

# The Glass Mile

## Capsule Summaries of Trend Data for Broadband

A monthly Staff Report (The focus this month is on emerging technology and price drops)

### A New Meaning for "Phone Cards"

Japan Research Institute estimates that more than 15 million Japanese use electronic cash on their cell phones or on cash cards. JRI predicts that usage will reach 40 million by 2008, in a country of fewer than 130 million. What the Japanese call "e-cash" service expanded greatly after NTT's DoCoMo digital cellular added a money transmitter to its cell phones last year.

Users add value to cards or phones at ATM-like docking stations. They insert paper money and get credit. They can also use credit cards to replenish e-cash on the Internet. Credit cards are newly

popular in Japan, where carrying large amounts of cash is still quite normal, but they still account for less than 10 percent of all purchasing transactions there versus a quarter of all transactions in the US.

E-cash in Japan can be used like "real" cash if a cell phone or e-card is stolen because there's no PIN number or other ID scan. But crime is low, and lost wallets full of cash are usually returned. This suggests that the Japanese system may need to be changed here, perhaps with a PIN that a user would enter on the cell phone keypad.

The number of e-cash transactions in

Japan reached 15.8 million per month this year, more than double last year's figure, when special cards were needed, according to Japan's two largest electronic money providers. At a few upscale Tokyo supermarkets, 40 percent of all purchases are made with electronic money. Tokyo's subway will begin accepting e-cash next year. Many vending machines now dispense products after being flashed with a cell phone.

Because transaction time is reduced 10 to 15 percent and because customers spend more with e-cash, retailers are lining up to install hardware to accept it.

### CMTS Market Up 15 percent in One Quarter

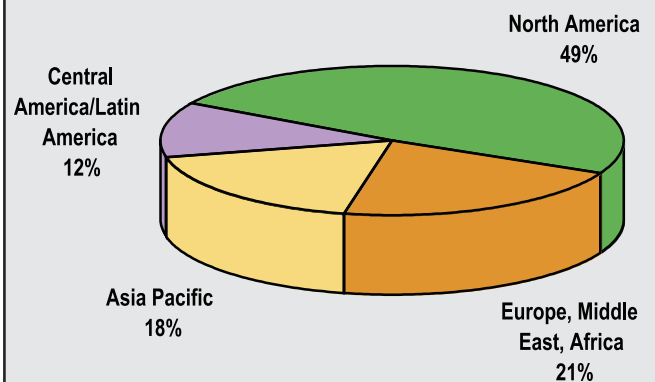
The Cable broadband market is booming, according to the Infonetics Cable Aggregation Hardware quarterly report. World-wide cable modem and router revenue jumped 15 percent to \$209 million between the second and third quarters, following a 25 percent increase the previous quarter, with upstream port shipments up 18 percent and downstream ports up 19 percent. The report highlights the fact that demand for broadband is expanding fast everywhere.

Strong growth is expected to continue for at least the next few years, with annual CMTS revenue reaching \$1.1 billion in 2008. Growth in the market is expected to be fueled by increasing data capacities, telephony, multimedia, and later, wideband DOCSIS 3.0.

Cable subscribers continue to grow at a healthy clip around the world, particularly in North America and Europe, despite the growing momentum behind lower-cost xDSL and the rollout of fiber-based services by incumbent telcos.

"[Large] North American [cable operators] continue to steal voice customers away from incumbent telcos by offering their own VoIP services or partnering with non-facilities-based VSPs, such as Vonage," said Infonetics Research analyst Jeff Heynen. "The ability to deliver triple play services with a single bill is extremely attractive for consumers. Combine that with the recent content partnership agreements with mobile operators and you

**Where the Cable Modem Revenue Comes From**  
Source: Infonetics, 3Q 2005 Data

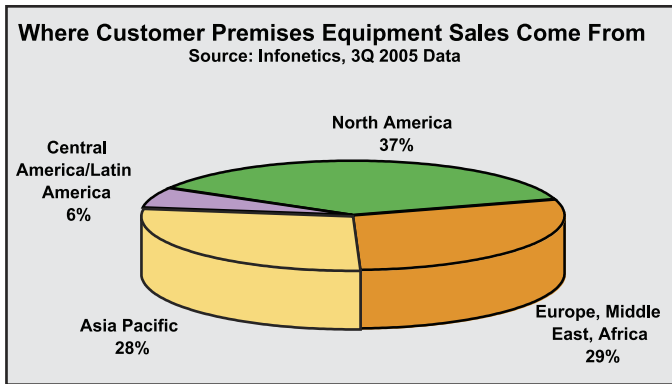


*North America accounts for half of cable modem equipment sales, but fiber is eating into revenue; Europe is wedded to DSL technologies accounting for low sales volume there.*

have a service bundle that will continue to pull through cable broadband subscribers for years to come.” Some Highlights:

- Cisco maintained its commanding position in worldwide revenue and port shipments, capturing a 58 percent share of both
- Of the three CMTS market leaders, who capture 93 percent of worldwide revenue, Cisco was up almost \$16 million, Arris was up \$7 million, and Motorola was flat.
- Bigband's share increased a couple of points after posting a 66 percent revenue gain.
- 49 percent of CMTS revenue was from North America, 21 percent from Europe, Africa and the Middle East, 18 percent from Asia Pacific, and 12 percent from Central and Latin America (see chart).

