

# ***Being Served: Broadband Competition in the Small and Medium Sized Business Market***

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By Sonia Arrison

## **Introduction**

This paper examines the level of competition for broadband services in the small and medium-sized business market to assess how well they are being served by a variety of broadband providers such as digital subscriber lines (DSL) and cable modem providers. That question is also being considered by the Federal Communications Commission (FCC), which is currently debating whether to carve out a separate product market segment for small and medium enterprises (SMEs). In a December 2001 inquiry,<sup>1</sup> the FCC raised a number of important questions.

How will the FCC define small and medium sized businesses? What is the relevant geographic location for SMEs? Does the FCC have adequate resources to separately monitor broadband deployment in this segment? What additional burdens will reporting requirements impose on SMEs? And is there enough empirical evidence to support the supposition that the SME market is not being adequately served by broadband providers?

Evidence suggests that SMEs are served by a multitude of broadband providers including DSL, cable modem, and satellite services. The outlook for broadband in this segment is strong, with 43 percent of very small businesses, 49 percent of small businesses, and 59 percent of medium businesses expecting to increase their Internet usage the next year.

This paper also finds that competitive local exchange carriers (CLECs) strongly compete with incumbent local exchange carriers (ILECs) for a sizable piece of the SME broadband market pie. A large number of analysts report that cable modem and DSL services will be key drivers for broadband growth in this segment, presenting an opportunity of \$10 billion to \$15 billion over the next five to 10 years.

## **Robust Broadband Competition For Small/Medium Business Market**

### **Overview**

A number of telecommunications and financial analyst reports examine the SME broadband market. The majority find that cable modem and DSL providers are highly competitive and increasingly successful in going after these small and medium-sized companies, compared with the residential market where cable modem operators hold a two-to-one lead for high-speed Internet services. To broadband providers, the SME market represents a sizeable opportunity for both cable operators and telephone companies to provide advanced services, especially in a bundled package that includes voice and data services. Small and medium sized businesses are fairly evenly spread out between urban, suburban, small town, and rural areas and within reach of a DSL provider or a cable modem operator. Some areas have access to both and some to neither.<sup>2</sup>

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<sup>1</sup> "Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services," CC Docket 01-337, Notice of Proposed Rulemaking, released Dec. 20, 2001 (December 2001 *Notice*).

<sup>2</sup> "U.S. Small Business Overview: 2001 Communications," IDC Consulting, p. 13.

The small and medium sized enterprise (SME) market is well served by various types of Internet service providers (ISPs) including incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), cable modem providers, and satellite providers. In the December 2001 Notice, the FCC asks whether it should segment its current categories—residential and small business (mass market) and large business customers—into smaller categories that include SMEs and small office/home office (SOHO) businesses when it measures the pace of broadband deployment.

To justify further segmentation, the FCC asks those in favor of the proposal to provide “reliable empirical evidence” to support these claims. This report argues that the FCC does not presently have all of the requisite information it needs to create and measure separate markets for SMEs and SOHOs. To assess the options requires examination of data on telecommunications technology choice and spending by small and medium-sized businesses. Without examining such data, public policymakers are making decisions without full knowledge of the marketplace.

While the FCC is required to consider what effect rule changes would have on small business, it does not currently possess sufficient data to make a determination. Neither does the Small Business Administration (SBA) Office of Advocacy collect the necessary information. It would be irresponsible to conclude that competition in the SME market does not exist because the relevant data is not collected. Before regulators initiate further involvement in the marketplace, there should be clear evidence that a problem exists.

A majority of cable multiple system operators (MSOs) are offering small businesses some form of cable modem service. Technical problems such as expanding reach, security concerns, and increasing bandwidth have for the most part been addressed with the adoption of the DOCSIS cable modem standard, which allows MSOs to offer robust, secure broadband services to many small businesses in their cable TV footprint. A cursory review of selected cable operators’ Internet sites supports this finding. Indeed, it is estimated that cable MSOs are now capturing over 50 percent of new commercial high-speed Internet customers in their addressable footprint.

Alternative providers of DSL services, namely competitive local exchange carriers, also compete vigorously with their incumbent counterparts for small and medium-sized business customers. These customers provide a higher profit potential to CLECs than residential subscribers and some CLECs have exclusively focused on serving business customers. Satellite providers are also expected to target this potentially lucrative market particularly in rural areas where satellite service might be the only broadband option.

The FCC, meanwhile, considers residential and small business customers the mass market for broadband services and large business customers as a separate, distinct market.

