

**Statement of James Kirkland,**  
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**Before the House Judiciary Committee,**  
**Subcommittee on Commercial and Administrative Law**

**On**

**Voice-over-Internet-Protocol Services**

**Washington, D.C. July 23, 2004**

Good morning Chairman Cannon, Ranking Member Watt, and Members of the Subcommittee. My name is James Kirkland, and I am the General Counsel of Covad Communications. I would like to thank Chairman Cannon for convening this important hearing on VoIP services, and for allowing me the opportunity to offer Covad's perspective on ensuring the rapid rollout of VoIP. At the outset, let me also commend Chairman Sensenbrenner and Ranking Member Conyers for their foresight and leadership in promoting the rapid deployment of VoIP services through H.R. 4412.

The Judiciary Committee's oversight of the enforcement of the antitrust laws is of particular importance today in light of recent actions by a Federal court and the FCC. The D.C. Circuit's decision to vacate the primary competition-enabling rules governing access to the last mile of the telecommunications network created a vacuum which places the large monopoly phone companies in the enviable position of having a monopoly over a critical portion of the local phone network with few regulations requiring they open those lines to competitors. The FCC's efforts to fill this vacuum are critical, but unfinished. These developments, coupled with the Supreme Court's decision in *Law Offices of Curtis Trinko v. Verizon* limiting the applicability of the antitrust laws

with regard to activities governed by the Telecommunications Act, force us to consider whether the large local phone companies now have market power to limit what would otherwise be a very vibrant VoIP marketplace. That is why it is so important for this Committee to have this hearing today, and that is why we are supportive of the Chairman and the Ranking Member's efforts to ensure that the antitrust laws and procompetitive loop access requirements continue to remain an appropriate tool to open local monopoly markets.

I would first like to discuss what Covad is doing with VoIP, then give you an overview of and some key statistics concerning the VoIP market, and finally touch on the key policy issues that are important to this Committee.

#### Covad and VoIP

Covad will be at the forefront of the deployment of VOIP technology. We were the first company to deploy mass market broadband DSL services in the nation, and have invested hundreds of million of dollars in building the leading nationwide facilities-based broadband network, reaching nearly 50 million homes and businesses in 35 states. Covad's broadband facilities reside in over 2000 neighborhood central offices across the nation. Today, we continue to invest in facilities-based competition. This year, Covad acquired a leading VOIP service provider, Gobeam, and in March we raised \$125 million in new capital to help fund a nationwide VoIP rollout. By the end of 2004, Covad plans to roll out its business-class VoIP services nationwide to 100 major markets. In 2005, Covad will develop consumer VoIP services across its nationwide broadband facilities. As its name suggests, Voice over Internet Protocol based services bring the flexibility and capacity for rapid innovation found in other IP enabled services to public voice services.

These services have traditionally relied upon the hard wired, and relatively inflexible, capabilities of the public telephone network. Covad's VOIP services illustrate the power of this combination of voice and IP. Covad's services provide businesses with all of the capabilities of expensive PBX systems, with little investment in hardware. Each user receives a unique phone number to consolidate their multiple phone numbers. Find me and follow me capabilities allow calls to find you no matter what phone you are 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 easy to use web collaboration and voice conferencing tools. These features dramatically enhance the speed and 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.

It is not an understatement to say that facilities-based VoIP services truly hold the potential to revolutionize the telecommunications industry, all within a few short years. Indeed, the VoIP revolution is not just around the corner – it is already underway. 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. Covad adds a unique and critical ingredient to this revolution – namely, its own nationwide, facilities-based broadband network. 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.

### The Importance of Facilities-Based VoIP Competition

Covad is able to provide innovative new services like VoIP because Congress had the vision and the foresight in 1996 to create a flexible regulatory framework to manage the transition from local telephone monopolies to robust local competition. This transition is still at a very early stage. The local telephone network remains the sole, ubiquitous public infrastructure connecting virtually every home and business in this country. By requiring that the local telephone companies allow competitors to utilize and integrate these ubiquitous loops into innovative, facilities based service platforms, competitors can develop new and innovative services like VoIP.

Vigorous innovation in the provision of telecommunications services requires that a service provider control both the “application” portion of the service it provides as well as the underlying transmission capabilities used to carry a service. By controlling its own broadband facilities, which utilize telephone company lines from a customers’ premise to central offices where Covad maintains its own broadband points of presence, Covad is able to control the quality of service it provides to its customers, and introduce innovative features that are both software and network based. On the other hand, if the lines which connect homes and businesses become the exclusive province of a monopoly phone company in any area, the deployment of new technologies like VoIP will be determined by the decisions and business objectives of one, or at most two large incumbents that control facilities in any market. Covad respectfully submits that the history of innovation

in this country has been driven as much, if not more, by small entrepreneurial companies as large, well funded incumbents. If VoIP is to truly flourish, there must be room for both small and large competitors. With the competitive spur of smaller, often nimbler and more focused competitors, the large incumbents are far more likely to deliver on their promises of future investment in advanced facilities.

