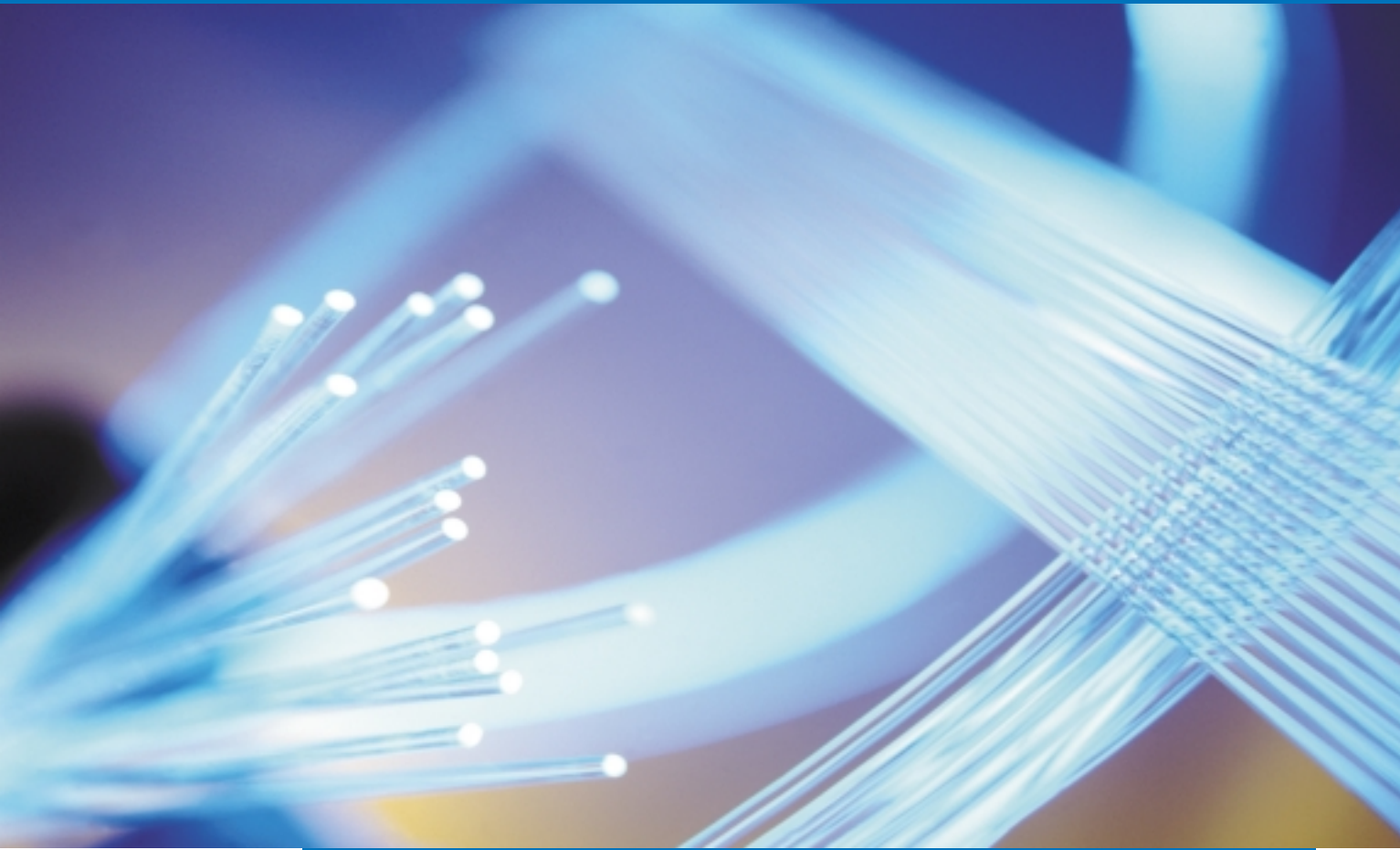


SPECIAL ADVERTISING SECTION

networking's



Boundless Networking for Business



innovative new reach



© 2000 AT&T

CUBICLES FEEL SO MUCH BIGGER
IN THIS WORLD.

AT&T's broadband technology brings voice, video and data together at lightening speed. It's a world that allows you to work better, faster, smarter and bigger. Thousands of AT&T business customers have already changed the way they operate. If it can make one little cubicle feel bigger, think what it can do for an entire company.

