Business/Economic Development Stakeholders
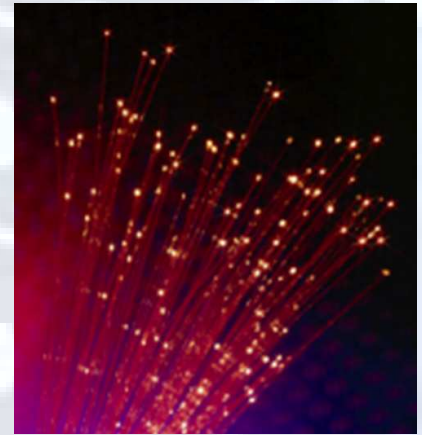# Southern New Hampshire Regional Broadband Plan
Focus Group Exchange

The purpose of this focus group exchange is to provide an opportunity for public input and discussion of the region's business and economic development broadband needs

<u>Date, Time and Place:</u>

November 7, 2012

5:30 to 6:30 PM

Southern New Hampshire Planning Commission Conference Room
438 Dubuque Street, Manchester, NH 03102

<u>Agenda</u>

I.   Introductions

II. Overview of the Southern New Hampshire Regional Broadband Plan

III. Specific Survey Comments and Results Received

IV. What are the Broadband Needs for Business & Economic Growth of the Region?

V.   What Should Our Priorities Be to Address These Needs?

VI. Wrap Up

For questions, special accommodations or directions, please call 669-4664

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Business/Economic Development Sector Survey – Some Key Findings

Identified Needs:

- Web-based email
- Frequent web-browsing
- Sending/receiving medium-large documents/files
- Multiple functions working simultaneously
- Streaming content – video (movies)/music, etc.
- VPN (Virtual private network) access needed
- Video Conferencing
- Social Media use
- VoIP (Voice over IP – telephone over the internet)
- Cloud-based computing & data storage
- Operating multiple devices simultaneously
- High speed end to end network
- Business to business applications
- Remote synchronous education/professional development/workshops

Most Important Business Related Needs:

- Data management
- Market and promote services
- Online ordering and purchasing
- Professional networking
- Remote access to files
- Online research
- Sell products on line
- Streamline administrative functions
- Smart phone/mobile devices
- Support services
- Track shipments and inventory online
- Website
- Cloud computing
- Sharing information on services
- Social media
- Video conferencing
- Teleworking (use of broadband to work away from office)

<u>Technology Related Challenges for Businesses:</u>

- Keeping up with rapidly changing technology
- Inadequate internet speed
- Limited broadband availability
- Insufficient network redundancy
- Software/hardware compatibility
- Lack of awareness of technology options
- Lack of information technology support
- Lack of resources to purchase best technology
- Outdoor access to EBT/Snap (food stamps) systems
- EBT card swipe technology/apps for smart phones other than IPhones
- Outages
- Personal knowledge and abilities
- Cost of services for connectivity
- Lack of resources to develop web-based initiatives
- Social Media access
- Reaching customers through information overload

<u>What Would Help Overcome Challenges:</u>

- Greater redundancy
- Generators during outages
- Hands on training
- Negotiate less expensive rates
- More competively priced options
- Connectivity more important than bandwidth
- Hire IT staff
- Budget for IPhones/Smart Phones
- Greater speeds

<u>Which Functions for Using Internet/Computer Software Most Important for Your Business:</u>

- Digital telephone services (Internet protocol telephone/Voice over IP)
- Marketing services
- Online Purchasing & Selling
- Professional Networking
- Remote Access to files
- Online Research
- Sharing Information on Services
- Streamline Administrative Functions
- Smart Phone/Mobile Devices
- Video-Conferencing

- Social Media
- Cloud Computing
- Website

Businesses Future Strategic Plans for next 5-10 Years:
- Continue as we are
- Install cable for back-up and network redundancy
- Functional website w/greater interactive components – such as product education, online ordering, and file/project sharing
- Greater bandwidth
- Direct IT support
- Waiting for EBT Technology to mature/improve

How Would You Characterize State of Broadband Development in this Region:
- Adequate
- Growing needing wider fiber distribution

Broadband Business/Economic Development Sector Focus Group Conversation

November 7, 2012 Meeting Notes

Attendance

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Discussion Topics

Business/Economic Development Broadband Needs & Priorities:

- Maintaining broadband connectivity and service during power outages/storms and other disruptions
- Some solutions to this include – providing/maintaining high availability networks; building in greater redundancy into networks; utilizing generators which produce the clean power required by networking hardware as opposed to generators which produce dirty power; utilizing large batteries between generators and servers to convert any dirty power into the required clean power; and using backup batteries as a source of power, including on a small scale (i.e. UPS battery backup). These are all cost driven solutions with gas powered generators as least costly approach (UPS battery backup is most cost effective for small scale, limited backup). Robust wireless connection can avoid last-mile outages.

