

This Week's Stories

Microsoft to Test White-Space Spectrum for Wireless

June 26, 2011

A Microsoft-led consortium will begin a test in Britain this week to investigate how unused TV spectrum could be employed for new wireless broadband networks, according to a Financial Times report.

The group, which includes the BBC, British Sky Broadcasting, and telecommunications giant BT, hopes to tap "white spaces" to create "super Wi-Fi" networks to sate bandwidth-hungry smartphones, according to the report.

"Spectrum is a finite natural resource. We can't make more and we must use it efficiently and wisely," Dan Reed, Microsoft's vice president of technology policy and strategy, told the newspaper. "The TV white spaces offer tremendous potential to extend the benefits of wireless connectivity to many more people, in more locations, through the creation of super Wi-Fi networks."

The 300MHz to 400MHz of unused "white space" spectrum is considered prime spectrum for offering wireless broadband services because it can travel long distances and penetrate through walls. The Federal Communications Commission unanimously agreed in November 2008 to open up this spectrum for unlicensed use.

Microsoft has been testing new technology that uses the unlicensed spectrum on its 500-acre Redmond, Wash., campus. The company built the wireless network using only two base stations to transmit the signals via the white-space spectrum. Signals that use the white-space spectrum travel at least three times farther than signals transmitted over other unlicensed spectrum, such as Wi-Fi. This means it can cover an area that is almost nine times as large as one that uses Wi-Fi and because it operates at a much lower frequency than Wi-Fi, it can penetrate buildings much more easily.

FCC Chairman Julius Genachowski and others have compared the white-space market to Wi-Fi--a \$4 billion-a-year industry that also does not require a spectrum license. Last year, Microsoft commissioned research that suggests white-space applications may generate \$3.9 billion to \$7.3 billion in economic value each year.

news.cnet.com

Foursquare Raises \$50M to Build Out Merchant Platform

June 26, 2011

Foursquare has completed a new \$50 million funding round led by Andreessen Horowitz, with contributions from existing investors O'Reilly AlphaTech Ventures and Union Square Ventures as well as new investor Spark Capital. *TechCrunch* reports foursquare is now valued at \$600 million.

Writing on the foursquare Blog, co-founders Dennis Crowley and Naveen Selvadurai said the additional capital will enable the firm to evolve its merchant offering, hire new engineers and expand internationally. Although foursquare is synonymous with user check-ins at local venues, Crowley and Selvadurai say the service is "about making the world easier to use," with an emphasis on discovering new places and connecting with friends.

Last week, foursquare--which launched in March 2009--topped 10 million users worldwide, with check-ins at local venues now surpassing 3 million each day. Despite media buzz and investor excitement around services like foursquare, Gowalla and Loopt, mobile check-in services remain a niche interest. According to data issued last month by digital research firm comScore, only 16.7 million U.S. wireless subscribers checked in at local destinations via mobile device in March 2011, corresponding to 7.1 percent of the total nationwide mobile population.

www.fiercemobilecontent.com

Google May Choose Several Android Launch Partners for Ice Cream Sandwich

June 27, 2011

BGR obtained a few details about what is expected to be the next Nexus phone a few weeks ago, but is back Monday with a few extra tidbits: the phone is expected to be called the Nexus Prime, and it appears that Samsung is the one building the hardware. The phone is also said to come with a Super AMOLED HD display, which is Samsung's product name for its most advanced display technology.

The most interesting part of the report, however, buried underneath the obsession with hardware specifications, is the notion that Google may be preparing to launch Ice Cream Sandwich (the next

version of Android) with multiple partners. If you'll recall, a few months ago several Android partners raised quite a stir complaining about Google's practice of picking a single vendor as the primary launch partner for a new generation of technology.

However, if Google really is planning to shake things up and launch Ice Cream Sandwich devices spread out across Samsung, Motorola (NYSE: MMI), LG (SEO: 066570), and perhaps others, it would be a notable change to how Android partners roll out new devices. It would allow all the major vendors to have new products going into the all-important holiday shopping season, rather than just one lucky company.

A lot remains to be seen, of course, but the development bears watching as Android partners prepare for Apple's launch of the iPhone 5.

moconews.net

Products & Services

More Americans Buying E-Readers than Tablets, Study Says

June 28, 2011

Ads touting Apple's iPad seem to be everywhere, but e-readers such as Amazon.com's Kindle and Barnes & Noble's Nook are actually more popular with consumers, according to a new report from the Pew Internet and American Life Project.

