

University Computing Services Florida State University Data Storage and Server Hosting Options

The Office of Technology Integration (OTI), through its University Computing Services (UCS) division, extends enterprise-level hosting, data storage, and backup services on an *a la carte* basis to all university departments. Provisioned through resources located in the university's central computing facility located in the Sliger Building at Innovation Park, and/or its remote disaster recovery site located in Atlanta, Georgia, these services conform to the guidelines and objectives of the university's Information Technology Disaster Recovery and Data Backup Policy and are offered on a cost-recovery basis. A summary description of each service offering, and its associated cost, is provided below.

Option 1 - Departmental Backup to Disk at DR Site

This service provides for the use of the Network Attached Storage (NAS) device located at the remote disaster recovery site in Atlanta, Georgia, for the purpose of direct-to-disk off-site backup of departmental data. This service is for disk storage only and **does not** include backup to tape in the Sliger Building or at the remote disaster recovery site.

Service Details

UCS will:

1. provide consulting to allow departmental device(s) to communicate with the disk storage located at the disaster recovery site;
2. advise departments of changes that may effect the movement of data; and
3. provide assistance to departmental contacts in moving data;

Cost:

\$60 per year per 5 gigabytes of allocated storage. All purchases are in 5GB allotments. Space must be requested and paid for prior to use.

Option 2 - UCS Disk Stores as Primary Data Storage

This service provides for the use of the UCS enterprise-level Network Attached Storage (NAS) system, located in the Sliger Building, as a department's *primary* disk stores. Data are provisioned through resources located in the university's central computing facility and are backed up on a daily basis to the tape backup system in the Sliger Building and to the remote disaster recovery site.

Service Details

UCS will:

1. provide assistance to the department in connecting to the disk;
2. backup departmental data on a daily basis to the Tivoli tape backup system;
3. NOTE: If daily backups exceed an average of 10% of the departmental data stored on disk, a fee of \$0.65 per gigabyte transferred will be assessed on the additional data. The average and fee will be based on monthly usage; (e.g., If 1TB is stored on disk, daily backups of 100GB are at no additional cost. If average nightly backups are 200GB, a charge will be assessed for the additional 100GB transferred);
4. instruct the customer on how to restore data from the nightly backups;
5. ensure that four weeks of backups remain available, and
6. facilitate departmental access to the data.

Cost:

\$75 per year per 5 gigabytes of data stored. All purchases are in 5GB allotments. Space must be requested and paid for prior to use.

Option 3 - Departmental Data Backup to Tape

This service provides for direct departmental use of UCS's enterprise-level tape backup system (Tivoli Storage Manager). UCS will provide the initial training and assistance in the use of the tape backup system. Data are stored in the Sliger Building tape library and in the tape library located at the remote disaster recovery site.

Service Details

UCS will:

1. provide consulting to allow departmental server(s) to communicate with the Tivoli tape backup system located in the Sliger Building;
2. provide initial assistance to departmental representatives in moving their data;
3. provide initial assistance in training departmental representatives on how to use the Tivoli client;
4. ensure the Tivoli backup system is available to the department;
5. ensure that four weeks of backups remain available to the department; and
6. backup the Tivoli data to the FSU disaster recovery site.

Cost:

\$0.65 per gigabyte transferred. This is billed on a monthly usage basis.

\$400 per terabyte stored on tape per year

\$250 per processor for Tivoli client. This is a one time charge and UCS will pay on going maintenance for client.

Option 4 - Virtual Machine Usage

This service provides a dedicated system platform for hosting departmental applications on enterprise-level infrastructure housed in the university's central computing facility. The facility is staffed 24/7 and has redundant power and environmental support systems. Departmental data are backed up to the enterprise tape backup system in the Sliger Building and to the remote disaster recovery site.

Service Details

UCS will:

1. provide a virtual server on which the Department's application will run. This server consists of the following:
 - a. One Processor;
 - b. Operating system license (currently a choice of Windows 2003 Server Standard, Windows 2003 Server Enterprise, or Red Hat AS);
 - c. Antivirus license (McAfee);
 - d. Backup software license (Tivoli);
 - e. Monitoring and Alerting (Nagios, and if in the domain, MOM); and
 - f. Terminal Services access to Virtual Center console for managing the server, and configure Remote Desktop;
2. create the necessary initial user accounts;
3. backup the server on a daily basis;
4. ensure that backups remain available for a period **of four weeks**;
5. instruct the department on how to restore data from the nightly backups;
6. collaborate with the department to ensure that the server operating system stays up to date and secure; and
7. facilitate access to the server by a departmental representative so that they may administer their application;

Costs:

\$1,050 per year for 256MB of memory and 12GB of disk storage

\$250 per year for each additional 256MB increment of memory required

\$15 per year for each additional gigabyte of disk storage required

Terms and Conditions

UCS Billing and Payment

1. The term of service will be for one year from the first full month of service.
2. Department will be billed monthly in arrears.
3. Payment should be made by a Florida State University Interdepartmental Requisition and Journal Entry Form. In filling out the form, select "Other" for the Send To: and write in Office of Technology Integration (OTI). Non University departments should remit payment with a check.

Cancellation

A service agreement may be canceled by either party with 30 days written notice. If an agreement is canceled, all services under the agreement will be canceled and all data removed from the storage devices.

To learn more about these new services or to find out other ways that OTI may be able to help departments with disaster recovery planning, contact Carl Baker at 644-2591 or send e-mail to [DRinfo\(at\)fsu.edu](mailto:DRinfo@fsu.edu).

Revised 2007-04-02