

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
The Role of the Universal Service Fund and)	GN Docket Nos. 09-47, 09-51, 09-137
Intercarrier Compensation in the National)	NBP Public Notice #19
Broadband Plan)	
)	DA 09-2419



COMMENTS – NBP PUBLIC NOTICE #19

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COMMENTS – NBP PUBLIC NOTICE #19

The National Telecommunications Cooperative Association (NTCA)¹ responds to the Federal Communications Commission (Commission or FCC) November 13, 2009 NBP Public Notice #19 calling for input on reform proposals for the Universal Service Fund (USF) and intercarrier compensation (ICC) policies.² Specifically, the Commission seeks comment on several issues, including the size of the USF, contribution methodology for the USF, transitioning high-cost support for broadband, impacts on current revenue flows, changes to the competitive landscape, and oversight of the high-cost fund.³ NTCA offers a National Broadband Plan that addresses much of the substance of this Public Notice. The Commission should

¹ NTCA is a premier industry association representing rural telecommunications providers. Established in 1954 by eight rural telephone companies, today NTCA represents 585 rural rate-of-return regulated telecommunications providers. All of NTCA's members are full service rural local exchange carriers (LECs) and many of its members provide wireless, cable, Internet, satellite and long distance services to their communities. Each member is a "rural telephone company" as defined in the Communications Act of 1934, as amended (Act). NTCA's members are dedicated to providing competitive modern telecommunications services and ensuring the economic future of their rural communities.

² *Pleading Cycle Established for Comment Sought on the Role of the Universal Service Fund and Intercarrier Compensation in the National Broadband Plan*, NBP Notice #19, GN Docket Nos. 09-47, 09-51, 09-137, DA 09-2419, Public Notice (rel. Nov. 13, 2009) (Public Notice).

³ *Ibid.*

implement NTCA's national broadband plan, including provisions concerning USF and intercarrier compensation (ICC) reform. NTCA's 2009 Broadband/Internet Survey shows that NTCA members who receive high-cost funding under the USF program are deploying broadband services and any reduction or cap of the high-cost program will adversely affect traditional and broadband services in rural America. USF reform should include identification of Market Failure Areas to target new broadband support. That support should include middle-mile and second-mile transport services. A revenue-based contribution methodology that includes all broadband internet access providers as contributors is the optimal plan for funding broadband through the USF. The Commission should also explore requiring large bandwidth users to contribute to the new broadband USF funding mechanism.

Changes to the high-cost support mechanism for broadband services will require a transition period for carriers who currently support a legacy voice network through USF funding. That transition period should include USF funding for stand-alone, or "naked," DSL services, and the Commission should stay the current rural ILEC voice/broadband bundling rules and allow rural ILECs to offer stand-alone/naked DSL broadband service with same levels of high-cost USF support that would be allowed in their bundled voice/broadband service offering. The Commission can monitor the ongoing impacts on revenue flows in the high-cost portion by declaring all USF broadband services as supported services subject to a Title II earnings review.

Existing carrier of last resort (COLR) and eligible telecommunications carrier (ETC) requirements should continue for any entity who receives new high-cost USF funding for broadband. The Commission's USAC audit reports demonstrate high compliance and accuracy among the high-cost portion of the USF, and the Commission's oversight through audits, USAC guidance letters, and Title II regulation, merit continuance in a broadband world.

I. NTCA’S BROADBAND PLAN INCLUDES USF AND ICC REFORM.

The Commission seeks comment on the appropriate relative sizes of each component of the Universal Service Fund (USF) – high-cost, low-income (Lifeline/Link Up), schools and libraries, and rural health care support programs.⁴ The total projected size of the USF demand for the fourth quarter of 2009 is \$1.86 billion, with high-cost at \$970 million, low-income at \$287 million, schools and libraries at \$552 million, rural health care at \$50 million, and the fourth quarter 2009 USF contribution factor at 12.3%.⁵ The Commission asks if one USF program is increased, should the other programs be decreased?⁶ This query necessarily supposes that the USF program be capped so that any increase in one program should cause a decrease in one or more of the other USF programs. The Commission asks if reducing any of the USF support mechanisms “would advance the goal of universalization of broadband?”

NTCA has filed with the Commission a national broadband plan roadmap demonstrating that a truly effective national broadband plan will require several changes to the USF structure. NTCA’s national broadband plan, its new 2009 Broadband/Internet Availability Survey Report and new middle-mile data request report reflect that rural carriers need high-cost USF support to afford providing telecommunications services to high-cost rural areas with reliable and predictable support. Furthermore, any cap or reduction of the high-cost portion of the USF will result in reduce availability or service quality in high-cost areas.

A. NTCA’s National Broadband Plan Provides Rural Areas with USF Support and Reform for Broadband Services.

In order for high cost support to be effective in rural areas, the Commission should

⁴ *Id.* at 1.

⁵ Proposed Fourth Quarter 2009 Universal Service Contribution Factor, CC Docket No. 96-45, DA 09-2042, Public Notice (rel. Sep. 14, 2009). See also USAC 4Q2009 Fund Size Projections (rel. July 31, 2009), available at: http://www.usac.org/about/governance/fcc-filings/2009/Q4/4Q2009%20Quarterly%20Demand%20Filing%20_FINAL%207.30.09_.pdf.

⁶ Public Notice, p. 1.

implement NTCA's National Broadband Plan, which includes the following points:

1. Define "broadband" based on high-speed Internet access capabilities during peak-hour or busy-hour load that are generally available in a significant sample of service offerings in urban areas to establish a standard of comparability and affordability in urban and rural areas. As the capability of broadband technology and Internet protocol (IP) applications develop, the definition must evolve to meet consumer, education, business, and public health/safety demands. By linking the definition to generally available services, affordability, and comparability, the definition is enduring, technology neutral, and in the public interest.
2. Include "broadband Internet access service" in the definition of "universal service."
3. Open a proceeding to define and identify "Market Failure Areas" throughout the United States and target these areas for future high-cost broadband USF support in order to ensure consumers living in these areas have access to affordable and comparable broadband service.
4. Define a "Market Failure Area" as an area that does not have the population base or economic foundation for any provider to justify broadband facilities build-out and ongoing maintenance without external monetary support.
5. Reclassify wireline and cable "broadband Internet access service," as "telecommunications service."
6. Regulate broadband Internet access service providers under Title II common carrier regulation.
7. Apply a Title II earnings review to all broadband providers who voluntarily receive federal high-cost broadband USF support.
8. Allow rate-of-return (RoR) carriers to receive future federal high-cost broadband USF support through the Interstate Common Line Support (ICLS) mechanism, and price-cap carriers seeking to receive future broadband USF support through the Interstate Access Support (IAS) mechanism, when they voluntarily choose to have their broadband services regulated under Title II and voluntarily provide their total company regulated Title II costs, revenues, and earnings to be used when determining their future broadband high-cost USF support disbursements.
9. Include ongoing operations and maintenance expenses, in addition to construction cost, in the calculation of the future high-cost broadband USF support.
10. Transition all high-cost voice USF support to high-cost broadband USF support over a reasonable time period to avoid rate shock, prevent service disruptions, and provide stability and certainty during the transition.

