



# Broad band mobility via PWLAN

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# Overview

**Part I. Market Push**

**Part II. Technology Driven PWLAN**

**Part III. PWLAN Service**

**Part IV. PWLAN Status World Wide**

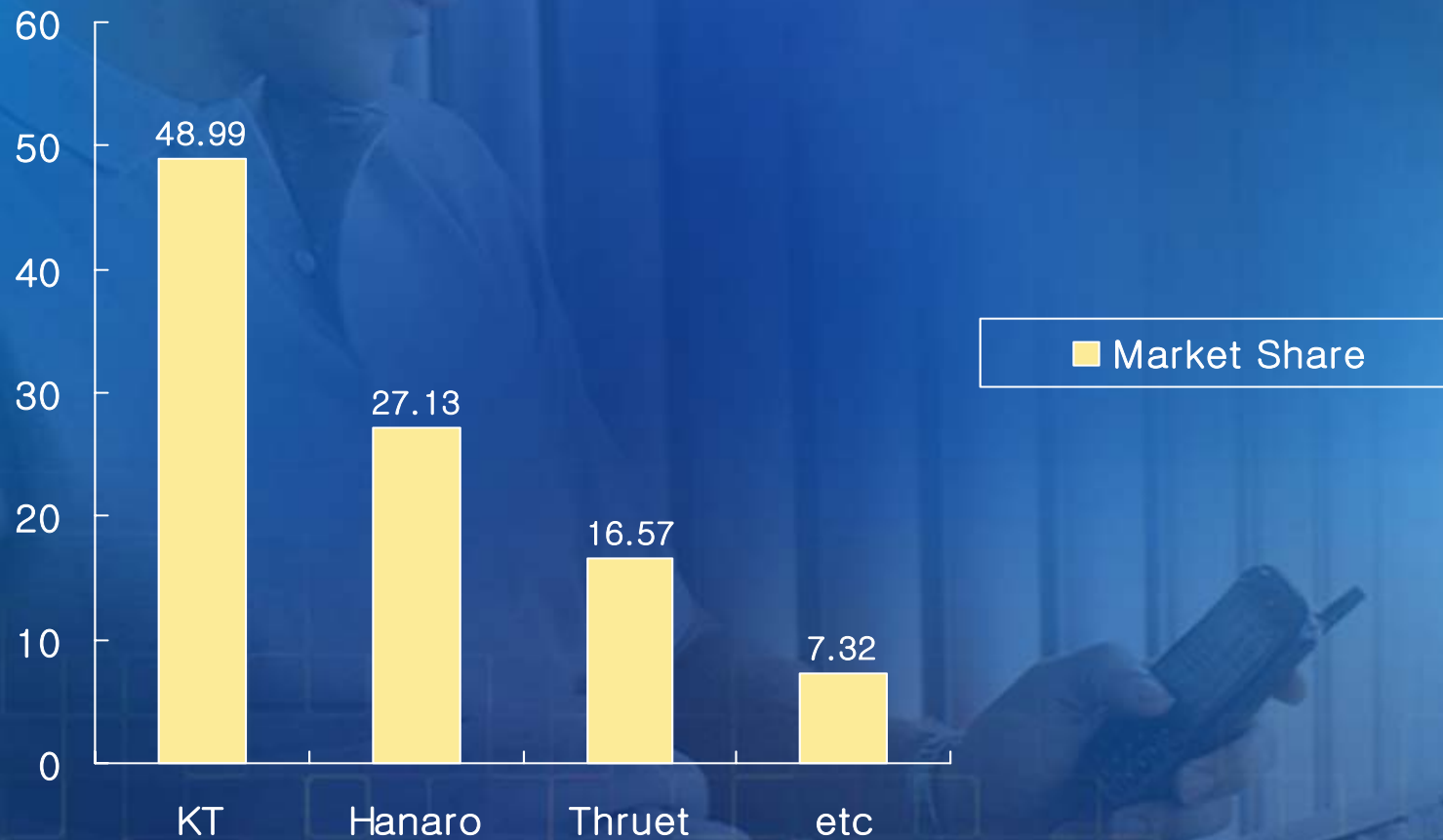
# Part I. Market Push

A scenic landscape featuring a turquoise lake in the foreground. Several colorful kayaks (yellow, red, blue, and white) are docked along the shore. In the background, there are dark, forested mountains with patches of snow under a clear blue sky. The overall scene is bright and vibrant.

