

ABS7  
country report  
JAPAN

2008

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# Infrastructure@2006-7 Asia

## Internet Users, BB users with Cell, Ratio

- Japan: 85,290.0 66.59 96,484.0 75.33%
- Korea: 33,010.0 68.35 38,342.3 79.39
- China: 111,000.0 8.44 393,406.0 29.90
- HongKong:3,526.2 50.08 8,693.4 123.47
- Taiwan:13,210.0 58.01 22,170.7 97.37
- Singapore:1,731.6 39.79 4,384.6 100.76
- Malaysia:11,016.0 42.37 19,545.0 75.17
- Thailand:7,284.2 11.34 31,136.5 48.47
- Indonesia:16,000.0 7.18 46,910.0 21.06
- Philippine:4,614.8 5.48 34,779.0 41.30
- India:60,000.0 5.44 90,140.0 8.17
- Israel:1,685.9 24.43 7,757.0 112.42
- SaudiArabia:3,000.0 12.21 14,164.2 57.64
- United Arab Emirates:1,321.7 29.40 4,534.1 100.85
- Australia:14,190.0 70.40 18,420.0 91.39
- NewZealnd: 2,754.0 68.35 3,530.0 87.61

# Broadband Brings

- Superior Connectivity
  - Many Applications.
  - P2P, movie
  - Close to Broadcasting
- 
- More and more SPAM
  - Moreover Cyber Crime

