

TELECOM

The Granite State Connection

COMPILED BY MATTHEW J. MOWRY

It is essential that your company have the necessary resources to be effectively in touch with customers and suppliers. However, choosing a telecommunications service package that will best serve your needs can be a daunting task.

As we gathered information for our first NH Telecommunications Guide, we were surprised by the number and variety of telecommunications service providers in operation. Their sheer volume only underscores the importance of researching your options before selecting a provider.

In our guide, we have gathered not only a listing of telecommunications providers operating in NH, but also information to help business owners and executives discern the difference between the various services to select ones that will best suit their needs.

The service comparison chart, provided by TelecomSmart.com, covers not only the equipment necessary for telecommunications services, but also the advantages and disadvantages of those services.

Industry experts also helped us develop a list of questions business executives should ask themselves prior to seeking out a telecommunications provider, as well as questions to ask providers to make sure their services offered will meet both current requirements and future growth.

The guide also includes an article detailing items to look for in the invoices from telecommunications providers and gives tips on how to use those bills as a management tool for your company.

We have also included a glossary to help readers understand the technical language of the telecommunications industry.

While we tried to be exhaustive in our efforts to create a complete list of telecommunications providers, there may be some companies that eluded our attention.

If your company is not included in the provider listing and should be, please contact editor Matthew J. Mowry at 626-6354, or e-mail nhmag@aol.com.

TELECOMMUNICATIONS GLOSSARY

• **ADSL (Asymmetric Digital Subscriber Line):** This service will allow telephone companies to provide video to the home over "wired-pair" telephone lines. Its current line format is T1.4M (Alternate Mark Inversion), 16 Kbs to the central office for control, to change the channel, and 1.228 Mbs to your TV. The distance that the signal can be transmitted over twisted pairs is enough to adaptive digital filtering, which helps correct attenuation and noise.

• **ATM (Asynchronous Transfer Mode):** An ANSI and CCITT standard communications protocol. ATM is a frame-form communications protocol. Multiple data streams are fed and received 50 bytes in packets at a time. There are 46 customer-byte payloads and 6 bytes for control and addressing.

• **Bandwidth:** The difference in frequency between the lowest or "bass" channel and the highest or "treble" frequency bandwidth is sound. If you are listening to a variety of musical notes, you notice the different pitches of those pitches, or tones. Similarly, the auditory and information that your ear can process. The sound are actual

ly vibrations. Bass notes vibrate at a slow rate about 20 to 700 vibrations per second; treble notes vibrate faster than 3,000 vibrations per second to 17,000 vibrations per second. The total bandwidth (vibration range) that you are listening to is about 17,000-20=16,980 vibrations per second. This is the range, or bandwidth, of human hearing.

• **BISDN (Broadband Integrated Services Digital Network):** The future standard of communications service. BISDN is working its way up to a platform for higher-level services, supported by and a combination of ATM, SHFT, and IDSN. The idea is that with these three technologies together, a customer could have bandwidth on demand. The good thing about bandwidth on demand is that you only pay for what you use. Currently, you can purchase a BHL or PRI from a local phone company and they charge you a price for that service. That price is based on the fact that the service is dedicated to you 24 hours a day, 365 days a year. BISDN services will be shared in the same way that long-distance dial tone is today (time-share).

• **Broadband:** Incorporating more than one channel into a communications transmission. It is a broadband communications protocol because it carries 24 conversations over four-wire. Cable TV is also broadband because it carries many TV channels over one coaxial cable.

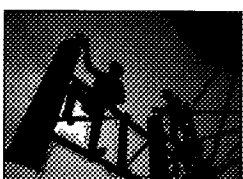
• **DAL (Dedicated Access Line):** A private circuit that provides a direct connection for access to a long-distance carrier or other communications service, like frame relay or an Internet service provider. Some DALs are a "full service circuit" which means that if you have a circuit that connects you directly to your Internet service provider, then the only bill you see for that service is from the Internet service provider. The local circuit is in the "Internet service provider's name and they pay the phone bill for that service. You, of course, pay a single bill for the entire service. If it stops working, just call the Internet service provider and they determine where the problem is and fix it.

• **DDS (Digital Data Services):** These services provided by the local telephone company, the long-distance carrier, or the competitive

access provider are point-to-point digital connections. The bandwidth capacities range from 2,400 bps to 56 kbps connections. Typical applications include remote LAN access, online ordering, processing, and Internet access.

• **Dark Fiber:** A fiber-optic cable that is installed in a telephone company's outside plant network, but has no electronics connected to it. Sometimes customers like to lease circuit rights to use dark fiber and connect their own electronics to it, a point-to-point or ring application.

• **Frame Relay:** A service from telecommunication companies, as well as a protocol for transmitting data over MAN or WAN networks at rates as low as 56 Kbps to as high as 2.4 Gbps. Frame relay is a packet-switching technology. As data is sent from a computer to a frame relay interface, the frame relay equipment breaks the data stream down into manageable pieces. Frame relay services come with a CIR (Committed Information Rate). CIR is the rate, Kbps or Mbps, that a communications company will guarantee over a frame relay circuit that they provide to their customer. If you purchase a frame relay circuit, there is a ▶



**ABSOLUTE
RELIABILITY**



Engineering
Design/Build
Plumbing
Heating

Sheet Metal
Refrigeration
Insulation
Service

603.225.3530

Vermont Mechanical Is Now Encompass Mechanical Services

Vermont Mechanical is now a member of the largest facility services provider in the United States, Encompass Services Corporation. We continue to service the region with the capabilities you have come to expect, and have expanded our scope through our national affiliation with 79 other companies and over 30,000 employees.

Our name has changed.
Our capabilities have expanded.
Our commitment remains the same
Vermont Mechanical is now
Encompass Mechanical Services.

NATIONAL SERVICE CAPABILITIES

Design/Construction Mechanical Services	Industrial and Heavy Rigging Janitorial and
Electrical/Communications Mission Critical Environments	Maintenance Management National Accounts Coverage
Building Automation and Controls	Serving the Top 100 Markets



Vermont Mechanical Inc. An Encompass Company

321 Commerce Way, Boulder Woods #2
Pembroke, NH 03275

www.encompasserv.com

Satisfying the telecommunication needs of New Hampshire businesses yesterday, today, and tomorrow.

State-of-the-art digital and fiber optic network

- ▶ Centrex communications system
- ▶ DSL and ISDN
- ▶ Long distance
- ▶ Internet
- ▶ Pagers

Granite State Telephone provides service to Chester,
East Deering, Hillsboro Upper Village, Sandown,
Washington, Weare, and Windsor.



