



September 15, 2009

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Via Electronic Filing
Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

EX PARTE NOTICE

RE: *Special Access Rates for Price Cap Local Exchange Carriers, WC Docket 05-25*
A National Broadband Plan for Our Future, 09-51
Universal Service Contribution Methodology, WC Dkt 06-112
Federal State Board on Universal Service, CC Dkt 96-45

Dear Ms. Dortch:

Pursuant to Section 1.1206 of the Commission's rules, BT hereby gives notice that on September 14, Sheba Chacko (Head, Americas Regulation – BT) and Jill Cocayne (VP, US Government Affairs – BT), spoke with Jennifer Schneider, Legal Advisor to Commissioner Cops, to brief her about possible topics that may be covered in the upcoming meeting between Commissioner Cops and BT's CEO Ian Livingston on September 17, 2009.

BT reiterated its concerns about ineffective regulation of special access, other dedicated access services such as Ethernet, and the Universal Service Fund. On the access issue, BT highlighted that in addition to the wealth of data filed in the special access dockets, price comparisons of equivalent UK access products show that US products are more expensive. BT committed to make this data available shortly. Moreover, as BT has stated in comments filed in the National Broadband Plan docket, GN 09-51, ineffective regulation of access bottlenecks also has a negative impact on the uptake of broadband services. BT provided a set of said Comments. BT urged the FCC to take action on access and to start by issuing a data request.

On the issue of universal service, BT urged the FCC to reform the USF contribution and distribution mechanisms and stated its support for the numbers-based proposal put forth by AT&T and Verizon, primarily because of the simplicity and ease of administration of this proposal. However, BT also expressed its willingness to consider other reform proposals that are fair.

Ms. Marlene H. Dortch
September 15, 2009
Page 2

If you have any questions regarding matters discussed herein, please contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "SChacko". The signature is written in a cursive style with a prominent initial "S" and a horizontal line under the "C".

Sheba Chacko
Head, Global Operational Regulation and Americas
Regulation - BT Global Services

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	GN Docket No. 09-51
A National Broadband Plan)	
For Our Future)	
)	

A. Sheba Chacko
Head, Global Operational Regulation and
Americas Regulation
BT AMERICAS INC.
11440 Commerce Park Drive
Reston, Virginia 20191

Dated: June 8, 2009

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION AND SUMMARY	1
ARGUMENT.....	4
I. The High Capacity Access and Backhaul Markets are Broken	4
II. Failed High Capacity Access and Backhaul Markets have an Adverse Impact on Entrepreneurial Activity	8
III. The Commission Must Address the Bottlenecks that the BOCs have Over Local Access and Backhaul to Enable Alternate and Sustainable Broadband Services to Emerge	11
IV. Failed High Capacity Access and Backhaul Markets have an Adverse Impact on Economic Growth and Job Creation.....	14
V. Failed High Capacity Access and Backhaul Markets will have an Adverse Impact on Healthcare Initiatives	18
CONCLUSION.....	19

**Before the
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In the Matter of)
) GN Docket No. 09-51
A National Broadband Plan)
For Our Future)
)

Comments of BT Americas Inc. on Behalf of Itself and other BT Entities

Pursuant to the Notice of Inquiry issued by the Commission,¹ BT Americas Inc., a wholly owned indirect subsidiary of BT Group plc (“BT plc”), submits these Comments on behalf of itself and other BT operating entities in the US (collectively referred to herein as “BT”).² BT submits that in order to produce a National Broadband Plan that meets the goals of Section 6001(k)(2) of the American Recovery and Reinvestment Act of 2009 (“ARRA”),³ the Commission must fix failures in the high capacity access and backhaul markets (*a.k.a.* special access)⁴ which are critical pathways in the nation’s broadband infrastructure.

INTRODUCTION AND SUMMARY

Section 6001(k)(2) of the ARRA requires that the Commission prepare a national broadband plan that ensures affordable broadband for all, maximum utilization of the broadband infrastructure and services, and that utilizes broadband to advance goals such as economic

¹ *A National Broadband Plan for our Future*, NOI, FCC 09-31 (April 8, 2009).

² BT holds Section 214 licenses and employs approximately 4000 people in the United States. BT, through its Global Services group, serves the global information and communications technology needs of large business customers worldwide.

³ Pub.L. 111-5, 123 Stat.115 (2009).

⁴ The term “high capacity access and backhaul” is used to describe not only those services comprising special access services, but also any other high capacity wireline services such as Ethernet-based and OCn services where the markets are not competitive. The terms “high capacity access and backhaul” and “special access” are used interchangeably in these comments.

growth, job creation, healthcare delivery and entrepreneurial activity.⁵ There is no doubt that broadband is an enabling technology that like electrification and the building of roads can have a big multiplier effect on economic growth and job creation, radically reduce costs of healthcare while improving healthcare innovation and reach, enable increased levels of entrepreneurship and in general advance the goals stated in Section 6001(k)(2)(D) of the ARRA. However, the rate of advancement and broadband penetration will slow if input markets such as high capacity access and backhaul necessary to deploy affordable broadband services to residences, businesses and government are not either fully competitive or well-regulated where such markets are uncompetitive. Failure to fix these access and backhaul markets will hinder the deployment of broadband services, skew competition in other downstream markets and have wider ripple effects on the economy.