11. Maintain RoR regulation for rural ILECs throughout the transition period and allow rural ILECs to base their high-cost USF support on each carrier's study area average costs to ensure affordable and uninterrupted broadband Internet access service to rural, high-cost consumers.
12. Allow RoR rural carriers to provide stand-alone/naked broadband service with the same level of universal service funding as allocated to their bundled voice and broadband service during and after the transition period.
13. Expand the base of USF contributors to include all retail broadband Internet access service providers.
14. Open a proceeding to determine whether other companies that impose significant costs on the public Internet, such as Google, should be required to contribute to the new high-cost broadband USF mechanism.
15. Assess USF contributions based on telecommunications and broadband revenues.
16. Include Internet backbone and special access (middle-mile) transport service costs in the calculation for determining future high-cost USF broadband support.
17. Eliminate the identical support rule and base high-cost USF support on each company's own costs within 5 years.
18. Refrain from capping and/or freezing rural carrier high-cost USF support because this will halt broadband deployment in high-cost areas and leave many rural consumers with substandard broadband service or without any broadband service whatsoever.
19. Require IP/PSTN traffic, specifically interconnected VoIP traffic, to pay applicable tariffed originating and terminating interstate access rates, intrastate access rates, and reciprocal compensation rates, throughout the transitional period and/or until such time as there is no longer a PSTN.
20. Implement intercarrier compensation (IC) reform as part of the National Broadband Plan by allowing state commissions to reduce voluntarily, on a company-by-company basis, intrastate originating and terminating tariffed access rates to interstate tariffed access rate levels within 5 years, and at the same time freeze interstate originating and terminating access rates in order to keep interstate access rates from increasing.
21. Establish a Restructure Mechanism (RM) as part of IC reform that allows RoR carriers to recover lost access revenues not recovered in end-user rates through supplemental ICLS and price-cap carriers to recover lost access revenues not recovered in end-user rates through supplemental IAS.

22. Establish Title II interconnection and network management rules pursuant to Sections 251 and 256 of the Act to allow for the seamless transmission of communications between public broadband Internet access networks.

23. Require vertically-integrated Internet backbone and special access (middle-mile) transport provider rates to be cost-based and non-discriminatory.

24. Expand and make permanent the Universal Service Fund's Rural Health Care Pilot Program. Telemedicine networks made possible by broadband services save lives and will improve the standard of healthcare and life in sparsely populated, rural areas. Telehealth and telemedicine must be a critical component to the National Broadband Plan.

25. Use the Regulatory Flexibility Act (RFA) (5 U.S.C. Section 601 *et seq.*) effectively and adopt alternative rules to reduce the economic burden on small providers of broadband Internet access service, such as RoR rural carriers.⁷

Implementing these provisions of NTCA's broadband plan will provide a solid foundation for USF and ICC reform and will ensure rural area consumers receive comparable broadband services at prices comparable to urban areas.

B. The USF High-Cost Program Should Not Be Reduced or Capped Because NTCA's 2009 Broadband/Internet Survey Shows Rural ILECs Need Support for Traditional Voice And Broadband Deployment.

Rural ILEC carriers have repeatedly demonstrated that they have used and will use their USF high-cost support to provide high-quality broadband services to their rural communities. NTCA just released its 2009 Broadband/Internet Availability Survey Report which shows that 98% of NTCA survey respondents offer at least 768kbps broadband speed in one direction to some part of their customer base.⁸ A copy of this Broadband Survey is attached to these comments as "Attachment A."

Rural areas are seeing significant gains in broadband speeds, primarily due to the increased fiber availability in their communities, according to the survey. Fifty-three percent of

⁷ NTCA Reply Comments, GN Docket No. 09-51, FCC 09-31, filed July 21, 2009 (p. 11).

⁸ 2009 NTCA Broadband/Internet Survey Report, rel. Nov. 2009 (NTCA Broadband Report), p. 1. A copy of the NTCA Broadband Report is available at: <http://www.ntca.org/images/stories/Documents/Advocacy/SurveyReports/2009ntcabroadbandsurveyreport.pdf>.

respondents indicated their customers can now receive broadband service of between 3 and 6 Mbps (up from 46% last year), and 39% can receive service in excess of 6 Mbps--an increase from just 25% one year ago.⁹ Survey respondents indicated an increase in take rates for the higher broadband speed tiers as well.¹⁰ These deployments are made possible in large part due to the high-cost support the rural ILECs have received.

NTCA's 2009 Broadband Survey found that nearly three-quarters (73%) of respondents with a fiber deployment strategy intend to offer fiber to the node to more than 75% of their customer base by 2011.¹¹ Fifty-five percent plan to offer fiber to the home to more than half their customers in that same time frame.¹² Rural ILECs will need USF high-cost support to help fulfill these broadband strategies. Fiber deployment costs remain a significant impediment facing rural carriers, cited as an obstacle by 93% of survey respondents. Rugged terrain, distance and low customer density exacerbate the problem.

NTCA sent the 2009 survey electronically to all telco members in its e-mail database and 156 companies (31%) responded. Fifty-six percent of respondents' service areas are 500 square miles or larger; 27% are at least 2000 square miles. Sixty-seven percent of those have customer densities of 10 residential customers or less per square mile, with nearly one third (31%) reporting customer densities of just two or fewer residential customers per square mile.¹³ These survey results reflect a heightened interest and dedication of small rural providers to bring broadband to high-cost areas.

⁹ *Id.* at 3.

¹⁰ *Ibid.*

¹¹ *Id.* at 4.

¹² *Ibid.*

¹³ *Id.* at 3-4.

C. Universal Service Reform Should Include “Market Failure Area” Designations to Identify Where New Broadband Universal Service Support is Most Needed For Broadband Deployment Expenses, Including Ongoing Operations and Maintenance Expenses.

Another aspect of USF reform for the Commission’s consideration is the “Market Failure Area” or “MFA” designation, used to target new broadband support. The Commission should open a new proceeding to define and identify MFAs throughout the United States as areas targeted for future high-cost broadband USF support. This will ensure that consumers living in these areas will have access to affordable and comparable broadband service. The Commission should then determine the most efficient method for distributing future high-cost broadband USF support to these areas in order to provide affordable broadband service to consumers living in these areas.

An MFA would be an area that does not have the population base or economic foundation for any provider to justify broadband facilities build-out and ongoing maintenance without external monetary support. These MFAs should be determined at a sufficient level of granularity so that (1) support is targeted at specific areas that cannot otherwise produce adequate retail revenues to cover a carrier’s costs, and (2) universal service funding resources will be targeted and conserved. NTCA urges the Commission to gather input, as soon as possible, from all interested and affected parties on how to establish exactly which areas are too costly and thus would qualify as broadband MFAs, as opposed to markets that do not require future high-cost broadband USF support. The process needs to be transparent and focused on areas – not providers -- so that it is not dominated by corporations with the largest reservoir of financial, technical, and political resources.

The MFAs should be used to target future broadband support. That support should include ongoing operations and maintenance expenses, in addition to construction cost, in the

calculation of the future high-cost broadband USF support. Funding construction of broadband networks alone will not be adequate to provide the certainty that any provider will require to make the commitment to invest in, operate and maintain broadband services in areas that do not otherwise justify the risk. Federal USF for these qualifying areas would be limited to the federal authorized rate of return.

D. High-Cost USF Support Should Be Available for Middle-Mile and Second-Mile Transport Services.

NTCA recently filed an ex parte as part of NBP #11 on middle mile and second mile transport services and urged the Commission to recognize that ubiquitous broadband deployment will require some form of middle mile cost recovery for rural providers.¹⁴ NTCA included results from a recent data request of its membership that indicates middle mile costs will rise dramatically as bandwidth demand increases.¹⁵

If the Commission truly wishes to achieve its stated goal of universal affordable broadband service for all Americans, it will be necessary to ensure that rural providers are able to recover the costs associated with access to middle mile transport services. The quantitative responses to NTCA's data request indicate that the problems noted by NTCA member companies will grow dramatically worse as consumer demand for broadband continues to grow. A portion of middle mile and second-mile costs should be recovered through USF support for small rural providers.

E. Freezing or Capping High-Cost USF Support Will Adversely Affect Broadband Deployment in Rural Areas.

Elimination or reduction of high-cost support would have dramatic and immediate consequences for NTCA member companies and their rural customers. At best, retail rates

¹⁴ *In the Matter of Comment Sought on the Impact of Middle and Second Mile Access on Broadband Availability and Deployment*, NBP Public Notice #11, GN Docket Nos. 09-47, 09-51, 09-137, NTCA ex parte filing (Nov. 20, 2009).

¹⁵ *Id.* at 1.

would increase and put service out of reach of many and service quality would drop because carriers would no longer be able to fund necessary network upgrades and maintenance. At worst, small rural ILECs would no longer be able to serve their customer base, stranding high-cost rural customers without adequate broadband coverage.