AT&T | BOUNDLESS

att.com/boundless

AT&T'S
BROADBAND
WORLD

High-Speed
Internet Access

Wireless
Broadband

Internet
Data Hosting

S2 Web
Broadcasting

High-Speed
Data Networking

Digital
Voice & Video

AT&T BOUNDLESS NETWORKING FOR BUSINESS...

networking's innovative new reach

Deploying e-business is not just about choosing the right technology. To fully exploit the opportunities of the networked economy, companies must ally themselves with technology partners that can help them manage, transform and innovate their business practices.

Technology has reached an inflection point, where sophisticated electronic business tools are available, affordable and increasingly easy to use. But in today's competitive marketplace, transforming a traditional company into a high-velocity e-business takes more effort than simply putting up a Web site or sending e-mail to overseas trading partners... Companies must redefine their entire value chain and examine all of their business processes.

Releasing Innovation's New Value

As Tom Wurster and Philip Evans discuss in their book *Blown to Bits* (Harvard Business School Press, 2000), the Internet is bringing about a new economic order based on information. The digital economy is eradicating the link between goods or services and the information about those items. By breaking the link between the product and the information about it, these marketplace changes promise to release additional new value that can serve as the foundation for business innovation and change.

For example, not long ago booksellers maintained large inventories to enhance their customers' selection opportunities. Inventory turns were low, warehousing and distribution costs were high, and profits were restricted by the need to make the book physically available to prospective customers in the retail sales setting. Enter online booksellers. By using the Internet as an electronic sales channel, sellers delivered information about the book to customers, who could

read reviews, sample excerpts and obtain additional information about readers' opinions and preferences. The information was separated from the book itself, yet prospective buyers could learn what they needed to know before buying.

“*In this high-velocity networked economy, it's become extremely difficult for businesses to develop the expertise to support the full breadth of e-business operations. Instead, astute business leaders choose technology partners that can help them rapidly and cost-effectively achieve their goals while enhancing the business's competitive position.*”

RICK ROSCITT

PRESIDENT

AT&T BUSINESS SERVICES

By innovating — making books and information about them available online — booksellers discovered new business opportunities. No longer relying solely on retail space to sell product, booksellers could reduce, eliminate or delay the costs of storing and shipping until a customer purchased the book, enhancing profitability by reducing inventory and distribution expenses. The innovation of online selling generated additional sales for all electronic vendors.

Partnering for Technology Expertise

Booksellers' experience with innovation and business change is not unique in the digital economy. Business leaders recognize that changing times require them to rethink their technology and marketing strategies to more closely meet

the needs of the market. Critical in this strategic re-evaluation and reformulation is the recognition that every business requires assistance in developing and executing new technology plans. Whether an organization needs help with technology, strategy or implementation services, innovative partners that can help a company manage, transform and innovate the ways it conducts business are critical to ongoing success.

“In this high-velocity networked economy, it’s become extremely difficult for businesses to develop the expertise to support the full breadth of e-business operations,” states Rick Roscitt, president of AT&T Business Services. “Instead, astute business leaders choose technology partners that can help them rapidly and cost-effectively achieve their goals while enhancing the business’s competitive position.”

TECHNOLOGY FOUNDATIONS

Understanding, acquiring and managing the broad range of technologies required to compete in the digital economy is no simple task. To conduct commerce online, companies need Internet connection services, hosting services and managed services for application support and security, to name only a few. For most businesses, the only practical option is to hire technology partners to deliver one or more of these services.

With such a broad range of options, how can business executives select partners wisely across the technology spectrum? The key to successfully choosing technology allies is to choose service partners that offer four primary qualities:

- **scalability**, the partner’s ability to extend the technology solution to address increasing demand from users;
- **performance**, the ability to deliver the speed, throughput and bandwidth necessary to support business applications for the technology;
- **reliability**, the partner’s competence to consistently deliver services around the clock;
- **flexibility**, the ability to meet the business’s changing needs in terms of new technology applications, functionality or services.

“It can be challenging to find a partner that can deliver on all of the points necessary for businesses to cultivate and sustain technology-enabled growth,” acknowledges Kathleen Earley, president of AT&T Data and Internet Services. “Few vendors have both technology expertise and the business experience necessary to help companies exploit their full potential. Yet, the Internet economy demands all of these capabilities from each company, so businesses should require them of their technology partners.” A recent Forrester Research study showed that the average company spends 25% of its IT budget on external service providers.

