

BACKUP AND RECOVERY POLICY

Purpose

The primary purpose for the backup system is to provide for disaster recovery of key network servers and services including email, applications, databases, web pages, and servers hosting individual and group directories. Additionally, the backup system provides recovery of any file that has existed on a network server long enough to be caught in a regularly scheduled backup of that server. The backup system is not an archival system for storing information off-line for indefinite periods of time.

General Information

Backups are scheduled to run each night. Recoveries can be done at anytime during the day when the backup system is idle. The earliest point in time that the backup system can recover a given file is from the most recent successful backup of that file. Several variables may prevent a file from being backed up successfully. These include, but are not limited to, network outages, file corruption, or the file being in an "open" state when it is backed up.

Schedules

Backups fall into one of three categories:

- 1) Baseline - A full backup of every file on a given network server.
- 2) Level - A consolidation backup of any file that changed, or was created, since the last level or baseline backup.
- 3) Incremental - A backup of any file that changed, or was created, since the last backup performed.

Baseline backups are performed on a monthly basis, with incremental backups performed daily. Baseline and level backups are staggered to run throughout the month to reduce backup traffic on the network.

PC Workstations and Email

Individual PC workstations are backed up on a weekly basis. Users should maintain all files that require daily backup on the network. Email messages are stored on individual PC workstations and are backed up only to the extent the applicable workstation is backed up. Individual messages that have been deleted cannot be restored.

Data Retention

Hard drive backup sets are maintained for a minimum of 6 months before being recycled. After that, information is overwritten as necessary to keep the backup system running. Depending on the type and location of a given file, it may be recovered at any time for a period of 1 to 6 months after it was last seen on the network and backed up by the backup system.

Recoveries

Any file stored on a network server should be recoverable after it has entered the backup cycle, and as long as the hard drive has not exceeded its retention period. Accidental deletion, corruption, or overwrites of newly created files that have not made it into the backup cycle generally cannot be recovered. However, recovery of a file that has not entered the backup cycle may be possible through third party system

administrator tools such as Emergency Undelete. Support staff cannot guarantee these tools will be successful, especially in the case of overwrites.

A request for a recovery must be made to support personnel. For security reasons, individuals should not attempt to recover their own files. Users must provide support personnel with three pieces of information in order for any file to be recovered:

1. The full directory path to where the file was located;
2. The name (spelled correctly) of the file to be recovered; and
3. When the file was lost, deleted, overwritten, or corrupted.

Because of the method in which files are backed up, multiple versions of a file may exist in the backup system. When a recovery is requested, the most recent version of a file that can be successfully recovered will be restored to the network server. This may result in a partial loss of work depending on the state of the file during the backup and the amount of work done on the file between the last successful backup and the point in time in which the file becomes deleted, corrupted, or lost. The backup system cannot recover modifications to a file made between the last successful backup and the point of failure.

Recovery Time and Potential Issues

Every attempt will be made to recover a file that has been backed up, and that is recoverable, within a reasonable period of time. A file is considered recoverable as long as it exists on a hard drive backup set that has not been recycled. Instant recovery is not possible. In some cases, files may not recover properly. This can be due to many factors, and may result in the file being unrecoverable or may affect the time required to recover a file. Factors affecting recovers:

- Incomplete backup
- File was "open" or "in use" during the backup
- Errors writing to the media during the backup
- Corrupt file prior to backup
- Network errors during recovery
- Disk errors during recovery