



Growth in Japanese Mobile Technologies and Markets

High Growth Asia Markets Part 1: Doing Business in Asia

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KDDI Labs USA

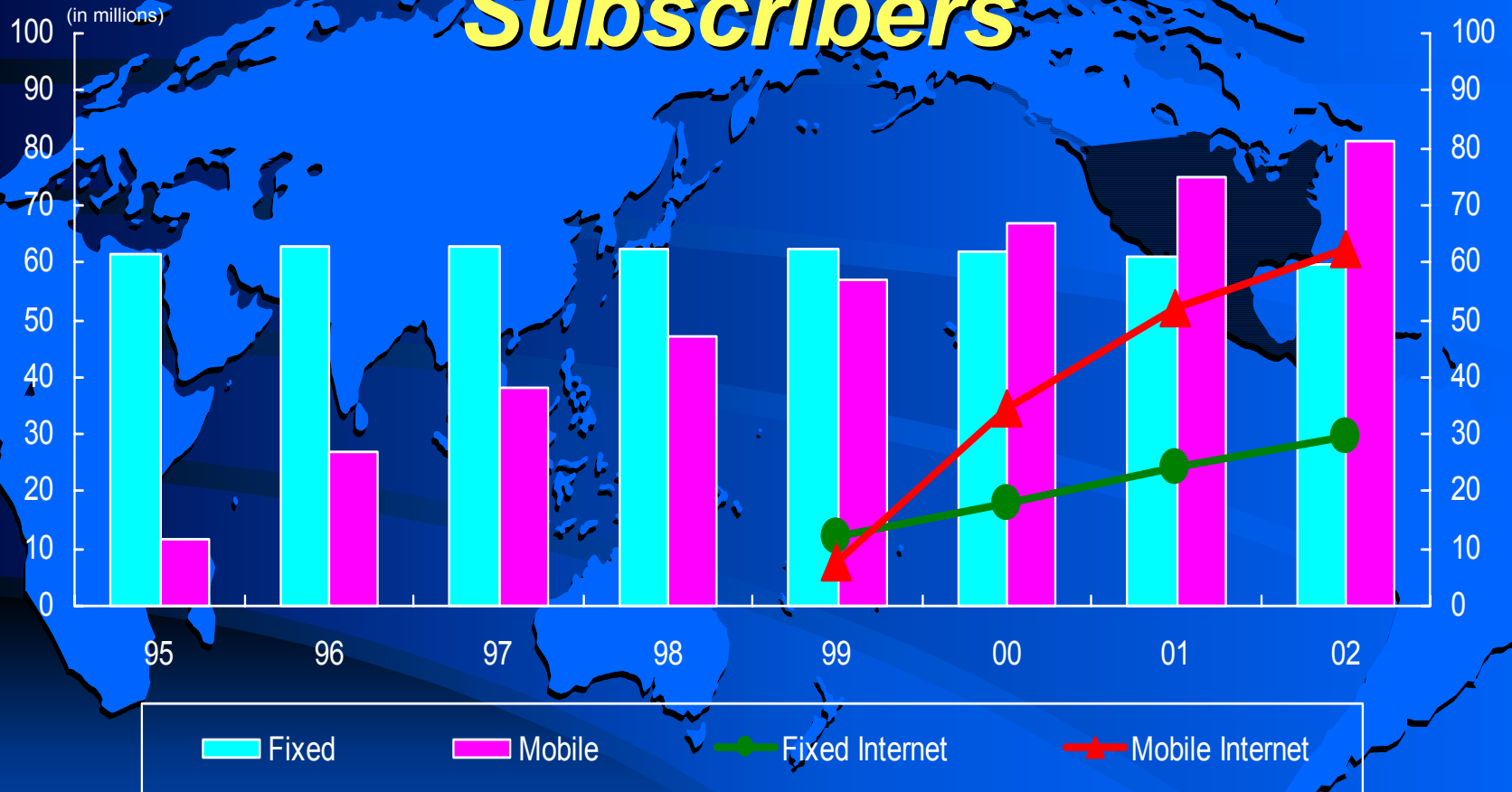
Major Telecom Carriers

Major Investors	Fixed Phones		ISP	Mobile phones	Mobile Internet Service	PHS
	Long Distance/ International	Local				
Kyocera/ Toyota	DDI+KDD+IDO ---> KDDI (from 1st Oct., 2000)					
			DION	au Tu-Ka	EZweb	DDI pocket
NTT	NTT Communications	NTT East & NTT West	OCN	NTT DoCoMo	i-mode	NTT DoCoMo
Vodafone	Japan Telecom		ODN	J-Phone	J-SKY	-

