

WiMAX and mobile Internet



12/18/2009

UQ Communications Inc.

附件三



About UQ Communications

UQ Communications Inc.



Sole Nationwide WiMAX Operator in Japan with 30MHz Bandwidth on 2.5GHz Spectrum

Representative Director	Takashi TANAKA (Associate Senior VP of KDDI)												
Employees	257 (as of 10/1/2009)												
Founding Capital	47 Billion Yen												
Shareholders ():Voting rights ratio	<table><tr><td>KDDI Corporation</td><td>(32.26%)</td></tr><tr><td>Intel Capital Corporation</td><td>(17.65%)</td></tr><tr><td>East Japan Railway Company</td><td>(17.65%)</td></tr><tr><td>Kyocera Corporation</td><td>(17.65%)</td></tr><tr><td>Daiwa Securities Group Inc.</td><td>(9.80%)</td></tr><tr><td>The Bank of Tokyo-Mitsubishi UFJ</td><td>(5.00%)</td></tr></table>	KDDI Corporation	(32.26%)	Intel Capital Corporation	(17.65%)	East Japan Railway Company	(17.65%)	Kyocera Corporation	(17.65%)	Daiwa Securities Group Inc.	(9.80%)	The Bank of Tokyo-Mitsubishi UFJ	(5.00%)
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2.5GHz License

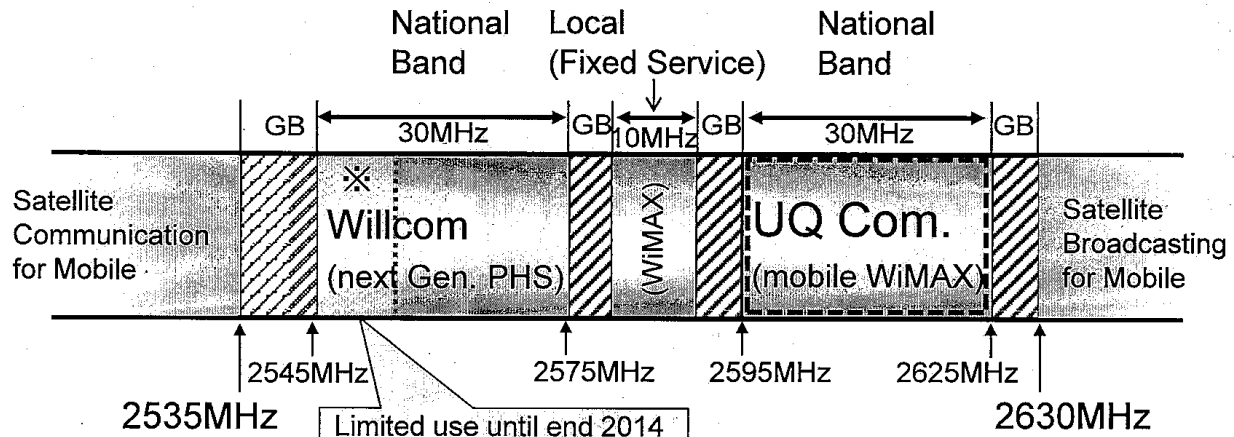


Three Segments are Assigned

30MHz for UQ WiMAX

Another 30MHz for "Next Gen. PHS"

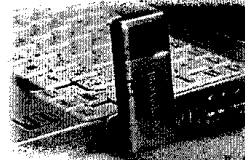
10MHz for limited area WiMAX Operators



Service Launch



Dec. 21, 2007	2.5G License Awarded
Aug. 29, 2008	First BS Installed
Feb. 26, 2009	Pilot Launch
Jul. 1, 2009	Commercial Launch



Japan Market

Internet market

Broadband Internet at home: Commodities

Virtually Everyone
uses Internet



Japan Population : 120Million

Use Internet: 91M
76%

Don't Use
24%

Most of households
use Broadband



Fiber Optic Internet
takes Majority



Internet Household : 30Million

Broadband
75%

Narrow B
25%

■ Fiber Opt. ○ DSL ■ CATV ▨ Other

39.0%

17.3%

7%

Cellular phone Internet

Cellular Phone market: Saturated

Virtually Everyone
uses Cellular Phone

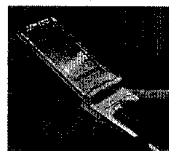


Japan Population : 120 Million
**Cellular Phone Subscription
109 Million**

Most of them use
Cellular Phone Internet

**Cellular Phone Internet
92 Million (87%)**

Voice
Only
13%

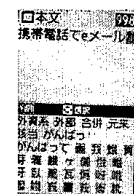


Ten key Input

Search



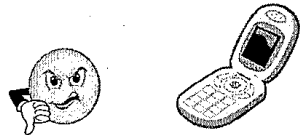
email



High demands for Full Mobile Internet

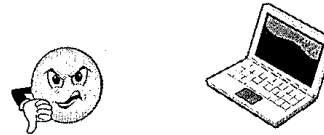
Mobile Internet needs higher speed and more portability

Cellular Phone Internet



- Small Screen
- Small Keypad
- Limited Browser

Laptop PC Internet



- Too big, too heavy to carry
- Short battery Life

WiMAX

WiMAX provides high speed mobile

Portable Devices

PC becomes more portable

- ✓ Thin and light
- ✓ Longer battery life
- ✓ Sleek MID

Mobile data market

Fast growing with mobile PC

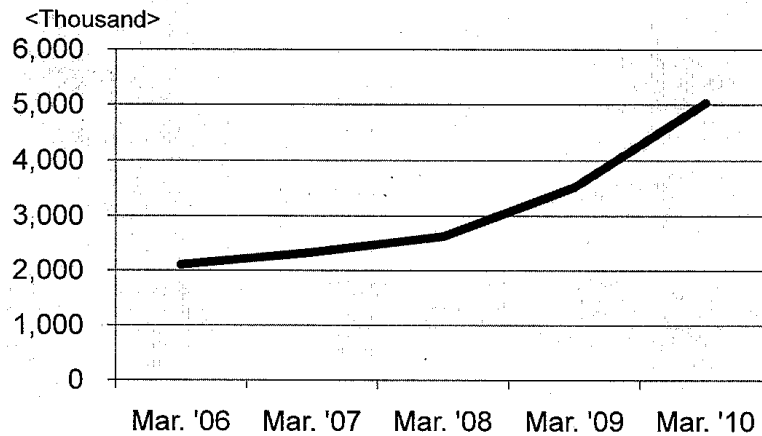
e-Mobile	2,000k
Willcom	900k
docomo	1,600k
au(KDDI)	
Softbank	