This is what is already happening to an extent in the US. Before 2000, the Commission's emphasis was on regulating to enable service competition, and the US' economy benefitted from an open, nondiscriminatory, and reasonably-priced telecommunications infrastructure. In 2001,

⁵ Section 6001(k)(2) states as follows:

“The national broadband plan required by this section shall seek to ensure that all people of the United States have access to broadband capability and shall establish benchmarks for meeting that goal. The plan shall also include –

(A) an analysis of the most effective and efficient mechanisms for ensuring broadband access by all people of the United States;

(B) a detailed strategy for achieving affordability of such service and maximum utilization of broadband infrastructure and service by the public;

(C) an evaluation of the status of deployment of broadband service, including progress of projects supported by the grants made pursuant to this section; and

(D) a plan for use of broadband infrastructure and services in advancing consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.”

§6001(k)(2), Pub.L. 111-5, 123 Stat. 115 (2009).

the US ranked 4th in residential broadband penetration.⁶ Between 1995 and 2000, information communication technology was the single biggest driver of US productivity growth. US productivity growth surged past that of the EU's and other developed economies.⁷ Wholesale access and backhaul markets were effectively regulated. After 2000, the Commission de-emphasized service competition, and deregulated the regional Bells ("RBOCs") to incentivize their investment in fiber to the home. US regulators permitted industry consolidation without adequate safeguards. The US fell to 15th place in the OECD's broadband penetration tables in 2009.⁸ The Information Technology & Innovation Foundation ("ITIF") which rates 30 OECD countries based on penetration, speed and price, similarly ranks the US at 15th place.⁹ Information communications technology ("ICT") contribution to US productivity growth since 2000 has not matched the contribution level witnessed between 1995 and 2000.¹⁰ Meanwhile, since 2000 the margins that the RBOCs have earned from access and backhaul services have ballooned from 40% to 138% in the case of AT&T and from 15% to 63% in the case of Verizon.¹¹ This means small businesses must overpay by over a 100% in many cases to obtain a stable T-1 connection to the Internet from a BOC. Similarly, doctors' offices would have to overpay to obtain a stable T-1 connection to the Internet that would enable them to download or

⁶ Atkinson, R., Correa, D., and Hedlund, J., *Explaining International Broadband Leadership* (May 2008) ("*Explaining Broadband Leadership*"), p.5.

⁷ Jorgenson, D.W, Stiroh, M.S., and Ho, K.J., *A Retrospective Look at the U.S. Productivity Growth Resurgence* (Feb. 2007) ("*Jorgenson, A Retrospective Look at U.S. Productivity Growth*").

⁸ OECD, *Broadband Subscribers per 1000 Inhabitants*, OECD Broadband Statistics available at www.oecd.org.

⁹ *Explaining Broadband Leadership* at p.6.

¹⁰ Jorgenson, *A Retrospective Look at the US Productivity Growth*. Cf. to the European Commission's Information Society and Media unit's calculations comparing, *inter alia*, ICT contributions to productivity growth in the EU versus US. The data is available at http://ec.europa.eu/information_society/eeurope/i2010/docs/info_sheets/7-2a-i2010-innovation-en.pdf ("*EC's Calculations on ICT Contributions to EU and US Productivity Growth 1995-1999 and 2000-2004*").

¹¹ See *Written Testimony of Paul Schreiber, Vice President Access and Roaming, Sprint Nextel Corp.* before the House Subcommittee on Communications, Technology and the Internet (May 7, 2009) ("*Sprint Testimony May 7, 2009*").

upload MRIs to or from a national electronic health records database as envisioned by the President's health records initiative.

In order to meet the goals of subsections (A), (B) and (D) of Section 6001(k)(2) of the ARRA, it is imperative that the Commission fix failures in the high capacity access and backhaul markets.¹² Fixing roadblocks in the US' e-infrastructure will also speed economic recovery, boost US trade competitiveness and help preserve competitive advantage.

ARGUMENT

I. The High Capacity Access and Backhaul Markets are Broken

An oft-cited argument is that the markets for high capacity access and backhaul are competitive and that nothing needs to be fixed. The data on the high capacity access and backhaul markets contradict this argument. For one thing, in a competitive market no provider should be able to earn supra-normal margins. As shown by data filed with the FCC, the incumbent providers of special access are earning near monopoly margins. In 2007, AT&T's after tax rate of return on special access was 138% while Verizon's was 63%.¹³ Take another measure. When the incremental costs of the network elements (UNE rates) comprising a special access circuit are compared to the rates for special access services, the special access rates are two to five times the cost of providing the service. In 2009, the deregulated special access rate for a 1.5 Mbps circuit in metro Illinois is \$332 but the cost of the same circuit is \$82. *See* Figure 1. In this case the deregulated rate is four times the cost of this circuit. Likewise the cost of a

¹² Jorgenson, D.W., Stiroh, M.S. and Ho, K.J., *A Perspective Look at the U.S. Productivity Growth Resurgence* (Feb. 2007) ("Jorgensen, *A Retrospective Look at the US Productivity Growth*").

¹³ *See Sprint Testimony May 7, 2009*. 2008 data is no longer available as the BOCs have been granted forbearance from filing annual ARMIS reports.

1.5 Mbps circuit ordered in metro Massachusetts is \$103, but the deregulated special access rate is \$507. This time the deregulated rate is five times the cost of the circuit. *See* Figure 2.¹⁴

Take yet another measure – this time the decline in the cost of providing a local access circuit over seven years. In 2002, the cost of a 1.5 Mbps metro Illinois circuit was \$201. In 2009, the cost of this circuit is only \$82. The cost in 2009 is only 40 percent of what the circuit cost seven years ago.¹⁵ Yet the special access rate for this Illinois special access circuit remains relatively static over the seven years. The price decreases from \$371 to \$332. The new price in 2009 is approximately 89 percent of what it was seven years earlier (see Figure 1). The same pattern is observed with the price declines for a metro Massachusetts 1.5 Mps circuit. In 2002, the cost of this circuit was \$286 whereas in 2009, the cost dropped to \$103. In 2009, the cost of this circuit is only 36 percent of what it was in 2002. Yet the deregulated tariff rate for this circuit shows a zero percent price decline over seven years. In 2002, the tariffed rate for this special access circuit was \$507 and in 2009 the special access rate for this circuit was still \$507. See Figure 2.

