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A vertical collage of three images. The top image shows a close-up of a wooden gavel. The middle image shows a night city skyline with a red laser line pointing from a building on the left towards a central tower. The bottom image shows a construction site with a blue excavator and orange traffic cones.

bandwidth

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SBC/AT&T: Will Two Decades of Post-Divestiture Folly Finally End?

By: Senior Fellow John Wohlstetter

SBBC's purchase of AT&T, if approved, would create a vertically-integrated communications firm with nearly 35 percent of the total revenues of the five largest wireline carriers (\$75.4B of \$217.7B).¹ Consummation of the deal would end more than two decades of federal telecom policy delusion, one that cost the domestic telecom marketplace untold billions in shareholder value and frustrated advanced infrastructure investment in the "last mile" of the local loop.

The merger would begin the long-anticipated industry-wide vertical re-integration of local and interstate long distance service. (Among local carriers, only Qwest, which acquired the outlier Bell firm US West, combines local and interstate LD.) Vertical separation is an egregious artifact of the 1984 Bell System Divestiture's segmenting of markets at the precise time that they began converging technologically. Divestiture was driven by government lawyers and economists. As then-AT&T President William Ellinghaus said: "From a customer standpoint, I never had anyone come up to me and say, 'This is the most wonderful thing that's ever happened.' They say, 'Why the hell did you ever do that?'"²

Vertical Market Separation: A Masterpiece of Bad Timing

The 1982 decision to split AT&T effective 1/1/84 came just as the then-prevailing

transmission technologies of LD, terrestrial and satellite microwave, had reached the apex of their dominance. By the mid-1990s four key fiber-optic technology developments had effectively erased the difference between local and long distance calling and created vast new long distance scale economies:

- Beginning in 1983 single-mode optical fiber—with a core sufficiently narrow to confine the optical signal and thus enable errorless transmission over vastly greater distance—began to replace multi-mode fiber, whose core was too wide to permit economical LD transmission.
- Beginning in the late-1980s, semiconductor lasers that send far more information than light-emitting diodes (LEDs) boosted sending capacity;
- Beginning in the 1990s, deployment of optical amplifiers obviated the need for time-losing conversion between electrical and optical signals, by eliminating electrical repeater stations on long distance lines;
- Dense Wavelength Division Multiplexing (DWDM) techniques enabled thousands of channels to be sent over a single strand of fiber.

Local/LD segmentation was predicated on then-DOJ antitrust chief William Baxter's hunch that welfare gains from greater economies of scale would exceed welfare losses due to foregone economies of scope. It was no more than a guess—one predicated on the belief that multiple carriers could economically compete in the microwave transmission market.

But optical fiber steeply raised the cost of duplicative entry—the mega-increase in capacity that fiber generated more than soaked up demand for bandwidth, which is why more than 90 percent of fiber in the ground today lies unused. MCI and Sprint got the jump on AT&T in deploying fiber, not because they pioneered it, but because AT&T was saddled with billions in unrecovered microwave and coaxial cable plant costs. In 1988 AT&T—which in 1977 became the first LD carrier to put fiber in service (multi-mode fiber, suitable only for short-range inter-office links)—wrote off over \$6 billion in plant cost to finance new fiber plant.

Baxter's 1982 decision ignored benefits of vertical integration—most significantly, one-stop shopping for the consumer. Once cellular providers discovered nationwide flat-rate pricing in the 1990s, and with the Internet siphoning immense fax traffic and substituting e-mail for voice calling, long distance was doomed as a separate enterprise. These trends were evident or clearly imminent by 1997.

But in 1997 then-Federal Communications Commission (FCC) Chairman Reed Hundt killed a proposed AT&T/SBC deal in 24 hours by calling it “unthinkable.” Hundt's market ignorance thus precipitated a rash of horizontal consolidations among the largest local exchange carriers, taking eight carriers to three (not counting the one Bell firm, US West, that merged vertically with Qwest). Vertical integration would have created at least

three nationwide network competitors offering local + LD. Coupled with nationwide flat-rate pricing of wireless, a far healthier industry price structure would have resulted.

Breaking Up Ma Bell Did NOT Spark Falling LD Prices

Divestiture is frequently credited with causing long distance prices to decline. This is a myth. Driven by decades of technological innovation, long distance prices have been declining at a roughly constant yearly rate since 1915, the year of the first transcontinental call. Immediately after the Bell break-up the FCC forced a reduction of local access costs by “de-loading” interstate toll—relieving LD carriers of access charges in excess of LD's share of total usage. This decline was not brought about by competition, but rather by regulatory fiat.

