

# NEWS & COMMENTARY

## ANALYSIS OF A CHANGING INDUSTRY

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### COUNTING DOWN TO A BROADBAND FUTURE

It's been a while since our last issue of *News & Commentary*. That's not to say we haven't been busy keeping up with industry developments. Of late, most noteworthy would seem to be the Obama Administration's response to the economic crisis and the Federal Communications Commission's (FCC's) effort to transition from the Kevin Martin era and to bring closure to the continuing sagas of universal service and intercarrier compensation reform. In this issue, however, we step back to take a long-range look at the larger "broadband" issue and where it will, and may, take us. In an upcoming issue, we will take a hard look at the economic stimulus and broadband build-out program, as well as the status of universal service at the FCC, but for now, we'd like to highlight some key issues and questions that, JSI believes, will arise as broadband becomes pervasive across our nation.

Similar to the daily countdown commonly used by youngsters to help them bide their time waiting for Santa Claus at Christmas, the FCC has begun counting down the days to its delivery of a national broadband plan to Congress on February 17, 2010. (See [www.broadband.gov](http://www.broadband.gov).) As this issue of *News & Commentary* goes to e-mail, we have 202 days to go. While children may have visions of sugarplums dancing in their heads waiting for Christmas morning – it's probably more like Xboxes and iPhones these days, we'd imagine – the Washington air is filled with discussion of this "broadband thing."

Broadband is the topic *de jour* in many policy circles. And the discussions are motivated in part by the FCC's recent actions soliciting comments on a national broadband plan and its potential impact on federal universal service. Also generating much interest is the distribution of the \$7.2 billion in federal grant and loan funds through the broadband build-out programs administered by RUS and NTIA. In this article, we explore the nature of broadband, its future in our world, and how this will potentially affect JSI clients serving rural areas of the nation.

### The Motivation for Broadband in the 21<sup>st</sup> Century

Recent statements from national leaders suggest that we have reached a tipping point with access to high-speed Internet. Two remarkable examples serve to illustrate this: First, at the broadband stimulus launch in Erie, Pennsylvania on July 1, Rep. Kathy Dahlkemper (D-PA) said, "Access to high-speed Internet is no longer a luxury, but an essential tool to compete in this 21<sup>st</sup>-century economy." Next, commenting on broadband deployment, FCC Commissioner (and then-acting chairman) Michael Copps noted, "People who don't understand the importance of this to their

futures, don't understand...[t]here is no maximum fulfillment of individuals in the first part of the 21st century without broadband.”

These statements are consistent with the administration's goal to expand broadband access to communities that currently lack connection. Secretary of Agriculture Tom Vilsack stated that “the President is committed to bringing the educational and economic benefits of the Internet to all communities.” (*emphasis added*) Here, we should pause to assess whether there isn't a third motivation for broadband access today, and that is entertainment. Without question, entertainment is and will likely remain a large part of the Internet's appeal. At least as important as current educational, economic, and entertainment motivations, the explosion of social networking sites online compels us to recognize that the Internet has become the gathering place for the storage and exchange of all types of information. The abundance of information – some of exceptional quality and some, more dubious – being exchanged on the Internet is nothing short of revolutionary. Exactly where this revolution will take us, we cannot be certain yet. However, we are certain that what we have seen in the past decade has been the first few evolutionary steps towards something quite remarkable and potentially life changing.

Consider the “thought” experiment proposed by noted technology guru and *Wired* cofounder Kevin Kelly. In 2007, Kelly muses, we passed the milestone of 5,000 days since the creation of the World Wide Web. Looking forward, he asks, “What will the next 5,000 days of the Web produce?” Reflecting on what we thought about the Web at its origin 5,000 days ago, the amount of information and our ability to access it have far surpassed expectations. Did anyone really think, for example, that Wikipedia would be available in 5,000 days after the Web's birth? The model that was considered at the Web's beginning was that it would be like television, only better. And the Web 5,000 days from now will not just be the Web we have today, only better. There will be more centralized processing and storage of large quantities of information available for users. Most important, as we move to the next stage of the Web's evolution, online information will be more accessible and more personalized than what we have now, leading to increased dependence on the Web for education, economy, entertainment, social networking, and other aspects of modern life. Moving into the future, electronic devices – computers, telephones, and mobile devices, for example – will be small windows enabling us to peer into the vast Web information depository.