4,500k

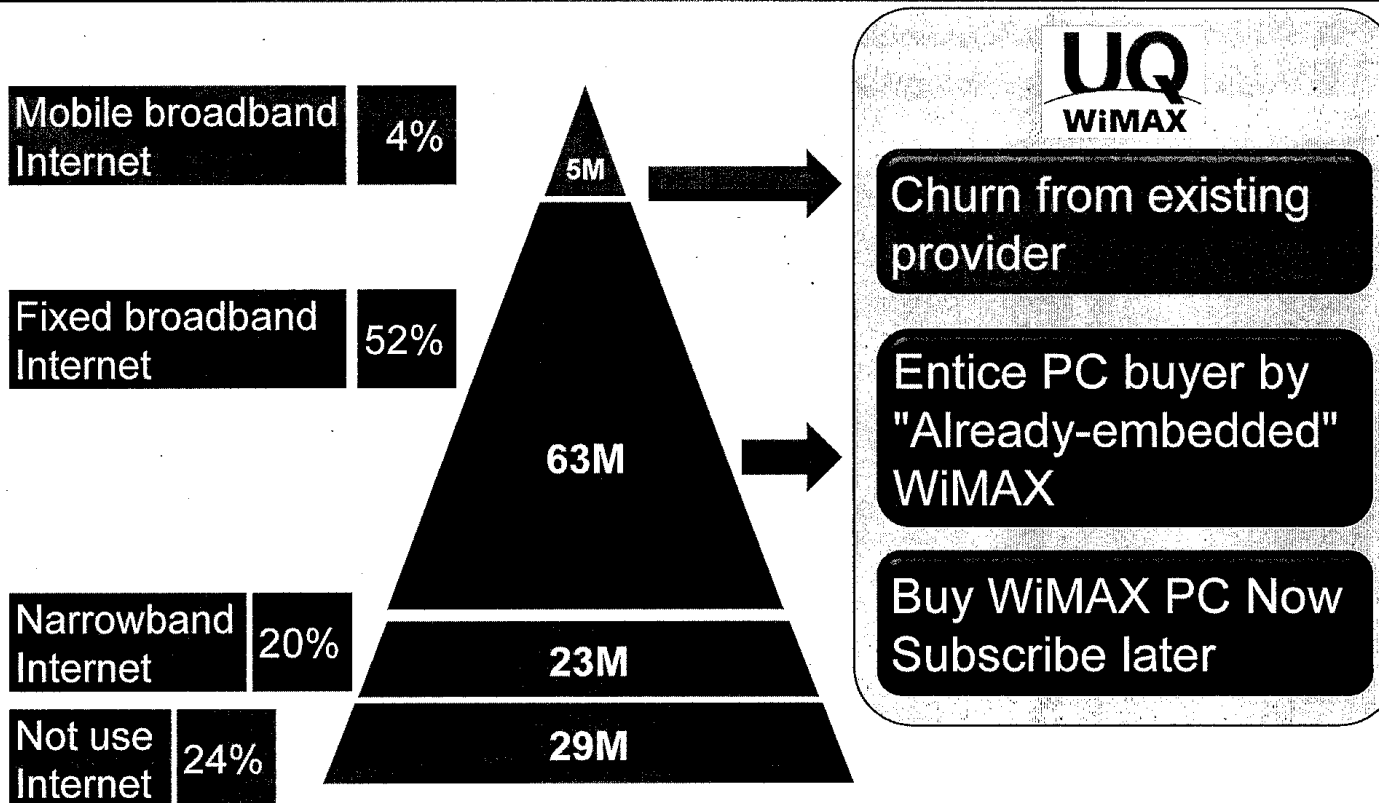


Forecast : End of Mar. 2010

5,000k



Mobile Internet : growing but still small



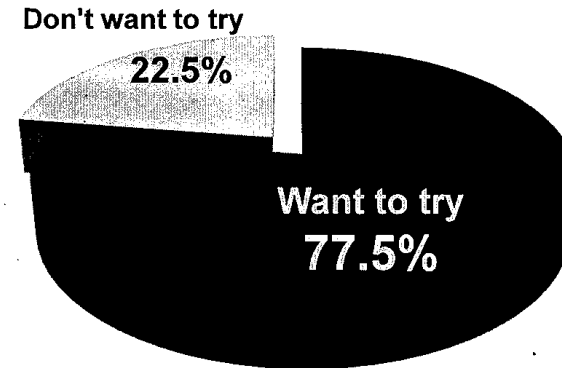
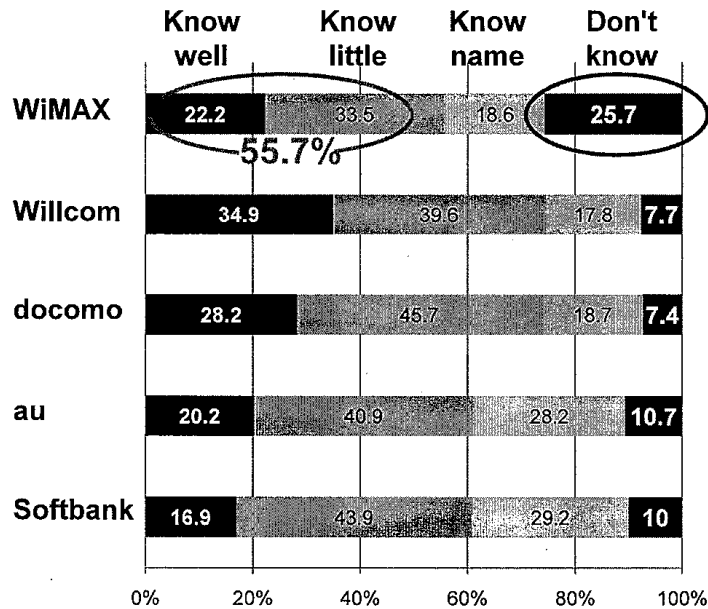
Penetration to EM users

