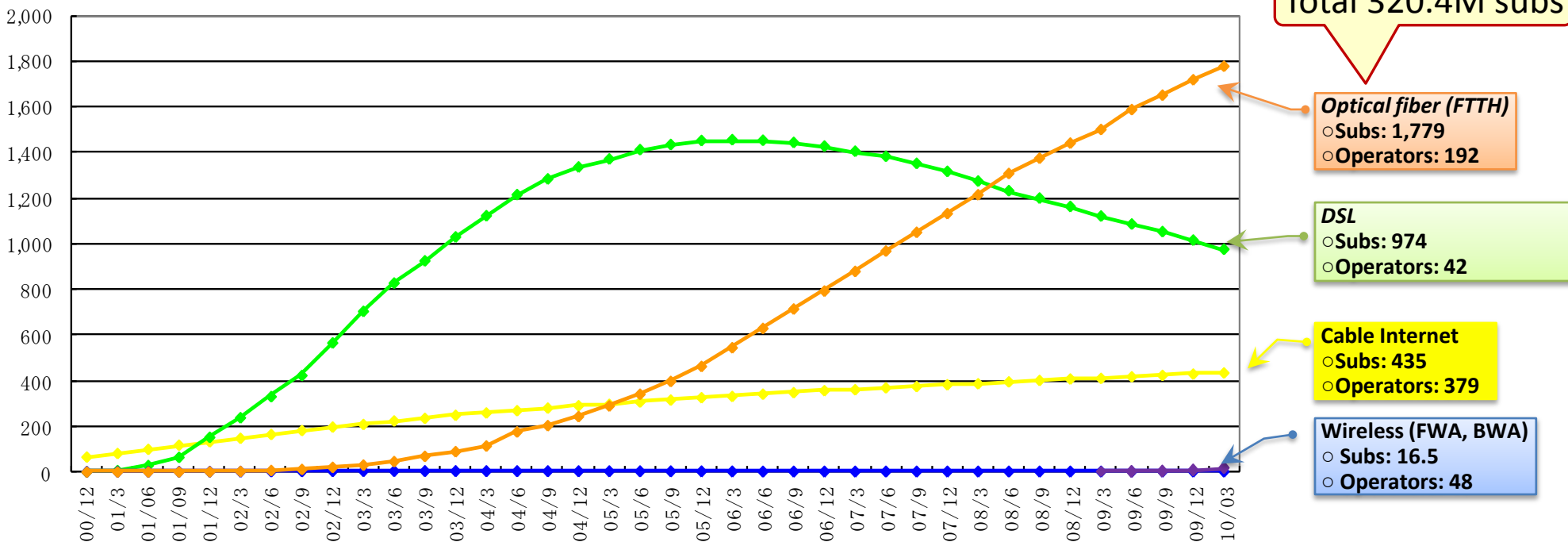
Source: Survey by MIC

	March E 2007	March E 2008	March E 2009	March E 2010	Government goal FY2010
Broadband	95.2% (486.3M hhlds)	98.3% (508.3M hhlds)	98.8% (522.5M hhlds)	99.1% (523.9M hhlds)	No areas with zero broadband
Super Hi-speed Broadband	83.5% (426.8M hhlds)	86.5% (447.1M hhlds)	90.1% (476.5M hhlds)	91.6% (484.5M hhlds)	90%

Expected to be achieved by end FY 2010

Goal achieved

Trend of broadband subscriptions (as of end March 2010; unit: 10,000 subs)