# Broadband Global Market Share

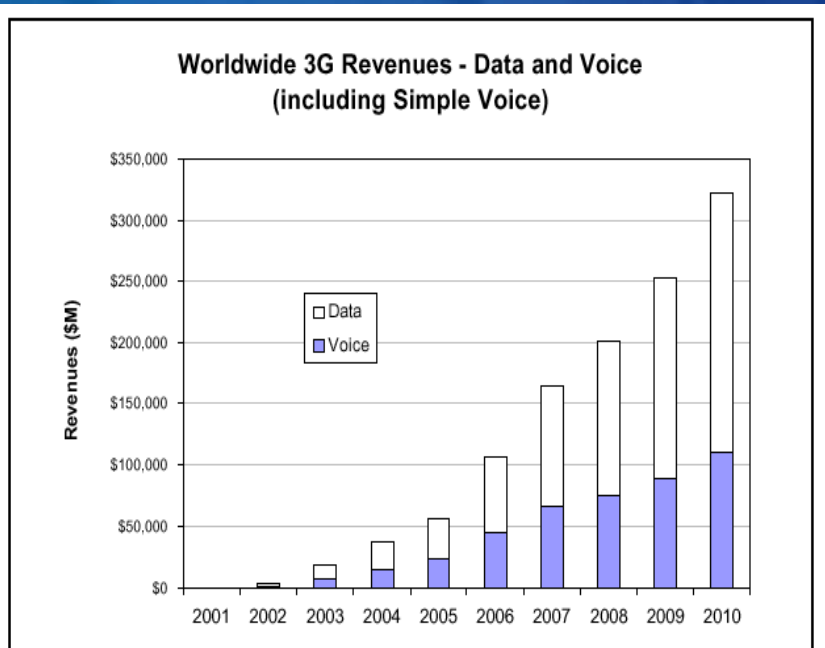


# Broadband Market Share in Korea

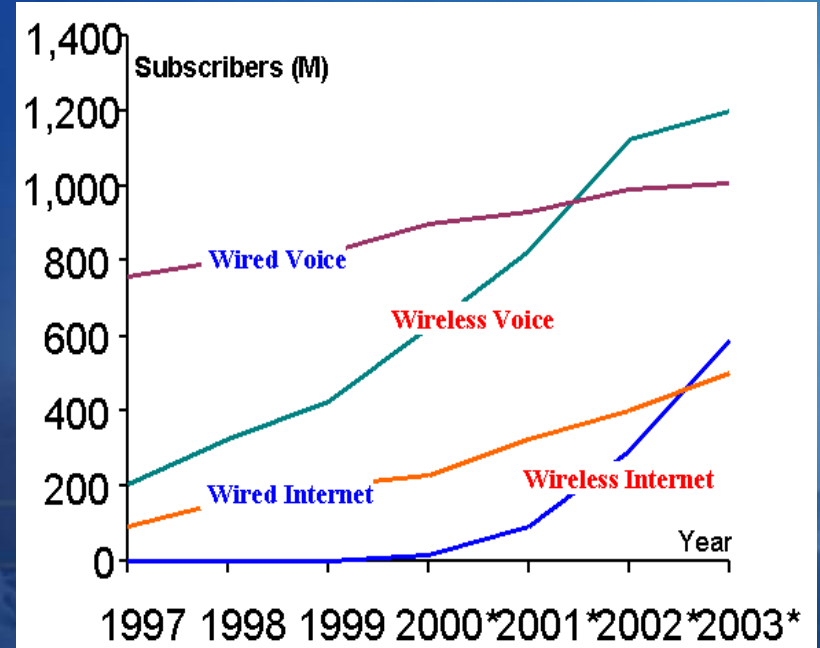


- **Mobile data service market would grow rapidly**

- ❑ **High Speed/Broadband**
- ❑ **High Quality of Service(Stable/Seamless Service)**
- ❑ **Low Service Cost / asymmetric service (Download Service)**
- ❑ **Revenue of Non voice traffic would surpass those of voice in 2004**
- ❑ **Killer application would be Customized Infotainment (36%)**
- ❑ **Within the next 5 years Internet access will happen mainly via mobile devices**