THE DYNAMICS OF MARKET-SPECIFIC NEEDS

Beyond these four primary partner requirements, different types of businesses also demand additional technical and service proficiencies. Businesses that serve consumers, traditional large enterprises, and dot.com content or service providers each have particular needs of their technology partners. Let’s consider the needs of each of these types of businesses.

Businesses Serving Consumers

With the coming holiday season, memories of 1999 are still fresh in the minds of many businesses that sell to consumers. These businesses want to avoid the troubles that a number of online vendors encountered last year, when supply could not always meet demand. A recent AT&T survey found that businesses are learning quickly how to handle the holiday rush. Of those businesses that reported having unsuccessful 1999 holiday seasons, most had relatively little experience conducting online sales. In many cases, the online efforts relied heavily on pretty Web pages and slick marketing content. By contrast, businesses and consumers this year are taking online initiatives far more seriously. Back-office integration, customer care and on-time delivery of purchased products are high on the lists of most online retailers for the 2000 holiday season.

With these expectations clearly understood, consumer-serving businesses recognize their need to partner with capable, reliable technology experts. Specifically, businesses should look for partners that can provide reliable Web sites that download quickly, seamlessly tie-in to existing databases and provide back-office private data network connectivity that can link into existing supply chains.

Another key to customer comfort with online shopping is the security provided by businesses. Internet-based threats — and the defenses needed to short-circuit hackers, crackers and other cyber-thieves — are not widely understood in the business community. Yet this security, and consumer conviction that a business’ site is safe to use, is critical to expanding a company’s electronic reach.

Marty’s Warehouse Shoe Outlets was seeking just this combination of service provider qualifications when it decided to get help in launching an Internet shoe store. A 25-year old

By choosing a vision proposed by AT&T Solutions, MasterCard opted for a software-controlled VPN with the agility to handle fluctuating bandwidth requirements, reduce bandwidth costs, decrease capital requirements, and increase the flexibility of solutions for new and future products.

Seizing Innovation OPPORTUNITIES

Internet-based connectivity has changed business immeasurably, but some of the changes are just becoming apparent. Beyond increased speed and global reach are emerging new opportunities for innovation, for business leaders savvy enough to spot them and act quickly.

The basis of this opportunity is the way that the Internet, by delivering universal connectivity, is separating physical goods from the information about those goods, explain Philip Evans and Tom Wurster in their new book, *Blown to Bits* (Harvard Business School Press, 2000). "Digital networks finally make it possible to blow up the link between rich information and its physical carrier," the authors write. "The traditional link — between the medium and the message, between the flow of product-related information and the product itself, between the informational value chain and the physical value chain, between the economics of information and the economics of things — is broken."



Philip Evans



Until now, the economics of information and the economics of things have been intricately intertwined, with business compromises made to support the two. The availability and value of information in business processes disproportionately influences competitive advantage; by separating the information from the products, businesses can create dramatic new opportunities to release economic value, rethink strategies and rebalance existing economic forces — in other words, to innovate.

"When the book came out, it resonated with the initial wave of dot.com companies, which had challenged traditional wisdom by gaining entrée into the realm of pure play companies," explains Wurster, who with Evans is also a senior vice president at Boston Consulting Group (www.bostonconsulting.com). But as the initial dot.com wave receded with the decreasing market capitalization of these companies, many veteran executives assumed they could relax their time frame for planning an Internet-based opportunity strategy.

"There is an enormous opportunity for legacy players to seize this space and move more quickly now," not less, Wurster says. "It's important that business leaders understand they must continue to move forward so they can recognize and take advantage of as many new opportunities as possible," before someone else does.

discount brand name shoe business, Marty Shoes Inc. chose AT&T's Business Ready dedicated hosting services to quickly get online. The AT&T-managed secure hosting environment eliminated the need for Marty to develop internal expertise, yet made it easy to develop the site while retaining control over the layout and content.

"We have our foot in the door and we plan to be the largest and best shoe retailer on the Web," says Gary Kennedy, chief information officer for Marty's. "AT&T treats us with the same attention they would give to a big account. I am particularly impressed with their follow-through: If I present them with a problem, they have always responded with a solution."

Traditional Large Enterprises

Despite all the press coverage of Web sites designed for customer access, e-business initiatives are about so much more. E-business initiatives can be implemented at nearly any point along a company's value chain. In many traditional large enterprises, e-business initiatives are delivered to connect existing back-office applications. Some enterprises set up virtual private networks (VPNs), which enable remotely located employees to experience the same richness of applications from a home office as they have on their corporate desktop.

