



BackJack™ is the easiest, most effective way to guarantee that Mac users never lose their invaluable files.

The electronic world has given us the ability to create, store and access information at unprecedented levels. Since our dependence on the electronic world is growing rapidly, the ability to properly protect and manage the information that resides on our computers will only become more important.

Prior to the Internet, the options which existed to protect critical files were complex and routinely failed primarily because they required an *unrealistic amount of time, effort and cost to implement and maintain*. The end result was (and still is) that backups do not get done and users are ultimately at high risk for data loss.

This paper will introduce BackJack™ as an online backup service which removes barriers (such as time, effort) that prevent Mac users from both implementing and routinely performing essential backups, thus making it the easiest, most effective way to guarantee that Mac users never lose invaluable files.

We use the term 'invaluable' to define any files that a user would be unable to reproduce via any other means in the event of loss. This could include (but is not limited to), accounting files, documents such as letters, email files, pictures. We do not categorize a Mac's operating system or applications as invaluable/irreplaceable.

The Need for Backups

The introduction of the personal computer over two decades ago presented individual computer users with the need to protect and manage their files. Users were advised to back up (protect) information that resided on their computer's hard drive since, like any electronic device, the potential for failure was a 100% probability over time. Of course, natural disasters, human error and other unforeseen events also posed as threats to a computer and its contents. A backup was needed as insurance against such events to avoid the pain, disruption and cost associated with losing irreplaceable files. Note that this document will not elaborate any further on the 'why' of backing up.

The ideal backup solution must handle the implementation AND maintenance of the backup process effortlessly.

The 'Conventional' Solution

In very broad terms, a 'conventional' backup method focuses on copying files from your hard drive to some other location (either to another drive or to media such as tapes, CDs, DVDs). This process can occur manually or using software which was designed specifically to accomplish the task.

The 'Conventional' Problem

While a conventional backup method appears to be a sound approach, there are a number of problems that prevent it from being an effective solution.

Simply put, it requires too much effort -- too much effort to *implement* and too much effort to *maintain* in a way that guarantees all components of an effective backup strategy are being met.

Here's a closer look at why conventional backup methods fail:

Implementation Failure

- the capital outlay required for the hardware and media is significant
- there is an unrealistic amount of time and money involved with investigating and purchasing the proper backup software
- there is an unrealistic amount of time involved with researching, configuring and installing the hardware itself (and often requires expert input)
- both software and hardware configurations present a steep learning curve
- there is no easy way to begin backing up **right now**

Maintenance Failure

- it relies too heavily on the human element which presents two key problems: the first is that the backups occur inconsistently or not at all; the second is that the files are rarely (if ever) taken

By using the Internet, BackJack eliminates the problems of conventional backup methods thus allowing Mac users to easily implement and maintain an effective backup strategy.

- offsite which is absolutely critical
- there will inevitably be hardware malfunctions which make it difficult to properly maintain proper backups – for instance, failed devices and faulty media
- there is an ongoing hassle and cost associated with software upgrades
- growth in the number of files translates to growth of media needed (which = \$\$)
- replacement of equipment and media every few years

File Recovery Failure

- there is a high risk that the files will simply not be there when you need them due to failed media or human error

The Solution: BackJack™ Online Backup Service

Unlike conventional backup methods, BackJack is an *online backup service*. By using the Internet, BackJack eliminates the problems of conventional methods thus allowing Mac users to easily implement and maintain an effective backup strategy. The end result: BackJack is the easiest, most convenient way to guarantee that Mac users never lose invaluable files. BackJack has revolutionized the way Mac users back up and recover their files.

Why BackJack Succeeds where Conventional Backup Methods Fail

Implementation

- BackJack requires no capital outlay for hardware or media
- BackJack eliminates having to research and choose backup hardware and media
- BackJack conveniently takes advantage of an existing internet connection which sits idle during off hours
- BackJack eliminates having to research and purchase backup software
- BackJack eliminates having to install and configure hardware
- BackJack's learning curve is minimal and you don't need to hire an expert to assist
- BackJack allows you to immediately expense the cost of the service and nothing depreciates over time

*BackJack will provide
you with protection for
your invaluable files
right now.*

Maintenance

- BackJack is fully automated which eliminates human intervention to begin and monitor the backup process (ie. switching out media)
- BackJack provides you with the ability to protect your irreplaceable files *right now*
- BackJack guarantees the files are immediately *offsite*
- BackJack eliminates insuring, maintaining and replacing hard drives (every 2 years)
- BackJack eliminates failed media
- BackJack eliminates the ongoing cost and hassle of media purchases
- BackJack provides accurate, automated file integrity checks so that you know your files are safe

File Recovery

- Quick, convenient recovery of your files 24/7 without our intervention
- BackJack removes all concerns regarding failed media and faulty equipment

The Limits of BackJack as an Online Solution

- Because the files are transferred online, the time it takes to upload and recover files can be a concern, particularly if a user's connection speed is slow. However, as broadband access continues to expand, this is becoming less of an issue.
- Users cannot duplicate their entire hard drives via an online service which means that in the event of disaster, the time and effort required to get back up and running is longer. It does require that users reinstall their operating system and the BackJack application prior to being able to retrieve the files from our servers. While this task is more time consuming, it pales in comparison to the inability to recover your invaluable files.