Furthermore, freezing or capping high-cost USF would prevent rate-of-return carriers from earning their authorized rate of return or would shift excessive costs to rural consumers in violation of the comparable rate requirement of Section 254 of the Act. The rural ILECs' high-cost portion of the USF support programs should not be reduced and the USF program should not be capped. Caps and freezes on high-cost USF support are fundamentally inconsistent with Congress' and the Commission's broadband build-out goals. The Commission should not include a high-cost USF cap as part of its national broadband plan.

II. A REVENUE-BASED CONTRIBUTION METHODOLOGY WILL BEST SUIT USF REFORM FOR A BROADBAND WORLD.

The Commission seeks explanations of how the proffered broadband contribution methodology plans will impact end users.¹⁶ NTCA's contribution methodology for a national broadband plan provides a fair approach that minimizes the economic burden for rural and urban consumers and involves 3 steps: 1) all broadband internet access providers should contribute to the USF; 2) telecommunications and broadband revenues, not numbers, should be assessed for future USF support; and 3) open a proceeding to determine whether other companies who are not internet access providers but who impose significant costs on the public Internet, such as Google, should be required to contribute to a new high-cost broadband USF mechanism.¹⁷

¹⁶ Public Notice, p. 2.

¹⁷ NTCA Reply Comments, GN Docket No. 09-51, FCC 09-31 filed July 21, 2009, pp. 11-18.

A. All Broadband Internet Access Providers Should Contribute to the USF.

NTCA confirms that the USF should receive contributions from all broadband internet access providers. Expanding current USF programs to include broadband without assessing broadband services for contribution purposes will not provide sufficient, predictable and sustainable levels of broadband USF to achieve the goal of ubiquitous and affordable Internet access service to all Americans. It may be too early to discern with accuracy whether end users will see a small rate increase if the base of USF contributors expands to include all providers, but simple logic infers that rate increases should not occur or should be minimal so long as the contribution base increase is proportionately less than the support demand increase. If USF contributions are limited to traditional wireline and wireless voice services, the inevitable migration away from these services will eliminate all future universal service funding. NTCA therefore urges the Commission to require all cable, wireless, VoIP, electric and satellite broadband Internet access providers to contribute to the federal universal service fund based on their revenues.

The goals of universal service cannot be met without the broad support for the underlying networks that carry their VoIP as well as circuit switched traffic. Failing to position non-wireline broadband Internet access providers, VoIP providers, and wireless providers on equal footing with existing wireline USF contributors will continue to place existing wireline contributors at a distinct competitive disadvantage and further drain revenues from the existing USF contribution revenue assessment base. Without competitive neutrality, the disparate regulatory treatment of non-wireline broadband providers, VoIP providers and wireless providers will continue to invite arbitrage and create false economic incentives.

Customers value broadband highly, so it appears unlikely that adoption percentages would drop dramatically if a small rate increase were necessary to provide support for broadband deployment. Broadening the contribution base will minimize funding requirements, while also paving the way for fairer and quicker development of broadband in the hardest-to-reach areas. Requiring all broadband service providers and all voice substitute providers to contribute will provide sufficient USF collections and create long-term stability in the USF contribution methodology.

B. Assess Telecommunications and Broadband Revenues, Not Numbers, for Future USF Support.

An integral part of the contribution methodology for USF to deploy broadband is to assess telecommunications and broadband revenues, not numbers, for USF support. Legacy telephone numbers, the heart of commenters' arguments for a number-based USF support, should be the basis since phone numbers have little to do with broadband Internet access service. In *Brand X*, the United States Supreme Court stated "the Commission concluded a consumer cannot purchase Internet service without also purchasing a connection to the Internet and the transmission always occurs in connection with information processing."¹⁸

The underlying transmission component of all broadband Internet access services is "telecommunications" as defined by the Act.¹⁹ Section 254(d) specifically provides the Commission with authority to require Section 254(d) specifically provides the Commission with authority to require any other provider of interstate "telecommunications to contribute to universal service." The future public communications network will require universal service funding to provide affordable and comparable voice and broadband services to all Americans, urban and rural, high-cost and low-income. It will also require a USF contribution methodology

¹⁸ *National Cable & Telecommunications Association v. Brand X*, 545 U.S. 967 (2005).

¹⁹ 47 U.S.C. § 153(43).

that is able to evolve with the future public communications network that will rely on IP-based transmission services. NTCA urges the Commission to retain its current revenues-based contribution methodology for USF assessments and apply it to all broadband Internet access service revenues.

C. Explore whether non-Internet access providers, like Google, should contribute to the USF because they impose significant public costs on the Internet or In Exchange for Open-Internet Policies.

Broadening the USF contribution base is an effective technique to minimize end user impacts from rate increases. Those applicant and content providers who impose substantial costs to the public through bandwidth demands, such as Google and Amazon.com search engines, should also be considered as possible USF contributors. Bandwidth utilization involves generation of substantial data transferred over the public Internet, including over middle-mile, second-mile and last-mile facilities. Bandwidth usage by Google, Amazon.com and other e-behemoths is increasing at a rapid rate.

A number of comments made in this proceeding suggest that additional investment may be one of the only acceptable ways to address network congestion. Given these statements lamenting a lack of investment, the Commission should consider expanding the base to include high bandwidth-consuming application and content providers as additional contributors in exchange for the imposition of net neutrality obligations on Internet access providers. The Commission, in this proceeding and others, should also examine the arguments advocating net neutrality demands and their push on the part of application and content providers for more capacity. The FCC has opened an internet proceeding that offers six principles for codification. While the FCC and industry and lawmakers debate the necessity for these rules, the Commission should consider the merits of requiring all broadband service providers to contribute to the USF

for broadband purposes. Increasing the base of contributors for broadband may mitigate any slowdown in broadband deployment.

The Commission should open a proceeding to consider whether contribution to the USF should also include those application and content providers whose bandwidth demands impact use of the public Internet the most, as well as imposing open internet principles in exchange for broadening the contribution base.

III. CHANGING THE HIGH-COST SUPPORT MECHANISM WILL REQUIRE A TRANSITION PERIOD FOR RURAL BROADBAND PROVIDERS.

The Commission asks for comment on transition mechanisms for USF support for high-cost areas for broadband.²⁰ NTCA has offered a transition component in its broadband plan. NTCA suggests transitioning all high-cost voice USF support to high-cost broadband USF support over a reasonable time period to avoid rate shock, prevent service disruptions, and provide stability and certainty during the transition. Rate-of-return (ROR) regulation should also be maintained for rural ILECs throughout the transition period. Furthermore, rural ILECs should be allowed to base their high-cost USF support on each carrier's study area average costs to ensure affordable and uninterrupted broadband Internet access service to rural, high-cost consumers.

Additionally, the Commission should allow RoR rural carriers to provide stand-alone/naked broadband service with the same level of universal service funding as allocated to their bundled voice and broadband service during and after the transition period.

The FCC should implement a transition plan for intercarrier compensation reform as part of its National Broadband Plan by allowing state commissions to reduce voluntarily, on a company-by-company basis, intrastate originating and terminating tariffed access rates to

²⁰ Public Notice, p. 2.

interstate tariffed access rate levels within five years. At the same time, the Commission should freeze interstate originating and terminating access rates in order to keep interstate access rates from increasing. NTCA continues to advocate establishing a Restructure Mechanism as part of ICC reform that allows RoR carriers to recover lost access revenues not recovered in end-user rates through supplemental ICLS, and price-cap carriers to recover lost access revenues not recovered in end-user rates through supplemental IAS.

Likewise, NTCA favors requiring IP/PSTN traffic, specifically interconnected VoIP traffic, to pay applicable tariffed originating and terminating interstate access rates, intrastate access rates, and reciprocal compensation rates, throughout the transitional period and/or until such time as there is no longer a PSTN.

