Frequently Asked Questions

Digital Subscriber Lines (DSL)

General Information

What is DSL?

DSL stands for Digital Subscriber Line, a high-speed always on Internet and data access technology that works over ordinary telephone wires for twisted pair copper wires).

What are the Advantages to DSL?

DSL has four important advantages:

Price/Performance: DSL fills the void between inexpensive, but slow, dial-up internet services and fast, but expensive, leased lines: DSL can provide speeds from ISDN 1144 Kbost to T1 (1.5 Mbps) at a fraction of the cost. Moreover, DSL is billed on a flat-rate basis: you can access the Internet as often and as long as you need for one monthly fee.

Always-On Connection: With DSL, you're online when your computer is on. There are no busy signals, no dialing and no tying up a voice line.

Reliability: OSL's reliability is on a per with your telephone or a dedicated leased data line.

Flexibility: Harvard/Ver's DSL customers can upgrade to a faster speed with a single call as their internet needs grow, without additional equipment or a technician visit.

How Fast is OSL?

Harvard/Net's symmetric DSL provides speeds from 144 Kbps to 1.5 Mbps to and from the Internet. The actual speed of your DSL connection depends on your company's distance to the telephone company's central office and the condition of the wire.

Why is More Internet Access Speed Important?

These days, even the most basic Web sites consist of photos, banners, interactive segments and video clips that slow down the connection. With a slow connection, downloading these images can take forever. And, with e-mail becoming the preferred method of business communication, people are demanding faster, more convenient e-mail delivery.



Availability and Installation

How Can I Find Out if DSL is Available in My Area?

To determine if DSL is available in your area, visit www.harvardnet.com and use our DSL Availability tool

Using your telephone number and address, Harvard*Net* can determine if Business*Speed* DSL is available at your location. The Business*Speed* DSL speed level that you can receive depends on your distance to the telephone company's central office and the condition of the wire.

How is DSL Installed?

DSL installation is not that much more difficult than adding another telephone line. First, a DSL circuit is provisioned using existing telephone wires. This circuit terminates at what is called the Minimum Point of Entry (MPOE) or Network Interface Device (NID), which is usually a punchdown block in a wiring closet (for most businesses) or a drop in the basement, garage or utility room (for most residences). Next, inside wiring is run from the MPOE to the DSL modern (frequently called an RTU), which is connected to a hub, server or other computer via Ethernet.

How is DSL Related to the Phone Company? Do We Still Need to Set Up a Telephone Line?

You don't need to do a thing – HarvardNet installs a new line at your site. And while the DSL circuit goes back to the telephone company's central office, there are no dial-tone or per-minute charges. You won't receive any additional bills from your local phone company.

What Are the Advantages of HarvardNet's Cisco-Powered Network?

By utilizing an end-to-end Cisco-powered architecture, Harvard Net is able to offer customers unparalleled flexibility. For example, Cisco's DSL equipment can be configured with either an Ethernet port (that plugs directly into a network hub or single PC) or a Serial port (that plugs into a business-class router). Either way, the result is a scaleable platform that can expand as your needs expand while protecting your original investment.

DSL vs. Alternative Technologies

How Does DSL Compare With Dial-up Service?

Traditional dial-up connections provide inexpensive, consumer-grade access to the Internet. This has been adequate for many small businesses connecting to the Internet for the first time. However, as e-mail and the Internet become increasingly critical to accomplishing business goals, dial-up connections have presented several limitations:

Slow: Connection speeds vary from 28Kbps to 53Kbps, about a third the speed of entry-level 144Kbps DSL. Having to wait for Web pages or e-mail file attachments at dial-up speed is not only frustrating, but reduces employee productivity.

Unreliable: Every time you connect to the Internet with dial-up you must literally dial a telephone number. This is inconvenient and, during peak periods of usage, unreliable due to busy signals. DSL, like T1 leased lines, provides a dedicated, "always-on" connection – simply open your Web browser or e-mail program and you are on the 'Net.

Limited: Dial-up modems are designed to connect a single PC to the Internet. DSL, by contrast, is designed to connect directly to a network hub so that every PC in your office can utilize the connection. By eliminating the need for multiple dial-up accounts and telephone lines, DSL can be much more economical than dial-up.

How Does DSL Compare with ISDN?

ISDN has been one of few solutions for small and medium businesses and work-at-home users requiring more speed than a dial-up connection. Unfortunately, ISDN has its limitations:

Expensive: While ISDN is faster than a dial-up connection, the service is typically billed on a per-minute rate that varies depending on where and when the connection is made. Harvard Net DSL is billed at one flat, monthly rate, regardless of usage.

128 Kbps Limit: ISDN is limited to 128 Kbps, whereas DSL can scale to meet future requirements. Harvard*Net* is generally able to upgrade customers from 144 Kbps to 384 Kbps, 768 Kbps, and higher in a matter of minutes, without replacing equipment or sending out a technician.

How Does DSL Compare with Cable Moderns?

While cable modems provide fast, always-on access to the Internet, they suffer from several significant disadvantages for business users:

Shared Bandwidth: Cable modem bandwidth (or speed) is shared among several subscribers in a particular neighborhood. Individual subscribers are rarely guaranteed any amount of bandwidth. DSL, by contrast, provides a dedicated circuit.

One-Size-Fits-All Service: Cable operators nearly always provide one type of service. This is partly due to the technology limitations of the cable modern architecture, and partly due to the fact that cable operators are servicing the residential market. Business Speed DSL is available in several speeds to match current needs and future growth.

Reliability: Cable networks have been built to much less stringent reliability standards than the telephone networks. Service interruptions are much more likely.

How Does DSL Compare with T1 (L5 Mbps), T3 (45 Mbps) and Other Leased Lines?

Because DSL is provisioned on existing telephone lines, DSL is much more cost-effective than T1 service, which is priced based on your business' distance from the service provider's location. Unfortunately, DSL's technical limitations prevent every business and home from receiving every speed of DSL. For these customers, HarvardNet continues to offer Frame Relay, fractional and full-rate T1 and higher megabit-services.

About Harvard*Net*

Harvard Net provides

high speed latemet

occass, Virtual Private

Networks (VPNs) and

Web hosting survices to

businesses located in

the Northeast and Mid-Atlantic regions.