Granite State Telephone

1-800-559-9900

www.granitestatetelephone.com

place on the order agreement that you state the rate of information that you want to transmit. The choices are 16Kbs, 32Kbs, 48Kbs, and 74Kbs. If you enter 32Kbs for your commerce information rate, you will pay more for your service than the 16Kbs CIR. You have the capability to transmit and are permitted to transmit at rates up to the 11th 64Kbs. Unless the frame-relay network becomes congested, then only your commerce rate of 32Kbs will get through. This is similar to purchasing the use of lanes on the freeway. If the freeway has few cars traveling on it, then there is no sense in buying the right for multiple lanes because no one is using them anyway. If the freeway is congested, then you are getting your money's worth with your lanes right. You never know how congested a frame-relay network will be or when and where bottlenecks will occur in the network.

• **HDSL (High Bit-Rate Digital Subscriber Line):** A type of T1. An HDSL T1 can be transmitted up to 23,000 feet on twisted-pair copper wire before it needs to be reenergized/regenerated. The smaller the wire (the larger the gauge), the better HDSL works. 24 gauge is optimal. 19 gauge reduces the distance that HDSL can transmit.

• **ISDN (Integrated Services Digital Network):** ISDN is a service that first evolved in 1979. It brings the features of PBX systems and high speed data-transfer capability to the telephone network. The only thing that makes ISDN complicated is the many available features. The two kinds of ISDN lines are Primary Rate Interface (PRI) and Basic Rate Interface (BRI). Two types of channels are contained within an ISDN circuit. The B (bearer) channel carries the customer's communications, and a D (data) channel provides control and signaling for the B channels. The BRI ISDN line has two B channels and one D channel. A PRI has 23 B channels and one D channel. The separate control of the ISDN line over the D channel is what enables the board flexibility and features available with ISDN. When you are talking or sending a data transmission over an ISDN line, the voice and/or data is carried by the B channels. While you are talking on your ISDN line, you can still dial digits (signal the central office) to change or alter the state of your service because of the separate D channel. For example, imagine you want to arrange a meeting with a client. You dial the client's telephone number on your ISDN telephone to reach the client. While you are speaking with the client, you can dial up an Internet access on your computer and put two baseball tickets in at the ticket counter using the same phone line. All of this occurs while talking to your client the entire time.

• **Kbps (Kilobits Per Second):** 1,000 bits per second

• **Mbps (Megabits Per Second):** Equivalent to 1 million bits per second. Memory and data transfer per unit of time is measured in bits. Memory storage is measured in bytes. The difference in abbreviations is that bits are lower case (b) and bytes are uppercase (B).

• **Megabyte:** One million bytes. Mega is abbreviated "M" and bytes are abbreviated "B." Sixteen megabytes is equal to 16 million bytes and would be abbreviated "16 MB."

• **Megahertz:** One million hertz. Sixteen MHz is equal to 16 million Hz. Hertz is another word for cycles or radio frequency.

• **T1:** A standard 1.544 Mbit/s carrier system used to transport 24 telephone lines or various broadband services from one point to another. T1 is the standard carrier for the United States, Canada, Japan, and Singapore. All other countries use E1 standard (30 channels or four wires). The T1 is a four-wire circuit, two wires for transmit and two wires for receive. The T1 line voltage is 135V. The T1 circuit carries voice or data. Its use determines the variables of T1 service: framing format and line format.

• **WAN (Wide Area Network):** A network of computers or computing devices connected by telephone lines that extend beyond an area code's service area. An example of a WAN application is a computer that accesses another computer in another state to access information. Popular ways for computers to connect over long distances are by using a dial-up modem, a frame-relay circuit, an ATM circuit, an ISDN circuit, or a 56 K leased line. There are advantages and disadvantages to each of these services which are offered by long distance phone/telephone companies.

(Glossary terms provided by Auditor.)

ASSESSING YOUR COMPANY'S TELECOM NEEDS

Before calling a telecommunications provider, the decision makers at a business should sit down and conduct a self-assessment of the company's needs. Executives should examine their telecommunication service requirements in light of the company's presence in the local or global market.

Companies should evaluate their voice needs, such as dial tone, long distance or 800 services.

They also need to explore what data needs they have, such as slow, medium or high speed data access, whether they need Internet access or point-to-point.

Businesses should examine ahead of time not only what their current needs are for voice and data services but also their potential future needs.

Businesses should also review any existing telecommunication contracts they may have to see what exactly they are getting at what price.

Business executives also need to determine what traits they desire in a telecommunications provider: reliability, the ability to conduct e-commerce, technical support, price of product, redundancy of network, the provider's ability to grow with your company, the ability to offer different applications (wireline Vs. wireless options); and the time frame for providing services.

When it comes to voice services, examine whether a flat or measured local service would be most beneficial to your company.

Here is a list of questions business owners and executives should be ready to ask telecommunications providers when shopping around for the best service to meet their business needs.

1. What types of services do you offer?
2. What is your experience in the local market?
3. Do you have a list of customers I may contact for references?
4. Where is your local sales support team?
5. Where is your local technical support team?
6. What do you have for future technology deployment plans?
7. Do you have an example of the reliability or redundancy of your network?
8. Do you offer remote monitoring and maintenance of your/our network?
9. Can you host and manage my Internet applications?
10. Do you plan to retain a local presence and investment strategy?
11. How involved are you in the community?
12. Where does your company offer service?
13. How long will it take to switch over and/or provide service?

The questionnaire was developed with the assistance of Verizon and Choice One Communications. ■

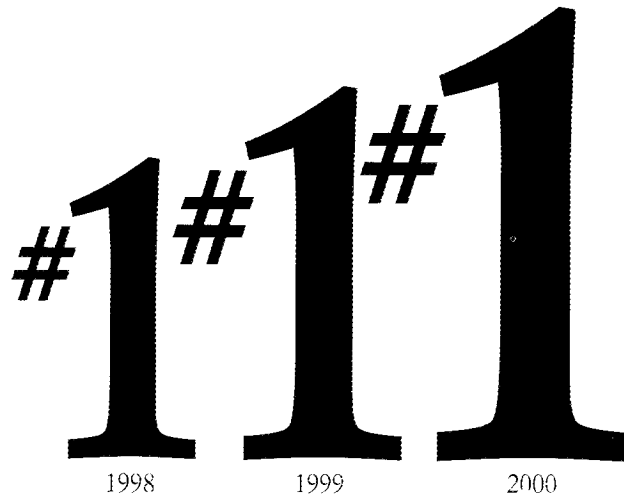
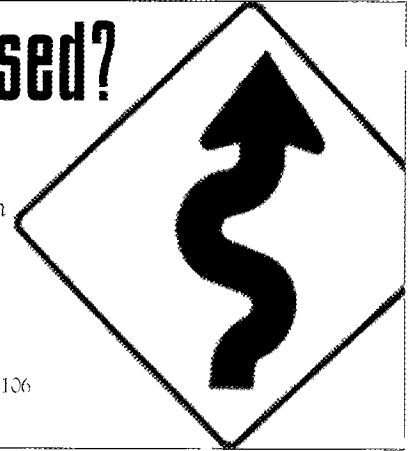
Do You Feel Confused?

Follow Us!