For these companies, a broad range of broadband technologies that provide high-speed transmission to remote offices is critical.

Other enterprises extend their market reach to create new extranets for trading partners in their supply chains. For these companies, standards-based, highly secure and reliable networking services can deliver the foundation for innovative new business opportunities, such as supply chain efficiencies, cost reduction and electronic collaboration.

For these businesses, technology partners must provide airtight security, business-grade service, and rock-solid reliability. Hosting services, such as application service providers (ASPs) or Internet data centers, must be able to "IP enable" a business's existing ATM or frame relay networks to gradually convert their proprietary networks to open, IP-based transports.

At MasterCard, new service demands from merchants and cardholders led the company to reconsider its network infrastructure alternatives. By choosing a vision proposed by AT&T Solutions, MasterCard opted for a software-controlled VPN with the agility to handle fluctuating bandwidth requirements, reduce bandwidth costs, decrease capital requirements, and

FEW THINGS COME ALONG
THAT ACTUALLY CHANGE THE WAY
YOU LIVE AND WORK.

THIS IS ONE OF THOSE THINGS.

Welcome to AT&T's broadband world. It's voice, video, data and IP networks working together to make your business more powerful, more profitable. Wired and Wireless. It's a global techno group hug with your company operating in the middle. It's a new world of opportunities. And it's happening today.

© 2000 AT&T

AT&T | BOUNDLESS

AT&T'S
BROADBAND
WORLD

att.com/boundless

High-Speed
Internet Access

Wireless
Broadband

Internet
Data Hosting

Web
Broadcasting

High-Speed
Data Networking

Digital
Voice & Video

DRIVING VALUE THROUGH INNOVATION

Innovation comes in many colors in the rainbow that is e-business.

For CBS MarketWatch, the masterpiece came from combining

the real-time quote and news operations

of Data Broadcasting Corp. with the

resources of the venerable news organiza-

tion CBS, and launching the content on

the web. Owned by a new company,

MarketWatch.com, Inc., CBS MarketWatch produces web content

for investors, serving 10 million pages of data and news each business

day to approximately one quarter million people. Beyond its

top-notch financial news, CBS MarketWatch also offers investors

a variety of free services, including multiple personal portfolios,

market and company research, inter-day and technical charting, data

on mutual and money market funds, direct brokerage access and

delayed quotes.

Investors quickly recognized the site as a valuable tool for tracking the market trends, allowing them to act early and profit. As investor interest in the service began to explode, CBS MarketWatch found its bandwidth consumption growing at a rate of one percent per day. The company was working with multiple vendors to provide the needed bandwidth, but wanted a single-source provider with a global presence that could grow with them. CBS MarketWatch turned to AT&T to provide the technology foundation needed to support its innovative business practices.

"AT&T provides us with expert solutions to meet our data,

web hosting, transport and voice needs — all from one company,"

says Jamie Thingelstad, chief technology officer for

MarketWatch.com. "We no longer

have to juggle multiple vendors to

get our services to customers."

AT&T delivered a complete IP and

data solution, including:

- Internet connectivity based on AT&T's high-speed Internet connections, which feature multiple levels of security, swift performance, and world-class availability and reliability;
- Dedicated server hosting, in which CBS MarketWatch.com located web/data servers in an AT&T Internet Data Center, where traffic is monitored around the clock to anticipate and identify potential problems;
- Data solutions, including ATM and private-line frame relay services, all backed by service level agreements (SLAs) that address delay, throughput, availability, time-to-repair and service installation;
- Local, long-distance and wireless services to address all of CBS MarketWatch's voice networking needs.

"We now have the networking solution we need to deliver the up-to-the-minute information that our customers expect with enough bandwidth and server capacity to handle our current load and expected growth," says Thingelstad. In the rainbow of e-business services, AT&T and CBS MarketWatch painted a pretty picture indeed.



increase the flexibility of solutions for new and future products. Says Jerry McElhatton, president of global technology and operations at MasterCard: "We have wired the world for the next generation and laid the framework for the future of money."

Dot.Com Content and Service Providers

Unlike traditional enterprises that use Internet-based content or services to support their businesses, the lifeblood of large dot.coms is the Internet. For these companies, content is king and reliability is a given. Prospective buyers have little patience for slow Web sites or downed systems from these content and service providers.

Because the distribution of content is critical to these companies, they require the fastest connectivity available, high-performing Web sites and the ability to grow exponentially as more and more customers use their Web site. Partners to these companies must provide the highest levels of reliability, access and performance to ensure business success and enable innovation.

