



The State of U.S. Broadband

By Jason Marcheck ■ *Confluence Research Group*

In March of 2001, I received a call from the editor of a telecom trade pub. She said that in light of the recent announcement that capital investment had dropped in the telecom sector for the first quarter since 1998, how would I feel about writing a piece about the ways in which broadband might be affected by the "Dark Clouds on the Horizon". Well, capital spending announcement be darned, I knew way back in September of 2000, when I walked off the show floor at DSL.com with no golf shirts and only one measly sleeve of golf balls that something foul was about to run amok in our industry. Nevertheless, the drop in capital investment (it actually fell off 31% in 4Q00, after several years of strong quarter-over-quarter growth) was a good lead, and I agreed to write the article. In it, I flew in the face of the obvious harbingers of malaise and doom, and wrote that broadband would be just fine in 2001, and not only would it persevere, but it would thrive.

Now as we draw nigh upon the twentieth consecutive quarter of double-digit broadband subscriber growth in the U.S., I have again been tasked to give my thoughts on the "State of Broadband". As it turns out, broadband has been one of the only truly bright spots (albeit not for many startups) in the telecom industry over the past couple years. As I prepared to write this article, I took an unscientific poll of the first 30 people I knew off the top of my head, and it turned out that 19 of those 30 had broadband connections in their homes/apartments. As a broadband user, I can testify, that under no

circumstances can I ever imagine going back to dial-up. Consumers are becoming addicted to broadband quicker than a teenager smoking a Marlboro Red, and SBC announced in its first quarter earnings call that it expects its DSL offering to become EBITDA positive by early 2004. Considering the several billion dollars the company spent to roll-out the service, I'd say broadband is clearly showing the ability to pay for itself.

Meat and Potatoes: The Numbers

During 2002, the number of broadband lines in service increased more than 55%, from 12.8 million lines to 19.9 million lines, as reported by the FCC. Exhibit 1 breaks down broadband access growth by technology for the past three years. During this time, the only access medium that has not experienced double-digit growth is T-1/T-3 lines (which are rapidly being cannibalized by DSL and even cable modems

in the small/medium business market).

Cable Modem and DSL have clearly become the technologies of choice, with cable modems continuing to hold the first-mover advantage it gained back in 1998. That said, DSL has caught on very nicely, and many of the nightmares that were prevalent two years ago have largely been solved, as self-provisioning software has matured. Fixed Wireless broadband, for all the hype surrounding the technology during 1999 and 2000, has faded into a stopgap measure for areas too remote to be served via terrestrial networking. While WiFi holds much promise for office and remote connectivity, it is my feeling that users will find it difficult to completely cut the cord in their homes (How many of you still have landlines where the only calls you get are from your mother and telemarketers?). And lastly, although direct fiber – aka FTTx – has shown tremendous potential in rural areas that are under/poorly served by cable companies, it will be 12 months at minimum (probably more like 18-24 months) before a large-scale rollout occurs.

Market Share Moguls

While the '96 Act may have failed in establishing a vibrant CLEC market, stiff competition has none-the-less emerged. After all, Adam Smith never said where the competition had to come