- Businesses can also contact broadband companies which can offer or recommend specialized network solutions
- Many of the region's larger institutions, banks/health care/PSNH/Fairpoint etc. already have in place sophisticated fiber optic ring architecture which provides for greater built in redundancy with several connectivity points in case one shuts down
- Small scale businesses can also consider wireless backup systems
- Today, the availability of high speed broadband service and connectivity is a driver for business location decisions. Buildings and sites which do not have broadband (fiber) connectivity are not in high demand.
    - Important considerations are last mile fiber access and access to multiple providers from a single location.
- Our catchment area today for real business use needs at least > 100 megabytes per second
- Direct services are available for fiber connectivity at these speeds or greater but it involves a high cost for delivery
- Wellington Road Business Park in Auburn is a good example – Verizon installed the first ring architecture in the state but was never able to complete it due to cost
- Broadband service costs in our catchment area for business use are comparable to other similar service costs in other parts of New England. Existing broadband services in our region are fairly competitive with other regions
- The NHBTOP is planning to install ring architecture for many of the region's existing anchor institutions – such as colleges, universities and hospitals, etc. as part of the backbone of the system. However there is still as large need to reach out into the outer areas of the region e.g. the last mile.
- Small businesses are at a disadvantage now unless they are located in urban areas. While wireless services are available they are not as fast as fiber backed systems
- A big concern is that many people/businesses do not have the knowledge of available networks and services.
- 4G is now being built out over the existing 3G system
- Having high speed internet is critical for home businesses.
- City of Nashua is currently planning to provide free Wi-Fi at 10 locations throughout the city…this could be a model for our region too as an end goal of the plan….by advertising these locations, it will attract economic growth
- MiFidevices can also turn smart phones into hot spots but many people are not aware of how to use/access these devices
- Installing fiber optics in conduits is a good idea but too expensive to implement given current building costs and demands, however this needs to be weighed against outages caused by tree damage to lines
- There continues to be a growing demand for high speed broadband in the region this includes smart phones and larger bandwidth
- The current gap between these demands of the end user and the ability of providers to keep up with the demands will likely be met through feeding existing cell towers in the region and expanding cell tower coverage – this will help to increase capacity to devices.
- Temporary cell towers are being set up in NY and NJ to expand wireless voice and broadband capacity as a result of Hurricane Sandy
- Market demands will take care of themselves – it is important that towers provide for co-location.

- It is also imperative as part of this broadband mapping/planning program that all unserved locations in the state be identified – unserved defined as having no options or no DSL
- Private networks is another critical improvement/infrastructure decision
- Libraries in outlying areas with a connection to a fiber network / other high speed connection can operate as a broadband hotspot for the community, which may be unserved.
- VoIP will continue to grow in popularity.
- Voice, data and video are continuing the transition to a single network, generating an increasing demand for bandwidth. The benefits of a single network include convenience and cost savings being that physical infrastructure would need to be constructed and maintained for just 1 network as opposed to 3 separate ones.
- VPN use is still popular among larger businesses. Reasons for this include reliability and data/network security.
- Cloud storage/computing is gaining in popularity.

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Broadband/ Business Economic Stakeholders

November 7, 2012

Please Sign In

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ECONOMIC DEVELOPMENT SECTOR BROADBAND QUESTIONS (September 21, 2012)

Instructions: Please answer the following questions as completely as possible. For questions that require a selection, please highlight the cell(s) containing your choice(s). Please note that this is an Excel spreadsheet. As cells are highlighted and responses are entered, the spreadsheet needs to be saved in order to retain your selections and input. Participants may need to consult with technology support staff, if available, to answer some of these questions.

