



Advanced Layer 1 Service

Control your own network—without building it

Internet2's Advanced Layer 1 Service is the most specialized and cost-effective way to build a custom, high-capacity network on the most advanced research collaboration platform in the world. And not just any network, but a state-of-the-art network at 10, 100 —and eventually up to 1 terabit speeds—with more access points than any other national R&E network, including paths through regions never served before. Internet2's national fiber network, optical system and network operations center (NOC) provide a set of leading edge resources and capabilities that offers the most reliable, high-capacity network solution.

Internet2 Wave Services

The Internet2 network provides over 8.8 terabits per second of dedicated capacity on a 16,000+ mile national footprint. North America's first nationwide 10G, 40G and 100G advanced wave network boasts a capacity of over 880 10 gigabit waves, providing researchers, campuses, and partners with long-term, static, point-to-point and mesh wave capabilities to support their most demanding applications and research projects—at compelling cost-recovery fees.

The Internet2 Network includes the capability to provision 10 to 100 gigabit per second Ethernet or 10G and 40G SONET waves between 53 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.

Internet2 Dark Fiber Service provides custom, cost-effective solutions for any dark fiber requirements – acquiring, holding, and distributing dark fiber network assets. Internet2’s Dark Fiber Service provides optimal solutions for projects requiring a large number of circuits, and specific user partnerships/collaborations.

Leveraging existing partnerships with multiple fiber providers like Level 3 Communications and Zayo Networks, Internet2 has experience negotiating over 50,000 miles of fiber for the research & education community and can support initiatives to enable a wide variety of bandwidth-intensive applications under development at campuses and research labs today.

Internet2’s Dark Fiber Service:

- Comprises coast to coast intercity dark fiber within the U.S.
- Metro dark fiber assets in select U.S. cities
- Complements the existing Internet2 Network infrastructure
- Facilitates regional optical networking initiatives around the country
- Provides network access to thousands of on-net facilities

FOR MORE INFORMATION

.....

For more information about how Internet2’s Advanced Layer 1 Service can help meet your organization’s unique needs, contact networkdevelopment@internet2.edu.

Internet2 Network services web page
internet2.edu/products-services/advanced-networking