Harvard Net delivers in

services over its fiber-

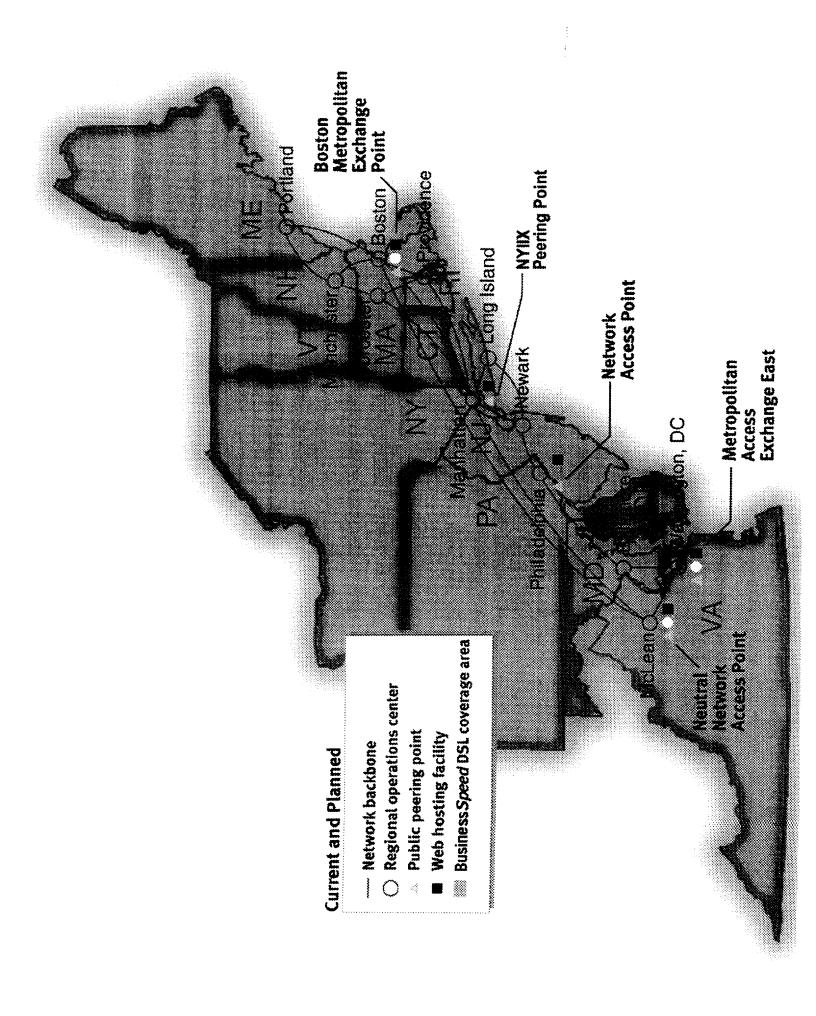
optic backhone network
that connects markets

from Maine to Virginia.

HarvardNet Product Offerings:

- + BusinessSpeed DSL, T1, T3 and Frame Relay Internet connections
- RemoteConnect Broadband VPN for branch offices and telecommuters
- Virtual, Dedicated and Collocated Web hosting services





Internet Access

BusinessSpeed DSL Power Levels

HarvardNet offers six BusinessSpeed DSL Power Levels to meet the needs of any company.

All speeds can be upgraded with one easy phone call and no addition equipment.

Bandwidth Options	Upgrading From:	Best Suited for Companies or Offices That:
(Upstream from PC/Downstream to PC)		
144Kbps/144Kbps	Dial-up	Access the Web occasionally
256Kbps/256Kbps	ISDN	E-mail or transfer very few large files and documents
·		Do not host own Web site
384Kbps/384Kbps	ISDN	Have many people simultaneously accessing the Web
512Kbps/512Kbps	Frame Relay	E-mail or transfer large files and documents
	Fractional T1	Do not host own Web site
768Kbps/768Kbps	Fractional T1	Rely on the Internet to conduct business
1.1Mbps/1.1Mbps	T1	Have many people simultaneously accessing the Web
		E-mail or transfer large files and documents
		Host own Web site



DSL/Product Info

Match Speed & Needs

Jato DSL Affordable Service Options

Jato offers a variety of data transfer rates designed to match your business applications and needs. Our sales staff will work with you to make sure you're getting the best value for your telecommunications dollar. And you can adjust your data transfer rate requirements at any time. Jato DSL gives you the speed and the flexibility you need-when you need it.

)))	and the state of t
Jato DSL Sp	Jato DSL Speed Applications
Speed	Ideal for:
144 Kbps	"Always On" improvement over lower cost replacement for ISDN or dial-up services
192 Kbps	Instant e-mail transactions
384 Kbps	Net meetings, video e-mail, video cams
768 Kbps	Web seminars, training, and ultra fast file transfers (FTP)
1.0 Mbps	Multiple user support (LANs, WANs)
1.5 Mbps	Highest quality streaming applications





DSL/Product Info

Jato DSL FAQS

Question:

How much will I pay for Business-Grade DSL?

Answer:

Business-Grade DSL packages start at \$119 per month and go up from there, depending on how fast you want to go! The flat monthly rate, billed directly from Jato to you, makes it easy for you to manage your Internet expenses.

Jato DSL is priced higher than typical telephone company DSL because it is business-grade, and Jato offers a higher level and wider range of services.



Check DSL Availability

Service Availability - Texas



Service Cities in Texas

complete. So every branch office, every employee on the road, every telecommuter, may be covered by the Jato network. To be notified when we're in your area, fill out our service We're expanding our network every day. By the end of 2001, our nationwide network will be availability form.

			s
City	Austin	El Paso	New Braunfels
	ن	ن	ن

Service Date	Now Available	Now Available

Now Available

- San Antonio
- Now Available Now Available



Check DSL Availability

Service Availability - Florida



Service Cities in Florida

We're expanding our network every day. By the end of 2001, our nationwide network will be complete. So every branch office, every employee on the road, every telecommuter, may be covered by the Jato network. To be notified when we're in your area, fill out our service availability form.

	<u>e</u>	
city	Jacksonvill	Pensacola
Ü	6 Ja	Pe

Service Date Now Available

Coming October, 2000

Now Available

St. Augustine

0002/62/80



Jato Communications --- Jato DSL Plus

08/29/2000

ف	Lodi	Now Available
ن	Merced	Now Available
ف	Modesto	Now Available
ن	Placerville	Now Available
۵	Sacramento	Now Available
د	Stockton	Now Available

Jato communications --- Jato DSL Plus

Now Available

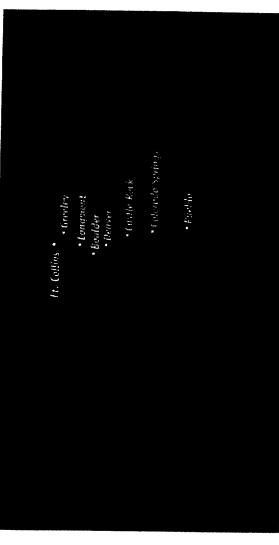
Visalia





Check DSL Availability

Service Availability - Colorado



Service Cities in Colorado

complete. So every branch office, every employee on the road, every telecommuter, may be We're expanding our network every day. By the end of 2001, our nationwide network will be covered by the Jato network. To be notified when we're in your area, fill out our service availability form.

