Agenda

A. Disaster Recovery - Donnelly Data Center – December 30, 2010
   - Infrastructure Maintenance
   - Systems and Services Availability
   - Services and Support Timeline
   - Marist Community Interaction and Communication
Disaster Recovery - Donnelly Data Center – December 30, 2010

- Infrastructure Maintenance
  - Uninterruptable Power Supply (UPS)
    - UPS maintains continuous regulated supply of electric power to the Donnelly Data Center
    - UPS shutdown required
      - Enables replacement of AC/DC Capacitors
        » Prolongs lifespan of UPS
        » Prevents irregularity of voltage and power supplies
    - All IT hardware in the Donnelly Data Center will be powered off
  - Network Re-cabling
    - Server Farm
    - DMZ
  - Removing disconnected network and power cables under Donnelly Data Center Raised Floor
  - Systems and Server Firmware Upgrades
Infrastructure Maintenance (continued)

- Planning stages
  - Preliminary
    - Each functional service area within IT had to identify all of the equipment effected by the UPS shutdown
    - Determined the IT services’ dependencies for effected equipment
    - Opportunity to utilize campus redundancy and the NYSERNet Business Continuity Center in Syracuse to maintain basic level support
      » Evaluated redundancy outside the Data Center both on-campus and off-campus
      » Test of new disaster recovery systems on campus and in Syracuse
Infrastructure Maintenance (continued)

- Planning stages (continued)

  ✔ Development of Timeline
  - How much time was needed for UPS maintenance?
  - How much time was needed for Network re-cabling?
  - How long would it take to shutdown all the services, systems and hardware on the Data Center Floor?
  - How long would it take to power on and test all hardware, systems, and services?
  - What was the appropriate shutdown sequence for services, systems, hardware, network, and power?
  - What was the appropriate power up sequence for services, systems, hardware, network, and power?
Systems and Services Availability

- **Services that will remain up (on redundant servers in Syracuse)**
  - Logon Services (CAS and LDAP)
    - Read only, so passwords cannot be changed
  - www.marist.edu website in Syracuse (links to local applications will not available)

- **Services that will remain up (utilizing campus redundancy)**
  - Network will use backup Internet link
  - Help Desk relocated to Lowell Thomas Vault room
    - Help Desk phone services available
  - Telephone service from Upper West Cedar P re-routed to Donnelly Security Office

* Network/Telephone availability will be impacted in some locations
Applications that will be unavailable

Locations of unavailable telephone services

- McCann
- Tenney Stadium
- Sheahan
- Leo
- Byrne
- Champagnat
- Student Center
- Rotunda
- Mid-Rise
- Marian
- Greystone
- Library
- Chapel
- St. Peters
- Gate House
- Steel Plant
Applications that will be unavailable

- Banner
- Admissions application
- IAPROD
- DegreeWorks
- Luminis server for MyMarist
- Web4, IAPROD related Web server for registration, and records
- Form Fusion/Argos reports for Banner
- Content Manager (iDocs)
- Email infrastructure
  - Lotus Notes
  - FoxMail
  - Maestro for mass emailing
  - Wireless Sync for synchronization of Lotus Notes to mobile devices
  - Traveler for synchronization of Lotus Notes to mobile devices
Applications that will be unavailable (continued)

- iLearn
- FoxWeb and other Web servers
- VoiceRite
- Academic 2 server
- Knowledge Center
- Marist Money on-campus only
- Voyager application for library card catalog
- Ariel application for inter-library loans
- Websites other than www.marist.edu, and possibly MIPO website, and FDR websites
- MIPO Web survey application
- Institute for Data Center Professionals (IDCP) website
- Enterprise Computing Community (ECC) website
- OmniUpdate for Web content management
- WordPress for Web content management
- BASIS/Lenel software for managing card swipe access
- Linux Lab Server
Systems and Services Availability (continued)

**Applications that will be unavailable** (continued)

- Dropbox service for large file transfers
- Microsoft Project application server
- HourTrack hand scanner timeclock application
- SchedulerPlus application
- Adjunct application
- Copy Center Invoicing application
- RedFox club application
- Transcript logging application
- Police Pro application
- HEOP application
- Inventory application
- Quask survey application
- Open Source Development Lab (OSDL) system
- IBM Joint Study Projects including Cognos
- Virtual Computing Lab (VCL) system
- Tivoli Storage Manager (TSM)
Disaster Recovery - Donnelly Data Center - December 30, 2010 (continued)