A. The Transition Period Should Include Naked DSL USF Broadband Funding.

The Commission asks for input on what types of investments should be retained during a transitional period from a legacy voice-only network to an advanced broadband deployment network.²¹ NTCA's National Broadband Plan includes a component for stand-alone, or "naked," digital subscriber line (DSL) during and after the transition period.²² Under the current rules, many rural ILECs provide consumers living in their high-cost service areas with a bundled voice and DSL broadband service offering under a NECA tariff. This bundled service provides high-cost rural consumers with both affordable voice and broadband services. The NECA tariff rate for bundled voice and DSL service is also significantly cheaper than the NECA tariff rate for stand-alone DSL broadband service. The voice component of the bundled service offering is supported by high-cost USF support, whereas the stand-alone broadband DSL service is not supported by USF.

²¹ *Ibid.*

²² NTCA Initial Comments, filed June 8, 2009, pp. 22-24.

Rural consumers receiving broadband service in rural ILEC service areas know they are receiving the highest quality broadband service, and in some cases, the only broadband service available in these areas. Like urban consumers, rural consumers are seeking cheaper voice services via wireless and VoIP, but still want to keep their high-quality rural ILEC broadband service. The current high-cost USF rules, however, make it very difficult for consumers to purchase only rural ILEC broadband service. NTCA therefore recommends that during the development, implementation and completion of the Commission's National Broadband Plan, that the FCC allow rural ILECs to offer stand-alone/naked DSL broadband service with the same levels of high-cost USF support that would be allowed in their bundled voice/broadband service offering.

The Commission and Congress seek to move all voice USF support into future broadband USF support and seek to accelerate affordable broadband deployment and penetration throughout the United States. Good public policy supports the Commission to immediately stay the current rural ILEC voice/broadband bundling rules, pending the Commission implementation and completion of the FCC's National Broadband Plan. This will allow rural ILECs to continue to provide affordable broadband services and accelerate new broadband deployment in currently unserved areas. NTCA's proposed stay is consistent with the FCC's mission of providing affordable broadband services to all consumers and is consistent with the ARRA Broadband Stimulus Plan.

IV. RURAL REVENUE FLOWS WILL BE IMPACTED BY CHANGES TO THE HIGH-COST USF SUPPORT MECHANISM.

The Commission seeks comment on assertions by NTCA and others that reduction in current USF support and/or intercarrier compensation will jeopardize carriers' ability to provide

service to customers.²³ Reducing the high-cost fund will not advance Congress' or the Commission's goal of universal broadband for Americans. The Commission should reject calls to cap or freeze the rural carrier high-cost USF support as this will delay broadband deployment in high-cost areas and leave many rural consumers with substandard broadband service or without any broadband service whatsoever.

The Commission also seeks information on carrier revenues, Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA), capital expenditures, and free cash flow for high-cost areas.²⁴ As part of NTCA's National Broadband Plan, carriers who receive broadband USF support would submit to Title II regulation and thus would provide the Commission with impact information as part of their earnings review.²⁵ This would follow the FCC's declaration that broadband is a USF supported service subject to Title II regulation. The Commission would have available data through the earnings reviews that would permit the Commission to perform a continuing review of the impacts on current revenue flows caused by changes in the USF high-cost program.

V. SMALL RURAL CARRIERS ARE OFTEN THE ONLY PROVIDERS FOR CARRIER OF LAST RESORT (COLR) OBLIGATIONS.

The Commission seeks comment on whether some sort of carrier of last resort (COLR) obligation should be imposed for all entities that accept universal service support.²⁶ The Commission also asks whether current eligible telecommunications carrier (ETC) requirements should be revised for new high-cost USF broadband support.²⁷ The Commission should retain the current federal requirements that carriers who receive high-cost USF support must comply with

²³ Public Notice, p. 4, *citing* NTCA Reply Comments, PP. 19-21.

²⁴ *Ibid.*

²⁵ NTCA Initial comments, filed June 8, 2009, p. 16.

²⁶ Public Notice, p. 6.

²⁷ *Id.* at 4.

carrier of last resort (COLR) and ETC obligations. This requirement should extend to any new broadband funding mechanism that the Commission chooses to adopt as part of its National Broadband Plan and its recommendations to Congress.

Section 47 C.F.R. § 54.101 requires eligible telecommunications carriers (ETCs) to list and advertise separately the following services: 1) voice grade access to the public switched network; 2) local usage; 3) dual-tone multi-frequency signaling or its functional equivalent; 4) single-party service or its functional equivalent; 5) access to emergency services; 6) access to operator services; 7) access to interexchange services; 8) access to directory assistance; and 9) toll limitation for qualifying low-income consumers. Section 47 C.F.R. § 54.201(d)(2) requires: “(d) A common carrier designated as an eligible telecommunications carrier under this section shall be eligible to receive universal service support in accordance with section 254 of the Act and shall, throughout the service area for which the designation is received: (2) Advertise the availability of such services and the charges therefore using media of general distribution.” These same requirements should apply to USF broadband support recipients.

VI. HIGH-COST FUND OVERSIGHT

The Commission seeks comment on what appropriate oversight and accountability measures should be used to minimize waste, fraud and abuse for high-cost support recipients. As a recent USAC report shows, the error rate for impermissible payments in the high-cost portion of the USF is relatively low, 2.74%:²⁸

In 2006-07, the Universal Service Administrative Company (USAC) conducted 65 audits of High Cost Program beneficiaries at the direction of the Federal Communications Commission (FCC or Commission) Office of Inspector General (OIG). One purpose of the audits was to estimate an “error rate” under the Improper Payments Information Act of 2002 (IPIA). In October 2007, the FCC OIG issued an “initial statistical analysis” of these High Cost Program beneficiary audits. The FCC OIG’s initial statistical analysis reported an estimated improper payment rate of 16.6% with a margin of error of +/- 10.0%. Follow-up audit work conducted by independent audit firms after the FCC OIG issued its initial statistical analysis demonstrates that the estimated improper payment rate is actually 2.74% with a margin of error of +/- 2.8% – *not* 16.6% as initially reported by the FCC OIG. Many payments that were initially deemed “improper” for IPIA reporting purposes were in fact made in compliance with program rules.²⁹

²⁸ Universal Service Administrative Company Final Report and Statistical Analysis of the 2006-07 Federal Communications Commission Office of Inspector General High Cost Program Beneficiary Audits (rel. Sep. 10, 2009).

²⁹ *Id.* at 2.

Thus, the current system of USAC audits demonstrates high accountability and efficiency in the existing high-cost support program.

NTCA filed comments on November 12, 2009, in response to USAC's request for guidance on several OIG USAC audits.³⁰ NTCA supports this process of posting guidance requests and seeking comments from interested parties, and NTCA encourages the Commission to continue this process as part of its ongoing USF oversight of the high-cost fund. Furthermore, the Commission should allow Subchapter S corporate income taxes to flow through to shareholders as expenses which are recoverable through the carrier's revenue requirement and USF support. The Commission should determine that eligible telecommunications carriers (ETCs) are allowed to combine elements into a simplified advertising listing of "local telephone service." Furthermore, the high-cost program documentation retention rules should not be applied retroactively. Finally, the Commission should resolve outstanding USAC audit issues and grant NTCA's Petition for Clarification and/or Limited Waiver to allow rate-of-return ILECs to assign and allocate their USAC OIG audit expenses as interstate expenses.

NTCA continues to advocate for the application of Title II earnings review to all broadband providers who voluntarily receive federal high-cost broadband USF support. This approach is designed to accomplish the FCC's goal to ensure affordable and comparable broadband Internet access service to all Americans. While at the same time preventing the fraud, waste and abuse of the federal high-cost USF support mechanisms, NTCA urges the FCC to impose additional regulatory scrutiny on carriers seeking high-cost broadband USF support. This high-cost fund oversight will exist as part of a regulatory contract between broadband providers and the FCC.

³⁰ *In the Matter of Request for Universal Service Fund Policy Guidance by the Universal Service Administrative Company*, WC Docket Nos. 05-337, 06-122, CC Docket No. 96-45, DA 09-2117, NTCA Reply Comments (filed Nov. 12, 2009).

