

Frequently Asked Questions

NYSERNet's Managed Router Service

November 28, 2018

What is the purpose of this service?

NYSERNet's Managed Router Service was designed as an ancillary service for institutions connecting to NYSERNet's 10 Gb Integrated Access Service (IAS) and its combined connections to NYSERNet's Research & Education (R&E) and Content Peering Networks, as well as optional access to third-party service providers. The Managed Router Service includes installation of a 10 Gb capable router, plus all the management, maintenance and configuration support necessary to maintain your institution's IAS connection.

What institutions are eligible to participate?

Any institution that has Integrated Access Service (IAS) with NYSERNet is eligible to participate in this service. NYSERNet membership staff will work with interested institutions to determine their eligibility.

What is included with the service?

The Managed Router Service includes installation of a 10 Gb capable router, plus all the management, maintenance and configuration support necessary to maintain the multiple external connections enabled by your institution's IAS connection.

The Managed Router Service is a single package bundling the configuration of the edge router, network design, equipment maintenance and connection monitoring. Service features include:

- NYSERNet owned and maintained 10-Gbps router installed at your location with an out-of-band modem.
- Router fully configured for external connectivity, including BGP sessions to the NYSERNet R&E network, the NYSERNet Content Peering Service and other eligible connections of your choosing.
- Five (5) routing changes per year to accommodate new provider connections, new VLANs, traffic engineering requests, BGP policy changes, or IGP changes.
- Your institution's IP address space announced to upstream networks using your institution's Autonomous System (AS) number. (If your institution does not have an AS number, NYSERNet will guide you through the process to acquire one from ARIN.)
- Basic anti-spoofing at both the interface and BGP level. (This service does not include advanced firewall features.)
- Dynamic routing (in situations where multiple campus edge devices are in place) or static routes to the campus edge equipment.
- 24x7x365 monitoring via NYSERNet's Network Management System and the iGlass Network Operations Center.
- Routine software updates during established maintenance windows, including standard updates, critical updates and bug fixes.
- Read-only CLI and SNMP access to the router from your institution's management network.
- Fixed equipment repair/replacement commitment window based on proximity of your location to NYSERNet's Syracuse location.

What does my institution need to provide for this service?

- 3 RU of space in a 19" two post rack or cabinet.
- 15A of AC power A and B feeds; UPS power is highly recommended.
- Cabling from the NYSERNet router to your institution's edge equipment.
- NYSERNet and member campus will agree on the physical media between the edge devices. NYSERNet will install an appropriate SFP in the NYSERNet equipment. Campus is responsible for the SFP in its equipment.
- Single Mode Fiber connection from the local loop point of demarcation to the NYSERNet router.
- Site access as needed for troubleshooting and repair.
- Remote eyes and hands as needed for troubleshooting and repair.

What other NYSERNet membership benefits are included?

IAS offers institutions the opportunity to participate in:

- Quilt CIS Program -- which offers discounted pricing on select commercial Internet services;
- Quilt VMware Program -- with discounts on VMware software, support, training, and professional services;
- Juniper Networks Member Advantage Program -- which offers a significant discount off the list price of Juniper hardware.

Additional member services are always under development. Details are available on the NYSERNet website, www.nysernet.org/offerings.

Can I participate in the service and not in the Integrated Access Service?

No, these services are designed to be complementary.

What term lengths are available?