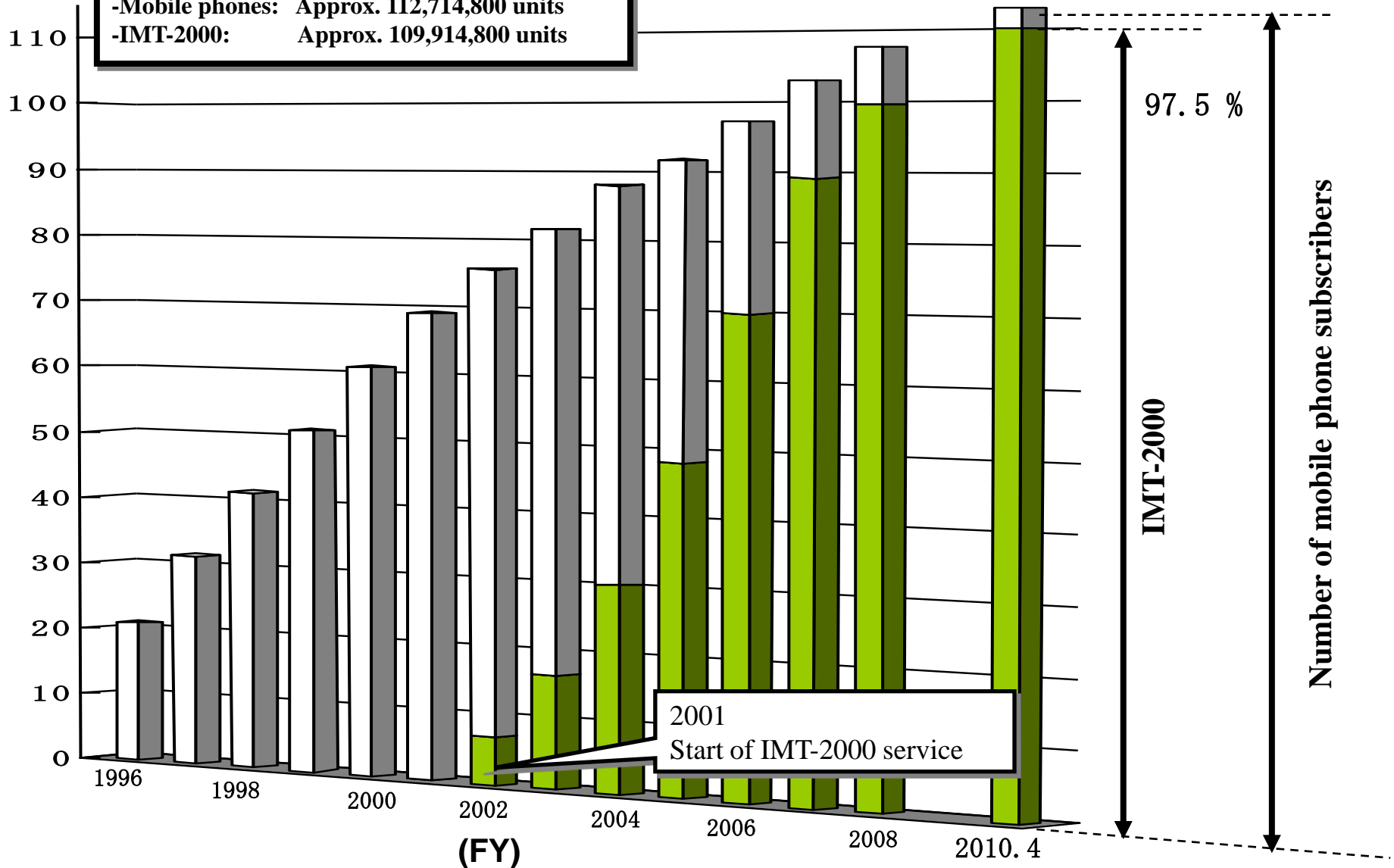
Source: Quarterly data of subscriptions and share of telecom services published by MIC

Changes in the number of mobile phone subscribers

~TCA investigation~

(million)

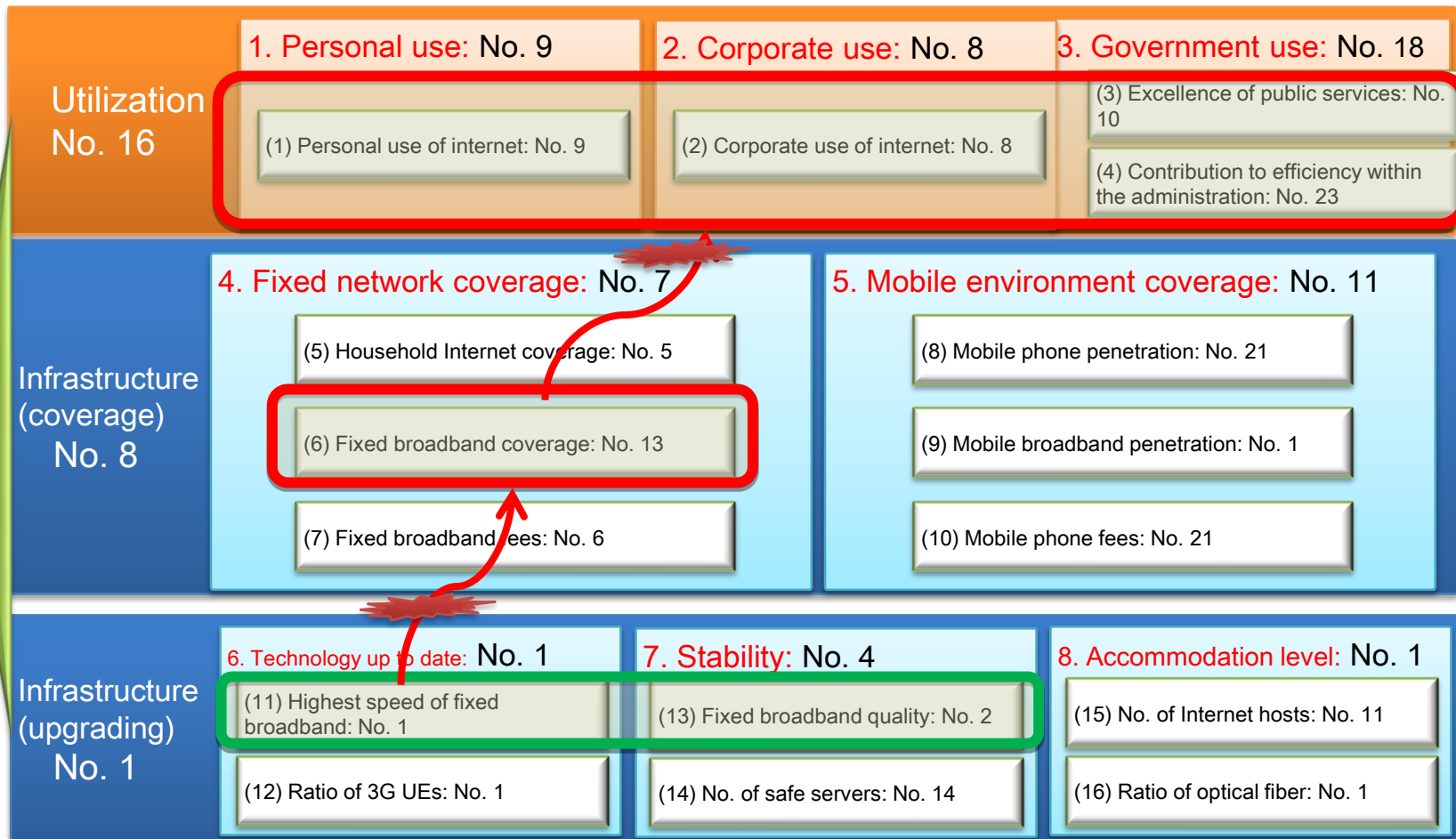
April 2010
Number of subscribers
-Mobile phones: Approx. 112,714,800 units
-IMT-2000: Approx. 109,914,800 units