Our experienced staff can assist you with your most troubling printing problems.

Cummings
Publication Printers since 1914

P.O. Box 16495 • 4 Peters Brook Dr., Hooksett, NH 03106
603.623.6901 • Fax 603.623.5132



Not your typical small business lending record.

For the third year in a row, we've been named the #1 Small Business Administration (SBA) lender in New Hampshire. We earned that status by being committed to helping small businesses succeed in today's economic environment. To learn how Citizens can help your business, stop by or call us at 1-800-4-BUSINESS.

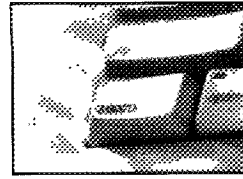
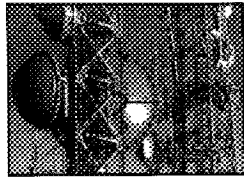
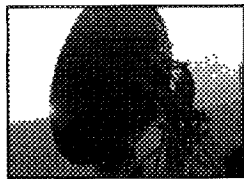
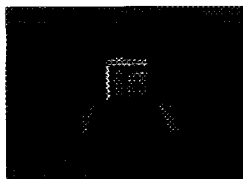


Not Your Typical Bank.

Businesses are ranked by the number of SBA loans made in 1998, 1999, and 2000. *Lender FICIL. †Equal Housing Lender.

TELECOMMUNICATIONS ACCESS/SERVICE TYPE COMPARISONS *The chart compares the advantages and disadvantages of different*

ACCESS TYPE	EQUIPMENT	DELIVERY VIA	BANDWIDTH	TARGET MARKET	ADVANTAGES
ADSL	Modem	Telephone Line	1.54 Mbps-128 Kbps	Residential, home office, and telecommuters	Fast, always-on connection, no need to dial up Ideal for home users and telecommuters Up to 1,000 times faster Internet connection than dial up No need for additional phone lines, user can surf the Internet and talk at the same time Equipment and monthly fee is inexpensive
SDSL	Modem Router Hub	Telephone Line	160 Kbps-1.54 Mbps	Small and medium businesses	Static IP addresses Fast, always-on connection, no need to dial up No need for additional phone lines, user can surf the Internet and talk at the same time Bandwidth is easy to upgrade Broad range of bandwidth options from 160 Kbps to 1.544 Mbps (T-1) Equipment is inexpensive Upstream/downstream bandwidth is symmetrical, excellent for business use
ISDL		Telephone Line	128 Kbps-144 Kbps	Small business and home office	Fast, always-on connection, no need to dial up Static IP addresses No toll charges Equipment is inexpensive
Dial-Up ISDN	Modem	Telephone Line	128 Kbps	Residential and home office	Available almost everywhere Easy to install Equipment is relatively inexpensive Static IP addresses
Dedicated ISDN	Router Modem	Telephone Line	128 Kbps	Small business and home office	Available almost everywhere Easy to install Always-on connection, no need to dial up Equipment is relatively inexpensive Static IP addresses
Frame Relay	Router DSL/MSU Hub	Telephone Line	56 Kbps-45 Mbps	Small, medium and large businesses	Available almost everywhere Static IP addresses Always-on connection, no need to dial up Broad range of speeds available from 56 Kbps-45 Mbps T-0
Point-to-Point T-1	Router DSL/MSU Hub	Telephone Line	56 Kbps-45 Mbps	Small, medium and large businesses	Very reliable, fast, always-on connection, no need to dial up Private connection, dedicated Connection quality very high Static IP addresses
Dial-Up	Modem	Telephone Line	Commonly 28.8, 33.6 or 56 Kbps	Residential and home office	Available almost everywhere Inexpensive, often bundled with PCs No costly 800 numbers for access Easy service upgrades
Wireless	Satellite (microwave) dish	Wireless modem	Up to 15Mbps	Small and medium businesses	Static IP addresses Can be a less-expensive solution than frame relay or point-to-point Fast, always-on connection, no need to dial up No local loop charges apply
Cable	Modem or Fiber-optic card	Coaxial cable	512 Kbps-52 Mbps	Residential and home office	Fast, always-on connection, no need to dial up Inexpensive set up, equipment and monthly charges More readily available than DSL



s types and the target market for each.

DISADVANTAGES

Not available in all locations; distance sensitive
Upstream/downstream bandwidth is asymmetrical
Cannot handle heavy Internet usage for upstream applications
Not suitable for businesses; not suitable for LANs
Must be at least 15,000 feet from the central office

Not available in all locations; distance sensitive
Must be at least 15,000 feet from the central office
Network engineer for set up is recommended

Network engineer for set up is recommended
Not available in all locations; distance sensitive
Must be under 25,000 feet from the central office

More expensive than dial up
Speed limited to 128 K; slow compared to DSL
Can be usage based (potentially expensive)

More expensive than DSL
Speed limited to 128 K; slow compared to DSL
Can be usage based (potentially expensive)

Expensive equipment; installation; set up and monthly charge
Complicated set up requires a network engineer
Local loop charges apply

Complicated set up requires a network engineer
Local loop charges apply
Expensive equipment; installation; set up and monthly charges

May be slow; many ISPs oversubscribe dial-up usage
(satellite)
Can be usage based (potentially expensive)
Cannot use Internet and telephone simultaneously
Per-minute charges add to the monthly cost

Not available in most areas
Environmental conditions can affect quality of transmission

Upstream/downstream bandwidth is asymmetrical
Not suitable for Internet use; not suitable for LANs
Equipment must be leased; usually included in monthly fee
Slower connections with increased number
of users over a shared line
Chat information courtesy of TelecomSmart.com