# Broadband Anywhere

- First, metropolitan area
- Now, rural area
- Using ADSL+ WiFi/WiMax

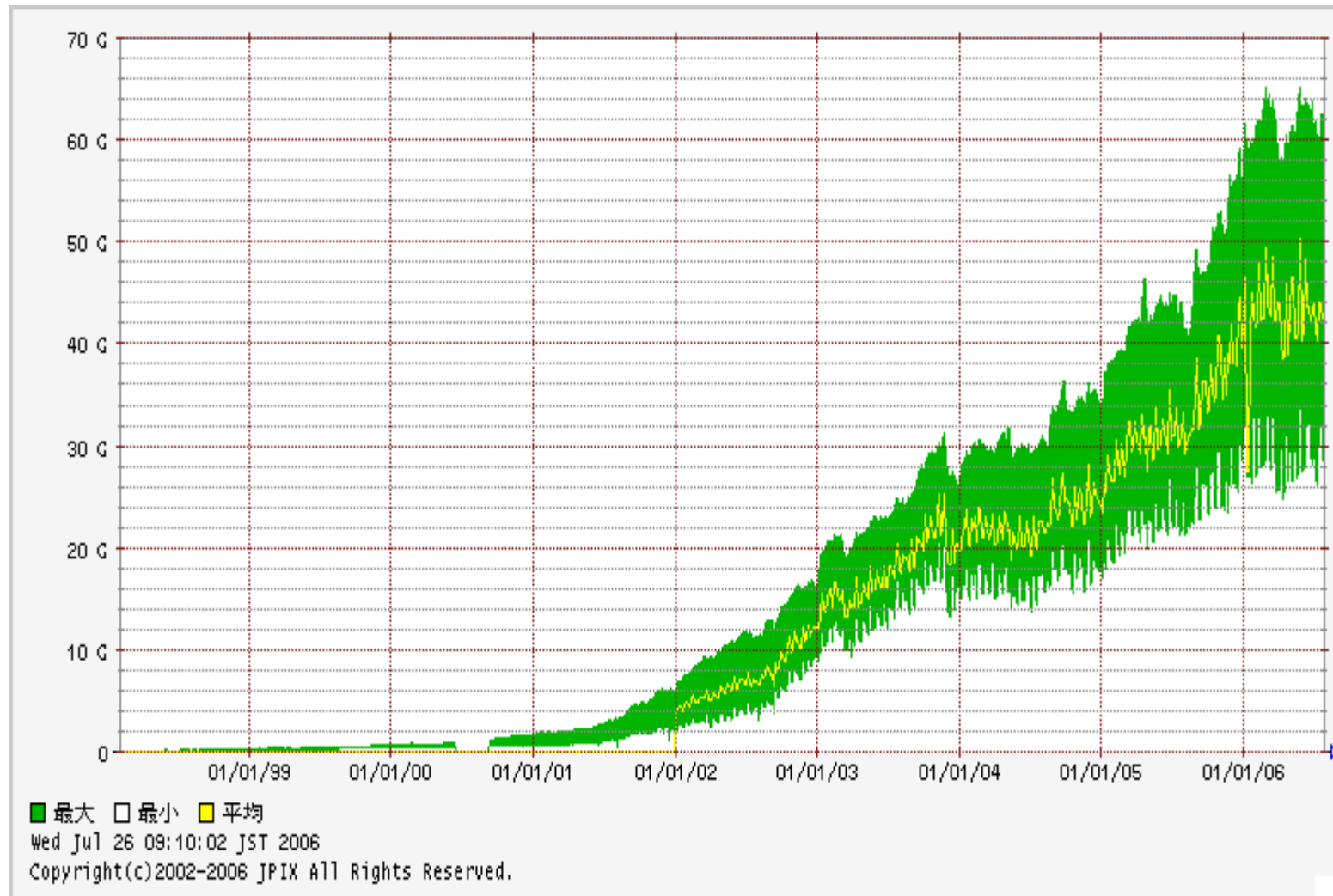
Government urges in Japan

- Wired or Unwired

# Japan

- Convergence Net and TV is beginning
- 「情報通信法」(仮称)の制定を目指す総務省は25日、情報通信審議会(総務相の諮問機関)の「通信・放送の総合的な法体系に関する検討委員会」で議論を始めた。
- “One” Information Communication Act will be settled by 2010