- from UQ market survey data -



55.7% of EM users know WiMAX but 25.7% do not know at all

77.5% of EM users want to try WiMAX if there is a chance

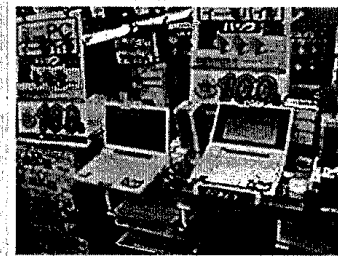


Existing 3G data operators
- e mobile (EM) & NTT docomo -

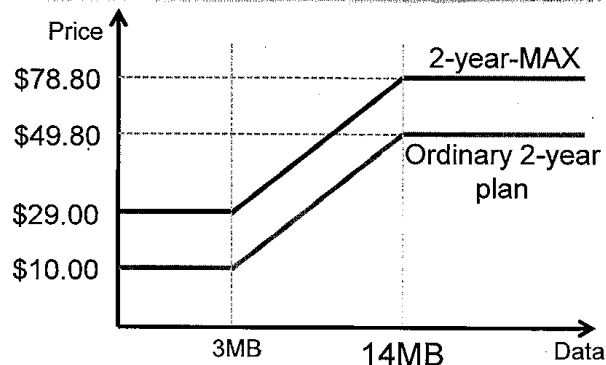
EM subsidized PC

e-mobile collects attention with subsidized netbook

Netbook with EM Data card at \$1 (or \$400 off from PC price tag) with '2-year-MAX' subscription.



'2-year-MAX' plan



- requires \$19 higher monthly fee than ordinary 2-year plan (Early Termination Penalty = \$29 x remaining months).

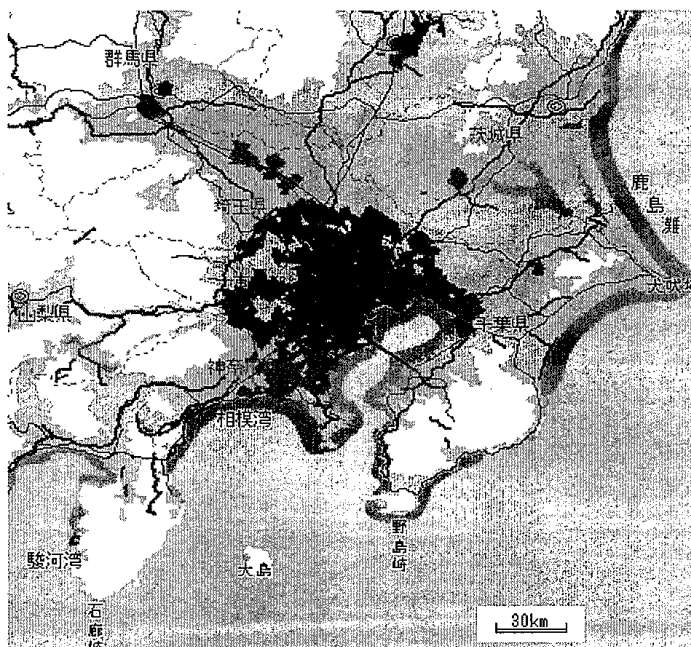

$$\$29 \times 24\text{mos} = \$696$$

- Some '2-year-MAX' subscribers do not use mobile Internet.

EM HSPA+

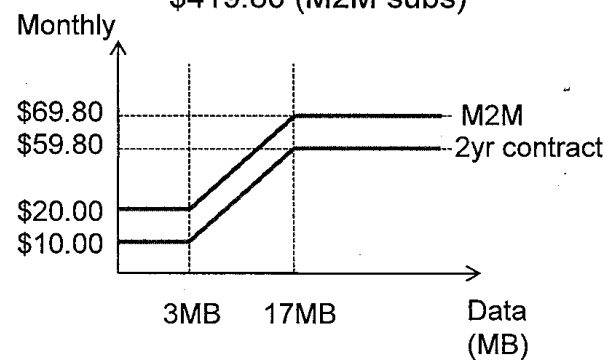





e-mobile starts HSPA+ from July 2009

HSPA+ 5.8 Mbps
 HSPA+ 21 Mbps
 data-stick D31HW
 DL 21Mbps
 UL 5.8Mbps

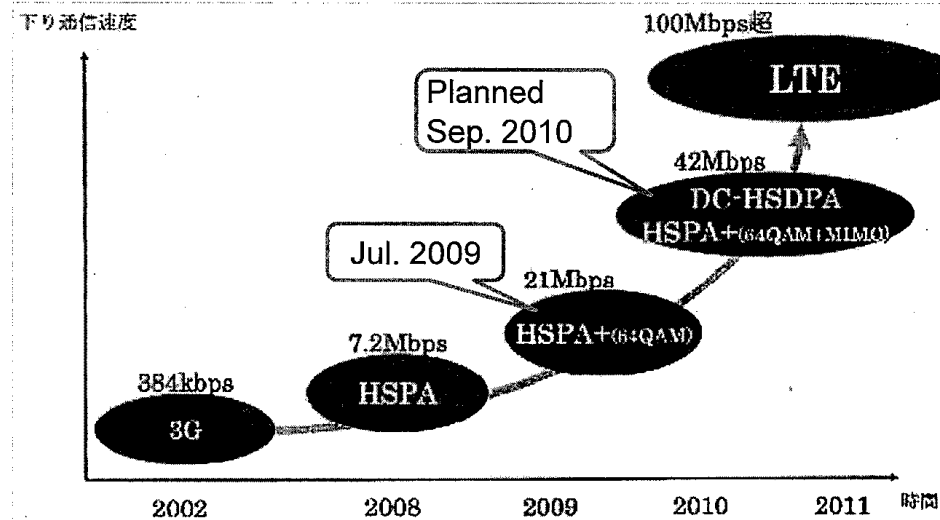
\$179.80 (w/2yr contract)
 \$419.80 (M2M subs)



-  DL 7.2Mbps
-  DL 21Mbps (10/2009)
-  DL 21Mbps (12/2009)

EM's plan toward LTE

e-mobile upgrades HSPA

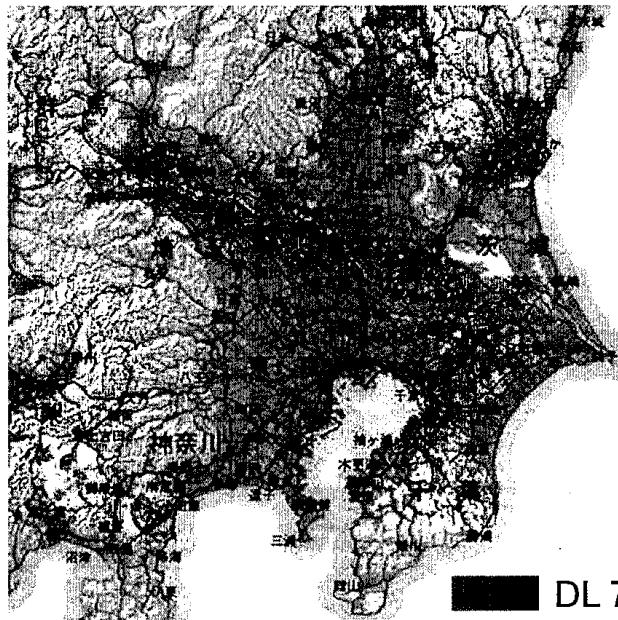


- EM starts HSPA+ 21Mbps service from July 2009. It expand the HSPA+ population coverage to 60% by the end of 2009.
- From 2010, EM uses new assigned 1.7GHz spectrum and starts DC-HSDPA from September 2010.
- LTE starts from 2010 and extend pop. coverage to 75.2% by 2014