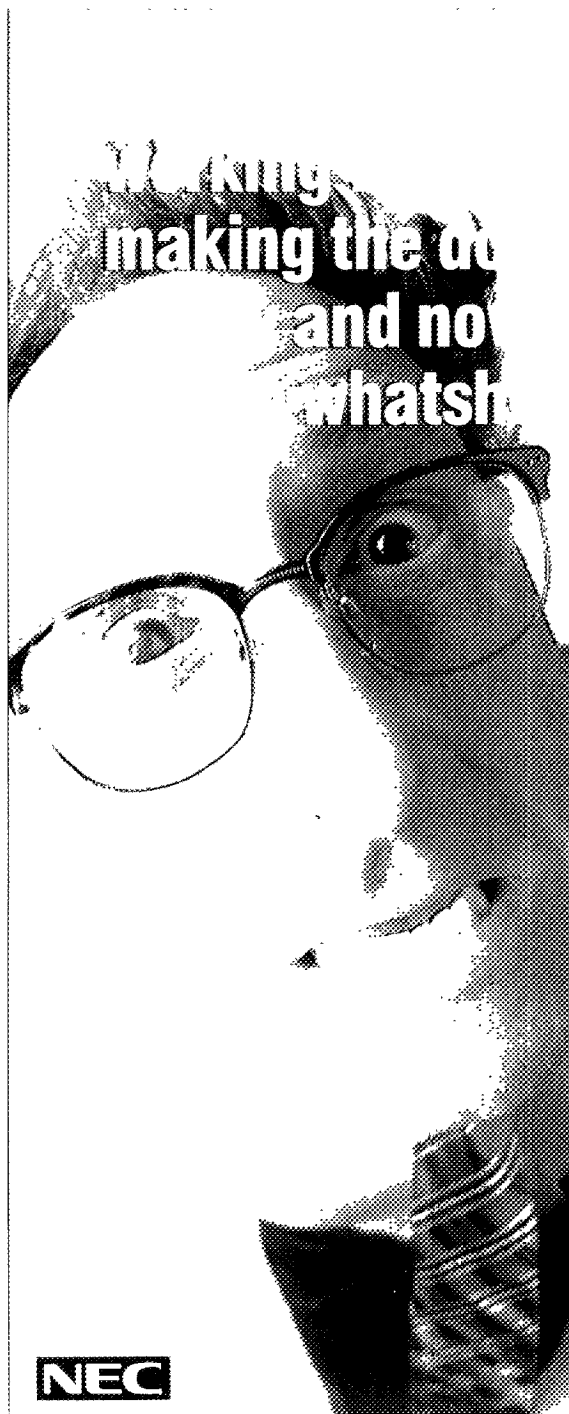


The Gateway to the Granite State
newhampshire.com

www.newhampshire.com

**Visit now and add your business to our directory for FREE!
Call to inquire about our special advertising promotions!**

**For advertising information contact: sales@newhampshire.com
Call: (603) 666-0173**



**Job isn't
whoosit
ickey all
you can't
face.**

We understand. All you want to do is run your business. But you need to be heard. And you need to hear others. And you can't. And they don't. And you're going crazy. Because all you want to do is run your business. We're here to help. TwinState has been serving the communications needs of area businesses since 1969. We pride ourselves on providing a wide range of high quality voice, data, and video products and services. And we're right around the corner. Near that place with the thingamagig in front.



TWINSTATE
VOICE, DATA, VIDEO

(800) 833-8000
www.twinstat.com



**TELECOMMUNICATIONS
LAW**

ATTORNEYS
DTCL
AT LAW
DONAHUE, TUCKER & CIANDELLA

ROBERT D. CIANDELLA

WATER STREET PROFESSIONAL BUILDING

225 WATER STREET

P.O. Box 630

EXETER, NEW HAMPSHIRE 03833

PHONE: (603) 778-0686

FAX (603) 772-4454

TOLL FREE: (800) 566-0506

E-MAIL: RCIANDELLA@DTCLAWYERS.COM

**LONG
TERM
GROWTH**

If you've had questions about your financial needs over time, investments in blue chip stocks may provide the answer. We help our clients add value to their portfolios with a variety of stocks.

*Please give us a call
for a no-obligation
consultation.*



LPPL
FINANCIAL
SERVICE
Securities offered
through
Linsco/Private Ledger
Member NASD/SIPC

Elias E. Ashooh, Inc.
889 Elm Street, Manchester, NH 03031
(800) 626-3324 or skip@ashooh.com

TRUTH IN BILLING

Using Phone Bills as a Management Tool

BY LINDSAY SHEARER

Have you ever opened your phone bill to find you have unknowingly switched long distance carriers, or been charged for unidentified items on the bill? Called "slamming" and "cramming" respectively, these are the two most common complaints received by the FCC each year. And, fraudulent telemarketers are targeting small businesses with their schemes. According to the FCC, these telemarketers use tactics like calling to verify the business address, or posing as your regular local or long-distance company and asking if you are satisfied with your service. They then use the recorded "yes" answer as authorization to bill you for additional services or to change your phone company.

The FCC has recently enacted new rules and regulations to help combat these practices. According to the new Truth-In-Billing Guidelines, the FCC now requires telephone service providers to produce thorough, accurate and understandable bills to consumers. The basic regulations state that telephone bills must:

- Be clearly organized
- Highlight any new providers
- Contain full and non-misleading descriptions of charges
- Clearly provide the name of the service provider associated with each charge on the invoice
- Prominently display a toll-free number in order to inquire about or dispute any charge on the bill
- Clearly differentiate between those charges, that if not paid, could terminate basic telephone service and those charges, that if not paid, would not terminate basic service (i.e. line charges vs. paging charges).

Although the FCC made some suggestions, such as using colored ink, different

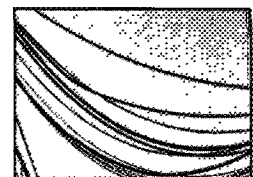
fonts or type sizes and summary page identification, they let the carriers determine how to satisfy these obligations in order to meet the carrier's needs and the needs of their customers.

In addition to the FCC regulations, consumers should be expecting more from their telephone bills. With the technology available to providers today, companies should be able to use their telephone bills as a management tool. Can you determine if there are outbound long distance calls being made while your business is closed? Do you know where your inbound traffic is coming from in order to determine who is responding to your marketing campaign and then be able to target your efforts more effectively?

You should be able to expect free management reports, both in lists and in graphic form. Some of the more useful reports include most frequently called area codes, numbers, or cities; the most expensive calls; or the area codes, numbers and cities that call most frequently; or the most expensive incoming toll-free numbers. Many companies can provide your business with outbound usage by line, time of day, or day of the week. These reports can help you to manage your staffing patterns more effectively, evaluate your marketing initiatives, or evaluate job performance of employees.

In addition, if your phone company does not now provide online billing information, you should ask them what their plans are for implementing this useful service in the future. Or ask if they can provide all of your services on one monthly bill, regardless of how many lines, locations or services (local, long distance or Internet service) you may have. After all, it's not your grandfather's old phone company anymore.

Lindsay Shearer is public relations manager of Lightship Telecom, LLC in Bedford. ■



TELECOMMUNICATIONS PROVIDERS

ADELPHIA BUSINESS SOLUTIONS

- NH Location: Concord
- Phone/Fax: 228-5304/228-3306
- E-mail: nhsales@adelphia.com
- Web Address: www.adelphia-abs.com
- Parent Company: Adphia in Concordsp, PA
- Number of NH Employees: 5
- Total Number of Employees: More than 2,000
- Coverage Area: Statewide
- Gross Annual Sales: N/A
- Services Provided: ATM, Dedicated ISDN, Dial-up, ISDN, Frame Relay, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, Internet Services in Businesses

ALLIANCE CORE TECHNOLOGIES

- NH Headquarters: Londonderry
- Phone/Fax: 634-4230/644-5700
- E-mail: sales@alliance-core.com
- Web Address: www.alliance-core.com
- Number of NH Employees: 15
- Total Number of Employees: 15
- Coverage Area: NH, northern MA
- Gross Annual Sales: N/A
- Services Provided: Frame Relay, Point-to-Point/T-1, Internet Services

