

TECHNOLOGY TODAY

Want to see what's next in broadband, look to Europe, Asia

TELECOM VALLEY STARTUPS DILITHIUM, TEKNOVUS IN THE MIDDLE OF TRENDS

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PETALUMA — The long-awaited iPhone may be out, but it won't vault the U.S. into a leading position in the telecom race.

Europe is two years ahead of America in new telecom technologies and services, and Asia is two years ahead of Europe, according to industry watchers.

The BUSINESS JOURNAL asked Dilithium and Teknovus, two Telecom Valley companies who serve the overseas markets, to fill us in on what Asians and Europeans have that we don't. Yet.

Petaluma-based Teknovus Inc. is a leading provider of the chip that enables Internet protocol TV over fiber. Dilithium, also in Petaluma, is a global leader in converged video solutions for mobile, Internet and broadband markets.

"It's true that other countries are ahead of the U.S. in services and infrastructure," said Teknovus President and CEO Greg Caltabiano.

"But interestingly, the base technology is coming from American companies like Cisco and Teknovus and others who learned to quickly engage with foreign markets. Doing so has allowed us to stay strong even though the U.S. isn't rolling out the services."

DSL is widely deployed in Europe, but Japan and Korea lead in the deployment of fixed broadband over fiber.

"What's driving the rollout are social networking and entertainment, specifically high-definition TV and video on demand," said Mr. Caltabiano.

"In Asia, they're past the point of trying it out."

In Japan, there are far more customers being added for fiber every month than for DSL because fiber gives a more realistic experience, he said.

Subscribers are willing to pay high prices, counting on cut-throat competition among multiple providers to keep costs relative to value. If measured by the gigabyte speeds Japanese carriers offer to woo their customers, subscribers are most likely getting the cheapest broadband in the world, he said.

The U.S. and Europe are data-centric in their use of broadband, but in actuality, people worldwide are willing to pay more for cable or satellite connections than they do for Internet access.

Long-term investment easier

"In Asia, capital markets don't punish you for longer-term investments. You don't hear dialogue against giving people what they want. They feel it's good for society," he said.

As speed of delivery and choices of content increase, business models change. Teknovus, which makes the link between subscribers and content providers cheaper and faster, is seeing a shift to targeted advertisements, especially those attached to niche markets.

"The trend in broadband is always, 'what can we do with the increased capacity?' And the answer is, deliver electronically the specialized music, films, TV shows that are far down the list from the top hits and the blockbusters. No inventory is required, and advertising campaigns are far more effective," said Mr. Caltabiano.

Americans, who are already enjoying early manifestations of what some call the "long tail" via models like Netflix and iTunes, will see more niches open as Asian-type speeds are deployed here, he said.

The demand for entertainment and social networking are also driving the cellular markets abroad, although mobility takes the place of high definition when it comes to delivery.

On TV and on your cell phone

Dilithium believes that everything you can do on a PC or watch on your TV should be available on your cell phone, and its European and Asian customers agree. In undeveloped countries where fixed networks don't exist, cell phone services have outstripped the U.S. as well.

"Cell phones are cheap, and the rise of pre-paid video calling has given people

with limited access to information and credit access to both for the first time," said Dilithium CEO Paul Zuber.

Remote villages in Africa can get information on where to sell their goods. Villages without doctors get medical advice. People with no bank account or credit can make purchases using a cell phone.

In Europe and Asia, the explosion of multimedia that followed the World Wide Web onto the Internet is now happening on cell phones, with the help of Dilithium's technology and solutions.

"Video blogging is a service kids love. They can create content on their mobile phones and upload it anywhere. We've made the process very simple," said Mitch Lewis, senior vice president of the service provider business unit.

In Asia, Dilithium technology is enabling a seamless movie-going experience. Consumers can view a movie trailer or promo and purchase tickets by cell phone, often in the form of a downloaded barcode. At the theater, a swipe of the phone gets them in.

In Asia, social networking among young people has reached levels of sophistication not seen here.

"Video ringbacks are taking off," said Mr. Zuber.

Using their own creations or content licensed from music and film producers, subscribers create a special video to play in place of a pre-pickup ring tone and recorded message.

"They're also really popular with the carriers because kids want to change them frequently and customize them for different callers," said Mr. Lewis.

Push video, in the form of soccer clips, a favorite show or a Web cam view of your home or business, is taking off among adults, but "forming communities is what the new services are all about," said Mr. Zuber.

"YouTube, MySpace, IM Chat – they're here, and they're an important way to connect. When you enhance mobile phone connections with video, you get a richer exchange."

Everyone is a reporter

You also get immediacy new to breaking news, he added.

"When the Madrid train bombing occurred, the first pictures came from citizens with camera phones, long before the news crews arrived. Mobile video makes everyone a reporter," said Mr. Lewis.

In Europe and Asia, mobile phones are not regarded as competition to wireline but necessary adjuncts.

"Every major wireline carrier has a mobile phone service," said Mr. Caltabiano.

"One feeds the other. You catch a great sports moment on your mobile phone, and then you want to watch it in high definition on a big screen. You have a favorite TV serial and don't want to miss an episode while you're on the road, so you watch it on your phone," he said.