

Broadband America

—Realizing the Vision

American homes and businesses must be brought into the center of the Internet revolution. The EDUCAUSE Network Policy Council, on behalf of American colleges and universities, urges the creation of a Broadband America that offers universal and affordable access to all.

As leaders in developing advanced networks and the powerful applications that they support, higher education has a vital stake in broadband networking. The map accompanying this brochure dramatically illustrates higher education's current investment in advanced networking. Yet more than half of the students in U.S. colleges and universities live off campus, as do students in primary, secondary, and continuing education programs. Reaching these millions of Americans for e-learning and a host of emerging applications in health care and other areas requires a national commitment to a truly broadband Internet. This commitment will bring the benefits of advanced applications in teaching, research and science to all Americans, including millions currently isolated in rural and other underserved areas.

As America moves to all-digital communications and services, our goal should be ending the disparity in use of networked resources that exists between students on campuses with powerful networks and students studying in homes across the country. No American should be denied access to the ever expanding range of learning and other benefits that require broadband networks.

In this brochure, EDUCAUSE sets forth broadband policy goals that can form a basis for a comprehensive government, education and industry effort that moves America forward aggressively toward realizing the vision of a Broadband America and restoring our national and international leadership.

EDUCAUSE is a nonprofit association, with a current membership of more than 2,100 colleges, universities, and educational organizations, whose mission is to advance higher education by promoting the intelligent use of information technology. The Network Policy Council formulates policy positions across the wide range of issues connected with the use of the Internet and related technologies and advocates those positions on behalf of the higher education community. Additional information is available at

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EDUCAUSE

Transforming Education
Through Information Technologies

Broadband Policy Goals

In barely more than two decades, the Internet has grown from a research project within a few universities to a global communications system. This flexible communications protocol, coupled with powerful computational and information resources, produces a medium of unprecedented power. But the Internet is only as strong as its foundation. The Internet can only deliver these enormous benefits if there is sufficient broadband capacity—for voice, data, and video—available to everyone.

EDUCAUSE calls on Congress to commit the federal government to realizing the vision for a Broadband America that brings the benefits of the Internet in education, health care, public safety and community services, and business and entertainment to all citizens.

A number of immediate policy objectives should be established to guide the work of Congress, federal and state agencies, other public-sector organizations, and private enterprise. The following four goals furnish an agenda for action over the next three to five years.

1

A national policy to create a universal broadband network.

A broadband network that meets America's needs today and tomorrow requires many important technical and operational features, including:

- Open, secure, reliable, and scalable infrastructure that continues to be based on freely available, interoperable, technical standards.
- Access prices that are reasonable, nondiscriminatory, and universally available on a nationwide basis.
- Bandwidth to every home at a minimum of 100 megabits per second (in both upstream and downstream directions) that is easily scalable to Gigabits.
- Network access that is standardized for the delivery of essential residential and business public services, including police, fire, health, civil defense, and national disaster.

2

Government policies at all levels that promote innovation and competition in network applications and services while preserving the essential services of the universal telephone network.

America must maximize incentives and rewards for innovation within competitive markets while at the same time delivering the universality and affordability of broadband services that were a hallmark of the regulated telephone era. The explosive growth of today's Internet would not have occurred without actions by Congress and government agencies, which created a federal policy environment that encouraged and rewarded entrepreneurial business initiatives. This entrepreneurial freedom for the Internet was possible because the universal telephone network, a result of decades of federal and state regulation, provided a stable underlying telecommunications infrastructure that met many necessary social objectives for communications services on which everyone is dependent. We must maintain the balance of encouraging innovation while preserving essential services. America's global competitive advantage is at stake.

3

Expansion of federal R&D programs in network technology, including support for technology transfer to the private sector.

A continuation of the federal government's leading role in sponsoring and funding network and computational research, now collectively known as cyberinfrastructure, is an essential component of an overall plan for restoration of U.S. leadership in networking. This effort—much of it conducted within the university community through basic research, prototyping, and proof-of-concept deployment activities—is a vital part of the R&D “food chain” that leads to commercial products and services and their substantial economic benefits.

While the benefits of advanced cyberinfrastructure are already visible in such “big science” fields as physics, astronomy, seismology, and genomics, the potential of the technology to infuse and transform many academic fields and other areas such as education and health care has hardly been touched. To achieve its promise as a powerful instrument for educational achievement, and many other social and economic goals, the Internet must continue to be closely linked to communications and computing research endeavors.

4

Federal legislation to preserve open, nondiscriminatory access to network applications and content.

The Internet has grown far beyond its original roots in telephony, and America has richly benefited from its development in an open-access environment. As the telecommunications industry has become less regulated, consumers are no longer guaranteed that their traffic will be carried on a non-discriminatory basis. The impending digital conversion of broadcast television, and ongoing convergence of most communications services onto a broadband Internet infrastructure, have created new challenges for public policy. Congress is already considering legislation, under the banner of “net neutrality,” that would ensure nondiscriminatory access to Internet applications and content, thus maintaining the openness that has characterized the Internet since its earliest days.

Higher Education Broadband Networks

