Internet2®
www.internet2.edu/about

Internet2 is a member-owned advanced technology community founded by the nation’s leading higher education institutions. An exceptional partnership spanning U.S. and international institutions who are leaders in the worlds of research, academia, industry and government, the Internet2 community is developing breakthrough technologies that support the most exacting applications of today—and spark the most essential innovations of tomorrow.

Focused on members’ technology needs since 1996, Internet2 provides a collaborative environment for U.S. research and education (R&E) organizations to solve common technology challenges, and develop innovative solutions in support of their educational, research, and community service missions. Activating the same partnerships that produced today’s Internet, our members are forging the future Internet through community, an unsurpassed innovation platform, and transformative, above-the-network services and applications.

Unparalleled community
In addition to over 440 member institutions—leading universities, corporations, government research agencies and not-for-profit networking organizations—the broader Internet2 community includes over 93,000 institutions across the U.S. and international networking partners representing more than 100 countries. Thought leaders from the domains of science and academic research, arts and humanities and health sciences—as well as advanced network researchers and developers—join forces with Internet2’s core staff to offer unparalleled possibilities for exploration and innovation.

Advanced innovation platform
Internet2 provides a unique set of global capabilities to members for the development of new applications and services specifically designed to meet the needs of U.S. researchers and educators—including a 100 gigabit-per-second network that not only delivers reliable production services for high-performance needs,
but creates a powerful experimental platform for the development of new applications.

The fourth generation of the Internet2 Network has now been deployed, providing an unprecedented 8.8 Terabits of capacity, reaching into underserved areas of the nation. Built through a federal stimulus grant from the National Telecommunications and Information Administration’s Broadband Technology Opportunities Program (BTOP), the infrastructure uses standards-based technologies and protocols, supports a wide range of IP and optical services available today—from leading-edge IPv4, IPv6 and multicasting to static and dynamic point-to-point circuits—and is already stimulating a new generation of innovative capabilities.

Internet2 Advanced Layer 2 Service allows members to build Layer 2 circuits between endpoints on the Internet2 Network and beyond, providing users with cost-effective, highly reliable solutions—whether it’s the “big data” needs of global science researchers, or allowing innovators to program the network itself through software-defined networking (SDN) technologies such as OpenFlow. All this reliability and flexibility is now available in one innovation platform. See internet2.edu/network for more.

Transforming service models
Building on this world class foundation, the Internet2 community has tapped its considerable forces to craft new service-delivery mechanisms that promise to transform the way research and education does business. Internet2 NET+ cloud solutions supporting every mission area and function are now evolving—with some already a reality. From federated identification management and security services to cloud offerings for storage and collaboration, electronic textbook delivery and computing resources... The result? Educators and researchers can collaborate in unprecedented ways, education costs and red tape can be reduced, new markets can be developed—and society’s most intractable problems can be solved more rapidly. Visit internet2.edu/netplus for more information.

Enabling tomorrow’s discoveries
Back to the people side of the equation, member community-based working entities are spreading these technologies around where they can do some good. In very real ways, the K20 Initiative helps to bring the new, global schoolhouse to a street address near you. Comprising 39 state education networks, teachers and innovators team with Internet2 members to extend advanced networking technologies right into local libraries, museums and classrooms. Over 93,000 community anchor institutions (CAIs) are already connected, and—as mandated by the BTOP grant—the Internet2 Network will support connectivity for all of the approximately 200,000 U.S. CAIs, enabling them to provide citizens across the nation with telemedicine, distance learning and other important applications, and creating new economic opportunities. The grant proposal calls for (but does not fund) the creation of U.S. Unified Community Anchor Network (U.S. UCAN), an organization that builds on the R&E network model to serve the expanded number of CAIs. Visit usucan.org to learn more.

In similar ways, the Science and Engineering, Health Sciences, and Arts and Humanities Initiatives are facilitating the use of advanced networking applications in support of distributed lab environments, remote access to rare scientific instruments, and distributed, large-scale computation and data access; clinical practice, telemedicine, medical and biological research, health education and awareness; and long-distance, collaborative live performances, master classes, remote auditions, and interactive performing arts education and media events. Visit internet2.edu/communities for more details.

Discover your future
In all these communities, traditional barriers to the sharing of ideas and expertise are being broken down through the innovative use of advanced technologies. But as expansive as these activities and accomplishments are, there may still be something missing. Is it you? Visit internet2.edu/membership today and find out how you can connect your community to the future.