## Defining Small and Medium Enterprises

The Commission defines an SME as typically having, “between one and 500 employees and encompass a heterogeneous group of small enterprises, such as florists, dry cleaners and gas stations to multi-location enterprises that employ hundreds of people.”<sup>3</sup>

SOHOs (small office/home office) are typically defined as businesses with fewer than five employees. As such they could fit within the definition of SME and be included as part of the SME market. The FCC is examining whether SOHOs should be considered a separate market for broadband. Other definitions further break down the SME category into very small enterprises, small enterprises, and medium enterprises.

The European Union defines small enterprises as entities with one to 50 employees and medium enterprises as those with 50 to 500 employees.<sup>4</sup> The Yankee Group considers very small businesses as those with one to 19 employees, small businesses as those with 20 to 99 employees, and medium-sized businesses as those with 100 to 500 employees.<sup>5</sup> The U.S. Commerce Department’s Economics and Statistics Administration defines a very small business as one with less than 25 employees and a small business as one with 25 to 99 employees.<sup>6</sup> Citigroup Smith Barney defines the SME market as businesses with fewer than 250 employees.<sup>7</sup>

Regardless of definition, the FCC will have to decide whether it should separately measure the SME and SOHO markets, how this information can best be used, and whether reporting requirements will create greater burdens for its staff and these small and medium-sized entities.

## Geographic Distribution of SMEs

Proponents of further product market segmentation argue that cable modem infrastructure does not pass through a very large number of business locations because cable television services are mostly targeted to residential consumers. This argument loses merit under scrutiny of the evidence.

A review of secondary source materials suggests that cable television wires pass a significant portion of small and medium sized businesses, which are most likely to be located in suburban areas.<sup>8</sup> Even SMEs in urban areas are often located in multiple tenant environments where businesses and residents occupy the same building.

For example, an IDC Consulting survey of 962 small businesses (those with fewer than 100 employees) conducted in 2000 demonstrates that 23 percent were located in small cities and towns with fewer than 50,000 people followed by 16.4 percent in medium-sized cities (between

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<sup>3</sup> *Notice* at para. 23., fn. 57.

<sup>4</sup> “Convergent Communications Europe: Assessing the SME Opportunity: Findings of the 2000 Small and Medium Enterprise Survey,” The Yankee Group, April 11, 2001, p. 2.

<sup>5</sup> *Id.* at p. 2.

<sup>6</sup> “Main Street in the Digital Age: How Small and Medium-Sized Businesses are Using the Tools of the New Economy,” U.S. Department of Commerce Economics and Statistics Administration, February 2002, p. 3.

<sup>7</sup> “Cable: Capitalizing on the SME Opportunity; Detailed Note,” Citigroup Smith Barney, June 4, 2003, p. 4.

<sup>8</sup> “U.S. Small Business Overview: 2001 Communications,” IDC Consulting, p. 13.

100,000 and one million people) and 16.2 percent in rural areas. In addition, 12.4 percent were located in major metropolitan areas and 13.5 percent in a suburb within 20 miles of a major metropolitan area.<sup>9</sup> IDC's conclusion is that small business enterprises are fairly evenly distributed across urban, suburban, small town, and rural locations. The same is true for medium-sized businesses.

According to Credit Suisse/First Boston Equity Research, cable television providers pass by more than 96 million homes in 2003 and that number is expected to reach more than 101 million homes by 2008.<sup>10</sup> Assuming that 30 percent of small and medium businesses are located in suburban areas and small towns, cable operators have a tremendous potential to capture significant market share in these locations.

Citigroup Smith Barney (Smith Barney) estimates that the potential size of the SME market in dollar terms for high-speed Internet services is presently \$10.6 billion. It also estimates that 30-50 percent of this SME market is located within 50 to 100 feet of cable modem coaxial wires, or what it calls cable's "addressable" market.<sup>11</sup>

"Cable MSOs typically target businesses with fewer than 20 persons," notes Smith Barney. "This market is a subset of the overall SME market. Dun and Bradstreet estimates that 85 percent of total business locations have fewer than 20 employees. Accordingly, we estimate the size of the SME market to be roughly 13 million locations."<sup>12</sup>

While cable MSOs reach only about 50% of the potential SME market (approx. \$5.3 billion), cable modem service is not the only broadband option for SMEs. Small and medium businesses can also opt for broadband services from a local telephone company, a competitive provider, a satellite operator, or (soon) a wireless carrier. These options give SMEs considerable latitude in choosing the appropriate products and services for different business situations.

