

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

In the Matter of)	
)	
Unbundled Access to Network Elements)	WC Docket No. 04-313
)	
Review of the Section 251 Unbundling)	
Obligations of Incumbent Local Exchange)	CC Docket No. 01-338
Carriers)	

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I. INTRODUCTION AND SUMMARY

The Commission is at a critical crossroads in the development of competition in broadband and voice services. Rhetoric and rosy futurism aside, while there is limited competition in specific submarkets, competition is very weak across the board. CLECs have been severely wounded by the stops and starts at the federal level since February 2003.¹ On the other hand, with the advent of VOIP, there is now a real potential for substantial, immediate, facilities based competition in both voice and data markets if the Commission crafts appropriate, limited and targeted unbundling rules that leverage legacy monopoly loops, which remain the only ubiquitous set of connections to all homes and businesses in the U.S. In contrast to UNE-P, which was necessarily limited to repackaging ILEC services, facilities based VOIP provides the critical missing ingredient needed to realize the original vision of the 1996 Act – robust facilities-based competition based upon limited unbundling of ILEC local facilities, with competitive services differentiated on price, quality, features and functionality.

Notwithstanding any wishful thinking to the contrary, the fact remains that a truly competitive marketplace for intermodal broadband platforms remains far from the present reality. The competitive picture today is bleak: residential broadband is at best a cozy duopoly between the ILECs and the cable companies, neither of whom have strong incentives to promote deployment of the broadband services consumers want, including in particular VoIP services. Residential voice service teeters on the edge of sinking back into monopoly as UNE-P providers

¹ Unfortunately, Covad has been all too familiar with this dynamic. On the day the Commission issued the *Triennial Review Order*, phasing out line sharing, Covad's share price tumbled 42%. When the D.C. Circuit issued its decision in *USTA II*, Covad's shares lost 25% of their value over the course of the next week. And on the day the Solicitor General announced his intent not to appeal *USTA II* to the Supreme Court, Covad's shares dropped nearly 10%. Despite being subject to this veritable see-saw of continuing regulatory and judicial body blows, Covad's underlying business plan has adapted, adjusted and continued to flourish, with Covad raising \$125 million in new capital this year. The Commission must take pains now to stop subjecting successful competitors like Covad to such vacillating regulatory uncertainty.

abandon the marketplace. Small and medium business markets are far worse off. Both in voice and in data services what few inroads have been made by competitive suppliers are now greatly at risk. Technologies like satellite, wireless and broadband over powerline simply have not made significant inroads. For the most part, these technologies simply remain on the drawing table, with viable mass market commercial offerings years away at best. A gleam in an engineer's or entrepreneur's eye is simply not a sound basis for the Commission to deregulate what remains in fact an extremely concentrated marketplace for broadband and voice services.

In this remand proceeding the Commission's task is two-fold. It must follow the mandate of the reviewing court, and it must do so in a way that implements the 1996 Act, which made competition in monopoly local telephone markets "an end in itself" and sought to give "aspiring competitors every possible incentive to enter local telephone markets, short of confiscating the incumbents' property."² The Commission must take heed that a significant part of the work it did to implement the 1996 Act in the *Triennial Review Order* has in fact passed judicial muster. The D.C. Circuit did not question the merits of the Commission's unanimous view that competitors are impaired without access to high-capacity loops and dedicated transport subject to the Commission's wholesale and retail triggers. Nor did the court upset the Commission's unanimous finding of nationwide impairment for access to critical DS-1 loop UNEs.

The Commission no doubt does have a significant job ahead in responding to the court. But that response should be directed at the problems the court actually did find in the Commission's analysis, namely its decision to delegate significant decision-making authority to state commissions in making impairment determinations. Addressing this core concern of the

² *Verizon Communications, Inc. v. FCC*, 535 U.S. 467, 476, 489 (2002) ("*Verizon*").

court should not be an occasion to disturb the more fundamental work already done by the Commission and left undisturbed by the court.

The court's chief overarching concern was that the Commission's rules not create or force "synthetic competition" instead of real, facilities-based competition. The court's clear directive was that the Commission's unbundling rules stimulate investments in innovative new technologies, services and equipment by incumbents *and* competitors alike. In these comments Covad will demonstrate that the only way the Commission can honor these dual purposes is to start afresh and reconsider its decision to deny competitors access to the ILEC legacy bottleneck loop and transmission facilities necessary for competitors to provide broadband-based services. We show that competitors plainly are impaired if denied access to the high-frequency portion of the bottleneck local loop, just as they are impaired if denied access to high-capacity loop and transmission facilities. Moreover, these forms of facilities-based competition are exactly what the Commission needs to stimulate and preserve in order to remain faithful to the court's mandate. Far from providing the "synthetic competition" to which the court took exception, these forms of facilities-based competition have had palpable, demonstrable effects in bringing new technologies, services and technology to market, benefiting businesses and consumers alike.

In order to accomplish this, the Commission must use this proceeding not simply to reconsider or reinstate unbundling requirements that were vacated by *USTA II*, where reinstatement is consistent with the Court's decision, but also to revisit each of its critical unbundling decisions. Collectively, they will set the ground rules for facilities-based competition in the new era of truly converged voice and data services over broadband platforms. First and foremost, the Commission must formulate a more nuanced competitive framework for unbundling determinations that rewards, and encourages investment in, true, facilities-based

innovations and truly new services, while at the same time avoiding needless spillover effects on facilities-based competition using unbundled legacy facilities. In the era of VOIP, categorizing a network element as “voice” or “broadband” simply has no relationship to reality or to the competitive landscape. With the advent of VOIP, broadband services, and the minimal set of UNEs needed to provide them, are a critical, and in many cases, for the foreseeable future, the only important source of local voice competition. Conversely, confining unbundling to UNEs that support analog or TDM based voice services (e.g., UNE-P, the requirement to only unbundle a 64 kbps channel on fiber fed loops) consigns facilities-based competitors to an industry backwater and will hamper the rapid rollout of the most innovative and feature-rich services.

Eliminating unbundling of “broadband” capabilities while preserving unbundling of UNEs for voice not only ignores the most compelling sources of true competition, it also fails to match unbundling outcomes with the Commission’s overarching goal of encouraging investment in truly new and innovative facilities that can be used to provide new and enhanced competitive services to consumers and businesses. The alternative to this framework, on the other hand, is simple. If competitors are impaired without access to *legacy* loop facilities, those loops should be unbundled to support facilities-based competition, whether they are used by competitors (or ILECs) to provide voice or broadband services, or both. If encouragement of investment in innovation and new services by *both* ILECs and CLECs is an overriding goal, the Commission must also clearly define the deregulated, “innovative” category of network elements in a way that does not sweep in, and deny competitive access to, legacy loops and other facilities that can be used to provide facilities-based competition and innovation by CLECs.

The phaseout of line sharing is a clear illustration of how the Commission’s bifurcated framework was underinclusive in encouraging innovation and facilities-based competition. Line sharing allows CLECs to use the high-frequency portion of legacy copper loops, for which impairment was found unanimously and conclusively, as part of facilities-based networks, to provide competitive voice and data services. The availability of line sharing was critical in driving Covad to invest hundreds of millions of dollars in building a nationwide broadband network. Line sharing is also a facilities-based vehicle to provide innovative, competitive voice services such as VOIP-based second line local and long distance voice services in direct competition with local phone companies, now dominant players in both local and long distance.

On the other hand, by eliminating the HFPL UNE, the Commission did not “deregulate” desirable activity or spur investment in new broadband facilities by the ILECs. By definition, line sharing makes use of a discrete capability of legacy loops which are already in the ground, and no one has argued that removal of line sharing as a UNE has created incentives by ILECs to invest in new copper plant. Rather, the true source of broadband innovation by ILECs, and where new investment should be encouraged, involves building new fiber loops to *totally replace* copper loops. Eliminating ILEC unbundling obligations with respect to legacy copper loops does not increase ILEC incentives to invest in new fiber loops in any way, and in fact decreases these incentives.

The Commission’s decision to entirely eliminate unbundling of hybrid fiber/copper loops provides a clear example of how using broadband and voice (or narrowband) as the key ground for determining unbundling status is overinclusive, as it deregulated facilities that are not “innovative” or new in any way, shape or form. The ILECs have deployed fiber feeder and digital loop carrier facilities for decades. They were deployed not to facilitate new services, but

in circumstances where deployment represented a more efficient means of providing additional voice lines. In other words, these historical deployment decisions simply represented a means to minimize costs and maximize revenue from existing voice services. Similarly, the mere fact that legacy loop facilities may incorporate or utilize some “packet switching” functions, standing alone, is not evidence that these legacy facilities are inherently innovative or worthy of more favorable unbundling treatment. Again, packet switching has been around for decades. Even if one accepts that certain new forms of packet switching based services may indeed represent innovation which should be encouraged, it does not follow that flash cut deregulation of all existing loops that are already partly fiber, or somehow terminate in a packet switching fabric, will encourage innovation. As with line sharing, this simply allows the ILECs to exercise market power over an entire class of existing customers who happen to sit at the end of these kinds of existing legacy loops, and to deny competitors the use of these loops, based upon the historical accident (from the customer’s standpoint) that the ILECs elected to provide voice service using these particular kinds of loops. If the goal is encouraging future innovation and new services, retroactively rewarding past decisions is an absurd and arbitrary way to go about it.

Aside from having nothing to do with the stated policy objective, where impairment exists (as it surely does in the case of subscriber loops) deregulating the “broadband” capabilities of legacy loops creates an unjustified windfall for ILECs by allowing the ILECs to deny access to customers competitors could otherwise serve using these legacy loops, or to charge monopoly prices to competitive carriers under “commercial” or tariffed wholesale arrangements. The latter risk is clearly evidenced by the ILECs’ established wholesale DSL rates, which in virtually every case equal or exceed the ILECs’ *retail* rate for the same service. The purpose of reforming the unbundling regime should not be to transfer revenue from ILEC wholesale or retail customers

back to the ILECs, or improve the ILECs' already healthy profit margins, but to encourage innovation.³ Reaping higher profits from pre-existing services using existing loops is not innovation. In fact, such an approach implies that it is an acceptable policy outcome for captive customers to be used to finance risky investments in new services, such as video, by already very large, well-financed incumbents.

It is equally important that the Commission establish clear cut national standards for transitioning existing customers to facilities-based CLEC offerings, and for provisioning new subscribers using unbundled elements that are retained or restored. These standards are necessary to ensure that impairment is actually alleviated on the ground, when CLECs attempt to provision new customers using innovative technologies such as facilities-based VOIP.

Unbundling rules that support facilities based broadband competition using legacy incumbent telco facilities are not a radical, draconian regime as depicted by the incumbents. Numerous other countries rely on unbundling of legacy facilities, and many of these countries have outpaced the United States in the deployment of advanced facilities and services. In Japan, for example, where multiple competitors are permitted to leverage the legacy monopoly infrastructure via carefully crafted unbundling rules that are actually enforced, broadband speeds

³ Indeed, analysts are already projecting significant profit gains by the Bells and raising their targets as result of the expected withdrawal of UNE-P competitors from the market. According to UBS Warburg:

With 17M UNE-P lines and estimated monthly blended churn of roughly 5%, the Bells should see wholesale lines fall by roughly 8M in the first twelve months after competitors stop marketing. We believe FCC's new interim rules will make this a reality in 2005... We now expect strong organic EPS growth for SBC, Verizon and BellSouth in 2005. Our new 12-month price targets are \$28 for SBC (vs. \$27), \$40 for Verizon (vs. \$38) and \$30 (vs. \$28) for BellSouth based on changes to our long-term models and DCF analyses.

UBS Warburg, "DAILY RAP: Upgrading the Bells to Buy 1: UNE-P Comes Full Circle," John Hodulik, July 23, 2004.

are substantially higher, prices are significantly lower, and cutting edge features are introduced much more rapidly.

The Commission must address competitor impairment for access to last mile transmission facilities in a manner that complies with the court of appeals' two remand decisions,⁴ which, as this Commission has recognized, impose evidentiary and other burdens on the Commission "that go beyond those found in the [1996] Act" and "are in tension with" the Supreme Court's decisions in *Verizon* and *AT&T v. Iowa Utilities Board*, 525 U.S. 366 (1999) ("*AT&T*").⁵ In what follows Covad offers legal justifications and supporting evidence supporting both broadband unbundling (including line sharing) and the unbundling of high capacity loop and transmission services that fully complies with the court's mandate.

Now more than ever the Commission's actions will promptly cause real-world effects. The existing regulatory uncertainty has led to a collapse in the competitive marketplace for residential voice services. The largest competitor, AT&T, has abandoned the residential marketplace, and MCI evidently is poised to do the same.⁶ Smaller players too have fallen by the wayside.⁷ A FCC decision that eliminates existing unbundling rights and fails to make space for broadband voice and data competition could well be the last nail in the coffin for the competition fostered by the 1996 Act.

⁴ *United States Telecom Ass'n v. FCC*, 290 F.3d 415, 421 (D.C. Cir. 2002) ("*USTA I*"); *United States Telecom Ass'n v. FCC*, F.3d (D.C. Cir. 2004) ("*USTA II*").

⁵ Brief of the United States in Opposition to Petn for Certiorari in No. 04-15, *AT&T Corp. v. United States Telecom. Ass'n* (filed Sept. 2, 2004) at 26-27.

⁶ See "AT&T Announces Second-Quarter 2004 Earnings, Company to Stop Investing in Traditional Consumer Services; Concentrate Efforts on Business Markets," News Release, July 22, 2004, available at <http://www.att.com/news/item/0,1847,13163,00.html>; "MCI Hires Advisors for Likely Sale Bid," Washington Post [business section], page E01, Sept. 21, 2004 (available at <http://www.washingtonpost.com/wp-dyn/articles/A36879-2004Sep20.html>).

⁷ See, e.g., "Z-Tel Announces Second Quarter Financial Results," Press Release, Aug. 9, 2004, available at http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=ztel&script=410&layout=-6&item_id=602427.

It does not have to be that way. Covad is launching new initiatives to offer aggressive facilities-based competition to the incumbent wireline and cable modem providers through a state of the art IP-based network. It has invested hundreds of millions of dollars in building its network, and has plans to offer voice and data services to both residential and business customers. In particular, the maturing of VoIP technology has allowed CLECs like Covad to deploy a competitive facilities-based voice network that offers services differentiated on price, quality, features and functionality.

But like any wireline competitor, it remains critically dependent upon ILEC last-mile loop and transport facilities. And, most particularly, over the short term, Covad requires access to the high-frequency portion of the ILECs' copper, and legacy hybrid copper-fiber, loop plant to compete and introduce new services. Line sharing is absolutely essential for the transition to a competitive voice market. This proceeding gives the Commission what might well be its last chance to create a regulatory environment that promotes facilities-based competition for all services across all markets.

Our comments are organized in the following manner. We begin by demonstrating how the facilities-based competition that companies like Covad bring to the market are a real source of innovation and competitive benefits to both businesses and consumers, rather than the "synthetic competition" criticized in *USTA II*. We discuss Covad's own network and marketplace plans, for they are a blueprint for exactly the kind of facilities-based competition in both business and residential markets that the Act, the *USTA* court, and this Commission seek to promote. In particular, we describe Covad's new VoIP initiative, which promises to create precisely the kind of facilities-based voice competition in both residential and business markets that has so far failed to develop.

We then address the need for unbundling legacy loops and capabilities of the legacy loop plant, including access to the HFPL for line sharing and hybrid copper-fiber loops that the Commission eliminated in the TRO. Covad shows that the Commission's decision to eliminate line sharing is the most extreme example of a broadband policy that simply fails to meet its stated objectives. Deregulatory rhetoric notwithstanding, line sharing of legacy loops is a critical source of facilities-based broadband competition, and is not in any meaningful sense a "regulation" or burden on ILEC broadband offerings. Unless line sharing is reinstated, consumers will be consigned to, at best, an anti-competitive duopoly between the incumbent cable and phone companies.

Each of the specific reasons the Commission gave for eliminating line sharing in the *TRO* have proved invalid or been undermined by subsequent events. Moreover, line sharing provides an ideal transition from monopoly residential voice service to consumer facilities-based voice competition through VoIP. Without line sharing, the path to this competitive environment is far more uncertain. In that situation, the Act requires the Commission to provide the kind of unbundled access that will let companies like Covad connect their extensive networks to customers who have and will greatly benefit from their services.

Covad turns next to the Commission's decision in the *TRO* to remove unbundling obligations with respect to legacy hybrid fiber copper loops and their associated packet switching functions. Covad demonstrates that unless the Commission reconsiders this decision, the result will be a monopoly or duopoly broadband market that will greatly disserve public welfare, and frustrate implementation of the 1996 Act. In particular, the cable-ILEC duopoly will lead to higher prices, slower consumer acceptance of broadband, and in particular will deter the emergence of VoIP voice services. With the decline of UNE-P competition and the failure of

conventional switch based UNE-L competition to develop, it is all the more critical that the Commission take the steps necessary to permit VoIP competition to develop. Covad also demonstrates that the specific reasons the Commission gave for eliminating “broadband” unbundling each have been undermined by subsequent market developments. The Commission therefore needs to act promptly to conform its regulations to the realities of the marketplace.

Covad concludes its discussion of the need for access to the full functionalities, capabilities and features of the ILECs’ legacy loop plant by explaining the need for the Commission to set forth clear standards for the provision of UNEs for facilities-based broadband and voice competition. Covad explains that the primary barrier to a robust competitive environment for VoIP competition over UNE-L remains the lack of a viable migration path from circuit-switched voice—whether provided by the incumbent LEC or by a CLEC via UNE-P—to a VoIP application delivered over a DSL circuit (“VoIP” or “VoIP service”), which we will refer to as a “VoIP hot cut.” Covad urges the Commission to ensure that ILECs are required to develop the requisite processes, building on the work already done to create line sharing provisioning processes, to migrate voice customers to competitive facilities-based VoIP offerings.

Covad next turns to the unbundling of high capacity loop and transmission facilities after the *USTA II* remand. We demonstrate that facilities-based competition depends upon the continued availability of these facilities, and in particular discuss the ways in which Covad’s own service is necessarily dependent upon the ILEC transmission network.

We then address the specific concerns raised by the reviewing court. We demonstrate that without state commission delegation, the Commission can and should adopt an administratively feasible method to make the kind of granular judgments required by the court.

Covad in particular shows that the Commission properly concluded that loop and transport markets are necessarily route-by-route markets, and that the characteristics that make unbundling unnecessary on one route might vary widely from the characteristics present on an adjacent route. But though the relevant markets are by their nature very granular, Covad presents to the Commission a straightforward mechanism that will allow it to make those granular judgments in a prompt and reliable manner. Specifically, Covad believes the Commission's retail and wholesale triggers should continue to be applied on a route-specific basis for dedicated transport facilities. Moreover, an analysis of all the routes shows that an administratively practicable judgment could be made – and in fact has already been made – that impairment exists below established capacity thresholds. For high-capacity DS-1 loop facilities, Covad believes the Commission's unanimous finding of nationwide impairment was not called into question by *USTA II*, and should be readopted in its entirety.