A. PARTICIPANT INFORMATION	
1. Please, provide your contact information below.	
Name:	
Affiliation:	
Address:	
Email / Phone:	
2. What type of organization are you associated with? (select all that apply)	
Agriculture & Forestry	*Manufacturing*
Arts & Culture	*Marketing*
Architecture	*Municipality*
Charitable	*Non-Profit*
Communications	*Public Safety*
Community & Economic Development	*Recreation*
Construction	*Religious*
Education	*Retail*
Environment	*Real Estate*
Financial or legal services	*Social Service*
Food & Lodging	*Sports/Sporting*
Health and well-being	*Technology Services*
Home Business	*Tourism*
Historic Preservation	*Transportation*
Library	*Wholesale*
Other, please describe:	
3. Describe your role within your organization? (e.g. Director, Owner, IT Director, Manager, Staff, Volunteer etc)	

4. Which city or town is your organization located in?

5. How many employees are there within your organization?

1-4	*50-99*
5-9	*100-499*
10-19	*500+*
20-49	

6. Which of the following best describes how your organization receives technical support?

Full-time person(s) (e.g. Technology Director)	*Consulting services*
Part-time person(s)	*None*
Other, please describe:	

7. What is your organization's source of internet connection?

Dial Up	*Wireless*
DSL	*Satellite*
Cable	*T-1*
Fiber Optic	*Not Sure*
Other, please describe:	

8. What is your organization's current upload speed?

<200 Kbps	*6Mbps - <10Mbps*
200Kbps - <768Kbps	*10Mbps - <25Mbps*
768Kbps - <1.5Mbps	*25Mbps - 100 Mbps*
1.5Mbps - <3Mbps	*Greater than 100 Mbps*
3Mbps - <6Mbps	*Not Sure*

To measure your upload and download speed, go to the following link: http://iwantbroadbandnh.org/speed_test

9. What is your organization's current download speed?

768Kbps - <1.5Mbps	*10Mbps - <25Mbps*

1.5Mbps - <3Mbps	*25Mbps - 100 Mbps*
3Mbps - <6Mbps	*Greater than 100 Mbps*
6Mbps - <10Mbps	*Not Sure*
To measure your upload and download speed, go to the following link: http://iwantbroadbandnh.org/speed_test	

B.FOCUS GROUP / INTERVIEW QUESTIONS
1. Is your current level of broadband connectivity sufficient for the current needs of your organization?
Notes:

2. What types of broadband functions does your organization need to function effectively? The examples below can be used to help generate conversation, if necessary.

Cloud-based computing and data storage	*Social media use*
Frequent web-browsing	*Streaming content (movies, video)*
High speed end to end network and business	*Video-conferencing*
Multi-player online gaming	*Teleworking (use of broadband to work away from office)*
Multiple functions working simultaneously (e.g. web browsing, streaming video/music,	*VPN (Virtual Private Network) access needed*
Operating multiple devices simultaneously	*Web-based email*
Sending/Receiving medium-large sized documents/files	*Remote synchronous education, professional development, workshops, etc.*
Other, please describe:	

3. Is your current level of broadband connectivity sufficient for your future needs? If not, what barriers prevent your organization from acquiring faster broadband speeds? (e.g. no other options, too costly, limited technology support)

Notes:

4. Which functions for using the internet and/or computer software do you feel are most important to the economic development sector? Which do you feel would be most important to the economic development sector in the next 3-5 years? The examples below can be used to help generate conversation, if necessary.

Cloud computing	*Sell your product online*
Data management	*Sharing information on services*
Digital telephone services (i.e. Internet protocol telephony, Voice over IP)	*Streamline administrative functions*
Market and promote your services	*Smart phone/mobile devices*
Online purchasing	*Social media*
Online learning	*Support services*
Professional development / training	*Teleworking (use of broadband to work away from office)*
Professional networking	*Track shipments and inventory online*
Remote access to files	*Video-conferencing*
Online research	*Website*

Other, please describe:

5. What technology-related challenges does your organization currently face? Please, identify which challenges are most relevant to your organization. The examples below can be used to help generate conversation, if necessary.

Lack of resources to get best technology	*Internet security (hackers, viruses, etc.)*
Buying the wrong technology	*Lack of awareness of technology options*
Software/hardware compatibility	*Lack of information technology support*
Keeping up with technology	*Insufficient network redundancy*
Syncing multiple devices	*Lack of proper training for staff*
Inadequate internet speed	*Rapidly changing technology*
Limited broadband availability	

Other, please describe:
Notes:

6. What would it take for your organization to effectively address these challenges?

Notes:

7. If your organization had increased broadband connectivity, what would you use it for?

Notes:

8. What is your organization's vision/strategic plan for broadband connectivity for the next 3-5 years?
Potential follow up questions:
    -What steps are you taking (or have taken) to make this vision a reality?
    -How successful have you been so far?
    -What barriers are you encountering in your efforts to establish a successful broadband network?

Notes:

9. How would you characterize the state of broadband deployment in this region? Is it adequate? Lacking? Growing? Successful?

Notes: