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Approval Body	Executive Committee
Policy Officer	Director ITS
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9.5.1 DATA BACKUP + RECOVERY PROCEDURES

ENABLING POLICY

9.5   Data Backup + Recovery

PROCEDURES

1.   Schedule:

- Full backups are performed weekly.
- Snapshot backups are performed hourly
- Archive backups are performed once per month.
- In the event a scheduled backup job cannot be performed due to any type of issue, IT Services will re-run the job as soon as the issue is resolved and the backup can be rescheduled.

2.   Data that is centrally stored on University servers will be backed up as follows:

2.1. User data

a.   Email
For all students, faculty and staff. All email folders, Inbox, Sent Items and Trash

b.   Staff + Faculty
Departmental shares located on Pontus
Staff folders located on /home/staff

c.   Students

All student data located on /home/students

2.2. Databases

a.   Database contents for all Web applications
b.   LDAP database
c.   ID Card database

2.3. University website and online course content that resides on the following shares with the FAS2020a Network Appliance:
/www
/www2
/blogs/
/blogs2
/moodle

2.4. Servers

Server backups consist only of file level backup of the operating system, but do not include the configurations of the operating system. Servers to be backed up include, but are not limited to:

a. Mail servers
b. Files servers
c. Production web servers
d. Production database servers
e. Domain controllers
f. Building security server

3. Tape storage location

As of February 2009, there were 116 tapes in the backup rotation. The backup tape library that is located in the IT Services server room in the North Building can hold up to 22 Ultrium LTO2 tapes. The remaining backup tapes are stored in the safe vault in the server room. IT Services is looking at options to store the archive backup tapes at an offsite location.

4. Restoring Files

In the event that data needs to be restored from backup, the Network Operations Coordinator in IT Services should be notified within one business day of data loss. The file name(s) and/or the description of the file(s) should be provided by the requestor.

IT Services can perform the restore if the requested data is within the retention period. Once the restoration is complete, IT Services will notify the requestor and verify the integrity of the data.

Response time to such requests will be variable and no service level agreement is currently in place, however users should anticipate approximately 6 business hours to restore data.

5. Backup and Restore Testing

A test restore of full backup will be performed by IT Services on the second Monday of the month. A test restore of incremental backup will be performed by IT Services on the third Thursday of the month.

Test restores of full backup and incremental backup will include the following:

• Test restore of 2 email messages from the test email inbox
• Test restore of 2 files from the test staff account
• Test restore of 2 files from the test student account

6. Cleaning Schedule and Process

The two backup drives will be manually cleaned every four weeks by the Network Operations Coordinator in IT Services. There should always be two cleaning tapes available onsite.

Each time the cleaning tape is used, the counter label that is attached to the tape should be marked accordingly. The cleaning tapes should be replaced after 20 times of use.

7. Technical Specifications

This section describes the technology used for backup infrastructure, as of February 2009.

• Hardware
  ○ 1 Tape library – Qualstar TLS-8222
  ○ 2 Tape drives – IBM LTO-0/2/3/4 U compatible
  ○ Tape media – Ultrium LTO2 compatible
• Software
  ○ Bakbone – NetVault Server version 8.2.0