Without robust facilities-based competition from multiple players, Covad believes that the revolutionary potential of VoIP may not be fully realized, or may be realized much more slowly. 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.<sup>1</sup> 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 expects to sign up 1 million consumers and businesses for CallVantage services by year-end 2005.<sup>2</sup>

These services offer innovative features, but are limited by their providers lack of control over the facilities used to carry them. Indeed, as Banc of America Securities recently wrote,

Because they have no legacy voice business, the virtual carriers, like Vonage, have every reason to press ahead aggressively... But they have significant risks long term. The current regulatory arbitrage from which they benefit (namely the

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<sup>1</sup> 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](http://www.vonage.com/corporate/press_index.php?PR=2004_02_02_0)).

<sup>2</sup> 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>).

ability to circumvent access charges and the USF), may go away eventually; they have little brand awareness or reputation; they can't bundle multiple services; and they 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.<sup>3</sup>

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 abilities] 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.<sup>4</sup>

For example, 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.

Competition in the underlying transmission facilities layer will become increasingly more important over time in ensuring the competitiveness of services and applications like VoIP. In other words, to preserve and extend the competition being created by third party providers of IP enabled services, it will become increasingly more important to preserve and extend competition in the underlying provision of broadband transmission services. Robust competition in the broadband transmission facilities layer for competitors like Covad who are unencumbered by legacy businesses will help ensure that the exciting innovation being witnessed today in the provision of third party IP enabled services like VoIP will continue unabated.

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<sup>3</sup> See "Straight Talk on VoIP," David W. Barden, et al., Banc of America Securities Equity Research, April 15, 2004, at 4.

<sup>4</sup> 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](http://www.vonage.com/media/pdf/res_03_12_04.pdf)).

## The Market Structure

Robust facilities-based competition in the provision of the broadband services that VoIP requires does not yet exist. Amidst all the hype over the broadband future and new technologies, the underlying reality is stark. According to recent FCC data, the incumbent telephone companies and cable providers control more than 93% of the nation's broadband access lines.<sup>5</sup> Moreover, many end users lack a choice even amongst this limited set of two providers – for example, cable providers have historically focused their network deployment in residential areas, leaving most businesses with the incumbent telephone company as their only broadband option. In fact, recent figures show that cable penetration in the small business segment has actually dropped: “We 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.”<sup>6</sup> As the Yankee Group now recognizes, “*DSL operators dominate* the U.S. [small business] broadband and enterprise remote-office broadband market.”<sup>7</sup> Even

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<sup>5</sup> See *High-Speed Services for Internet Access: Status as of June 30, 2003*, Industry Analysis and Technology Division of the Wireline Competition Bureau, Federal Communications Commission, at Table 5 (December 2003). Specifically, out of a total of 23,459,671 high-speed lines (over 200kbps in at least one direction), RBOCs served 7,266,765 lines, other ILECs served 948,828 lines, and cable providers served 13,684,225 lines.

<sup>6</sup> Yankee Group, *Cable and DSL Battle for Broadband Dominance* (February 2004), at 4-5 (emphasis added).

<sup>7</sup> *Id.* at 4 (emphasis added).

more fundamentally, 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 simply 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.<sup>8</sup> 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.”<sup>9</sup> Most importantly, large incumbents with substantial investments in existing facilities are less likely, left to their own devices, to be aggressive innovators in disruptive technologies like VOIP.

The incumbent telephone companies, with substantial legacy businesses, face conflicting incentives in deploying VoIP, which threatens their core circuit-switched voice businesses with VoIP services:

SIP threatens to strand the Bells’ core network... VoIP customers bypass, obsolete and strand the Public Switched Telecom Network (PSTN).<sup>10</sup>

Given nearly \$150 billion invested in circuit-switched telephone plant,<sup>11</sup> it is easy to see why incumbent telephone companies have severely conflicting incentives in rolling out

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

<sup>9</sup> 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).

<sup>10</sup> See “SIP Happens: How VoIP Technology ‘Re-unbundles’ Telecom,” Scott Cleland, et al., Precursor Telecom and Media Research, Apr. 12, 2004.

VoIP: “the Bells will be reluctant to cannibalize themselves...”.<sup>12</sup> The Bells’ history in deploying DSL technology is instructive. 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.

