

NI&S Mission

NI&S exists to enable Virginia Tech to succeed in its overall mission by providing and managing the university's information technology infrastructure and services. We accomplish this by:

- Identifying and incorporating solutions through the dynamic implementation and management of emerging technologies,
- Promoting sound fiscal management,
- Endeavoring to advance the capabilities of our existing information technology infrastructure and services,
- Broadly disseminating information regarding new technological developments,
- Providing network, system, and services management, maintenance, and support with emphasis on a high level of security, availability, and reliability,
- Supporting the teaching and learning, research, and outreach missions of the university, while embracing our role as a corporate citizen within the local, state, regional, and international communities,
- Remaining sufficiently flexible to pursue aggressive development and expansion of new services.

University's Core Values

- Freedom of inquiry
- Mutual respect
- A commitment to diverse and inclusive communities
- *UT Prosim* (That I May Serve)
- Lifelong learning
- A culture of continuous improvement
- Personal and institutional integrity

Future Strategies

Areas of future strategic focus for NI&S

Infrastructure upgrades

- Network switching upgrades providing higher bandwidth to the desktop
- Cable plant upgrades (fiber and copper) positioning the university for technological growth
- Upgrades to infrastructure enabling and supporting new technologies for the university

Information storage and management initiatives

- Providing centrally managed storage to support faculty and staff
- Deploying network storage for faster retrieval and management of data
- Supporting and enabling high-performance research computing
- Creating a manageable storage cloud

Telephone system upgrade

- Initiating use of VoIP – voice over IP telephony
- Preparing for maturation of converged technologies
- Enabling and supporting new applications

Delivery of services

- Providing security management: network, storage and system
- Enhancing support for distance learning
- Providing connectivity to high-speed networks (i.e. NLR, etc.)
- Nurturing open-source development
- Enabling and supporting ubiquitous, pervasive computing

Network Infrastructure & Services
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Information Technology

Network Infrastructure & Services

Summary Table

2006 – 2012 Strategic Plan
Quality, Innovation, Results

Areas of immediate strategic focus within the broad array of programs consistent with the Information Technology and university's comprehensive missions

NI&S Services

NETWORK RESEARCH AND DEVELOPMENT

- To advance communications services and infrastructure.
- To improve ways to capture and disseminate ideas.
- To promote, establish, and develop organizational practices that drive the service life-cycle.
- To ensure continued technical excellence of R&D engineering employees and foster an environment for creative thought.

NETWORK AND SWITCH ENGINEERING

- To provide a highly reliable, scalable, secure, and manageable network infrastructure that provides for converged services.
- To develop or acquire new tools or enhance existing tools to enable efficient and effective support of the network infrastructure.
- To improve business, engineering, and communications processes throughout the organization.
- To provide improvements in the work environment and resources to attract and retain top quality employees.

VIRGINIA TECH OPERATIONS CENTER

- To provide comprehensive Information Technology (IT) support to address the university's technology concerns in a timely, professional manner.
- To facilitate the creation and dissemination of IT support knowledge to the university community, internal staff, and external partners.
- To ensure IT system events requiring immediate attention are proactively escalated and resolved, minimizing impact to the university community.
- To develop and continuously refine internal business processes ensuring optimal use of resources and promoting an agile, adaptable, IT support environment.
- To foster and facilitate a high degree of coordination and communication among IT units, taking full advantage of the support unit's unique positioning between the university community and IT service providers.
- To attract and retain qualified employees and promote further professional development critical to the effective delivery of IT support.

SYSTEMS SUPPORT

- To lead pervasive computing efforts by providing a centralized, state-of-the-art, content aware, self-managed storage environment accessible to all levels of systems from high-end servers to the desktop.
- To anticipate and support the university's needs by establishing and fostering internal and external professional relationships.
- To provide a secure, 24x7, high-availability, computing resource environment with standards-based, centrally managed, hardware and software configurations.
- To provide state-of-the-art electronic communications and groupware services to all members of the university community and any affiliated constituency.