- Beyond Broadcasting Industry and Communication Industry, UNITE!

# Traffic Data at JPIX



# Broadband Network

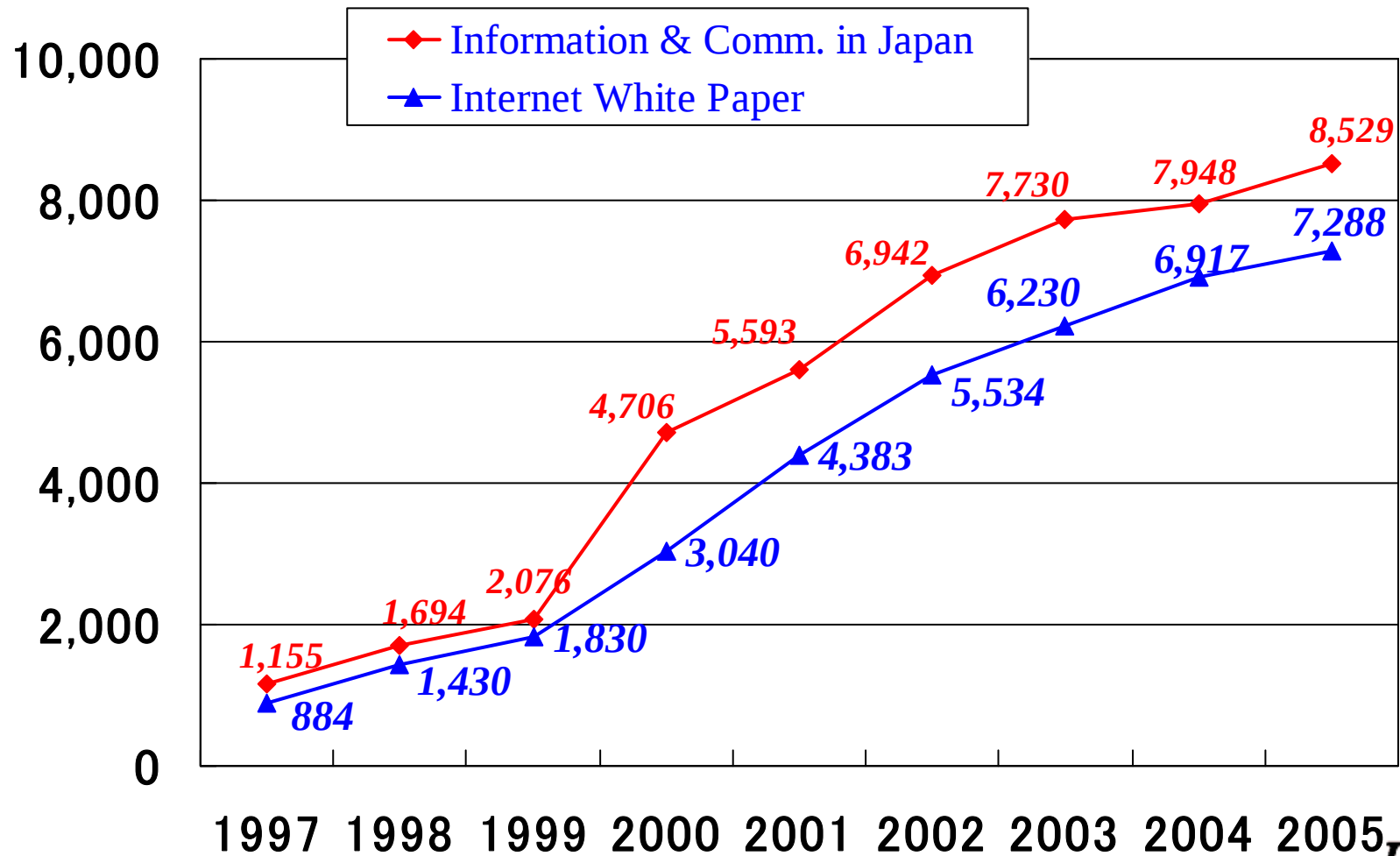
- Traffic increase unexpectedly
- Bring Bottle Necks
- Sometimes Network Down
- Current Backbone is enough?
- Statistic data needed for stabilization and security of Internet