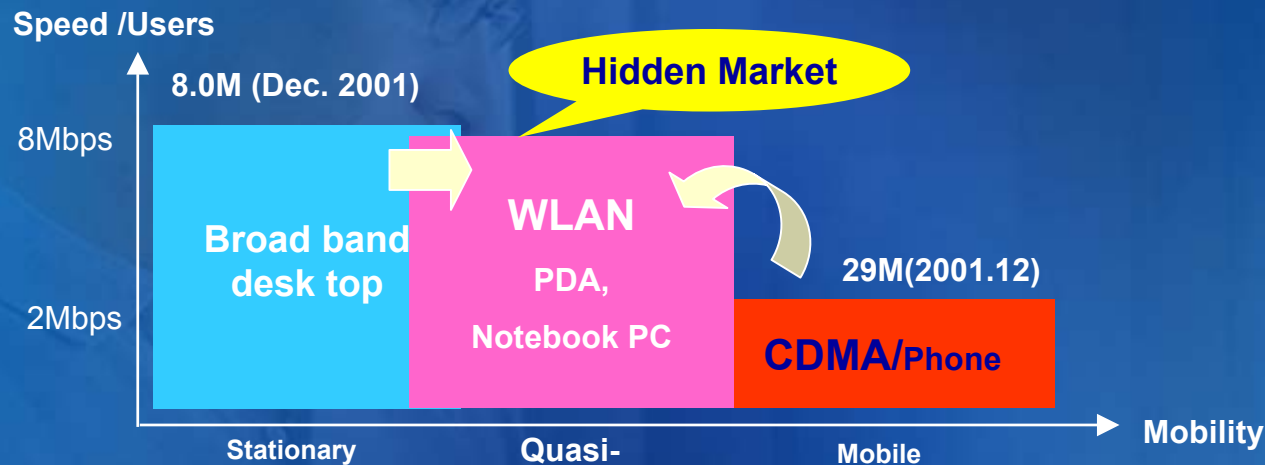


Source: Telecompetition Inc., February 2001.



Source: Salomon Smith Barney Estimates.

# Broadband Extension for Hidden Market (I)

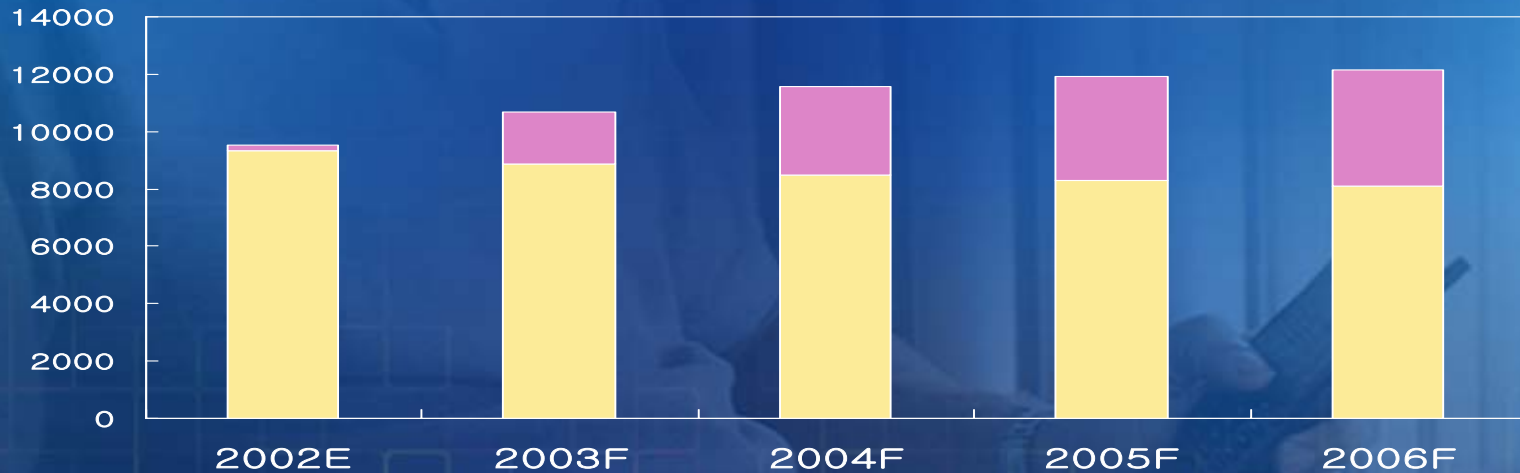


	Megapass	WLAN	CDMA
Coverage	Home, Office	Hot spots + Home + Office	Wide area
Throughput	high	high	Low
Terminals	PC	PDA, Notebook, Desk top	Phone, PDA
Applications	WEB	E-book, VOD, AOD, mp3 POP3 Mail, Messenger	Voice, Short Message
Customers	Students at home	Students/businessmen at home, campus and office Internet power users in hotspot area	Ordinary users
Promoted Industry	PC, DSL, Router, Portal	PDA, Wireless-LAN, Notebook	CDMA, Phone Industry