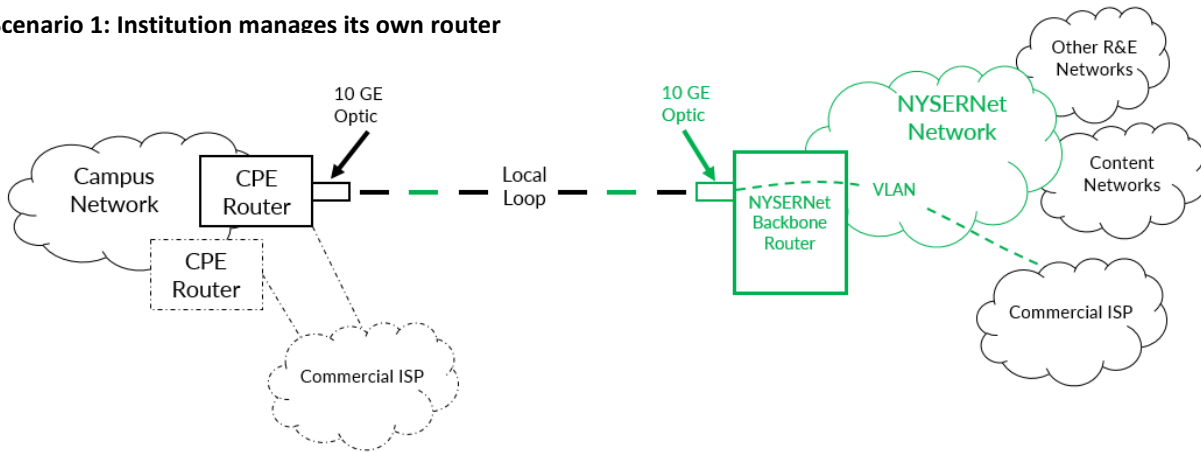
Three and five-year contract terms are available.

How do I know if this service is right for my institution?

The typical participant in this service is interested in participating in R&E networking but doesn't have the resources to manage multiple connections through BGP.

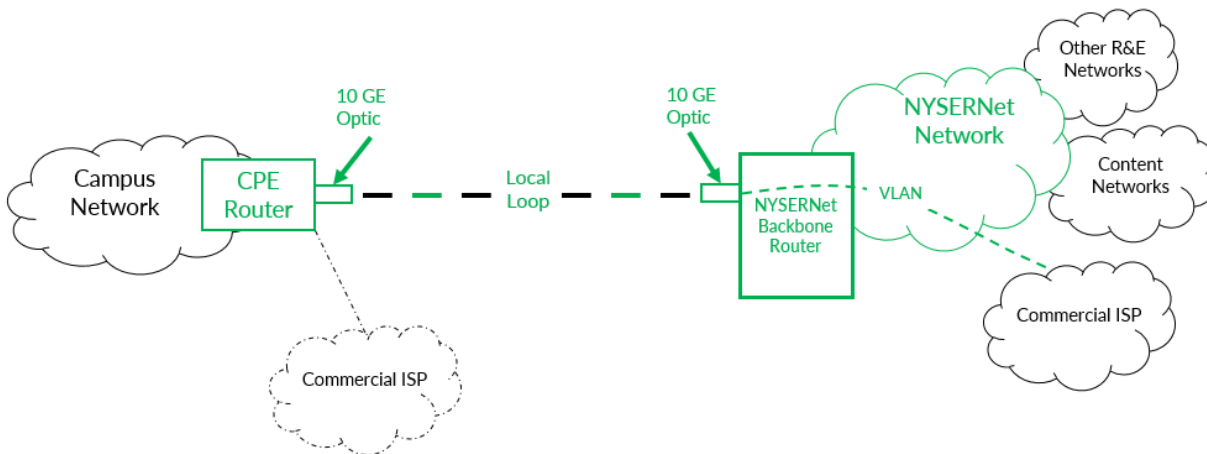
The diagrams below compare an institution managing its own router (Scenario 1) versus NYSERNet's Managed Router Service (Scenario 2):

Scenario 1: Institution manages its own router



- NYSERNet has responsibility for the equipment and networks in **GREEN**.
- Institution has responsibility for its campus network and customer premise equipment (CPE) and has a contractual relationship with the commercial Internet service provider (ISP).
- Institution may optionally have additional redundant ISP connections, connections to other third-party service providers and CPE routers. It is recommended to maintain a commercial ISP connection over separate facilities.
- The local loop may be a lit service from a third-party provider or may be a dark fiber pair. The contract for the local loop may be held by the institution or by NYSERNet.

Scenario 2: NYSERNet Managed Router Service



- NYSERNet has responsibility for the equipment and networks in **GREEN**.
- Institution has responsibility for its campus network and has a contractual relationship with the commercial ISP.
- Institution has the option of including direct commercial ISP connections or connections to other third-party service providers. It is recommended to maintain a commercial ISP connection over separate facilities.
- The local loop may be a lit service from a third-party provider or may be a dark fiber pair. The contract for the local loop may be held by the institution or by NYSERNet.

For additional information please contact: membership@nysernet.org