The *USTA* court also asked the Commission to consider whether the availability of the ILECs' special access services is an economic substitute for high capacity loop and transport UNEs. In these comments Covad shows that it is not. Not only would it be unlawful to consider special access as part of the impairment inquiry, but even if special access is considered, it does not allow reasonably efficient competitors like Covad to compete against the ILECs. That is so because the cost of special access is greatly in excess of the cost of the underlying facilities. The marketplace evidence in support of this is irrefutable – while prices of virtually every other telecom service has plummeted over the last several years, special access pricing has remained stable and even increased. Moreover, whatever refinements of TELRIC pricing methodologies the Commission may ultimately adopt, the fact that special access pricing is generally *twice* the

price of the same UNE input is dispositive evidence that special access is priced at a substantial premium to forward-looking costs.

A stronger case that impairment is not alleviated by the availability of special access is hard to imagine. If special access were used as an input for competitive services, competitors would be faced with a classic cost-price squeeze that would not allow them to compete in the market. Nor could the Commission as an administrative matter possibly engage in the multiple price-squeeze analyses that would be required to determine if there are specific locations in which the cost of special access is not so high that it makes competition impossible. And even if it could engage in that analysis, the incumbents are free to raise special access prices in most locations at will, so they would have the ability to strategically price in any area in which competition might otherwise be possible. Finally, ILEC suggestions to the contrary notwithstanding, the fact that telecom carriers with fundamentally different business models (much more mature mobile carriers, CLECs serving predominantly enterprise customers, and IXCs with huge volumes of transport business, and corresponding volume discounts) have historically purchased and are able to absorb the costs of special access says absolutely nothing about whether reasonably efficient CLECs seeking to serve the full range of consumer and business end users are impaired if special access is their only alternative. For these reasons, the Commission should conclude that special access is not a substitute for high capacity loop and transport UNEs.

II. COVAD EXEMPLIFIES HOW FACILITIES BASED BROADBAND COMPETITION BY CLECS IS HIGHLY BENEFICIAL TO CONSUMERS AND BUSINESSES, AND NOT IN ANY WAY “SYNTHETIC”

The premise of the Commission’s unbundling regulations under the 1996 Act is that required sharing of “facilities that are very expensive to duplicate (say, loop elements)” will allow facilities-based competition to develop using “other, more sensibly duplicable elements

(say digital switches or signal-multiplexing technology).”⁸ Covad is the preeminent example of the public benefits of just this kind of regulation. With continued unbundling of specific, critical broadband capabilities of bottleneck loop facilities, Covad will develop an even more extensive facilities-based network reaching customers it cannot currently serve, creating even more consumer benefit. But Covad cannot provide these services without access to the ILEC bottleneck loop and transmission network.

A. The Reach and Design of Covad’s Network

Covad was the first company to deploy mass market DSL services in the nation. Leasing ILEC loops, it has invested hundreds of millions of dollars in building the leading nationwide facilities-based broadband network. Demonstrating its continuing commitment to investment in facilities-based competition, in 2004 Covad began an initiative to expand the reach of its network into more than 200 additional central offices.⁹ Today, Covad’s network reaches more than 57 million homes and businesses in 44 states, including the top 235 Metropolitan Statistical Areas. Its broadband facilities include Digital Subscriber Line Access Multiplexers (DSLAMs), IP routers, and ATM switches in collocated space in over 2000 ILEC central offices across the nation. Connecting those central offices are over 100 “hub” central offices in which customers’ traffic is collected and switched using state-of-the-art ATM switches.

Perhaps the best way to understand Covad’s network is to trace the path of a data packet through that network. The data packet is a small piece of an email or an image or even the information communicated by a mouse click on a web page. It begins its trip from your computer to its destination as an IP packet traveling over an Ethernet connection to Covad-provided customer premises equipment (CPE) such as a DSL modem. At the CPE, the IP packet

⁸ *USTA I*, 290 F.3d at 426 (quoting *Verizon*, _ U.S. _ n. 27 (2002)).

⁹ See “Covad Announces 2004 Network Expansion Initiative,” Press Release, Jan. 7, 2004 (available at http://www.covad.com/companyinfo/pressroom/pr_2004/010704_news.shtml).

is converted to an ATM cell and then dispatched over a Private Virtual Circuit (PVC) toward Covad's collocated broadband equipment in a nearby central office (CO), equipment that makes provisioning of the PVC possible.

While an ATM cell traveling over a PVC represents genuinely advanced technology, the medium over which the cell travels for this part of its trip was already in widespread use well before the close of the 19th century: a copper wire. This "last mile" of legacy copper was put in the ground or on a pole at some point during the 75 years of the Bell monopoly, and it remains today the only ubiquitous telecommunications medium reaching nearly every home and business in the U.S. It is low-tech. But it is absolutely critical to the ability of any facilities-based telecommunications provider to serve its customers.

At the CO, the ATM cell flows directly into Covad's collocated Digital Subscriber Line Asynchronous Multiplexer (DSLAM), bypassing completely any ILEC CO facilities other than the end user loop itself.¹⁰ Covad's DSLAM creates the DSL signals and the PVC that allow the ATM cell to traverse the copper last mile. The cell flows through the DSLAM and onto a transport circuit. In most instances, an ILEC circuit is the only available facility for transport out of the central office, and this is the other piece of the legacy monopoly network that remains critical to the development of true, facilities-based competition. Like legacy copper, an ILEC transport facility is, essentially, a dumb pipe with innovation and functionality residing in Covad equipment on either end of the circuit.

In instances where it is possible, Covad leases interoffice transport from competing providers. At other times, Covad provides its own transport via its fiber SONET rings in New

¹⁰ In addition to the ILEC loop, in certain areas where the ILEC requires it, line shared circuits utilize ILEC-owned splitters as well.

York, Washington, D.C. and soon Los Angeles and San Francisco's South Bay.¹¹ The cell traverses this transport to one of Covad's 120 ATM switches. If this ATM switch is not at one of Covad's 17 IP points of presence (POPs) located in a non-ILEC collocation facility, the switch routes the cell to the appropriate POP where it can gain access to the internet.

At the IP POP, a second ATM switch directs the cell to a Broadband Access Server (BRAS) that acts as the PVC termination point. Covad has at least one BRAS capable of handling 8000 PVC terminations at each of our POPs. At our larger POPs, there will also be a larger BRAS which can handle 30,000 terminations. The BRAS converts the cell to an IP packet and sends that packet to a gateway router. These routers are used for Border Gateway Protocol exchanges meaning, quite simply, that they have the ability to advertise IP addresses that reside behind them so that internet traffic knows where to go when it needs to get to one of these addresses. For an outbound IP packet, the gateway router sends the packet to an Ethernet switch and from there it heads out onto the internet with the appropriate addressing information so that it gets to its destination.

The path the packet would follow would be slightly different if it were carrying voice traffic. After its conversion from ATM to IP at the BRAS, it would be routed to one of Covad's media gateways where the gateway—working in conjunction with a soft switch for routing—would do one of two things. If the call were headed for a phone within the Covad network, the soft switch would route it appropriately acting in a manner similar to that of a standard Ethernet switch. If, on the other hand, the voice packet was headed for a phone that was served by another provider, the media gateway would convert it to TDM traffic and direct it out onto the public switched telephone network (PSTN).

¹¹ Covad's interoffice transport is provided over Covad-leased fiber as soon as the volume of traffic makes it economically feasible.

Other parts of the Covad network may come into play for less generic packets or for serving other needs of our customers or the internet. Also connected to Covad's routers are Domain Name Servers (DNS) and authentication servers providing proxy Remote Access Dial-Up Service (RADIUS) for Covad's wholesale customers. Covad also acts as a retail and wholesale ISP, and our network is connected to email servers providing POP3 and SMTP as well as web hosting servers. Covad's collocation spaces also contain splitters for providing line shared and line split services as well loop testing equipment.

To proactively monitor this complex nationwide network, Covad's Network Operations Center is connected to every one of our 2000+ central office collocations with an entirely independent monitoring network. This means that if there is a problem of any kind with our primary network, we do not lose the ability to see what is happening in our collocation spaces. Our NOC is manned around the clock to keep the network operating smoothly, and it is hardened against earthquake damage and other natural disasters.

Examining this network description more closely, it is important to recognize the value that a facilities-based competitor actually adds to the network. If you were to compare Covad's nationwide VoIP and DSL infrastructure to a simple light circuit in your home, the ILEC would provide the simple wire running from the switch to the light, and Covad would provide the electricity, the circuit-breaker, the switch and the light socket. The choice of light bulb—like the computer or phone that makes use of Covad's digital technology—would be up to you. The wire is, of course, of critical importance to the circuit, but innovation is driven on either end of the wire, not by the wire itself. Will you replace the plain old switch with a dimmer to give you more control? Upgrade the fuse to allow more current to flow and thereby light more bulbs? Change the socket to accept a three-way bulb or a fluorescent tube? Just as in this example, the

facilities-based competitive community needs nothing more to thrive than access to low-tech legacy copper wires and hybrid loops over which we can send our innovations.

By controlling this extensive, technically advanced broadband network, Covad can control the quality of service it provides to its customers and introduce innovative hardware and software-based features that would quite simply be beyond the technical possibilities available to non-facilities-based competitors. Control over and operation of underlying broadband transmission facilities will confer significant advantages to service providers offering integrated transmission and VoIP services, such as “[the ability] to control the quality of service, leverage existing customer relationships and take advantage of their on-the-ground field service networks to assist with customer installation.”¹²

B. Covad’s VoIP Initiative

Covad continues to invest in facilities-based competition. In March of this year, Covad announced plans to enter into the VoIP marketplace through its acquisition of VoIP provider GoBeam Inc., a privately held provider of VoIP services.¹³ Covad acquired GoBeam in a transaction valued at over \$40 million,¹⁴ and simultaneously raised \$125 million in new capital in part to fund its rollout of VoIP telephony services across Covad’s national footprint.¹⁵ Already, Covad has completed rolling out its facilities-based business-class VoIP service to 56 major U.S. markets, and plans to complete rolling out these services nationwide to 113 major

¹² See “Everything Over IP,” Glenn Campbell, et al., Merrill Lynch Research Report, March 12, 2004, at 19 (available at http://www.vonage.com/media/pdf/res_03_12_04.pdf).

¹³ See “Covad Signs Agreement to Acquire GoBeam to Accelerate Voice Over Internet Protocol (VoIP) Launch,” Press Release, Covad Communications, March 3, 2004 (available at http://www.covad.com/companyinfo/pressroom/pr_2004/030304_news.shtml) (*GoBeam Announcement*).

¹⁴ See *id.*

¹⁵ See “Covad Communications Group Announces First Quarter 2004 Results,” Press Release, Covad Communications, May 17, 2004 (available at http://www.covad.com/companyinfo/pressroom/pr_2004/051704_news.shtml) (*Covad 1Q 2004 Announcement*).

markets by the end of this year.¹⁶ In 2005, Covad will develop consumer VoIP services across its nationwide broadband facilities.

With its movement into the VoIP marketplace, Covad is using its broadband transmission network and facilities to compete in the ILECs' core mass market, small and medium business and enterprise voice businesses. Our advanced network allows Covad to offer service level guarantees for its voice products that have, in the past, been impossible to attain for non-facilities based VoIP providers, and Covad's new VoIP services provide businesses with significant improvements over the capabilities of much more expensive PBX systems, with little investment in hardware. In short, Covad's new voice offerings compete directly with ILEC small business and enterprise offerings.

But VoIP does not just provide a replacement for traditional ILEC voice offerings; it enriches the capabilities of traditional business-class services in a way that no legacy service can match. Each customer receives a unique phone number to consolidate their multiple phone numbers. "Find me and follow me" capabilities allow calls to find the customer no matter what phone it is using, and are all configurable in real time using a "Dashboard" web-interface to manage incoming and outgoing phone calls through a computer. The service includes a personal virtual fax number to handle all incoming faxes; a unified visual mailbox to manage voicemail and faxes like e-mail; and robust call logs and integration with Microsoft Outlook, allowing users to make and return calls from their PC. Covad's VoIP services also include web collaboration and voice conferencing tools. These features dramatically enhance the speed and

¹⁶ See "Covad Communications Business-Class Voice Services Now Available in 42 Markets Nationwide," Press Release, Aug. 10, 2004 (available at http://www.covad.com/companyinfo/pressroom/pr_2004/081004_news.shtml); "Covad Gives Voice to Small Business In Houston, Las Vegas, Miami and Portland," Press Release, Sept. 1, 2004 (available at http://www.covad.com/companyinfo/pressroom/pr_2004/090104_news.shtml).

ease with which end users can access the enhanced functionalities of VoIP telephony, combining the familiarity of a traditional telephone handset with the flexibility and power of a computer-based interface. Finally, Covad's service offers the traditional features of POTS -- number portability, 911, and directory assistance.

Another example of facilities-based innovation is Covad's line-powered voice capability (LPV) which we will trial in select markets next year. This new technology—made possible by the addition of next-generation Nokia DSLAMs in Covad's network—will provide residential customers with POTS-replacement services augmented by VoIP-enabled advanced services bundled with DSL. The technology takes the analog voice signal from a customer's basic telephone and converts it into digital form at the central office. The digital signal is then transported over Covad's nationwide broadband network and terminated at another VoIP customer or at a location on the PSTN. LPV is a true break-through for VoIP services: it is powered at the central office ensuring continued phone service during a power outage, it allows customers to use their existing phones and inside wiring with no special adapters, and—unlike traditional DSL—it is not distance sensitive.

At a technical level, Covad's control over its network based facilities allows it to use packet prioritization techniques to ensure that voice quality is maintained even as a user downloads large files or watches streaming media. Such techniques are unavailable to providers like Vonage or AT&T that must rely on others' networks. VoIP call quality is sensitive to packet latency, jitter and loss. In order to provide VoIP services over its packet-based broadband transmission facilities, Covad is implementing a VoIP Optimized Access (VOA) solution designed to optimize and manage all three parameters throughout the Covad network, from the access line through the ATM edge network to the IP core. This is accomplished by segregating

voice and data traffic, and prioritizing voice packets over data packets.¹⁷ To date, none of the ILECs has incorporated such features into their VoIP offerings, to the extent they even offer such services.¹⁸

In Covad's view, voice packet prioritization is critical to ensure that businesses and consumers receive the quality of service from VoIP that they have come to expect from wireline voice services. Voice quality over IP/ATM is much less forgiving than packet data transmission, which is inherently "bursty" and can tolerate intermittent interruptions. By designing and managing its network to ensure the reliability and quality of voice transmissions over its IP/ATM packet infrastructure, Covad is able to dedicate sufficient bandwidth to voice packets, without which voice quality will be degraded by intermittent spikes in data throughput, which in turn defeats the purpose of "converging" voice and data over a single pipe.

Furthermore, as a wholesale provider of broadband transmission services to many independent CLECs and ISPs, Covad is well poised to expand its portfolio of wholesale broadband transmission offerings to third party providers of IP enabled services, thereby enabling them to enhance their own offerings of IP-enabled services and drive new innovations into the marketplace.

In all of these ways, Covad's VoIP offerings are significantly different than the VoIP offerings of the monopoly voice and cable companies. Innovations like these that enrich business and consumer choice and drive U.S. telecommunications leadership are, of course, the reason the Commission has promoted facilities-based competition in the past. Covad's example

¹⁷ See *Joint Declaration of Stephan DeRodeff, Patrick Bennett and Mark Richman* at 29-31, (*DeRodeff Decl.*) (attached).

¹⁸ *Id.*

demonstrates the merits of this decision and the imperative that this policy choice be sustained in this rulemaking.

C. Covad's Data Services

These VoIP offerings supplement Covad's existing competitive data services, which offer residential and small and medium-sized businesses a competitively-priced alternative to ILEC T-1 and DSL services. Covad's rollout of new services at higher speed tiers is another outgrowth of its ability as a facilities-based provider to provide innovative services to the marketplace. Currently, Covad's services include ADSL services offered at maximum download speeds of 6.0 Mbps, the only DSL offering of its kind in the marketplace, SDSL services at 6 symmetrical speed tiers ranging from 144 kbps to 1.5 Mbps, and dedicated T1 services at 3 speed tiers ranging from 384 kbps to 1.5 Mbps.

Covad also continues to innovate in its provision of wholesale services to independent Internet Service Providers. For example, earlier this year Covad and partner Speakeasy began providing a 3.0 Mbps/768 kbps ADSL service to Speakeasy's customers, focusing on the needs of power-users such as online gamers.¹⁹ Notably, four months after Covad's announcement, BellSouth followed with its own announcement of a new 3.0 Mbps ADSL service offering.²⁰ Covad's introduction of new speed tiers reflects the ability of facilities-based competitors to rapidly provide innovations in services and technology to respond to the changing needs of customers and the marketplace. Indeed, Covad continues to push the envelope in bringing new services to market: since rolling out 3.0 Mbps service, Covad has significantly boosted the speeds it offers Speakeasy to include a 6.0 Mbps/768 kbps ADSL service as well, the first of its

¹⁹ See "Covad and Speakeasy Unveil Faster Consumer DSL Service," Press Release, available at http://www.covad.com/companyinfo/pressroom/pr_2004/012804_news.shtml (Jan. 28, 2004).

²⁰ See "BellSouth Introduces 3.0 Mbps Speed to Broadband Portfolio," BellSouth Press Release, Apr. 19, 2004 (available at <http://bellsouthcorp.com/newsroom/>).

kind. Notably, Covad's innovations are not limited to certain regions of the country as is the case with its ILEC competitors: Covad's network is national, and our innovations are available to a national audience both via Covad's direct services and via the service offerings of large, national ISPs. These ISPs increasingly rely on Covad broadband to compete with the ILECs both on price and technology, and Covad has designed its uniform OSS and network services specifically to cater to their needs.²¹

D. Covad's Services Distinguished from Cable Modem Services

Covad's voice and data services are different than and in many ways superior to the services offered by cable modem service providers. Thus, with cable modem service, the uplink from the customers' premises is shared, which limits the uplink speed. For example, Comcast's uplink speed is 256 kbits/s whereas Covad's ADSL lines have options including uplink speeds up to 768 kbits/s; Covad's SDSL and T1 lines go up to 1.5 Mbits/s. Additionally, cable systems use DOCSIS and PacketCable rather than ATM, which do not provide the kind of quality of service ("QoS") that ATM offers. Distributed QoS, the cable industry's proposed standard for providing high quality VoIP services, falls short of ATM in this respect, and has yet to be rolled out on a widespread basis. Uplink packet fragmentation, which is necessary to reduce jitter on PacketCable, reduces the effective speed of cable networks even further.

Because cable modem service runs over a platform shared among users, cable providers must offer essentially the same broadband service to all customers. Wireline broadband providers like Covad, in contrast, can tailor their offerings to individual customers because DSL runs over pipes dedicated to each end user.²² They can offer different network access (such as

²¹ See Declaration of Stephen Siwek and SuSun, filed in CC Docket No. 01-338, *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Exchange Carriers*, Nov. 20, 2002 (accompanying Covad Comments) ("Siwek Decl.") at ¶¶ 90-95.

²² Siwek Decl. ¶¶ 62-69.

virtual private networks), different speed of access, and different prioritization of traffic, for example.²³ Moreover, while cable providers cannot guarantee a specific quality of service because the bandwidth available to the customer depends on the number of other users currently on the network (which leads to degradation of service during peak hours), DSL providers can offer such quality of service guarantees.²⁴ Further, the shared bandwidth of cable facilities can lead to electronic theft and snooping, while the dedicated nature of the facilities involved enables DSL competitors to offer more security for customer traffic.²⁵ Security is further enhanced because DSL competitors such as Covad offer static IP addresses, unlike most cable companies. Finally, competitors like Covad are better able to serve business customers who require equally high speeds for transmission of data as for receipt of data. DSL uses facilities designed for two-way traffic, whereas cable plant generally provides far more speed for downloading than for sending data upstream.²⁶

* * *

In sum, Covad's entry in the VoIP marketplace through its acquisition of GoBeam shows that the targeted unbundling of legacy ILEC loop and transmission facilities envisioned by the 1996 Act provisions can work as intended. Competitive access to these legacy facilities can and will promote real facilities-based competition that offers consumers competitive products that are differentiated on price, quality of service and features, which in turn will force the incumbent providers to improve their services and lower their prices. While the intelligence of Covad's network -- its switches, DSLAMs, software and related equipment -- is all owned and operated by Covad, Covad remains critically dependent upon the ILEC for use of historical monopoly

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

transmission facilities. Specifically, ILEC legacy loops – including copper, hybrid and DS-1 loops – are needed to connect Covad to its customers. And ILEC DS1 and DS3 interoffice dedicated transport circuits are needed to connect Covad end and hub central offices to each other. These critical facilities have been built over an extended period of time under monopoly conditions and simply cannot be reproduced by competitors without the large embedded base of customers that the ILECs enjoy. Without that access, the facilities-based competition that the Act seeks to promote is simply not possible. The central issue in this proceeding ought to be whether the Commission will make that access available and allow facilities-based competition to continue, or whether through inaction or lack of required oversight of the provisioning and pricing of a minimal set of unbundled elements the Commission will deprive facilities-based providers of the few ILEC facilities they need to overcome impairment and compete in the marketplace.

III. WEAK, DUOPOLISTIC INTERMODAL COMPETITION IS NOT ENOUGH

As Covad's own service offering ought to make clear, the Commission needs to revisit and refine its approach to the unbundling of the legacy loops, with a particular focus on those elements needed to provide broadband services, including access to the HFPL and legacy hybrid copper-fiber loops that are now widely deployed throughout the ILEC last-mile network. The initial decisions to deny access to these forms of loop unbundling were largely based on predictive judgments balancing the potential benefits that would be derived from unbundling against the potential harms that would result. New evidence demonstrates that the FCC's predictions have simply not been borne out, and will not be under current and future market conditions. Moreover, the premise of these predictive judgments was an overall package of unbundling determinations, including the requirement that switching be unbundled and provisioned through the UNE-P platform, that have been called into question by the *USTA II*

opinion, and are likely to be substantially modified. The Commission must reevaluate all of its interdependent unbundling determinations, and restore those elements that will support true facilities based competition through broadband based VoIP.

The TRO's basic decision to pare back competitive access to legacy facilities that support competitive broadband offerings is already having disastrous consequences. The TRO decision to deny access to legacy hybrid fiber facilities took effect immediately, and immediately denied Covad and other CLECs access to tens of millions of existing subscribers serviced by these facilities. While line sharing was to be phased out over time under the TRO, rational businesses of course immediately make strategic and investment decisions based upon known future events. The unprecedented upheaval and uncertainty leading up to and following the DC Circuit decision did additional, and severe, damage to investor and management confidence in any sort of investment in broadband competition by non-incumbents. The predictable result is that broadband and voice competition are on life support, and the prognosis is worse than grim. While ILECs displayed a brief flurry of competitive behavior as they sought to make up for the early inroads of the cable companies, broadband competition on the ground, where it exists, has settled into classic duopoly patterns of occasional competitive moves followed by retrenchment, with a pace of broadband penetration, innovation, and price competition that severely lags that in many countries with far more vigorous, pro-competitive unbundling regimes.

A. Broadband Competition is Spotty, Weak and Often Non-Existent

In most areas of the country, Covad is now the only provider of broadband access services left to compete with cable and ILEC broadband. According to the Commission's latest data, the incumbent telephone companies and cable providers control more than 93% of the

nation's broadband access lines.²⁷ Moreover, many end users lack a choice even amongst this limited set of two providers. Cable providers have historically focused their network deployment in residential areas, leaving most businesses with the incumbent telephone company as their only broadband option. Business customers have far less access to cable modem service. That is because cable companies did not generally build their plant to provide access to businesses in commercial centers, since cable traditionally sold programming that was not targeted at business users. Moreover, cable modem services are technically less suitable for business use.²⁸ In fact, recent figures show that cable penetration in the small business segment is miniscule and has actually dropped:

[The Yankee Group] projected cable modem would surpass DSL in this [the small business] segment by year-end 2003. However, cable modem penetration *dropped precipitously* in the small business market, or businesses with between 20 and 99 people. Cable operators also achieved limited success in the remote office market, reaching only 4.2 percent of the market in 2003 . . . *DSL operators dominate* the U.S. [small business] broadband and enterprise remote-office broadband market.²⁹

In fact, the Commission has no data, nor is there any, showing that significant intermodal competition exists for the small business market. The fact of the matter is that in office parks and business developments, ILEC offerings, be they expensive T-1s or DSL, are the only game in town, and the only competitive threat is CLECs utilizing loop based UNEs. Nor can the Commission rely on other broadband modalities to compete against the cable and wireline duopolists. Fixed wireless and satellite are not yet real alternatives. Fixed wireless reaches only

²⁷ See *High-Speed Services for Internet Access: Status as of December 31, 2003*, Industry Analysis and Technology Division of the Wireline Competition Bureau, Federal Communications Commission, at Tables 1, 5 (June 2004). Specifically, out of a total of 28,230,149 high-speed lines (over 200kbps in at least one direction), RBOCs served 8,735,814 lines, other ILECs served 1,261,641 lines, and cable providers served 16,446,322 lines.

²⁸ See *DeRodeff Decl.* at 8; *UNE Remand Order* ¶ 189.

²⁹ Yankee Group, *Cable and DSL Battle for Broadband Dominance* (February 2004), at 4-5 (emphasis added).

3% of residential customers, with actual consumer uptake at a much lower level.³⁰ Fixed wireless also generally costs more and provides less bandwidth than DSL.³¹ And while satellite reaches more customers than fixed wireless, it suffers quality problems in comparison to DSL that render it a different service altogether.³²

Not surprisingly, according to the FCC's latest data, satellite and fixed wireless broadband together account for less than 2% of total high-speed lines in service.³³ Other broadband modalities – Wi-Max and powerline, may be promising, but are almost exclusively future sources of possible competition, and are meaningless for virtually all homes and businesses in the U.S. The Commission well knows that it took the last major new technology – cellular and PCS- many years to achieve anything approaching ubiquity, and even more to achieve competition from multiple independent providers. The Commission cannot rationally base competition policy on press releases and futuristic predictions that may or may not ever translate into competitive reality. Broadband over powerline in particular remains in its commercial infancy, with hardly any commercial deployment and an uncertain future.³⁴

Simply put, without CLEC access to the broadband capabilities of the loop, there is, at best, a duopoly market for broadband, and even that small measure of choice is denied to the vast

³⁰ ILEC UNE Fact Report, submitted with ILEC Comments in CC Docket No. 01-338, *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, April 5, 2002, at IV-19; Siwek Decl. ¶¶ 48-57.

³¹ Joshi, Moyer, Richman, Zulevic Joint Decl. submitted with Covad's Comments in CC Docket No. 01-338, *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, April 5, 2002, at ¶¶ 22-23 ("*Joshi Decl.*"); Siwek Decl. ¶¶ 48-57.

³² *Joshi Decl.* ¶¶ 24-26; *Siwek Decl.* ¶¶ 48-57.

³³ *See High-Speed Services for Internet Access: Status as of December 31, 2003*, Industry Analysis and Technology Division of the Wireline Competition Bureau, Federal Communications Commission, at Table 1 (June 2004).

³⁴ Indeed, even Verizon has conceded that broadband over powerline is available commercially only on a limited trial basis in two discrete locations, and it is not clear whether these trials have actually attracted any customers. *See Ex Parte Letter from David Lawson, AT&T, to Marlene Dortch, FCC*, at n. 41 (filed in WC Docket No. 01-338, April 15, 2004).

majority of business end users. As both the Department of Justice and the FCC have long recognized, duopoly conditions are insufficient to produce competitive outcomes. Duopoly competition is problematic not only because the firm with the larger market share may exercise market power, but also because *both* participants are likely to have the incentive and ability to maintain prices above competitive levels rather than attempting to ruthlessly compete with each other, as they would need to do in a market with multiple firms.³⁵ Accordingly, as the FCC has concluded, “both economic theory and empirical studies” indicate that “five or more relatively equally sized firms” are necessary to achieve a “level of market performance comparable to a fragmented, structurally competitive market.”³⁶

There are also serious grounds for concern whether vigorous competition will result from a duopoly composed of two historically monopoly industries with established patterns of anticompetitive behavior. As one commentator has noted, the cable industry shares:

...some of the ILECs’ most disturbing structural characteristics and incentives to suppress technological progress and the emergence of a competitive, open-architecture industry. For the last decade the CATV sector has been consolidating into a small group of regional cable television monopolies, all of which operate closed, vertically integrated systems, and which in turn are owned by an oligopoly of national media conglomerates (including broadcast and cable television content and distribution, newspaper chains, music and film studios, and Internet access service). For several reasons a competitive, technologically dynamic, open-architecture broadband industry represents just as deep a threat to these companies as it does to the ILECs. Their services, strategies, and policy positions already reflect this fact, and the prospect of a broadband industry dominated by an ILEC-CATV duopoly therefore raises major concerns.³⁷

The Commission has repeatedly recognized the patterns of strategic and anticompetitive behavior by cable and local telephone companies. It was these long established patterns of

³⁵ See United States Department of Justice/Federal Trade Commission, *Horizontal Merger Guidelines*, Section 2 (rev. Apr. 8, 1997).

³⁶ Report and Order, *2002 Biennial Regulatory Review – Review of the Commission’s Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996*, 18 FCC Rcd. 13620, ¶ 289 (2003).

³⁷ Ferguson, Charles H., *The Broadband Problem*, Brookings Institution Press, p. 139 (2004).

behavior that prompted Congress to pass two pieces of comprehensive legislation to attempt to ameliorate them, one for each industry. Expecting a sudden change in these patterns of behavior, simply because these two industries are now eyeing each others' turf, would make Pollyanna look like a world weary cynic.

An independent report of the Congressional Budget Office succinctly summarized the problem:

Among markets nationwide, the combined share of broadband service provided by local telephone and cable companies averages more than 90 percent. That feature of the supply side of the residential market for high-speed Internet access raises the possibility that the two dominant firms in each individual market might be able to keep prices above the cost of providing service. If that occurred, too few people might subscribe to a broadband service at too high a price relative to the prices that would prevail in a more competitive market – a situation known as market failure.³⁸

As unbundling of elements supporting broadband competition is slowly whittled down, the results of that market failure are becoming evident. Thus stock market analysts point to recent increase in SBC's DSL pricing as a reason to purchase the duopolists' stock.

After all, the market for bundled telecom services is essentially a duopoly (particularly long term, as UNE-P cease to be a viable alternative). And . . . duopoly economics suggest that there is a strong likelihood that prices will not only stabilize as the market matures, but eventually even move higher.³⁹

Further, actual marketplace evidence confirms that, rather than competing head on with each other, the cable companies and incumbent LECs are carving up the broadband marketplace into separate market niches – exactly the sort of exercise of market power one would expect from rational duopolists. For example, according to one analyst, cable companies and incumbent

³⁸ Congressional Budget Office, *Does the Residential Broadband Market Need Fixing?*, CBO Paper, December 2003, at 1. *See also Siwek Decl.* ¶ 86 (“by any definition, the ILECs continue to possess market power” in broadband markets).

³⁹ Banc of America Securities, Equity Research, Multichannel TV Comment, Feb. 2, 2004, at 1-2.

LECs are likely to divide up broadband consumers into higher-priced higher-speed services and lower-priced, lower-speed services, respectively, rather than competing with each other head on:

‘I think the cable companies would much rather play a speed game,’ said Jonathan Hurd, an analyst at Adventis, a Boston-based research and consulting firm... ‘Cable companies don't have as much pricing flexibility as the phone companies on average right now ... From a cash flow perspective, they are more sensitive to changes in average revenue per user. So they would rather tout speed than price in terms of their marketing.’⁴⁰

The solution to these stagnant duopoly market conditions is not further deregulation.

Deregulation quite simply does not influence duopoly market dynamics, and is far more likely to aggravate them, nor does deregulation create competition where none exists. Vigorous facilities based competition from a multiplicity of market insurgents like Covad, unencumbered by incumbent agendas and strategic tradeoffs, is the answer.

B. Existing Forms of Voice Competition Are Dead in the Water

Ensuring that competitors can access legacy loop and transmission facilities to provide broadband services and VoIP will facilitate what could well be the *only* non-incumbent source of competition in the consumer voice market. Other competitive choices in the consumer voice market are being eliminated. Obviously this is not what the Commission intended in the TRO, but it is the inevitable consequence of the torturous events of the last 18 months. In the TRO, the Commission assumed that its decision to limit broadband competition at least would not have a detrimental effect on residential voice competition, which it believed it had preserved through continuation of UNE-P. But subsequent events have undermined that premise. The D.C. Circuit’s reversal of the Commission’s decision to unbundle local switching – whether right or wrong, or whether or not the Commission reinstates local switching – has had a profound effect on the marketplace. The major UNE-P providers -- AT&T, MCI, and Z-Tel -- all are leaving or

⁴⁰ See “BellSouth cuts price for high-speed Net service,” Atlanta-Journal Constitution, Sept. 28, 2004.

are poised to leave the consumer voice market. The maturing of VoIP-based voice alternatives too has contributed to this marketplace effect. It would be irrational and irresponsible for the Commission to ignore these marketplace developments.

Moreover, the alternative to prolonged availability of UNE-P, managing a transition of UNE-P customers to narrowband UNE-L platforms, is the equivalent of looking in the rear view mirror when the wreck is in front of the driver. The Commission should take every step necessary to ensure that UNE-P customers can be transitioned to viable platforms with seamless ILEC provisioning, which is a substantial task. The hot-cut problems that the Commission identified associated with transitioning UNE-P subscribers to narrowband CLEC switching facilities have not been resolved, and they remain a substantial barrier to effectuating this kind of competition. Unfortunately, by the time these processes are in place, the ILECs will have recaptured many if not most UNE-P customers.⁴¹

More fundamentally, addressing only a UNE-P transition to narrowband UNE-L facilities solves yesterday's problem. Creating these sorts of transition processes is very unlikely to promote the development of entirely new competitive networks based on nearly obsolete Class 5 voice switches. Even if the hot-cut problems were solved overnight, no rational company would make the substantial investment in collocations, multiplexing equipment, digitizing and concentration equipment, and associated OSS and network costs, to construct a network that is inherently inefficient and essentially obsolete. Mass market narrowband UNE-L is simply not a viable business, now or in the future. That is precisely why the large UNE-P providers, even

⁴¹ See UBS Warburg, "DAILY RAP: Upgrading the Bells to Buy 1: UNE-P Comes Full Circle," John Hodulik, July 23, 2004:

UNE-P has come full circle. We now believe the Bells will begin to see the effects of the Big IXCs' exit from the consumer business in 2H04...[W]e think the Bells should recapture at least 80% of these lines, more than offsetting recent retail losses.

those who already own a base of Class 5 switches, are abandoning the consumer space. With UNE-P on its way out, UNE-P providers have no way to transition to another service entry vehicle to offer narrowband voice services.

Instead, future residential voice competition depends upon broadband. And robust broadband competition in turn depends upon access to the bottleneck loop and transmission network. Therefore, unless the Commission reverses its policy eliminating unbundling that supports broadband competition, it will be overseeing the rapid remonopolization of the residential marketplace. At best, it will be consigning consumers to a wireline-cable duopoly, and depriving them of the cost and service advantages that companies like Covad are already bringing to the consumer marketplace. That result would disserve consumers, deter the deployment of VoIP, and be contrary to the terms and purposes of the 1996 Act.

C. Facilities Based Broadband Competition is the Best Way to Ensure the Rapid Deployment of VoIP and True Voice Competition, Not Deregulated ILEC Monopolies or Cable/ILEC Duopolies

Competitive facilities-based VoIP services hold the potential to revolutionize the telecommunications industry. The U.S. VoIP market has been forecasted to grow to more than five million subscribers by 2007, a five-fold increase over 2002 levels. Furthermore, the Internet Protocol-PBX market, which has just under 100,000 lines today, is expected to grow to more than 1.7 million lines by 2007.

Relying on unfettered ILEC monopolies or a nascent cable/ILEC duopoly to deploy VoIP is very likely to miss the real opportunity presented by now mature VOIP technology: the opportunity for a highly fragmented, competitive market with a wide variety of service alternatives, highly differentiated on the basis of quality, price, and features. The incumbent telephone companies, with substantial legacy businesses, face conflicting incentives in deploying VoIP, since it threatens their core circuit-switched voice businesses: “SIP threatens to strand the

Bells' core network . . . VoIP customers bypass, obsolete and strand the Public Switched Telecom Network (PSTN).”⁴²

Given nearly \$150 billion invested in circuit-switched telephone plant,⁴³ the ILECs have severely conflicting incentives in rolling out VoIP: “the Bells will be reluctant to cannibalize themselves...”⁴⁴ The Bells' history in deploying DSL technology is directly on point. As is now widely acknowledged, the incumbent phone monopolies were slow to deploy ADSL precisely because it threatened to cannibalize lucrative, legacy monopoly services such as ISDN, T1, and second line telephone service.⁴⁵ That is why broadband unbundling, and, in particular, line sharing, was the critical spur to ILEC DSL deployment.⁴⁶ Exactly the same dynamic is at work with VoIP.

The cable industry also has conflicting incentives. To be sure, “[r]elative to the Bells, [cable’s] major advantage is obviously that it doesn’t have a legacy voice business it needs to protect.”⁴⁷ But under duopoly conditions, the ILECs and cable providers have every incentive not to aggressively compete in each others’ core businesses:

[W]e think cable operators are wary of being too successful... the chief risk is that being too successful in VoIP could induce the Bells to be more aggressive in the data and video businesses (such as ratcheting up marketing activity and price pressure). To put it another way, we think cable operators want to be successful with VoIP only up to the Bells’ threshold of pain; maximizing the value of VoIP may not maximize the value of the cable business if it invokes a predatory response...

⁴² See “SIP Happens: How VoIP Technology ‘Re-unbundles’ Telecom,” Scott Cleland, et al., Precursor Telecom and Media Research, Apr. 12, 2004.

⁴³ See *id.*

⁴⁴ See “Straight Talk on VoIP,” David W. Barden, et al., Banc of America Securities Equity Research, April 15, 2004 at 4.

⁴⁵ See “How Phone Firms Lost to Cable in Consumer Broadband Battle,” Wall Street Journal, p. 1, Mar. 13, 2003.

⁴⁶ See *infra* at 46-50.

⁴⁷ See “Straight Talk on VoIP,” *supra* n. 44, at 5.

[W]e think cable regards the potential Bell threat as much larger [than virtual carriers like Vonage] and we think it is highly unlikely to risk baiting the Bells with an aggressive push into VoIP just to preempt what it regards as a smaller threat.⁴⁸

Indeed, alongside the flurry of press announcements announcing cable operators' ambitious future VoIP rollout plans is a note of caution:

Most are wary of using big, new capital expenditures to take on entrenched local phone giants, such as Verizon, while they are also spending heavily on fancy, new set-top boxes and cable modems. "To dislodge a competitor that large takes a lot of money, and cable operators are still loaded with debt," says Richard Nespola, CEO of telecom consultant TMNG. "Investors would not jump for joy."⁴⁹

Moreover, even if the cable industry does pursue VoIP services, this is no guarantee that the industry will make further investments to optimize their transmission networks for VoIP. They may merely elect to provide VoIP services on a "best efforts" basis utilizing their existing broadband Internet access capabilities. In this scenario, cable companies would not drive any significant transmission layer innovation, but would simply offer a software voice package that does not exploit any unique capabilities in their broadband networks.

Again, facilities-based providers like Covad completely change this duopoly dynamic. Unlike the established telephone and cable companies, new entrants like Covad have no legacy business to protect, and have no ability to tacitly divide markets or maintain artificially high prices. Broadband CLECs have every incentive to roll out VoIP services as quickly as possible to as many businesses and consumers as they can possibly reach. And they have every incentive to roll out a superior product that competes directly with the ILEC and cable voice service, just as Covad is doing today.

⁴⁸ *See id.* at 5-6.

⁴⁹ *See* "Cable Poised to Offer Phone Service – Just Not So Fast," USA Today, May 27, 2004.

Non-incumbent facilities based competitors can also ensure that first generation of VoIP providers are able to truly provide meaningful competition by evolving far beyond early stage, “best efforts” services aimed at early adopters. At this initial stage in the development of VoIP services, VoIP service providers that do not operate their own broadband transmission facilities have had some initial success in developing the marketplace for VoIP services. For example, in a few short years, Vonage has grown its subscriber line count to more than 100,000 consumers and small businesses across the nation.⁵⁰ AT&T recently announced its own entry into the third party VoIP marketplace, with the rollout of its CallVantage Service. AT&T plans to enter 100 major markets by year’s end, and hopes to sign up 1 million consumers and businesses for CallVantage services by year-end 2005.⁵¹

These services offer many innovative and desirable features, but are inherently limited by their providers’ lack of control over the facilities used to carry these services. Indeed, as Banc of America Securities recently wrote, “the virtual carriers, like Vonage . . . are at the mercy of the infrastructure provider to maintain the plant sufficiently; and, at least today, they can’t offer a quality of service (QoS) guarantee.”⁵²

In contrast, Covad’s management of last-mile broadband transmission facilities enables it to offer VoIP services that rival the legacy public switched telephone network in their reliability, quality of service, and public safety features, such as access to 911. Because Covad’s VoIP services are facilities-based, they offer more than simply a rough, “best efforts” imitation of

⁵⁰ See “Vonage Becomes First Broadband Telephony Provider To Activate 100,000 Lines,” Press Release, Vonage, Feb. 2, 2004 (available at http://www.vonage.com/corporate/press_index.php?PR=2004_02_02_0).

⁵¹ See “AT&T Ushers In New Era in Communication With Launch of AT&T CallVantage Service - New Jersey,” Press Release, AT&T, March 29, 2004 (available at <http://www.att.com/news/item/0,1847,12989,00.html>).

⁵² See “Straight Talk on VoIP,” David W. Barden, et al., Banc of America Securities Equity Research, April 15, 2004, at 4.

traditional telephone services. Instead, Covad's VoIP services offer a complete, high quality alternative to traditional telephony services – with all the additional features and enhancements that VoIP makes possible.

Another example of facilities-based innovation is Covad's line-powered voice capability (LPV) which we will trial in select markets next year. This new technology—made possible by the addition of next-generation Nokia DSLAMs in Covad's network—will provide residential customers with POTS-replacement services augmented by VoIP-enabled advanced services bundled with DSL. The technology takes the analog voice signal from a customer's basic telephone and converts it into digital form at the central office. The digital signal is then transported over Covad's nationwide broadband network and terminated at another VoIP customer or at a location on the PSTN. LPV is a true break-through for VoIP services: it is powered at the central office ensuring continued phone service during a power outage, it allows customers to use their existing phones and inside wiring with no special adapters, and—unlike traditional DSL—it is not distance sensitive.

Facilities-based VoIP services offering true substitutes for legacy POTS services are only the latest chapter in the long history of competitive innovation that Covad has brought to the broadband marketplace through facilities-based competition using unbundled loops and transport. Covad was the first company in the nation to commercially deploy DSL services in 1997, long before any of the Bell companies. Covad was also the first company in the nation to commercially deploy SDSL services in 1998, offering small businesses a lower-cost alternative to higher-priced T1 services and lower-speed ISDN services historically offered by the Bell companies to the small business market. In 2000, Covad became the first broadband provider to deploy G.Lite and G.DMT standards in its nationwide network, becoming the first to introduce

mass market customers to the latest technical specifications for DSL services on a nationwide network. And as already mentioned, in 2004 Covad became the first DSL provider to introduce a 3.0 Mbps ADSL service to the mass market, eliciting Bellsouth to follow suit.⁵³ Far from providing only “parasitic” competition, Covad has consistently shown that facilities-based competition using unbundled loop and transport facilities enables competitors to offer newer, better and less costly services to customers than those provided by the incumbent phone companies.

In sum, the Commission now has ample marketplace evidence establishing that unbundling in support of facilities based broadband competition will produce substantial, tangible competitive benefits. The initial TRO decision failed properly to account for the harms caused by a duopoly broadband market, which will result in higher prices, less output and in particular much less VoIP deployment. The UNE-P providers the Commission assumed would enable mass market competition are disappearing. The facilities-based VoIP competition that could truly take its place will only come to market and bring their great benefits to consumers if CLECs have access to unbundled elements that support true, facilities based, broadband competition.

* * *

The relatively stagnant competitive future that will ensue if the only meaningful sources of voice and data competition are cable and telephone companies is not simply theoretical conjecture. As the discussion of the experience in other countries, *infra*, conclusively demonstrates, countries that rely mainly on traditional incumbents to roll out new services lag substantially in broadband penetration, have higher prices, and inferior broadband products in

⁵³ *See infra* at 22-23.

terms of speed and innovative features. In contrast, in countries like Japan, where multiple competitors are permitted to leverage the legacy monopoly infrastructure via carefully crafted unbundling rules that are actually enforced, broadband speeds are substantially higher, prices are significantly lower, and cutting edge features are introduced much more rapidly. A recent Business Week review of international broadband deployment put it aptly:

...[C]urrent U.S. policies have the country moving backward. Look closely at the evidence: What helped the rollout of broadband in Korea and Japan were not massive government subsidies, as some believe, but policies that allowed vigorous competition. In particular, those countries forced the incumbent phone companies to let startups use their networks at reasonable, government-set prices. Those startups, especially Hanaro in Korea and Yahoo! BB in Japan, waged fierce battles against giant rivals, driving prices down and speeds up. "Competition is the No. 1 [reason] why one country grows faster than another," says Sam Paltridge, the OECD's telecom analyst.⁵⁴

IV. THE COMMISSION SHOULD REINSTATE ACCESS TO ILEC LEGACY LOOP ELEMENTS THAT SUPPORT FACILITIES BASED BROADBAND COMPETITION

In the broadband sections of the TRO, the Commission misapprehended the harm that unbundling would cause to the ILECs, as the court of appeals itself recognized.⁵⁵ The Commission's analysis conflated two fundamentally different things – completely new ILEC loop facilities which provide substantially enhanced broadband speeds, features and functions, such as fiber to the home, and legacy loop facilities already in the ground, which may or may not incorporate fiber in some portion of the link to an end user premises, and which are used by the ILECs currently to provide first generation broadband services, i.e. ADSL. Reasoning that both were in some sense related to "broadband," the Commission extended the same deregulatory treatment to both, using the same rationale – the need to create incentives to invest in the deployment of broadband - which the Commission found to be an overriding objective. This

⁵⁴ See "Behind In Broadband: New policies are needed to help the U.S. catch up," Businessweek, Sept. 6, 2004.

⁵⁵ See *USTA II*, 359 F.3d at 580-81.

reasoning has proven by hard experience to be flawed. The incentive effects of deregulating access to legacy copper and hybrid fiber loops, on the one hand, and new forms of loops, on the other, and the balance of potential innovation between competitors and incumbents, are fundamentally different. Once the Commission applies a properly rigorous analysis of investment incentives to both categories of “broadband” facilities, it is clear, even if new loops should continue to be deregulated, access to legacy loop elements, whether these loops are used for voice or “broadband,” should be maintained.

Denying competitors access to the HFPL and legacy hybrid loops does not encourage ILEC investment, but it certainly eliminates facilities based competition that would otherwise bring great consumer benefit, through both lower broadband prices, and different and more innovative broadband services. Most particularly, unbundling will bring enriched VoIP-based services to the consumer marketplace. Conversely, a refusal to reconsider these decisions will deter the deployment of VoIP, since the ILECs have every incentive to preserve their narrowband voice monopoly.

The Commission should use this proceeding not simply to reinstate *TRO* unbundling requirements that were vacated by *USTA II* in a manner consistent with the Court’s decision, but also to formulate a more nuanced competitive framework for unbundling determinations which rewards, and encourages investment in, true innovations and truly new services, while at the same time avoiding needless spillover effects on facilities-based competition using unbundled legacy facilities.

A. The Commission Should Reinstate Access to Line Sharing

The Commission’s decision to phase out line sharing is the most extreme example of the ways in which the Commission’s treatment of broadband loops threatens to undermine innovation and competition in broadband. Indeed, there is absolutely no credible argument that

competitor access to line sharing – which involves the use of legacy *copper* loop facilities – in any way disincentivizes the ILECs from further investment in advanced technologies and infrastructures. The Commission should promptly incorporate the pending petition for reconsideration into this proceeding and reinstitute line sharing.⁵⁶ At the very least, it should substantially extend the transition away from line sharing, which was based on marketplace predictions that subsequent events have proved wrong.⁵⁷

1. Competitors Are Impaired Without Access to Line-Shared Loops

The basic case for impairment in the absence of line-shared loops has always been unassailable. Because no carrier is capable of duplicating the nationwide loop plant, it follows that no carrier can duplicate the upper frequencies of the loop plant. What the Commission previously concluded therefore remains true on the record created here: “[t]here can be little dispute that requesting carriers have not duplicated the incumbent LEC’s ubiquitous loop plant, and generally are not providing service with competitive loop facilities.”⁵⁸ As the Commission explained “carriers seeking to deploy voice-compatible xDSL-based services cannot self-provision loops.”⁵⁹ The high frequency portion of the loop is subject to the same fixed costs and economies of scale as the loop as a whole. The Commission so concluded in the TRO itself, finding that “requesting carriers are generally impaired on a national basis without access to incumbent LEC’s local loops, whether they seek to provide narrowband or broadband services, or both.”⁶⁰

⁵⁶ See *Petition for Reconsideration of Earthlink*, CC Docket No. 01-338 (October 2, 2003).

⁵⁷ See *Emergency Joint Petition for Stay by the Choice Coalition*, CC Docket No. 01-338 (August 27, 2003) (“*Choice Coalition Stay*”).

⁵⁸ *Local Competition First Report and Order*. ¶ 43.

⁵⁹ *Line Sharing Order* ¶ 37.

⁶⁰ *TRO* ¶ 248.

Line sharing is currently the only fully implemented alternative for facilities-based competitors seeking to provide competitive broadband services. They could not lease the entire loop and use that to provide only DSL service, while the ILECs in the overwhelming majority of cases are able to make use of the same loop to provide voice service as well. The inefficiency in doing so is simply too great. Thus the Commission has held that “[i]t is not economical for competitive LECs to self-provision or purchase the entire loop as a second line just to obtain access to the high frequency portion of the loop.”⁶¹ Indeed, broadband competitors that entered the market prior to the line sharing requirement generally failed.

Instead, competition using the entire loop is possible, if at all, only if the competitor is able to provide both voice and data services over that loop. But while some customers today are willing to migrate away from an ILEC to obtain voice services, most are not. Their longstanding familiarity with the ILEC makes them reluctant to switch to a new voice carrier.⁶² Indeed, the ILECs 100 year history in the provision of voice services provides them with unparalleled first-mover advantages, manifested in their entrenched brand, scale economies, and embedded customer base. As the Commission recognized, these unparalleled first mover advantages constitute a significant barrier to entry.⁶³

Because consumers today are unable to purchase ILEC retail DSL services without also purchasing the retail voice service from the ILEC, the Commission’s linesharing rules provide consumers the only means of subscribing to different residential voice and data services over a single line. Notably, since the Commission rescinded its linesharing rules, ILECs have been able to tie purchase of ILEC DSL to purchase of ILEC voice service unchecked by competitive entry, thus ensuring that the ILECs can leverage their near-stranglehold over the voice market into

⁶¹ *Line Sharing Order* par 14 FCC Rcd 20912, 20933 (1999).

⁶² *Cf. Line Sharing Order* ¶ 48.

⁶³ *TRO* par 89.

control of the DSL sector. Allowing competitive access to the HFPL, on the other hand, enables competitors to offer DSL to consumers who may want to keep the ILEC voice service, but choose another company for DSL. More customers are willing to try new competitors for DSL service than for voice service because broadband services are relatively new.

In the *TRO* the Commission did not dispute any of this, but nevertheless eliminated line-sharing for five reasons. All five have proven invalid.

First, the Commission anticipated that data CLECs such as Covad could easily team up with UNE-P providers and jointly offer consumers a bundle of voice and data services.⁶⁴ Line splitting was to make line sharing unnecessary. This was little more than a hypothesis about what might be viable competitive business models. Since the Commission made this conjecture, the actual marketplace realities have diverged sharply from it. Even at the time the Commission made this finding, it had little support in the record. Since voice CLECs never controlled more than about 5% of the market, line splitting would have left 95% of the market unaddressed.⁶⁵ In any case, even with UNE-P in place, it bore no relationship to the facts on the ground. The Commission has before it substantial evidence that the ILECs never have made available workable OSS for line splitting, and to the contrary had made line splitting as a practical matter unavailable.⁶⁶

Since the publication of the *TRO*, the availability of line splitting as an alternative to line sharing has been largely undermined, as the dynamics of the telecommunications market have largely shifted away from this premise. Today Covad's UNE-P partner AT&T has abandoned UNE-P and the narrowband consumer market. The other major UNE-P providers appear to be

⁶⁴ *TRO* par 259.

⁶⁵ See *Choice Coalition Emergency Petition for Stay* at 20 & n.41.

⁶⁶ *Id.* at pp. 31-35 and Attachments A-F.

on the verge of doing likewise.⁶⁷ Moreover, the D.C. Circuit reversed and vacated the Commission's UNE-P regulations that were the regulatory predicate for the FCC's elimination of line-sharing. And the extent to which future regulation will preserve UNE-P is very much in doubt. It is no longer the case that line splitting makes line sharing unnecessary.

Second, the FCC predicted that in the absence of line sharing CLECs would offer both voice and data over UNE-L arrangements that involved use of their own Class 5 switches. That prediction too has failed to come to pass. Intractable hot cut problems have not been resolved, and even if they were, no one believes any longer that narrowband UNE-L competition is a viable strategy for entering the consumer market. The prospect of narrowband UNE-L competition does not eliminate the need for line sharing any more than does the prospect of UNE-P competition. At the very least, given what has actually transpired, the transition period set out in the *TRO* would have to be substantially revised. Line-sharing is being phased out today, and today there is absolutely nothing to replace it with. That is not what the Commission contemplated in the *TRO*.

Third, the Commission predicted that CLECs would be able to compete by providing video services⁶⁸ over the copper loop. That too has not come to pass. As the Commission's most recent *Video Programming Competition Report* concluded, video over ADSL "remain[s] in the trial stage."⁶⁹ What little video that has been offered by telecommunications carriers has

⁶⁷ See *supra* at 8.

⁶⁸ *TRO* par 258.

⁶⁹ *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Ninth Annual Report, 17 FCC Rcd. 26901, par 98 (2003).

been offered over hybrid copper fiber loops (which the Commission declined to unbundle) with extremely short copper lengths.⁷⁰

Fourth, the Commission assumed that ILECs and CLECs would enter into commercial contracts to replace the line sharing regulatory framework with contractual arrangements. Subsequent events have undermined that premise as well. Despite Covad's best efforts and willingness to pay fair rates for line sharing, only Qwest has agreed to commercial terms, after more than a year of negotiations. Covad's contractual arrangement with Qwest provides for a \$5 monthly recurring rate at expected volumes, and \$35 nonrecurring charge for order provisioning. This contract, at minimum, could be used to define a ceiling for fair, market-based rates for line sharing. Yet all of the other BOCs have declined to date to enter into agreements on similar terms. At best, two of the other Bell companies have entered into agreements with Covad maintaining its short-term access to line sharing while their negotiations over long-term agreements continue.⁷¹ But none of the Bells, apart from Qwest, has yet reached agreement with Covad on the long-term rates, terms and conditions for access to line sharing.

Finally, in the *TRO* the Commission expressed concern about cost-allocation problems created by line sharing.⁷² In the absence of federal rules, many states had allocated costs based on the manner in which the ILECs themselves allocated costs between the high-frequency and low-frequency portion of their loops. Since the ILECs had chosen to place all of the cost on the

⁷⁰ See "Video Offering May be Key to Success of Rural Broadband," *Telecommunications Daily*, at 4 (Sept. 29, 2003).

