

Cutting-edge Internet technology available in Shenandoah

Wireless broadband authority signs contract with IPv6 provider

By Andrew Jenner
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A contract signed last month between the Shenandoah Wireless Broadband Authority and Winchester-based Ambriel Technologies has made Shenandoah one of the first towns in the nation to roll out an IPv6-capable network.

IPv6 (stands for "Internet Protocol Version 6) is a network addressing system that will eventually replace IPv4, the system on which nearly all Web sites currently operate. The difference between the two is complicated – one can easily get lost in the technical details of "packets," "hexadecimal digits," etc. – but could be boiled down to this: IPv6 will allow more computers and other devices to connect to the Internet faster and with greater security.

The contract between the Shenandoah Wireless Broadband Authority (SWBA) and Ambriel Technologies to provide IPv6 was signed in early August, said SWBA President Charlie Jenkins. The service went into operation last week.

"It's exciting from the point of view that this will be a significant step to connect us to the economy of the future," said Dr. Tom Cardman, Page County director of economic development.

In 2005, the U.S. government mandated that all federal agencies begin transition to IPv6 by June 2008. As that change occurs, contractors who want to do business with the federal government will need access to IPv6 networks.

Just this week, the large defense contractor Lockheed Martin announced that it is beginning to switch to IPv6. "It doesn't guarantee that companies will come here, but it certainly gives us a significant advantage," said Cardman.

He credited the initiative of SWBA for bringing IPv6 to the county.

The availability of IPv6 in Shenandoah has already generated interest from various businesses and agencies, said Jenkins. Cardman has had discussions with staff from the Naval Surface Warfare Center in Dahlgren about the opportunities presented by the IPv6 service.

In June, Ambriel Technologies announced a breakthrough that allows easy access to both IPv4 and IPv6 Web sites. SWBA learned about it at a demonstration held this summer at James Madison University in Harrisonburg, said Jenkins. The Harrisonburg-based Internet service provider Rural Broadband Network Services will remain the SWBA service provider; Ambriel Technologies will allow computers on the SWBA network to access IPv6 Web sites.

The deployment of IPv6 in Shenandoah coincides with the completion of Phase I of Project Bluebird, a grantfunded study on options to create a county-wide broadband Internet network. Phase I included a study of current Internet use patterns and demand in the county. Phase II, to continue through the fall, will include the design of county-wide high-speed broadband network.

SWBA, which has provided high-speed broadband service to Shenandoah for more than two years, will serve as a base from which to grow the county network. Due to restrictions written into the federal grant that created SWBA, it has so far only offered service in the Shenandoah area.

After that grant expires at the end of this month, SWBA will be allowed to expand its service – now including IPv6 – beyond those limits. Monthly subscriber fees will allow the agency to continue operating after the grant funding ends.

"We feel confident that there will be a need for it and we'll be building out the system," said Jenkins.