	الم
City	Boil

Soulder 🕏

Castle Rock
Colorado Springs

Service Date Now Available

Now Available Now Available

0002/62/80

Denver

Jato Communications --- Jato DSL Plus

- Ft. Collins
- Longmont Greeley
 - Pueblo

Now Available Now Available Now Available Now Available Now Available



EASY HIGH-SPEED COMMUNICATIONS MADE















With Digital Storagistical Application

Our skaterofelitecaje bigipal Sitte, ang in the same and skaterofelite and same and same and same and same and

power to do amazding things—aristly are communication

- DSL* Internet connection that serves everyone in the office—at a fraction A single, high-speed, always-on of the cost of traditional data services like ISDN and T1
- · Low-cost, high-speed Wide Area Network (WAN) connections that link your branch offices with your main office

- Teleformunitation of the second of the secon
- remotely from home via a high-
- The flexibility to design a broad-

speed connection

- specifically for your business and band communications package
 - your budget

- THE STATE OF THE S

'DSL may not be evallable in all locations due to technical limitations.

focused on your business, not on your Easy to install and maintain—Stay communications services

Business-class—True business services, with the highest levels of quality and functionality

Affordable—Serve the whole office for a flat monthly rate, with no hidden fees or business usage charges

Always on-No frustrating dial-up connections, busy signals and disconnections **DSL** Services

Benefits of

Lightning fast—Download Web pages and data files many times faster than dial-up connections

from

Digital Broadband

consistent, reliable and secure connec-Secure and reliable—A dedicated DSL which suffer decreased performance tion, unlike competing technologies as more users share the same path circuit ensures you always have a

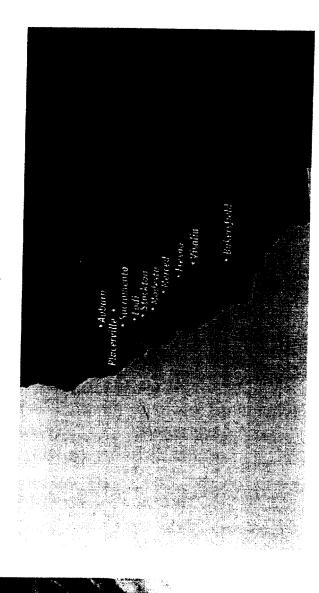
Unlimited users—Serve all employees on your network with a single DSL connection

support for your DSL service 24 hours personnel at our Center of Excellence provide uninterrupted monitoring and Passion for Perfect Service—Irained a day, 7 days a meek Page 1 of 2



Check DSL Availability

Service Availability - California



Service Cities in California

complete. So every branch office, every employee on the road, every telecommuter, may be covered by the Jato network. To be notified when we're in your area, fill out our service We're expanding our network every day. By the end of 2001, our nationwide network will be availability form.

:			
į	=	ī	
Ĺ	J		

Auburn

Bakersfield

Service Date Now Available Now Available

Now Available Fresno

At the core of our complete offering is our own Digital Broadband Communications Network (DBCN). The DBCN is a Cisco Powered Network designed from the ground up around the latest broadband technologies. This

An ensures you of carrier-class Quality of Service
Amazing (QoS), performance, reliability, and security. These attributes
Network

Network and security. These attributes Network enable the business services you'll soon depend on, like live video conferencing, streaming media and packetized voice.

The DBCN is also technology independent. This gives us the flexibility to use a variety of technologies—from multiple types of DSL to T1 and frame relay—to create a broadband communications package that meets your specific needs, now and in the future.

Digital Broadband provides an expanding portfolio of the services businesses like yours need to stay at the forefront.

- High-speed DSL services from 144Kbps to 6Mbps, with or without Internet access
- Email branded for your company

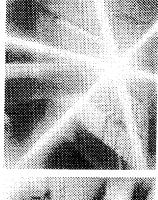
Amazing "All distance including trad Broadband long distance

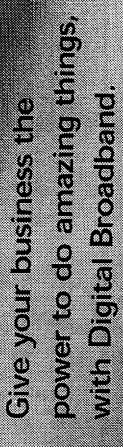
"All distance" voice services, including traditional local and long distance
 Web hosting and content

- Services hosting services
- Remote access for telecommuting
 Distance learning, telemedicine, and other Internet-based applications
- Local Area Network (LAN) interconnection (to link multiple offices)
- Access to commonly used applications over the DBCN









At Digital Broadband, we have a "Passion for Perfect

Service." This is demonstrated by our state-of-the-art

AMBZİNĞ Center of Excellence in

Customer Waltham, MA. Here, network

technicians and customer care

Service

together to ensure an outstanding user experience-

representatives work closely

every day, around the clock.

For more information, visit us on the Web at www.digitalbroadband.com



do amazing things

Corporate Headquarters

Digital Broadband Communications, Inc.

200 West Street

Waltham, MA 02451

Tel: (781) 290-4000 Fax: (781) 290-4001 www.digitalbroadband.com

Branch Offices in 2000
Akron, Ohio
Albany, New York
Baltimore. Maryland
Buffalo. New York
Canton, Ohio
Cincinnati, Ohio

Columbus, Ohio
Dayton/Springfield, Ohio
Hartford, Connecticut
New York, New York
Philadelphia, Pennsylvania
Pittsburgh, Pennsylvania

Rochester, New York
Stamford, Connecticut
Syracuse, New York
Toledo, Ohio
Washington, D.C.
White Plains, New York
Youngstown, Ohio





*Digital Broadband Communications, Inc. 2000 GB001APRIL00

Press Releases

Digital Broadband Communications Brings High-Speed Data Networking to Washington, D.C. with its Digital Broadband Communications Network (DBCN)

Waltham, Mass. - (August 8, 2000) - Digital Broadband Communications, Inc., the country's premier Broadband Communications Provider (BCP), today announced it will deliver high-speed broadband capabilities to businesses in the D.C. Metro area, including metropolitan Washington, D.C., northern Virginia and Maryland. D.C. Metro, along with many other cities and towns in that region, is targeted to receive services as the company expands its signature Digital Broadband Communications Network (DBCN). Digital Broadband anticipates full functionality of the DBCN in these areas by yearend 2000.

"D.C. Metro businesses and telecommuters will be able to receive quality, high-speed broadband access and superior customer care from Digital Broadband," said Tim Battles, vice president of sales, Digital Broadband. "We are delighted to be building the DBCN in the area."

Once the DBCN is fully functional, businesses may begin to select Internet access at speeds ranging from 144 kilobits per second (Kbps) to 6 megabits per second (Mbps). A service offering of 144 Kbps or higher is many times faster than traditional dial-up Internet access. The company will provide much of the area with Digital Subscriber Line (DSL) technology. For businesses in cities and towns not reachable via DSL, the DBCN will connect them via frame-relay or T1.

Businesses will benefit from Digital Broadband's teleworker solutions, branch office and Wide Area Network (WAN) connectivity, as well as its 24/7 network monitoring and technical support. Digital Broadband is a "carrier class" communications company that helps businesses achieve their strategic goals. The company's complete suite of services is provided through the deployment of the latest technologies and with Digital Broadband's Passion for Perfect ServiceTM.

Earlier this year, Digital Broadband announced its contract with the Massachusetts Community Network (MCN) to provide ubiquitous high-speed Internet access to Massachusetts' public schools from kindergarten through high school, public libraries, municipal offices, and state agencies throughout the Commonwealth. Digital Broadband also recently announced its expansion into Connecticut, New Jersey, metropolitan New York, Pennsylvania, Maryland and upstate New York, and that the company is building a WAN for online flower superstore, KaBloom in Massachusetts. In addition, Digital Broadband has an agreement with Rhode Island's Cooperating Libraries Automated Network (CLAN) to deliver high-speed broadband capabilities to 48 of the state's public libraries.

About Digital Broadband Communications:

Digital Broadband Communications - the country's premier Broadband Communications Provider - markets "all distance" voice, data, and Internet services to general businesses, large enterprises and ASPs via its facilities-based Digital Broadband Communications Network (DBCN) and Asynchronous Transfer Mode (ATM)-based network backbone.

The Company's key differentiator is its direct responsibility for the

Washington D.C. to be served by Digital Broadband DSL Service customer's broadband communications experience. It provides personalized attention through its experienced and motivated direct sales, provisioning and customer service teams.

The privately held firm is venture backed, including vendor funding from Cisco. Digital Broadband is further distinguished as the first New England-based end-to-end DSL Cisco Powered Network. Learn more at www.digitalbroadband.com.

News & Events

DSL.net Reaches 300 City Milestone

Broadband Data and Internet Service Available to Businesses in 45 States

NEW HAVEN, Conn. -- June 19, 2000 -- DSL.net, Inc. (NASDAQ: DSLN) a direct national provider of high-speed data communications and Internet solutions for businesses, today announced that it is offering digital subscriber line (DSL) service in 300 cities in 45 states. This achievement gives DSL.net one of the broadest operational footprints of any business-oriented DSL provider in the United States.

"Reaching this milestone puts DSL.net at the forefront of national broadband companies with a focus on, and a direct relationship with, business customers," said David F. Struwas, president and chief executive officer of DSL.net. "To attain operational status in 300 cities less than six months after crossing the 100-city threshold is a testament to the dedication and enthusiasm of all DSL.net employees. It is also a powerful validation of our strategy to bring high-quality broadband access and services to cities throughout the U.S."

DSL net provides a business-class DSL connection that enables growing companies to become more productive and efficient, and allows them to take advantage of Internet applications and Webbased services once only available to large corporations. DSL net's high-performance network, direct-to-customer sales and support model, and broad national footprint make it a key partner to leading business solution providers who are looking to offer on-line applications and services to emerging enterprises.

Benefits of DSL.net's business-class broadband service include:

- -- Professional installation and fully supported customer premise equipment, reducing the need for in-house technical resources.
- -- An "always on" broadband link to the Internet using standard copper telephone wire. DSL.net provides guaranteed access speeds of up to 1.5 Mbps and monitors the service performance around-the-clock through its dedicated Network Operations Center.
- -- An affordable, flat rate, unlimited-usage service with no costly and unpredictable per-minute fees
- -- DSL net's private peering relationships and status as a national Internet service provider (ISP), offering customers a fast, "one-hop" connection to the Internet
- -- Static IP addresses and domain name registration and management, providing small businesses with their own "dot-com" Internet presence for increased marketing visibility.
- -- Optional services including enhanced e-mail capabilities, Web hosting, dedicated hosting, USENET news and a variety of powerful, productivity-enhancing on-line business applications and services offered by DSL net and its partners such as ADP.

For information regarding DSL.net service availability, visit http://www.dsl.net, e-mail info@dsl.net, or call 1-877-DSL-NET1 (1-877-375-6381).

About DSL.net

Based in New Haven, Conn., DSL.net, Inc. is a high-speed data communications and Internet solutions provider that uses digital subscriber line technology to provide high-speed Internet access to small and medium-sized businesses, primarily in second- and third-tier cities throughout the United States. As of June 19, 2000, DSL.net provides service in 300 cities in 45 states. For more information regarding DSL.net solutions and services visit http://www.dsl.net, e-mail info@dsl.net, or call 1-877-DSL-NET1 (1-877-375-6381).

DSL.net's authority to provide certain regulated services is held by its subsidiary companies. DSL.net is a trademark of DSL.net, Inc. Other product and company names herein may be trademarks of their respective owners.

Contacts

DSL.net, Inc.Robert Ventresca

Blanc and Otus Greg Peverill-Conti 203-782-3401 rventresca@dsl.net

617-262-6454 gregpc@blancandotus.com

How Much Does It Cost?

- · Features of DSL net Service
- · Compare DSL.net to Others
- Business Solutions Package
- Enhanced E-mail
- Web Hosting
- USENET News
- DNS Management

→ SPECIAL OFFER - LIMITED TIME!

Do you really know what you are paying for your Internet access? Our service is truly all-inclusive. When we install your service, we provide the equipment, install the dedicated phone line to your place of business, test the line and the equipment, provide the Internet access, equipment, maintenance, and continually monitor your connection for quality. The installation is a one-time charge.

After that, the monthly charge covers your access and the quality assurance of the bandwidth. That's it. No other bills from the phone company or an equipment leasing company. Just one bill.

Look at both your phone and Internet access bills. Once you add up the total costs of your current Internet access, you'll see that DSL net's service is less expensive and includes much, much more! View the Savings!

Compare DSL.net services to other traditional services...