Comparison in Frequency Allocation

Operator	Frequency		Remarks for 3G handset
	2G	3G	
KDDI/au	800 MHz (1.5GHz For Tu-Ka)	800MHz 2GHz	CDMA2000 1X / EV-DO backward compatibility with 2G (cdmaOne)
NTT DoCoMo	800 MHz 1.5GHz	2GHz	W-CDMA single W-CDMA/PDC Dual
J-Phone	1.5 GHz	2GHz	W-CDMA single W-CDMA/GSM Dual

Significant Increase of Mobile Subscribers

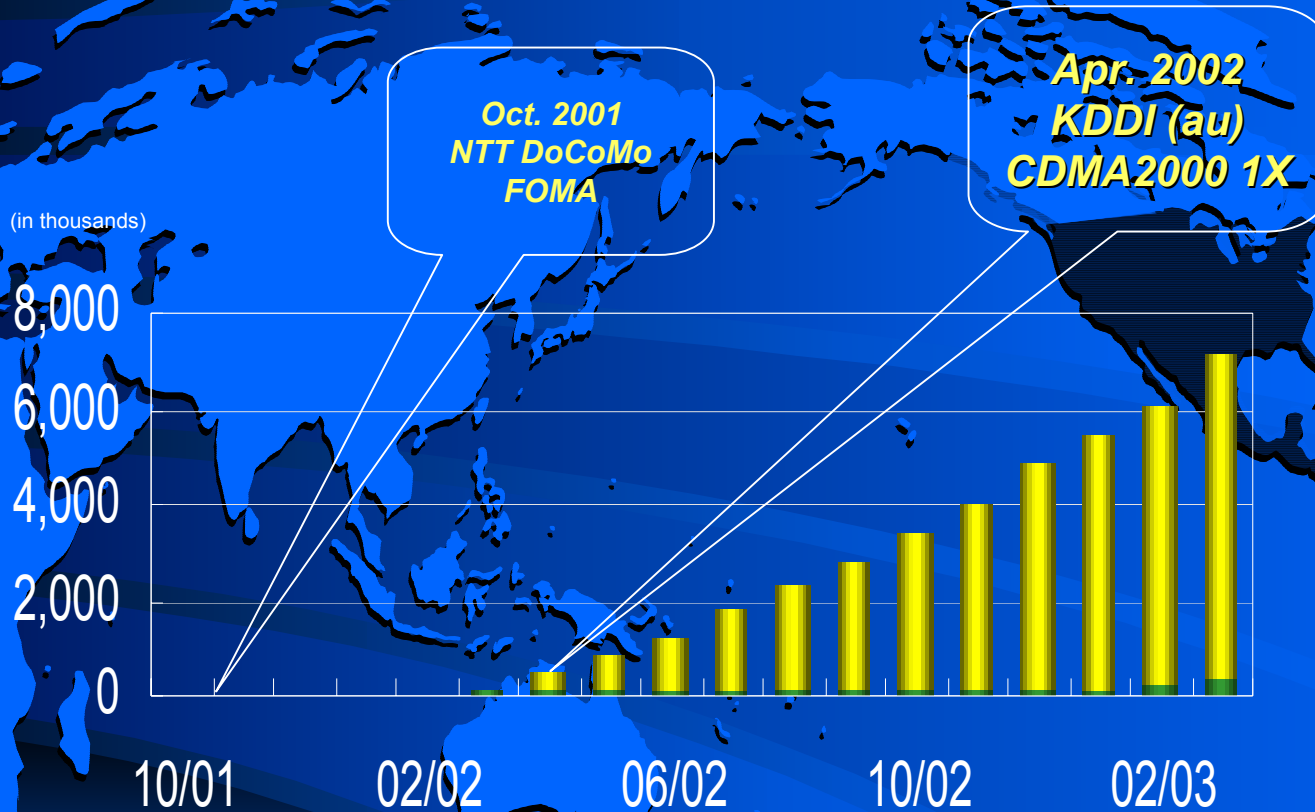


**Mobile Subscribers > Fixed Subscribers
In FY2002**

<Note> Fixed: Telephone + ISDN
Mobile: Cellular + PHS

(Source: Ministry of Public Management, Home Affairs, Posts & Telecommunications)