¹⁴ The special access rates in Figures 1 and 2 are based on what it would cost for a circuit that has less than 10 miles of interoffice and less than 1 mile of channel terminations at each end. The rates are based on 5 year term rates. Verizon's Massachusetts rates are from Verizon's FCC Tariff No. 11 Secs. 31.7.9 and 30.7.9 for the relevant years. Ameritech's Illinois rates are from Ameritech's FCC Tariff No. 2 Secs. 7.5.9 and 21.5.2.7 for the relevant years. The Ameritech UNE rate is derived from the SBC/AT&T Generic Interconnection Agreement while the Verizon Massachusetts UNE rate is derived from Verizon's Miscellaneous Network Services tariff Part M, Sec. 2.

¹⁵ In other words, the UNE rate has more than halved.

Figure 1

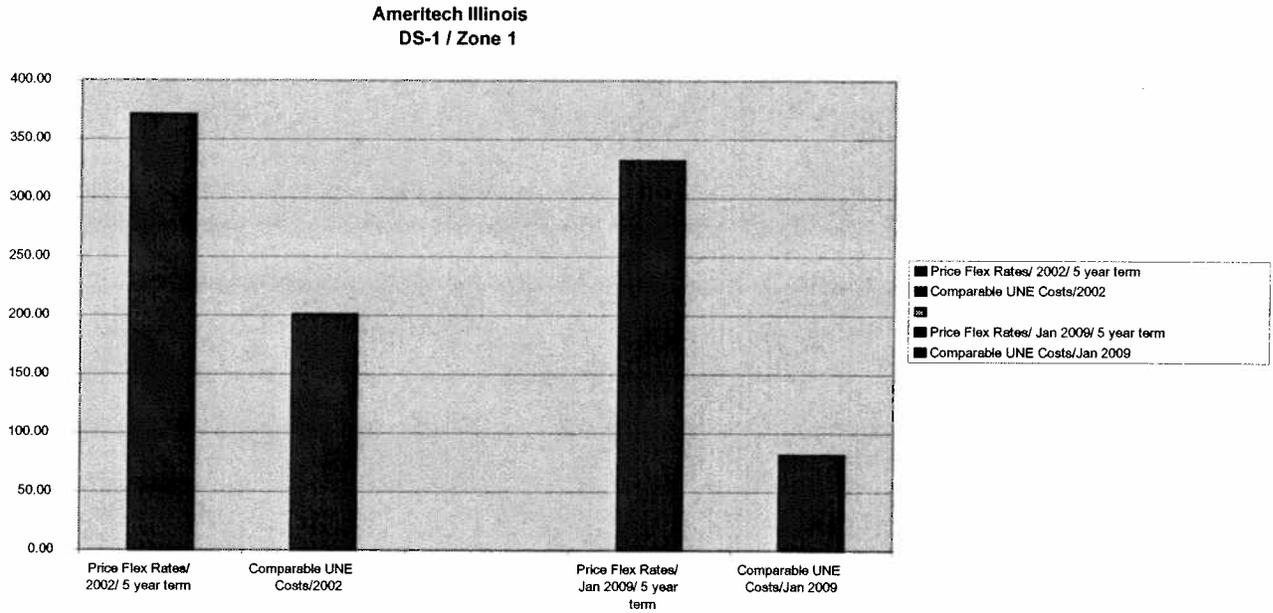
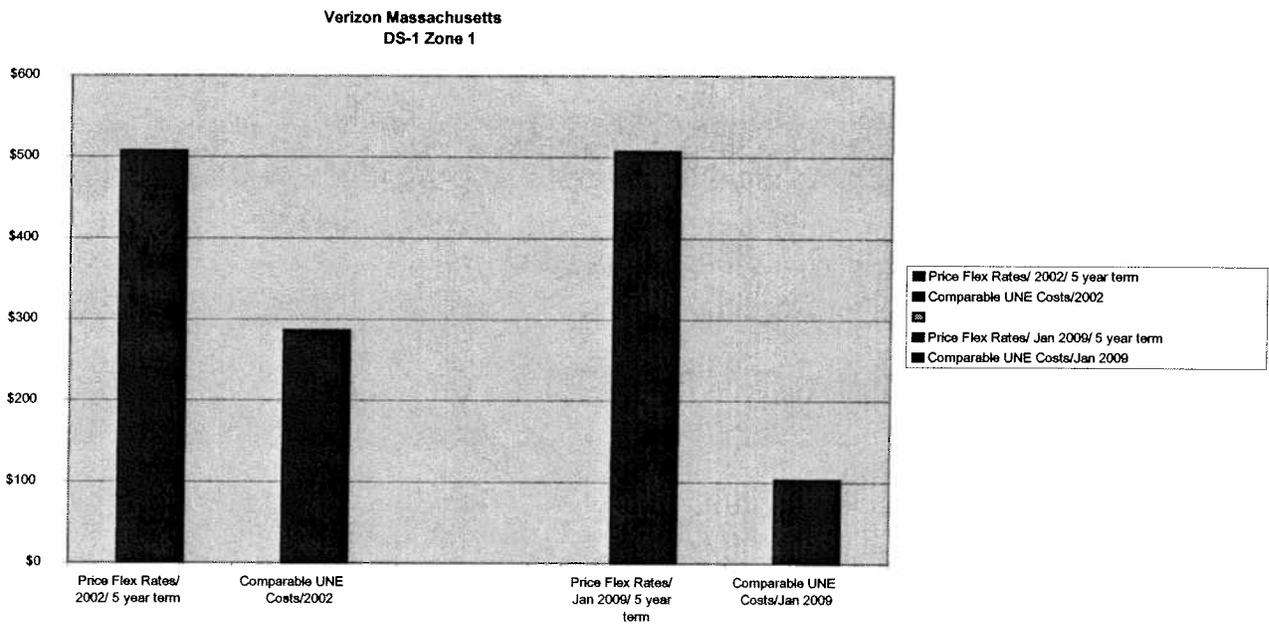