ICT Progress Level No. 2

No. 1: Korea
No. 2: Japan
No. 3: Denmark

- No. 4: Sweden
- No. 5: USA
- No. 6: Netherlands
- No. 7: Singapore
- No. 8: Switzerland
- No. 9: Finland
- No. 10: Australia
- No. 11: Austria
- No. 12: UK
- No. 13: Canada
- No. 14: Germany
- No. 15: Portugal
- No. 16: New Zealand
- No. 17: France
- No. 18: Belgium
- No. 19: Spain
- No. 20: Italy
- No. 21: Russia
- No. 22: Brazil
- No. 23: China
- No. 24: South Africa
- No. 25: India



Cloud services
(Services that use cloud computing technology)

Making the computer resources users require available as services “when they need them, and in just the right amount”

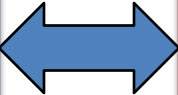


The world’s most advanced network environment

- Even when viewed internationally, Japan has the world’s best network (broadband) for use of cloud services.

Delay in utilization of ICT

- Lagging behind in utilization of ICT in government; medical care; education; agricultural, forestry, and fisheries; etc.
- Need for full utilization of ICT through diffusion of cloud services



Smart cloud services

Realizing full utilization of ICT through development and diffusion of next-generation cloud services (smart cloud services) that can reach beyond corporate and industrial frameworks to share vast volumes of information and knowledge among all social systems



Utilization Strategy

Technology Strategy

International Strategy

■ Promotion of ICT Utilization

(examples)

- ✓ Medical care cloud
- ✓ Education cloud
- ✓ Agriculture cloud

■ Advancing social infrastructure

(examples)

- ✓ Smart grid
 - ✓ Green ITS (Intelligent Transportation System)
- ✓ Management of roads & bridges through IPv6 based sensor networks

■ Vitalization of SMEs & venture companies

(examples)

- ✓ Cross-regional cooperation between SMEs
- ✓ Improvement of Supply Chain Management through cloud services

■R&D

- ✓ Technology for collection, extraction, accumulation and modeling of a vast majority of real-time streaming data and its optimization at times when conditions change
- ✓ Technology that enhances security and reliability
- ✓ Technology that promotes “Green ICT”
 - Green by ICT : Green cloud data centers
 - Green of ICT

■Standardization

- ✓ User-centric approach is required.
 - ”Elimination of excessive lock-in” vs “Ensuring service & technology innovation”
- ✓ Focus should be put on:
 - SLA
 - Security level
 - Interoperability for hybrid cloud services

■ With the widespread use of cloud services, case storing and processing of data overseas may increase.

■ Issues to be discussed at international fora

(examples)

- ✓ Jurisdiction over databases stored in other countries (eg. privacy protection act)
- ✓ Dispute settlement mechanism
- ✓ Countermeasures against “harmful” information
 - ✓ Possibility of government intervention with respect to private-sector data
- ✓ Ownership of IPRs regarding data stored on a cloud data center in other countries

■ Towards consensus building

- ✓ Cooperation between public and private sectors
- ✓ ITU, OECD, APEC, and other international fora
 - ✓ Bilateral consultations