With this vision of what the next 5,000 days will bring, we believe the urgency of access to high-speed broadband comes clearly into focus. As NTIA Senior Advisor Mark Seifert has stated, “America deserves the finest and most modern communications infrastructure in the world.” The question to be answered now is how America will build and pay for this infrastructure.

### **Infrastructure—Building the Web One Transistor at a Time**

In policy discussions, much is made of international comparisons of broadband speed and price. Usually, the poor performance of the United States emerges as a *cause célèbre*. While much can be said about the validity of the comparisons among countries, one fact emerges when looking at the data. Regardless of the average speed available per country, a more important observation is what is happening across time: In all 30 OECD countries, average broadband speeds are increasing, and the price for service is decreasing over time – and speed increases and price decreases are accelerating over time.

The building of the Web takes place one transistor at a time, as more and more devices capable of interacting with the Web are connected through wired or wireless broadband connections. Thus, with the number of wireless and wired devices in this country, it is not hard to see that there will come a time in the future where we reach a “saturation” level beyond which broadband subscribership will not increase. Exactly what this saturation level ultimately will be is unknown; however, for argument’s sake, it seems reasonable to JSI to assume that saturation will occur when approximately 80 percent of households are connected to the Web with high-speed access. In April 2009, the U.S. household broadband penetration rate was reported to be 63 percent. Thus, for broadband deployment to reach our saturation point, 17 percent more households would need to have high-speed access. Given the current rates of deployment and adoption, the level of U.S. household penetration should reach the 80 percent mark in 2011.

One obvious policy conflict arises when we view broadband in terms of universal service. If saturation really is 80 percent of households with high-speed access, that means universal-service broadband providers will need to deploy infrastructure to 20 percent of households with no expectation of receiving any revenue to pay for this “universal service” infrastructure. This observation leads to a *critical* policy discussion on the value of broadband availability to all, even though it is well recognized there will be households, for whatever reason, that will not subscribe to broadband service. The “goal” of broadband ubiquity when “saturation” is actually a level below 100 percent would seem to suggest that the costs of providing the unused network to those who are passed will be borne either by those subscribing to the service or through a support program. This policy dilemma exposes the demand side problem of adoption that will be a challenge going forward.

### **Wireless Broadband: Complementary to Wireline Broadband**

There are two types of broadband: wireline and wireless. Michael Calabrese, vice president of the New America Foundation recently stated, “Wireless [broadband] should be a central component of any national broadband plan, because it is the most rapid and cost-effective means of getting access to rural areas. It is a complement and key to pervasive connectivity in the United States.” While we are not sure how familiar Mr. Calabrese actually is with rural areas of the United States where his cost-effective statement does not hold, we do agree that, at present, wireless broadband is a complement to traditional wireline broadband. We believe this will remain the case – wireless broadband is a complement to, not a substitute for, wireline service – for a number of years. Wireline broadband is being deployed by telephone companies and cable operators at a rapid pace. Wireline providers also recognize that wireless broadband needs to connect to middle-mile facilities at some point in order to connect to the Web. We view recent wireless complaints of wireline special-access rates, especially in AT&T, Verizon, and Qwest territories (*see the following article*), as evidence of the dependency wireless platforms have on wireline networks. As wireless platforms continue to expand their capacities, the dependency on wireline middle-mile facilities will only increase.

To be sure, wireless broadband isn’t sitting still. It is generally accepted that wireless broadband will become more central to the average American’s daily life over the next 5,000 days. According to Kevin Werbach, a professor of legal studies and business ethics at the Wharton

School, between 2008 and 2018, mobile data demand will grow roughly 250 times to 600 times – that is 600 times in capacity, not 600 percent.