- To foster a more effective, highly trained, workforce by developing location-independent systems administration tools and educational opportunities with lower administrative overhead.

SYSTEM DEVELOPMENT AND ADMINISTRATION

- To develop, support, and improve secure, reliable, cost-effective, and responsive IT solutions to support the vision and mission of NI&S.
- To develop, support, and improve software applications to maximize the efficiency and effectiveness of the organization and provide strategic advantage to the organization and the university community.
- To continuously improve the quality and effectiveness of systems development and systems administration by evaluating and adapting best practice methodologies, researching and implementing emerging technologies, and investing in professional growth.

VIDEO/BROADCAST SERVICES

- To provide high-quality, reliable solutions and services in video/media production and distribution technologies.
- To raise awareness of the high level of technical and creative capabilities available at Video/Broadcast Services to enable the university to take best advantage of our services in support of its education, research, and outreach missions.
- To provide for the immediate and future deployment of advanced distance learning and content-distribution technologies.
- To attract, develop, and retain qualified personnel to enrich the departmental culture and to enhance Video/Broadcast Services' effectiveness, to foster stronger morale among VBS employees, and to promote our positive contribution to the university-at-large.

FIELD ENGINEERING OPERATIONS

- To continually pursue and apply advanced technology in support of the latest advances in high-speed telecommunications applications.
- To ensure the availability and reliability of equipment required to meet the university's needs.
- To maintain positive relationships with and fully support the university community.
- To continually improve Field Engineering efficiency in the installation and documentation of telecommunications infrastructure.
- To improve communications within the unit so all Field Engineering employees will be able to share information between workgroups.
- To engage in continuous employee development to retain qualified employees to enhance Field Engineering's effectiveness and contribution to the department and university.

SUPPORT OPERATIONS AND FINANCIAL MANAGEMENT

- To provide leadership in support of system operations, design, maintenance, and integrity.
- To provide high-quality support and services to the university.
- To develop and improve operational policies and procedures in order to enhance our operational effectiveness and our ability to respond to the university's needs in a timely and effective manner.
- To engage in sound financial analysis, planning, and practices to ensure continued growth and fiscal stability.

- To promote a work environment which maximizes employee productivity and morale.

UNIVERSITY SUPPORT

- To provide quality services and support to the university community.
- To communicate effectively internally and within the university community.
- To enhance support by implementing tools, for use by the NI&S support units and by the university community, to improve productivity.
- To promote highly trained, effective, and professional employees.
- To establish a quality work environment to enhance employee efforts to support the university community.

BLACKSBURG ELECTRONIC VILLAGE

- To accelerate the evaluation, testing, and deployment of state-of-the-art telecommunications infrastructure.
- To provide the broadest possible access for communities worldwide to BEV ideas, programs, infrastructure, and services.
- To establish and maintain relationships with university colleges and departments to allow BEV to be a vehicle for bringing academic resources to bear in communities.
- To pursue funding and develop external public and private partnerships to increase investments in community networks and applications.
- To participate in professional and civic organizations and promote broad visibility and understanding of, as well as support for, BEV efforts.

UNIVERSITY PRINTING SERVICES

- To provide leading-edge technology infrastructure to maximize Printing Services' effectiveness and usefulness for the university community.
- To raise the awareness of products and services throughout the university community.
- To ensure continuous improvement of current services and products and to develop new services and products needed to maximize Printing Services' effectiveness and value to the university community.
- To provide financial integrity and stability in all areas of Printing Services.
- To attract, develop, and retain qualified employees to enrich the departmental culture and to enhance Printing Services' effectiveness and contribution to the university community.

UNIVERSITY MAIL SERVICES

- To provide dependable, regularly scheduled, mail pickup and delivery to departments.
- To provide efficient and effective mail services to residential students.
- To pursue the most cost-efficient mail services and parcel pickup and delivery.
- To attract, develop, and retain highly competent employees.