VII. CONCLUSION

For these reasons, the Commission should implement NTCA's national broadband plan, including provisions concerning USF and intercarrier compensation (ICC) reform. NTCA's 2009 Broadband/Internet Survey shows that NTCA members who receive high-cost funding under the USF program are deploying broadband services and any reduction or cap of the high-cost program will adversely affect traditional and broadband services in rural America. USF reform should include identification of Market Failure Areas to target new broadband support. That support should include middle-mile and second-mile transport services. A revenue-based contribution methodology that includes all broadband internet access providers as contributors is the optimal plan for funding broadband through the USF. The Commission should also explore requiring large bandwidth application and content providers who impact the public Internet to contribute to the new broadband USF funding mechanism.

Changes to the high-cost support mechanism for broadband services will require a transition period for carriers who currently support a legacy voice network through USF funding. That transition period should include USF funding for stand-alone, or "naked," DSL services. The Commission should stay the current rural ILEC voice/broadband bundling rules during the transition period. The Commission can monitor the ongoing impacts on revenue flows in the high-cost portion by declaring all USF broadband services as supported services subject to a Title II earnings review.

Existing carrier of last resort (COLR) and eligible telecommunications carrier (ETC) requirements should continue for any entity who receives new high-cost USF funding for broadband. The Commission's USAC audit reports demonstrate high compliance and accuracy among the high-cost portion of the USF, and the Commission's oversight through audits, USAC guidance letters, and Title II regulation, merit continuance in a broadband world.

Respectfully submitted,



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December 7, 2009

CERTIFICATE OF SERVICE

I, Adrienne L. Rolls, certify that a copy of the foregoing Comments of the National Telecommunications Cooperative Association in GN Docket Nos. 09-47, 09-51, 09-137, DA 09-2419, (NBP Public Notice #19) was served on this 7th day of December 2009 by first-class, United States mail, postage prepaid, or via electronic mail to the following persons:

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NTCA 2009 BROADBAND/INTERNET AVAILABILITY SURVEY REPORT

November 2009

DISCLAIMER: Data from the survey has been presented as reported.

To get more information on this report please contact Rick Schadelbauer at NTCA (703-351-2019, richards@ntca.org) or Scott Reiter at NTCA (703-351-2015, sreiter@ntca.org).

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EXECUTIVE SUMMARY

For the last eleven years, the National Telecommunications Cooperative Association (NTCA) has conducted its annual Broadband/Internet Availability Survey to gauge the deployment rates of advanced services by its member companies.¹ In the late spring and early summer of 2009, NTCA sent an electronic survey form to each of the companies in NTCA's email database; 156 members (31%) responded.

Ninety-eight percent of the 2009 survey respondents offer broadband to some part of their customer base, compared to the 58% of the 2000 survey respondents who offered the then-lower definition of broadband service.² Respondents indicated that they use a variety of technologies to provide broadband to their customers: 98% of those who offer broadband utilize digital subscriber line (DSL), 59% fiber to the home (FTTH) or fiber to the curb (FTTC) (up from 44% last year and 32% the year before that), 25% licensed wireless, 22% unlicensed wireless, 15% satellite and 10% cable modem. Only 29% of 1999 survey respondents offered DSL service, and none offered wireless broadband.

Seventy-eight percent of respondents' customers can receive 200 to 768 kilobits per second (kbps) service, 73% 768 kbps to 1.5 megabits per second (Mbps), 77% 1.5 Mbps to 3 Mbps, 53% 3 Mbps to 6 Mbps, and 39% greater than 6 Mbps. The overall take rate for broadband service is 37%.³ On average, 23% of respondents' customers who can receive 200 kbps to 768 kbps service subscribe, 19% subscribe to 768 kbps to 1.5 Mbps service, 21% to 1.5 Mbps to 3 Mbps, 22% to 3 Mbps to 6 Mbps offerings, and 10% to greater than 6 Mbps service.

The typical respondent is 103 miles from their primary Internet connection. Eighty-five percent of those who recently changed backbone providers did so for price reasons. Seventy-two percent of respondents indicated they are generally satisfied with their current backbone access provider, while 20% are generally dissatisfied.

Eighty-nine percent of survey respondents indicated they face competition in the provision of advanced services from at least one other service provider in some portion of their service area. By comparison, only 66% of respondents to the 2003 survey indicated

¹ Following the completion of the 2001 survey in December 2001, it was decided that subsequent Broadband/Internet Availability Surveys would be conducted in the first half of the year in order to capture year-end data. Consequently, no survey was conducted and no survey report published in calendar year 2002.

² For the purpose of this survey, broadband is defined as throughput of at least 768 kbps in one direction. Previously, the Commission had defined broadband as service of at least 200 kbps in one direction.

³ Actual rural broadband subscription rates are likely significantly higher than the numbers shown here, as survey respondents are joined by a variety of competitors in the provision of broadband services within their service area.

they faced competition and only 43% in the 1999 survey. Current competitors include national Internet service providers (ISPs), cable companies and wireless Internet service providers (WISPs). Respondents are taking numerous marketing steps to increase broadband take rates, including free customer premise equipment installation, bundling of services, price promotions, free hardware, free introductory service and free software.

More than three-quarters of respondents find it difficult to compete with price promotions offered by competitors. Overall, 37% of survey respondents consider their company's marketing efforts to be "very successful."

Seventy-three percent of those respondents with a fiber deployment strategy plan to offer fiber to the node to more than 75% of their customers by year-end 2011, while 55% plan to offer fiber to the home to at least 50% of their customers over the same time frame, up from 26% last year. Deployment cost remains the most significant barrier to wide deployment of fiber, followed by regulatory uncertainty, long loops, low customer demand, and obtaining cost-effective equipment. Throughout the history of the survey, deployment cost has been respondents' most significant concern.

Ten percent of respondents currently offer voice over Internet protocol (VoIP) service, up slightly from 6% last year. Fifty-four percent of respondents have plans to offer VoIP in the foreseeable future, up from 44%. Seventy-five percent of respondents offer video service to their customers, up from 68% last year.

INTRODUCTION

In the summer of 2009, NTCA surveyed its members on their activities in the areas of providing broadband services and Internet availability to their members/customers. NTCA is a national association of more than 580 local exchange carriers in 44 states that provide service primarily in rural areas. All NTCA members are small carriers that are "rural telephone companies" as defined in the Telecommunications Act of 1996 ("Act"). Only four NTCA member companies serve 50,000 lines or more; the largest serves just over 90,000. Population density in most member service areas is in the 1 to 5 customers per square mile range. Approximately half of NTCA's members are organized as cooperatives and the other half are commercial companies.

This latest broadband survey is a follow-up to similar surveys conducted in recent years by NTCA, and seeks to build upon the results of those surveys.⁴ This year's survey asked about technologies used to provide broadband service, broadband availability and subscription rates, prices charged, quantity and type of competition, broadband marketing

⁴ Copies of this and previous NTCA survey reports may be downloaded from the NTCA Web site, www.ntca.org.

efforts, fiber deployment, emerging technologies, Internet backbone connections, finance and availability of capital. The survey also provided an opportunity for respondents to provide any specific comments they wished to share.

OVERVIEW OF SURVEY

The 2009 NTCA Broadband/Internet Availability Survey was conducted online. The survey was broken up into two separate segments, each sent out about three weeks apart. Member companies were provided with a URL through which they could access each portion of the survey. Every effort was made to minimize the reporting burden on the survey respondents.

The first part of the survey was comprised of general questions about the respondent's current operations, competition/marketing and current and planned fiber deployment. The second part dealt with the Internet backbone, voice over Internet protocol (VoIP) and video. The first part also contained an opportunity for respondents to offer any miscellaneous thoughts.