# Comparison of Internet User Survey Method

| Items              | Internet White Paper<br>(2006)                                                     | Info. and Comm. In Japan<br>(2006)                                                   |
|--------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Date of survey     | February,2006                                                                      | January,2006                                                                         |
| Survey target      | General household<br>(Respondent should be >16 years)<br>Survey target is >3 years | General household<br>(Householder should be >20 years)<br>Survey target is > 6 years |
| Survey area        | 26 Cities and suburbs in<br>Japan                                                  | Nationwide                                                                           |
| Survey method      | Telephone conversation                                                             | Sending and receiving of<br>survey slip by Post                                      |
| Sampling method    | Random Digit Dialing                                                               | Two stage random<br>sampling                                                         |
| Number of samples  | 95,809 Household                                                                   | 6,400 Household                                                                      |
| Effective responds | 41,025 (42.82%)                                                                    | 3,982 (62.2%)                                                                        |

# Internet Users in Japan by Two different sources

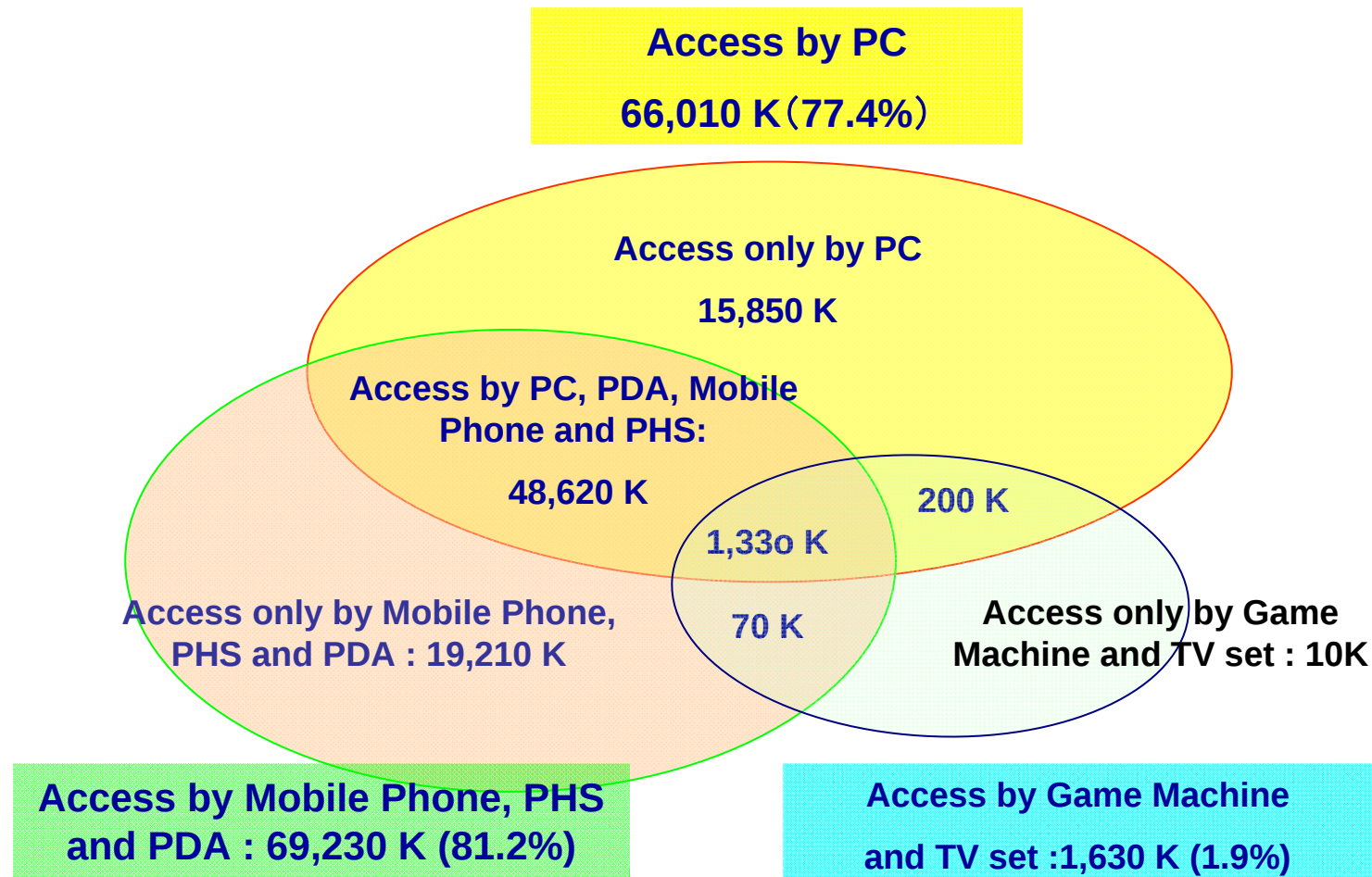
Internet Users (Thousands)



# Internet Access Method split by Equipment

(December, 2005)

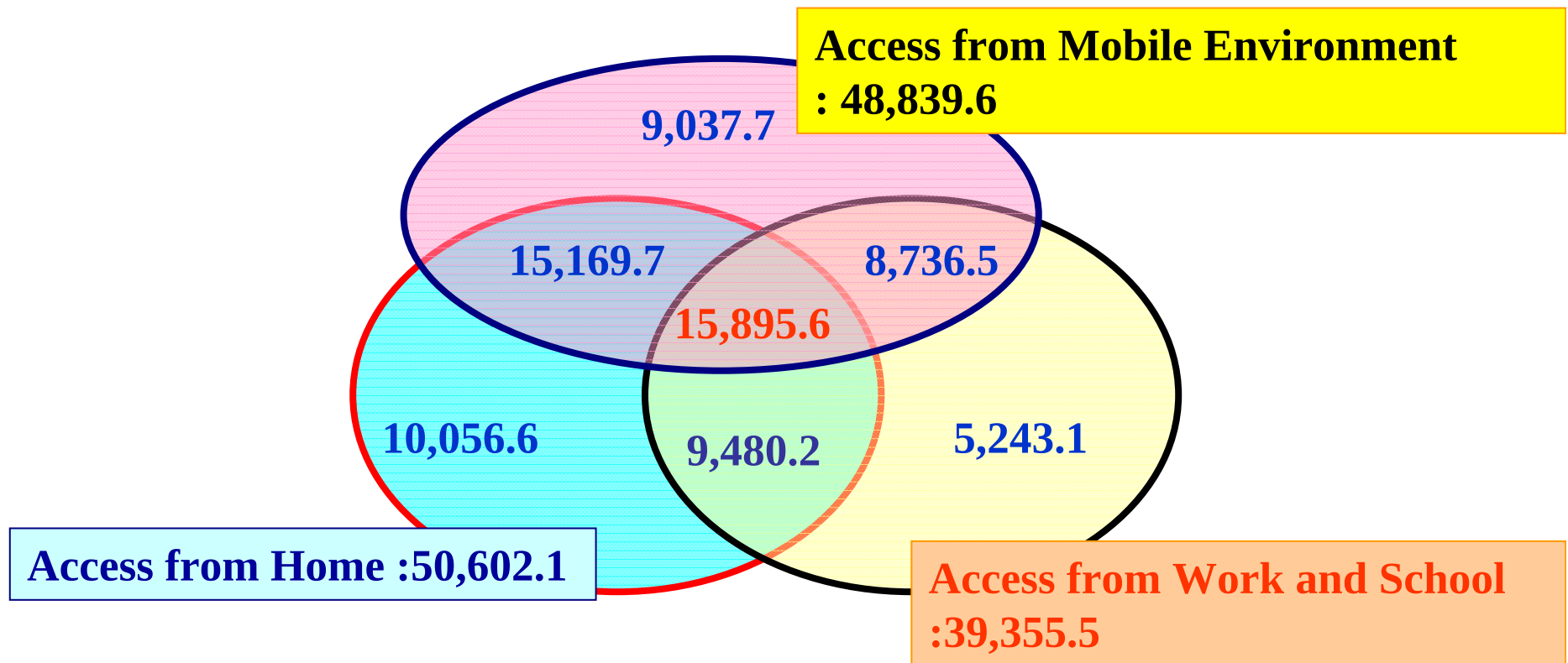
**Total Users : 85,290 Thousands**



Source: MIC

# Internet Users Sprit by Access Environment (February,2006)

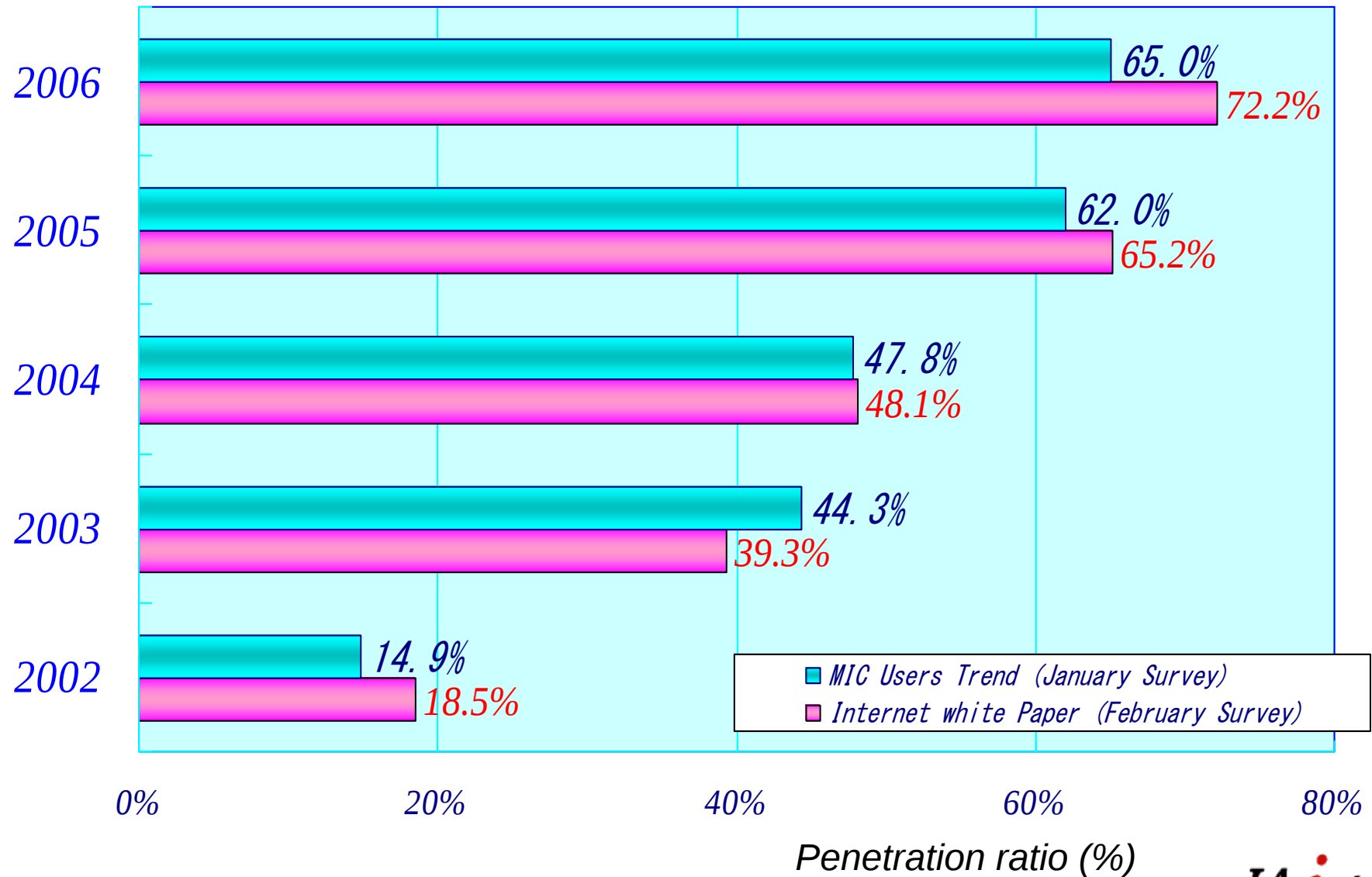
**Total Number of Internet users: 73,619 Thousands**



(Thousands)

Source: Internet White Book,2005

# Broadband Penetration Ratio in Internet Household

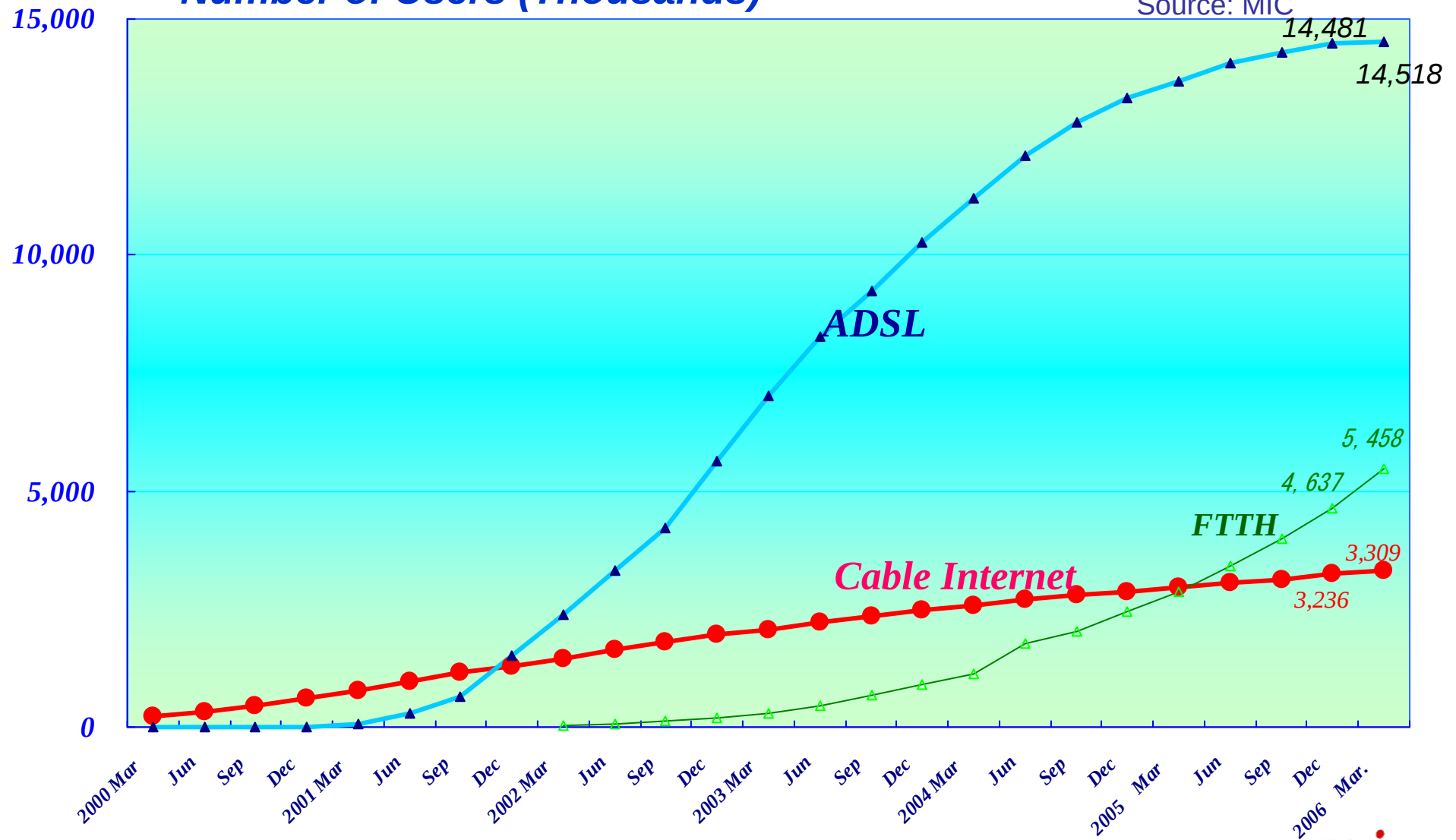


Source : Internet White Paper, MIC Report

# ADSL, Cable Internet and FTTH in Japan

*Number of Users (Thousands)*

Source: MIC



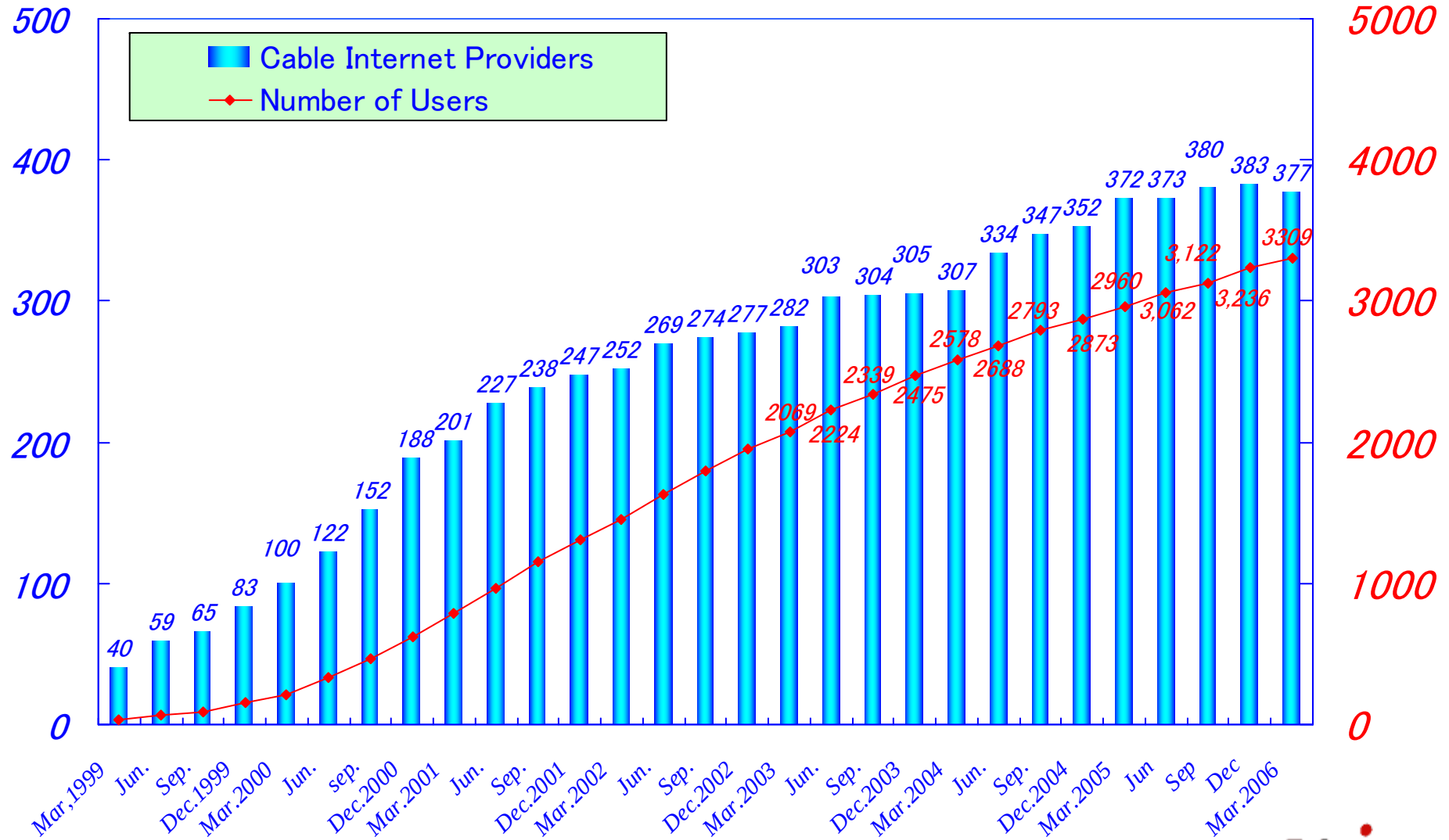
# FTTH Increase

- CATVは4万2,550件増の356万7,075件で、増加ペースはやや低くなっている。FWAは52件増の1万1,580件。
- 回線2006年12月末2007年3月末純増/純減  
(3カ月間)
- Total BB 25,754,990 => 26,438,403 increase 683,413
- FTTH 7,940,399=>8,803,898 863,499
- ADSL 14,235,936=>14,013,248 decrease-222,688
- CATV 3,567,075=>3,609,625 42,550
- FWA 11,580=>11,632 52