Between 1989 and 1996 the Big Three LD carriers—AT&T, MCI and Sprint acted as a de facto LD cartel, instituting several rounds of price hikes. (The LD cartel started during Bush 41, before Hundt became FCC chairman in late 1993.) Which is why Reed Hundt, in 1997, negotiated a pass-through of FCC-mandated local access rate reductions with AT&T; in a truly competitive market AT&T would have had no choice but to pass on the cost saving. FCC policy favored shifting costs to local carriers and subsidizing access by LD carriers to the local loop. Lots of pricing mischief likely would have been avoided had

local and long distance been kept vertically integrated. And onerous FCC conditions of dubious legality imposed on horizontal local exchange carrier mergers further impeded local infrastructure new technology investment.

Blocking vertical mergers had one more highly deleterious consequence: By pitting local and LD firms against one another as competitors in artificially segmented markets, the FCC severely crimped broadband deployment in the last mile. Instead of horizontally separated companies battling out access issues before the FCC, Department of Justice and the federal courts (to say nothing of state PUCs) there would have been vertical end-to-end firms financing faster buildout of bandwidth to the customer to offer true integrated end-to-end service.

The LD market today is vastly different from the one that existed in 1984, when AT&T dominated LD nationwide. Today, SBC and Verizon each have 12.8% of the residential LD market, which combined now tops AT&T's current 23%. Today the marginal cost of a call across the country is no greater than that for a call across the street. One estimate is that the true marginal cost of a voice call, if applied to monthly phone service, would yield 1.6 cents per month voice phone rates, based upon the monthly cost of a gigabit fiber line.³ One consultant puts today's average household LD bill at \$13.70 today, compared to \$32.78 in 1995, on the cusp of the Telecom Act's passage.⁴ More importantly for their acquirers,

AT&T and MCI have, respectively three and one million enterprise customers and networks with global reach.

What a difference a decade makes. In 1994 AT&T's market cap was \$78.5B v. \$72.8B for the Bells + GTE; in 2004 AT&T's was \$15.2B v. \$248.5B for the Bells + GTE. Thus, AT&T has lost 80 percent of its market value in the past decade, while the Bells + GTE saw a tripling of their market cap. By way of further comparison, AT&T's 20004 market cap was only 37% of the \$41B that AT&T Wireless commanded from Cingular in their 2004 merger. Vertical re-integration would have created a far healthier AT&T.

Regulators Closed a Once-in-a-Lifetime Market Investment Window

The Telecommunications Act of 1996 passed just as a providential confluence of computing and communications technology convergence made a vast pool of eager investment venture capital telecom the stock market's growth industry of choice, riding the back of a "Goldilocks" economy. The Pentium-PC, faster modems, and Internet software for websites and browsers led to the Internet boom. This would have permitted accelerated buildout of true end-to-end high-bandwidth services to America's homes and businesses. But fiber plant investment was almost exclusively in the LD sector; local plant remained copper wire, leveraged by electronic

wizardry to provide limited broadband.

Then the Internet bubble burst. It had looked in the late-'90s as if all that fiber bandwidth in the ground would be absorbed by exploding market demand. WorldCom's accounting fraud and Internet traffic inflation went undetected—the latter triggering vast over-investment in LD capacity, based on the widespread belief that data traffic was doubling every quarter, when in fact after doing so in 1995 and 1996 traffic growth doubled annually. Perhaps had the FCC audited traffic numbers posted by WorldCom it would have discovered the traffic inflation in time to limit the investment debacle.

But this once-in-a-lifetime chance was blown. Asia surged into the undisputed lead in broadband deployment of multi-megabit wireless and wireline services, including jazzy video and data services that America's limited broadband cannot match; our fiber-deprived service is relegated to faster web page downloads. The enticing prospect of accelerated fiber buildout has been replaced by the mundane reality of incremental deployment. Few in the marketplace today regard telecom as a high-growth industry—save for VoIP, whose incremental buildout will take a decade at least to fully supplant circuit-switched networking.