SURVEY RESULTS

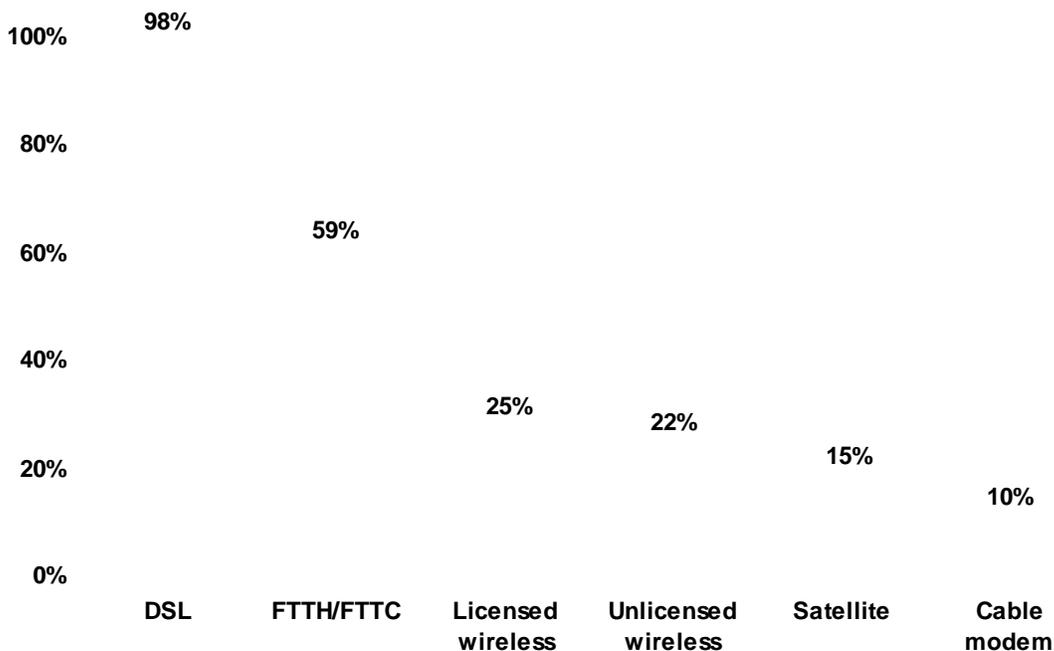
The survey URL for each part of the survey was distributed via e-mail to all member companies in NTCA's email database. The message contained instructions for online access to the survey. Responses were received from 156 member companies, a 31% response rate.⁵

Fifty-six percent of survey respondents' service areas are 500 square miles or larger; 27% are at least 2000 square miles. Two-thirds—67%—have customer densities in their service area of 10 residential customers per square mile or less. Nearly one-third—31%—have customer densities of 2 residential customers per square mile or less.

⁵ Based on the sample size, results of this survey can be assumed to be accurate to within $\pm 6.5\%$ at the 95% confidence level.

The average survey respondent serves 5,375 residential and 1,655 business lines; a few larger companies skew these numbers upward, hence the median respondent serves 3,020 residential and 700 business lines. Ninety-eight percent of survey respondents offer broadband⁶ service to some part of their customer base. Respondents indicated that they use a variety of technologies to serve their customers: 98% utilize digital subscriber line (DSL), 59% fiber to the home (FTTH) or fiber to the curb (FTTC), 25% licensed wireless, 22% unlicensed wireless, 15% satellite, and 10% cable modem.⁷ (See Figure 1.) Fiber deployment is up from 44% in the 2008 survey and 32% in 2007.

Fig. 1: TECHNOLOGIES USED TO PROVIDE BROADBAND



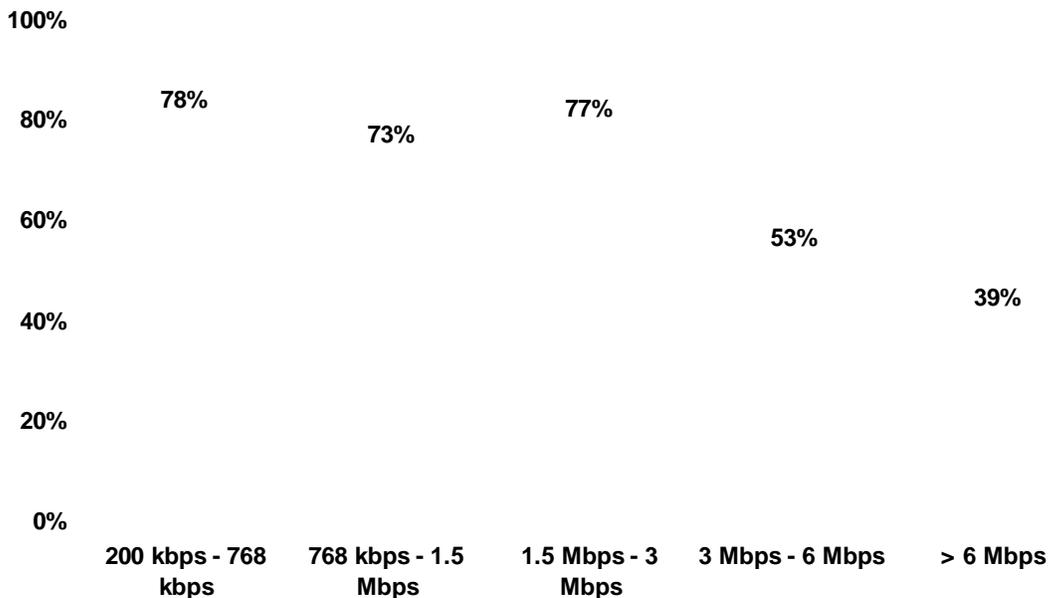
⁶ For the purpose of this survey, broadband is defined as throughput of 768 kbps in at least one direction. This was the definition implemented by the FCC in 2008. According to the Commission, throughput speeds of between 200 kbps and 768 kbps are classified as “first generation data” and throughputs between 768 kbps and 1.5 Mbps are classified as “basic broadband.” This report adopts the FCC’s conventions.

⁷ Percentages sum to greater than 100% as some respondents utilize more than one technology to serve their customers.

A vast majority (82%) of survey respondents are utilizing fiber fed nodes to extend the reach of DSL. Forty-six percent indicated that the average distance from the digital loop carrier (DLC) to the end user was between 15 and 18 thousand feet (kft), 24% between 9 and 15 kft, 22% greater than 18 kft and 8% 9 kft or less.

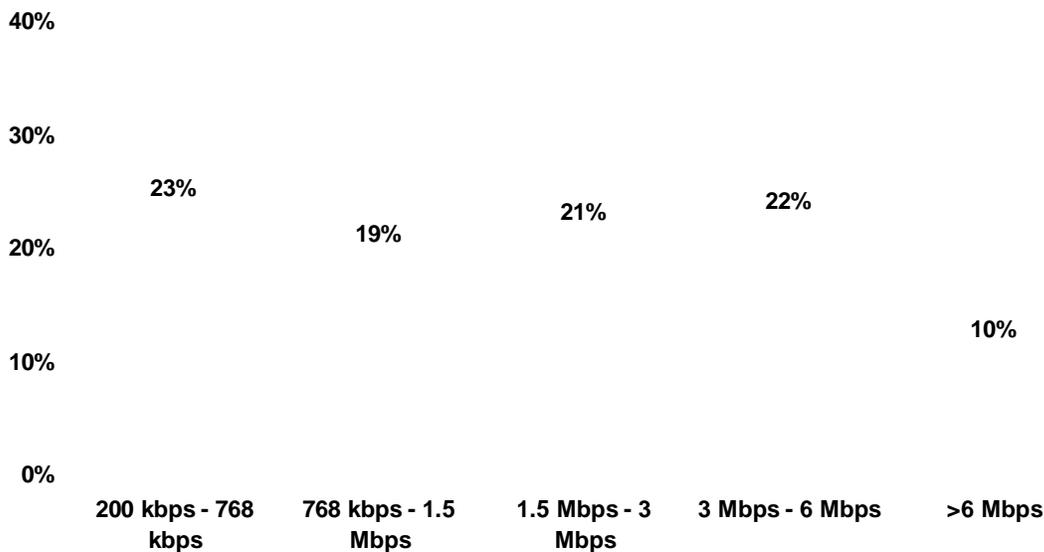
Seventy-eight percent of respondents' customers can subscribe to 200 kbps to 768 kbps service, 73% to 768 kbps to 1.5 megabits per second (Mbps), 77% to 1.5 Mbps to 3 Mbps, 53% to 3 Mbps to 6 Mbps, and 39% to greater than 6 Mbps service. (See Figure 2.)

