

# Princeton University: Network Modernization

Princeton, NJ



Princeton requires a world-class, agile and secure communications platform that will support both traditional and emerging IT services to meet the university's educational and research missions. Our project was to deliver a buildable design to transform and modernize their network with the following goals:

- Facilitate world-class research and education using the network as transport as well as to directly perform research and develop technologies on and with the network
- Enhance wireless as the primary consumer network for IT
- Support highly available critical business, operational and life safe systems
- Augment community-specific network security
- Support and provide collaboration services
- Ensure tactical and long-term network agility to support dynamic IT needs and evolving technology trends

After defining their high-level network vision, Vantage partnered with Princeton's technical staff and provided expert guidance for the detailed design, costing and implementation strategies, including:

- Benchmark Princeton IT versus its peer group
- Create a coherent design ready for implementation
- Integrate automation and orchestration in support of "network as code" and DevOps
- Redesign the network border to accommodate role-based access controls, elephant flows and compliance enclaves/ zones
- Develop an accelerated deployment strategy to successfully modernize the entire enterprise network, Internet/WAN border and WiFi over two years
- Identify process for accelerated procurement and RFPs for manufacturer selection of all major design elements
- Provide estimates of the life-cycle costs for selected options for capital costs of equipment and services, ongoing maintenance and operational costs and implementation costs
- Challenge assumptions and conventional wisdom in support of innovation, risk-informed objectives and stretch goals

## Services:

- Infrastructure Design
- IT Costs + Financial
- Peer Review
- Strategic Planning
- Transition Planning
- Information Security

## Technologies:

- IT Infrastructure
- IT Systems
- Network
- Automation/orchestration
- Wireless Network

## Benefits:

- Benchmark the existing network and future vision with peers
- Realistic and implementable design for a best-in-class network
- Unparalleled network capable of meeting compliance objectives when competing for grants and research funding
- Continuous improvement plan ensuring the network will always be ready to enable the institutional mission