Exhibit 1 – FCC Reported Broadband Access Growth

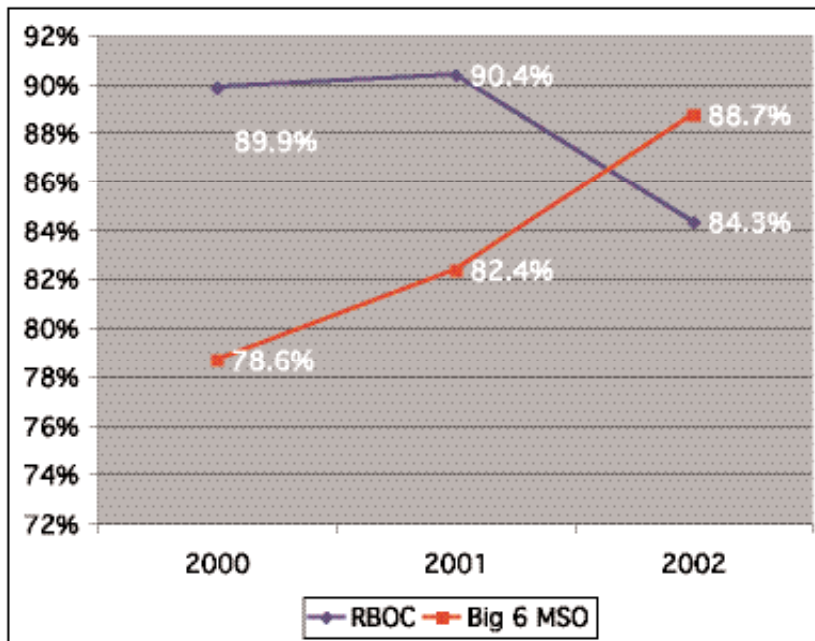
Technology	Year-End	Year-End	Year-End	CAGR
	2000	2001	2002	
DSL	1.977	3.948	6.472	80.9%
Other Wireline (T1, T3, etc.)	1.021	1.079	1.216	9.1%
Cable Modem	3.583	7.060	11.369	78.1%
Direct Fiber	0.376	0.494	0.548	20.7%
Satellite/Fixed Wireless	0.112	0.213	0.276	57.0%
Total	7.069	12.794	19.881	67.7%

Source: FCC; The Confluence Research Group

from, did he? Exhibit 2 shows the percentage of U.S. Cable Modem and DSL lines that are owned by either MSOs or RBOCs.

services with great success, and are taking swipes at each other like hungry T-Rexes. Comcast and Time Warner, the two largest providers of broadband ser-

Exhibit 2 – % of RBOC DSL/MSO Cable Modem Subs



Source: FCC; The Confluence Research Group

In the Cable Modem market, the largest six MSOs (Comcast, Time Warner, Charter, Cox, Cablevision & Adelphia) have gobbled up an increasing percentage of all cable modem subscribers in the country. On the other hand, the proliferation of DSL in rural communities has caused the percentage of DSL subs served by RBOCs to decline over the same period.

So, while CLECs and Overbuilders have not fared well, the Titans of the industry have rolled out broadband ser-

vice in the U.S., have acquired a good portion of their market share by way of acquiring the customers of AT&T Broadband. However, they have also taken advantage of Verizon's comparatively slow initial roll-out of DSL services to major areas to gain a dominant market share in some of Verizon's key territories (namely New York state, Pennsylvania and the Washington DC metro area). SBC, on the other hand, has used aggressive deployment and cable-thrashing marketing campaigns

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to become the dominant broadband provider (number one in DSL and number three in overall broadband subs), in California.

The Future of Broadband

The past year has seen some of the most interesting innovations in the use of the broadband Internet to date. Major League Baseball is now broadcasting its games over the Internet – in full resolution video – for about \$15 per month. ESPN shows SportsCenter highlights on its website daily. Downloading movie trailers and MP-3 files has become second nature. I estimate that as many as 30% of all Home Internet users in the U.S. now have access to a broadband connection. Yes, broadband has not only survived the telecom meltdown, it has thrived in it. As Video over DSL, FTTx, and VoD applications begin to proliferate during the next 12 months, access to broadband will begin to be seen not merely as a luxury, but as a household staple. The hunger for broadband that is being fueled by high-speed Internet connections has never been greater. ■

About the Author

Jason Marcheck is the Principal Analyst of The Confluence Research Group. Information for this article was taken from the Confluence Research Group's latest report: *Telecom Competition Quarterly: The Journal of Key Metrics for RBOCs, MSOs and IXC's – 03:1*. The author may be reached by phone at 301.498.2661 or e-mail at jmarcheck@confluenceresearch.net.