

IS&T Projects for FY2011

1. DHCP / DNS Replacement
 - a. **Goal:** Upgrading the campus DHCP / DNS services from a system called QIP to a new solution provided by Blue Cat networks.
2. Virtual Server Hosting Expansion
 - a. **Goal:** The virtual server infrastructure, ESX servers (production and developmental) running VMWare, has been saturated for some time. Additional compute and storage capacity is needed, in-order to continue to expand the availability of resources for provisioning based on growth trends.
3. Petit Science Visualization Wall
 - a. **Goal:** Install a visualization wall in the Petit Science Center. The wall will be connected to a high performance computer and allow researchers and classes to view large data sets for study.
4. Microsoft Exchange
 - a. **Goal:** Migration of Faculty and staff from the current GroupWise e-mail system to an Exchange 2010 infrastructure that will be hosted by Microsoft.
5. Microsoft File, Print, and Active Directory
 - a. **Goal:** Migration of the current Novell network infrastructure to Microsoft AD. This includes migrating all of the Novell file and print servers on campus to Microsoft.
6. SAN Replacement
 - a. **Goal:** The SAN replacement includes the replacement of the following devices (Hitachi 9980, Research Computing). The approximate disk space for each is currently: 9980 (20 TB), Research Computing (P5's) (15 TB).
7. Host (Server) Intrusion Prevention
 - a. **Goal:** This is implementation of McAfee HIPS software for servers to provide security protection against attacks and intrusion to critical university servers.
8. Qualysis Implementation
 - a. **Goal:** QualysGuard® Vulnerability Management (VM) automates the lifecycle of network auditing and vulnerability management across the enterprise, including network discovery and mapping, asset prioritization, vulnerability assessment reporting and remediation tracking according to business risk. Driven by a comprehensive vulnerability KnowledgeBase, QualysGuard assists systems and website owners/administrators reduce vulnerabilities and defend against the latest worms and security threats.
9. ARCSight SIEM Implementation
 - a. **Goal:** ArcSight ESM Enterprise Security Manager Event management takes the step beyond storage and alerting to provide real-time monitoring, historic analysis and automated response necessary to manage the higher level of risk associated with doing business in today's digital world. ArcSight delivers real-time event management with ArcSight ESM. As a key component of the ArcSight

SIEM Platform, ArcSight ESM delivers “forensics on the fly,” the ability to drill down from an alert to the source events that triggered the alert.

10. Replace UPSs in Closets

- a. **Goal:** The purpose of the project is to replace UPSs in the distributed communication room closets located across campus. The new UPSs will also include a module so that the TOC can actively monitor the environmental condition of the closets and be alerted in the event of preset thresholds being breached.

11. Damballa Bot Protection

- a. **Goal:** Damballa's Failsafe sensors deliver critical detection and threat termination for botnets and other crimeware platforms that rely on network based C&C (command and control) communications to build hidden criminal networks. Failsafe identifies botnet/criminal communications in near real-time, and then applies a unique set of advanced, automated techniques to confirm the specific nature and intent of each bot compromise on the campus. Damballa integrates within ArcSight and ePO, two information security platforms that we either own or are currently purchasing.

12. Mile2

- a. **Goal:** The outfitting of a 130 station lab located in the Georgia State Villages for use by all students. The lab will have black and white and color printing, scanning, Accutrack metrics, Panther access card, smart board, projector, sound system, wireless access and a laptop. The purpose of the lab will be to focus on The MILE labs are created to support the redesign of the delivery of Math 1111(College Algebra) and Math 1113(Precalculus).

13. UNANET Time Accounting System

- a. **Goal:** IS&T has purchased a new hosted time accounting and resource planning tool from UNANET. The purpose of this project is to implement that tool in the IS&T environment and make sure that all IS&T staff can access the tool and record time in the tool.

14. Host Distribution Layer Replacement

- a. **Goal:** The purpose of this project is to replace the network switches located in the TOC.

15. Core Layer Switch Replacement

- a. **Goal:** The purpose of this project is to replace the dual core switches located in the TOC to new equipment.

16. Host Access Layer Switch Replacement

17. Building Distribution Layer Replacement

- a. **Goal:** The purpose of this project is to replace the switches for each of the campus building connections to the campus fiber ring.

18. Building Access Layer Replacement

- a. **Goal:** The purpose of this project is to replace all of the distribution switches located in the distributed communication rooms located across campus.

19. McAfee Total protection for Data

- a. **Goal:** The Total Protection for Data suite of products offers multiple types of encryption for end users: full disk (Windows), file and folder, mobile storage devices, as

well as data loss prevention through the capability to scan an ePO managed device for the presence of confidential and sensitive information. Windows systems currently utilizing PGP full disk encryption will be migrated to the McAfee solution. McAfee (per SOW current terms) will install and configure MEE Management Center, software, database and all components; create client installation builds, assist with testing and execution; provide knowledge transfer to IS&T departments involved in installation, implementation, deployment and management.

20. McAfee Web Gateway / Washer

- a. **Goal:** Over 90% of all successful attacks and compromises that affect users' systems, come through ports 8080, 80, and 443--basically over the web. For user-initiated web requests, WebWasher uses local and global techniques to analyze the nature and intent of all content and active code entering the network via requested web pages, providing immediate protection against malware and other hidden threats.