The cable industry also has conflicting incentives. Cable providers have much stronger incentives to aggressively roll-out bundles of VoIP and broadband transmission. After all, “[r]elative to the Bells, [cable’s] major advantage is obviously that it doesn’t have a legacy voice business it needs to protect.”<sup>13</sup> Viewed in the broader context of their own legacy monopoly, however, the picture gets murkier. 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...<sup>14</sup>

[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.<sup>15</sup>

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<sup>11</sup> *See id.*

<sup>12</sup> *See* “Straight Talk on VoIP,” *supra* n. 3, at 4.

<sup>13</sup> *See* “Straight Talk on VoIP,” *supra* n. 3, at 5.

<sup>14</sup> *See id.*

<sup>15</sup> *See id.* at 6.

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."<sup>16</sup>

This economic reality highlights another limitation of duopoly competition in the IP transmission layer. To the extent that 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 internet access capabilities. In this scenario, cable companies would not drive any significant transmission layer innovation, but would simply be "virtual" voice carriers, like Vonage, over their own networks.

Unlike the established telephone and cable companies, Covad and other competitors have no legacy business to protect. Thus, we believe that including Covad's facilities-based VoIP offerings in the overall marketplace will significantly speed the rate at which broadband services like VoIP are adopted, and the development of innovations in these services.

### Lessons from Abroad

The experiences of countries like South Korea and Japan 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. South Korea's market-opening measures included the

formation of a new company (Hanero) to compete with incumbent Korea Telecom,<sup>17</sup> and opening Korea Telecom's network with requirements for local loop unbundling, including sharing of the local loop.<sup>18</sup> The result has been thriving competition in the broadband market, with three main suppliers,<sup>19</sup> and rock-bottom prices (as low as \$25 a month<sup>20</sup>) 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."<sup>21</sup>

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, shortening provisioning intervals, and unbundling backhaul facilities.<sup>22</sup> 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.<sup>23</sup> The experiences of South Korea and Japan show that maintaining competitive access to local loop and transport facilities spurs the deployment

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<sup>16</sup> See "Cable Poised to Offer Phone Service – Just Not So Fast," USA Today, May 27, 2004.

<sup>17</sup> *Id.*

<sup>18</sup> 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>).

<sup>19</sup> *Korea Broadband*, PDS Consulting Short Paper, Version 12 June 2003.

<sup>20</sup> *Seoul's Strong Hand Sets Pace on Web*, International Herald Tribune Online, November 26, 2001.

<sup>21</sup> *South Korea*, Korea Broadband Overview, Point Topic, October 20, 2003.

<sup>22</sup> *On a roll: Japan's success with DSL*, Ovum Research, DSL: Business Models for Exploiting the Local Loop, July 2002.

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 U.S.

### VoIP Policy Issues

Aside from minimal regulation ensuring access to the last mile of the phone network, we believe that policy makers should adopt a generally deregulatory stance towards VoIP. We believe there is promising evidence that traditional social policy objectives can be met without enacting new regulatory requirements for VoIP services. Of particular importance to this Committee is law enforcement access to communications conducted over IP enabled services. First and foremost, I can tell you that Covad is committed to working with all law enforcement agencies to ensure that those officials have access to all the information from a VoIP call that they currently have access to for a regular phone call. In fact, we have complied with such requests in the past. In addition, last December, the National Emergency Number Association (NENA) and the Voice on the NET (VON) Coalition, of which Covad is a member, announced a voluntary agreement on approaches to provide VoIP subscribers with basic 911 service, and to work together to develop solutions for enhanced 911 functionality.

Furthermore, we believe that many critical social policy objectives can be met by focusing on enforcing and rationalizing existing telecommunications service regulations, rather than by extending them to information services like VoIP. For example, we generally believe that regulators should refrain from imposing legacy access charge regulations on VoIP services, and instead should focus their efforts on reforming existing

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<sup>23</sup> *How the “Japanese Miracle” of Broadband Came About*, Glocom Platform, Japanese

regulations to develop a comprehensive intercarrier compensation mechanism. Similarly, rather than imposing new universal service obligations on information services like VoIP, we believe that regulators can help safeguard universal service by rationalizing the existing contribution mechanism, so that all providers of broadband transmission services contribute equitably. In sum, we believe that the enforcement of existing regulations on broadband telecommunications service providers like Covad, combined with voluntary industry collaborative efforts and standards setting, can meet critical social policy objectives like public safety and universal service – without imposing intrusive new forms of regulation on information services like VoIP.

### Conclusion

Mr. Chairman, Members of the Subcommittee, we are in the midst of a revolution in the telecommunications industry. We are moving away from the limitations of traditional phone service towards all of the enhancements, efficiency gains and innovation that VoIP makes possible. We are moving away from competition through legacy circuit switches to facilities-based competition over packet-switched broadband networks. Because of all that, now more than ever this Committee's oversight and stewardship of the antitrust laws is crucial. I hope that we can work with you in the future on these very important issues.

Thank you again for this opportunity and I welcome questions from the panel.