



# AT&T DEDICATED HOSTING SERVICES NETWORK INFRASTRUCTURE

## Satisfying Your Technology Demands Today and in the Future

- Tier 1, facilities-based global IP network infrastructure
- Reliable, high-speed internal networks
- Redundant fast and gigabit Ethernet switching
- No single point of failure

Meeting the demands of today's bandwidth intensive Internet applications is a daunting task. This task is further complicated by today's exponential explosion of IP network traffic, considered together with the rapid advancement of new technology, and the radically changing nature of electronic business. These factors provide network and web site technicians and administrators with a moving target for reliable traffic management.

To assure success, you'll need the leading edge resources of a world-class IP provider, with a demonstrated ability to respond quickly to the changing demands of today's technology landscape. You will also want to be able to depend upon the resources of highly trained network administrators and a reliable, scalable, Tier 1, facilities-based global IP network infrastructure.

The AT&T Dedicated Hosting Services and the underlying network infrastructure provide these resources and more. The AT&T Dedicated Hosting Services network infrastructure is comprised of three components, acting as one seamless whole: AT&T Internet Data Center Internal Networks, AT&T Core Network Infrastructure and AT&T Global IP Network Infrastructure.

### Internal Networks

AT&T Internet Services Data Centers are housed in hardened telco facilities, featuring diverse fiber entrances. Within each Internet Data Center, individual AT&T Dedicated Hosting or Co-location servers are connected through fast or gigabit Ethernet switches to redundant industry-leading high-speed gigabit routers. The routers, in turn, are connected to the AT&T Global IP Network via multiple OC48 circuits. Secure access to

frame relay, local and circuit switched networks is also provided to enable customers to rapidly update and modify their content or access the hosting servers.

Network components within the Internet Data Centers are all protected by failsafe redundancy and diversity measures, helping to eliminate single points of failure. The Internet Data Center internal networks and their components are also protected by 24x7 network monitoring with multiple internal and external security measures.

### Core Network Infrastructure

AT&T's Core Network Infrastructure is 100 percent digital for all switched traffic. With more than 51,000 route miles of fiber optic cable, the network handles more than 260 million voice calls on an average business day. The network handles data and image transactions as well as a full array of sophisticated data services including ATM, frame relay and IP. AT&T currently has more SONET rings, more SONET POPs on rings and more SONET route miles than any other IXC carrier in the industry.

In addition, AT&T is presently the industry leader in Dense Wavelength Division Multiplexing (DWDM) deployment, with over 1800 systems in operation.

### AT&T Global IP Network

AT&T's OC48 IP Backbone Network is one of the industry's largest and most reliable IP networks. In addition, in 1999, AT&T became the first Internet provider to implement a working OC192 link, a predecessor to its announced year 2000 deployment. All facilities are built using AT&T's Core Network for high reliability. Each network node is connected to a minimum of two



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other nodes for guaranteed connectivity in the event of a failure. Backbone routers consist of industry-leading gigabit switch routers. Backbone facilities are divided among the backbone routers to avoid single points of failure and help to ensure network continuity even in the event of a facility failure. Connections between all backbone routers are packet over SONET for high performance and are designed in a ring architecture for ease of re-routing in the event of a facility failure. All routers are deployed in a redundant fashion, with redundant power supplies and redundant processors. There is no single point of failure in the backbone architecture.

AT&T's leading edge, regularly tested, disaster recovery program further strengthens the backbone.

In addition to its wide-reaching IP backbone, AT&T has expanded its network reach even further through both public peering agreements with over 40 national IP providers and extensive private peering agreements with all the leading IP backbones providers. This far-reaching network capacity ensures fewer router hops per access. This, in turn, ensures greater Internet access speed and decreases vulnerability to packet loss. All of the AT&T Internet Data Centers are co-located with major backbone nodes and multiple peering connections, for speedy access to the rest of the Internet.

AT&T has entered into a number of recent agreements which will provide increased global access and reach. One of these is the acquisition and ongoing implementation of the AT&T Global Network (formerly the IBM Global Network). The acquisition expands the AT&T network infrastructure, providing multinational access from 850 cities in over 50 countries, supported by 700 in-language Help

Desk professionals. AT&T has also entered into a joint venture with British Telecommunications (BT), called Concert which will provide additional infrastructure and even wider global reach. This will minimize the number of router hops required to reach anywhere in the world.

## Guaranteed Service Levels

Guaranteed service levels, provided through Service Level Agreements (SLAs) provide assurances of server up-time, as well as assurances that traffic over AT&T's IP Backbone will be delivered successfully and on time. Nationally, the AT&T IP Backbone boasts a guaranteed end-to-end network availability of 99.9%, an average backbone delay of < 80ms and packet loss < 1%.

## Maximizing Your Benefits

Relying on the Internet to move your business through the next century brings new demands to you and your Internet provider. Today's application, support and bandwidth demands already require that a provider prove that it has a solid foundation to meet your needs. What will tomorrow bring? When you look into the future, look to AT&T to deliver the solutions you can count on. AT&T's leading edge scalable, dependable, global IP network infrastructure is designed to support your most demanding business communications needs anywhere in the world, both now and in the future. In addition, AT&T is uniquely dedicated to providing ongoing research and development. This assures you of a network infrastructure and support systems that you can rely on in times to come. You can depend upon AT&T to meet your business communications needs today and well into tomorrow.

- Multiple public and private peering arrangements
- Multi-layered security and reliability assurances
- Leading-edge disaster protection
- End-to-end network management

**For more information, contact your AT&T Account Executive, AT&T Alliance Program Agent, or call us at 1-800-288-3199. Visit our web site at [www.att.com/ipservices](http://www.att.com/ipservices)**

\* AT&T currently provides OC48 service in the core backbone with limited OC192 service in key cities. OC192 service to the core backbone is anticipated to be complete by year-end 2000.

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