- Systems and Services Availability (continued)
  - Applications that will be unavailable (continued)
    - METS parking ticket application
    - Apollo athletic streaming
    - Darwin and IVT video streaming
    - CART server
    - Virtual Brain Center
    - Student Computer Society Web Server
Systems and Services Availability (continued)

- Applications that will be unavailable (continued)
  - College-wide file shares
  - Library file shares
  - Admission Remote Desktop Services for App Review
  - McAfee policy/repository server (clients will failover to McAfee’s site)
  - Windows Server Update Services
  - Apple Software Update for Marist machines
  - PGP Universal server (clients will function normally)
  - Fashion Merchandising server
  - AD Domain Controller
  - DeepFreeze Enterprise server
  - Mac lab Metering server
  - PC lab metering server
  - Windows/Office Key Management Service
Disaster Recovery - Donnelly Data Center - December 30, 2010 (continued)

- Systems and Services Availability (continued)
  - Applications that will be unavailable (continued)
    - Software Licensing server
      - Maya
      - AutoCAD
      - 3dsMax
      - Maple
      - Minitab
      - Matlab
      - SPSS
    - Off-campus access to Library Databases (EZProxy)
    - Lab access through Internet Proxy *
    - Lab access to printers (InfoPrint) *

* Network availability will be impacted in previously identified locations
### Services and Support Timeline

#### Shutdown Timeline

- **7/1 – 12/30**
  - Planning and Prep

- **11/12**
  - Dry Run Rehearsal

- **12/29 18:00 - 20:00**
  - Shutdown of non-essential services
  - Move login services (CAS, LDAP) and main Web services to Syracuse

- **12/30 06:00 - 8:00**
  - Shutdown of production servers and applications
  - Redundancy up and running outside the Data Center, on-campus (networking, telephones, and some production services)
Services and Support Timeline (continued)

- Shutdown Timeline (continued)
  - 12/30 07:00 - 09:00
    - Shutdown Storage and Server Hardware
    - PBX shutdown
  - 12/30 09:00 - 10:00
    - Network shutdown
    - Operation power cut-off
  - 12/30 10:00 - 18:00
    - UPS maintenance
    - Firmware upgrade
    - Cable clean up
    - Power-off work items
Services and Support Timeline (continued)

- Power Up Timeline
  - 12/30 18:00 – 22:00
    - UPS restarted and taken out of bypass
    - Network re-cabling complete
    - Power restored to Data Center, Network, Server Hardware, Storage, Production Servers, and Applications
    - PBX restored
    - Move login services (CAS, LDAP) and main Web services back to campus
    - Testing of all systems and services

- 12/30 22:00 – 12/31 06:00
  - Contingency

- 12/30- 12/31
  - Restore non-essential services
Marist Community Interaction and Communication

- Prep work
  - Planning meetings with campus offices
    - Security
    - Physical Plant
    - Housing
  - Coordinated outside vendor services
    - IBM
    - JT Packard
    - Front Runner
    - Falcon
    - Safeco
  - Reviewed and revised all Disaster Recovery/Business Continuity documentation
- Labeled all cables to be moved
- Dress rehearsal
Marist Community Interaction and Communication (continued)

- Communication Plan
  - October 06, 2010 – Note regarding ‘Planned Computer Service Shutdown’ sent to MARFAC/MARSTAFF
  - Reminder note will be sent the week of December 13, 2010
  - Reminder note will be sent December 27, 2010
  - [http://www.marist.edu/it/dec30](http://www.marist.edu/it/dec30)
  - Service and System Availability web page updated throughout the day
  - Help Desk will be available to provide limited phone support for questions and outage status from 7:00 a.m. – 10:00 p.m.
Contingency Plan

If inclement weather or other circumstances beyond our control prevents the completion of work scheduled for December 30, 2010, the power shutdown will be rescheduled to December 31, 2010. If these circumstances prevent the completion of work scheduled for the alternate date, March 17, 2011 will be used as the next power shutdown date.
Questions and Discussion