Product	Speed	Installation	Approximate Monthly	Price/Kbps
DSL.net Service NETgain 400	384 kb/s	\$499	·	6 0.60
Other Older Technologies	304 KD/S	7433	\$233*	\$0.60
Frame Relay	56 kb/s	\$2500**	\$350+	\$6.25
Fractional T1	384 kb/s	\$3500**	\$875	\$2.28
ISDN***	128 kb/s	\$750	\$279+	\$2.18
Dial-up***	56 kb/s	\$100	\$65****	\$1.16
Dial-up***	28.8 kb/s	\$100	\$45****	\$1.61

^{*}Based on a two year contract -See Products & Solutions for information about this and other charges.

^{****}Charges include monthly ISP access fees and second phone line charge.

 Static IP Addresses (as many as required) Full Internet access 	 POP3 email (10 addresses) DNS Hosting (1 Domain) Guaranteed bandwidth
NETgain 800 (Free DSL Equipment included)	

^{**}Installation costs for Frame Relay and T1 include telephone company activation, Cisco router and a CSU/DSU connector (Business quality standard products).

^{***} Usage based. Monthly charges are often higher.

- 768Kbps to 784Kbps access
- Static IP Addresses (as many as required)
- Full Internet access

- POP3 email (10 addresses)
- DNS Hosting (1 Domain)
- Guaranteed bandwidth

NETgain 1200 (Free DSL Equipment included)

- 1.0Mbps to 1.2Mbps access
- Static IP Addresses (as many as required)
- · Full Internet access

- POP3 email (10 addresses)
- DNS Hosting (1 Domain)
- · Guaranteed bandwidth

NETgain 1500 (Free DSL Equipment included)

- 1.5Mbps access
- Static IP Addresses (as many as required)
- Full Internet access

- POP3 email (10 addresses)
- DNS Hosting (1 Domain)
- Guaranteed bandwidth

DSL Equipment (no fee required)

Pricing

As a direct provider of high-speed Internet access solutions, DSL.net offers small- and medium-sized businesses from coast to coast the ability to access the power and the potential of the Internet through high-speed DSL technology. We offer flat-rate business-class service at a variety of speeds. Our Network Operations Center monitors your connection 24 x 7 and around the clock service is only a phone call away.

To obtain current prices on our family of services and solutions, or to find out about special promotions please email info@dsl.net or call our sales staff toll free at 1-877-375-6381.

There is a one-time charge of \$499 that covers installation.

The maximum available speed of your connection is determined by your location. Not all speeds are available in all areas. Please ask our knowledgeable sales representatives about access speeds in your area.



DSL Services

Investor Relations

Press Room

Careers

A Necessary Advantage Powerful Solutions

DSL Services

Expand Your Mind Get The Edge

Distribution Partners

Powerful Solutions

Edge At Home, Edge At Work

Whether at home or at work New Edge Networks has a DSL solution tailored to meet your needs.

Our Edge At Work suite of DSL products provides you with a true business class high-speed Internet solution. A network performance guarantee and enhanced security functionality highlight a product line that is ideal for business applications that would otherwise require an expensive T1. Our Edge At Home suite of DSL products is ideal for single users with high-speed data needs. Email attachments, web pages, large files and graphics all download in a flash. Once you experience the adrenalin rush of DSL, slowing down will not be an option.

EDGE AT WORK

Symmetrical Digital Subscriber Line (SDSL)

SDSL provides you with upstream and downstream speeds as fast as 1.1 Mbps, which is approximately 35 times faster than a 28.8 Kbps dial-up modem.

SDSL is ideal for:

- Businesses using an Intranet or Extranet for communication between employees, customers or suppliers.
- Businesses using the Internet to transfer files.
- Businesses/Individuals using the Web for e-business applications.
 - Business/Individuals using the Internet to deliver content.
- Businesses/Individuals hosting or developing their own or others web sites.
- Telecommuters needing access to the corporate Local Area Network (LAN), Wide Area Network (WAN), Extranet, or Intranet.
 - Technical staff needing access from home to corporate WAN, LAN, Intranet, or Extranet.

ISDN Digital Subscriber Line (IDSL) IDSL's strongest asset is its reach, and New Edge is able to deliver

speeds up to 128 Kbps up to 36,000 feet (almost seven miles) from the central office.

- Telecommuters needing access to the corporate LAN, WAN, Extranet, or Intranet.
 - Businesses/Individuals that have existing ISDN connections.
 - Individuals located beyond 18,000 feet from the CO.
- Individuals with existing Dial-Up connections that use the web for research, shopping and entertainment.

Product Line	Delivery	Downstream/ Upstream Speeds	Distance*	DSL Equipment Options	Service Level Agreement	Customer Profile
Edge At Work	SDSL	1.1 / 1.1 Mbps	12,500 ft	Bridge or Router	Business Class	Enterprise
Edge At Work	SDSL	768 / 768 Kbps	15,000 ft	Bridge or Router	Business Class	Business
Edge At Work	SDSL	384 / 384 Kbps	18,000 ft	Bridge or Router	Business Class	Business
Edge At Work	SDSL	192 / 192 Kbps	20,000 ft	Bridge or Router	Business Class	Small Office / Home Office
Edge At Work	IDSL	128 / 128 Kbps	26,000 ft	Router	Business Class	Remote Users- Business and Residential

EDGE AT HOME

Asymmetric Digital Subscriber Line (ADSL)

ADSL provides you with faster upstream speeds making the service ideal for demanding home Web surfers, single end users and home-office end users.

ADSL is ideal for:

- Telecommuters needing access to the corporate LAN, WAN, Extranet, or Intranet
- Businesses/Individuals that have existing ISDN connections that are looking for more speed and a flat rate service
- Individuals with existing Dial-Up connections that use the web for research, shopping, and entertainment

Custome		
Service	Level	
DSL	e* Equipment	
	Distance	
Downstream/	V Upstream	
	Delivery	
Product		

Agreement Profile

Options

Speeds

Line

DSL Services, New Edge Networks

Site Tools

ı	Residential Power User	Residential
	Best Effort	Best Effort
•	Bridge	Bridge
	12,000 ft	12,000 ft
•	768 / 384 Kbps	384 / 128 Kbps
	ADSL	ADSL
	Edge At Home	Edge At Home

A Network that Delivers

The Network

New Edge Networks has taken a giant leap forward in bridging the digital divide when it announced completion of a national data communications network that will help usher in broadband access to underserved smaller markets around the country.

communications network and eliminate a physical presence and capital expenditures that discourage Networks' facilities-based national backbone ring is based on Asynchronous Transfer Mode (ATM) or delay investments for offering new broadband services in smaller cities and towns. New Edge Internet and other broadband services providers now can use New Edge's super-fast data technology.