Figure 2



By at least three measures there is something very wrong with special access pricing.

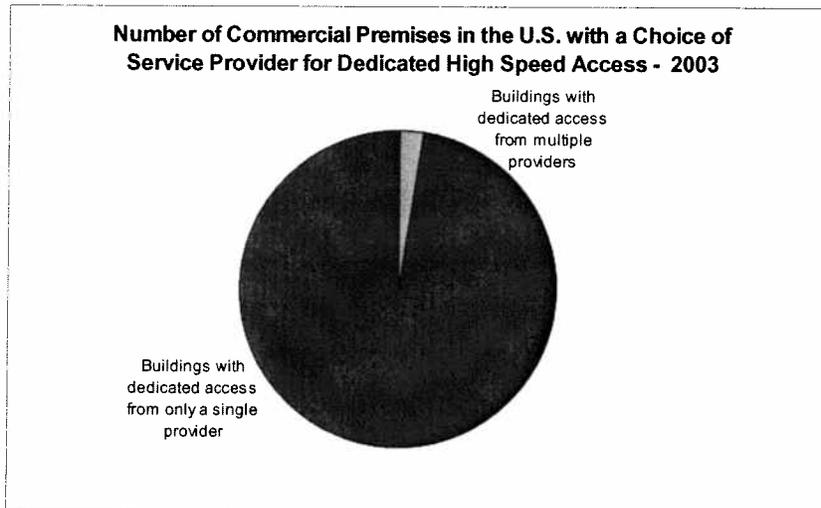
Other data also corroborates the view that the high capacity access and backhaul service markets

are wholly uncompetitive. In 2002, well before its merger with SBC, AT&T provided data showing that the regional incumbent access providers had monopolies in the enterprise access markets.¹⁶ Pre-merger AT&T complained that it had to purchase 95 percent of its special access needs from the RBOCs despite trying to use its own access and competitors' access facilities to commercial buildings. It complained that even in 2002, the RBOCs were earning supra-competitive margins on special access, that customers were being harmed and that if the FCC did not take corrective action "RBOCs will have the incentive and ability to use their control over essential last-mile facilities to impede competition in a number of adjacent product markets." Four years later, the government watchdog agency, the Government Accountability Office ("GAO") weighed in with similar conclusions. It found in 2006 that in the major metro markets it examined, competitors serve only six to fifteen percent of the buildings with their own facilities.¹⁷ In other words, even in metro markets where competition should be fiercest, the GAO found that AT&T and Verizon had access monopolies.

¹⁶ *AT&T Petition for Rulemaking to Reform ILEC Rates for Interstate Special Access* RM-10593 (filed with the FCC, Oct. 15, 2002) (*AT&T Petition for Rulemaking*).

¹⁷ Per the GAO, competitors serve six percent of the commercial buildings where the demand is for 1.5 Mbps access circuits. Where the demand is for one 45 Mbps circuit, competitors serve only about fifteen percent of the buildings with their own facilities. *FCC Needs to Improve its Ability to Monitor and Determine the Extent of Competition in Dedicated Access Services*, Report by the General Accountability Office to the Committee on Government Reform, US House of Representatives (Nov. 2006) ("GAO Report on Special Access").

Figure 3. Extent of Facilities-Based Enterprise Access Competition in the US (Source: GAO Report on Special Access)



By any measure, the high capacity access and backhaul markets are broken. The RBOCs counter that five year term rates pulled from ILEC tariffs are not the real rates paid by customers and wholesalers because there are large discounts available off the five year term rates such as the ones shown in Figures 1 and 2. However, as shown in the sections that follow, millions of small businesses do not qualify for large volume or long term discounts. They don't have the volumes to commit nor can they afford the risk of locking into long term supply contracts. They likely cannot even commit to five-year term contracts and hence probably cannot benefit from five-year term rates. Moreover, when a service is marked up by 100 percent or more, a discount of 25 percent still translates into wholesale inputs that are overpriced by 75 percent.

II. Failed High Capacity Access and Backhaul Markets have an Adverse Impact on Entrepreneurial Activity

Section 6009(k)(2)(D) of the ARRA states that the Commission's broadband plan must advance entrepreneurial activity. Small businesses, which generate substantial amounts of entrepreneurial activity in the US, could access tools, resources, and new markets via the Internet

today if they were able to afford stable access to the Internet via special access. Therefore, the Commission must act to correct the market failure in special access.

