# THE MERTON GROUP

## MARKET RESEARCH REPORT<sup>1</sup>

Prepared For

## TOWN OF AMHERST, NH



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#### 1. INTRODUCTION

In this Report, The Merton Group ("Merton") presents the results of the market research study performed by the Town of Amherst, NH (the "Town") in November 2002. The purpose of the survey was to help the Amherst Communications Infrastructure Committee determine the needs and wishes of Town residents on the issue of Internet access. To this end, the survey polled the current Internet usage, demographics and demand for broadband services in the Town.

This Report summarizes the results from the residential survey commissioned and conducted by the Town. The surveys were conducted by asking voters at the November 5, 2002 election to participate. The Town printed 1,000 questionnaires and the voters answered the surveys randomly from 7:00AM to 6:00PM at the polling place. The questionnaires were not sent to businesses because they did not appear to comprise the target market for purposes of the study. The market research yielded 1,012 results because the survey allowed for multiple ISPs per household.

The accuracy of projections obtained, in other words, how representative the surveyed population is of the entire Town population, depends heavily on the number of survey responses obtained. If 175 to 200 responses were obtained, then it would be possible to make projections with a +/- 7.5% accuracy with 95% confidence. With about 400 responses, the accuracy of the survey increases to +/- 5%. In other words, with about 400 responses, a sample survey of current Amherst residents would differ no more than +/- 5% than if all Amherst residents were contacted and included in the survey. Further, if the survey were replicated, the statistics would fall within the margin for error 95 out of 100 times.

The Town entered the data from all the 1,012 responses into its records, which Merton then processed and analyzed to generate the results in this Report. This sample size, as explained above, yields accuracy in results of about +/-3%.

#### 2. HIGHLIGHTS

#### 2.1 Internet Access Demographics

- 1. About 72% of Amherst homes use dial-up Internet access, 24% use cable modem, 2% use DSL and less than 1% use satellite. Current "broadband" penetration is about 27%.
- 2. About 24% of those with Internet access use Adelphia, 21% use AoL, 6% use Earthlink, 5% use MSN, and the remaining 42% use other service providers like DSL, Verizon, AT&T and Compuserve.
- 3. Almost 62% of residents thought that the speed of their current Internet access was satisfactory or better, while only 28% thought that their speed was less than satisfactory.
- 4. About 72% of Internet users pay \$30 or less per month currently for their service, while 28% pay more than \$30 per month.

#### 2.2 Telephone Demographics

- 1. 45% of residents use a second telephone line for Internet access.
- 2. Of those with a second line, 29% pay \$20 or less per month for their second line, 59% pay between \$20 and \$30, and the remaining 12% pay over \$30 per month.

#### 2.3 Municipal Broadband Network Services

## 1. About 45% of residents are willing to pay over \$30 per month for faster Internet access (higher speed), while 28% are willing to pay more than \$40 per month.

2. About 40% of current dial-up users and 60% of cable modem users are willing to pay at least \$30 per month for faster service. Over 40% of cable modem users and only about 20% of dial-up users are willing to pay at least \$40 for faster service.

#### 3. DETAILED RESULTS

#### 3.1 Internet Market Statistics

#### 3.1.1 Internet Access Usage

The survey asked the respondents what kind of Internet access service they had at home. The choices provided were dialup, cable modem, DSL and satellite. The results are shown below.



The results clearly show that there is a mediocre level penetration of "broadband" data service in the town, about 27% comprising cable modem, DSL and satellite Internet service.

#### 3.1.2 Internet Service Providers

The respondents were then asked about who their ISP is; the choices provided were Adelphia, AoL, Earthlink, MSN and Other. The results are show below. The majority of Internet users, about 24%, use Adelphia as their ISP, for cable modem service. The major dial-up ISP used is AoL. DSL users have Verizon and DSL.net. The other commonly used ISPs are Earthlink, MSN and AT&T.

#### Internet Access by ISP



#### 3.1.3 Use of Internet

The survey was also targeted at determining the psychographic profile of Internet users in the Town. To this send, the respondents were asked to what extent (percent of time) they used the Internet for personal use, home office or business use. The results are presented below for Personal Use of the Internet.

#### Internet for Personal Use



The results below are for Home Office use.

Internet for Home Office Use



The use of the Internet for Business is shown below:



Internet for Business Use

It is evident from the results that Amherst residents use the Internet predominantly for personal use, although 19% of the respondents use it at least 25% of the time for home office and 20% use it at least 25% of the time for business. These are material numbers for non-personal usage and indicate a potentially robust market for broadband services in the Town based on the fact that home office and business users of the Internet usually form the most willing segment of the population for adoption of broadband Internet.

The chart below captures the percent of users who use the Internet *at least 25%* of the time ("predominantly") for personal, home office or business use and their propensity to pay for higher speed of Internet access.





It is evident from the chart that the predominantly personal users of the Internet become less willing to pay higher prices for faster speed than are predominantly home office or business users of the Internet. This suggests that the more robust target market for MBN services would be those who use the Internet predominantly for home office or business.