Digital Subscriber Line Access Multiplexers (DSLAMs) in telephone company Central Offices (COs) and traffic and delivers it over Wide Area Networks (WANs) or to the Internet, via New Edge's Distribution coupled with Alcatel's Asynchronous Transfer Mode (ATM) switches (Model 3170) aggregate End User New Edge currently provides high speed Internet access in more than 200 central office locations, accesses existing two-wire copper loops to the End User's premises. Alcatel DSLAMs, (Model 350) progressing on more than 750 other locations in all 50 states. The New Edge Network collocates representing more than 125 cities and installed or operational locations in 18 states. Work is

In addition to its operating locations, New Edge has installed DSL network equipment in another 140 locations, bringing to more than 340 the total number of towns. Each of these locations is connected to the ATM backbone ring directly or through other regional hubs, providing high speed connections for wholesale customers. New Edge owns and maintains the switching equipment in the regional hubs and leases lines from national transport carriers.

Internet and avoid growing traffic congestion. The backbone ring provides diverse routing and self-The New Edge backbone network ring allows its customers to bypass major portions of the public healing functionality.

national backbone ring. New Edge plans to install new RAPs as it expands its nationwide DSL footprint New Edge Distribution Partners interconnect with New Edge in local cities where we provide DSL service or at any of the current 14 regional aggregation points, or RAPs, that currently form the coverage.

around the United States. Most regional and national ISPs are within 10 miles of a New Edge Networks New Edge Networks' current RAPs are located in Seattle, Portland, Sacramento, San Jose (Sunnyvale, Minneapolis, Denver and Salt Lake City. These cities are linked together to form a huge network ring, Calif.), Los Angeles, San Diego, Dallas, Orlando, Atlanta, Washington, D. C. (Ashburn, Va.), Chicago, RAP location.

coverage footprint one step farther through reciprocal service agreements with Covad and Northpoint. Through these agreements, and the same connection, New Edge Distribution Partners will be able to At New Edge we have also given our Distribution Partners another advantage by taking our broad sell DSL services on the New Edge, Covad and Northpoint networks, extending coverage into the major markets. DSL connections from the end user's location are established via DSL modems from Efficient Networks. These modems can be bridges or routers that are connected to the end user's computers.

National Coverage and ATM Backbone



ALCATEL

Alcatel is providing New Edge Networks with a common architecture on which we are building the next generation broadband network. The Alcatel solution delivers a multiservice access platform with ATM (asynchronous transfer mode) core switching and powerful network and service management. The solution enables New Edge Networks to deliver a host of broadband services over many access technologies, including xDSL for subscribers and DS1, DS3 and fiber-based aggregated service delivery for Internet Service Providers.

worldwide. Alcatel's ultimate aim is to meet every need from basic telephony in remote areas to highly sophisticated multimedia networks. The Company's expertise in network integration and management allows it to provide and maintain total network solutions, supported by solid teams all around the communications solutions to established and new carriers, as well as enterprises and consumers Alcatel builds next generation networks that deliver integrated end-to-end voice and data

EFFICIENT NETWORKS

New Edge Networks recently selected Efficient Networks as its DSL customer premise equipment (CPE) businesses throughout its national service area. Efficient SpeedStream CPE will enable subscribers to deliver multi-megabit per second Internet access over standard copper telephone lines in homes and SpeedStream® DSL CPE products. The use of SpeedStream DSL CPE enables New Edge Networks to quality video-conferencing, and video-on-demand. Efficient Networks is based in Dallas, Texas, with access New Edge Networks for a variety of applications including high-speed Internet access, highprovider. Efficient Networks offers New Edge Networks' customers its full line of Efficient sales support locations around the world.

Our Services | Services Offered

@Link Rapid



Product Description

The @Link Rapid Internet service is a high-speed, dedicated, "always on," connection from a customer's residence, SoHo or business to the Internet using DSL access technology over existing telephone lines. In addition to DSL technology the customer can choose DS1 or DS-1 IMA (future) access technology. @Link Rapid is offered at a variety of downstream and upstream speeds and Class of Service for Circuit Performance (CoS) levels to meet a wide range of customer needs. Standard @Link Rapid service includes the DSL circuit, @Link Internet Access, one E-mail account with 1 MB of server space and Web-based SLA performance reports. Customer Premises Equipment (CPE) is not included in the core price and can be leased or purchased from @Link.

Target Market

The @Link Rapid Internet solution benefits individuals, families, SoHo, or any sized businesses desiring fast Internet access.

Standard Capabilities (included in price)

- Internet Access
 - o Domain Name Service (Resolution)
 - Web surfing
 - o On-line Investing
 - o Personal Research
 - On-line Education / Distance Learning
 - o Chat Room
 - Gaming
 - On-line Shopping
 - o Business Research
 - Product Ordering from Vendors
 - o File Transfers
 - o Application Downloading
- Email

Optional Capabilities (additional charges

- Web Hosting Space
- Additional E-mail boxes
- · Blocks of IP Addresses

may apply)

- Domain Name Registration/Look-up
- Web-Based Performance Reports (Future, Not Available for Indianapolis Launch)
- Web-based Invoicing and Payment (Future, Not available for Indy launch)

Access Circuit Options *

DSL Circuit Options:

- ADSL (downstream / upstream):
 - o 192 Kbps / 128 Kbps
 - o 384 Kbps / 128 Kbps
 - o 768 Kbps / 384 Kbps
 - o 1.9 Mbps / 850 Kbps
 - o 4 Mbps / 900 Kbps
 - o 7.5 Mbps / 1 Mbps
- ADSL G.Lite (downstream / upstream):
 - o 192 Kbps / 128 Kbps
 - o 384 Kbps / 128 Kbps
 - o 768 Kbps / 384 Kbps
 - o 1.5 Mbps / 512 Kbps
- IDSL (symmetrical)
 - o 56 Kbps
 - o 64 Kbps
 - o 128 Kbps
 - o 144 Kbps
- SDSL (symmetrical)
 - o 192 Kbps
 - o 384 Kbps
 - o 768 Kbps
 - o 1.2 Mbps
 - o 2.3 Mbps

*NOTE: The offered speeds are representative values and can be dependent upon the local loop.

Alternative Circuit Options:

DS-1 (See Policies and Procedures for availability) DS-1 IMA (when available) (See Policies and Procedures for availability)

Classes of Service

Classes of Service for Circuit Performance:

@Link's network utilizes ATM technology to allow our customers to tailor their @Link Rapid service to meet their specific application, assurance and financial requirements. @Link Rapid customers can select from Classes of Service listed below:

(Note: Some Classes of Service are not available for all Access Circuit types and speeds. See the

product Policies and Procedures section for specifics).