Fig. 2: AVAILABILITY OF FIRST GENERATION DATA AND BROADBAND SERVICE



Survey results indicate an overall broadband take rate from NTCA member companies of 37%.⁸ Broken down by speed tier, on average, 23% of respondents' residential customers who can receive 200 kbps to 768 kbps service subscribe, 19% subscribes to 768 kbps to 1.5 Mbps service, 21% to 1.5 Mbps to 3 Mbps service, 22% to 3 Mbps to 6 Mbps service, and approximately 10% to greater than 6 Mbps service. (See Figure 3.) Typical prices charged range from \$34.95 to \$44.95 for cable modem service, \$39.95 to \$44.95 per month for DSL service, \$39.95 to \$44.95 for wireless broadband service, and \$44.95 to \$49.95 for fiber service.

Fig. 3: RESIDENTIAL FIRST GENERATION DATA AND BROADBAND TAKE RATES
(Service taken from survey respondents only)



Forty-two percent of survey respondents indicated they offer their customers so-called “naked DSL”—DSL service without a voice component. Take rates for naked DSL service are extremely low, with 56% percent of respondents offering naked DSL reporting take rates of 1% or less.

Half of all respondents estimate that they could bring all of their customers currently receiving service between 200 and 768 kbps up to at least 768 kbps for \$1 million or less.

⁸ Keep in mind that the take rates provided here are for customers taking service from NTCA member companies only. Actual rural broadband subscription rates are likely significantly higher, as survey respondents are joined by a variety of competitors in the provision of broadband services within their service area.

An additional 24% could do so for between \$1 and \$5 million, 11% at a cost of between \$5 and \$10 million, 8% between \$10 and \$50 million, and 8% estimate the total cost would exceed \$50 million.

Internet Backbone

The typical respondent is 103 miles from their primary Internet connection. Eighty-five percent of those respondents who have recently switched Internet backbone access providers did so for price reasons, while 23% switched due to quality of service concerns and 46% for other reasons, such as reducing transport costs or obtaining diverse routing.⁹ Seventy-two percent of respondents indicated they are generally satisfied with their current backbone access provider, while 20% are generally dissatisfied.

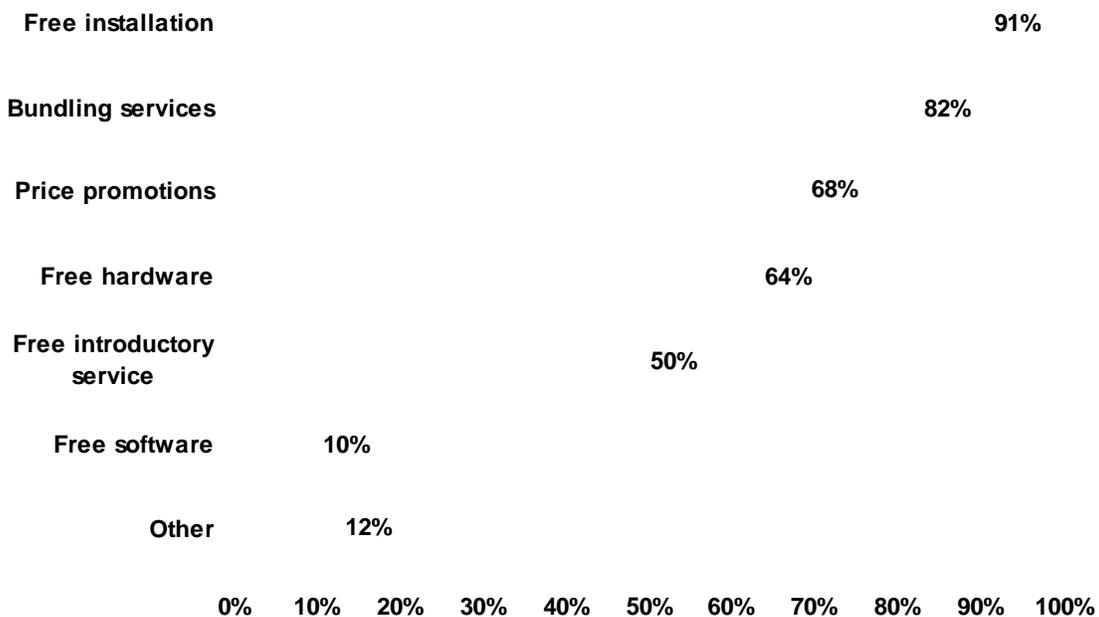
Competition/Marketing

Competition in broadband is becoming more prevalent and more varied: 89% of survey respondents indicated that they face competition from at least one other service provider in some portion of their service area. The typical respondent competes with one national ISP, two wireless Internet service providers (WISPs) and one cable company. Other competitors mentioned include electric utilities, local ISPs and neighboring cooperatives. Fifty-three percent of those respondents facing competition indicated that their competitors were serving only the cities and towns in their service areas, while 47% said that competitors were serving customers throughout their service area.

⁹ Totals exceed 100% as respondents were allowed to select more than one reason for switching providers.

Rural ILECs are taking numerous steps in the marketing arena to increase broadband take rates. Ninety-one percent are offering free installation, 82% are bundling services, 68% are offering price promotions, 64% are offering free hardware, 50% offer free service for an introductory time period (such as 30 days), 10% offer free software and 12% are offering other promotions, such as payment options, direct mail marketing, or Internet training.¹⁰ (See Figure 4.) Eighty-one percent of respondents find it difficult to compete with price promotions offered by competitors, while 52% struggle to match competitors' service bundling. Overall, 37% rate their company's marketing efforts as very successful, while 56% rate them as moderately successful.

Fig. 4: BROADBAND MARKETING PROMOTIONS



Fiber Deployment

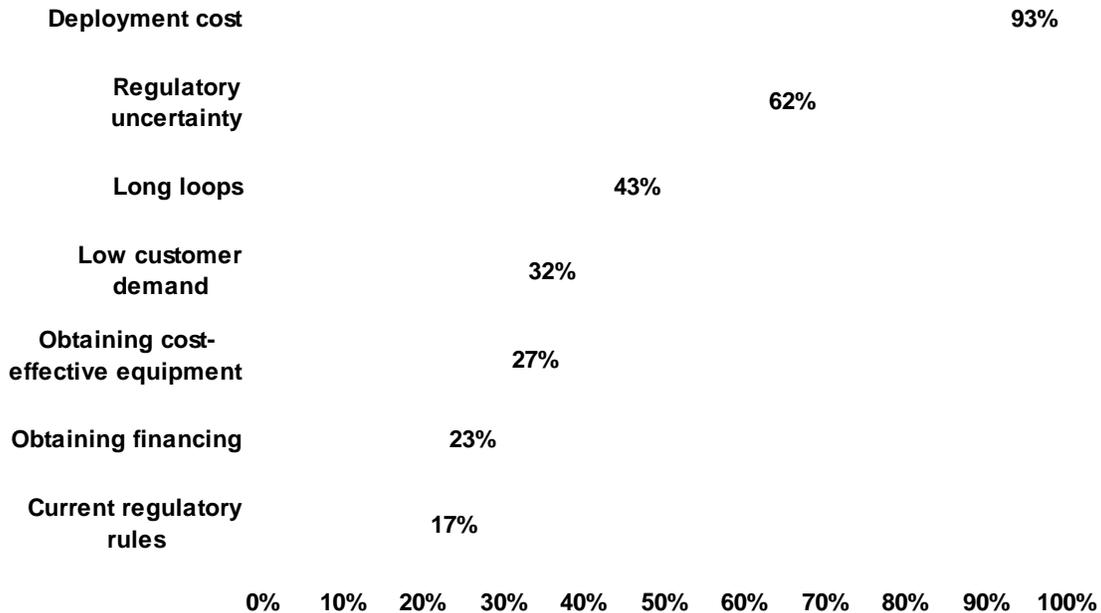
Survey respondents described their companies' plans to deploy fiber to the curb (FTTC) and fiber to the home (FTTH) to their customers. Seventy-three percent of those survey respondents with a fiber deployment strategy expect to offer fiber to the node to more than 75% of their customers by the end of 2011. Twenty-two percent of respondents expect to be able to provide fiber to the curb (FTTC) to at least half of their customers by

¹⁰ Totals exceed 100% as respondents' companies may be offering more than one marketing promotion.

year-end 2011 (up from 11% last year); 55% expect to be able to offer fiber to the home (FTTH) to the same percentage (up from 26%).)