⁷¹ See "Covad and Verizon Agree to Interim Arrangement Extending the Availability of Line Sharing Until February 1, 2005," Press Release, Sept. 21, 2004 (available at http://www.covad.com/companyinfo/pressroom/pr_2004/092104_news.shtml); "Covad and SBC Line Sharing Agreement," Press Release, Sept. 9, 2004 (available at http://www.covad.com/companyinfo/pressroom/pr_2004/090904_news.shtml).

⁷² *TRO* par 260.

regulated, low-frequency portion, the result was that these states set the cost of the high-frequency portion of the loop at zero. The ILECs have suggested that this is unfair.

Cost-allocation is not a reason to eliminate line sharing. If the FCC believes that the states' methods of allocating costs are inappropriate, it of course is free to provide federal allocation guidelines. In formulating a federal proposal, the FCC also has the advantage of the availability of a commercially-negotiated rate: the rate that Qwest and Covad recently negotiated. Thus, among the many cost-allocation methods the Commission could adopt, it could easily adopt a safe-harbor rule based on available commercial agreements, finding that a state commission's loop cost allocation is per se reasonable so long as it is no greater than the ratio established by the Qwest agreement. As the attached joint declaration explains, the Qwest agreement provides evidence that an efficient, market-based rate for the recurring loop costs of line sharing amount to 11% of the recurring loop costs for standalone loops.⁷³

In sum, *none* of the predictive judgments upon which the Commission relied for eliminating line sharing in the *TRO* have proven out. The Commission plainly should revisit the issue, and reinstitute unbundled access to the line sharing network element.

Not only are competitors evidently impaired in the absence of line sharing, but that impairment results in real and consequential consumer harm. The public is far better off with linesharing than without it.

2. Line Sharing Promotes Broadband Deployment.

Line sharing was largely responsible for creating consumer broadband services. Before line sharing, the ILECs were far too concerned about cannibalizing their own highly profitable T-1, ISDN and second line businesses to offer consumer DSL-based services. Years after cable

⁷³ See *DeRodeff Decl.* at 17-21.

modem service created an imperfect duopoly market for some end users (almost exclusively consumers, as discussed supra), the ILECs had managed to deploy only about 100,000 DSL lines, which were generally priced at \$69.95.⁷⁴ Only when data CLECs began to offer these services did the ILECs respond with a serious product at a serious price. And while the ILECs were content to allow cable modem services to dominate the market, their behavior changed sharply starting in the second half of 2002 – the precise time Covad launched its competitive DSL product made possible by the Commission’s *Line Sharing Order*.⁷⁵ That is why the Commission’s Chief Economist has concluded that line sharing was one of the few unambiguous successes of the 1996 Act. It brought “dramatic price reductions and dramatic jumps in DSL deployment.”⁷⁶ Indeed, “for every DSL line shared, the ILECs deployed four DSL lines of their own.”⁷⁷ From the advent of line sharing it has played a key role in spurring ILEC DSL deployment, which has since grown well in excess of several thousand percent.⁷⁸

The experiences of countries like Japan and South Korea, where line sharing has continued to be available, also are instructive. Both nations enjoy significant leads over the U.S. in broadband penetration, and both nations have experienced explosive growth in broadband deployment after adopting and enforcing unbundling regimes which included line sharing. Japan’s market-opening measure included being one of the first countries to introduce line sharing, reducing line sharing charges to the lowest rates in the world, reducing collocation costs,

⁷⁴ *Choice Coalition Emergency Motion for Stay*, at 24 & n.50.

⁷⁵ *Id.* at 25 & nn.53-56.

⁷⁶ *Communications Daily*, Oct. 20, 2003, at 10 (quoting FCC Chief Economist Simon Wilkie).

⁷⁷ *Id.*

⁷⁸ WC Docket No. 01-338, Ex Parte Letter of Praveen Goyal, Covad Communications, to Commissioners Adelstein and Copps, Feb. 12, 2003, at 1 & nn.1, 2. *See also Siwek Decl.* ¶¶ 30-37; 88 (California experience); 123 (price reductions).

shortening provisioning intervals, and unbundling backhaul facilities.⁷⁹ As a result of such actions, at the end of 2003, Japan led the U.S. in broadband penetration, and a competitor named Softbank - not the incumbent - was the top DSL carrier in Japan.⁸⁰ As noted by one researcher:

A number of factors have caused this extremely rapid growth. Government, industry and users, particularly vocal users and advocates, have been unified in supporting the need for affordable and widespread broadband services. *Appropriate regulation was introduced ensuring low tariffs for elements of the incumbents' network essential to the operation of competitive broadband service providers. At the same time the incumbent was strongly discouraged from interfering with competitors businesses.* Entrepreneurial behavior was enabled and present, and competition was encouraged at different levels in the broadband market, wholesale and retail, resulting in strong price competition and innovation in services.⁸¹

An independent report from the Organization for Economic Cooperation and Development concluded that “the overall effect [of Japan’s aggressive broadband unbundling regime] has been to make Japan among the fastest growing markets for high-speed Internet access. New entrants were providing over 60 per cent of the broadband lines in Japan by end-2002.”⁸² Indeed, the robust competition from unbundling in Japan resulted in Japanese consumers *years ago* obtaining broadband speeds well beyond those available to consumers in the U.S. even today:

Giving new operators access to essential elements of the incumbent’s network has resulted in competition at different levels of the retail and wholesale market, and very low broadband prices for Japanese consumers. Wholesalers eAccess and ACCA Networks own and manage their networks and can add new technology and services without going to the incumbent for permission. This has helped innovation in services. For example, *ACCA introduced an 8Mbps DSL product to the Japanese market in September 2001, closely followed by eAccess in December. 12Mbps products were*

⁷⁹ *On a roll: Japan’s success with DSL*, Ovum Research, DSL: Business Models for Exploiting the Local Loop, July 2002.

⁸⁰ *How the “Japanese Miracle” of Broadband Came About*, Glacom Platform, Japanese Institute of Global Communication, Colloquim #43, December 24, 2003.

⁸¹ See “Residential Broadband in the United Kingdom: Observations from South Korea and Japan,” Adam J. Peake, *Glacom Review* 8:3 (75-1), at 11 (available at http://www.glacom.ac.jp/odp/library/75_01.pdf) (emphasis added).

⁸² Lenain, P. and Paltridge, S., *After the Telecommunications Bubble*, Organization for Economic Cooperation and Development, 25 June 2003, ECO/EKP (2003)15, at 16, available at <http://www.oecd.org/eco>.

*launched in June 2002 by ACCA, eAccess and Yahoo!BB. NTT introduced its own 8Mbps and 12Mbps products some months later.*⁸³

South Korea's market-opening measures included the formation of a new company (Hanaro) to compete with incumbent Korea Telecom,⁸⁴ and opening Korea Telecom's network through requirements for local loop unbundling, including sharing of the local loop.⁸⁵ The result has been thriving competition in the broadband market, with three main suppliers,⁸⁶ and rock-bottom prices (as low as \$25 a month⁸⁷) for consumers. As a result, "[a]t the end of June 2003, South Korea ranked third in the world by the total number of DSL lines and first in the world in terms of DSL penetration, with 14.27 DSL lines per 100 population."⁸⁸

The European experience is also a telling demonstration of the benefits that unbundling, including line sharing, has had in spurring broadband deployment. In the U.K, the government voted to protect British Telecom from unbundling obligations until 2000.⁸⁹ As a result, there was no wire line competition and broadband penetration rates in the U.K. became among the worst in Western Europe. In fact, as of last year, the U.K had worse penetration rates than every

⁸³ See Peake, *supra* n. 81, at 10 (emphasis added).

⁸⁴ *Seoul's Strong Hand Sets Pace on Web*, International Herald Tribune Online, November 26, 2001.

⁸⁵ See "Developments in Local Loop Unbundling," Organisation for Economic Cooperation and Development, Working Party on Telecommunications and Information Services Policies, Sept. 10, 2003, at 49 (available at <http://www.oecd.org/dataoecd/25/24/6869228.pdf>).

⁸⁶ *Korea Broadband*, PDS Consulting Short Paper, Version 12 June 2003.

⁸⁷ *Seoul's Strong Hand Sets Pace on Web*, International Herald Tribune Online, November 26, 2001.

⁸⁸ *South Korea*, Korea Broadband Overview, Point Topic, October 20, 2003. See also, Ismail, S, Wu, I, *Broadband Internet Access in OECD Countries: A Comparative Analysis*, Staff Report of the FCC Office of Strategic Planning and Policy Analysis and International Bureau (October 2003) (summarizing growth of broadband in OECD countries).

⁸⁹ See "Developments in Local Loop Unbundling," Organisation for Economic Cooperation and Development, Working Party on Telecommunications and Information Services Policies, Sept. 10, 2003, at 53 (available at <http://www.oecd.org/dataoecd/25/24/6869228.pdf>).

Western European country except Italy and Luxembourg.⁹⁰ The experience in other European countries is also consistent with positive effects the local loop unbundling has on DSL deployment rates:

The higher expected growth is a consequence of aggressive price competition from competitors using local loop unbundling (ULL) in France and vibrant cable competition in the UK (soon to be complemented by greater ULL competition). In Germany, however, we believe high ISDN penetration, minimal cable competition, the lack of a wholesale DSL until this year and more complex unbundling logistics explain the slower rate of adoption.⁹¹

The experiences of these countries show that maintaining competitive access to local loop and transport facilities spurs the deployment and adoption of innovative new services like broadband. Similarly, preserving competition among multiple facilities-based providers of VoIP will dramatically speed the pace at which VoIP services are developed, deployed and adopted here in the United States.

3. Line Sharing Provides A Transition to Facilities-Based Residential Voice Competition.

In addition to the fact that line sharing has and will continue to spur ILEC broadband deployment, there is a second reason why line sharing today will greatly benefit the public. Today, line sharing is the most practical and reliable method of providing a transition from narrowband voice telephone to VoIP-based broadband telephony. And now that other forms of competitive residential voice service are apparently being phased out, competitive VoIP services may be the only hope for residential and small business competition. Line sharing can provide critical support for new sources of competition.

⁹⁰ See "Broadband access in OECD countries per 100 inhabitants, June 2003," Organisation for Economic Cooperation and Development, Nov. 18, 2003 (available at http://www.oecd.org/document/33/0,2340,en_2649_34225_19503969_1_1_1_1,00.html).

⁹¹ See UBS Warburg, "GLOBAL RAP: The relative growth rates of DSL in Europe," Sept. 30, 2004.

VoIP is new technology, and experience in many contexts shows that many consumers will not be comfortable abruptly abandoning their traditional POTS services. Presently, VoIP is being embraced by early adopters: the small percentage of consumers who are eager to try out new technology. For VoIP to reach mass markets, a transition is required. Line sharing provides that transition. Through line sharing consumers can retain their traditional baseband POTS service while they try out VoIP service in the high frequency portion of the loop as a second line service, to access desirable new call management and other features, and to get cheaper long distance service. When they become comfortable with VoIP services, they can then convert exclusively to broadband-based service.

As discussed below, line sharing also is not dependent upon hot cuts, and so largely overcomes the intractable problems that now exist as a result of the ILECs' failure to implement a practical hot cut process. Adopting VoIP as a second line requires no hot cut. And when the customer becomes comfortable with the VoIP service, she can port her narrowband number to her VoIP service (if she chooses), and simply discontinue narrowband service once the number has ported. As explained in the discussion below, in such a transition, the "hot-cut" process can be less costly and more efficient, dispensing with the need for any customer downtime.⁹²

Notably, a number of Covad's wholesale line-sharing partners are now also rolling out mass market VoIP services. AT&T, a long-time Covad line sharing partner, this year introduced its "CallVantage" VoIP service for the consumer market.⁹³ Earthlink, also a major Covad line sharing partner, introduced its own consumer VoIP service "Unlimited Voice" in 2003, offering "the first comprehensive Voice-over-IP (VoIP) solution from a nationwide Internet service

⁹² See Section IV.C., *infra*.

⁹³ See "AT&T Ushers In New Era in Communication With Launch of AT&T CallVantage Service - New Jersey," Press Release, Mar. 29, 2004 (available at <http://www.att.com/news/item/0,1847,12989,00.html>).

provider (ISP).”⁹⁴ Earthlink’s offering is specifically marketed to Earthlink’s DSL customers and bundled with its DSL Internet access services.⁹⁵ In September of this year, Covad partner Speakeasy introduced its VoIP service “Speakeasy Voice,” bundling VoIP services with the full range of Speakeasy’s consumer DSL broadband products, including line shared DSL services obtained from Covad.⁹⁶ That Covad’s partners are already bundling these present-day VoIP services with Covad’s line shared DSL services shows the viability of line shared DSL services as an “on-ramp” to further forms of VoIP deployment offering the reliability and robustness of legacy POTS services. Furthermore, by converting customers to standalone VoIP services over Covad’s facilities-based broadband network, these offerings open the door to further “upselling” these same customers to VoIP services integrated with Covad’s facilities-based broadband network, offering quality of service guarantees, line-powering, and other features rivaling traditional POTS services. These facilities-based VoIP services, in turn, surpass the relatively inferior quality-of-service, reliability, powering and public safety capabilities of standalone application-layer VoIP services offered over third-party broadband networks.⁹⁷

In the wake of the UNE-P fallout resulting from the D.C. Circuit’s decision in *USTA II*, it is not clear what other pathway exists to robust residential voice competition apart from VoIP services offered over competitive facilities-based broadband networks. Facilities-based competitive broadband providers are the only competitors well-positioned to offer efficient, innovative and reliable alternatives to the ILEC legacy voice network. As one such competitor, Covad offers nationwide reach and uniform OSS capabilities. Furthermore, Covad’s strong

⁹⁴ See “Earthlink Introduces Earthlink Unlimited Voice Broadband Telephone Service,” Press Release, Mar. 13, 2003 (available at http://www.earthlink.net/about/press/pr_unlimitedvoice/).

⁹⁵ See *id.*

⁹⁶ See “Speakeasy Launches VoIP Solution For Broadband Consumers,” Press Release, Sept. 21, 2004 (available at <http://www.speakeasy.net/press/pr/pr092104.php>).

⁹⁷ See Section II.B., *supra*.

chain of existing wholesale partnerships with ISPs and with many UNE-P providers creates a strong foundation for the transition to facilities-based residential voice services using VoIP.

Indeed, one of Covad's UNE-P partners recently emphasized this link:

"Covad is an integral piece of our strategy to realize the true voice and data convergence that our emerging VoIP service offering will bring to current and future Lightyear customers," says Bruce Widener, senior vice president of corporate development for Lightyear Network Solutions. "Covad's last-mile broadband footprint and breadth of services are unparalleled in the industry and will ensure competitive access for Lightyear residential and commercial customers."⁹⁸

As discussed above, however, the prospects of competition receding in the UNE-P marketplace render line-splitting no longer viable as a bridge to this facilities-based VoIP future.⁹⁹ And without line sharing, the transition to facilities-based competitive residential VoIP services will become far more uncertain if it occurs at all, and will occur at a much slower pace. An effective hot cut process still needs to be created.¹⁰⁰ Customers who initially wished to retain their ILEC narrowband voice service would not likely have a choice of competitive carriers for broadband services, since without line sharing it would not be possible for competitors to survive in the mass markets as stand-alone data carriers. Moreover, as we indicated above, the ILECs would have severely conflicting incentives in migrating their narrowband voice customers onto a broadband VoIP network. (In fact, the ILECs have every incentive to use VoIP simply as a means of holding onto their embedded analog voice customer base. For example, Verizon offers its VoiceWing VoIP service bundled with DSL only to customers who also retain their analog

⁹⁸ See "Lightyear Network Solutions Selects Covad For Its Bundled Voice and Data Service," Press Release, July 27, 2004 (available at http://www.covad.com/companyinfo/pressroom/pr_2004/072704_news.shtml).

⁹⁹ See *supra* 43-44.

¹⁰⁰ See Section IV.C., *infra*.

voice service.)¹⁰¹ So VoIP deployment would depend on regulators' ability to require the ILECs to develop and implement hot cut processes that (once implemented) would greatly devalue their networks. That will be no easy task. And VoIP deployment would proceed, if at all, in spite of the ILECs, and not because of them.

Moreover, without line sharing, it is unclear exactly who will remain in business in the competitive consumer space in order to offer any facilities-based VoIP products to consumers. For its own part, Covad has always focused its retail efforts in the business market, and offered service in the consumer market primarily through wholesalers – namely, UNE-P providers (using line-splitting) and independent ISPs (using line sharing). As already discussed, the major IXC's and UNE-P providers are withdrawing from the consumer space. And without line sharing, independent ISPs will no longer remain viable competitors in the broadband space. Thus, without line sharing, there will simply be no one left around to enter the residential voice market with a facilities-based VoIP product to compete with the Bell companies' legacy POTS services.

In sum, line sharing, could well do for VoIP what it did for consumer DSL services – give it the competitive jump start it needs to succeed. It can become an essential transitional mechanism towards competitive facilities-based broadband voice services, and the existence of such services is critical to the continued development and deployment of broadband. None of this was clear at the time the Commission decided to eliminate line sharing. For this reason as well, that is a decision that should be reconsidered.

4. The USTA Decisions Do Not Prevent the Reinstitution of Line Sharing

¹⁰¹ See USB Warburg, "Daily Rap: New Competitive Offer," John Hodulik, Sept. 24, 2004 ("...the subscribers will need to retain the underlying line (could be slimmed down as low as \$8/month) and continue to pay SLC of \$6.50/month.").

Nothing in the *USTA* decisions prevents the Commission from reinstating line sharing. The *USTA I* court initially reversed and remanded the Commission's line sharing decision because the Commission had failed to consider intermodal alternatives.¹⁰² But as we have just demonstrated, there is at most one intermodal alternative – cable modem service that is available to some, but not all, of the residential consumers who could purchase competitive DSL-based services, and virtually none of the small business market. And cable modem service is available to few enterprise customers. Even a ubiquitous duopoly leaves each provider with substantial market power and disserves the public interest. That is the uniformly held view of every relevant expert, and it is certainly within the Commission's power under the *USTA I* remand to conclude that the existence of one imperfect intermodal competitor does not warrant the elimination of line-sharing.

Notably, in the *TRO* the Commission in fact failed to engage in inquiry required by the *USTA I* court – it did not review intermodal alternatives to conclude whether or not they rendered line sharing unnecessary. It remains free to engage in that inquiry now.