At CBS MarketWatch.com Inc., finding a technology partner who could deliver faster, larger and more reliable IP, data and Web hosting capabilities — with the highest level of security for users — was key to opening a new world of opportunity and innovation. The company, which delivers financial news and decision-making tools to investors, was growing rapidly, increasing its bandwidth consumption by one percent each day. CBS MarketWatch.com wanted to consolidate its multiple network vendors into one provider that could deliver speed and performance without Internet congestion.

AT&T Business Services crafted a customized solution that allows CBS MarketWatch.com to deliver 10 million pages of data and news each business day to approximately 500,000 people. "With AT&T, we have a total communications partner who is genuinely concerned with our success and works to help us achieve our objectives," says Jamie Thingelstad, chief technology officer at CBS MarketWatch.com. "And we don't have to worry about availability of our site because AT&T has one of the most reliable and robust network solutions available."

AT&T BUSINESS SERVICES: NETWORKING THE NEW ECONOMY

With businesses of all types reaching for new opportunities made possible through electronic communications and interactions, the search for technology partners who can facilitate their networked economy business initiatives becomes increasingly important. Businesses that intend to compete in today's economy need the expertise that only seasoned technology partners can provide: the understanding of not only how to select tools and services, but how to apply related skills and knowledge and deliver the entire package of services and technology cost-effectively, in ways easiest for those businesses to use.

AT&T Business Services understands how to meet these needs. With thousands of skilled professionals available to work with businesses' legacy systems, other technologies and vendors, AT&T Business Services has the skills and knowledge to help businesses realize their next-generation business goals and objectives. With a commitment to help businesses manage the complexity of the e-business world, transform existing business practices into high-performance processes, and innovate in ways that help companies become fast, agile and confident competitors, AT&T Business Services offers a full complement of products and services that can make networking the new economy an opportunity for unparalleled innovation.

Next-Generation Central Offices Support Advanced Networking Needs

As more and more sophisticated applications traverse the public Internet, the network equipment and facilities that support these applications also are evolving. Voice over IP, streaming media, hosted applications and business-to-business online marketplaces require sophisticated networking environments. And AT&T Business Services with its aggressive Internet Data Center (IDC) build out, is creating these next-generation networking capabilities.

Whether helping the smallest customer build a Web site or the largest enterprise develop a VPN, AT&T Business Services provides customers with whatever they need. AT&T Business Services, in partnership with British Telecom and Concert, is building a network of 44 Internet Data Centers worldwide, supporting 24-by-7 monitoring, maintenance and customer administration services over an OC48/OC192 global IP network infrastructure. In addition, AT&T intends to transform thousands of its traditional central offices into "next-generation" Internet data centers that will support businesses' advanced network-

ing needs for a powerful launch into the networked economy.

"By optimizing the core competencies of AT&T, we can deliver the infrastructure, scale and management capabilities that are critical to Internet hosting customers," explains Sandy Brown, vice president and general manager of Hosting Services for AT&T. "Our partnership approach and foundation as a technology innovator will enable businesses to obtain best-of-breed services, fast time to market, and confidence in their ability to extend both their channels and their market reach."

A Network Services Platform for Mission Critical Demands

To compete safely and effectively in the networked economy, businesses must partner with providers that offer a full complement of networking utilities to address their unique e-business needs. Service providers need a network services platform that allows them to effectively meet a customer's requirements...whether it be in providing security, online storage, intelligent content distribution, or Web site performance monitoring. Although some providers excel at delivering one or two of these infrastructure ingredients, few understand how to bring together and manage the entire mix in an interoperable and plug-and-play fashion.

To help businesses evolve their existing Frame Relay and ATM networks into private and secure IP WANs, AT&T offers a robust selection of VPN services. According to the Yankee Group, AT&T is the number one provider of IP-based VPNs and industry leader for IP-enabled high-speed packet services. With decades of experience innovating in the development and implementation of leading-edge network services, AT&T understands the needs of enterprises better than any other company.

AT&T IP VPN Services combine the best Internet technologies with all the advantages of private networking to provide end-to-end solutions with security features that allow controlled access to employees, business partners and customers. Businesses can create extranets, intranets and provide secure remote access to LANs. The infrastructure also allows businesses to create a hybrid networking environment to integrate existing corporate data networks with virtual private networks. And AT&T provides network security features such as Network Based Firewall Service.