Ninety-three percent of survey respondents identified the cost of fiber deployment as a significant barrier to widespread deployment. Regulatory uncertainty was the number two barrier (62%), followed by long loops (43%), low customer demand (32%) and obtaining cost-effective equipment (27%).¹¹ (See Figure 5.)

Fig. 5: BARRIERS TO BROADBAND DEPLOYMENT



VoIP

Ten percent of survey respondents currently offer voice over Internet protocol (VoIP) service to their customers, up from 6% one year ago. Fifty-four percent of respondents have plans to offer VoIP service in the foreseeable future, up from 44%. Fifty-four percent of respondents perceive VoIP to pose a significant threat to their current operations (up from 31% last year), while 29% perceive VoIP as a moderate threat (up from 22%).)

¹¹ Totals exceed 100% as respondents were allowed to select more than one barrier.

Video

Seventy-five percent of survey respondents offer video service to their customers (up from 68% last year.) Ninety-three percent of those offer video under a cable franchise, while none offer video as an Open Video System (OVS) pursuant to Part 76, Subpart S of the Telecommunications Act of 1996.

Of those respondents not currently offering video, 10% (2% of all respondents) plan to do so by year-end 2009, 15% (4% of all respondents) expect to do so by year-end 2011, and 20% (5% of all respondents) sometime beyond 2011. The remaining 55% of those not currently offering video (14% of all respondents) currently have no plans to offer video service. (See Figure 6.) More than nine out of ten (92%) of those planning to offer video in the future intend to offer IPTV service.

Fig. 6: OFFERING VIDEO SERVICE?



Miscellaneous

Survey respondents were asked what specific obstacles they have encountered in their efforts to deploy fiber to their customers, and how conditions would need to change to allow them to successfully overcome those obstacles. Their responses are presented in Appendix A of this report.

CONCLUSIONS

NTCA member companies continue to deploy fiber at an impressive pace. Nearly three-quarters of survey respondents with a fiber deployment strategy intend to offer fiber to the node to more than 75% of their customers, and 55% plan to offer fiber to the home to more than half their customers in that same time frame. This speaks well of these companies' dedication in providing state-of-the-art services to their service areas, particularly in light of the obstacles that must be overcome in deploying fiber in rural areas, namely distance, terrain and low customer density.

Survey respondents are increasing their deployment of broadband at the upper throughput levels. NTCA member companies continue to increase their deployment of high speed broadband service—53% of respondents' customers can now receive broadband service of between 3 and 6 Mbps, compared to 46% last year, and 39% can receive service in excess of 6 Mbps, compared to 25% a year ago. These gains are due in large part to the previously-noted growth in fiber deployment. As a result, survey respondents are seeing take rates in the higher speed tiers growing, as well.

Cost remains the biggest obstacle to NTCA member companies in the widespread deployment of fiber in their networks. Throughout the history of this survey, the cost of fiber deployment has been the number one obstacle facing respondents. This year is no exception—93% of survey respondents cited deployment cost as a significant impediment. This cost is exacerbated in rural areas by the barriers cited above. The continuing availability of reasonably-priced financing will be critical in allowing rural providers to continue to bring fiber, and the myriad services fiber optic cable facilitates, to their customers.

Growth in video deployment continues. Seventy-five percent of survey respondents now have a video offering, up from 68% a year ago, and an additional 11% intend to do so at some point in the future. If these providers are to be able to bring comparable video services to rural America, it will be critical that they are assured of fair treatment in their negotiations to obtain programming content.

APPENDIX A

Q: What specific obstacles have you encountered in your efforts to deploy fiber to your customers, and how would conditions need to change to allow you to successfully overcome those obstacles?

Obtaining financing in this economic downturn and changing regulations.

The obstacle is building a network that would be financially satisfying to the customer and the company.

We are deploying fiber to the home as fast as we can. The biggest problem we have is some of our customers have NO power to the ONT's.

Unreliable equipment

The cost and personal expense is expensive and will need to be done over a number of years.

We have undertaken a FTTH project to cover a radius of anything within three miles of our central office. We need more regulatory certainty that there will be cost recovery before we can extend our FTTH to our more rural areas.

Distance and cost of equipment.

Minor right-of-way issues

Sustainable revenue streams

Cuts in rates by the [state commission]

1. Cost of deployment/low density area 2. Reliance upon support mechanisms for ROI during times of regulatory uncertainty. 3. Cost of obtaining and purchasing video content. 4. No economies of scale to be realized in exchange of 450 subscribers. 5. Cable and satellite competition.

USF for rural broadband would help

178 miles to [...] (where main backbone connection is), middle mile facilities are closer, yet still pricey due to population and per capita income of our customer base. Customer base is not currently requesting more speed, yet continues to maintain price is high. High price is due to having to pay settlements (of course, we do get reimbursed), our Internet wholesaler, and then adding in bandwidth costs we tend to make a little money but

greater expenses would not assist us in making things cheaper or increasing our profit margins. Closest middle mile facility is 16 miles away and requires a river bore. Getting to middle mile facilities is currently being negotiated and explored further, along with fiber to the home within the city of [...].

Cost, customer density—cost per loop

Fiber to the home is very expensive to deploy (avg. cost of \$6,000 per customer). We need regulatory certainty so that we are assured we can recover this investment. We need less expensive costs for fiber deployment.

Adequate and timely funding; national program for broadband USF

Equipment manufacturers unable to provide working equipment in the field.

Power outages and battery back up. Need to create a longer battery back-up solution during power outages.

We are among the first in our state to adopt fiber to the home technology. We have gone through five revisions to remain current and provide new services. We hope things have started to stabilize. The current regulatory climate is very uncertain. We need some assurance we will be able to recover our investment. We cannot do this when we are forced to let others use our broadband pipes without any form of compensation. The greatest example of this is being forced to let VoIP providers use our broadband facilities to provide services in direct competition with us. We make all the investment, they invest nothing, and they use our facilities for free. This makes a very poor business case.

Existing construction, older houses require an electrician to put in an AC outlet. Coordination of construction, doing drops and getting inside house to install battery and CAT 5 for DSL, education on FTTH as to why and the benefits and replacing battery in the future...still in the early stages of FTTH, may have a longer list next year.

Environmental—survey and treatment for American Burying Beetle and the Western Prairie Fringed Orchid.

Need better equipment.

High installation cost per subscriber with regulatory uncertainty. It's impossible to keep the DSL price low and affordable without federal support.

Cost is the main obstacle. We would have to rebuild most of our service area.

Cost is our primary obstacle. Grant funds or some other type of help in funding the project would be necessary for us to implement a widespread fiber deployment.

Return on investment. More demand from customers. Rural area, more customers per route mile.

As we move out from towns, much greater loop distances for much fewer customers.

Current deployment—access to customer premises, product issues—standards on equipment needed. Future deployment—cost of deploying to all rural areas/remote areas—universal service for broadband?

Need cost reimbursement mechanism to provide a business case for deployment

Obtaining financing in this economic downturn, and changing regulations.

Need to know that money will be there, such as USF

Cost is an obstacle. Cost recovery mechanisms to overcome this obstacle

Cost

Sustainable/predictable settlements in the regulated arena as access revenue declines. We can't invest if there is no return in sight!

Cost is the largest obstacle. Now that we have 40% of our customers on fiber, we will look closely at ways to cut costs on staking, engineering and cutover.

Time

Broadband support

Finalize USF reform so a company can know what to expect for its revenue stream.

Rocky terrain is very expensive to navigate.

ROI

Return on investment

We have constructed by approx. 7000 subs and have approximately 2000 customers working on FTTP. Being an early adopter we encountered interoperability issues but have resolved them and everything is working fine now.

Cost of implementing versus the profit made from the project.

High cost to deploy

Cost of deployment per customer. Need guaranteed cost recovery.