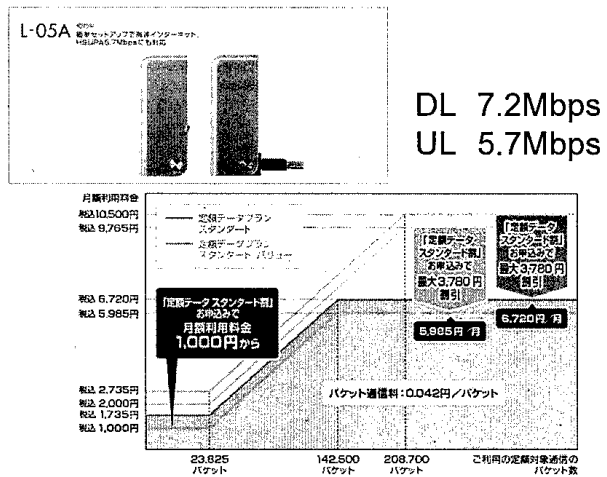
Existing 3G Data Service: NTT docomo



docomo has 50% share in cellular phone
 Realizing 100% pop. coverage but faces lack of capacity



DL 7.2Mbps



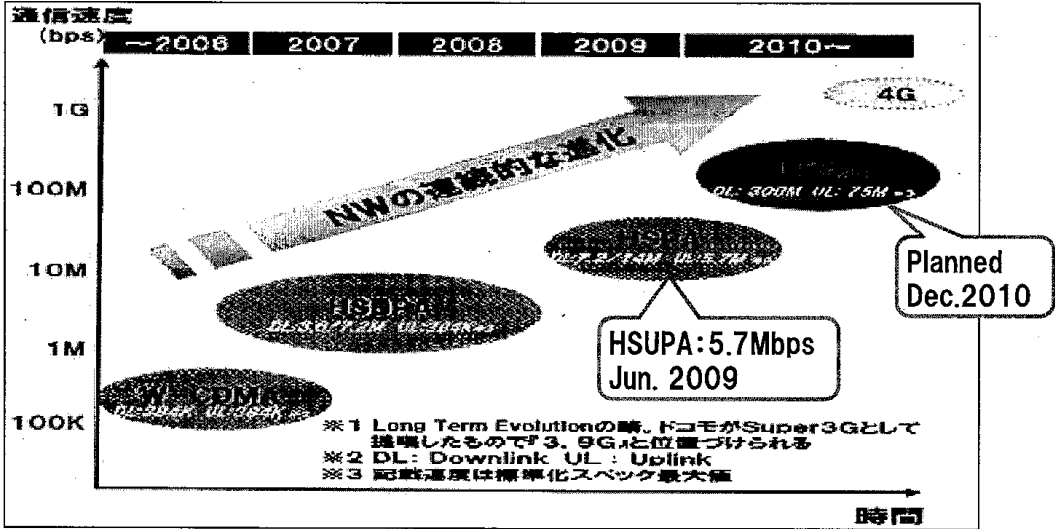
docomo subsidizes PC as well

docomo announces it starts LTE data card service from late 2010

LTE service provided by NTT docomo



docomo launches LTE service in Dec. 2010



- In Dec. 2010, docomo Launches LTE service.
- docomo provides 3G/LTE dual Data communication cards. Handset type equipment will be provided after 2011.
- docomo uses 5MHz bandwidth on 2.0GHz spectrum .
- 51.1% population coverage at the end of F.Y. 2014

WiMAX evolution

UQ speed is a key differentiator over 3G.
We will improve WiMAX in near future

EN 21Mbps < **UQ** 40Mbps
EMOBILE WiMAX

Technology	HSPA+	DC-HSDPA	LTE (5MHz Cat.3)	WiMAX	Enhanced 802.16e	802.16m
DL Speed Claimed	21Mbps	42Mbps	37.5Mbps	40Mbps	40Mbps (21.8Mbps)	291.7Mbps
UL Speed Claimed	5.8Mbps	5.8Mbps	?	10Mbps	10Mbps (5Mbps)	84.4Mbps
DL Speed observed	6.2Mbps	NA	NA	NA	NA	NA
UL Speed observed	1.4Mbps	NA	NA	NA	NA	NA

**UQ keeps speed advantage
with Enhanced 802.16e & 802.16m**

UQ Today: Price, Product, Promotion and Place

Abstract of a Research

Competitive Price & Easy-to-Understand Plan

UQ Flat

完全定額プラン

Flat Rate at ¥4,480/Mo.
No Minimum Contract Requirement

UQ 1 Day

1日利用プラン

¥600/24 hours
No Registration Fee

Useful options
for WiMAX PC



Wi-Fi
Option

Free Wi-Fi Hotspot Access for
UQ WiMAX Account Holders



Multi Device
Option

Additional Device at \$2/Mo.
Maximum 3 Devices, Non Concurrent
Free until end Jan. 2001

Typical 3G Contract

- ✓ 2 year Contract with high early termination penalty
- ✓ Several Different Plans