Using AT&T's Integrated Network Connection Service (INCs), customers can support voice, data and Internet needs across

“With AT&T, we have a total communications partner who is genuinely concerned with our success and works to help us achieve our objectives,” and we don't have to worry about availability of our site because AT&T has one of the most reliable and robust network solutions available.”

JAMIE THINGELSTAD
CHIEF TECHNOLOGY OFFICER
MARKETWATCH.COM

a single-access connection. INCs provides businesses with a simple “plug and play” interface on their premises that dynamically allocates the bandwidth of their network. That means it automatically devotes enough bandwidth to wherever it’s needed as the type of traffic and demands on the network change. The service works with existing customer premises equipment and combines voice, Frame Relay, and IP traffic.

This robust collection of network services is supported by AT&T’s professional services organization, AT&T Solutions. Providing global networking strategies and solutions to businesses worldwide, AT&T Solutions uses its wide-ranging expertise and comprehensive understanding of new technologies to collaborate with customers and rapidly deliver leading-edge solutions, in the area of network services platforms and across the e-business environment.

Ecosystem Partners...for Unique Managed Applications

Creating the networking and technology infrastructure to support e-business can be a complex task. For businesses lacking the resources to develop this expertise in-house, the practical solution is to partner with organizations that can provide it as a service.

AT&T Business Services offers Ecosystem partners, experienced companies that understand the dynamics of this changing market and can help businesses quickly gain a market presence with minimal cost, time and effort. Ecosystem partners provide ready-made expertise in specific e-business areas, such as applications and software, systems integration, and infrastructure services. Managed applications, such

as performance management and ultra availability, are under contract, offering fully developed expertise and predictable monthly costs.

One AT&T Ecosystem partner is Mi8, an application services provider that enables customers to rent software over the Internet. Mi8 leverages high-performance Internet and wireless technologies to deliver application services to any device, any time, anywhere. For example, AT&T customers can use Mi8 to host Microsoft Exchange and Microsoft Outlook 2000 applications, placing the burden of supporting email, calendaring, document sharing and collaboration on the vendor, instead of on the internal IT department. It’s just one example of how businesses can rely on AT&T and its partners to deliver leading-edge e-business services in practical packages.

INNOVATING ON SCALE

Businesses serious about pursuing the myriad opportunities offered by the networked economy have no time to wait. The advantage will quickly go to the swift. Companies must therefore choose technology partners that will help them “get big...fast”.

AT&T Business Services has a heritage and core competence in understanding not only the complex needs of businesses, but also how to reliably scale these dynamic technologies into service offerings that can meet the needs of millions of customers and suppliers. AT&T Business Services understands networking in the new economy. How can we help your business to manage, transform and innovate your future success?

AT&T’s INNOVATIVE NETWORKING TECHNOLOGY *includes a wide variety of products, services, and solutions that can help your company open the doors to new richness and reach. For more information, visit our main Web site at: www.att.com/boundless, or select one of the following options that best fits your needs:*

AT&T BROADBAND BUSINESS SERVICES—HIGH-SPEED DATA AND DIGITAL SERVICE FOR SMALL BUSINESS. *Service is being added to more communities each month. To check availability or for more information, visit www.bbs.att.com or call 888.824.8105.*

AT&T DSL INTERNET SERVICE—FAST AND ALWAYS ON. *Never hear a busy signal again, surf the Web, and get e-mail up to 50 times faster than dial-up modems. AT&T offers DSL Internet Service nationwide—with prices starting at \$49.95 a month for small office/home office residential service. Business customers can get fast, reliable multiuser connections for as little as \$139.95 a month. Check to see if DSL is available in your area and order now: www.ipservices.att.com/ipaccess/dsl or call 800.ATT 3199.*

AT&T DATA SERVICES—OFFERING A FULL ARRAY OF BROADBAND DATA SERVICES. *Integrated network connection service for dynamic bandwidth allocation of voice, data and IP networking, frame relay, private line, and ATM traffic. For more information, visit: www.ipservices.att.com/data or call 800.ATT 3199, department 10.*

AT&T ECOSYSTEM FOR MEDIA: www.ipservices.att.com/eco_media or call 800.ATT 3199.

AT&T ECOSYSTEM FOR ASPs: www.ipservices.att.com/asp or call 800.ATT 3199.

AT&T SOLUTIONS—THE PROFESSIONAL SERVICES ARM OF AT&T: www.attsolutions.com or call 973 443-3106.