Why did we blow it? Instead of fostering vertical integration and rational competition Reed Hundt and his successor, William

Kennard, launched a veritable jihad against the local exchange carriers, forcing them to sell access at deeply discounted prices to competitors large and small. The competitive local exchange carrier (CLEC) industry was artificially subsidized to accelerate cream-skimming entry into local markets. An industry of a few well-capitalized CLECs mushroomed into three hundred carriers, most little more than under-capitalized retail resale shops riding on the network investments of others. Had the FCC not mid-wifed otherwise non-viable competitors in the CLEC market, fewer, stronger, genuinely viable CLECs would have made powerful entrants. Instead, the stronger CLECs saw the new entry market divided up among hundreds of players, most unable to survive without regulatory largess.

Conclusion: Vertical Re-Integration is Essential to Full Telecom Recovery

The proposed acquisition of AT&T by SBC would assist ultimate recovery for America's depressed telecom sector. It would spark further vertical consolidation—at this writing news reports have Qwest in talks with MCI, with a deal possible in days—and erase artificially mandated regulatory barriers between markets that technology and economics would otherwise merge. But domestic recovery will take years, and meanwhile Asia's tigers are on a roll. The leadership in broadband and wireless that Asia seized from America was in major part

made possible by the market opportunity that Hundt's Caesarist over-reach and too-long undetected business misconduct squandered in America.

Et Cetera.

Cells for Seniors. AARP reports that their 35 million members consider cellular service the most valuable AARP benefit.

According to Yankee Group, four years ago 15 percent of seniors were cellular subscribers; now 50 percent of the 65-74 cohort and 30 percent of the 75-84 set subscribe. The 65-74 age group number roughly matches that for teenagers.⁵

Spam Slam. Far from vanquishing spam, anti-spam rules in the US, Europe and Australia have not stopped spam from growing as a share of Internet traffic. Roughly 20 percent of total Net traffic at end-2002, spam rose to 60 percent at end-2003 and tops 80 percent today. According to a December 2004 survey by Stanford University, the typical Internet user spends ten working days annually dealing with spam, which thus imposes costs Stanford pegs at \$50 billion worldwide each year, \$17 billion in the US alone.⁶

Cyber-Storm in the North? The good news is that North Korea, by far the most backward country on the globe among those with any level of technology development, has computers. The bad news: they belong to the government, which has trained 500 to

600 cyber-saboteurs in cyber-warfare over the past five years. Primary targets are, naturally, the US and South Korea, which is deemed highly vulnerable because it has the widest deployment of broadband on the globe, but weak Internet security. Wake up call, anyone?⁷

Be Careful Out There. Spyware and adware invasions are now 10 to 15 percent of support calls to Dell, up from 2 percent in 2003. The SANS Institute, a computer security firm, estimates that the "survival time" for an unprotected computer—before it is invaded by a cyberspace intruder—averaged 55 minutes in 2003, and is only 20 minutes in 2004.⁸

(Endnotes)

¹ *End of the Line for Ma Bell: Mother of All Telecom Losing Independence*, washingtonpost.com, 2/1/05.

< <http://www.washingtonpost.com/wp-dyn/articles/A50690-2005Jan31.html> >

² *Id.*

³ Kessler, Andy, *You've Come a Long Way, Baby*, wsj.com, 2/2/05.

< <http://online.wsj.com/article/0,,SB110730692039243225,00.html?mod=opinion%5Fmain%5Fcommentaries> >

⁴ Source: TNS Telecoms.

⁵ *Not Just for Emergencies*, nytimes.com, 2/3/05.

, <http://www.nytimes.com/2005/02/03/technology/circuits/03elde.html> >

⁶ *Law Barring Junk E-Mail Allows a Flood Instead*, nytimes.com, 2/1/05.

< <http://www.nytimes.com/2005/02/01/technology/01spam.html?position=&ei=5065&en=034bb74189904b2c&ex=1107838800&adxnnl=1&partner=MYWAY&pagewanted=print&adxnnlx=1107265378-HxBLggrFyyKfRvUsUpME2A> >

⁷ *N Korea's Computer Hackers Target South and US*, ft.com, 10/5/04.

< <http://news.ft.com/cms/s/3d592eb4-15f0-11d9-b835-00000e2511c8.html> >

⁸ *Computer Users Face New Scourge*, Washington Post, p. A1 (Oct. 10, 2004).

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Discovery Institute's mailing address is:

1511 Third Avenue
Suite 808
Seattle, WA 98101

Questions and comments may be emailed to:

<mailto:wohlstetter@discovery.org>