# Cable Internet Users and Providers

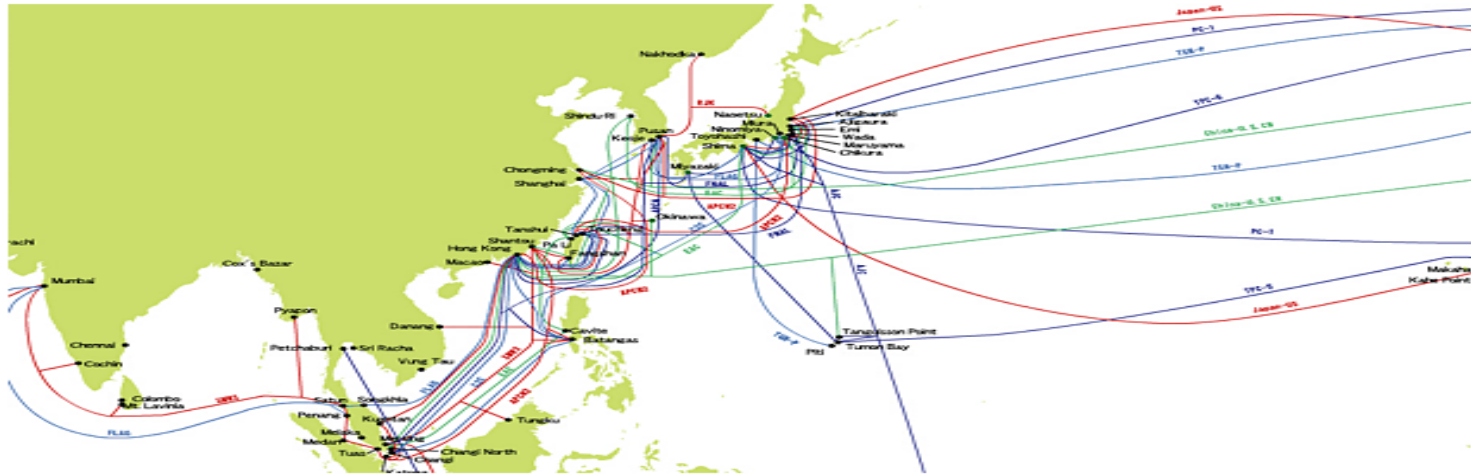
Number of Providers

Number of Users (Thousands)



Source : MIC

# 日本周辺の国際海底ケーブル



| ケーブル名                   | 設計容量                | 運用開始年 | 陸揚地                                                                                                                                                                     |
|-------------------------|---------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 太平洋                     |                     |       |                                                                                                                                                                         |
| TPC-5 CN                | 20Gbps              | 1995  | 日本、グアム、ハワイ、米国                                                                                                                                                           |
| PC-1                    | 640Gbps             | 1999  | 日本、米国                                                                                                                                                                   |
| China-US CN             | 80Gbps              | 2000  | 日本、韓国、中国、台湾、米国、グアム                                                                                                                                                      |
| Japan-US CN             | 640Gbps             | 2001  | 日本、米国、ハワイ                                                                                                                                                               |
| TGN-P                   | 5.12Tbps            | 2002  | 日本、米国、グアム                                                                                                                                                               |
| アジア地域                   |                     |       |                                                                                                                                                                         |
| R-J-K                   | 560Mbps×2           | 1995  | 日本、韓国、ロシア                                                                                                                                                               |
| APCN                    | 20Gbps              | 1996  | 日本、韓国、香港、フィリピン、台湾、タイ、マレーシア、シンガポール、インドネシア                                                                                                                                |
| AJC                     | 320Gbps             | 2001  | 日本、オーストラリア、グアム                                                                                                                                                          |
| APCN2                   | 2.56Tbps            | 2001  | 日本、韓国、中国、香港、台湾、マレーシア、シンガポール、フィリピン                                                                                                                                       |
| C2C                     | 7.68Tbps            | 2001  | 日本、韓国、中国、台湾、香港、フィリピン、シンガポール                                                                                                                                             |
| FNAL/RNAL               | 3.84Tbps            | 2001  | 日本、韓国、台湾、香港                                                                                                                                                             |
| EAC                     | 2.56Tbps            | 2001  | 日本、韓国、台湾、フィリピン、香港、シンガポール、中国                                                                                                                                             |
| KJCN                    | 2.88Tbps            | 2002  | 日本、韓国                                                                                                                                                                   |
| アジア～インド洋～欧州             |                     |       |                                                                                                                                                                         |
| FEA<br>(FLAG Euro-Asia) | 10Gbps              | 1997  | イギリス、スペイン、イタリア、エジプト、ヨルダン、アラブ首長国連邦、サウジアラビア、インド、マレーシア、タイ、香港、中国、韓国、日本                                                                                                      |
| SEA-ME-WE 3             | 40Gbps ~<br>(区間による) | 1999  | 日本、韓国、中国、台湾、香港、マカオ、フィリピン、ベトナム、ブルネイ、マレーシア、シンガポール、インドネシア、オーストラリア、タイ、ミャンマー、スリランカ、インド、パキスタン、オマーン、アラブ首長国連邦、ジブチ、サウジアラビア、エジプト、トルコ、キプロス、ギリシャ、イタリア、モロッコ、ポルトガル、フランス、イギリス、ベルギー、ドイツ |

# New Plan

- KDDI + Google announced New Marine Cable consortium “Unity” 20080226
- US-Japan, 10000Km
- DWDM, Up to 7.68Tbps. Construction Fee \$300,000,000
- 2010 Jan~Mar. Operation Begin
- Consortium: Japan KDDI, India Bharti Airtel、Malaysia Global Transit, Hongkong Pacnet, Singapore SingTel

# Next Generation BB target

By 2010

Zero householder out of BB

100% BB Connectivity

90% Super high bandwidth

100% Rural/Local government BB network