Platinum Class:

 Guarantee 100% of circuit speed (i.e. Based on offered traffic, over a one-month period, a 384 Kbps virtual circuit will average 384 Kbps guaranteed).

Performance Level Properties and Applications:

@Link's Platinum Class of Service for Circuit Performance offers our business customers the highest, real-time data, voice and video transmission capabilities comparable to private line service. Platinum Class service ensures the ability to transmit delay-sensitive, highly interactive traffic for applications such as streaming video, video conferencing, audio and voice communications. Platinum Class service also meets the needs of customers who have mission critical, high priority, or time-sensitive data applications. By dedicating circuit bandwidth and ensuring low delay, @Link's Platinum Class service delivers traffic at a highly predictable, constant rate.

Gold Class:

 Allows customers to achieve 100% of their circuit speed and guarantees 70% of the circuit speed on average if network congestion occurs (i.e. Based on offered traffic, over a one-month period, a 384 Kbps virtual circuit is guaranteed to deliver a minimum average speed of 269 Kbps guaranteed).

Performance Level Properties and Applications:

@Link's Gold Class of Service for Circuit Performance offers our business customers a highly reliable data communication service that also supports broadcast or one-way video / audio applications. Gold Class service is ideal for customers who have high priority data communications needs and want intra-enterprise or desktop video / audio capability.

Silver Class:

 Allows customers to achieve 100% of their circuit speed and guarantees 30% of circuit speed on average if network congestion occurs (i.e. Based on offered traffic, over a one-month period, a 384 Kbps virtual circuit is guaranteed to deliver a minimum average speed of 115 Kbps guaranteed).

Performance Level Properties and Applications:

@Link's Silver Class of Service for Circuit Performance offers our customers highperformance, flexible data communications with a superior assurance of traffic delivery. Silver Class of Service for Circuit Performance is just right for customers with conventional business needs like Internet research, file sharing, and non timesensitive transaction processing.

Bronze Class:

 Allows customers to achieve 100% of their circuit speed and is a best effort circuit speed if network congestion occurs.

Performance Level Properties and Applications:

@Link's Bronze Class of Service for Circuit Performance offers our customers a cost-effective, packet-switched data service that suits individuals and businesses with non-critical network performance demands. Customers requiring basic E-mail, Internet research and batch file transfers will benefit from this efficient solution.

CPE

- Customers will be required to supply their own Ethernet interface (i.e. Network Interface Card (NIC)) for their computer system or network to connect to the access CPE. Network Interface Cards (NIC) can be purchased from computer/electronic stores and most stores can install it for a charge, if needed.
- @Link will supply access CPE, which will support the type of access circuit and application, when customer purchases or leases equipment from @Link.
- @Link will configure, deliver, install and maintain access CPE if equipment is leased or purchased from @Link.

2000 Release

August 14, 2000

Please Contact:	Α
Robb Zbierski	C
Ketchum (for @Link Networks)	N
312-228-6960	M
robb.zbierski@ketchum.com	In
, oss. 25 ici sili @ ici ci i di ili com	F/

@LINK NETWORKS LAUNCHES NEXT-GENERATION BROADBAND SERVICES IN DALLAS/FORT WORTH AREA

Integrated communications provider continues expansion through Texas and middle-third of the country

DALLAS, Texas (August 14, 2000) - @Link Networks, a broadband integrated communications provider, today launched its next-generation services in the Dallas/Fort Worth Metroplex. The launch is the latest step in the company's aggressive deployment schedule that stretches across the middle-third of the country this year en route to an ultimate nationwide presence.

@Link will provide small-to medium-sized businesses in the Metroplex and surrounding areas with secure, high-speed private networks and other connectivity and application solutions via access technologies such as Digital Subscriber Line (DSL). @Link first brought its service offerings to the state of Texas last month, introducing its services to approximately 84,000 businesses in Austin.

"@Link's expansion into the Dallas/Fort Worth area will bring reliable, scalable, secure broadband data communications solutions to one of the hottest business centers of the Southwest," said Andy Buffington, @Link's Southwest region president. "@Link has the ability to guarantee peak performance levels across its next-generation network which will enable business customers to gain unprecedented connectivity and reliability, and run the bandwidth-hogging applications that will make them more efficient, and more profitable. @Link's ability to securely link together teleworkers, branch offices and other remote locations is a particularly good match to the heavy concentration of banking and insurance industries."

Through its next-generation Asynchronous Transfer Mode (ATM) network technology, @Link is able to provide small and medium-sized businesses a combination of bandwidth, customizability, reliability and security that could only be afforded by larger companies in the past.

"In addition, our client services program is redefining how customers look at broadband service providers," said Buffington. "Every member of our organization - from the technicians to the sales team to the executive leadership - is committed to creating the optimal customer service experience. We want to be at the forefront of our industry in the eyes of the business community."

Through the use of a locally based sales team, @Link will directly reach business customers in the Dallas/Fort Worth area with the company's

private network solutions. In addition, @Link is aggressively exploring partnership opportunities with local Internet Service Providers (ISP) and other sales and distribution channels to deliver high-speed access products to Dallas/Fort Worth-area businesses.

The Dallas/Fort Worth area is also home to @Link's Network Operations Center. Located in the suburb of Richardson, Texas, the Operations Center employs approximately 100 @Link team members and will also serve as the home for the local sales team.

This is the eighth launch in @Link's deployment plan that includes servicing markets in 14 states across the middle-third of the United States by the end of 2000. Other states in which @Link will deploy its technology in the near future include lowa, Minnesota, Missouri and Nebraska. @Link recently launched services in Indianapolis, Chicago, Milwaukee, Detroit, Cleveland, Austin and Grand Rapids and has targeted the Minneapolis area as the site of the next network deployment, in late August.

About @Link Networks

@Link Networks, formerly Dakota Services, was founded in 1997 and specializes in broadband data and communications solutions for small-and medium-sized businesses. @Link is a leading provider of secure, high-speed private network solutions and other data and communications services including video and, soon, voice, via access technologies such as Digital Subscriber Line (DSL). @Link is building a next-generation packet-switched network utilizing an Asynchronous Transfer Mode (ATM) backbone and advanced switching capabilities that enables the company to offer its business customers extensive Quality of Service and Class of Service capabilities, including highly customized broadband solutions and iron-clad service level agreements and performance guarantees. @Link serves customers in Illinois, Indiana and Wisconsin and will serve markets in 14 more states by the end of 2000.