# Broadband Extension for Hidden Market(II)

Unit:1,000

	2002	2003	2004	2005	2006
Broadband Subscribers Expected	9,536	10,691	11,574	11,928	12,167
Net Addition	1,691	1,155	884	354	239
Wireless LAN + BB Users Expected	191	1,829	3,089	3,632	4,068
Subscription Ratio out of Broadband sub.(%)	2.0%	17.1%	26.7%	30.4%	33.4%



Source : LG Investment & security. 2002.2



## PWLAN IMPACT

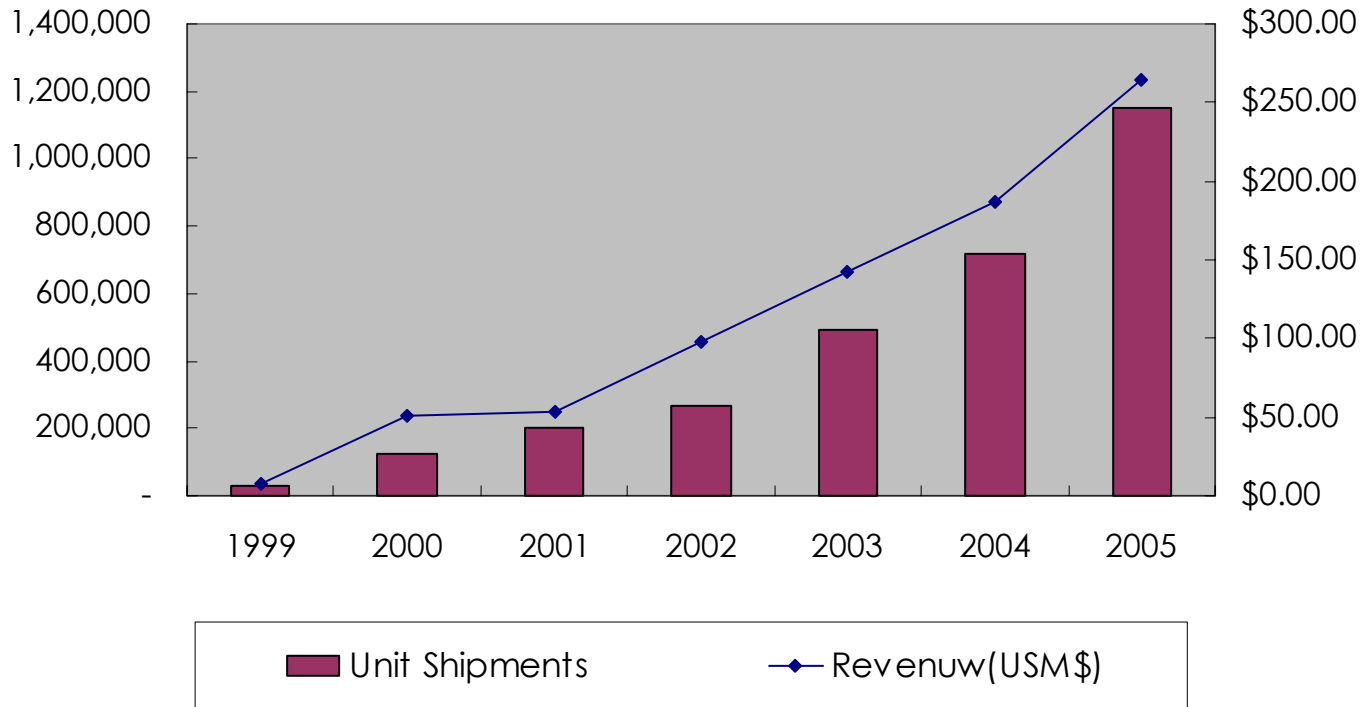
- o **Time connected to the corporate network : 1.75 hours / day**
- o **Average daily time savings : 70 minutes**
- o **Productivity increasing : +22%**
- o **Accuracy increasing : 63%**
- o **Quality of life improvement : cited impact 87%**