Last winter, tablets had a slight market lead. According to Pew, as of that time, 7% of U.S. adults owned a tablet computer (such as the iPad or Motorola Mobility's Xoom), while only 6% owned an e-reader device.

But that picture soon changed drastically. By May, 12% of U.S. adults owned an e-reader, while tablet ownership expanded only to 8%. (Note: the margin of error on this survey is 2%, but that would not challenge the market lead of e-readers.)

This is not an either-or technology choice. Pew noted that 3% of adults own both devices. Specifically, 9% own an e-reader but not a tablet, and 5% own a tablet but not an e-reader.

Apple has sold more than 25 million iPads and has a dominant share of the tablet market. Amazon and Barnes & Noble don't disclose sales of their e-reader devices. Citi analyst Mark Mahaney forecasts that Amazon could sell 17.5 million Kindles in this year alone.

Who's buying e-readers? According to Pew, Hispanics (who appear to be leading other U.S. ethnic

demographics generally in embracing mobile technology), adults under age 65, college graduates, parents, and people in households earning less than \$75,000 per year are especially likely to own e-readers.

Also: "There was considerable growth in e-reader ownership between November 2010 and May 2011 among college graduates, one-fifth of whom now own these devices," Pew reports. This is interesting, since Insider Higher Ed, an industry trade publication, recently reported that after a slow start, the market for electronic college textbooks experienced a surge this spring.

Who's buying tablets? Pew reports that from November 2010 to May, the largest increases in tablet ownership have been among men, Hispanics, people with at least some college education and household incomes of \$30,000 or more. But the very highest increases in tablet ownership were seen among Hispanic adults and households earning at least \$75,000 annually.

Why are e-readers more popular than tablets? Based on device specifications alone, tablets would seem to offer greater consumer appeal, since you can do far more with a tablet than an e-reader. A tablet is an e-reader plus a video screen plus a game player plus a web browser plus e-readers typically limit users to buying, downloading, reading and annotating books. Furthermore, most e-readers still feature a black-and-white e-ink display and lack touchscreens. (Though, the new Nook has the latter.)

But price may play a key role. Right now you can buy a brand new Amazon Kindle for as little as \$114, with free Wi-Fi access -- and Amazon has reportedly hinted that someday the Kindle might be given away for free. You can get the simplest Barnes & Noble Nook for \$139. (Can't decide? Consumer Reports gave the Nook slightly better marks than the Kindle.) In contrast, the least expensive iPad 2 costs \$499. If you want 3G data access, the entry-level model costs \$629. (New or used first-generation iPads are sold for less.) Adding to the total price, two wireless carriers offer prepaid or month-to-month data services: Verizon's iPad data plans start at \$20 a month; and AT&T's plans start at \$15 a month.

The BlackBerry Playbook costs \$499. Many Android tablets also sell for that price, although the Asus Eee Pad starts at \$400.

There's a fuzzy line between e-readers and tablets. Most notably, the \$249 Nook Color, which features a touchscreen, advanced Web browser and Wi-Fi chip, is actually a modified Android tablet. The blog Tech Republic explains how to hack the Nook Color to operate as a full-feature Android tablet.

Of course, second-hand, refurbished or older-model e-readers and tablets of all types are widely sold via eBay, Craigslist, and discount vendors for considerably lower prices.

E-readers and tablets are still very much emerging markets.

"Both e-book reader and tablet computer adoption levels among U.S. adults are still well below that of other tech devices that have been on the market longer," according to the Pew report. "Cell phones are far and away the most popular digital device among U.S. adults today, followed by desktop and laptop computers, DVRs, and MP3 players."

www.cnn.com

Verizon's Downlink Speeds Dominate Sprint's 4G Network, Study Shows

June 29, 2011

An assessment of the 3G and 4G speeds provided by networks in 21 cities across the country has been conducted by PC Magazine over the past few weeks, providing interesting results.

Rather than "sprinting" ahead, as the name suggests, Sprint's 4G connectivity found itself instead to be limping toward the finish line in comparison to its speedier rival networks. Managing an average downlink speed of only 2.88 Mbps and peaking at 10.46 Mbps, Sprint lagged behind Verizon, AT&T, and T-Mobile USA.

Receiving gold medal across almost all areas was Verizon's LTE network coverage. PC Magazine's Sacha Segan states in his article "Even with one hand tied behind its back — a 20-percent penalty to its speed score for its lack of rural coverage — Verizon's new 4G network trounced the other carriers."

Throughout cities in the Northeast, Southeast, Central, and Western United States, Verizon dominated its opponents, boasting peak downlink speeds of 37.66 Mbps and an average downlink speed of 11.94 Mbps. Second place T-Mobile's HSPA+ was left miles behind the victor, managing only an average downlink speed of 4.07 Mbps and peaking 15.27 Mbps.

