



Researchers, educators and students at institutions connected to the NYSErNet R&E Network have access to a high-performance, state-of-the-art network with capacity to support such high bandwidth applications as: large-scale data transfers, distributed computing, distance learning, videoconferencing, tele-immersion, interactive teaching, virtual laboratories, and digital libraries.

The R&E Network rides on a statewide optical transport system deployed on dark fiber that is owned, lighted and operated by NYSErNet. The Network employs Gigabit Ethernet technology and offers points of presence (PoP) in Buffalo, Rochester, Syracuse, Binghamton, Albany and New York City. Participating institutions throughout the state connect to the network at one of these five regional PoPs, generally at speeds of 200 Mbps or more, primarily using metro or long-haul dark fiber.

Institutions eligible to participate in the R&E Network include all not-for-profit and government entities, as well as for-profit research laboratories that have a research relationship with existing members. Currently, the network serves 422 universities, colleges, K-12 school districts, hospitals, museums, libraries and other research institutions including the following:

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| Albert Einstein College of Medicine | Monroe #1 RIC/ Monroe #1 BOCES |
| American Museum of Natural History | Mount Sinai School of Medicine |
| ARTstor | Northeastern RIC/Capital Region BOCES |
| Bard College | New York Public Library |
| Binghamton University | New York University |
| South Central RIC/Broome-Tioga BOCES | Rensselaer Polytechnic Institute |
| Canisius College | Rochester Institute of Technology |
| City University of New York | Stony Brook University |
| Clarkson University | SUNY College at Geneseo |
| CNYRIC/Onondaga-Cortland-Madison BOCES | SUNY College at Potsdam |
| Columbia University | Syracuse University |
| Cornell University | The Rockefeller University |
| Daemen College | The New School |
| Eastern Suffolk RIC/Eastern Suffolk BOCES | University at Albany |
| GSTRIC/Greater Southern Tier BOCES | University at Buffalo |
| Hofstra University | University of Rochester |
| IBM Watson Research Lab | Upstate Medical University |
| Le Moyne College | Weill Medical College |
| Marist College | Western New York RIC/Erie 1 BOCES |

The NYSErNet Network offers egress to other national and international research networks primarily via NYSErNet's Manhattan colocation facility. There it exchanges traffic directly with Internet2's national R&E network, ESnet (the U.S. Department of Energy's Energy Sciences Network) and CA*net 4 (the Canadian national R&E network). For redundancy purposes, NYSErNet also connects to Internet2's national network in Buffalo.

NYSErNet is a not-for-profit corporation founded in 1985 by a consortium of visionary public and private institutions to advance science and education in the Empire State. NYSErNet collaborates with member institutions, corporate partners and other key stakeholders to develop and deploy innovative technology services designed to promote advances in research and education. NYSErNet's ever expanding suite of offerings currently includes: high-performance commercial Internet access, regional access to Internet2, optical dark fiber, optical wavelengths and business continuity services.