World Internet Topology

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This map represents the backbone of the Internet as of August 2007.

Each line depicts the shortest outgoing route from a test computer to each of more than 320,000 network nodes around the world. The map does not represent the physical or geographic location of servers, but rather is a topological representation of the various networks that combine to form the Internet.

It shows the incredible number of interconnected networks owned and maintained by private companies. These networks combine to form the World Internet backbone infrastructure.

This map is a product of the Internet Mapping Project. It was compiled and created by Bill Cheswick and Steven North at AT&T Labs Research, using technology and methods developed by the Lumeta Corporation.

AT&T's Network by the Numbers.

9.81
Petabytes of data transmitted across AT&T's networks on an average business day. It is the equivalent of moving the entire written contents of the Library of Congress every three minutes.

1
AT&T's rank among broadband providers in the United States.

12.9 Million
AT&T broadband customers in America.

540,000
Miles of Internet backbone fiber AT&T owns and operates.

$6 Billion
Amount AT&T will spend by 2008 to bring fiber optics deeper into neighborhoods.

36
AT&T Internet data centers around the world.

301,760
AT&T employees worldwide.

97%
Percentage of the world economy reached by AT&T's networks.

99.998%
AT&T's network reliability.

49,000
Number of Wi-Fi hotspots AT&T provides or enables.

166
Number of United States cities where AT&T offers 3G wireless High-Speed Internet access

3 Million
AT&T wireless business data subscribers.

160%
Increase in bandwidth demand per AT&T user between June 2004 and October 2006.

7
Nobel Prizes awarded for innovations developed at the AT&T Bell Labs.

2
Average number of new patent applications AT&T files – every day.

AT&T
Verizon
Bell Canada
Sprint
NTT
Time Warner
Level 3
COLT
Comcast
Cogent
SAVVIS
Qwest
Bharti
Internap
TeliaSonera
China Telecom
Singapore Communications
VSNL
Hanaro Telecom
Deutsche Telekom
Yahoo!
Telemex
AboveNet
Pipex
Cable & Wireless
Virgin Media
XO
Global Crossing
Neuf Cegetel
other

These clusters represent Internet service provider network hubs. Each cluster represents a service provider capable of connecting thousands of individual users to the Internet. The endpoints of the smaller branches are more difficult to define; they may represent a firewall, another router, or even a smaller DSL router.

World Internet by the Numbers.

More than
320,000
Individual network nodes found by the Internet Mapping Project.

48 Million
Users on the Internet in 1995.
(Source: IDC)

1.133 Billion
Internet users in 2006.
(Source: Internet World Stats)

6.4 Million
New Internet users getting online every month.
(Source: Internet World Stats)

1.6 Billion
Email boxes in use in 2006.
(Source: IDC)

40 Million
New DNS Hosts every year.
(Source: Internet Systems Consortium)

35,000
Web pages it takes to equal the amount of data transferred when a user downloads 1 HD movie.
(Source: Craig Moffett)

100 Million
YouTube videos downloaded every day.
(Source: YouTube)

161
Exabytes of new electronic data created every year.
(Source: IDC)

12 Million
Miles of new fiber deployed in 2006.
(Source: Telecommunications Industry Association)

15 Million
Miles of new fiber to be deployed annually by 2009.
(Source: Telecommunications Industry Association)

$72.5 Billion
Annual spending in support of network infrastructure in the United States by 2009.
(Source: Telecommunications Industry Association)

These large groups represent routing hubs. This particular cluster is a routing hub at Global Crossing that feeds dozens of other routers. While visually striking, these "koosh balls" represent one of many possible network engineering solutions employed by service providers. They do not necessarily indicate the relative size of the network connection.

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