The report tracks CMTS manufacturer revenue, upstream ports, and downstream ports, and follows Arris, BigBand, C9, Cableway, Cisco, Motorola, and Terayon. For more informa-



*North America accounts for more than a third of CPE equipment sales now, but Asians are catching up.*

tion, see [www.info.infonetics.com](http://www.info.infonetics.com) or contact Larry Howard at [larry@infonetics.com](mailto:larry@infonetics.com) or 408-583-3335.

**Broadband CPE Units Up 8%, Revenue Down 5% in 3Q05**

Prices are falling for mass-produced customer-side broadband equipment. Worldwide broadband customer premises equipment (CPE) sales totaled \$1.2 billion in 3Q05, down 5 percent from the 2Q05, while unit shipments increased 8 percent to 28.8 million, according to Infonetics Research's quarterly Broadband Modems, Routers, and Gateways report. Annual revenue is forecast to grow to \$4.6 billion by 2008, as massive volume increases make up for (and help create) large price drops.

Worldwide voice-enabled broadband CPE had its biggest quarter to date with \$188.4 million in 3Q05, up 2 percent from 2Q05. Annual voice CPE revenue is expected to grow 123 percent between

2004 and 2008 as consumers and enterprises around the world continue to adopt VoIP.

“The convergence of voice, data, and video services is driving CPE growth, particularly voice-enabled CPE, residential gateways and, in the long term, IP set top boxes,” said Jeff Heynen at Infonetics Research. “Service convergence is also driving the consolidation of disparate capabilities into highly intelligent, multifunctional CPE designed to simplify the subscriber experience.” 3Q05 Highlights:

- D-Link overtook Cisco-Linksys this quarter for the number-one spot in overall broadband CPE revenue, Cisco-Linksys is second, Motorola is third.

- North America and EMEA dropped overall broadband CPE revenue share, while Asia Pacific and CALA gained (North America has 37 percent, EMEA 29 percent, Asia Pacific 28 percent, CALA 6 percent; see chart).

- By 2008, Asia Pacific will take over as the leading broadband region.

Infonetics' report tracks DSL and cable CPE, voice terminal adapters, IP set top boxes, and wired and wireless broadband routers. Companies tracked include 2Wire, Actiontec, Arris, Buffalo, Cisco, Cisco-Linksys, D-Link, Foxconn, Motorola, NETGEAR, Safran, Scientific Atlanta, Siemens, Sumitomo, Terayon, Thomson, ZyXEL, and others. For more details, see [www.info.infonetics.com](http://www.info.infonetics.com).

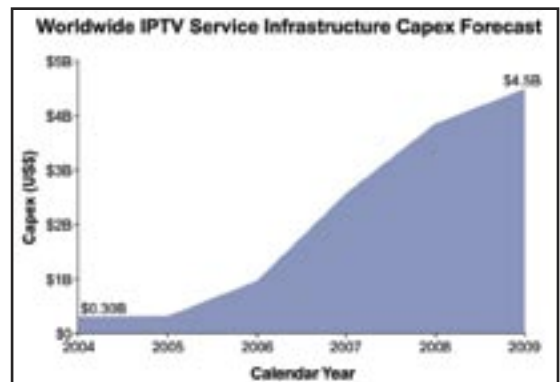
**IPTV Set to Skyrocket: 53.7M Subscribers, \$44B in Service Revenue by 2009, Says Infonetics Research**

IPTV service revenue, subscribers, and capital expenditures are increasing rapidly, says a new report by Infonetics Research. Worldwide IPTV service revenue will soar to over \$44 billion in 2009, according to the report. DSL providers account for the bulk of IPTV service revenue now, but cable broadband providers will also migrate to all-IP triple-play services in the next few years, possibly offering wireless services as well.

Service providers anticipate big payoffs from IPTV, judging from the significant investments they are making. In 2004, service providers worldwide spent \$304

million on IPTV-related services infrastructure, growing to almost \$4.5 billion in 2009 as providers look to IPTV services as the means of raising average revenue per subscriber from a near-saturated broadband subscriber base.