AT&T

- NH Location: Dover
- Headquarters: New York, NY
- Phone/Fax: (800) 227-0400/644-2002
- E-mail: atrocker@att.com
- Web Address: www.att.com/business
- Number of NH Employees: 230
- Total Number of Employees: 166,000
- Coverage Area: Global
- Gross Annual Sales: \$62 billion
- Services Provided: ADSL, ATM, Cable, Dedicated ISDN, Dial-Up, Dial-Up, ISDN, Frame Relay, ISDN, Local Phone Service, Long Distance Phone Service, Pager Service, Point-to-Point/T-1, SDSL, Wireless, Video Conferencing

AT&T WIRELESS

- NH Location: Dover
- Phone/Fax: 603-236/897-2301
- Web Address: www.attw.com
- Parent Company: AT&T in Redmond, WA
- Number of NH Employees: N/A
- Total Number of Employees: N/A
- Coverage Area: Nationwide
- Gross Annual Sales: N/A
- Services Provided: Wireless

BAIRING COMMUNICATIONS

- Headquarters: Portsmouth

- Phone/Fax: 766-1030/766-1050
- E-mail: jave@bairing.com
- Web Address: www.bairing.com
- Number of NH Employees: 100
- Total Number of Employees: 100
- Coverage Area: NH seacoast area
- Gross Annual Sales: N/A
- Services Provided: ADSL, Dedicated ISDN, Dial-Up, Dial-Up, ISDN, DSL, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, SDSL, Dark Fiber, Co-location Services

CTC COMMUNICATIONS

- NH Location: Bedford
- Phone/Fax: (800) 394-7700/669-1026
- E-mail: agorjy@ctcnet.com
- Web Address: www.ctcnet.com
- Parent Company: CTC Communications, Waltham, Mass
- Number of NH Employees: 30
- Total Number of Employees: 700
- Coverage Area: New England, New York, and Mid Atlantic States
- Gross Annual Sales: \$150 million
- Services Provided: ATM, Dedicated ISDN, Dial-up, ISDN, Frame Relay, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, Internet, Web Hosting, F-mail, Internet Services

CHOICE ONE COMMUNICATIONS

- NH Location: Manchester
- Phone/Fax: 644-3468/644-4995
- Web Address: choiceone.com
- Parent Company: Rochester, NY
- Number of NH Employees: 51
- Total Number of Employees: 1,200+
- Coverage Area: Midwest, New England, New York
- Gross Annual Sales: N/A
- Services Provided: Dial-Up, Local Phone Service, Long Distance Phone Service, T-1, SDSL, Web Hosting, Web Design

CONVERSANT COMMUNICATIONS

- NH Location: Bedford
- Phone/Fax: 603-344/626-8862
- E-mail: gallen@conversant.com
- Web Address: www.conversant.com
- Parent Company: Conversant Communications, Marlboro, Mass
- Number of NH Employees: 30
- Total Number of Employees: 500
- Coverage Area: NH, Mass, Conn, RI, NY, Maine
- Gross Annual Sales: N/A
- Services Provided: Dial-Up, ISDN, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, SDSL

CREATIVE TELECOM SOLUTIONS

- NH Headquarters: Hampstead
- Phone/Fax: (800) 349-4736/(800) 566-7466
- E-mail: info@ctrednet.com
- Web Address: www.ctrednet.com
- Number of NH Employees: 8
- Total Number of Employees: 8
- Coverage Area: NH
- Gross Annual Sales: \$1.5 million
- Services Provided: ADSL, Dedicated ISDN, Dial-up, ISDN, Frame Relay, ISDN, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, SDSL, Wireless, Video Conferencing

DATEK

- Headquarters: Concord
- Phone/Fax: 483-8769/483-8251
- E-mail: syc1@anl.com
- Web Address: www.datektelecom.com
- Number of NH Employees: 8
- Total Number of Employees: 8
- Coverage Area: NH, MA
- Gross Annual Sales: N/A
- Services Provided: ADSL, ATM, Cable, Dedicated ISDN, Dial-Up, Dial-Up, SDN, Frame Relay, ISDN, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, SDSL, Wireless, Voice and Data Cabling, Phone Systems

DIGIEDGE COMMUNICATIONS

- NH Headquarters: Ossipee
- Phone/Fax: 535-7970/529-8080
- E-mail: info@digiedge.com
- Web Address: www.digiedge.com
- Number of NH Employees: N/A
- Total Number of Employees: N/A
- Coverage Area: National
- Gross Annual Sales: N/A
- Services Provided: Web Site, Hosting, E-commerce, Internet Marketing, Web Design and maintenance, Internet Services

DINSMORE COMMUNICATIONS

- NH Headquarters: Seabrook
- Phone/Fax: 474-7770/474-7200
- E-mail: ddsinsmore@dinsmore.com
- Web Address: www.dinsmore.com
- Number of NH Employees: 121
- Total Number of Employees: 140
- Coverage Area: New England
- Gross Annual Sales: \$15 million
- Services Provided: Cable, Wireless, Video Conferencing, voice/data/video infrastructure

FAIRPOINT COMMUNICATIONS SOLUTIONS

- NH Locations: Lebanon, Manchester

- Phone/Fax: 448-5688/448-5216/Lebanon
- 222-2301/222-9302 (Manchester)
- E-mail: info@fairpoint.com
- Web Address: www.fairpoint.com
- Parent Company: Fairpoint Communications, Inc. in Charlotte, NC
- Number of NH Employees: 30
- Total Number of Employees: 7,400
- Coverage Area: Lebanon, Manchester and surrounding areas
- Gross Annual Sales: N/A
- Services Provided: Dial-Up, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1

FOCAL POINT COMMUNICATION

- NH Locations: Rochester, Seabrook
- Phone/Fax: (603) 667-6468/474-2668
- Number of NH Employees: 9
- Total Number of Employees: 9
- Coverage Area: Southern NH, southern Maine, North Shore of Mass
- Gross Annual Sales: \$750,000
- Services Provided: Wireless

GRACECOM TELECOMMUNICATIONS OF NH, INC.

- NH Headquarters: Merrimack
- Phone/Fax: 424-0800 or (877) 833-1440/424-4348
- E-mail: jshaw@gracegroup.com
- Web Address: www.gracegroup.com
- Number of NH Employees: 15
- Total Number of Employees: 15
- Coverage Area: NH, northern Mass, eastern VT, western Maine
- Gross Annual Sales: \$2 million
- Services Provided: Dial-Up, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, SDSL, Wireless, Video Conferencing, Telephone Systems, Voice Mail, Overhead Paging, Voice and Data Cabling

GRANITE STATE TELEPHONE

- NH Headquarters: South Weare
- Phone/Fax: 529-9911/528-1022
- E-mail: info@granitestatetelephone.com
- Web Address: www.granitestatetelephone.com
- Number of NH Employees: 70
- Total Number of Employees: 70
- Coverage Area: Chester, East Dearing, Hillsboro, Upper Village, Washington, Waare, Windsor
- Gross Annual Sales: \$62 million
- Services Provided: ADSL, Dial-Up, Dial-up, ISDN, Local Phone Service, Long Distance Phone Service, Pager Service, Point-to-Point/T-1

HOSPITALITY COMMUNICATIONS GROUP

- NH Headquarters: Bedford
- Phone/Fax: 644-2460/647-0111
- E-mail: mbradford@h-c-g.com
- Web Address: www.h-c-g.com
- Number of NH Employees: 3
- Total Number of Employees: 3
- Coverage Area: New England
- Gross Annual Sales: \$400,000
- Services Provided: ADSL, ATM, Dial-Up, Frame Relay, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, SDSL, Wireless, Video Conferencing

IDEACOM INTEGRATED TECHNOLOGIES, INC.