#### 3.1.4 Current Cost of Internet

The survey asked the respondents how much they currently paid for their Internet access service. Following are the results. It is clear that about 72% of the Internet users in the Town pay \$30 per month or less, while the remaining 28% pay more than \$30. These results are consistent with the penetration levels of cable modem and DSL (costing more than \$30) vis-à-vis dial-up service (costing less than \$30 typically).



#### 3.1.5 Productivity with Current Internet Service

In order to better understand the market for broadband services, and to determine to what extent the Town residents would use the Internet for if they had broadband access, the survey asked how many times a month the respondent could NOT do what he/she wanted to do on the Internet. This information is valuable only if the assumption is made that the respondent could do most or everything they wanted to do if they had broadband/faster access instead of their current service.

The results indicated that a large number of residents (44%) could not perform at least 5 tasks because they did not have appropriate Internet access service. It must not be ignored that most of the residents of the Town have not had an opportunity to experience other enhanced broadband services because of lack of broadband connectivity as well as lack of broadband providers. Perhaps, the availability of such premium services at affordable costs might spur additional demand and more diverse use of the Internet.

#### Number Things Cannot Do with Current Internet Service



#### 3.1.6 Satisfaction with Current Speed of Internet

Another psychographic measure of the demand for broadband services is how satisfied the residents are with the speed of their current Internet service. The survey polled the respondents with this question. The results are shown below. It is evident from the chart that 62% of the residents are satisfied or more than satisfied with the speed of their Internet access; 38% of the respondents were less than satisfied. The results do not indicate a very strong or robust demand for faster service overall.

Satisfaction with Speed of Internet Service



In order to better understand the demand (or the lack thereof) for faster speed, the above results were segmented by the type of current Internet access that the respondent has. As anticipated, the chart below clearly indicates that 90% of the current dial-up users are less than satisfied with the speed of their service. More interestingly, less than 20% of cable modem users, less than 5% of DSL users and 0% of satellite users were less than satisfied with the speed of their current service. The results suggest that these incumbent broadband technologies might provide significant competition and churn to any broadband Internet service offered over the MBN. At the same time, the current dial-up users form a very attractive market segment for MBN.



#### 3.1.7 Overall Satisfaction with Current Internet Service

The survey also asked the respondents what they thought about the overall quality of their current Internet service. The results in the chart below suggest that a majority of users (almost 70%) are satisfied or more than satisfied with their current service; about 30% are less than satisfied. Again, the results suggest a lack of a very strong and robust market overall for new and enhanced Internet services in the Town.

#### **Overall Satisfaction with Internet Service**



#### 3.2 Telephone Service Statistics

#### 3.2.1 Second Line Demographics

The survey was also targeted at understanding the current telephone service demographics in the Town. More importantly, the segment of the population, which uses a second telephone line for Internet access, represents the initial target market for conversion to the MBN. This is because a household is probably paying about \$25 to their ISP and another \$25 for the second telephone line dedicated to data/fax. With the MBN, the second telephone line could be eliminated, and the end-user could be paying the same total of \$50 to an ISP for 10+ Mbps Internet access service. This segment of the population therefore represents the "low hanging fruit" for transfer to the MBN. The results are shown below; about 45% have a second telephone line for Internet access.

#### Second Telephone Line



#### 3.2.2 Cost of Second Line

The survey polled the respondents on how much they are currently paying for their second telephone line, if any. It appears that a majority of second-line users (almost 60%) pay between \$20 and \$30 per month.



#### **Current Cost of Second Line**

### 3.3 Broadband Internet Access

As alluded to before, this market study is primarily targeted at measuring the adoption of new services enabled by the MBN, including 100 Mbps data service and enhanced digital cable services. This information is cross-tabbed with key demographic factors to understand which segments of the market will be the potential user base, and what the price sensitivity is of that potential user base. The survey attempted to determine how much the residents of the Town would be willing to pay for faster Internet access than they currently have. The question was open-ended and did not provide specific price points or ranges to pick from. Merton, for clarity of analysis, developed price ranges and allocated the responses to their respective price range.

#### 3.3.1 Broadband Internet Adoption Rates

The results from the question how much would the respondent pay for faster speed is shown below. The responses have been grouped into price ranges. The number in the Valid Percent column indicates the percent of respondents who are willing to pay a price for faster service that falls within the price range in the second column.

11. If not fast enough, how much would you pay for the speed you need?						
		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	\$0 - \$20	115	11.4%	29.0%	29.0%	
	\$21 - \$30	103	10.2%	25.9%	54.9%	
	\$31-\$40	70	6.9%	17.6%	72.5%	
	\$41-\$50	77	7.6%	19.4%	91.9%	
	More than \$50	32	3.2%	8.1%	100.0%	
	Total	397	39.2%	100.0%		
Missing	Errors / Unknown	615	60.8%			
Grand Total		1,012	100.0%			



#### Pay For Speed

It is clear from the numbers that there is a strong and robust market for broadband Internet at a price point of around \$30; about 45% of the residents are willing to pay at least \$30. However, only about 28% of the residents are willing to pay more than \$40 for faster service. The implication here is that the size of the potential subscriber base for MBN would be very sensitive to the price of the broadband offering.

