

**Backup Policy and Procedures**

**Purpose**

The unprecedented growth in data volumes has necessitated an efficient approach to data backup and recovery. This document is intended to provide details on the stipulations of data backup and retrieval operations to the client.

**Scope**

The intended recipients of this policy are internal departments that house their hardware in the University’s Enterprise Data Center.

**Policy**

Information Technology recognizes that the backup and maintenance of data for servers are critical to the viability and operations of the respective departments. It is essential that certain basic standard practices be followed to ensure that data files are backed up on a regular basis.

**Procedure**

The backup server currently deployed has an LTO 3 backup tape device and a Virtual Tape Library (DL 710) attached to it. The DL 710 provides us with disk-based backup and also allows us to do a disk-to-disk-to-tape backup. The type of backup varies with the model of the server and the volume of data to be backed up.

The backup software used to control the backup processes is CA ARCserve®. The Systems Support team ensures that all backups are completed successfully and reviews the backup process on all servers daily. Logs are maintained to verify the amount of data backed up and the unsuccessful backup occurrences.

**Backup Content**

The content of data backed up varies from server-to-server. The primary data that will be backed up are: Data files designated by the respective owners of the servers and in some instances System Data (Applications files for the server and other selected software installed on the server). Data to be backed up will be listed by location and specified data sources. This will be stipulated in a separate document called “Data Sources Manifest”. Because it is impractical for the Systems Support to backup every bit of data stored on the servers, the only data that Systems accepts responsibility for is the data which is explicitly listed in the “Data Source Manifest”.

**Backup Types**

Backup of servers will occur every day after regular business hours.

Full backup: Includes all the source files. This method ignores the file's archive bit until after the file is backed up. At the end of the job, all files that have been backed up have their archive bits turned off. Only one **full** backup will be done once a week followed by **differential** and/or **incremental**.

Differential backups: Includes files that have been changed since the last Full (Clear Archive Bit) or Incremental backup. If the archive bit is on, the file is backed up, and archive bit is not turned off. The next time an incremental backup is done, this file is skipped (unless it is modified again).

Incremental backups: Includes only files that have changed since the last Full (Clear Archive Bit) or Incremental backup. The next time an incremental backup is done, this file is skipped (unless it is modified again).

We use the GFS (Grandfather-Father-Son) rotation for backups.

Daily backups (Son) take place on a five day rotation.

Weekly backups (Father) take place on a five week rotation.

Monthly backups of high availability servers occur the last calendar day of the month and are on a twelve month rotation.

Special backups may be made for longer retention periods during special situations such as system upgrades and major projects.

**Offsite Storage of tapes**

Any data that requires offsite storage must be requested by the owner of the server. The tapes containing said data will be stored offsite for a period of one month by Commercial Record Center.

**Charge Back**

Backup:

|  |
| --- |
| Initial set up cost of $500.00 |
| **Amount (GB)** | **Cost** | **Term** |
| 0 to 250 GB | $100.00 | Annually |
| 250 GB to 500 GB | $200.00 | Annually |
| Above 500 GB | Call for QuoteAnnually |

Offsite:

|  |  |  |
| --- | --- | --- |
| **Amount (Tapes)** | **Cost** | **Term** |
| Per Tapes | $240.00 | Annually |

|  |
| --- |
| **Data Source Manifest** |
| Date: |  | Server Name: |  |

Type of Backup Agent Needed

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Windows | Version: |  | Type: |  |
|  | Linux | Version: |  | Type: |  |
|  | Unix | Version: |  | Type: |  |

List of Files/Folders to be Backed Up

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Backup Client and Policy

|  |  |  |
| --- | --- | --- |
| Backup Client Installed On Client Server: |  |  |
| Backup Policy for Client Server: |  | **M****O****N** |  | **T****U****E** |  | **W****E****D** |  | **T****H****U** |  | **F****R****I** |  | **S****A****T** |  | **S****U****N** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Run Schedule for Policy: | AM: |  | PM: |  |

*Only One Full(F) followed by either a Differential(D) or an Incremental(I)*

Retention and Offsite

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Retention Period for Backup: |  |  |  |  |
| Offsite Storage: |  |  |

Signatures

|  |  |  |  |
| --- | --- | --- | --- |
| Requestor’s Signature: |  | Date: |  |
| System/Backup Administrator Signature: |  | Date: |  |

*Prepared by llcruz, msoto & raperea on 05/29/08 Version 2.0*