Price

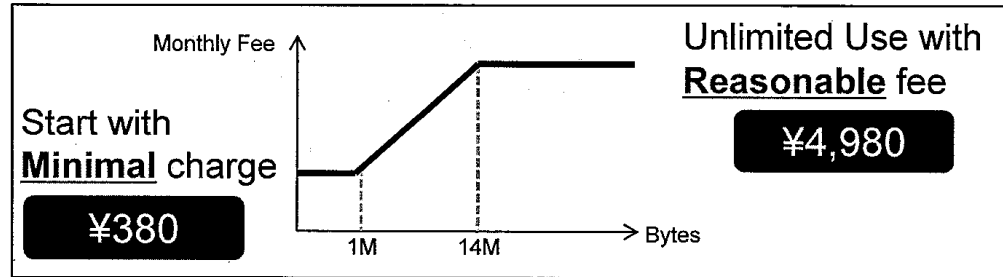
Our New Plan



UQ to introduce the "Step Plan" earlier than originally planned

UQ Step
2段階定額プラン

UQ WiMAX MVNOs



- ✓12/17 Press Release
- ✓12/18 Accept subscription



✓First 15 days free after subscription



✓Proportional price (JPY 0-4,600) until end of March

Product

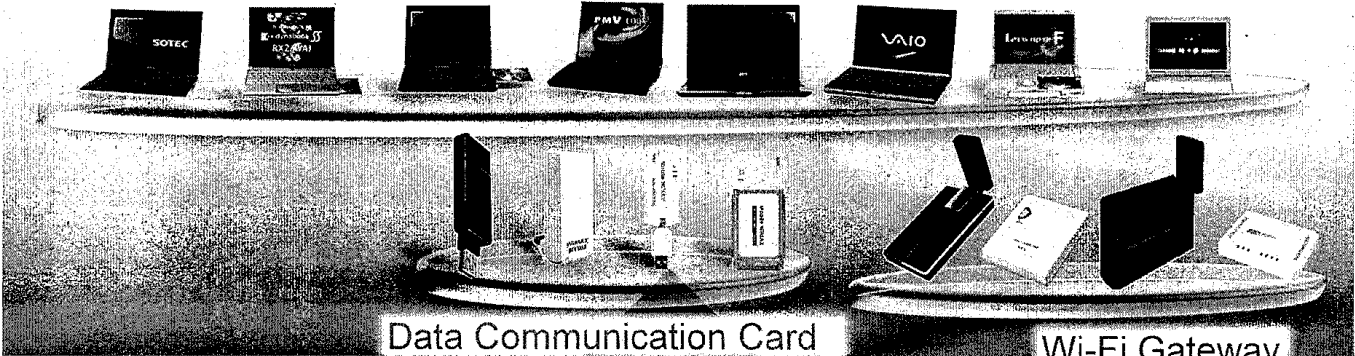
WiMAX enabled devices



Released WiMAX PC and Wi-Fi GW, not only dongle

WiMAX PC

Retail products



Data Communication Card

Wi-Fi Gateway

UQ Brand products



Data Communication Card

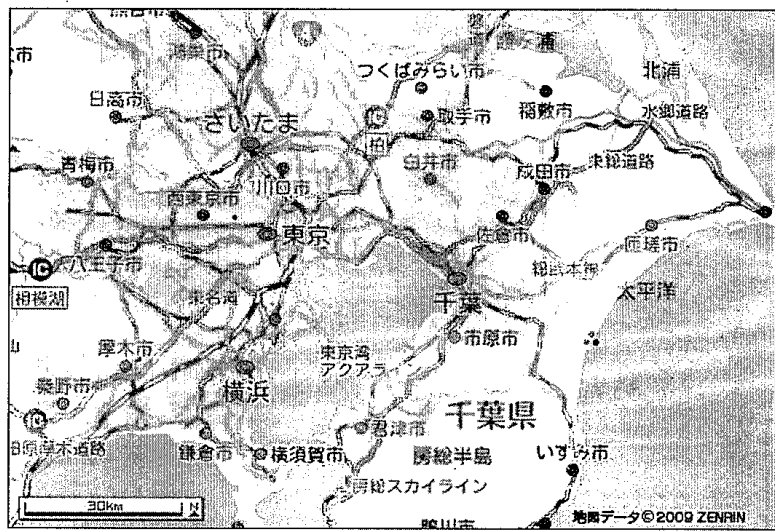
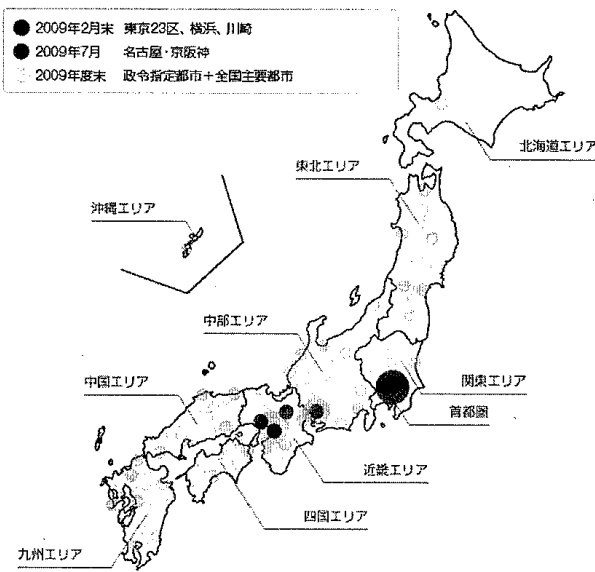
Wi-Fi Gateway

Product

Coverage



UQ covers Tokyo metropolitan area (Tokyo, Kawasaki, Yokohama), Nagoya, Kansai area (Kyoto, Osaka, Kobe), Fukuoka and Hiroshima. Major cities will be covered by next March.