The future has a place for both wireline and wireless broadband. The government recognizes the importance that broadband connection has for all Americans. In a recent letter to the FCC, members of Congress stated, “Basic broadband is no longer a luxury, but is a necessity and a national broadband plan should reflect this transformation as fundamentally important as electricity and water.” The role of the government in fostering the development of broadband is currently under debate. What isn’t debatable is that the Web will continue to evolve and this change will transform our society. Rural carriers have a unique vantage point from which to watch and participate in this transformational experience.

### **A National Broadband Plan**

The FCC received thousands of initial comments on its inquiry about what should be in a national broadband plan; in fact, the record accumulated in the first round alone was well in excess of 10,000 pages. On July 21, the FCC received another deluge of reply comments. In addition, the FCC has engaged the Berkman Center for Internet and Society at Harvard University to conduct an independent expert review of existing literature and studies about broadband deployment and usage throughout the world. Beginning in August, the FCC will hold 21 staff workshops to address wireline and wireless deployment, unserved and underserved communities, adoption and technology issues, health care, education, and best practices, among other topics. These workshops will generate considerable interest and provide the FCC with additional information to develop a national broadband plan.

In JSI’s observation, there are two factors we believe are essential as the nation develops this national plan. First, in addition to the February 17, 2010, deadline to submit a plan to Congress, the FCC has other reporting deadlines that involve broadband policy. One is the FCC’s Advanced Telecommunications Service report, mandated by Sec. 706 of the Telecom Act and due to Congress on February 3. Another is the broadband report to the Government Accounting Office that is due in December. The FCC views these reports as interrelated and will attempt to use the same approach and make similar recommendations for each. So, although February 17, 2010, is a red-letter day for the national broadband plan, we may have a pretty good idea of where the FCC intends to go as early as December.

Our second observation relates to how the FCC is planning to approach the national plan. It appears the FCC would like to assess the current broadband access situation and determine what the situation will be in the near future. Then, the FCC will assess whether there are areas in which the public interest will not be met with the *status quo*. Only then will the FCC recommend ways to lessen public-interest harms due to foreseeable failures in the deployment of broadband. JSI believes this to be a healthy approach. First, it seems the FCC is attempting to follow the familiar rule of medicine to, “first, do no harm.” If the *status quo* is going to reach, in part, the goal of broadband access, the government’s role should be to allow private enterprise to accomplish what it can before it enters the marketplace. We think it wise to let state and local governments know of this sound approach inasmuch as many municipalities across the nation seem to be contemplating how to become providers of broadband service, instead of providing private enterprise with the incentives – including anchor tenancy on private networks – to

provide broadband access over a wider area than a pure business case might recommend. These municipal efforts appear out-of-step with government's usual approach to private-public roles in reacting to and mitigating market failures.

The coming months will see a great deal of review and reaction as the national broadband plan takes shape. At this time, we hope we've given you a better understanding of the motivation for government's involvement in broadband and its initial steps towards a national plan: Our future economy and, in large part, our society as a whole are tied to the ubiquity and unfettered use of the Web. (And we remind JSI clients again that we will review and opine on the RUS and NTIA broadband programs in an upcoming edition of *JSI News and Commentary*.)

For more information about this article, or if you have questions about the FCC's initiative on the national broadband plan, contact Douglas Meredith ([dmeredith@jsitel.com](mailto:dmeredith@jsitel.com)) in our Utah office, at 801-294-4576.

### **SPECIAL ACCESS RATES GET SPECIAL ATTENTION**

As mentioned above, the topic of special access has garnered a good deal of attention in recent days. Price cap local exchange carriers (LECs) are putting up a spirited defense in their dispute with wireless carriers over special-access rates. While this debate does not affect rural LECs that provide special access now, JSI believes this may well serve as a warning of things to come as wireless broadband platforms are built to meet the growth expected in broadband wireless services. Following is a brief outline of the key issues in this debate.