There are over 27 million businesses in the US and 99 percent are small businesses. Most small businesses have less than 20 employees. Small businesses represent 99.7 percent of all employer firms in the US and employ half of all private sector employees. They pay nearly 45 percent of the US private payroll and have generated 60-80 percent of net new jobs annually over the last decade. They hire 40 percent of the high-tech workers (such as scientists, engineers and computer workers) and produce roughly a third of the US known export value. They produce 13 times more patents per employee than large patenting firms, and these patents are twice as likely to be among the one percent most cited. Small businesses are key to the US economy and to economic revival.¹⁸

Roughly half of these businesses are located on business premises.¹⁹ In order to compete on the national and international stage, these businesses need stable, high capacity access so they can easily connect with capital resources, access tools and consumer markets, and bring products and services to market using online resources. Stable high capacity access would allow businesses to employ remotely situated workers, collaborate online in developing products and services and access cheaper, more powerful shared online IT resources in the emerging cloud computing world²⁰ giving US businesses greater potential to achieve even more economies of

¹⁸ *The Small Business Economy*, A Report to the President (2008) available at http://www.sba.gov/advo/research/sb_econ2008.pdf.

¹⁹ *Id.*

²⁰ Cloud computing allows individuals and entrepreneurs to access enormous computational resources on an on-demand basis and encompasses trends such as virtualization and Service Oriented Architecture. Virtualization allows storage and network to be sited centrally and shared, Service Oriented Architecture allows data to be exchanged between different systems or activities to be coordinated between different services. Grid Computing uses multiple loosely coupled computers to perform complex computational tasks. Software as a Service (SaaS) allows users to access via the Internet applications hosted on the Internet. By eliminating the need to install and run the application on the customer's own computer, SaaS alleviates the customer's burden of software maintenance,

scale.²¹ More than ever, small business owners can compete on the global stage, but only if they have access to the markets, capital and tools accessible via stable high speed Internet access.

Today, virtually all business premises could have high bandwidth access to the Internet available via a highly reliable, stable special access connection. The legacy copper facilities are in the ground. This would give a small business access to symmetric 1.5 Mbps upload or download capability or access to higher speeds, Ethernet or TDM, via bonded special access connections. 1.5 Mbps would be ample for uploading or downloading medical image files, using CAD/CAM tools (*i.e.*, computer aided design and computer aided manufacturing tools), accessing cloud computing tools, participating in video conferencing or online collaboration. But the price of such access for most small businesses is set at artificially high rates by the RBOCs. As described earlier, the cost of a ten-mile special access circuit connecting to an Internet service provider's facilities would be roughly \$332/month in metro Illinois whereas the cost to the incumbent service provider of providing this circuit is \$81/month. The cost of a similar ten-mile access circuit in metro Massachusetts would be \$507/month but the cost of the circuit is roughly \$103.²² As discussed earlier, a small business owner buying such a circuit today would be charged four times the cost of providing the service to the small business. Internet access via special access should be viable for most small businesses, but it is not because prices have been kept artificially high by RBOCs.

ongoing operation, and support. Ultimately cloud computing, including outsourced infrastructure and SaaS, will mean that "entrepreneurs will only need to have a good idea, the ability to codify it and connectivity to the cloud to deliver innovation and new services. . . . This will constitute a true paradigm shift." Paul Strong, Distinguished Research Scientist, e-Bay.

²¹ See testimonies of *Brian Mefford, President and CEO, Connected Nation* and *Douglas A. Levin, President and CEO, Black Duck Software* before the Senate Committee on Small Business and Entrepreneurship, Sept. 26, 2007 available at http://sbc.senate.gov/republican/HTML/hearings/09-26-07_percent_20Broadband.htm.

²² See Figures 1 and 2.

The net result is that most small businesses that seek Internet access settle for dial-up or basic DSL services which range in price from \$20 to \$120 and offer low contended upload speeds.²³ Most business premises do not have advanced broadband services like FIOS, U-Verse or cable-based broadband.²⁴ The service they settle for is an electronic trickle and inadequate for efficiently uploading patient records such as X-rays and MRIs to centralized databases as contemplated in e-health records proposals, for CAD/CAM collaboration or for accessing and utilizing many of the powerful IT computing and collaboration resources available via cloud computing. Therefore, in order to maximize entrepreneurial activity the Commission should focus on fixing the failures in the special access market.

III. The Commission Must Address the Bottlenecks that the BOCs have over Local Access and Backhaul to Enable Alternate and Sustainable Broadband Services to Emerge

Section 6001(k)(2) requires the Commission to produce a broadband plan that most effectively and efficiently ensures affordable broadband capabilities for all in the US. The broadband access could be via many technologies including cable, FTTH or FTTN, mobile broadband, WiMax, Wi-Fi and BPL. However, most broadband service technologies require high capacity access or backhaul inputs to carry aggregated traffic from individual subscribers, business premises, government offices or wireless towers back to providers' facilities. These are essential inputs and perform much the same function local roads do in providing access to reach alternate forms of transportation such as the metro system, trains and airplanes. Elevated tolls on

²³ The FCC defines any Internet access above 200 Kbps in one direction as broadband. By the FCC's own count, about 41 million of the nation's 120 million "broadband" lines don't even offer 200 Kbps upload capability. See *High-Speed Services for Internet Access: Status as of December 31, 2007 Industry Analysis and Technology Division, FCC (2009)* available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-287962A1.pdf.

²⁴ According to the FCC's latest broadband data (as of Dec. 1, 2007), only 1.1 million business premises received cable broadband service whereas there are more than 13 million businesses that are not run out of the home. 35 million of 36.1 million cable broadband lines were listed as residential lines. Only 165,000 businesses received fiber-based broadband lines. *Id.*

essential inputs have been partly responsible for slower deployment of competing broadband services and technologies such as Wi-Fi and WiMax. The same bottleneck problem will be equally responsible for suppressing build and take-up of the hoped-for rural broadband under the ARRA. The belief among some analysts is that stimulus grant and loan monies are unlikely to result in significant broadband deployment in rural, unserved and underserved communities in part because of the high backhaul and transport costs involved.²⁵ If the high backhaul costs do not demolish the business case for rural broadband, then at the very least part of taxpayers' monies will go to pay inflated high capacity backhaul rates to the vertically integrated, inadequately regulated RBOCs. This will translate into higher than necessary prices on broadband services to rural markets which will depress take-up and subvert the monies available for broadband deployment away from the core purposes and into overpaying on special access and backhaul.

