Higher education and K-12 districts are grappling with needs for dramatic increases in bandwidth to support education technology - at the same time, budgets are being squeezed.



Tompkins-Seneca-Tioga Board of Cooperative Educational Services (BOCES) acts as a network hub for seven school districts, with 400-500 faculty and students using cell phones, laptops, PDAs, and desktop computers to access their web services.

The network layout

Tompkins-Seneca-Tioga BOCES gets its Internet connectivity from Central New York Regional Information Center and Time Warner Cable's Road Runner Internet services. The other school districts associated with Tompkins-Seneca-Tioga BOCES also get their Internet services from Central New York Regional Information Center, with fiber connectivity (100 Mbps) between the schools and the Tompkins-Seneca-Tioga BOCES campus. Between the Seneca-Tioga BOCES campus and another school district there is a 1 Gbps link, and a 200 Mbps link to the Central New York Regional Information Center that ties all the schools together.

Their challenges: bandwidth and budget

The primary challenges facing Tompkins-Seneca-Tioga BOCES were the high cost of bandwidth and poor network performance. While needing to remain connected to the regional WAN with local school districts, they needed a solution that would enable them to aggregate multiple network links while lowering bandwidth costs. Tompkins-Seneca-Tioga BOCES was paying \$3,200 for 1 Mbps of bandwidth, and their users were competing over a limited amount of bandwidth that was available. They needed more bandwidth at a lower cost.

After looking at several potential solutions, they selected Ecessa PowerLink WAN link controller, and with that they were able to:

- Dramatically lower their bandwidth costs. By adding another Internet Service
 Provider and using the PowerLink aggregation capabilities, they were able to
 increase from 2 Mbps of bandwidth that cost them \$3,200 per year, to 9 Mbps
 of bandwidth, adding an additional 7 Mbps while keeping their bandwidth
 costs to less than \$3,000 per year.
- Provide WAN link load balancing to ensure high availability and improved network performance.
- Provide redundant inbound and outbound Internet connectivity to help ensure that web services are not interrupted.

"After we deployed the PowerLink device, we noticed a significant improvement in network performance," said Dan Parker, Network Specialist at Tompkins-Seneca-Tioga BOCES. "It turned out to be 100% better than we thought it was going to be. We're very satisfied with Ecessa."



"In addition to the product benefits, from a customerservice standpoint, I'm very satisfied with the overall experience I've had with Ecessa."

"Anytime I've needed to know something, or needed something resolved, Ecessa's support organization has always been available to help me."