Instead, in the *TRO*, the Commission relied on the various predictive judgments described above, concerning UNE-P competition, line splitting, and the likelihood that voluntary commercial agreements would make regulation unnecessary. The *USTA II* court found these predictive judgments reasonable, deferring to the FCC's analysis of the evidence before it without engaging in any substantive review of the FCC's decision-making on line sharing.¹⁰³ As discussed above, the FCC's judgments in eliminating line sharing have not proved out, and new evidence to the contrary has been offered to the Commission. Obviously, then, the *USTA II*

¹⁰² *USTA I*, 290 F.3d at 428-30.

¹⁰³ *See USTA II*, 359 F.3d at 584-85.

decision that does not prevent the FCC from changing course when it concludes that its previous judgments have not proved out and there is new, contrary evidence before it.

For all of these reasons, the Commission promptly should incorporate Earthlink's Petition for Reconsideration into this proceeding, and reconsider its decision to eliminate line sharing. Once it does so, it will surely conclude that the reintroduction of line sharing fully complies with the Act, the *USTA* decisions, and the Commission's policy initiatives favoring facilities-based competition.

B. The Commission Should Reinstate Access to Legacy Hybrid Fiber Loops, including Any Associated Packet Switching Functions

The Commission must revisit and substantially refine the TRO's fundamental determination to deny competitors access to the "broadband" capabilities of the legacy ILEC loop and transmission plant. In fact, the Commission's decision simply allows the ILECs to exercise monopoly power over an entire class of existing customers who have the historical misfortune to reside at the end of a loop that happens to have fiber in it somewhere. The decision in the *TRO* to bifurcate the broadband and narrowband markets, and to deregulate the former and regulate the latter was fundamentally unsound, for it did not (and as a practical matter could not) take into account how competition is in fact evolving now (and how it could truly blossom). In fact, it is now clear that facilities-based competition will come from carriers using legacy loop and transport facilities to provide broadband services in conjunction with VOIP. This can and should be achieved by requiring the ILECs to allow facilities-based competitors to use legacy ILEC loops to provide broadband services and facilities-based VOIP (by reinstating line sharing and allowing line shared and UNE-L access to *legacy* hybrid facilities) and by ensuring that facilities-based competitors can seamlessly provision UNE-L VOIP and broadband services where a customer elects to forgo ILEC voice service altogether. This potential can only

be realized if the Commission adopts a minimally intrusive, carefully targeted unbundling regime to support these forms of facilities based competition.

As the court of appeals itself recognized,¹⁰⁴ the *TRO* misapprehended the harm that unbundling of legacy hybrid loops would cause to the ILECs. In the Commission's view, allowing the ILECs to escape unbundling legacy fiber loop facilities would incent them to deploy more broadband equipment, but it is clear that the Commission's order was an overbroad articulation of the principle on which it rests: namely, to relieve the ILECs of unbundling truly innovative, new technologies as opposed to the legacy hybrid loop facilities that the ILECs had been deploying for decades.

Just because a loop has fiber in it does not mean it is an innovation. An analogy is useful here. Over the last twenty years there has been a shift in the way your morning paper is delivered: your paper used to be thrown onto your driveway by a boy on a bike, but now it is likely that it is thrown onto your driveway by an adult in a car. From your perspective as a consumer, though, nothing much has changed: you get up in the morning and your paper is waiting for you. Hybrid copper-fiber loops are like this: the transport mechanism in the middle of the loop has changed, but you are still just getting POTS service.

So if innovation aimed at increasing market share did not drive the elimination of paper boys on bikes, what did? This answer to this question is, of course, obvious: economic efficiency. Not surprisingly, the record in the *TRO* itself establishes that the same is true for hybrid copper-fiber loops: the ILECs deployed the fiber because it was a more efficient way to provide POTS services, not because consumers got any real benefit from this "innovation." And hybrid loops are, in fact, a legacy facility, anyway. The ILECs have already largely completed

¹⁰⁴ See *USTA II*, 359 F.3d at 580-81.

the deployment of these loops,¹⁰⁵ and the vast majority of existing fiber-fed loop deployments were already in place prior to the Commission's decision to make their monopolization a matter of federal regulatory policy in the *TRO*.

It goes without saying that regulation cannot incent a deployment that has already occurred, so there is simply no basis for a holding that denying access to these facilities spurred innovation. The Commission hypothesized to suggest that its rules might incent the ILECs to deploy more broadband electronic equipment in the remote terminals they have already deployed. But that deployment too is already largely complete. Indeed, SBC continues to provide access to its hybrid plant pursuant to state commission decisions requiring it to provide such access.¹⁰⁶ Yet there is no evidence to suggest that such access adversely affected SBC's deployment of DSL services over these facilities as a result. Moreover, the record in the *TRO* established that, contrary to hyperbolic Bell claims to the contrary, in states where the ILEC had been required to unbundle the broadband capabilities of its hybrid fiber-copper loop facilities, the ILEC continued to make investments in rolling out fiber-fed remote terminal facilities.¹⁰⁷ In fact,

¹⁰⁵ Indeed, as detailed in Covad's submissions in this docket, SBC publicly stated that its Project Pronto deployments would yield annual cost savings of \$1.5 billion by 2004. *See SBC Announces Sweeping Broadband Initiative*, SBC Investor Briefing, at 2 (October 18, 1999). *See also* Letter from Praveen Goyal, Covad Communications, to Marlene Dortch, Federal Communications Commission, in WC 01-338 (dated Feb. 6, 2003).

¹⁰⁶ *See Illinois Bell Telephone Company, Proposed Implementation of High Frequency Portion of Loop (HFPL) Line Sharing Service*, Docket No. 00-0393, Order (dated March 14, 2001). The Illinois Commerce Commission has reaffirmed its decision to unbundle a broadband UNE numerous times since its original decision. Its latest decision was issued on March 29, 2002. *See Illinois Bell Telephone Company, Proposed Implementation of High Frequency Portion of Loop (HFPL) Line Sharing Service*, Docket No. 00-0393, Order on Second Rehearing (dated March 29, 2002). *See Investigation Into Ameritech Wisconsin's Unbundled Network Elements*, No. 6720-TI-161, Final Decision (dated March 22, 2002).

¹⁰⁷ *See* Letter from Praveen Goyal, Covad Communications, to Marlene Dortch, Federal Communications Commission, in WC 01-338 (dated Dec. 18, 2002)

a study published after the *TRO* adds to the evidence that competition brought increased, not decreased ILEC broadband deployment, finding that

wholesale network access requirements (like unbundling) do not dampen broadband availability or investment incentives more generally. To the contrary, the analysis . . . strongly shows that states that have established relatively lower rates for unbundled loop access have enjoyed *more* consumer choice and have seen *more* deployment of broadband technology within their borders.¹⁰⁸

Denying competitors access to legacy hybrid loops does not encourage ILEC investment, and this statement also includes the loop capabilities that the Commission has referred to under the general label of “packet switching.” This is an inherently slippery term as it often encompasses many functionalities that are not actually switching in any conventional sense of that word. An ILEC Class 5 “switch” is able to direct a circuit-switched analog call to any other switch in the network. This is not the case with the so-called packet switches on a hybrid loop. Instead, the ATM “switch” on a hybrid loop acts much more like a router: it is capable of sending ATM cells from a remote terminal to only a single place: another ATM switch in a central office. This is hardly revolutionary. In the central office, this second ATM switch also serves as a router, sending all the traffic from a given remote terminal to a true switch, one that can direct the traffic to a wide variety of places.

Unbundling the capability of sending ATM cells from an RT to a CO is doing nothing more than unbundling a true legacy facility, and the Commission should order this in these remand proceedings. Covad does not need nor does it seek access to true ILEC packet switches. Instead, Covad merely seeks appropriate unbundling of all legacy loops and the ability to access the output of those loops at its 2000 collocation spaces. A failure by the Commission to unbundle all legacy loops and the capability to access them in the ILEC central offices will serve

¹⁰⁸ Ford, G, Spiwak, L, *The Positive Effects of Unbundling on Broadband Investment*, Phoenix Center Policy Paper Number 19 (Sept. 2004), at 12.

to eliminate competition that would otherwise bring great consumer benefit, through both lower broadband prices and innovative broadband services. Most particularly, unbundling will bring enriched VoIP-based services to the consumer marketplace. Conversely, a refusal to reconsider these decisions will deter the deployment of VoIP, since the ILECs have every incentive to preserve their narrowband voice monopoly.

The Commission should use this proceeding not simply to reinstate *TRO* unbundling requirements that were vacated by *USTA II* in a manner consistent with the Court's decision, but also to formulate a more nuanced competitive framework for unbundling determinations which both rewards and encourages investment in true innovations and truly new services, while at the same time avoiding needless spillover effects on facilities-based competition using unbundled legacy facilities. Denial of access to *legacy* hybrid loops is a clear case of such spillover, and should be removed.

C. The Commission Must Also Set Forth Clear Standards Ensuring that Unbundled Elements Supporting Facilities Based Broadband and Voice Competition are Efficiently Provisioned

One of the primary barriers to a robust competitive environment for VoIP competition over UNE-L remains the lack of a viable migration path from circuit-switched voice—whether provided by the incumbent LEC or by a CLEC via UNE-P—to a VoIP application delivered over a DSL circuit (“VoIP” or “VoIP service”).¹⁰⁹ We call such a migration a “VoIP hot-cut” because the term captures the need for a customer experience at least as good as that needed in the past to support fair competition via UNE-P or circuit-switched UNE-L, competition that could not exist until the ILECs were forced to create fair, efficient and effective hot-cut processes. From an

¹⁰⁹ VoIP is an application delivered via a digital technology such as that provided by DSL service or cable modem service. For purposes of these comments, the term “VoIP” or “VoIP service” necessarily includes the existence of an active DSL service provided over a copper connection between an End User's premises and the collocation space of a facilities-based CLEC where the DSL signal is created by a DSLAM.

operational and technological perspective, there are no technical barriers to such a VoIP hot-cut, but current RBOC policies and procedures needlessly complicate and frustrate the simple task of migrating a circuit-switched voice customer to a VoIP service running over a DSL circuit.

In order to fully understand the high wall that the RBOCs have constructed to forestall the next wave of voice competition, it is first necessary to compare a typical UNE-P hot-cut or a hot-cut to circuit-switched UNE-L service to the migration path that is currently available from circuit-switched voice to VoIP services. As the Commission is keenly aware, it took years of work to define and then enforce an acceptable customer experience for the RBOC voice-to-UNE-P migration, and that path today is genuinely customer-friendly.

The path available for a migration from RBOC voice (or UNE-P for that matter) to VoIP services simply does not exist today in any of the RBOC regions. Although it is possible to force the transition through the use of multiple orders, truck-rolls and customer down-time during which no voice service or E911 services are available at all, the process is utterly inadequate to support true facilities-based competition. Furthermore, the customer experience during such a transition would be ghastly. The specifics of the nightmare faced by any customer who wants to upgrade from circuit-switched voice to the increased functionalities and lower prices of VoIP service vary from region to region, but they remain frightening wherever you are.

For purposes of these comments, we assume that a customer is seeking to migrate his or her POTS telephone service (with or without DSL) to a facilities-based VoIP provider (“DLEC”).¹¹⁰ In the BellSouth region, a potential VoIP provider would have to describe the following scenario to a customer who sought service:

- The customer places an order with the DLEC.

¹¹⁰ The migration scenarios described here would be identical for a current UNE-P or Line Splitting customer.

- The DLEC prequalifies the loop for DSL service using the same prequalification system that it would use to qualify a Line Sharing order.
- If the loop qualifies, the DLEC informs the customer that he will have to disconnect his RBOC voice service before the order for an xDSL-capable loop can be placed with the RBOC. After the ILEC voice service is disconnected and before the xDSL loop is provisioned, the customer will learn that he will be entirely without telephone service for a period of time.
- Should the customer decide to go forward with his order, the DLEC will ship the customer DSL and VoIP equipment.
- The DLEC must now wait to place an order for the prequalified loop until the customer disconnection of his existing RBOC service is complete. If a CLEC order is placed before the actual customer disconnect, the ILEC will reject the Local Service Request (LSR) used to order the prequalified loop.
- A customer disconnect order may take from 3-7 business days to process for complete disconnection of the physical service and billing account. During this wait, establishing or even ordering new service on the same facilities is not possible given current ILEC provisioning guidelines.
- After the disconnect order is processed, the customer will be without any kind of telephone service and without E911 services.
- The DLEC will need to secure the due date information from the customer for disconnect. The DLEC then must manually check to determine when the facilities

currently being used for the RBOC voice service are available for reuse.¹¹¹ This requires a manual check for available reuse of facilities on a daily basis, costing the CLEC both time and personnel resources.

- When the facility finally becomes available, the DLEC will submit an LSR for the available facility as well as must submit a separate LSR request to have the customer's number ported to the DLEC.
- After approximately 3 business days, the xDSL-capable loop will be provisioned and tested. The customer must then install his DSL modem and VoIP equipment. Because the customer's original customer number will not have been ported yet as the due date interval for porting is different than for loops, the customer will get a temporary telephone number while the port is pending.
- Approximately 14 days later, the RBOC will port the original customer number to the DLEC, and the temporary number will be displaced.

This, then, would be the experience of a BellSouth customer who wanted to switch to VoIP services, and the customer experience in the SBC and Qwest regions would be quite similar. Astonishingly, the situation is even worse in the Verizon footprint because Verizon does not permit the reuse of disconnected facilities at all.¹¹² Fixing this customer experience would be remarkably simple and make use of already-existing ILEC processes with little or no modification.

¹¹¹ Reuse of the facilities in service allows for a more efficient provisioning process, by avoiding needless disconnection and reconnection of loop facilities to the same end user premises. This in turn allows the service to be provisioned without an expensive and unnecessary technician dispatch.

¹¹² *See supra* n. 111.

The key to creating a positive customer experience for a VoIP hot-cut lies in understanding the difference between a traditional hot-cut migrating POTS service from one provider to another and a VoIP hot-cut. A “hot-cut” from ILEC voice to UNE-P is, of course, little more than a records change for the ILEC. A hot-cut from ILEC voice to UNE-L POTS service requires some additional coordination including a number port, but it is still a migration between two nearly identical services.

VoIP, on the other hand—like your web browser or word processor—is a software application, and it needs a broadband connection to work. At the risk of belaboring the obvious, then, a broadband connection must exist before a DLEC can initiate VoIP service. Unlike POTS service where all of the intelligence in the network is centrally located, VoIP rides a broadband connection where much of the network’s processing power resides at the customer’s home in the form of a computer. This makes VoIP service smart and flexible in a way that POTS service can never approach, but it does complicate the provisioning process.

To set up POTS service, the customer plugs a phone into the wall. To set up VoIP service, on the other hand, the customer must connect a modem to his or her computer, install a DSL software application, test the DSL connection, install a VoIP application, then set up and test the VoIP service itself either via an IP phone or via an analog phone combined with an IP adapter. Because of this complication, it is impossible to do a traditional hot-cut from POTS service to a VoIP service: the “cut-over” moving the loop from the ILEC switch to the DLEC DSLAM would happen and the customer would suddenly lose all voice and E911 services until he got his DSL and then VoIP service up and running. If he encountered any problem along the way, of course, he would not be able to call customer support because he would have no phone service. The solution to this seemingly difficult problem is quite simple. In fact, all of the

ILECs already have a time-tested solution to make a VoIP hot-cut work: line sharing provisioning processes.

A VoIP hot-cut utilizing the industry's experience with line sharing would create a good customer experience and a viable migration path for the next wave of voice competition. It would work like this, assuming an ILEC POTS customer wants to add data services to his loop while at the same time moving his voice services to DLEC-provided VoIP. The situation would be substantially the same for a line sharing or a line splitting customer who wanted to move his voice services to his data provider and disconnect his ILEC voice services:

- The customer would place an order with the DLEC seeking to add DSL and VoIP services to his loop while at the same time disconnecting his RBOC voice service.
- The DLEC would obtain customer authorization to port his existing number from the ILEC.
- The DLEC would electronically submit a single LSR to the ILEC to establish a temporary provisioning of the high frequency portion of the loop (“HFPL”), a number port and a change of circuit designation.
- The ILEC would electronically acknowledge receipt of the LSR and provide confirmation of HFPL due date, number port date, and migration date to the unbundled loop.
- The ILEC and DLEC would establish cross connects from the customer loop to the DLEC splitter and from DLEC splitter to the ILEC circuit switch to carry the voice portion of the loop.
- Having received his DSL modem and VoIP equipment in the mail from the DLEC, the customer would test his DSL and VoIP services using a temporary phone number.

- On the day of number port, the ILEC would port the number to the DLEC soft switch, change its records to reflect new billing information for the UNE-L loop, change its records to reflect that the customer is no longer an ILEC voice customer, and disconnect Central Office cross-connects between the DLEC splitter and the ILEC circuit switch.
- The DLEC would replace the customer's temporary number in its soft switch with his original, ported number.
- The DLEC would test the new number and E911 functionality.

This VoIP hot-cut scenario simply makes use of pre-existing processes in a new way to create a customer-friendly migration experience. Making this process a reality is, incredibly, quite easy for an ILEC:

- The ILECs develop business rules to accept a single LSR allowing for the temporary establishment of the HFPL, the porting of the existing telephone number, and the eventual disconnection of the POTS service.
- The ILECs establish Central Office procedures to add a single step to their current line sharing procedures: the scheduled disconnection of the physical link between the DLEC splitter and the ILEC circuit switch.

This is all that is required to turn the customer-experience horror described above into a customer-friendly experience that can enable true facilities-based competition for residential voice customers. The importance of an FCC-driven solution to this problem cannot be overemphasized: when facilities based circuit-switched competitors first tried to win customers and the failure rates were unacceptable, states—as part of the 271 process—then required the RBOCs to develop efficient and proven means to execute hot-cuts. Today, the future of

competitive residential phone service lies with facilities-based VoIP providers, but the potential of this industry and the innovation that it can bring will never be realized without providing for a VoIP hot-cut that allows customers a fair choice between competing providers. For that choice to be exercised on a level playing field, the customer experience must be as seamless for a VoIP hot-cut as it is today for a UNE-P or UNE-L hot-cut. Thankfully, the path from here to there is clear and easy.

V. CLECS WILL BE IMPAIRED WITHOUT ACCESS TO LOOPS AND TRANSPORT BELOW THE COMMISSION'S DEFINED CAPACITY THRESHOLDS

In addition to providing broadband service to residential customers, Covad provides business-class services using high-capacity DS-1 UNE loops. For these products, as well as the DSL product it offers, Covad relies on ILEC transport to connect its end office collocations to its national backhaul network. Without access to ILEC loop and transport facilities as UNEs, Covad and other CLECs could not offer these services economically. Indeed, this Commission has previously determined that CLECs cannot economically construct transport with fewer than 13 DS-3s worth of traffic or loops with fewer than 3 DS-3s. The Commission should confirm these findings establish a blanket rule that CLECs have access to loop and transport facilities below these capacity thresholds.