Source : NOP World-Technology, fall 2001

# Part II. Technology Driven PWLAN

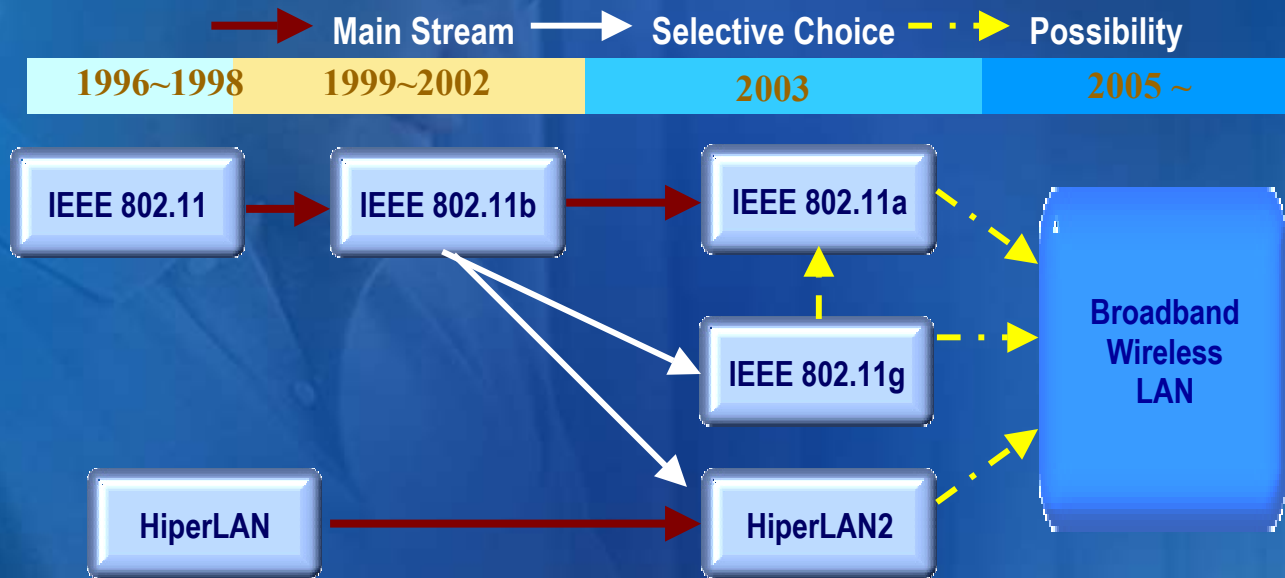
A scenic landscape featuring a calm lake in the foreground with several colorful kayaks (yellow, red, blue, and white) docked along the shore. In the background, there are dark, forested mountains with patches of snow under a clear blue sky. The overall scene is bright and vibrant.