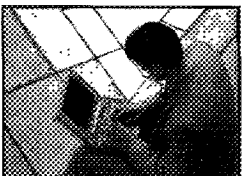
- NH Headquarters: Stratham
- Phone/Fax: 778-1763/772-7160
- E-mail: nick.little@ideacom.com
- Web Address: N/A
- Number of NH Employees: 20
- Total Number of Employees: 20
- Coverage Area: NH, Maine, VT, Mass
- Gross Annual Sales: \$2 million
- Services Provided: ADSL, ATM, Dedicated ISDN, Frame Relay, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, SDSL, Wireless, Equipment Consulting, Service, QLEC Services

INDUSTRIAL COMMUNICATIONS

- NH Location: Pelham
- Phone/Fax: 344-1940/655-2517
- E-mail: sales@indcom.com
- Web Address: indcom.com
- Parent Company: Industrial Communications, Wrentham, Mass
- Number of NH Employees: 2
- Total Number of Employees: 100
- Coverage Area: Southeastern NH, southern Maine, eastern Mass, VT
- Gross Annual Sales: N/A
- Services Provided: Wireless, Motorola Two-way Radios, Nextel, Digital Phones, Sat-PCS Service, Fleet ASAP by Road

INTERNET SERVICES OF NEW HAMPSHIRE

- Headquarters: Merrimack
- Phone/Fax: (800) 878-1513-424-9577
- E-mail: admin@isone.net
- Web Address: www.isone.net
- Parent Company: Annex in Merrimack
- Number of NH Employees: 1
- Total Number of Employees: 4
- Coverage Area: Nationwide
- Gross Annual Sales: \$178,000
- Services Provided: Dial-Up, Dial-up, ISDN, Pager Services, Internet Services



LIGHTSHIP TELECOM, LLC

- NH Location: Bedford
- Phone/Fax: (877) 548-7447; 603-214-2000-314-3295
- E-mail: info@lightship.net
- Web Address: www.lightship.net
- Parent Company: Headquarters: Fort Washington, Pa
- Number of NH Employees: 35
- Total Number of Employees: 171
- Coverage Area: NH, Maine, N.J., Mass., Pa., Vt. and 50+ Delaware and N.Y.
- Gross Annual Sales: N/A
- Services Provided: ATM, Dedicated ISDN, Frame Relay, IDSL, Local Phone Service, Long Distance, Phone Service, Point-to-Point T1, TDS, Video Conferencing, Flexpath, Carrier PBX, Intranet, Web Hosting, E-mail, HyFax

LIGHTYEAR COMMUNICATIONS

- Headquarters: Manchester
- Phone/Fax: 602-579-3377/416
- E-mail: chuck@lightyear.com
- Web Address: www.lightyear.com
- Number of NH Employees: 7
- Total Number of Employees: 700
- Coverage Area: Nationwide
- Gross Annual Sales: N/A
- Services Provided: ATM, Dial-up, Frame Relay, Local Phone Service, Long Distance, Phone Service, Point-to-Point T1, Video Conferencing, Internet Services

MCT TELECOM

- NH Headquarters: Londonderry
- Phone/Fax: (603) 307-7355/356
- E-mail: info@mct.com
- Web Address: www.mctusa.com
- Number of NH Employees: 90
- Total Number of Employees: 90
- Coverage Area: Connecticut, Central N.H.
- Gross Annual Sales: \$18

- million:
- Services Provided: ADSL, ATM, Cable, Dedicated ISDN, Dial-Up, Dial-Up ISDN, Frame Relay, IDSL, Local Phone Service, Long Distance, Phone Service, Point-to-Point T1, Video Conferencing, Carrier PBX, Business Systems

MARITIME TELEDATA LLC

- NH Location: Portsmouth
- Phone/Fax: (203) 263-7070/207-363-1153
- E-mail: sales@m-com.com
- Web Address: m-com.com
- Parent Company: Maritime Communications in York, Maine
- Number of NH Employees: 1
- Total Number of Employees: 6
- Coverage Area: New England
- Gross Annual Sales: \$950,000
- Services Provided: ADSL, ATM, Cable, Dedicated ISDN, Dial-Up, Dial-Up ISDN, Frame Relay, IDSL, Local Phone Service, Long Distance, Phone Service, Pager Services, Point-to-Point T1, SDSL, Wireless, Video Conferencing, Computer Wiring, Voice Mail, IP, PTI

MULTICOM SOLUTIONS

- NH Headquarters: Gilford
- Phone/Fax: 604-296/527-1334
- E-mail: rob@mcworld.com
- Number of NH Employees: 6
- Total Number of Employees: 6
- Coverage Area: New England
- Gross Annual Sales: N/A
- Services Provided: Cable, Dial-Up, Local Phone Service, Long Distance, Phone Service, Pager Services, Wireless, E-commerce, Web Site Design, Internet Service

NETWORK PLUS, INC.

- NH Location: Nashua
- Phone/Fax: 603-880/266-0006

EATON

PARTNERS, INC
Commercial Mortgage Group

ATTRACTIVE COMMERCIAL PROPERTY FINANCING RATES AND TERMS AVAILABLE

- **Acquisition Loans** (Maximum 85% Loan to Purchase Price)
- **Refinance (With Cash Out)** (Maximum 80% Loan to Appraised Value)
- **Development/Construction** (Maximum 75% Loan to Appraised Value)

MANY OF OUR ACQUISITION AND REFINANCE LOANS ARE NON-RECOURSE

For Further Information Contact David Eaton or Judi Pryde at

Eaton Partners, Inc.
814 Elm Street
Manchester, NH 03101
(603) 626-1964
or Visit Our Web Site at www.eatonpartners.com

Debit
the steering wheel.
Credit
the glove compartment.

Is looking for quality accounting professionals driving you crazy?

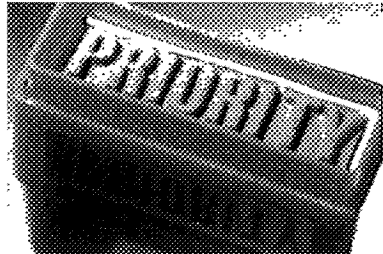
CAREER CONNECTIONS has been successfully meeting your staffing needs since 1982, and has developed a separate Accounting & Finance Division that will move your business into the express lane. We represent professionals from *General Accounting to Controller* levels.