“Service providers have been investing in IP DSLAMs, broadband edge routers, and aggregation switches to prepare for IPTV in the network infrastructure layer, but are having to make significant investments



*Infonetics Research projects massive growth in IPTV subscriber base and thus systemwide spending in just the next four years. Today's subscriber base is miniscule.*

in the services layer too, adding video on demand servers, encoders, and headend equipment as well," said Richard Webb, lead author of the report. "But the biggest decision they face right now is who to choose as a middleware partner."

IPTV subscribers are increasing briskly as well, topping 53 million worldwide in 2009. Subscriber growth is strong in all regions, especially in the Asia Pacific region, where faster forms of DSL like VDSL and ADSL2/2+ are stimulating

subscriber growth.

"Service providers in Asia Pacific and EMEA, especially PCCW in Hong Kong and FastWeb in Italy, and independent operators in North America like SureWest, are already experiencing significant IPTV subscriber growth," said Jeff Heynen at Infonetics. "We expect SBC, Verizon, BT, and other large providers to successfully conquer the technical and marketing hurdles before them, and when they do, their IPTV subscriber figures will increase

substantially year-over-year." Highlights:

- Worldwide IPTV service revenue will grow to over \$44 billion in 2009.
- IPTV services infrastructure capital expenditures will grow 14-fold, from \$304 million to close to \$4.5 billion.
- The number of IPTV subscribers worldwide will grow to 53.7 million in 2009.
- The number of IPTV subscribers in North America will increase 130-fold between 2004 and 2009.

### **Can Verizon Afford FTTH?**

The answer is a definite "yes." It seems that Verizon's massive 3 million home buildout planned for 2006, on top of 3 million in the past two years, has barely strained the \$80 billion a year company, despite stock analysts' nervousness. The

three year total for FTTH will be about \$6 billion. Verizon just purchased MCI for \$8.5 billion.

Now Verizon has put its Yellow Pages directory business into play. The company did not disclose how much the directories,

which had revenue of about \$3.5 billion last year, might be sold for. But margins are high, even if growth rate is not. Several sources within the company confirmed published reports that the directories could go for as much as \$17 billion.

### **Rural Telephone Systems: A WSJ Take**

The RBOCs have been selling off rural service areas to smaller companies, many of them newly formed, that can benefit from Universal Service Fund subsidies and Rural Utilities Service loans. In a December 1 article, the *Wall Street Journal* suggested that the RBOCs are actu-

ally having trouble pricing the deals.

The article said the RBOCs aren't getting the prices they want. If they drop asking prices, that's the same as admitting that the rural assets are overvalued. A drop in book value would further scare Wall Street. If not sold, the danger to

users is that their rural systems will be starved for new investment. One way out for the RBOCs: Use satellite and maybe wireless technologies to buy time, while expanding fiber systems where they are most profitable.

Which brings us to...

### **BellSouth and PDI-SAT to Deploy Voice, Data and DirecTV to MDUs in the Southeast**

BellSouth and PDI-SAT, a DirecTV Master System Operator, say they have a non-exclusive agreement to jointly market and deploy voice, data and DirecTV services to the residential multi-dwelling unit market across BellSouth's service territory.

"BellSouth's comprehensive portfolio of voice and data products, coupled with PDI-SAT's ability to offer customers digital-quality, multi-channel TV programming from DirecTV, will provide the multi-dwelling unit market with a dependable source for the services that meet their needs," said Phil Jacobs, President for Community Technologies for BellSouth. "Developers, managers and residents of multi-dwelling developments in the Southeast are looking for a one-stop shop for the latest and most reliable communications and entertainment services. BellSouth and PDI-SAT will work to deliver a complete package of services to this growing market."

Under the agreement, BellSouth and PDI-SAT will offer customized bundles of voice, data and DirecTV programming packages specifically designed for the MDU market. Through BellSouth Answers, residential and small business customers can bundle their local and long distance service with dial-up and high-speed DSL Internet access, satellite television and Cingular Wireless service. PDI-SAT corporate headquarters are in Boca Raton, Florida. The company has offices in San Diego, Denver, and Atlanta. See [www.pdi-sat.com](http://www.pdi-sat.com) and [www.bellsouth.com](http://www.bellsouth.com).



#### **How to avoid A Bitter Disappointment**

Author and legal expert Carl Kandutsch gave a much-noted talk at the Broadband Properties Summit in September. Yet many did not hear it because they failed to sign up in time to attend.

You can still hear the gnashing of teeth from those who realized they missed a superb program with a top-notch lineup of speakers.

Plan now to attend **Summit 2006**. Set aside the dates **September 11 – 15** for a trip to Dallas, Texas.

**Summit 2006:** This year will be Better Than Ever

[www.broadbandproperties.com](http://www.broadbandproperties.com)