

It's time to get Maine on the map.

Northern New England Neutral Internet Exchange is here, are you?

NNENIX (say "nee-nicks") is a new, non-profit <u>Internet Exchange</u> (IX) specifically for Maine, New Hampshire, and Vermont. It's a network fabric and physical location where Internet network operators and enterprises can <u>peer</u>, or pass Internet traffic between each other's networks efficiently

NNENIX is **not** an <u>Internet Service Provider (ISP)</u>. It is a connectivity resource for ISPs, content providers, government, education, healthcare, and commercial enterprise networks. Members must operate an <u>Autonomous System</u> and use the <u>Border Gateway Protocol (BGP)</u> routing protocol on your network.

NNENIX will help provide the "critical mass" needed to attract <u>major Internet carriers</u> and <u>content</u> <u>distribution networks</u> to locate their resources in northern New England.

NNENIX is incorporated as a non-profit in the state of Maine, and has applied for IRS 501(c)3 status. We expect to be fully operational and passing traffic between the members in April of 2017, starting at our first location in Portland, Maine.

Why become a Member?

- **Prevent the Boomerang Effect.** By peering at NNENIX, traffic originating in Maine and terminating in Maine stays within the Exchange, reducing the number of hops, and speeding up delivery.
- Improved Performance. By keeping local traffic local, you reduce latency from end-to-end. Faster and more reliable is good for your users. NNENIX will also house several instances of the Internet DNS "root servers" and GTLD servers, providing fast access to the critical global DNS infrastructure.
- Access to Content. By peering at NNENIX, you will immediately gain access to in-state content
 caching servers for Netflix, Akamai, and Google, reducing the load on your Internet transit links. As
 NNENIX grows, more large content providers will join directly, making access to critical content and
 cloud based functionality local and quick.
- Save on Costs. By keeping local traffic local, you reduce the load on your commercial Internet transit links, reducing your transit costs and increasing efficiency of those links
- Access to Carriers. NNENIX will attract large commercial Internet providers, helping to ensure members have access to transit at nationally competitive rates.
- **Improved Resiliency.** Peering at NNENIX provides alternative pathways between members and content providers, helping ensure more services stay operational during outage fiber cut events.



How does it work?

Location. The NNENIX core is located at the new Maine Fiber Company (MFC) facility at 9 Westland Avenue in Portland, ME. This carrier-neutral site is located on an open-access dark fiber route that is interconnected with locations throughout Maine, New Hampshire, Boston, New York, Canada, and Europe. It is convenient to existing PoPs at 1 City Center and 340 Cumberland Ave. in Portland.

Connectivity Options. The NNENIX switch utilizes simple SFP/SFP+ pluggable optics for Member connections. Initial port speeds will be 1 Gb and 10 Gb. Subsidized metro dark fiber leasing is available from local PoPs to the NNENIX core. Members provide their own optics and any sparing as needed.

	Physical Ports									
Qty	Port		Specifications	Location	Quarterly Fee	One-Time				
	Туре					Fee*				
	1 Gb	1.	Single mode 1GE optical connection at the	9 Westland Avenue	\$750 USD	\$500 USD				
			NNENIX switch	Portland, ME						
	10 Gb	1.	Single mode 10GE optical connection at the	9 Westland Avenue	\$2,250 USD	\$500 USD				
			NNENIX switch	Portland, ME						

^{*}Member is responsible for providing the appropriate optical transceiver for NNENIX Switch, and any sparing desired. Cost of optical transceiver is <u>not</u> included in One-Time Fee to NNENIX.

	Virtual Ports									
Qty	Port	Specifications	Location	Quarterly	One-Time					
	Type			Fee	Fee					
	VLAN	 Private VLAN to another member, same building, full port speed 	9 Westland Avenue Portland, ME	\$300	\$100 USD					

Initial Members. Initial members include the University of Maine System, Hurricane Electric, MFC, and Packet Clearing House.

Becoming a Member. Email us at info@nnenix.net to receive additional information and a membership agreement

Contact Information. Feel free to contact one of our Founding Members for more information:

- Jim Troutman, President <u>ilt@nnenix.net</u>
- Jeff Letourneau, Treasurer jeffl@nnenix.net
- Jeff McCarthy, Secretary imccarthy@nnenix.net