AT&T managed to rob Verizon of winning in every category, by finishing on top in the rural areas. Their 3G network managed an average of 1.9 Mbps out in the country. However, Verizon attained the highest 3G success rate whilst out in the countryside, connecting 81.89% of the time, compared to AT&T's 68.7% connection success rate.

Even in Kansas City, which does not yet offer LTE, Verizon still outperformed its competitors and was the fastest network in the region. PC Magazine found Verizon's connection speeds to not only outdo its fellow networks, but to often beat even home internet connections.

Such differing speeds from networks all claiming to offer "4G" connectivity brings into question whether indeed Verizon is exceeding 4G speed capabilities, or whether the other lagging networks are in fact short of the 4G mark.

www.goinglte.com

Emerging Technology

CSI Virtual MasterCard App Bringing Mobile Payments to iOS, Android and BlackBerry

June 27, 2011

Shortly after MasterCard announced plans to become entangled with Google Wallet (and a few months after those ambitious Isis plans were shelved), it looks as if the aforesaid company is diving into yet another mobile payment arena. And this time, it's personal. MasterCard and CSI Enterprises already offer a smattering of customized business cards for those with highly specific needs, and soon that partnership will extend to iOS, Android and BlackBerry OS.

We've confirmed that the CSI Virtual MasterCard app is currently scheduled to launch in July, presumably enabling folks with a GlobalVCard to use their mobile device of choice to make payments. What's interesting here is the inclusion of RIM and iOS; there's no BlackBerry device (nor iOS device) on the market today with NFC, which leads us to believe one of two things: that's either changing by July, or this here service won't rely on NFC at all. Needless to say, we'll keep you posted -- nothing like another way to more easily indebt yourself.

www.engadget.com

Scientists Develop Way to Triple Battery Life in Electronics

June 29, 2011

Lithium-ion batteries are all the rage these days. They power our phones, tablets, laptops, MP3 players, and electric cars. Unfortunately, they have some drawbacks. The batteries tend to degrade over time, discharge on their own, and don't provide quite as

much energy as our modern electronics and usage habits seem to require. Enter science. A group of Japanese researchers have developed a new material that could triple the energy capacity of lithium-ion batteries.

The Register reports that Sumitomo Electric Industries has developed a new material called "Aluminum-Celmet," which can be used to replace the "aluminum foil anode" inside the batteries. The new Aluminum Celmet material is 98 percent porous, much more porous than the foil, allowing more lithium to be put inside the battery. The researchers estimate that an automotive battery pack using their new substance could provide 1.5 to 3 times as much power capacity as a battery that size today. Of course, one could also retain the same capacity and actually reduce the size of the lithium-ion batteries by 1.5 to 3 times as well.

The substance is made from a fancy new procedure that involves applying a conductive coating to a plastic foam, then nickel-plating it, then heating the material to separate the foam and other materials, leaving a foam mesh that has a nice shimmer to it. The Aluminum-Celmet is based on Sumitomo's nickel Celmet, which is already used to make nickel-cadmium and nickel-metal hydride batteries.

Sumitomo has not mentioned use in personal electronics yet, but we are hopeful that this new substance could lead to great improvements consumer electronics battery life as well since they run off of the same, albeit smaller, batteries. It would be nice to buy a smartphone that doesn't need to be charged every night.

news.yahoo.com

Industry Reports

Verizon, AT&T, Others Watch Minutes of Use Decline While Data Revenues Balloon

June 29, 2011

The FCC recently released its 15th annual report on the state of wireless competition. The agency did not take a definitive stance on the state of competition in the wireless industry, neither arguing that there is sufficient competition nor that the market is uncompetitive.

However, despite the lack of a final conclusion on the matter, the 304-page report remains valuable for a number of other reasons--primarily in that it provides a detailed, largely unbiased snapshot of the current state of the wireless industry.

Specifically, the minutes of use on Verizon Wireless (NYSE:VZ) and AT&T Mobility (NYSE:T) declined notably during 2008 and 2009. (For example, AT&T's MOUs declined from 711 in the fourth quarter of 2008 to 670 in the fourth quarter of 2009.)

Meanwhile, total wireless industry revenues grew from 2008's \$150 billion to 2009's \$154 billion, largely on the back of dramatic increases in data revenues.

www.fiercewireless.com



120 Madison St. 15th Floor
Syracuse, New York 13202
(315) 470-1350
1-888-8KSRINC