A. CLECs Would Be Impaired Without DS-1 Loops

Covad relies entirely on leased ILEC DS-1 loop facilities in the services it provides to business customers seeking T1 services. Furthermore, Covad's current broadband VoIP offerings to small and medium sized businesses rely exclusively on leased ILEC DS-1 loops. Covad does not rely on loops at higher capacity levels. For the DS-1 loops it purchases, Covad

has no alternative but to rely on the ILEC loops. It would be economically prohibitive for Covad or other CLECs to attempt to construct their own loops, and in Covad's commercial experience there are no wholesale alternatives available. For just such reasons, this Commission made a national finding of impairment with respect to DS-1 loops and should reiterate that finding here. It should not create any waiver process to create exceptions to that finding. The Commission's finding here is not surprising. DS-1 UNE loops are nothing more than conditioned local loops, and there is no serious controversy whether CLECs are impaired without access to the ubiquitous legacy loop plant that ILECs have built up over the last 100 years.

In the TRO, the Commission concluded that it is generally not economic for CLECs to deploy loops at a capacity level below three *DS3* loops to a single location. TRO ¶¶ 321, 324. Below that threshold, the revenue from such loops is insufficient to cover the fixed and sunk costs of loop deployment, and to offset barriers associated with rights of way and building access. *Id.* ¶ 320. It followed that for DS1 loops, which are far below the capacity threshold, CLECs are impaired. Indeed, the Commission concluded that the record showed virtually no evidence of self-deployment of DS-1 loops, extremely high barriers to entry, and ILEC admissions that CLECs might be impaired with respect to deployment of such loops. *Id.* ¶ 325.

Because the evidence that CLECs could not self-deploy DS1 loops was so clear, the Commission did not ask states to apply the retail trigger to DS1 loops. *Id.* ¶ 327. The Commission did task states with assessing impairment based on the availability of wholesale alternatives, because it concluded that alternative providers at the DS3 and higher capacity levels might offer wholesale DS1 loops at specific locations. *Id.* But there is no need for the Commission to undertake this task itself now that delegation to the states has been precluded. The administrative difficulty of applying a wholesale trigger is not worth the effort given the

paucity of evidence that such wholesale alternatives exist. Indeed, the ILECs presented virtually no evidence in state proceedings that wholesale alternatives exist with respect to DS1 loops. Specifically, out of the records developed before state commissions in 14 states following the Commission's issuance of the *Triennial Review Order*, the economic consulting firm QSI has been able to identify at most 36 locations in 14 states reviewed that are potential candidates for meeting the Commission's wholesale DS-1 triggers.¹¹³ This extremely small number of possible locations where wholesale alternatives exist is sufficient grounds for avoiding the administrative costs of conducting the fact-finding necessary to make individual determinations of whether such wholesale alternatives do in fact exist. In Covad's actual commercial experience, such alternatives simply do not exist. While Covad has found wholesale alternatives for the DS3 transport it needs on some routes, it has found no such alternatives for DS1 loops. The Commission should thus simply make an across-the-board finding of impairment for DS1 loops.

Nothing in *USTA II* precludes this. *USTA II* did not say anything about high capacity loops at all. And what it said about transport in no way precludes a national finding of impairment with respect to DS1 loops. To the contrary, the court vacated the Commission's national findings of impairment only because they were tied to its decision to delegate and required the Commission to "define the barriers to entry in a manageable form," while acknowledging that all rules will have some over and underinclusiveness. 359 F.3d at 570, 575. A blanket finding of impairment for DS1s has almost no over or underinclusiveness, is based on a clear definition of barriers to entry, and is readily manageable.

B. CLECs Would Be Impaired Without Access to Transport Facilities below the 13 DS-3 Threshold

¹¹³ See QSI Consulting, Inc., "Analysis of State Specific Loop and Transport Data," filed in WC Docket Nos. 04-313, 01-338, Oct. 4, 2004, at 15 (Table 4) (*QSI Report*).

Covad relies almost exclusively on DS-3 transport leased from the ILECs to interconnect its own facilities based network elements (DSLAMs, ATM switches, and test equipment, among others, as described supra) which are dispersed among over 2000 central office collocation sites, and other points of presence in its state of the art broadband network. Of course, the ILECs constructed the interoffice loops which Covad leases as UNEs to interconnect central office facilities, which when built, served virtually every voice customer within the footprint of each CO. To this day, these interoffice networks support aggregate customer demand for local voice and data services many, many orders of magnitude greater than that served by all CLECs combined. The comparison to the aggregate demand served by a single, reasonably efficient CLEC, is simply off the charts.

The ILECs therefore enjoy immense first mover advantages, not to mention enormous economies of scope and scale, in constructing and maintaining these facilities.¹¹⁴ A more compelling case for finding impairment if CLECs were required to reconstruct the vast webs of interoffice transport routes that connect CLECs' own substantial, collocated facilities, is hard to imagine. (The sole exception, of course, being the 100 millions plus local loops used to connect end users to the telephone network).

Thus, the Commission unanimously, and properly, concluded in the TRO that CLECs would be impaired if they could not lease dedicated transport facilities as UNEs when they need 12 DS-3s or less of capacity. The Commission should now reaffirm this national finding of impairment without creating any exceptions.

This conclusion is overwhelmingly supported by all available record evidence. The Commission found that most carriers found it uneconomical to self-deploy transport at capacities

¹¹⁴ See *TRO* at paras. 85-91 (discussing barriers to entry including ILECs' first-mover advantages, economies of scale, sunk costs, etc.).

of 10 to 18 DS-3 circuits on a route. The Commission further found that a significant portion of routes required at most 3 DS-3 circuits or less. Finally, the Commission found substantial evidence that, above the 12 DS-3 threshold, competitive carriers were self-deploying fiber facilities, both to serve enterprise customers and to offer wholesale transmission facilities.¹¹⁵ As set out in the attached declaration, the Commission's record evidence is in accord with Covad's own commercial experience.¹¹⁶

In the TRO, the Commission first determined that the proper markets for assessing impairment with respect to transport are route by route. It then reached its national finding of impairment by determining that on most routes it would be uneconomic for CLECs to construct transport facilities below the 13 DS-3 threshold, as the costs of doing so will exceed the revenues available to CLECs. But because there are some routes where CLECs can -- and have -- deployed transport below the capacity threshold, the Commission delegated to states the task of assessing impairment on each route based on retail and wholesale triggers.

In *USTA II*, the Commission did not invalidate any of the Commission's factual conclusions with respect to transport facilities: that the capacity threshold identifies the point below which CLECs are generally impaired and that the factors that most accurately determine impairment for CLECs are route specific. But the Court did invalidate the Commission's decision to delegate to the states the task of performing a more granular analysis. 359 F.3d at 574. The court thus left the Commission to revisit its findings and fashion an appropriate regime based upon its assessment of impairment on a route-by-route basis. The Commission could respond by applying the retail and wholesale triggers itself, as we explain further below. But it would be easier -- and still extremely accurate for the Commission to now make clear that its

¹¹⁵ See *TRO* at para. 388.

¹¹⁶ See *DeRodeff Decl.* at 27-28.

finding of impairment with respect to transport facilities below the 13 DS-3 threshold is a blanket finding that applies without exception. *USTA II* made clear that such a finding would be permissible. Simply put, at this stage of the development of competition in interoffice transport, it would not be a wise use of scarce administrative resources, or sound public policy, to create an apparatus to scrutinize the entire haystack in order to find a very few needles. Of course, the Commission always retains the flexibility to revisit this conclusion if and when the facts on the ground change significantly. And it would be far better to define appropriate triggers at that time, when the Commission's analysis can be informed by more real world data and actual market conditions.

In *USTA II*, the court held that the Commission should look at routes on which CLECs have deployed transport facilities to determine whether it can “define the barriers to entry in a manageable form.” 359 F.3d at 575. In defining these barriers, the court explained, the Commission could take into account the administrative costs, as well as the error costs of competing approaches. *Id.* at 576. And the court made explicit that the Commission could define impairment on a national level, even if doing so was somewhat over or underinclusive, so long as there was no evidence that impairment varies dispositively by market. *Id.* at 570.

Reaffirmation of the Commission's national findings of impairment meets these criteria. It defines the barriers to entry in a manageable form based on microeconomic evidence as well as empirical evidence as to where CLECs have deployed transport facilities. Such an approach clearly has the fewest administrative costs. And it has very few error costs – fewer than any alternative approach other than FCC application of the triggers.

It is important to remember that the Commission *already* extrapolated from existing empirical and microeconomic evidence to remove CLEC access to ILEC transport facilities that

carry a large percentage of traffic – those above the 12 DS-3 threshold. It did so even on routes where CLECs had not built their own facilities based on its conclusion that CLECs could construct their own facilities if they had that volume of traffic. Conversely, based on empirical and microeconomic evidence, the Commission concluded that there is relatively little deployment of transport facilities below this threshold and that deployment is not generally possible below this threshold. The Commission found that most carriers found it uneconomical to self-deploy transport at capacities of 10 to 18 DS-3 circuits on a route. The Commission further found that a significant portion of routes required at most 3 DS-3 circuits or less. Finally, the Commission found substantial evidence that, above the 12 DS-3 threshold, competitive carriers were self-deploying fiber facilities, both to serve enterprise customers and to offer wholesale transmission facilities.¹¹⁷ Moreover, it determined that there was no evidence in the record that would enable it to determine more accurately the relatively few routes where deployment was possible. TRO ¶ 398. Thus, the capacity threshold manageably defined the barriers to entry while having fewer error costs than any other approach presented in the record.

That there are few error costs in adopting such an approach is now even clearer than it was at the time of the TRO. Where a route does not have traffic sufficient to support CLEC deployment of facilities above the capacity thresholds, there are virtually no instances of CLEC deployment of transport or loops. Where a route/location does have sufficient traffic to support CLEC deployment of facilities above the capacity thresholds, there are some instances in which CLECs that have deployed such facilities have channelized the facilities to provide service below the thresholds. But even on many of these routes, CLECs are not providing transport facilities below the capacity thresholds because of the costs of doing so.

¹¹⁷ See TRO at para. 388.

The fact that there are not sufficient competitive alternatives to UNE interoffice transport is also clearly established by the fact that the special access prices that the ILECs charge for DS-1 and DS-3 transport remain sky high, more than double the corresponding price for UNE DS-1 and DS-3 transport.¹¹⁸ If the transport market were remotely competitive, special access prices would have dropped precipitously, as they have in other telecommunications markets. But special access prices remain far above cost, as we discuss further below. Indeed, even with respect to large business customers, there is no evidence of widespread competition. In general, the price of leasing special access loop and transport facilities from the ILECs at a DS-1 or DS-3 level has not diminished in recent years, and, in many instances, has increased.¹¹⁹

The continuation of CLEC impairment is also apparent from Covad's direct experience. Covad's services require DS-3 (and sometimes DS-1) transport. Covad, which would greatly prefer to control its own destiny rather than purchase services from largely unwilling suppliers, has determined that it is not economic for it to self-provide loops and transport. Where construction of its own facilities allows Covad to add value, features and management capabilities that benefit its customers, Covad has not hesitated to do so, so far to the tune of hundreds of millions of dollars. Covad has also found that there are very few routes on which it has significant wholesale alternatives available from CLECs using their own facilities. On some additional routes and locations, CLECs offer wholesale products that are not based exclusively

¹¹⁸ See *DeRodeff Decl.* at 28-29.

¹¹⁹ See, e.g., "Competition in Access Markets: Reality or Illusion," Ad Hoc Telecommunications Users Committee, Aug. 2004 (available at http://www.comptelascent.org/public-policy/position-papers/documents/eti_access_markets_aug2004.pdf) (*ETI Study*). As this study found:

...[B]ecause effective competition has not materialized, the diluted regulatory framework adopted *in anticipation of competition* has actually resulted in higher prices, grossly excessive profits for the incumbents, and ironically, less competition overall.

Id. at iii.

on their own facilities but instead depend in part on ILEC special access. As a result, and also due to the very limited competition among few suppliers, the pricing on these products remains close to special access pricing and they do not constitute a viable alternative for Covad. In Covad's commercial experience, it has found that it is only on the very few routes where it has *several* wholesale alternatives that wholesale prices approach UNE prices - the cost based prices that would prevail in a competitive market.¹²⁰ This finding is consistent with traditional DOJ and FCC analysis of the number of firms needed to produce competitive outcomes, as discussed *supra*. There are very few routes of this sort across the nation.

Finally, the state impairment cases definitively demonstrate that CLECs cannot generally construct transport facilities to carry fewer than 13 DS-3s worth of traffic. In those proceedings, there was an extensive discovery process. The ILECs had every opportunity to determine where CLECs had deployed transport facilities, where they were wholesaling transport, and at what capacity thresholds. State commissions also asked a multitude of questions of CLECs through the discovery process. But the data obtained through this process showed very little CLEC deployment of transport below the 13 DS3 threshold.

Indeed, after gathering data from CLECs, the ILECs did not even claim non-impairment for the vast majority of routes. QSI, which analyzed the data in the 14 states that had progressed farthest towards completion of their impairment proceedings and includes many of the most densely populated states in the nation, is separately filing the results of its analysis. The report from QSI shows that the ILECs claimed that the retail trigger had been met on 1,173 routes in 13 states analyzed (plus an almost facially absurd 4,000 routes in New York), and claimed that the wholesale trigger had been on 1,985 routes (plus, again, 4,000 routes in New York). Even

¹²⁰ See *DeRodeff Decl.* at 25-26.

accepting for argument's sake the ILEC claims at face value, it is clear CLECs are impaired on all but a small fraction of all routes with respect to transport and that no generalization of non-impairment can readily be made with respect to transport in any markets below the capacity threshold.¹²¹

Moreover, the ILECs dramatically overstated the number of routes on which CLECs had deployed transport facilities. QSI shows that when the data is properly analyzed, there were only 55 routes where the retail trigger was met and only 40 routes where the wholesale trigger was met in the 14 states -- a de minimis number.¹²² This number is far less than the ILECs claimed for three reasons. First, the ILECs claimed deployment on routes where CLEC discovery responses revealed no deployment. Second, the ILECs included transport provided at the OCN and multiple DS3 level.

Third, the ILECs simply assumed that CLECs that had fiber-based collocations at two central offices (collocations in which they had fiber facilities) were self-deploying transport facilities at the DS-3 level between those two points. But there is no basis for such an assumption. In many cases, CLECs have established fiber-based collocations in individual central offices in order to send switched transport traffic back to their point of presence, or to connect large enterprise customers to their networks, or for other reasons. The fact that a CLEC has fiber termination in two proximate COs does not mean that they have connected these two locations and are therefore providing competitive interoffice transport. Nor does it say anything

¹²¹ As for potential deployment, only SBC attempted to show potential deployment of transport facilities and its showing was deficient in key respects. The only decision reached in a state impairment case, an ALJ decision in Michigan, rejected SBC's attempted showing of potential deployment for a number of reasons. *Notice of Proposal for Decision, In re on the Commission's Own Motion to facilitate the implementation of the Federal Communications Commission's Triennial Review Determinations in Michigan*, Case No U-13796 (MI PSC May 10 2004).

¹²² See *QSI Report* at 17 and 19 (Tables 5 and 7).

about whether there is sufficient traffic between the collocations to support connection of these two locations by a reasonable efficient CLEC. That is why QSI's analysis shows that the number of routes on which there are three or more fiber-based collocation pairs is much higher than the number of routes on which CLECs have self-deployed DS-3 transport. In fact, QSI's analysis shows that in 11 states of the 14 states in which data on fiber-based collocation by CLECs was available, a total of 3 or more collocators were present on both ends of 961 routes – a dramatically higher number than the 40 routes arguably meeting the wholesale triggers in all 14 states.¹²³

Given the dearth of CLEC deployment of transport facilities below the 13 DS-3 threshold, the Commission should simply reaffirm this threshold on a national level. When the D.C. Circuit spoke of defining barriers to entry based on empirical evidence of where facilities have been deployed, it presumed that there has been substantial deployment of transport facilities below the capacity threshold. But it is now clear that there has not been. And if the Commission wants a more granular result that accounts for this minimal deployment, it should adopt a waiver process in which it permits the ILECs to come forward with evidence gathered in the state proceedings to show the triggers have been met on individual routes.¹²⁴

What the Commission should not do, however, is to extrapolate from empirical evidence showing deployment has occurred on a few routes to conclude that CLECs can economically deploy transport below the 13 DS-3 threshold under some defined set of conditions. The Commission already made the best generalization it could in setting the capacity thresholds, and

¹²³ See *QSI Report* at 21 (Table 10).

¹²⁴ The Commission might have to arrange with the parties to obtain access to the data. Where the state discovery process was not complete, the Commission could oversee the remaining discovery process itself, which should not be too arduous a task.

any broader generalization about non-impairment is likely to be less administrable and less accurate.

It is likely to be less accurate because any attempt to extrapolate from existing deployment to a wide set of routes where deployment has not yet occurred is almost certain to result in an incorrect finding of non-impairment on a large number of routes. This is so despite the D.C. Circuit's hypothetical of a route where deployment has not occurred that is identical to one where deployment has occurred. 359 F.3d at 575. The number of variables that affect deployment is so large that this hypothesized situation likely does not exist, or, if it does, its existence will not be readily ascertained. In the TRO, the Commission correctly concluded that the relevant markets for loops and transport are point-to-point, because the economics of deployment are based on a multitude of factors specific to an individual route including: the distance of the route, the topography of the route, whether the route is in a rural or urban area, difficulties in obtaining a right-of-way for the route, the amount of traffic the carrier can expect to carry over that route, the revenue mix associated with that traffic, the cost of collocation at each end of the route, and whether it is economically feasible to self-deploy transport on nearby routes to make a route part of a fiber ring. TRO ¶¶ 371, 376. Because the number of variables at issue is so large, it is not easy to generalize about impairment from those few routes where deployment has occurred.

On routes where there has not been deployment, this very fact is strong evidence that deployment is not economic on those routes. The transport market is now a mature market. CLECs have invested billions of dollars in deploying transport and have been doing so for years, which is the very evidence the Commission relied on in concluding CLECs could economically deploy OCN level transport. *Cf.* TRO ¶ 387. In fact, in many cases, they have deployed

transport on routes where it turned out that it was not economic to do so. It is overdeployment of facilities, not underdeployment, that has been a source of industry problems in the last few years. Thus, if deployment of DS3 transport has not occurred on a particular route that seems identical to one where deployment has occurred, it likely is either because that route is not in fact identical to one where deployment occurred or because deployment was not economic on the route where it already occurred. Hence, any assertion of non-impairment below the capacity thresholds and beyond the few routes where deployment has already occurred is likely to produce more errors than a blanket finding of non-impairment (or such a finding coupled with a waiver process).

