



Internet2 Wave Services

The Nation's Most Advanced, Secure Operational Platform for Advanced Applications, Research and Private Networks

www.internet2.edu/waves

FOR MORE INFORMATION

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For more information,
please contact:

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To support the most demanding applications and research projects, Internet2's new network provides over 8.8 terabits per second of dedicated capacity on a 16,000+ mile national footprint. Internet2's new network creates North America's first nationwide 10G, 40G and 100G advanced wave network. With the capacity for over 880 10 gigabit waves, this new Internet2 network provides researchers, campuses, private networks and corporate partners a long-term, static, point-to-point and mesh wave capacity at compelling cost-recovery fees.

Internet2 Wave Services

Internet2's new network includes the capability to provision 10 to 100 gigabit per second Ethernet or 10G and 40G SONET waves between 52 locations throughout the continental United States. Each wave can extend between two points on the network or be configured with multiple point-to-point links forming a full mesh for fail-safe capabilities that support the most demanding production or research network deployments.

Regional and Provider-based Partnerships Extend Domestic and Global Reach

Through partnerships with regional networks and telecommunications providers Internet2 can act as a network integrator to create cost-effective access to wave capacity beyond the Internet2 Network in the United States and abroad. Internet2 will solicit the most cost effective solution and contract with its partners to seamlessly provision circuits—optical carrier and digital signal—for any application that requires extending connectivity to any location on the globe.

Internet2 Wave Services provide global-scale aggregated rates—especially advantageous to demanding users that wish to extend their reach to expanding collaborations domestically and internationally. In addition to “lit” wave services, Internet2 can also develop dedicated fiber capacity to extend its backbone to sites requiring direct backbone extension. Through the Internet2 Network, collaborators can greatly extend their network reach, both in rural, suburban and metropolitan areas.

Operational Stability and Operational Transparency Differentiate Internet2's Network

Internet2 believes operational excellence comes through careful planning, communication with network users and continuous review and improvement of its practices. Internet2 has optimized its wave network for reliability and continuous service for demanding research, applications and private networks. The network is built for maximum uptime and Internet2 demands the highest level of precision in its operational support procedures to assure best-in-class operational reliability. Internet2 also employs extensive advance notice for required maintenance, regularly publishes diagnosis of problems, repair procedures and any necessary process or technology improvements that will be implemented.

Security is an inherent feature in Internet2's network

Internet2 engineers understand the importance of network security to any national scale infrastructure. Internet2 network add/drop facilities are built in limited access facilities with locked cages within secure facilities. Encryption services are available on individual waves and enhanced security protocols can be tailored to any network's needs.

Build your private network on Internet2's national infrastructure

Internet2's wave network is designed explicitly to support the build out of multiple private networks for demanding research or domain science projects, advanced applications and government agency collaboration. In addition to Internet2's own research and education network services for the higher education community, which are built on top of Internet2 wave services, the Department of Energy's Energy Science Network (ESnet) and Internet2 have built optical wave to support connections to over 20 national research labs. The National Oceanic and Atmosphere Administration has built its groundbreaking N-Wave national network on top of Internet2 wave infrastructure.

Internet2's network is ready to accommodate private networks of any scale throughout the United States. Through partners, Internet2 is prepared to support global private networks that extend the most advanced capabilities globally.

How to Request Tailored Wave Services from Internet2

Internet2 staff work with interested parties to find the most cost-effective option to meet their wave needs.

To begin a conversation about Internet2's capabilities or to receive a quote for services, email: NetworkDevelopment@internet2.edu.

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