Back to News Room

Services

FastReach Services

Vitts' Managed IP Broadband Access Services are designed to provide solutions to many of today's e-business challenges. Using industry-leading hardware and software solutions, Vitts makes the power and scalability of "big company" Internet-oriented applications available to everyone, without the need for substantial investment or in-depth expertise.

WHAT IS FASTREACH?

The FastReach line of managed Internet services is the latest implementation in Internet access technologies. Based on Digital Subscriber Line (DSL) and SONET technologies, Vitts' FastReach is a bundled service comprised of a connection, continuous monitoring and on-site services. It runs from 144 kilobits per second (Kbps) to 155,000 Kbps symmetrical speeds. Vitts' FastReach services can make connections to the Internet as easy as connecting to a local area network.

Because FastReach services are dedicated, always-on monitored connections, there is no waiting for dial-up time, setup time or modem training before accessing the Internet. This connection to Vitts' Protected Service Network guarantees a quick and hassle-free business Internet connection. All FastReach services include the necessary equipment and configurations and are billed at a fixed monthly price.

VITTS' PROTECTED SERVICE NETWORK

Vitts' Protected Service Network is an advanced high-speed switched digital ATM and fiber-optic backbone that connects all Vitts Central Data Office locations in a redundant ring topology. Multiple fiber-optic connections link the Vitts network to the global Internet. The network is built using high-performance 75 gigabits per second IP and ATM switching systems that provide no more than 0.00001 seconds of switching time between interfaces.

In comparison, the average Internet Service Provider's routing time to the Internet can be as much as .01 seconds.

NETWORK MANAGEMENT

Vitts continuously monitors the Protected Service Network using the most advanced network management solutions in the industry. This allows us to monitor traffic levels, adjust bandwidth and automatically isolate trouble spots for quick resolution. Our Network Operations Center (NOC) is on-line 24 hours a day, 7 days a week for support, proactive network monitoring and immediate problem resolution.

FASTREACH SERVICE GUARANTEE

Vitts guarantees that the FastReach Internet service will maintain at least 99% availability. We will provide a round trip delay to the global Internet of 50 milliseconds or less. The maximum packet loss rate will be 5% or less of all packets sent and the FastReach service will be

constantly monitored by our automated network management system.

SELECTING THE BEST FASTREACH SOLUTION

Determining the best FastReach solution is based on individual data transport and security requirements. Analyzing how current applications are used, and how often they are used can help determine a company's bandwidth requirements. This information can also be used to make upgrade recommendations for future growth. For example, FastReach 144 fulfills the needs of 5-10 users accessing the Internet. Or, for e-commerce and interactive Web applications, the FastReach 1500 service is appropriate.

All FastReach services include:

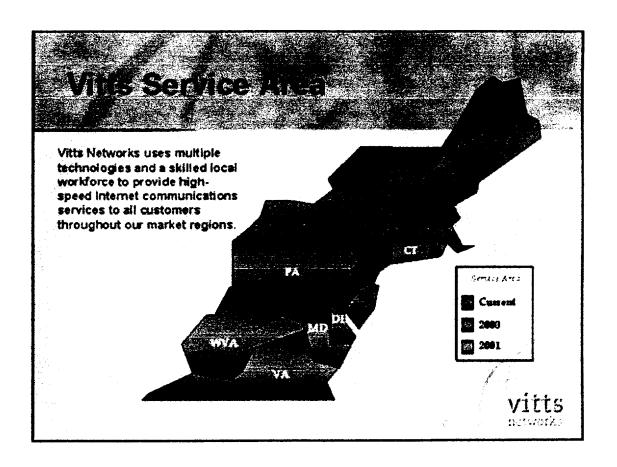
- High-speed Internet access
- Circuit loop from Vitts Networks' CDO
- IP port access within Vitts' CDO
- Protected Service Network secure bandwidth transport
- · Next business day maintenance service
- Network termination device supporting Ethernet
- One (1) e-mail address
- One (1) IP address
- · 24x7 service monitoring

Contact us for more information.

services | company | in the news | partner index | faq's coppertalk | support center | channel partners | home

Copyright © Vitts Networks

* FastReach TM is a registered trademark of Vitts Networks Corporation



ViftS.net

support center | channel partners

→ dedicated, always-on Internet access

services
company
in the news • _____
partner index
faq's
coppertalk

SERVICES

Vitts has a single, key objective: meet the ever-evolving needs of our customers in a way which retains their business. As a result, Vitts markets solutions rather than products, and is customer-driven rather than technology-driven. Our services reflect this approach both in their breadth and bundled composition—i.e. FastReach** services all include Internet access, continuous monitoring, and maintenance—and we use a consultative approach in working with customers which advises and helps them to select the best solutions for their specific environment and needs.

Vitts also provides an industry-leading Service Level Agreement (SLA), guaranteeing that FastReach customers receive

- 99% (or better) Internet access availability
- o 50 milliseconds (or less) speed for a data transmission to the Internet
 - 5% (or less) maximum packet loss rate of all packets sent

Vitts offers a broad range of services in four major solutions suites:

Managed Internet Protocol Broadband Access provides "always on," high-speed, business-class Internet and network connections (DSL, T1, DS3, SONET & Fiber Optics) which include continuous network monitoring and on-site support; Managed On-Site Services provide network protection and enhancements such as firewalls, secure Internet transmission and enhanced routing, virtual private network (VPNs), data encryption, and network access authentication;

Internet Data Center Services consisting of outsourced solutions such as Web, server, e-mail and domain name hosting, and media streaming; and

Network Outsourcing Professional Services encompassing the design and integration of LAN/WANs, remote network management, monitoring and maintenance, as well as fiber-optic cabling.

rates at speeds ranging from 144 kilobits per second to 1 gigabit (1 million kilobits) per second. Vitts also provides continuous customer service 24 hours a day, 7 days a week, and is especially important to small and medium-sized business customers that do not typically have dedicated internal support staff. With Vitts remote monitoring and troubleshooting capabilities, the company continuously monitors its Private Service Network (PSN) and customers' connections to it. This enables Vitts to identify and enhance, network quality, service and performance, and resolve network problems quickly and Vitts' "always on" broadband Internet access service - branded FastReach™ - delivers data transfer effectively

All FastReach services include all of the necessary equipment and configurations and are billed at fixed monthly price.

08/29/2000

Vitts Solutions

Vitts Networks - Solutions

services | company | in the news | partner index | faq's coppertalk | support center | channel partners | home

Copyright © Vitts Networks

* FastReach ** is a registered trademark of Vitts Networks Corporation