Wireless carriers and other providers of wireline Internet services are increasing their attacks on price-cap LECs' special-access terms and conditions, including the rates for DS-1, DS-3, and above DS-3 capacities. These carriers are seeking reregulation in the form of new price controls on special-access services offered by price-cap LECs. Nearly a decade ago, the FCC gave price-cap carriers more flexibility in their special-access service offerings. The degree of flexibility afforded the LECs was predicated on the extent of service competition in a specific Metropolitan Statistical Area (MSA). If there were abundant competition in an area, the FCC policy to relax regulation was judged to be in the public interest. Approximately two-thirds of all MSAs in the country have some type of pricing flexibility under this regime.

A recent USTelecom report suggests that competition is robust, and in fact, pricing trends suggest that competition has been an effective guard for consumers. "Prices for both DS-1 and DS-3 special access services have steadily declined since 2001, when the FCC first began granting pricing flexibility, including in the most recent 2006-2007 and 2007-2008 periods for which data are available." The report concludes that reregulation is not warranted.

Despite the response by price-cap carriers, we believe this issue will not go away. Wireless providers dependent on middle-mile wireline connection to the Internet are going to continue to experience increased costs associated with those connections provided under special-access arrangements. JSI will continue to monitor the developments and provide additional comments as the proceeding progresses. We believe rural LECs will not remain immune to sharp criticism,

however unwarranted, of special-access rates when the wireless carriers need to expand their broadband networks in rural LEC service territories.

For more information about this article or if you have questions about the special-access proceeding, contact Steve Meltzer ([smeltzer@jsitel.com](mailto:smeltzer@jsitel.com)) in JSI's Maryland office, at 301-459-7590, or Douglas Meredith ([dmeredith@jsitel.com](mailto:dmeredith@jsitel.com)) in Utah, at 801-294-4576.

## **SEMINAR REMINDER: ACCOUNTING, SEPARATIONS & ACCESS, COMBINED “SET” SESSIONS UPCOMING**

As is usually the case, the issues discussed in *JSI News & Commentary* return our attention to the importance of education; *i.e.*, the need to stay abreast of the kind of regulatory, technological, and financial issues we review in the newsletter – and this time around, we didn't even get to intercarrier compensation, the OIG audits, or universal service reform. As the broadband evolution broadens, so too does the number of factors affecting your operations and business success – not to mention, the demands of your customers.

With communication, information, and entertainment available in more forms from more providers in more packages, you have to keep on “keeping on” to make sure you know what your competitors are doing and what they're promising. And, with customers still dealing with the down economy, they are more tuned in to what they want ... what they need ... and most of all, what they'll pay. No matter how “rural” you may be and regardless of the obstacles you may have overcome in the past, today you must reach out to a market whose expectations and demands – unlike their pocketbooks – know no bounds.

As we contemplate just how monumental the broadband journey is and move toward the second half of another eventful year, it seems appropriate to remind you that these issues – and more – will be reviewed in the final offerings of JSI's 2009 Seminar Series. The upcoming sessions will all be held at the Hilton Downtown in Nashville:

- The **JSI Part 32 & Part 64 Accounting Seminar**, which includes an update on FCC changes to its Part 32 rules and the USAC audits, will be held on *October 6*. The seminar fee is \$595 per person.
- The **JSI Separations and Access Seminar**, which runs over two-and-a-half days, will put emphasis squarely on the current pressures on your revenue streams and responding to today's broadband network and services. The session will be held *October 7-9*, and the fee is \$795 per person.
- The **Accounting and Separations & Access Seminar Set** offers a discounted cost structure for those who wish to attend both sessions. The fee for the set is \$1,195 per person.

Detailed information and registration forms are posted on the Seminar & Events page of our website, at [www.jsitel.com](http://www.jsitel.com). You can register online, and we'll bill you after the seminar, or you

can register by fax or mail with our Maryland office. For additional details on program content, contact Steve Meltzer ([smeltzer@jsitel.com](mailto:smeltzer@jsitel.com)); for information on registration or hotel reservations, contact Leah Yoakum ([lyoakum@jsitel.com](mailto:lyoakum@jsitel.com)). Both can be reached in JSI's Maryland office, at 301-459-7590.

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