Don't wait until you run out of gas. Call Career Connections today!

Get Connected.
Call 603-880-7184.
jobs4u@careerconnectionsnh.com



CAREER CONNECTIONS
STAFFING SERVICES
74 Northeast Blvd • Unit 17 • Nashua, NH 03062



client.

Sheehan Phinney Bass + Green is one of New Hampshire's largest and most experienced law firms — an association of professionals dedicated to the practice of law and committed to handling the full spectrum of our clients' legal needs effectively and responsively.

It is through teamwork that we are able to provide the quality and efficient professional services clients demand and deserve.

When you think
dedicated legal
services, think

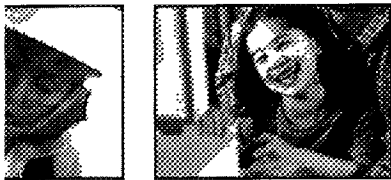


ATTORNEYS AT LAW

Serving business, institutional and personal clients nationally and internationally

1-800-625-SPBG www.sheehan.com

1000 Elm St., Manchester, NH 03101 • 143 North Main St., Concord, NH 03301



• E-mail: info@nwp.com
 • Web Address: www.networkplus.com
 • Parent Company: Network Plus Inc. Quincy, Mass.
 • Number of NH Employees: 16
 • Total Number of Employees: 975
 • Coverage Area: New England, N.Y., and the southeast U.S.
 • Gross Annual Sales: \$152.5 million
 • Services Provided: Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, SDSL, Voice Over DSL, Co-location, Web Hosting

NEXTEL COMMUNICATIONS

• NH Location: North Hampton
 • Phone/Fax: 929-8730/929-8071
 • Web Address: www.nxtel.com
 • Corporate Headquarters: Reston, VA
 • Number of NH Employees: 29
 • Total Number of Employees: 350 (New England)
 • Coverage Area: New England
 • Gross Annual Sales: \$3.3 billion
 • Services Provided: Wireless, Wireless Internet Services, Paging, Short Messaging, and Direct Connect (R) Two-way Rad o

ONESTAR LONG DISTANCE, INC.

• NH Location: North Hampton
 • Phone/Fax: (800) 745-7378/

(800) 493-4718
 • E-mail: leveltr@onestarid.com
 • Web Address: www.onestarid.com
 • Parent Company: Onestar, Inc. Distance, Inc., Earsville, Ind.
 • Number of NH Employees: 10
 • Total Number of Employees: 244
 • Coverage Area: United States
 • Gross Annual Sales: \$59,033,445
 • Services Provided: Frame Relay, Local Phone Service, Long Distance Phone Service, Point-to-Point/T-1, Video Conferencing

PAETEC COMMUNICATIONS

• NH Location: Manchester
 • Phone/Fax: 222-9300/222-2308
 • E-mail: steve.richard@paetec.com
 • Web Address: www.paetec.com
 • Parent Company: Headquarters: Fairport, NY
 • Number of NH Employees: 17
 • Total Number of Employees: 1,000+
 • Coverage Area: Nationwide
 • Gross Annual Sales: N/A
 • Services Provided: Frame Relay, Local Phone Service

Long Distance Phone Service, SDSL, Dedicated Internet

SAETEC, INC.

• NH Headquarters: Lebanon
 • Phone/Fax: 443-9777/443-9888
 • E-mail: info@saetec.com
 • Web Address: www.saetec.com
 • Number of NH Employees: 7
 • Total Number of Employees: 7
 • Coverage Area: Worldwide
 • Gross Annual Sales: \$35 million
 • Services Provided: ADSL, ATM, Dedicated ISDN, Frame Relay, ISDN, Local Phone Service, Long Distance Phone Service, Point-to-Point/T1, SDSL, Dedicated Internet Access up to OC-48

STAR CELLULAR

• NH Locations: Dover, Rochester
 • Phone/Fax: 742-9293/ (800) 346-9172
 • E-mail: starcellular@starcellular.com
 • Web Address:

www.starcellular.com
 • Parent Company: RGC Alexandria, Minn.
 • Number of NH Employees: 9
 • Total Number of Employees: 70
 • Coverage Area: Strafford County, NH and York County, Maine
 • Gross Annual Sales: N/A
 • Services Provided: Wireless

TTLIC INTERNET & IT SOLUTIONS

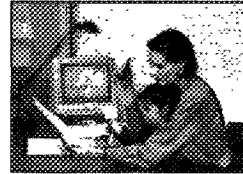
• NH Headquarters: Dover
 • Phone/Fax: (607) 677-8659/742-1887
 • E-mail: sales@ttilic.net
 • Web Address: www.ttilic.net
 • Number of NH Employees: 26
 • Total Number of Employees: 26
 • Coverage Area: NH, Maine, Mass.
 • Gross Annual Sales: \$2.2 million
 • Services Provided: ADSL, Dial-Up, Dial-Up ISDN, Frame Relay, Point-to-Point/T-1, SDSL, Computer Networking, Virtual IT Staffing

TELECOMMUNICATION SYSTEMS OF NH, INC. (TSNH)

• NH Headquarters: Whiton
 • Phone/Fax: 554-9611/654-9901
 • E-mail: N/A
 • Web Address: N/A
 • Number of NH Employees: 22
 • Total Number of Employees: 22
 • Coverage Area: Lyndeborough, Hollis, W. Par
 • Gross Annual Sales: N/A
 • Services Provided: ADSL, Dedicated ISDN, Dial-Up, Local Phone Service, Long Distance Phone Service, Pager Services, Point-to-Point/T-1

THIRD RAIL AMERICAS, INC.

• NH Headquarters: Nashua
 • Phone/Fax: 861-537/881-7272
 • E-mail: greg.prescott@thirdrail.net
 • Web Address: www.third-rail.net
 • Number of NH Employees: 30
 • Total Number of Employees: 30
 • Coverage Area: Wireless, Broadband Service - statewide consulting services - global
 • Gross Annual Sales: N/A
 • Services Provided: Broadband, Wireless, Managed Networks, Internet Access, Broadband Network Design and integration and Deployment, Consulting Services, Limited Internet Services



Need help planning for your company's growth?



Are you interested in developing a Tuition Reimbursement Program?
 Do you have a Tuition Reimbursement Program but would like more information about NHCTCS programs?
 Would you like to know more about On-Site Training?
 Find out how the New Hampshire Community Technical College System can help with your training and education needs.

Call today for more information.