Pink: Nov. 2009, Yellow: Mar. 2010

At December 15th

- ◆ Service starts : 45 Pref./330 Cities
- ◆ BS in operation: 4,160

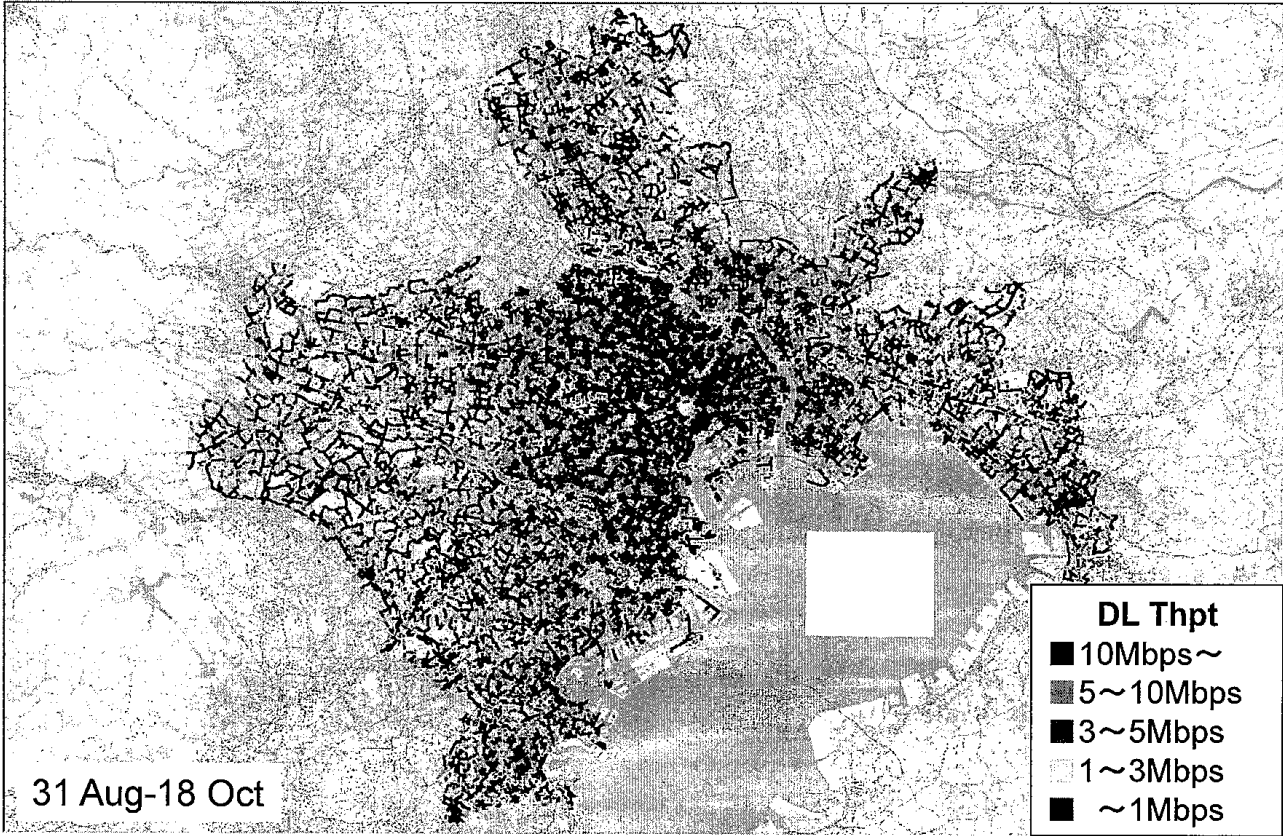
End of March 2010

- ◆ Originally Scheduled : 4,000BS
- ◆ New Projection : 6,000+BS

Number of BS License
(as of Nov. 7)

	EM	UQ
Hokkaido	491	116
Tohoku	413	149
Kanto	3,557	1,949
Shinetsu	253	3
Hokuriku	91	64
Tokai	1,139	842
Kinki	1,682	967
Chugoku	340	186
Shikoku	101	67
Kyusyu	580	253
Okinawa	37	2
Total	8,684	4,598

EM has almost halted BS expansion.



Trial to allow users to confirm WiMAX availability and speed before contract



Free 15-day trial

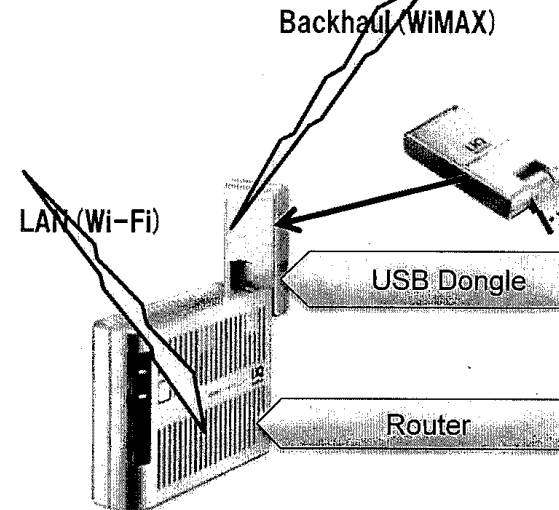


WiMAX-WiMAX Repeater
(Under development)

Local coverage (WiMAX) Backhaul (WiMAX)



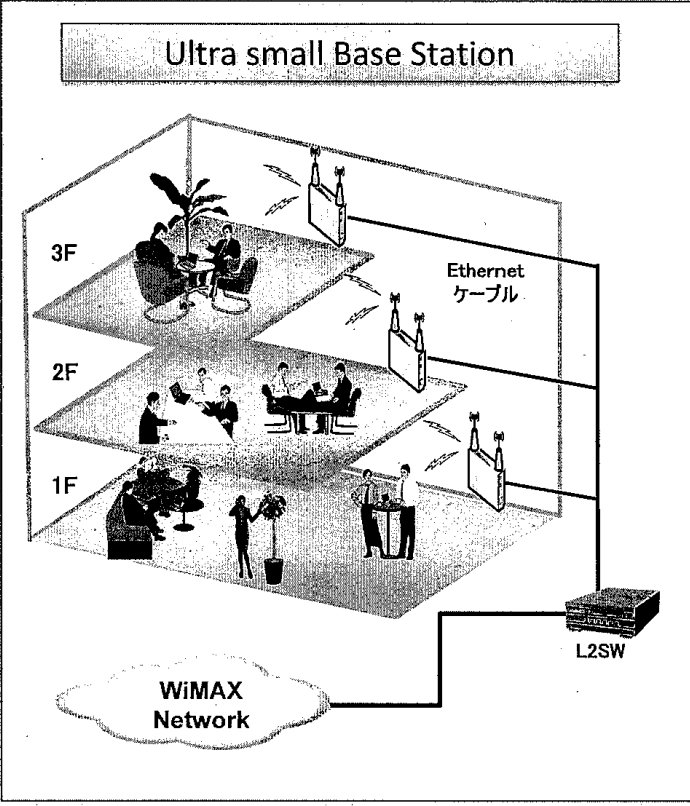
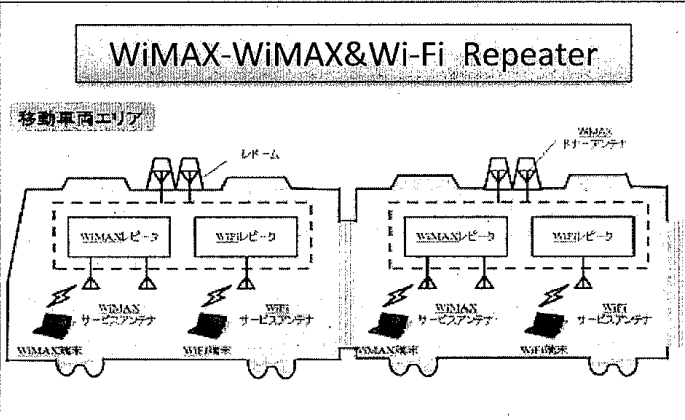
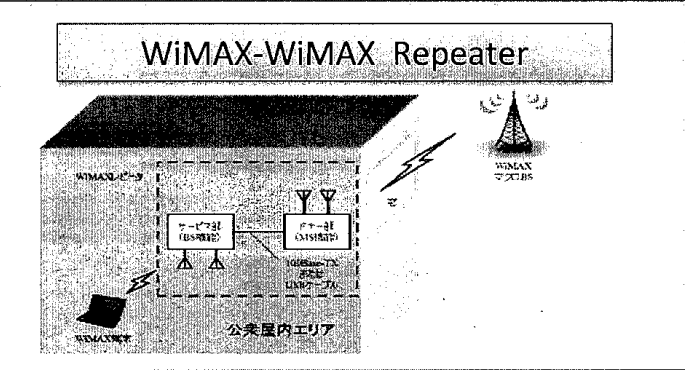
WiMAX-Wi-Fi Repeater



In addition, we are considering "Femto cell" and other way to expand coverage.
For example, KDDI* has developed Dual mode(WiMAX and 3G(EV-DO)) data card.

Product

Coverage Expansion



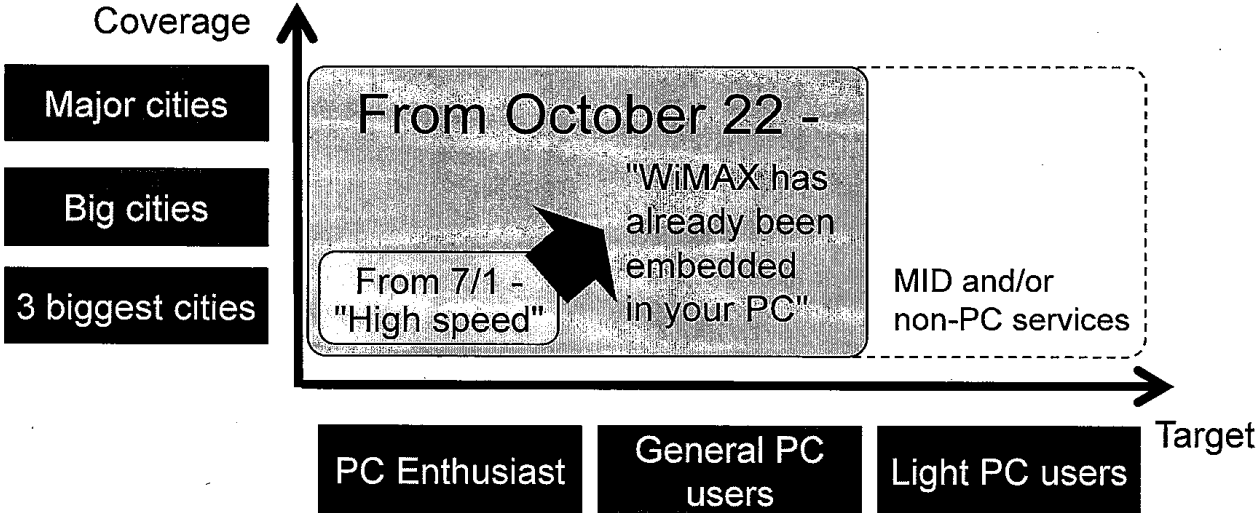
Promotion

Advertisement



Spend more advertising budget for WiMAX enabled devices

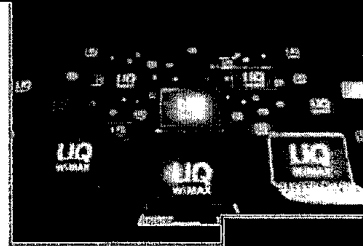
TV	Web	✓ WiMAX PC become a new standard
Direct Mail	OOH	✓ WiMAX PC: now available at national retailers
Event	Publicity	✓ WiMAX advantages



Appealing Speed



Appealing WiMAX embedded PC



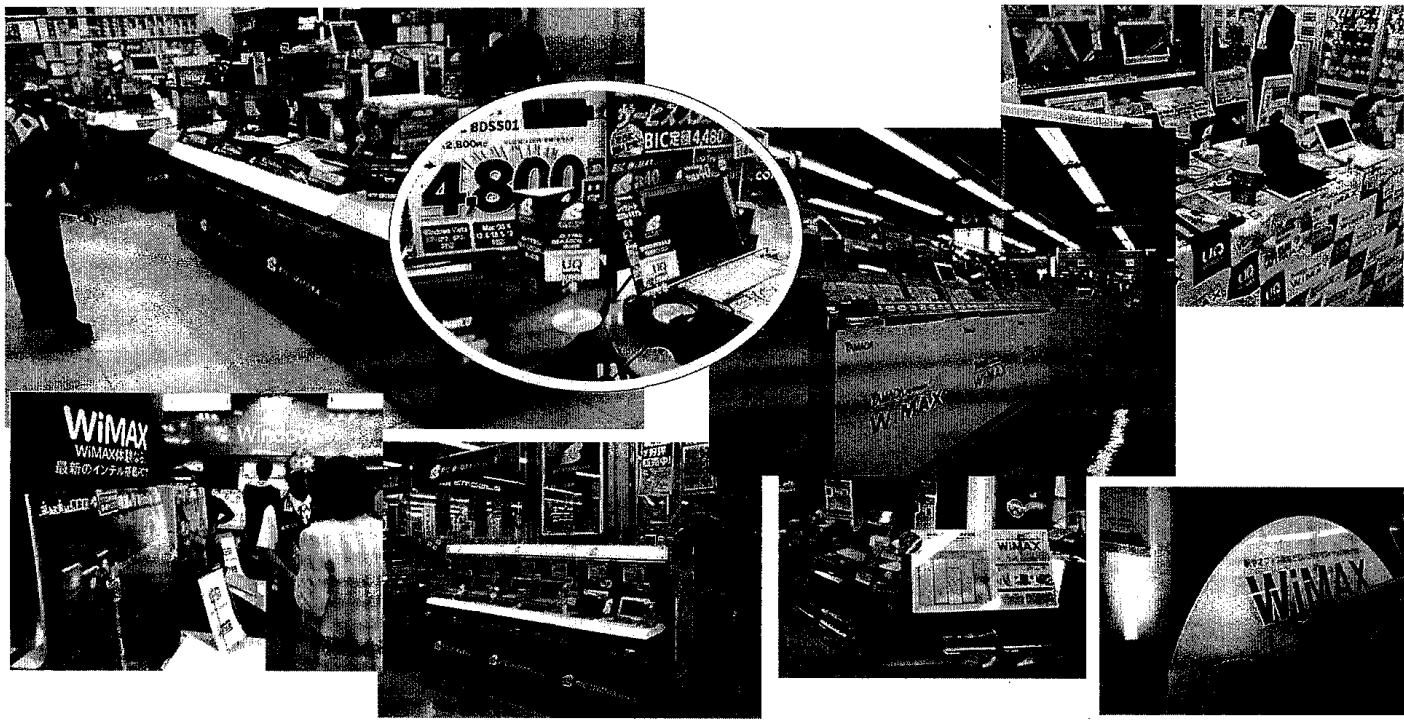
UQ wants to make a trend:
WiMAX PC is your must item

