Technology and Research Infrastructure Upgrades

Administrative Affairs Council

December 7, 2011
Project TechFresh

• Branded from *Tech*nology Re*fresh*

• A $10.18 million multi-year effort to refresh the information technology and research infrastructure that supports NJIT’s academic and research initiatives.
Project TechFresh Components

• Telecommunications and Network Infrastructure:
  – Network Infrastructure
  – Wireless Network
  – Campus Cabling
  – Telephone System
• Central Servers and Storage
• Student Computing Labs and Studios
• Classroom Projection Systems
• Interactive Multimedia Classroom
• Materials Characterization Lab
Network Infrastructure

- Servers, switches, and network appliances that support the NJIT network.
- Campus backbone, Internet connectivity, and protection devices.
Wireless Network

• Replacement and Expansion of Wireless Network, including Residence Halls.
• Currently there are about 350 wireless access points.
• When complete, there will be approximately 1260 access points.
Campus Cabling Plant

- Replacement of 20-year old cable in some buildings.
- Look to support Gb/s speeds to desktop where appropriate.
- Upgrade inter-building fiber.
Telephone System

• Replacement of 20-year old vintage PBX with a modern system providing hybrid POTS (plain old telephone service) and VOIP (voice over internet protocol).
Central Servers and Storage

• Lifecycle replacement and expansion for growth of the server and storage infrastructure that supports virtualized systems across the university.
• New systems increase CPU processing power by 24% and memory by 129%.
• Enterprise storage capacity increases 46%.
Student Computing Labs and Studios

• Computer Classrooms in Student Mall and GITC.
• Open Public facilities in Student Mall and Campus Center.
• Specialized computer labs in Engineering, Architecture and Design.
• Targeted deployment of virtualized desktops.
Classroom Projection Devices

- Lifecycle replacement and initial installation of multimedia projection devices for all general purpose classrooms.
Interactive Multimedia Classroom

• Renovation of GITC 1403 for modern synchronous video conferencing and interactive multimedia technology and seating capacity for up to 30 students.
Materials Characterization Lab

• Specialized equipment in a university-wide facility:
  - Inductively coupled plasma mass spectrometer
  - Nano-indenter
  - Elipsometer
  - Refrective index detector for use with high performance liquid chromatography
  - Differential scanning calorimeter
  - X-ray diffraction device
Timelines

• Computer Labs and Studios – Spring and Summer 2012
• Classroom Projection – Summer 2012
• Interactive Multimedia Classroom – Summer 2012
• Materials Characterization Lab – Summer 2012
• Central Servers and Storage – January 2013
• Telecommunications and Network Infrastructure – Spring 2014
Beyond Project TechFresh

• Faculty Computer Distribution continues this spring, looking at a 3.5 year replacement cycle.

• Project ORBIT – Phase II
  – Travel and Expense module for Banner Finance to introduce Workflow and Document Management.
Questions?
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