21. Desktop Replacement of ISS with McAfee HIPS

- a. **Goal:** The desktop replacement includes the replacement of the Intrashield product currently used on Georgia State owned machines. McAfee HIPS will have two different versions: one for GSU owned machines and another for student machines. The version for GSU owned Machines will include an enterprise version that can be pushed to machines that have the McAfee version installed. The Enterprise version will connect back to a central server for updates. The student version will include an off the shelf version that students can download and install and will not connect to the central server.

22. Oracle DBMS 11g Upgrades

- a. **Goal:** The purpose of this project is to upgrade the Oracle DBMSs on campus to 11g. This is needed since Oracle will stop support of the product during 2011. Many of these systems will be upgrade to the new version of Oracle when they are moved into the virtual environment.

23. Alpharetta Fiber

- a. **Goal:** The purpose of this project is to install a fiber link between Georgia State's main campus and its Alpharetta campus. This will increase the network flow for the new facility and allow Georgia State to use the new site as a disaster recovery location.

24. Novell Anti-Virus

- a. **Goal:** The purpose of this project is to renew and install anti-virus software on all of the Novell servers located across campus.

25. TOC to Campus Fiber Distribution Frame

- a. **Goal:** The purpose of this project is adding additional capacity to the TOC from the Campus Fiber Distribution Frame. This additional capacity is needed in order to bring additional resources on line.

26. Commons Fiber Termination

- a. **Goal:** The purpose of this project is to complete a fiber termination at the University commons from the Georgia State fiber backbone. This will provide for additional capacity to the commons.

27. Fortinet Firewall (Campus Edge Router)

- a. **Goal:** The project will replace the connection of the campus network to the internet. This router handles all of the network traffic being delivered to campus from external resources.

28. CORE Impact (Penetration Testing Tool)

- a. **Goal:** Penetration testing identifies the risks of specific vulnerabilities, validates the defenses against attacks and exploits, and assists with compliance testing (requirement of Payment Card Industry (PCI) standards)

29. MERU EZRF Ops Application (Wireless Monitoring)

- a. **Goal:** This project is to implement software monitoring for the Georgia State Wireless network. This will assist IS&T to determine if there are any issues with the campus wireless network.

30. Polycom CM4000

- a. **Goal:** The purpose of this network is to increase the availability of the campus' Polycom video conferencing network. This addition will allow connectivity to the Polycom systems via a web browser.

31. iPad (Freshman Learning Communities)

- a. **Goal:** The purpose of this project is to implement a pilot test of Apple iPads as part of the freshman learning communities. This includes developing training and incorporation of the devices into core freshman classes.

32. Additional Student Residence Network Equipment

- a. **Goal:** The purpose of this project is to purchase additional equipment for future expansion of student residential housing

33. Desktop Management for Apple

- a. **Goal:** Software so that Apple computers can be managed from a central location.

34. Banner to Linux

- a. **Goal:** Conversion of the operation system software for Banner system servers to Linux.

35. Server Consolidation (IBM)

- a. **Goal:** Installation of IBM systems in the TOC in order to consolidate servers for power and cooling savings.

36. Upgrade to P7 Series for IBM 575

- a. **Goal:** The purpose of this project is to upgrade the research computers on campus in an effort to increase the computing capabilities for faculty and staff.

TechFee Projects

1. Wireless Upgrade

- a. **Goal:** Upgrade of the wireless antennas located across campus to increase capacity of existing locations to the CatChat network.

2. Wireless Expansion

- a. **Goal:** Installation of new wireless access points to increase the reach of the CatChat network.

3. Classroom Instructor Station Portable VHS Player Checkout

- a. **Goal:** Purchase and make available USB VHS players that can be used in the classroom for instructors that need to show a VHS tape to students.

4. Video Teleconferencing Solutions

- a. **Goal:** The new capability would tie in to our existing VTC campus infrastructure which replaced GSAMS. The proposal adds VTC capability to 3 classrooms: CS305, ALC 232, and one of the large lecture rooms in Aderhold to be determined. The Polycom solution also employs 3 mobile carts with VTC for any needed location. The carts would be conveniently stored in Classroom South, GCB, and Aderhold.

5. Classroom Lecture Capture Technology

- a. **Goal:** This proposal will implement a low-cost classroom recording solution. Panopto, Inc. offers CourseCast, an open source solution originally developed at Carnegie Mellon University. The CourseCast application allows the instructor to choose from multiple inputs for a classroom recording. Recording options include PowerPoint capture, computer desktop capture, camera or webcam recording capture, and multiple options for audio capture depending on the equipment installed for the classroom. This solution also includes editing capabilities. The project includes costs for a virtual server with SQL to store and serve the recorded product, camera equipment, video capture cards and microphones for the audio options. A high end fixed mount camera would allow capture of a presentation area without tracking requirements and would provide a better level of detail for capturing whiteboard notes.

6. Student Academic Technology Improvements

- a. **Goal:** Classroom equipment replacement and installation in general use classrooms located on the Georgia State Main campus.