Additionally, the consequences of an erroneous determination of non-impairment are greater than the consequences of an erroneous determination of impairment. The former will prevent CLECs such as Covad, that are dependent on transport facilities, from providing facilities-based broadband competition. Such a result will not only destroy existing competition but it will not readily be reversed if it turns out to be erroneous. The latter will merely produce a temporary result in which ILECs must continue to lease UNE transport until CLECs construct their own facilities. They will certainly do so if it is in fact economic on a particular route, as evident from the fact that CLECs have deployed transport facilities extensively above the capacity thresholds. Thus, to the extent the Commission wants a bright-line rule differentiating impairment from non-impairment on the basis of economic characteristics, it should reaffirm the conclusion it previously reached: CLECs are impaired on a national level below the 13 DS3 threshold.

C. The Availability of Special Access Does Not Affect or Ameliorate Existing Impairment

The Commission should find that the availability of loop and transport facilities through special access arrangements does not obviate impairment. The Commission previously

concluded that special access facilities are irrelevant, but the D.C. Circuit rejected the Commission's explanations as to why this was so -- at least in the context of CMRS services. Nonetheless, the court left to the Commission the decision of whether to reach the same result based on more thorough analysis and explanation. The Commission's original conclusion was entirely sound, at least with respect to wireline services,¹²⁵ for several reasons: (1) the plain language of the Telecommunications Act precludes impairment determinations based on special access facilities; (2) the administrative difficulties in attempting to determine whether CLECs economically could rely on special access facilities would be insuperable, and (3) finding non-impairment based on special access facilities would severely diminish, not increase, facilities-based competition.

1. The Act Precludes Consideration of Special Access Facilities

First, the Commission should explain that on its face, the Telecommunications Act precludes it from considering special access in determining impairment because the Act focuses impairment determinations on alternatives *outside* the ILECs' network. Although the D.C.

¹²⁵ Indeed, wireless carriers may be better able to rely on special access facilities than can wireline carriers. First of all, these carriers face entirely different business and market conditions. Wireless carriers have a much more mature business model than CLECs, and special access transport constitutes a much smaller portion of their cost structure than it would for facilities-based CLECs like Covad. Unlike CLECs, wireless carrier networks are tied to cell site locations, which are far less likely to be collocated with ILEC COs. Facilities based CLECs using ILEC loops, on the other hand, are tied directly to the architecture of ILEC networks. Lastly, the BOCs have diminished incentives to engage in discriminatory conduct to benefit affiliated CMRS operations. Unlike their wireline operations, the BOCs share ownership of their CMRS operations with other carriers. Furthermore, BOC-affiliated CMRS providers must offer service in the territories of other BOCs and those other BOCs have their own affiliated CMRS operations. It is clear therefore that discriminatory behavior in one region could cause other BOCs to retaliate. This further diminishes significantly the incentive of a BOC to discriminate in-region. The BOCs' incentive to engage in predatory conduct against unaffiliated CMRS carriers is likely diminished by the financial strength and stability of the five (four if the Cingular-AT&T Wireless merger closes) ubiquitous CMRS competitors, a situation that stands in stark contrast with the competitive wireline industry. *See* ALTS Comments at pp. 13-14.

Circuit rejected the Commission’s previous explanations as to why special access should not be considered, those explanations were not based on the language of Section 251(d)(2). That section states that in determining whether to unbundle network elements, the FCC should consider whether “the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.” Thus, the question for the Commission is whether CLECs would be impaired if there was a failure to provide access to these elements altogether.

The Act defines a network element as “a facility or equipment used in the provision of a telecommunications service.” Section 2(29). Thus, if CLECs would be impaired without access to loops or transport facilities, this demonstrates impairment with respect to these facilities. The question of whether CLECs could compete with access to elements at higher rates is not part of the impairment inquiry. The Act directs that the Commission assess impairment based on alternatives available *outside* the ILECs’ network.

2. Including Special Access in an Impairment Determination is Administratively Infeasible

An equally important reason not to evaluate special access facilities in assessing impairment is the virtual administrative impossibility of doing so. As the D.C. Circuit recognized, “[g]iven the ILECs’ incentive to set the tariff price as high as possible and the vagaries of determining when that price gets so high that the ‘impairment’ threshold has been crossed, a rule that allowed ILECs to avoid unbundling requirements simply by offering a function at lower-than-TELRIC rates might raise real administrable issues.” 359 F.3d at 576. There are thousands and thousands of special access tariffs, many of which have complex terms that affect the overall rates. Rates may, for example, vary by geographic zones and by distance. Determining what the loop or transport rate is in even one of these tariffs at one location for one

distance is a difficult task.¹²⁶ Determining the rates in thousands of tariffs at all locations and distances would be arduous to say the least. And determining the special access rate would only be the first part of the inquiry.

In order to determine whether competitors could use special access facilities to compete, the Commission would also have to determine the ILECs' retail rates in every rate zone in the country, for every product, including exchange services, access services, and data services for enterprise and mass market customers. It would then have to compare these rates to the special access rates, and determine whether whatever difference existed between them that were sufficient to permit reasonably efficient CLECs to compete using these facilities. Even once retail rates and special access rates were determined, the process of comparing these rates would be extremely difficult. The retail rate zones do not match the geographic zones for special access. And the special access rates are generally distance sensitive, while the retail rates are not. Moreover, the special access rates often vary by volume and term, making it difficult to determine which special access rate to use. The complexity of attempting an impairment determination based on such comparisons is mind boggling.

Moreover, both the special access rates and the retail rates that the ILECs charge can be changed by the ILECs. This renders administrative difficulties even more intractable. It also subjects competitors completely to the whims of the ILECs -- creating uncertainty that makes it impossible for them to compete effectively even if they could temporarily rely on special access facilities on particular routes. Unlike the factors that affect impairment findings generally, which change gradually over time as a result of external forces, the ILECS can change special access

¹²⁶ For example, Covad alone employs a team of more than a dozen engineers and analysts to determine its loop and transport needs and pricing along individual routes or to individual locations, including comparisons of UNE pricing to special access pricing.

rates at will, at least where they have obtained pricing flexibility. And they can do this in many different ways. For example, they can change the terms of service, as well as the rates themselves. Thus, if this Commission were to determine that CLECs were impaired in a particular market given the existing special access rates, the ILECs could reduce these rates slightly, and return to the Commission with a new assertion of non-impairment. They could do this repeatedly in each market, making it impossible for the Commission to make a remotely stable finding of impairment. This would force the Commission to waste enormous resources evaluating assertions of non-impairment. Eventually, the ILECs likely would reduce rates to the point where the Commission would find that some CLECs could (barely) compete using special access.

But after a finding of non-impairment, the ILECs could again raise their special access rates or lower their retail rates! They could do so after CLECs transformed their ordering and maintenance practices to make use of special access facilities instead of UNEs. The result would be that competition that had been barely possible would become impossible. Even if CLECs then rushed back to the Commission to assert that they were again impaired, and the Commission were willing to entertain all such impairment proceedings at the moment they were brought, it would be difficult for the CLECs to prove renewed impairment given the myriad of ways the ILECs could raise rates or change practices in such a way as to have the effect of raising rates. And even if CLECs could prove impairment and regained access to UNEs, the yo yo effect of moving back and forth between UNEs and special access facilities would itself likely constitute impairment. Certainly, it would not make sense for CLECs to invest heavily in downstream facilities to connect to ILEC loops and transport if the ILECs could raise the rates on these

facilities at will and force CLECs to have to return to the Commission to attempt to show impairment.

Even if there are some CLECs that can compete on some routes/locations using special access facilities, the effort to determine where these routes/locations are would greatly increase administrative costs for the Commission and competitors without any great advantage. The Commission would face a serious risk of getting its impairment determination wrong and concluding CLECs are not impaired where in fact they are impaired (or at least where smaller CLECs are impaired). The result of such an error would be that CLECs will be unable to use the multi-billion dollar networks they have developed to provide service to customers in conjunction with UNE loops and transport. Rather than promoting facilities-based competition, therefore, a finding of nonimpairment based on special access would substantially diminish such competition. Spending substantial administrative continually trying to hit the moving target of ILEC special access rates and factual impairment would be a monumental waste, for little corresponding benefit. Moreover, CLECs, like all businesses, must make investment decisions based on reasonably stable assumptions about the costs of critical inputs, and transport is one the most critical. Subjecting CLECs to this sort of regulatory morass alone would create real impairment.

3. CLECs Would Clearly be impaired if Forced to Rely on Special Access

The fact that CLECs are impaired without access to UNE loops and transport is also clearly established by the fact that the special access prices that the ILECs charge for these facilities remain sky high.¹²⁷ Covad has determined that, in its commercial experience, special access pricing for dedicated interoffice transport and high capacity loops is generally more than

¹²⁷ See *DeRodeff Decl.* at 23-25, 28-29.

twice the pricing for the same circuits ordered as UNEs.¹²⁸ If the wholesale access market for high capacity loops and transport facilities were remotely competitive, special access prices would have dropped precipitously, as they have in other telecommunications markets. But special access prices remain far above cost. Indeed, even with respect to large business customers, there is no evidence of widespread competition. For example, in general, the price of leasing special access DS-1 loop facilities from the ILECs has not diminished in recent years, and, in many instances, has increased.¹²⁹ Indeed, special access prices are often four times higher than the cost-based price for UNEs mandated by the 1996 Act. *See* ATT Dec. ¶ 73.

In their application to the D.C. Circuit requesting a stay of its decision, several CLECs explained the consequence if they were forced to rely on special access. NuVox explained, for example, that if forced to purchase transport at special access rates, its overall cost of providing service would increase by 71%.¹³⁰ NuVox Dec. ¶ 32. If it had to purchase loops as well as transport out of special access tariffs, its overall cost of providing service would increase by 140%. NuVox Dec. ¶¶ 33-34. The impact of such cost increases would be profound: NuVox “will be unable to serve the vast majority of its existing customers,” will be “operationally and financially crippled, and likely unable to continue providing service to its customers in the long term.” NuVox Dec. ¶¶ 5, 15, 34.

Other carriers would face similar harm. NewSouth explains that its monthly costs would increase by between \$1 million and more than \$2.1 million – a huge amount compared with

¹²⁸ *See id.*

¹²⁹ *See supra* n. 119 (*ETI Study*).

¹³⁰ *See* Affidavit of Edward J. Cadieux on Behalf of NuVox, Inc. (attachment G to Motion of CLEC Petitioners and Intervenors to Stay the Mandate Pending Filing of a Petition for a Writ of Certiorari in the Supreme Court, No. 00-1012 (D.C. Cir. filed May 24, 2004)).

monthly revenue of approximately \$13 million.¹³¹ NewSouth Dec. ¶¶ 18-19. NewSouth would then be forced to dramatically increase its rates, driving existing customers away. It would be unable to replace these customers with new customers both because of the higher rates it was charging and because its ordering systems are now set up to order UNEs. It might therefore be forced to withdraw from certain markets altogether. NewSouth Dec. ¶¶ 14, 18. Similarly, while Z-Tel is currently rolling out a new product that uses unbundled transport, that product would become unprofitable under special access rates, “threatening the provision of service altogether.” Z-Tel Dec. ¶ 37. And Birch’s business plan for those customers it currently serves using high-capacity loops and dedicated transport would be “unsustainable.”¹³² Birch Dec. ¶ 22.

So long as special access rates are substantially above cost, facilities-based competitors relying on special access will always be subject to a price squeeze against the ILECs. The ILECs will be able to compete based on obtaining interoffice facilities for their services at cost, while competitors are forced to obtain the same critical inputs to their services at rates far above cost. Indeed, now that they have section 271 authority, the ILECs have a strong incentive to raise special access rates to cause price squeezes. Moreover, in most areas of the country, the ILECs enjoy complete control over their ability to set rates for special access. Thus, if competitors were left with no alternative but special access, they would be left solely at the mercy of their primary retail competitor – the ILEC – for the pricing of the critical loop and transport inputs to their

¹³¹ See Declaration of Jake E. Jennings on Behalf of NewSouth Communications Corp. (attachment F to Motion of CLEC Petitioners and Intervenors to Stay the Mandate Pending Filing of a Petition for a Writ of Certiorari in the Supreme Court, No. 00-1012 (D.C. Cir. filed May 24, 2004)).

¹³² See Affidavit of David E. Scott on Behalf of Birch Telecom, Inc. (attachment B to Motion of CLEC Petitioners and Intervenors to Stay the Mandate Pending Filing of a Petition for a Writ of Certiorari in the Supreme Court, No. 00-1012 (D.C. Cir. filed May 24, 2004)).

businesses. In this scenario, the ILEC would have every incentive to (and little accountability for) creating a price squeeze situation for its CLEC competitors.

Indeed, even with respect to loop and transport facilities themselves, a non-impairment determination based on special access facilities would *diminish* facilities-based competition. In the absence of UNEs, the ILECs would generally induce CLECs to make a term commitment to obtain somewhat better special access rates, as they already do. CLECs would therefore not be free to abandon special access even if it became possible to construct their own facilities on particular routes, reducing the possibility of any such construction.

And there would be no countervailing advantage. Even assuming that competitors were able to provide service while purchasing special access facilities and were able to pass these costs on to consumers, the result would simply be that CLECs (and their customers) continued to subsidize the ILECs by paying monopoly rates for special access. That is a policy disadvantage, not an advantage. Imagine, for example, a scenario in which a CLEC was able to compete against an ILEC broadband service using above-cost special access services, but was able to do so only because the ILEC was extremely inefficient in the provision of broadband, offsetting the advantage the ILEC had in self-provisioning of transport at cost. In such a scenario, consumers would not gain most of the advantages from the CLECs' efficiency because they would be paying for the ILECs' monopoly special access rates.

4. Empirical Evidence Does Not Show Non-impairment Based on Special Access

The ILECs have argued that some CLECs have relied on special access facilities to compete and this shows that it is economic to do so. This is wrong for several reasons. First, it obviously does not show that CLECs can economically rely on special access facilities on the many routes/locations where they have not done so. Covad does not generally purchase special

access circuits to provide dedicated interoffice transport links, but instead relies primarily on ILEC UNE dedicated transport.¹³³ CLECs that have relied on high capacity special access facilities have done so only on a select number of routes. And they have generally done so only to provide service to enterprise customers, not small business or residential customers.

Second, most CLECs cannot obtain special access facilities at the rates available to those few CLECs, typically large IXCs, that have substantial additional uses of special access in their interexchange networks, for example, to serve large enterprise customers. Under the ILECs' special access tariffs, carriers are allowed to aggregate demand across all their business lines in getting volume discounts, which is why many IXCs have continued to use special access rather than UNE facilities. Reasonably efficient CLECs, however, which by definition do not have other lines of business, could never compete with such large users of special access by also relying on special access without the benefit of the same discounts. The ILECs provide reduced special access pricing when a CLEC purchases a large volume of facilities and commits to continue purchasing those facilities for a long period of time. (Even the discounted prices are often well above cost, but are less extravagant than the nondiscounted prices). Thus, even if the few large IXC/CLECs that can obtain these volume discounts are able to compete with special access facilities to serve large enterprise customers, this does not mean that efficient CLECs like Covad can compete utilizing special access facilities in the small business market, for example. As a result, unless the Commission is willing to conclude that CLECs generally are not impaired where one or two very large IXC/CLECs can compete using special access facilities but others cannot, any impairment assessment based on special access pricing would have to be CLEC specific or volume specific, further complicating the impairment analysis. The Commission

¹³³ See *DeRodeff Decl.* at 28-29.

should not permit ILECs to manipulate impairment findings through pricing policies that may permit one or two IXC/CLECs to compete but effectively bar others from the market.

Third, even those CLECs that have relied on special access up until now are unlikely to be able to do so in the future. While empirical evidence is generally a useful predictor of future possibilities, in this case, a fundamental market condition has changed in recent years: the ability of ILECs to offer interLATA service.¹³⁴ The effect of that decision is only just beginning to be felt because the enterprise market, where special access facilities are used, is one in which customers often sign long term contracts and have individually tailored services that cannot quickly be changed. But as that effect begins to be felt, it is likely to be profound.

The CLECs that use special access facilities began doing so at a time when the ILECs had not yet obtained section 271 authority and thus had not yet been permitted to provide long distance service. At that time, CLECs could sell business customers interLATA services that were dependent on facilities purchased at special access rates without competing against the ILECs. All competitors had to pay the high special access rates and thus such rates did not comparatively disadvantage any of them. But that is no longer the case. The ILECs can self-provide access services at cost, giving them a huge advantage over competitors. Thus, the existence of some CLEC use of special access facilities does not demonstrate non-impairment even for those CLECs in those locations. Past use is simply not a good predictor of future use when something as fundamental as ILEC 271 authority has changed.¹³⁵

¹³⁴ This is an important difference from the wireless context where nothing so fundamental has changed.

¹³⁵ There has been insufficient time to assess the impact of that change. Many customers have long term contracts with CLECs and therefore were not able to immediately transfer their service to ILECs once ILECs gained 271 authority. And the ILECs are only just now beginning to make strong pushes to attract large business customers who are the ones CLECs generally have served using special access.

Of course, it is theoretically possible that the ILECs' cost advantage is not so large as to result in impairment. But determining whether it results in impairment would require the Commission to face all of the intractable administrative difficulties described above: the Commission would have to determine the special access rates, determine the retail rates for each service, compare the two, and determine whether the difference is sufficient to permit continuing competition. And the Commission would again face the intractable difficulties caused by the ILECs' ability to change special access and retail rates. Now that they have section 271 authority, the ILECs have a strong incentive to raise special access rates to cause price squeezes.

These administrative difficulties, along with the policy advantages of assessing impairment solely based on alternatives external to the ILECs' networks, and the plain language of the statute all make clear that the Commission should not consider special access in evaluating impairment. Furthermore, as we have seen, without consideration of special access, it is clear that CLECs are impaired below the capacity thresholds established in the TRO. As a result, the Commission should conclude on a national basis, that CLECs are entitled to access DS-1 loops and up to 12 DS-3 transport facilities on a route as UNEs.

VI. CONCLUSION

For the forgoing reasons, Covad urges the Commission to take heed of the current weak state of intermodal competition, and revisit its decisions to separate narrowband from broadband network elements. Indeed, the unbundling of legacy loop facilities, including line sharing and hybrid fiber copper loops, is at the core of the 1996 Act's policy to create competition using the ILECs' *legacy* investments in monopoly local networks. Covad specifically urges the Commission to reconsider its decision to phase out the line sharing network element, as well as

its decision to deny competitors access to the broadband capabilities of hybrid fiber copper loops. Covad urges the Commission to ensure that adequate standards are in place for the provision of UNEs for facilities-based broadband and voice competition. Finally, Covad urges the Commission to reinstate the unbundling of high capacity loop and transmission facilities on a nationwide basis below the Commission's already established capacity thresholds. Covad demonstrates that facilities-based competition depends on the continued availability of these facilities, including the facilities-based competition provided by Covad's own services to businesses. Accordingly, Covad urges the Commission to adopt the recommendations set forth herein.

Respectfully submitted,

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