Awards

**Peter Sforza**, director and research scientist at the Center for Geospatial Information Technology (CGIT) and member of Converged Technologies for Security, Safety, and Resilience, received a 2011 XCaliber Award for excellence as an individual involved in teaching with technology. The XCaliber Award recognizes individuals or teams of faculty who integrate technology in teaching and learning. Sforza received the award in recognition of his course, Geography 4984/5984: Web Mapping. Through this course, students learn the theoretical and societal context of Web mapping while gaining experience implementing interactive mapping applications in a collaborative working environment.

Sforza provides leadership for CGIT’s research projects, management, and operations. Center initiatives include a broad range of geospatial research and applications for safety and security, as well as visualization techniques.

**James Dustin**, operations coordinator for InnovationSpace, received the university’s 2011 President’s Award for Excellence. The award is presented each year to no more than five staff employees who have made extraordinary contributions.

Dustin came to Virginia Tech in 1995 as an undergraduate student and has remained since. He oversees the day to day operations of InnovationSpace.

One recent project Dustin led was the development and delivery of SpaceCamp, a series of workshops created and organized by students to help other students learn skills and software for using digital media. He also supports the operations of the Faculty Development Institute.

**Jennifer Sparrow**, **Teggin Summers**, **Marc Zaldivar**, and **Hongbo Zhang** from Learning Technologies were members of the English Studies ePortfolio team that received an XCaliber Award.

The English Studies ePortfolio is used by the 500+ students majoring in English. A two-credit course introduces students to this dynamic, multidimensional archive. The course is supported by a lab component organized through InnovationSpace. The ePortfolio is the centerpiece of the department’s undergraduate program assessment of student learning outcomes. In addition, it is a tool for student development, making a purposeful space for long-range planning, student engagement, and synthetic approaches to undergraduate education. It is also a means by which the department identifies and cultivates student leadership potential.

For more on these and other awards, see [www.universityawards.vt.edu/university.php](http://www.universityawards.vt.edu/university.php).
IPv4 to IPv6

Internet protocol version 4, or IPv4, has been the global Internet standard for over 30 years. The design of this protocol supports about 4.29 billion IP addresses. Although that's a large number, the growth of the Internet, driven by the popularity of a wide variety of networked devices, has exhausted the IPv4 address space globally, nationally, and on campus.

Enter IPv6. While the IPv6 standard is not yet widely adopted by all Internet service providers (ISPs), it is the new Internet standard and will eventually take the place of IPv4. It will take Internet service providers many years to transition to the full range of IPv6 services, however. Virginia Tech began to work with IPv6 in 1998 and currently supports both IPv4 and IPv6 on most networks.

To support the growing demand of an increasing number of IP-capable devices on the campus network during the transition, CNS has adopted two strategies.

Strategy 1—Use “Private” IPv4 networks with network address translation (NAT)

In early April, CNS implemented a pilot “private network with NAT” configuration for the residential spaces of the Graduate Life Center. “Private” IPv4 addressing provides an immediate benefit by reducing the number of global IP addresses consumed by residence hall networks. The user experience with IPv4 private addresses and NAT is similar to the typical residential service offered by commercial ISPs and in many cases will be less restrictive.

Private addresses and NAT have been used on the campus wireless network for several years. To extend the university’s ability to support IPv4 network access, CNS plans to gradually convert residence hall Ethernet (wired) connections to private IP addressing. Over time we will also move selected campus networks and services to private address space, where beneficial.

Strategy 2—Continue to provide and support IPv6 capable networks across campus

IPv6 is already available on most Virginia Tech networks and provides users with a unique Internet address without using network address translation. Outside the campus network, IPv6 adoption has been very gradual, so it will take some time for the majority of global Internet services to become IPv6 capable.

Virginia Tech will continue to offer both IPv4 with private addressing and IPv6, on a "dual-stack" network, for the foreseeable future.

Contributed by Jeff Kidd

Mary Dunker presented “Introduction to the Information Security Guide: how to get a virtual work force for free;” and “Preparing for an InCommon Silver audit,” with Doreen Meyer (UC Davis), Jacob Farmer (Indiana University), and Dedra Chamberlin (UC Berkeley) at the EDUCAUSE Security Professionals Conference in San Antonio earlier this month. The Information Security Guide is available at https://wiki.internet2.edu/confluence/display/itsg2/Home.

Randy Marchany led a preconference workshop, SANS Leadership and Management Competencies, and, with Kathleen R. Kimball, Mick DiGrazia, Daniel deBeaubien, presented "Securing the Human" on your campus: how to successfully deploy your security awareness program."