Place

Sales Channels



WiMAX PC counters at national retail chains

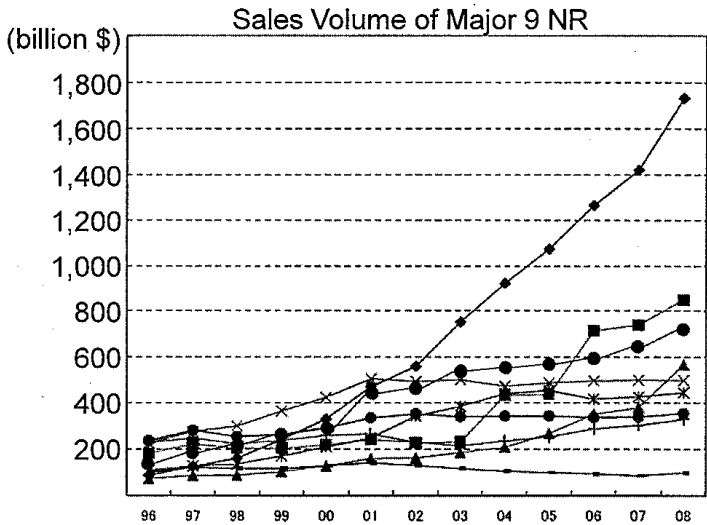


Place

WiMAX MVNOs



Major national retail chains / ISPs became WiMAX MVNOs



- ◆ YAMADA-DENKI
- EDION
- Yodobashi Camera
- ▲ K'S
- × Kojima
- * BIC CAMERA
- BEST DENKI
- + Joshin Denki
- Sofmap

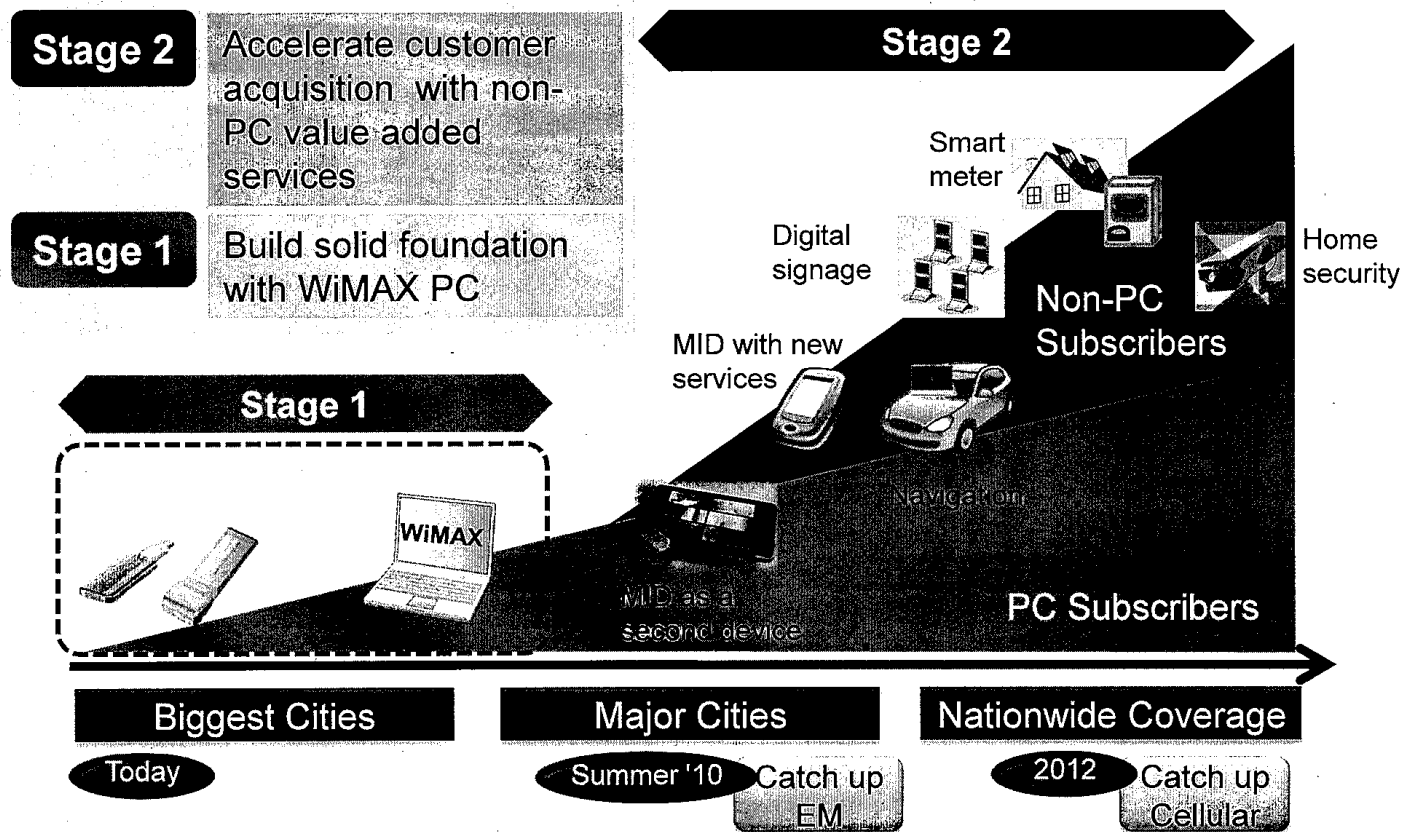


Other MVNOs

ISP	Telecom Operator	Sler

Opportunities in Japan Market

Start with PC and expand with non-PC



Thank You