# Korea PDA Market Unit Shipments and Revenue



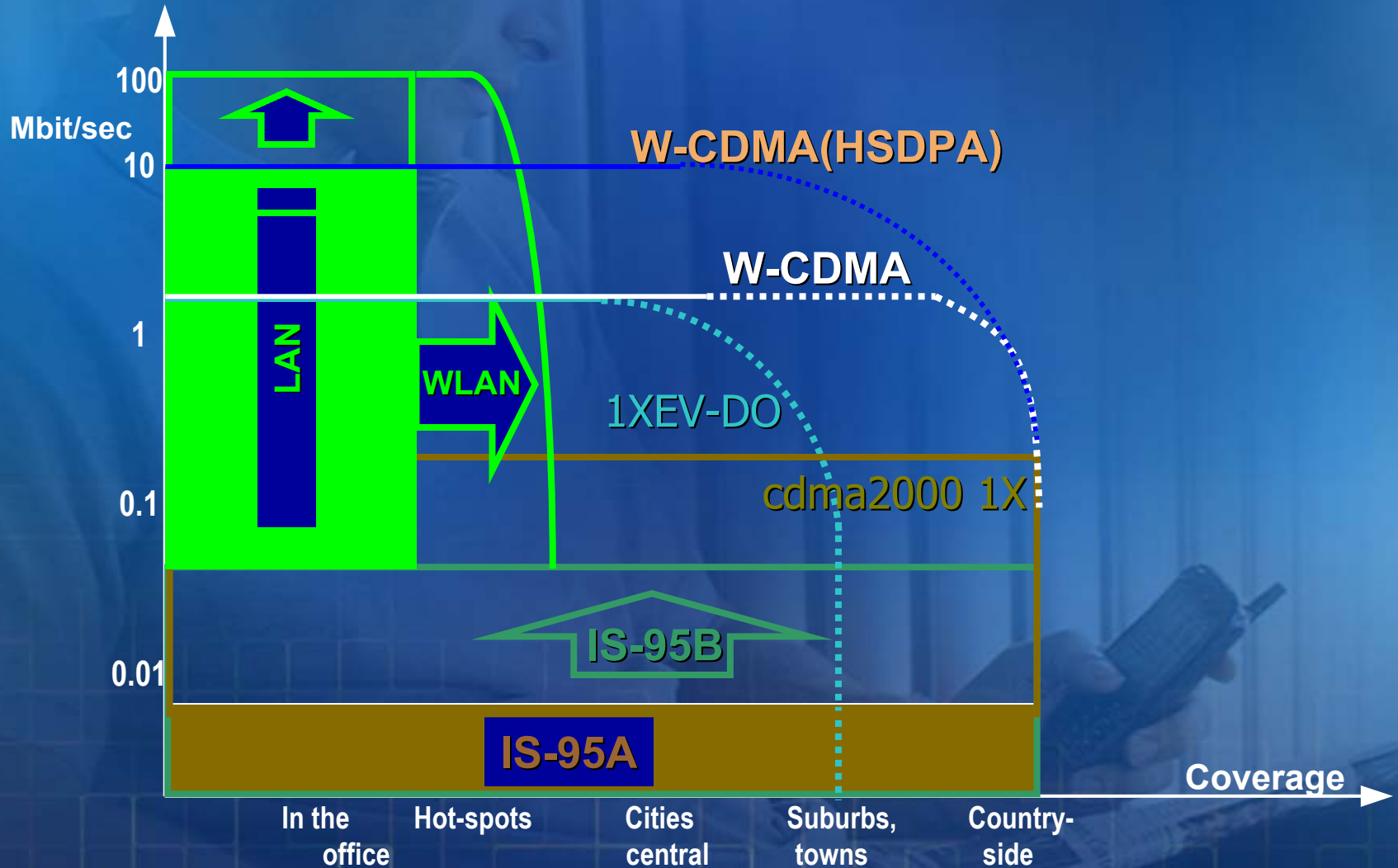
Source : IDC, 2002 & Korea Smart Handheld Devices (2002.4)

# WLAN Evolution Road map



	Standard	Max	Max. L3	status	frequency	remark
W-LAN	802.11b	11Mbps	5Mbps	In Service	2.4GHz	❖ interference (Bluetooth)
	802.11g	54Mbps	32Mbps	2002		
	802.11a	54Mbps	32Mbps	2003	5GHz	❖ New business area ❖ increasing investment (pico cell)
	HIPERLAN/2	54Mbps	32Mbps	2003		

# Positioning between WLAN and mobile





# **Part III. PWLAN Service (toward beyond 3G)**

## Business Models

### o Service providers does it all

- Install the network elements (APs, routers) out side of target location
- Managing via AAA server

### o Partner ship model

- Service provider rent AP to store
- Store gets a specific portal
- Store determines billing model
- > free/pre paid