The government, including the SBA and FCC, often defines a small business as one having fewer than 500 employees. Industry designation is a significant determinant of telecommunications use, many of which are services companies that include a host of small businesses. Dense markets are typically covered by many telecom providers and small businesses operate in many of these markets.

Therefore, a small business can be a sizable user of telecommunications services, can be in a telecommunications-intensive industry, and located where multiple providers exist. Small and medium sized businesses are also geographically diverse.

Twenty-three percent of SMEs are located in small cities and towns, 16.4 percent in medium-sized cities, 16.2 percent in rural areas, 12.4 percent in major metropolitan areas, and 13.5 percent in a suburb within 20 miles of a major city. Of the roughly 13 million SMEs identified by Dunn and Bradstreet, 85 percent were businesses with fewer than 20 employees.

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<sup>9</sup> *Id.*

<sup>10</sup> "The Broadband Battle 2003: A Crossroads for High-Speed Data," Credit Suisse/First Boston Equity Research, April 3, 2003, p. 40.

<sup>11</sup> "Cable: Capitalizing on the SME Opportunity; Detailed Note," Citigroup Smith Barney, June 4, 2003.

<sup>12</sup> *Id.* at p. 4.

## Is the SME Market Adequately Served By Broadband Providers? Analysts See Strong Competition In Segment

### Small Businesses Eyeing Cable Modems

Reports by financial analysts find that cable modem and DSL providers are highly competitive in the small and medium sized business market. When compared with the residential broadband market, cable modem operators hold a two-to-one lead for high-speed Internet services. To broadband providers, the SME market represents a large opportunity for both cable operators and telephone companies to provide advanced services, especially in a bundled package that includes voice, video, and data services. A number of analyst firms report that small businesses are more likely to consider cable modem service over DSL.

In June 2003, In-Stat/MDR reported that there were approximately 2,355,000 small businesses (from five to 99 employees) and that by 2007 that figure would grow to 2,663,000.<sup>13</sup> In its survey of 264 key decision makers in small businesses, In-Stat/MDR finds that roughly 58 percent cite some form of dedicated Internet access (most likely broadband) as the most common type of data service used. That number is expected to rise to 74 percent by the beginning of 2004. "Respondents expect fairly dramatic increases in use of broadband services across the board by 2004," In-Stat/MDR notes.<sup>14</sup>

A more relevant finding is that 50 percent of small businesses considering some form of broadband said they expected to buy cable modem services, while 39 percent reported they expected to use high-end DSL services, and 36 percent said they have plans for ADSL services.<sup>15</sup> In all, small businesses reported 14 different options for data services ranging from cable modem and DSL services to wireless, fixed wireless, and T3 services. Firms with 50 to 99 employees indicated the highest level of expected usage in nine of the categories with one notable exception in the cable services category. In that category, 40 percent of the respondents in the smallest firms (five to nine employees) indicated they would use cable modem service as compared to 35 percent of the largest small businesses.<sup>16</sup>

Small business use of Internet services is expected to grow 74 percent by the beginning of 2004. Half of these businesses indicate that they expect to buy broadband in the form of cable modem services over the next few years, while 36 percent indicate they will choose DSL. Numerous reports show that both will be key drivers for broadband growth in the SME segment during the next five to ten years.

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<sup>13</sup> "What's Next?: Telecom Trends and Expenditures in the US Business Market – Part Three: Small Businesses," In-Stat/MDR, June 2003, p. 7.

<sup>14</sup> *Id.* at p. 18.

<sup>15</sup> *Id.* at p. 18.

<sup>16</sup> *Id.* at p. 19.

## Cable Modems/DSL Key Drivers of Broadband Growth

Small businesses spend about 25 percent of capital expenditures on computers and telecommunications services.<sup>17</sup> This could amount to \$10 billion to \$15 billion over the next 10 years. Small companies also report that high-speed Internet access will be important to their future success.

For example, In-Stat/MDR estimates that small businesses will spend about \$6 billion in 2003 for wireline data services, a 20-percent increase over 2002. By 2006, In-Stat/MDR projects small businesses will spend nearly \$9.8 billion on these services. It reports, "High-speed Internet access in the form of both cable modems and DSL...are expected to be key drivers of growth in this category of spending moving forward, in both office and residential locations."<sup>18</sup>

A report released by IDC Consulting in July 2003 notes, "most major cable operators are eagerly eyeing the small business market, which will likely become an important battleground in the coming year or two."<sup>19</sup> The report also relates that cable operators face some challenges such as expanding their reach, providing more bandwidth, and ensuring security. These concerns have been addressed by the adoption of a cable modem standard called DOCSIS. IDC also predicts that by 2007 there will be nearly 1.4 million business cable modem subscribers in the U.S. compared with about 270,000 business subscribers at year-end 2002.<sup>20</sup> Worldwide, IDC says business cable modem customers generated \$384 million in revenue in 2002 and that figure is expected to climb to nearly \$1.5 billion by 2007.<sup>21</sup>