#### 3.3.2 Broadband Internet Adoption by Current Access Type

The results of willingness to pay for faster speed was segmented by the type of Internet access service that the respondents currently have, i.e., dial-up, cable modem, DSL or satellite. This greatly helps to better



understand to what extent the current users of dial-up and DSL/cable modem type services would switch to a must faster service offered by the MBN. The results are shown in the chart below.

The angle or slope of the each line in the chart above indicates how price sensitive that segment is; the steeper the curve, the more price sensitive are users in that segment. For example, current dial-up users are more price sensitive than are users of cable modem. The results also indicate that current cable modem users become more price sensitive after the \$30 price point. There was insufficient data to accurately determine the price sensitivity of current DSL and satellite users.

It is an interesting observation that over 60% of cable modem users and 40% of dial-up users will pay at least \$30 per month to get faster speed. In comparison, over 40% of cable modem users and only 20% of dial-up users will pay more than \$40 per month for faster speed.

#### 3.4 Internet Demographics and Demand by Location

The survey attempted to determine the approximate location of the resident responding to the survey. The respondents were asked to mark an 'X' on a map of Amherst near their neighborhood. For the purpose of analysis, the Town divided the map into nine (9) grids so that each respondent could be located within a grid. Merton then cross-tabulated the grid information with (i) type of current Internet access (Question 3), and (ii) price that the respondent would be willing to pay for faster Internet access (Question 11). The first cross-tab provides the penetration of various types of Internet services by location, and the second cross-tab provides an indication of how much subscribers in various neighborhoods in Town are willing to pay for faster Internet access. Such results are expected to be useful in determining, or at least influencing, the initial and ongoing design of the buildout of the MBN in the Town.

The results of Internet access type by location are shown below.



Internet Access Type by Map Grid

The willingness to pay by location is shown below.



Pay for Speed by Map Grid

■\$0 - \$20 ■\$21 - \$30 □\$31-\$40 □\$41-\$50 ■More than \$50

The results obtained by grid location from the survey are influenced by the number of respondents from a given grid participating in the survey. Although the voters were randomly polled, some grids could have had many more respondents participating than did others; such a bias could potentially be eliminated by surveying every household on every street, not a cost-effective solution. In addition, there could be significant differences in number of households in the various grids as designed. Notwithstanding the limitations of the analysis, the results convey a picture that, in its lonesome or in conjunction with data of town demographics by location, could be used to influence the design and timing of MBN deployment in various locations across Amherst.

### 4. EXHIBIT A: MARKET RESEARCH QUESTIONNAIRE

### Amherst 2002 <u>Residential</u> Internet Usage Survey

The purpose of this survey is to help the Amherst Communications Infrastructure Committee determine the needs and wishes of Amherst residents on the issue of Internet Access.

1. Do you	u have internet access?	<b>D</b> Yes	🗖 No
If NO how	much would you be willing to pay?	\$	
If YES, plo 2. I use th a. b. c.	ease continue: he internet for: Personal: Home business: Telecommuting for my job: <i>i. Are you responsible for internet access at your company?</i> <i>ii. May we contact you later about your business?</i>	<ul> <li>Yes</li> <li>Yes</li> </ul>	□ No □ No
	iii. My email address is:		@

3. I use the following service(s). Circle all that apply:

		Dialup	Cable	DSL/T1	Satellite	Wireless
4.	My internet provider is:					
5.	I split my internet usage: Personal: Home office: Business:	% %	% % %	% %	% %	% % %
6.	My cost per month is:	\$	\$	\$	\$	\$
7.	I use a second phone line for internet access	TYes No	<ul><li>Yes</li><li>No</li></ul>	<ul><li>Yes</li><li>No</li></ul>	<ul><li>Yes</li><li>No</li></ul>	<ul><li>Yes</li><li>No</li></ul>
8.	The monthly cost of this second phone line is:	\$	\$	\$	\$	\$
9.	How many times a month can I <i>not</i> do what I wanted to do on the internet?	1-5 6-10 11-25 more than 25				

Please turn OVER 📂

### Amherst 2002 <u>Residential</u> Internet Usage Survey

10.	My internet connection SPEED is:	Excellent Good Satisfactory Poor Very Bad				
11.	If not fast enough, how much would you pay for the speed you need?	\$	\$	\$	\$	\$
12.	My overall satisfaction with my internet access is:	Excellent Good Satisfactory Poor Very Bad				
13.	Comments:					

### Optional

My approximate location in Amherst is: (Please put X on map near your neighborhood)

### Amherst 2002 <u>Residential</u> Internet Usage Survey