Not addressing the failure in the high capacity backhaul markets also allows vertically integrated RBOCs to accumulate war chests that can be used to squeeze competition. As Sprint has stated in many filings, high capacity wireline backhaul (*i.e.*, special access) is a critical input for any wireless network. In the case of Sprint, it accounts for approximately 33 percent of the cost of running a cell tower on Sprint's network, which is at least twice what the cost would be if special access were priced competitively.²⁶ Sprint is at a competitive disadvantage to AT&T and Verizon if it has to buy monopoly-priced critical inputs to compete against the downstream wireless arms of AT&T and Verizon even if AT&T's and Verizon's wireless arms pay the same

²⁵ "Specifically, transport costs to back-haul broadband traffic from remote communities to an Internet hosting site can, by themselves, vastly exceed the revenues expected to be generated by the few customers realistically anticipated to subscribe to broadband service. In many rural areas, monthly fees for transport paid through leases to other carriers can exceed \$100 per subscriber." *Broadband Stimulus: Industry Impact Looking Modest*, source Stifel Nicolaus (Feb 4, 2009) available at http://www.ingthink.com/broadband-stimulus-industry-impact-looking-modest-3_2009_02_04.

²⁶ *Ex Parte* filed by Sprint at the FCC on Oct. 24, 2007 in WC Dkt. 05-25.

monopoly prices for access and backhaul to their access incumbent affiliates. In the case of AT&T and Verizon, such payments are merely a transfer from one pocket to another pocket on the same pair of trousers. The RBOCs' wireless carriers can afford to subsidize bundled equipment and discounted mobile services pricing plans from the access war chests that AT&T and Verizon have built up via enterprise access and backhaul overpricing. Sprint does not have the same leeway and competes on unequal footing.²⁷ The same applies to other broadband services whether offered to residential, business or government customers deployed in competition with the BOCs' broadband services wireline and mobile broadband services. The access war chests can be used to undercut competitors' pricing and to bundle free products and services into offerings making it difficult for competitors to compete and for sustainable competition to emerge. Economists at Economics and Technology Inc. ("ETI") estimate that in 2006 alone, the incumbent Bell companies' overearnings were \$5 billion and that between 2002 and 2007, the RBOCs have accumulated approximately \$30 billion in overearnings.²⁸ 2007 special access overearnings add another \$11 billion to this overearnings number.²⁹ Therefore, the Commission must address the drag that failures in the special access market are having on the effective functioning of broadband and other downstream markets and more broadly on GDP growth.

²⁷ Sprint has lost millions of customers to AT&T and Verizon. In 2Q 2008 alone, it lost 1.3 million customers. *Sprint Nextel Lost 1.3 Million Customers in Quarter*, Reuters, Nov 7, 2008. See also StrategyAnalytics, *US Wireless Landscape Shifting, as Verizon Wireless and AT&T Mobility Pull Further Ahead of the Pack in 3Q* (Nov. 2008).

²⁸ *Special Access Pricing and the US Economy: How Unchecked RBOC Market Power is Costing US Jobs and Impairing US Competitiveness*, a study prepared by Economics and Technology Inc. on behalf of AdHoc Telecommunications Users Committee, filed at the FCC in WC 07-97 (Aug. 2007), pp 4-7.

²⁹ See *Sprint Testimony*, May 7, 2009.

IV. Failed High Capacity Access and Backhaul Markets have an Adverse Impact on Economic Growth and Job Creation

Section 6001(k)(2)(D) of the ARRA requires the Commission to prepare a plan that will, amongst other things, increase economic growth and job creation. There is no doubt that an open, fairly-priced, nondiscriminatory e-infrastructure can have a significant positive contribution to economic growth and job creation. The US has previously experienced the GDP-enhancing and job-creating benefits of opening its telecommunications infrastructure to competition and containing the potential for anticompetitive abuses by dominant providers. The period between late 1995 and 2000 in the US was characterized by an unexpected surge in productivity growth. The general concurrence is that ICT was key to the surprising growth that was experienced in the nineties in the US.³⁰ The US productivity growth rate surged from 1.5 percent to approximately 2.8 percent with the bulk of the growth driven by ICT.³¹ By 2000, the US had its largest budget surplus in history hitting a record of \$230 billion. Unemployment

³⁰ See Jorgenson, *A Retrospective Look at the US Productivity Growth*; Van Ark, B., Inklaar, R., McGuckin, R., *The Contribution of ICT-Producing and ICT-Using Industries to Productivity Growth: A Comparison of Canada, Europe and the United States* (2003) (Van Ark, *Contribution of ICT to Productivity Growth in the USA, Canada and Europe*); Atkinson, R., McKay, A., *Digital Prosperity: Understanding the Economic Benefits of the Information Technology Revolution*, ITIF (Mar. 2007).