According to a recent report from Allied Business Intelligence (ABI), by 2008 the market share of cable SME broadband will reach more than 20 percent, compared to four percent in the year 2003. The report notes cable operators' SME broadband revenue will grow at a compound annual average growth rate of 63 percent through 2008.<sup>22</sup> Cable operators are expected to increase their focus on this segment. "The cable business will undergo a massive shift in its focus in the next 10 years, with revenue from video services declining, and revenue from high-speed data services, cable telephony, and SME services increasing," says Vamsi Sistla, ABI senior analyst and the report's author.

Cisco Systems, Inc., the router company, has an Internet site dedicated to small and medium sized businesses that explains the benefits of broadband (DSL and cable modem service) for these companies. Its Business Solutions page cites an ABI report that says, "DSL is expected to capture over 36 percent of the market by 2003, with cable modems following closely behind with 26 percent."<sup>23</sup>

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<sup>17</sup> "Main Street in the Digital Age: How Small and Medium-Sized Businesses Are Using the Tools of the New Economy," U.S. Department of Commerce Economics and Statistics Administration, February 2002, p. iv.

<sup>18</sup> *Id.* at p. 24.

<sup>19</sup> "Worldwide Cable Modem Services Forecast, 2003-2007," IDC Consulting, July 2003, p. 16.

<sup>20</sup> *Id.* at p. 11.

<sup>21</sup> *Id.* at p. 11.

<sup>22</sup> "Bundling of Multiple Services Will Save the Day for Cable MSOs, Says ABI," Press Release from Allied Business Intelligence, July 23, 2003.

<sup>23</sup> "Emerging Broadband Technology Options," by Alice Bredin. Cisco Small Medium Business Center at <http://www.cisco.com/warp/public/779/smbiz/netsolutions/find/alice/ebto/eb1.html>.

A September 2002 Yankee Group survey also found that a majority of small and medium businesses (SMBs) are reaping “enormous benefits from broadband and see the Internet as having a vital role in their ability to conduct business.”<sup>24</sup> The survey found that “the outlook for broadband is strong as 43 percent of Very Small, 49 percent of Small and 59 percent of Medium businesses expect usage of the Internet to increase,” according to Yankee.<sup>25</sup>

The Yankee Group survey found that in the very small business category (those with two to 19 employees), “cable modem and DSL are in a virtual market share tie.”<sup>26</sup> It notes that market share for cable modem drops significantly for medium-sized businesses when compared to very small businesses (43 percent for small businesses vs. 17 percent for medium businesses).<sup>27</sup> Medium-sized businesses have a greater variety of telecommunications needs and typically require more bandwidth than DSL or cable modem services offer.

Expected Internet usage among small and medium sized businesses is expected to grow significantly by as much as 74 percent over the next few years. Competition for this growing segment is also expected to significantly increase as cable modem and DSL providers target SMEs, which are expected to spend nearly \$10 billion on broadband services by 2006.

### **Number of SME Locations Influence Technology Choice**

The Yankee Group study also found that the number of SME locations influenced its technology choice. Very small businesses with a single site chose cable modem service 46.3 percent of the time versus 40.6 percent for DSL. DSL edged out cable modem service in small and medium sized businesses with DSL getting 37.6 percent versus 23.2 percent in the small business segment, and 26.1 percent versus 17.4 percent in the medium segment.

At multi-site locations, DSL had a larger lead in the very small business category (53.3 percent vs. 30 percent) and the small business category (34.5 percent vs. 19.5 percent). But in the medium sized business, the gap between DSL and cable modem service narrowed to 23.2 percent for DSL and 14.3 percent for cable modems.<sup>28</sup> It is evident from this data that medium-sized businesses have more choices than just DSL and cable modem service, including T-1 lines, frame relay, and asynchronous transfer mode (ATM) technologies.

Other findings in the Yankee Group report suggest that only 15 percent of small businesses and very small businesses chose their Internet access provider because there was no comparable competing option. In other words, 85 percent of small and very small businesses had at least two broadband choices. It also found that 62 percent of SMBs had not pre-selected an access technology, leaving it wide open as to what small/medium businesses would choose. Yankee concludes, “churn will continue between DSL and cable modem subscribers. SMBs view the two as

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<sup>24</sup> “Future of Broadband in the SMB Market,” The Yankee Group, September 2002, p. 5.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.* at p. 33.

<sup>27</sup> *Id.* at p. 33.

<sup>28</sup> *Id.* at p. 35.

clear substitutes.”<sup>29</sup> This data suggests that competition is alive and well and broadband customers, not providers, will be deciding which broadband services to use.

With 25 percent of capital expenditures going towards computer equipment and telecommunications services, small and medium sized businesses are very particular in their technology choices. SMEs study and analyze their particular circumstances and needs before committing capital for high-speed Internet services. It appears that these companies consider broadband services a key factor in the future growth of their businesses and are open to choosing the technology option that best suits their specific needs.

### **Cable Multiple System Operators (MSOs) Setting Sights on SME Targets**

While DSL providers appear to have a slight lead in the SME market for broadband services, major cable operators are now increasing their focus on the SME segment. A cursory review of major cable operators’ Internet sites shows that these companies are increasingly marketing cable modem services to small and medium businesses in their franchise areas. Cable companies often offer a host of choices and options for businesses of different sizes and different broadband requirements.

Analysts see cable operators gaining a larger slice of the SME pie. Smith Barney said it believed “cable can capture at least 50 percent of this addressable market over time.”<sup>30</sup>

“Cable MSOs are seeing an acceleration in demand for business cable modem service. Cox and Cablevision estimate that they are now capturing more than 50 percent of new SME high-speed Internet subscriber additions in their markets,” wrote Niraj Gupta, author of the Smith Barney report.

“To that point, Cablevision and Cox are currently adding 1,200 and 2,400 HSI business customers per month, respectively,” wrote Gupta. “Mediacom is currently adding 200-300 new customers a month, with net adds expected to accelerate with the upcoming launch of more aggressive marketing efforts.”<sup>31</sup>

“While the cable industry has been a little slow in targeting the SME high speed market, cable MSOs are now capturing over 50 percent of new commercial high-speed Internet customers in their addressable footprint,” the report says. “We believe that cable can ultimately wrest at least 50-percent market share from the RBOCs (Regional Bell Operating Companies) in this market segment.”<sup>32</sup>

Smith Barney estimates that represents a \$1.6 billion to \$2.7 billion opportunity over time for cable modem providers. As noted earlier, Smith Barney estimates the size of the SME market to be roughly 13 million locations. Cable operators are increasingly targeting small and medium sized businesses and the demand for cable modem service is expected to grow. Analysts believe that

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<sup>29</sup> *Id.* at p. 21.

<sup>30</sup> “Cable: Capitalizing on the SME Opportunity; Detailed Note,” Citigroup Smith Barney, June 4, 2003.

<sup>31</sup> *Id.* at pp. 1-2.

<sup>32</sup> *Id.* at p. 3.

cable operators can capture 30 to 50 percent of the SME market in their service areas, representing a \$1.6 billion to \$2.7 billion opportunity for cable operators.

A cursory review of the top cable multiple system operators (MSOs) finds that these companies are setting their sights on the SME market with cable modem offerings aimed at small and medium sized businesses.

### **Cable Offerings in the SME Market**

An In-Stat/MDR survey of 50 cable operators conducted in February 2003 finds that 62 percent of respondents said they offered some kind of cable modem service to businesses.<sup>33</sup> “Some operators, particularly Comcast and Cox, have made significant commitments toward signing up small and medium-sized business users,” the report notes.<sup>34</sup> A sample review of cable modem offerings aimed at SMEs include:

- Comcast Corporation. Offers residential consumers and small businesses Comcast High-Speed Internet Pro for about \$95 per month. Comcast claims downloads are up to 3.5 Megabits per second (Mbps) and uploads are up to 384 Kilobits per second (Kbps). Business locations are subject to different terms than residential subscribers.
- Time Warner Cable’s (TWC) Road Runner service is also offered to businesses and telecommuters as Road Runner Business Class. Time Warner Cable says it provides high-speed broadband services to 2.5 million residential customers and “a growing number of businesses.”<sup>35</sup>
- Charter Communications’ Charter Business Networks targets “a small organization seeking a cost effective, reliable connection to the Internet, or a large organization with intensive networking requirements between dispersed locations.” Charter says its network services deliver speeds from five Mbps up to one Gigabit per second, including local access. Charter says its high-speed Internet services “enable even the smallest business organizations to participate in the e-commerce world.”<sup>36</sup>
- Cox Business Services provides a range of advanced communications services, including high-speed Internet access, data transport and video solutions, all delivered over a “state-of-the-art fiber-optic-based broadband network.”<sup>37</sup>
- Cablevision System’s Lightpath offers Business Class Optimum Online for smaller businesses (four or fewer users) requiring high-speed Internet access. It claims this product as an alternative that is 100 times faster than dial-up access and four times faster

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<sup>33</sup> “MSO Survey: US Cable Operators Fine Tuning Their Bundle of Digital Services,” In-Stat/MDR, February 2003 at p. 38.

<sup>34</sup> *Id.*

<sup>35</sup> See Time Warner’s web site at <http://www.twcs.net/> for more information.

<sup>36</sup> See Charter’s business web site at <http://www.charterbusinessnetworks.com/services.html>.

<sup>37</sup> See Cox Business Services web site at <http://www.coxbusiness.com/> for more information.

than DSL. Business Class Optimum Online is delivered via the hybrid fiber coax (HFC) network owned and operated by Cablevision.

- MediaCom Online offers affordable high-speed Internet service for business that is specifically designed to meet the data communications needs of small and growing companies. Its business service features high performance speeds and applications that larger companies use without the high expense. MediaCom says its cable modems “provide access speeds that are 50 times faster than 28.8Kbps dial-up connection.”<sup>38</sup>

Smith Barney’s research finds that Cox targets the small and medium-sized market while also maintaining its focus on large businesses. “The most rapidly growing portion of CBS is the SME high-speed Internet market, which is growing in excess of 50 percent. Cox estimates that there are 1.1 million business locations within its franchise area, 85 percent of which have fewer than 20 employees (equating to roughly 0.9 million SME locations).” Of those 900,000 locations, Cox estimates that 374,000 are serviceable business locations (i.e. located within 50 to 100 feet of its network), and 320,000 of those can be categorized as SME locations.

Smith Barney reports that Cox is currently adding 2,400 new HSI customers per month. “Cox has 83,000 voice/data business customer relationships, up from 65,000 at yearend 2002. We estimate that business cable modem customers totaled roughly 32,000 at yearend 2002,” Smith Barney says. Smith Barney concludes that Cox can easily capture 128,000 business cable modem customers over time.<sup>39</sup>

“Cablevision targets enterprises with fewer than 16 employees (equating to four or fewer voice lines), representing an opportunity of 430,000 SME locations within its cable footprint...with the company currently adding 1,200 new customers per month,” Smith Barney reports. “We currently estimate the CVC had 16,600 business class optimum customers at yearend 2002 (up from 9,000 customers at yearend 2001).” Smith Barney believes Cablevision can capture 170,000 business cable modem customers over time equating to \$365 million to \$370 million in revenue by 2008.<sup>40</sup>

Smith Barney also reports that Mediacom’s primary focus is on businesses with fewer than 20 employees, which amounts to roughly 500,000 businesses within its serviceable footprint. Mediacom is currently adding 200-300 new customers a month, it says. “Mediacom overlaps with Qwest in 40 percent of its footprint...the company appears well positioned to capture a significant portion of the commercial high-speed Internet and, in some cases, voice business in its markets,” the report concludes.<sup>41</sup> Mediacom is poised to seriously challenge incumbent local exchange carrier Qwest in its nine-state territory.

Aside from the evidence presented from cable operators’ Internet sites, analysts examining the SME opportunity for cable modem providers find that cable operators’ ability to offer customized bundled voice and data services will seriously challenge ILECs and other competitors in their cable franchise areas.

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<sup>38</sup> See [http://www.mediacomcc.com/products\\_highspeedbusiness.html](http://www.mediacomcc.com/products_highspeedbusiness.html).

<sup>39</sup> “Cable: Capitalizing on the SME Opportunity; Detailed Note,” Citigroup Smith Barney, June 4, 2003, pp. 5-6.

<sup>40</sup> *Id.* at pp. 4-5.

<sup>41</sup> “Cable: Capitalizing on the SME Opportunity; Detailed Note,” Citigroup Smith Barney, June 4, 2003, at pp. 2, 6.

Analysts report that cable modem operators can capture up to 50 percent of this market, making it a highly competitive battlefield for broadband services. Competitive local exchange carriers (CLECs) are also targeting SMEs as potential new buyers.

### **Competitive Carriers Targeting SMEs**

A Yankee Group survey indicated that CLECs were scoring higher than ILECs in satisfaction and loyalty in 2002. “SMBs gave higher satisfaction ratings to CLEC providers than to their ILEC competitors. Except in a few areas, ILECs saw a major decline in favorable customer satisfaction—the worst coming from their Very Small Business customer base (SMBs with two to 19 employees).”<sup>42</sup>

ILECs were particularly vulnerable in the medium business category, according to The Yankee Group. “ILECs must act fast to stop loyalty erosion among MBs that are typically higher-value voice and data spending customers. This demanding base of MB customers should be a priority for ILECs—particularly those with ambitions to sell services beyond voice,” said the report.<sup>43</sup> And the report also notes that, “the ILECs’ traditional bread-and-butter (very small businesses) customers, feel that their ILEC carriers are not in tune with their business needs and are not keeping pace with their changing communication requirements.”<sup>44</sup>

Covad Communications Corp. was the first company to commercially deploy DSL in the United States. Covad spent hundreds of millions of dollars building a network that passes more than 40 million homes and businesses in 35 states—the largest nationwide footprint of any DSL company. Covad provides high-speed Internet and network access using DSL technology and offers DSL, T1, managed security, Web and email hosting, IP and dial-up services directly through Internet Service Providers, value-added resellers, telecommunications carriers and affinity groups to small and medium-sized businesses and home users. Covad services are currently available in 96 of the country’s top Metropolitan Statistical Areas.<sup>45</sup> This success demonstrates that competition among DSL providers exists in addition to competition between cable, DSL, and (soon we will discuss) satellite.

Another example is NuVox Communications. The company is a rapidly growing, facilities-based integrated communications provider that delivers services to small and medium sized businesses in 30 markets in 13 contiguous states in the Midwest and Southeast. NuVox provides integrated voice, data, and Internet services to more than 15,000 customers with more than 210,000 access lines in service. The company’s main business offering is the NuBundle, which it says delivers a high value package of services all on one bill, all at one affordable price, all from one company. Included in this bundle are local and long distance voice service, dedicated high-speed Internet access, Web hosting, and e-mail.<sup>46</sup>

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<sup>42</sup> “Small and Medium Businesses Show Loyalty to CLECs, Again,” The Yankee Group, Jan. 15, 2003.

<sup>43</sup> *Id.* at p. 7.

<sup>44</sup> *Id.* at p. 10.

<sup>45</sup> See Covad’s Web site at <http://www.covad.com/companyinfo/>.

<sup>46</sup> See the NuVox’s web site at <http://www.nuvox.com/index.php/22> for more information on NuBundle.

Time Warner Telecom targets solely small and medium businesses, most in metro areas. It says it is "the leading provider of metro-area broadband optical networks and services to businesses." It delivers "last-mile" broadband data, voice, Dedicated Internet Access, and Dedicated Web Hosting in 44 major U.S. markets. For medium-size businesses, TWTC offers customers VersiPak, which provides a single-vendor solution that combines local voice, Internet, and long-distance services onto one dedicated clear channel T-1. When the voice channels are not being used, that bandwidth is dynamically allocated for maximizing bandwidth.<sup>47</sup>

Consequently, high-speed Internet services are available from a variety of sources other than cable modem providers and incumbent local exchange carriers. Competitive local exchange carriers specifically target SMEs, especially in medium tier cities (those with 100,000 to one million people) where there is a large concentration of such businesses. Selected SMEs perceive CLECs as providing better service bundles and customer support than either ILECs or cable modem providers. Another broadband option for small and medium sized businesses comes from satellite Internet providers.

### **Satellite Broadband Offerings**

While just beginning to be deployed and marketed, satellite Internet providers may have the largest footprint to offer advanced services, including hard-to-reach rural areas. To date, there are three companies providing Internet service via satellite: Hughes Network Systems, Pegasus, and StarBand. Pegasus is a reseller of Hughes' "DIRECPC," which uses a satellite downlink and terrestrial uplink, and Hughes' "DIRECWAY," a two-way, high-speed satellite Internet connection to rural areas. StarBand currently offers a two-way, high-speed Internet service.

Internet broadband via satellite requires a singular satellite dish that can be used for both television and Internet. Satellite provides the consumer with connection speeds comparable or superior to DSL and cable modems, and for a price competitive with other services. Since satellites beam content to subscribers simultaneously, users should not experience any slow-downs or interruptions.

Two-way satellite Internet can provide service to anywhere in the country, ideal for consumers in rural or underserved areas and small and medium sized businesses in all locations. Because it does not require use of a phone line, two-way satellite is "always on."

SPACEWAY is the next major step in Hughes' ongoing commitment to provide DIRECWAY customers with the world's most innovative satellite communications solutions, to maintain its competitive advantage in the marketplace. The first SPACEWAY satellite will launch in 2003, with commercial service in North America beginning in early 2004.

With SPACEWAY, large businesses, telecommuters, small office/home office (SOHO) users and eventually consumers will have access to two-way broadband applications including telemedicine, desktop video conferencing, and interactive distance learning. The company says the services will be delivered more cost-effectively than by conventional terrestrial systems such as frame relay, will

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<sup>47</sup> See Time Warner Telecom's web site at <http://www.twtelecom.com/>.

seamlessly integrate with existing land-based local and wide-area networks, and be fully compatible with a wide range of communications industry standards.<sup>48</sup>

StarBand's Small Office service is aimed at small business customers looking for relief from dial-up delays and disconnects. StarBand's Telecommuter services are the same as the small office service.<sup>49</sup>

Satellite Internet services will likely play an important role in the expansion of broadband services to both consumers and small and medium sized businesses, particularly in rural areas. Satellite providers may also target multiple dwelling units and multiple tenant environments in larger cities and provide broadband services to entire buildings.

## **Conclusion**

A comprehensive review of data from secondary sources finds that the small and medium-sized business market is a highly competitive arena for high-speed broadband services. Available data from financial analysts reviewing this market segment demonstrates that cable operators, DSL providers, and others are competing head-to-head for a slice of the SME pie.

Small and medium sized businesses are geographically dispersed in urban, suburban, small town, and rural areas. Large portions of these businesses are served by two or more broadband providers. Only 15 percent were found to have only one or no broadband choice. As satellite providers begin providing high-speed Internet services, the competition will further intensify.

*Summary of the findings in this report:*

- *Small and medium businesses are a geographically diverse group and are fairly evenly distributed among urban, suburban, small town, and rural locations.*
- *Small business use of Internet services is expected to grow 74 percent by the beginning of 2004. Half of these businesses indicate that they expect to buy broadband in the form of cable modem services.*
- *Analysts indicate that both DSL and cable modem service will be key drivers for broadband growth in the SME segment over the next five to 10 years, amounting to \$10 billion to \$15 billion over the next 10 years.*
- *The SME market is highly competitive between DSL and cable modem providers as well as from competitive local exchange carriers and satellite Internet providers.*
- *62 percent of cable operators surveyed said they offered some kind of broadband services aimed at small and medium sized businesses. Analysts believe cable operators can capture 30-50 percent of this segment over time.*

The SME broadband market is highly competitive with many providers vying for these lucrative customers. SMEs have numerous choices for broadband services from incumbent local exchange carriers, cable modem providers, competitive local exchange carriers, and satellite providers. The

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<sup>48</sup> See Hughes' web site at <http://www.hns.com/default.asp?CurrentPath=spaceway/overview.htm>.

<sup>49</sup> See <http://www.starband.com/smalloffice/index.asp> and <http://www.starband.com/telecommuter/index.asp> for information on these products.

SME market is well served by these providers and competition is expected to grow more intensely over the next few years.

Given these facts, it does not make sense for the FCC to carve out a separate product market segment for SMEs. Instead, the FCC should allow this market to continue to develop without further government involvement. Broadband is and will continue to be an important economic driver. The best way to ensure its efficient and speedy rollout is through the competitive marketplace. New reporting requirements would be a drain on the marketplace and potentially halt innovation as providers would be forced to spend even more time focusing on regulations instead of developing and providing more innovative services.

## **About the Author**

Sonia Arrison is director of Technology Studies at the California-based Pacific Research Institute. Ms. Arrison researches and writes on privacy policy, electronic commerce, e-government, Internet taxation, intellectual property, and telecommunications. She is a regular columnist for TechCentralStation.com and her work has appeared in many publications including *CBS MarketWatch*, *CNNfn*, *LA Times*, *Sacramento Bee*, *San Francisco Chronicle*, *San Jose Mercury News*, *The National Post*, *Washington Times*, and *Consumer Research Magazine*. Ms. Arrison is author of *Consumer Privacy: A Free Choice Approach*, co-author of *Internet Taxes: What California Legislators Should Know*, and editor of *Telecrisis: How Regulation Stifles High Speed Internet Access*. A frequent media guest and National Press Club First Amendment Scholar, Ms. Arrison has appeared on National Public Radio's "Forum," Talk America's "Computer Daze," Tech TV, and CBC TV's "The National," and "Sunday Morning Edition." Prior to joining PRI, Ms. Arrison focused on Canadian-U.S. regulatory and political issues at the Donner Canadian Foundation. She also worked at the Fraser Institute in Vancouver, where she specialized in regulatory policy and privatization. She received her B.A. from the University of Calgary and an M.A. from the University of British Columbia.

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