NHCTC
 New Hampshire Community Technical Colleges
 Center for Training and Business Development

CONTACT YOUR LOCAL CENTER FOR TRAINING & BUSINESS DEVELOPMENT

Berlin 752-1113 Claremont 542-7744 Concord 271-6663 Laconia 524-3207 Manchester 623-5832 Nashua 598-4067 Pease Education Center 334-6306

TRUE-BLUE TELECOMMUNICATION SERVICES

- NH Headquarters: Laconia
- Phone/Fax: 528-7717/528-2010
- E-mail: barrett@tbn.net
- Web Address: N/A
- Number of NH Employees: 1
- Total Number of Employees: 1
- Coverage Area: USA-Continental
- Gross Annual Sales: N/A
- Services Provided: Dedicated ISDN, Dial-up, ISDN, Frame Relay, Long Distance, Phone Service, Point-to-Point, Wireless, T-1, Internet Services

TURNPIKE TECHNOLOGIES

- NH Headquarters: Lebanon
- Phone/Fax: 446-0991/486-791-0158
- E-mail: admin@tpk.net
- Web Address: www.tpk.net
- Number of NH Employees: 8
- Total Number of Employees: 10
- Coverage Area: NH parts only
- Gross Annual Sales: N/A
- Services Provided: Dedicated ISDN, Dial-up, ISDN, Frame Relay, ISDN, Point-to-Point, T-1, SDSL, Wireless, Co-Location, Web Hosting

21ST CENTURY CELLULAR

- Headquarters: Hanover
- Phone/Fax: 642-3339/N/A
- E-mail:

- Phone/Fax: 212118/212118
- Web Address: www.21stc.com
- Number of NH Employees: 3
- Total Number of Employees: 3
- Coverage Area: NH and southern VT
- Gross Annual Sales: N/A
- Services Provided: Pager Services, Wireless

TWINSTATE VOICE, DATA, VIDEO, INC.

- NH Location: Concord
- Phone/Fax: 256-9598/256-9816
- E-mail: ralu@twstate.com
- Web Address: www.twstate.com
- Company Headquarters: Morrisville, NY
- Number of NH Employees: 4
- Total Number of Employees: 55+
- Coverage Area: NH, VT, west MA, eastern NY
- Gross Annual Sales: \$8 million
- Services Provided: ATM, Cable, Frame Relay, Wireless Telecommunications, Equipment/Service

UCOM

- NH Location: Manchester, Concord, Nashua, and Portsmouth
- Phone/Fax: (877) 265-JCOM/ (207) 856-2391
- E-mail: osamey@ucom.com
- Web Address: ucom.com
- Parent Company: NEP, LLC in Westbrook, Maine
- Number of NH Employees: 2
- Total Number of Employees: 75
- Coverage Area: New England
- Gross Annual Sales: N/A
- Services Provided: Pager Services, Wireless

US CELLULAR

- NH Location: Bedford
- Phone/Fax: 246-0900/221-1211
- E-mail: N/A
- Web Address: N/A
- Parent Company: TDS Telecom in Chicago, Ill.
- Number of NH Employees: 100
- Total Number of Employees: N/A
- Coverage Area: Nationwide
- Gross Annual Sales: \$6.2 billion

- Services Provided: Wireless

VALLEYNET, INC.

- Headquarters: Hanover
- Phone/Fax: (802) 649-2162/ (802) 649-3637
- E-mail: info@va.vv.net
- Web Address: www.valley.net
- Number of NH Employees: 4
- Total Number of Employees: 15
- Coverage Area: Upper Connecticut River Valley (south to Claremont east to Sunapee, north to Dorrford)
- Gross Annual Sales: \$1 million
- Services Provided: ADSL, Dedicated ISDN, Dial-up, ISDN, SDSL, Web Services

VERIZON COMMUNICATIONS

- NH Location: Manchester
- Phone/Fax: (800) 941-9900/ (800) 854-0900
- E-mail: Visit Web page
- Web Address: www.verizon.com
- Parent Company: Verizon in New York, NY
- Number of NH Employees: 2,500

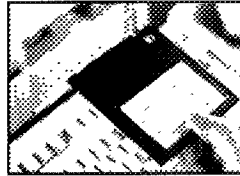
- Total Number of Employees: 250,000
- Coverage Area: Global
- Gross Annual Sales: More than \$500 million
- Services Provided: ADSL, ATM, Dedicated ISDN, Dial-up, Dial-up, ISDN, Frame Relay, Local Phone Service, Long Distance, Phone Service, Point-to-Point, T-1, Wireless, Video Conferencing, Web Hosting, Network Management, Internet

VIEWCOMMUNICATIONS INC.

- NH Headquarters: Manchester
- Phone/Fax: 671-5130/621-5129
- E-mail: gwiley@viewcom.com
- Web Address: www.viewcom.com
- Number of NH Employees: 12
- Total Number of Employees: 12
- Coverage Area: New England, National/International
- Gross Annual Sales: \$3 million
- Services Provided: Video Conferencing, Consulting

VITTS NETWORKS

- NH Headquarters: Manchester
- Phone/Fax: 656-8000/656-6100
- E-mail: sales@vitts.com
- Web Address: www.vitts.net
- Number of NH Employees: 330
- Total Number of Employees: 350
- Coverage Area: New England
- Gross Annual Sales: N/A
- Services Provided: Point to Point, SDSL



THE RIGHT DIRECTION FOR BUSINESS

The Cities of The Greater Seacoast Economic Development Alliance

Direction is key to your business — in establishing, relocating or expanding and in maintaining profitable growth. Equally important is the direction provided by your economic development partners.

The Cities of the Greater Seacoast Economic Development Alliance offer a business environment with quick and easy access to domestic and international markets, a highly-educated workforce, burgeoning technology and an unbeatable quality of life. More importantly, our more than 50 years of combined experience in NH economic development provides you with direction.

We can guide you to the resources you need to succeed — contact us today.

Rochester

Somersworth

Dover

Pease Tradeport

Portsmouth

CITY OF DOVER

Beth Thompson,
Economic Development Dir.
ph: (603) 743-6043
fx: (603) 743-6049
b.thompson@ci.dover.nh.us
www.ci.dover.nh.us

CITY OF PORTSMOUTH

Nancy Carmer,
Commercial Development Prog. Mgr.
ph: (603) 431-2006 ext. 220
fx: (603) 427-1593
nmcarter@ch.cityofportsmouth.com
www.cityofportsmouth.com.edc.htm

CITY OF ROCHESTER

Bill Andreas,
Economic Development Specialist
ph: (603) 335-1338
fx: (603) 335-7585
ed_specialist@econ.ci.rochester.nh.us
www.econ.ci.rochester.nh.us

CITY OF SOMERSWORTH

Dan DeSantis,
Director of Dev. Services
ph: (603) 692-9104 ext. 309
fx: (603) 692-7338
d.desantis@somersworth.com
www.somersworth.com

PEASE DEVELOPMENT AUTHORITY

David R. Mullen
Director of Econ. Dev.
ph: (603) 334-6031
fx: (603) 427-0433
d.mullen@peasedev.org
www.peasedev.org