Improved Connectivity in Pennsylvania and West Virginia

In January, 3ROX and Drexel University opened a high-performance network link, Philadelphia to Pittsburgh, via high-performance, fiber-optic network. This link, using the FrameNet service of NLR, provides bandwidth of 10 Gigabit Ethernet (10 billion bits per second), about 100 times faster than current high-end download rates for most residential Internet service.

The new link augmented connectivity through the 3ROX/Drexel Internet2 hubs. This partnership, formed in early 2011, provides network services to universities, research sites and K-12 schools in western Pennsylvania and West Virginia along with Drexel and its affiliated research sites and 14 Pennsylvania State System of Higher Education universities. “This link,” said Huntoon, “is the framework for a consolidated high-performance network infrastructure across Pennsylvania.”

This year 3ROX also improved network service in West Virginia, upgrading the link between PSC and West Virginia University (WVU) and adding WVNET (West Virginia Network) as a member. The new link to WVU increases bandwidth 64-fold. “This is a big step forward for research and education connectivity to WVU,” said Huntoon.

By joining as a participant in 3ROX, WVNET upgrades connectivity from West Virginia K-20 schools to research and education networks such as Internet2 to two 10 gigabit-per-second connections (one from Morgantown and another from Huntington). More important than the improved bandwidth per se, says Dan O’Hanlon, director of WVNET, is the collaboration with 3ROX. “It’s a big gain for West Virginia,” said O’Hanlon, “that we’re now able to collaborate with people who are involved in supercomputing and have world-class experience in running a research and education network.”

The catalyst for the upgrades, says Huntoon, was the 10 Gbps connection that 3ROX provided last year for the National Oceanic and Atmospheric Administration Environmental Security Computing Center in Fairmont, West Virginia. “The NOAA grant was stimulus funding,” says Huntoon, “and because we had infrastructure in place, we’ve been able to provide these expanded services very competitively from a cost perspective. These upgrades transform the West Virginia Internet landscape.”