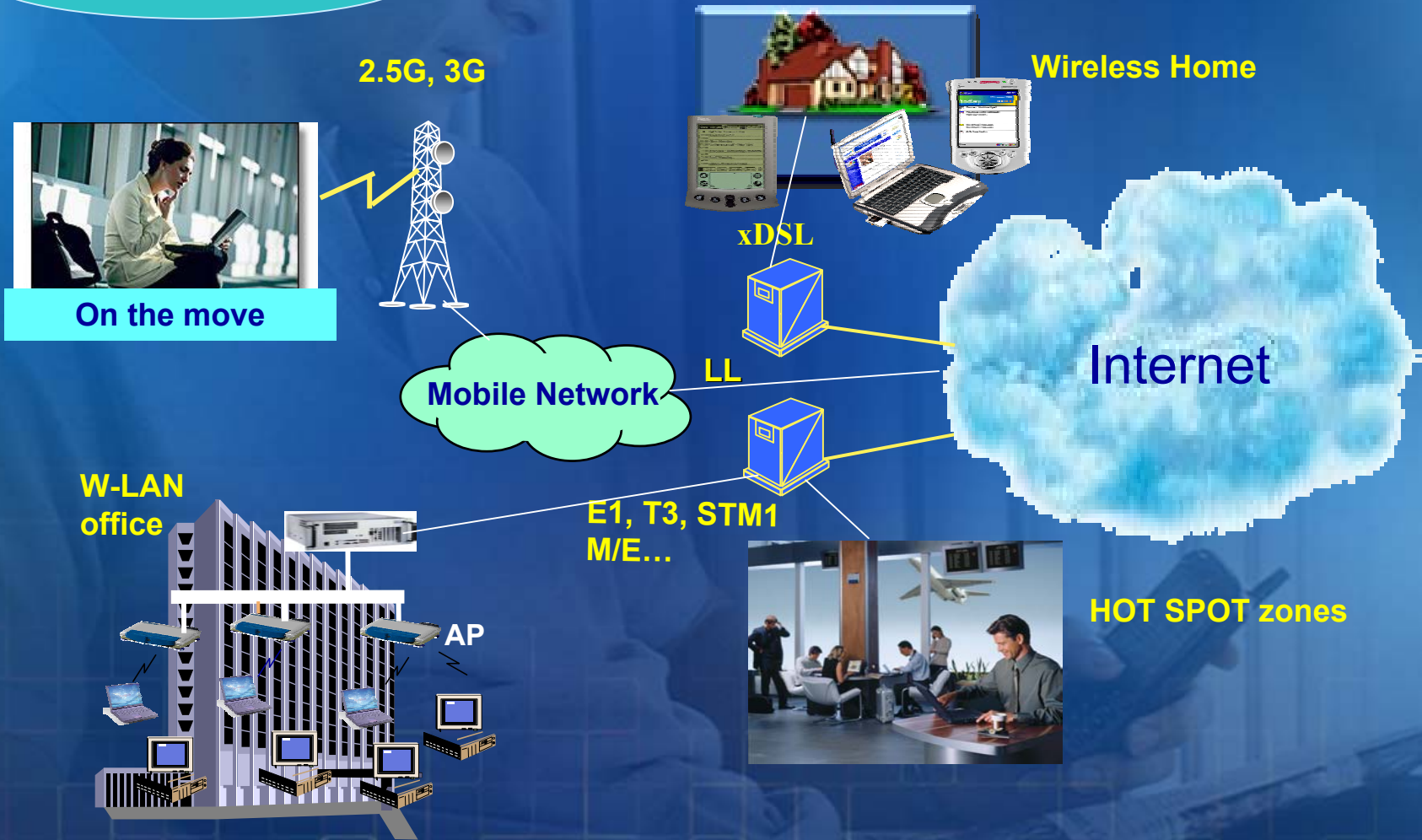
# Revenue Models

- o Client based subscription**
- o Web based Log-in**
- o Pre-paid card**
- o Voucher**
- o Sponsored Service**
- o Secure subscription**