³¹ Jorgenson, *A Retrospective Look at the US Productivity Growth*. Cf. EC's *Calculations on ICT Contributions to EU and US Productivity Growth 1995-1999 and 2000-2004*. A summary table of the data is provided below:

The ICT Sector and its impact on labor productivity within Europe and the USA

		EU	USA
1995-1999	Total	1.8%	2.3%
	ICT contribution	0.9%	1.7%
	Non-ICT contribution	0.9%	0.6%
2000-2004	Total	1.1%	2.8%
	ICT contribution	0.5%	0.9%
	Non-ICT contribution	0.5%	1.9%

declined reaching its lowest point in 2000. The US poverty rate hit a 26 year low by 2000.³²

The majority of the unprecedented growth during this period and its concomitant benefits were driven by investments in and the use of telecommunications, hardware and software.³³ Between 1987 and 1995, the growth rate of annual investment in computers, software, and telecommunications equipment in the US was 13.5 percent. Between 1995 and 2000, however, this annual growth rate jumped to 22.2 percent. For the same periods, the decline of information technology prices accelerated from 3.3 to 7.3 percent per year.³⁴ By 2001 telecommunications investment hit a high which has not been matched in reported figures post 2001.³⁵

This period of ICT-driven growth, 1995 – 2000, correlates to a time when US regulators proactively safeguarded against anti-competitive abuses and opened telecommunications services markets to competition. After 2001, the Commission’s regulatory direction changed, and the Commission’s leadership between 2001 – 2008 focused on deregulation to incentivize infrastructure investment by the RBOCs to the near exclusion of all else. Telecommunications industry consolidations were permitted without adequate safeguards.³⁶ After 2001, ICT did not drive GDP growth in the US the way it had in the late nineties.³⁷

³² US Census Bureau, *Income, Poverty, and Health Insurance Coverage in the United States: 2007* at p.12.

³³ See Jorgenson, *A Retrospective Look at the US Productivity Growth*; Van Ark, *Contribution of ICT to Productivity Growth in the USA, Canada and Europe*.

³⁴ See Jorgenson, *A Retrospective Look at the US Productivity Growth*.

³⁵ De Fontenay, Alain and Savin, Brian, *Market Power’s Challenge to Internet Policy: Mainstream Academic Analysis Establishes that Market Power Transforms the Operation of the Internet to Reduce Its Innovation Potential, a Conclusion Supported by Empirical Market Evidence at footnote 60 (to be published shortly)*. The authors participate in research at Columbia University’s Institute for Tele-Information.

³⁶ See e.g., *Ma Bell’s Break-up: 25 years Later, Everything Old is New Again* (Mar 6, 2009) available at www.xchangemag.com; Wu, Tim, *Ma Bell is Back: Should You Be Afraid?* (Mar 4 2007) available at www.slate.com.

³⁷ See Jorgenson, *A Retrospective Look at the US Productivity Growth*; *EC’s Calculations on ICT Contributions to EU and US Productivity Growth 1995-1999 and 2000-2004*.

The theory that closed, high-priced network infrastructure encumbered by access bottlenecks can hinder GDP growth and job creation is supported by data from the EC. Between 1995 – 2005, while the telecommunications infrastructure environment in the EU remained closed, the EU’s productivity growth averaged only about 1.5 percent in contrast to the US’ 2.8 percent growth rate.³⁸ Furthermore, even though it is too early to tell what impact the pro-competitive EC telecommunications regulatory framework will have on GDP growth in the EU, it is clear that since the passage of the EC regulatory framework, the UK’s environment is most open to telecommunications competition and has correspondingly experienced one of the highest rates of ICT investment.³⁹

A familiar argument of many incumbent providers is that regulating bottlenecks will deter capital needed to upgrade communications infrastructure to the next generation of networks.⁴⁰ This argument is belied by what the US itself experienced in the nineties when maximum telecommunications investment and regulation coexisted. It is also belied by the experience of countries other than the US. In the Netherlands, which occupies one of the leadership positions in the OECD’s broadband tables, the incumbent KPN has teamed up with Reggefiber to deploy fiber to the home (“FTTH”). This FTTH venture will be subject to

³⁸ See *id.*; EC’s calculations on ICT contributions to EU and US Productivity Growth; *Van Ark, Contribution of ICT to Productivity Growth in the USA, Canada and Europe*; BT, EVUA and INTUG, *Productivity, Growth and Jobs: How Telecoms Regulation can Support European Businesses* (April 2008); Jungmittag and Welfens, *Telecommunications Dynamics, Output and Employment* (Oct. 2006).

³⁹ See *ICT Investment*, OECD Factbook 2008; ECTA Regulatory Scorecard 2008 available at www.ectaportal.com;

⁴⁰ See *e.g.*, statements by a Verizon spokesman, David Fish, who in rejecting calls for special access regulation said more regulation would tamp down investment, “At a time when government is considering spending billions to stimulate the economy, it makes no sense to take action that discourages network investment.” Similarly AT&T’s spokesperson Balmoris has rejected calls for special access pricing regulation stating that, “[t]hese recommendations have proven time and again to be a disincentive to investment.” See <http://forums.buzzaboutwireless.com/baw/board/message?board.id=news&message.id=3524>.

regulation and open access and pricing conditions.⁴¹ Likewise in the U.K., BT, whose bottleneck assets have been functionally separated, is investing approximately \$2.0 billion to deploy fiber to residential neighborhoods which access will be subject to open access and fair pricing regulation.⁴² BT has also invested \$15-20 billion dollars upgrading its core infrastructure to a 21CN all-IP platform.⁴³ Furthermore, BT has begun to roll out its ADSL2+ service which will reach 10 million customers by 2010. This will upgrade the UK's exchanges (99 percent of which have been ADSL-enabled and which provide users with broadband speeds of up to 8 Mbps) to allow speeds of up to 20 Mbps.⁴⁴

Sweden, another leader in broadband penetration, has an open access FTTH model. Its experience is that an open competitive e-infrastructure stimulates innovation and usage which in turn stimulates investment and further innovation and usage.⁴⁵ The OECD also supports the view that regulation does not have to deter investment. "[A]ppropriate regulations which help create competition do not necessarily affect the incentive to invest. The impact of increased competition, as well, helps to stimulate the rapid take up of new services and thus, even with lower prices, tends to provide a quicker return on investment."⁴⁶

The Commission should not succumb to fear-mongering and should look instead to the US' own experiences and those of other countries regarding the positive impact of targeted

⁴¹ See announcement at the Dutch Competition Authority's website available at http://www.nmanet.nl/engels/home/News_and_publications/News_and_press_releases/Press_2009/08-35_NMa_conditionally_approves_joint_venture_of_KPN_and_Reggefiber.asp.