Remarkable 3G Diffusion

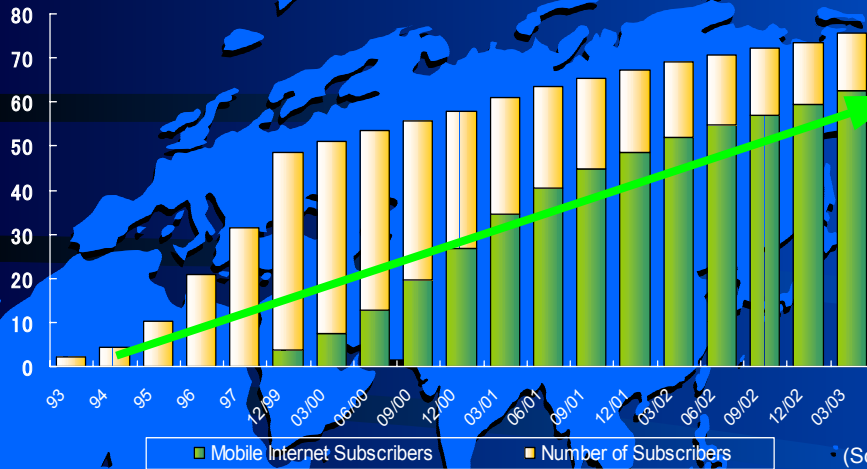


As of March, 2003
CDMA2000 1X: 6.8 million
W-CDMA (FOMA): 0.4 million

(Source: Telecommunications Carriers Association)

Remarkable Diffusion of Mobile Internet

(in millions)



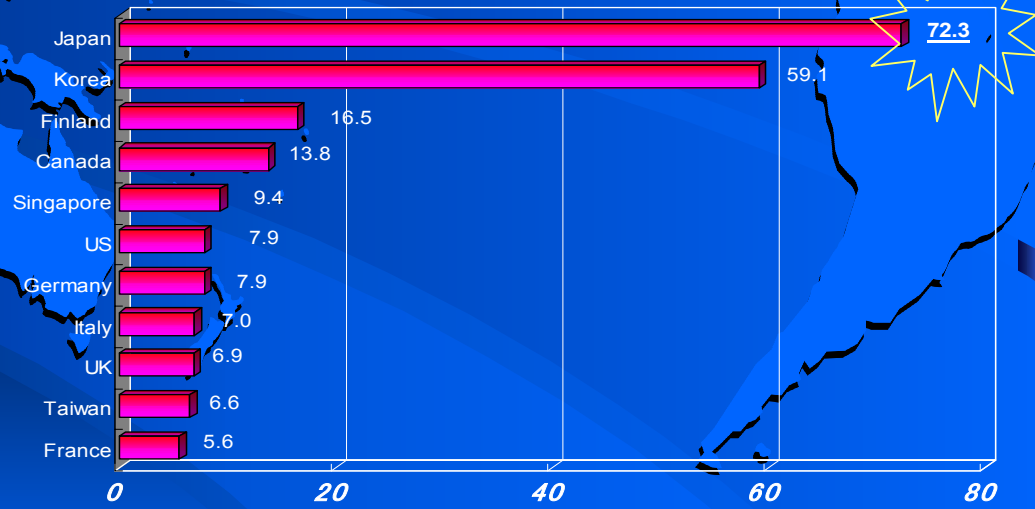
Mobile Internet Subscribers:

- ◆ More than 62 million in 3 years
- ◆ Almost double in 2 years
- ◆ Diffusion Increase: 57% -> 83% in 2 years

(Source: TCA)

Internet-enabled Mobile Phones:

- ◆ More than 70% enabled
- ◆ Highest rate in major countries/regions

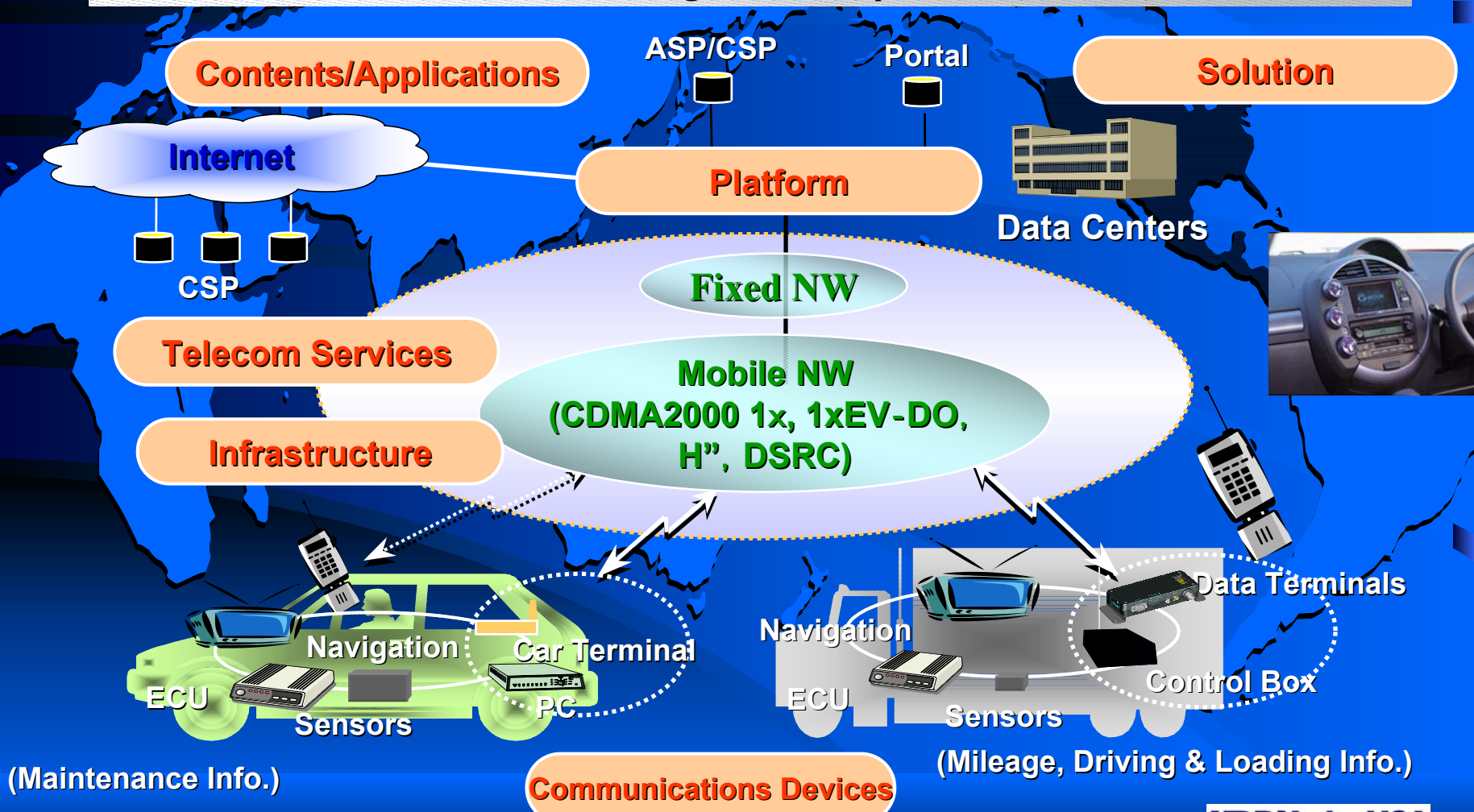


(Source: Ministry of Public Management, Home Affairs, Posts & Telecommunications)

Telematics Initiative

KDDI's Commitment:

- ◆ Value Proposition on Seamless Mobile/Fixed/Broadband Network
- ◆ Value-added Service Offerings for Ubiquitous Needs





(Maintenance Info.)

(Mileage, Driving & Loading Info.)

Communications Devices

Market Forecast

Market	Key Technologies	Market Size	Contents / Applications / Solution
 <p>Mobile Phone High End</p>	<p>3G ~ 2.4Mbps 4G ~100Mbps</p>	<p>More than 60 million Mobile users (> Fixed)</p>	<p>“Chaku Uta” On-line Game Image/Video Personal Gateway E-Commerce</p>
<p>Mobile Phone Low End</p>	<p>2G 144kbps</p>	<p>More than 70% Internet-enabled</p>	<p>Email Web browsing</p>
 <p>Growing area - ITS /Telematics - Enterprise</p>	<p>IPv6 Mobile IP WLAN</p>	<p>More than 60 million cars in Japan</p>	<p>Navigation Maintenance Emergency Service</p>
		<p>\$1.4 Trillion Market in 2010</p>	<p>Security P2P IP-VPN CRM, SFA, SCM, etc.</p>