# Features of Fixed-Mobile Convergence Service

**2G/3G + WLAN**





# Part IV. PWLAN Status in Korea

# KT- NESPOT

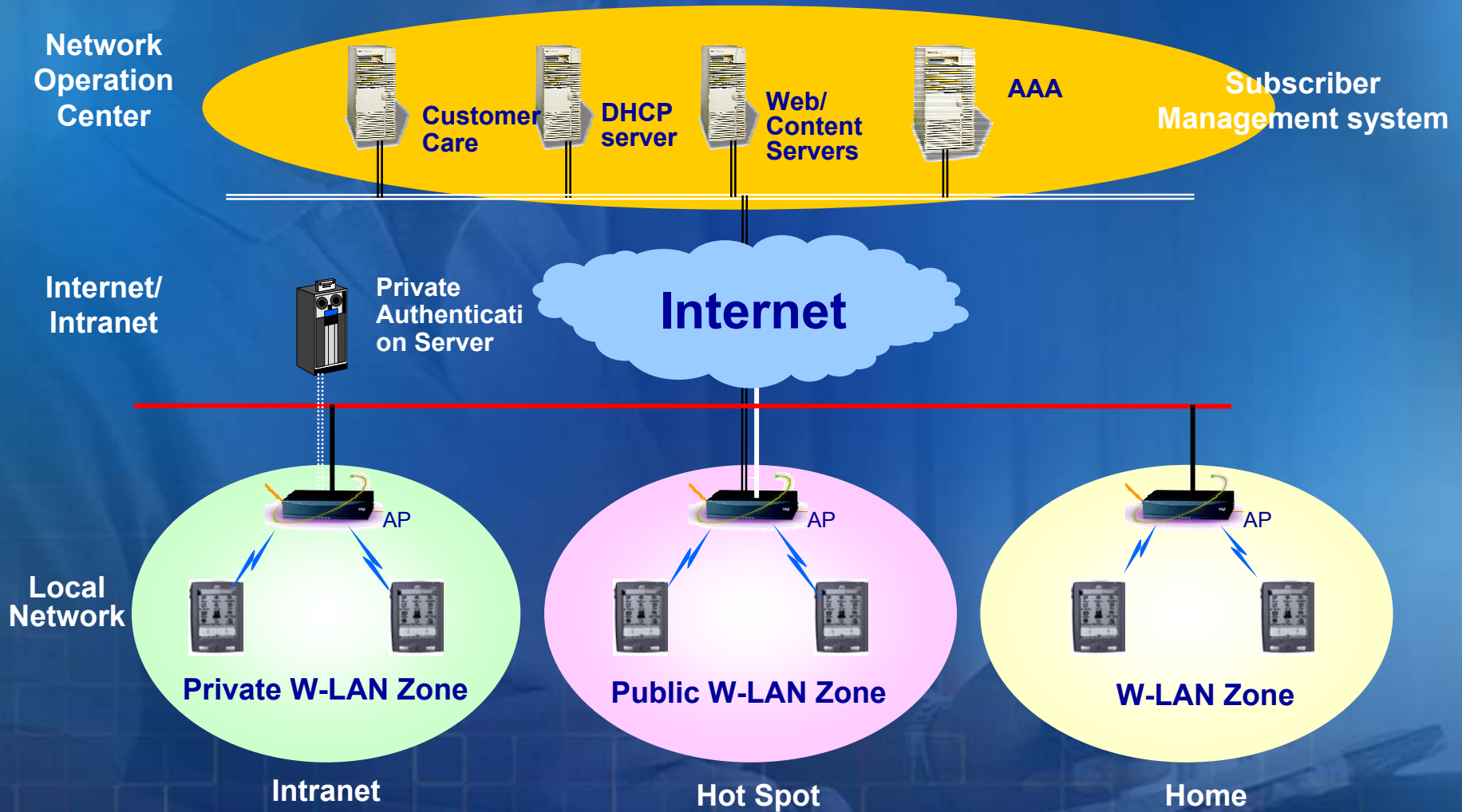
- **Business Objective**

- To meet the increasing demand for mobile internet
- To develop a 'Front-end service' by combining the massively deployed broadband and wireless solution
- > **Convergence of fixed-line broadband internet and mobile internet**

- **Business Framework**

- High-speed, low-tariff wireless internet service
  - IP backbone + xDSL/L.L. + Wireless LAN : indoor wireless internet
  - 1x-EVDO or W-CDMA : outdoor mobile internet
- Target market
  - 10 million broadband subscribers
  - Enterprise intending to ensure clean office and BB mobility

# Network Structure of KT-NESPOT Access



# PWLAN in KOREA(others)

## Hanaro

### service

- 2002.2.1 (HanaFos Anyway)
- No. of users : several hundreds(2002.7) (estimated)
- No. of hot spot: about 200 (estimated)

### Business Model

- targets mostly homes and business customers
- ※ similar business model with KT

## SKT

### status

- providing trial service
- try to utilize its own mobile network(e.g. EVDO) providing W-LAN service

## others

### status

- Thurunet, Dacom trying PWLAN business
- as additional service of broadband internet access service at homes(inactive investment on constructing hot spots)

# Summary

- **Growing of broadband mobility needs**
- **New revenue creating by PWLAN**
  - **by speed up by WLAN technology**
  - **by home and hot-spots extensions for customers wireless LAN**
- **New market by PWLAN access**
  - **Wireless PDA (networked PDA) applications**
  - **Life style internet applications**  
( E-books, video clips, maps, courseware's,
  - **Combination of CDMA & Wireless LAN**  
( Light app. via CDMA, heavy app. via Wireless LAN)
- **Many telcos launches PWLAN service**
  - **KT - NESPOT**
  - **Hanaro- hanafos anyway**

A man wearing glasses and a blue shirt is looking at a mobile phone. The background is a blue-tinted office setting with a grid pattern overlaid on the bottom half. The text "FIN" is centered in the upper half.

**FIN**

**THANK YOU**