⁴² *BT to Pump £1.5bn into Broadband* available at news.bbc.co.uk.

⁴³ See BT's 2009 Annual Report available at www.btplc.com. See *BT Aims to Finish 21CN in Late 2011*, LightReading (April 12, 2007) available at http://www.lightreading.com/document.asp?doc_id=121687.

⁴⁴ *BT begins Broad ADSL2+ Rollout*, FierceTelecom (June 4, 2009) available at <http://www.fiercetelecom.com/story/bt-begins-broad-adsl2-rollout/2009-06-04>.

⁴⁵ *The Future of the Internet? Sweden's Open Network Pioneer*, Der Spiegel, June 10, 2008 available at <http://www.spiegel.de/international/business/0,1518,558759,00.html>.

⁴⁶ *Convergence and Next Generation Networks*, OECD June 2008 at p.30.

regulation addressing bottlenecks on broadband affordability and take-up. As the US' own experience between 1995 – 2000 shows, an open, fairly-priced, nondiscriminatory infrastructure is one of a number of conditions that can help create the right medium to turbo-charge economic and job growth.

V. Failed High Capacity Access and Backhaul Markets will have an Adverse Impact on Healthcare Initiatives

Section 6001(k)(2)(D) also requires the Commission to advance the goals of healthcare in its National Broadband Plan. The President has proposed to take costs out of the US healthcare system by digitizing patient records and having a common, secure electronic records system.⁴⁷

One of the biggest costs in healthcare today is duplicative, useless, potentially harmful care. “[L]aboratory imaging tests are routinely repeated because the originals can't be found. . . .

When patients have multiple doctors, there's often nobody keeping track of the different medications, tests and treatments each one prescribes. . . . Current estimates suggest that as much as 20 to 30 percent of what we spend, or about \$500 billion” is wasted this way.⁴⁸

Administrative costs have been cited as another huge cost of healthcare. According to the New England Journal of Medicine, in 2003 alone administration accounted for 31.0 percent of health care expenditures in the United States and 16.7 percent of health care expenditures in Canada. In 1999, health administration costs totaled at least \$294.3 billion in the United States, or \$1,059 per capita, as compared with \$307 per capita in Canada.⁴⁹

⁴⁷ See www.whitehouse.gov/agenda/technology/.

⁴⁸ Furthermore, this waste and inefficiency in the US healthcare system is causing the wages of many US workers to stay flat. “Rising health-care costs are partly to blame for stagnant wages. Over the past five years, health insurance premiums have risen 5.5 times faster on average than inflation, 2.3 times faster than business income and four times faster than workers' earnings. *Four* times. That's why wages have been nearly flat since the 1980s, even as US productivity has been going up.” Brownlee and Emanuel, *5 Myths About Our Ailing Health-Care System*, Washington Post, Nov. 23, 2008.

⁴⁹ Woolhandler, S., Campbell, T., Himmelstein, D.U., *Costs of Health Care Administration in the United States and Canada*. N Engl J Med (2003) v.349, pp. 768-775.

An electronic health records system could take costs out of US healthcare. A common system could store up-to-date comprehensive patient information about treatments, allergies, surgical and other procedures, visits, medications and diagnostic images. The same system could send out alerts about recalls and conflicting medications, could automatically receive the latest patient readings directly from blood pressure, weight and blood sugar testing devices, and could send electronic prescriptions. These types of transactions should reduce costs of healthcare by avoiding duplicative tests and minimizing errors, administrative costs and instances of conflicting and potentially life-threatening treatments. These transactions should also increase the likelihood of receiving warnings of life-threatening patient conditions. However, a necessary precondition for an electronic health records system is that all participants have access to reasonably-priced, secure, reliable, high capacity access to support uploading and downloading such information. Today most healthcare providers – doctors, dentists, therapists and others -- do not have reasonably-priced high capacity stable broadband access. The barrier is not availability or a lack of access facilities in the ground. The barrier is overpriced special access.

The Commission should fix the failures in special access to enable effective and efficient implementation of healthcare. It must also fix special access so that incentives and credits that will have to be paid to health providers to incentivize their investment in broadband access and health IT do not simply result in the government extracting monies from taxpayers and paying it to the RBOCs in overpriced special access.

CONCLUSION

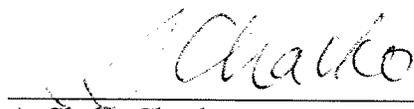
Fixing special access is a necessary precondition for meeting the goals of Section 6001(k)(2) of the ARRA. Amongst other things, the FCC must conclude its special access proceeding, reset rates at competitive levels and reverse the forbearance it granted for high

capacity packet-based access and backhaul. This will ensure an open, fairly priced and nondiscriminatory e-infrastructure which could enable a more speedy innovation-led economic recovery in the US.

Respectfully submitted,

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