The Challenges Met and Overcome

Compression

Because BackJack involves transferring files via the Internet, the automatic compression of a user's files is important to guarantee maximum upload efficiency. BackJack's OS X version takes advantage of 'gzip' technology which has proven to be quite impressive.

Security: 128-bit Encryption

Integrated into the software is a 128-bit CAST (Carlisle Adams and Stafford Tavares) encryption algorithm which allows the user to generate a 128-bit key based on a passphrase that is entered during the installation process. There is currently no known way of breaking CAST short of brute force. BackJack (during its normal course of action) uses the encryption key to automatically encrypt and decrypt files as they are being transferred via the Internet. The files are encrypted onsite at the client's location and remain that way at all times. The key is never known by us or transferred online thus maximizing protection of files.

*Your files with BackJack
- compressed, encrypted,
redundantly stored, and
online/live 24/7*

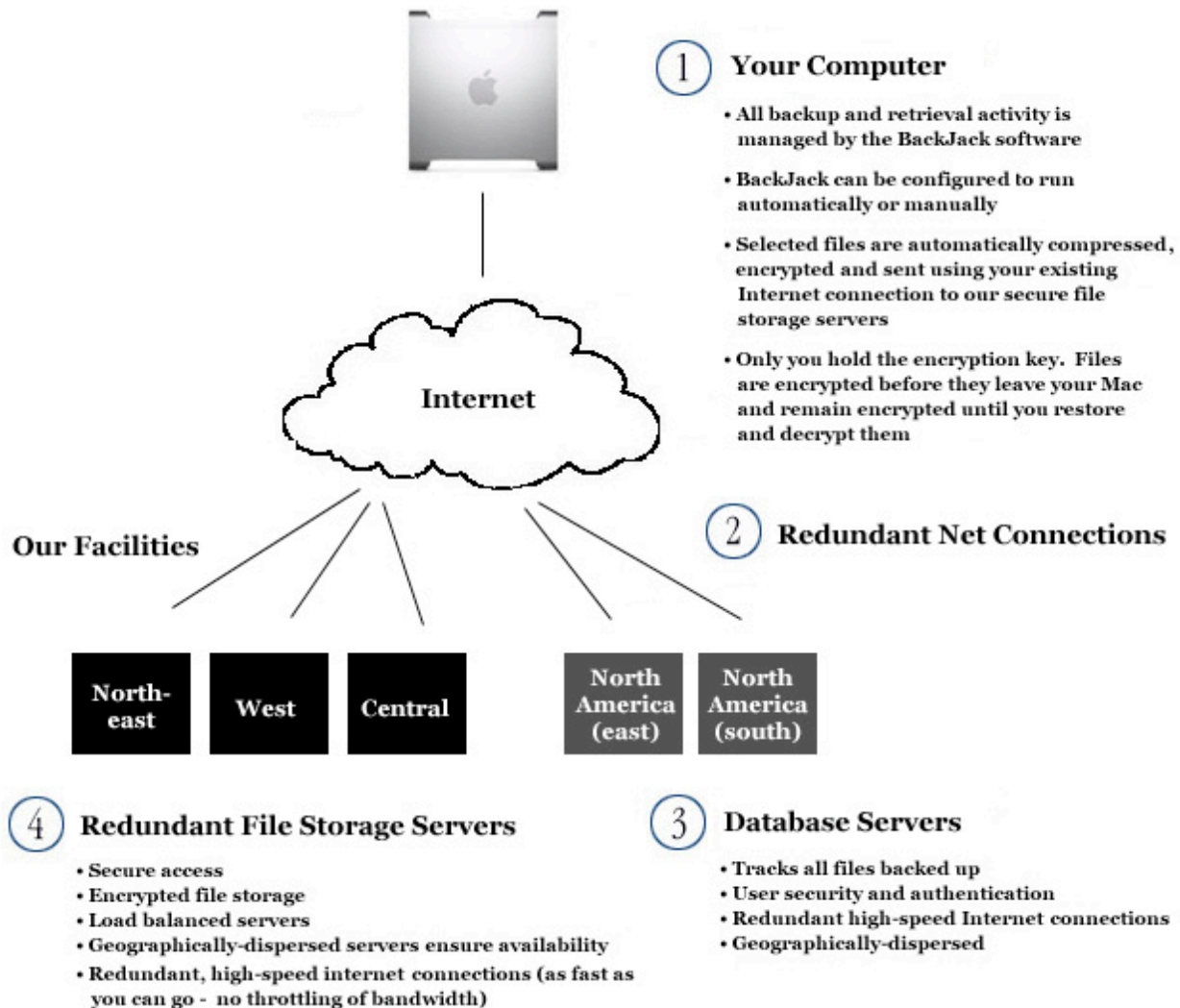
Guaranteeing File Protection: Advanced File Protection

As a service that guarantees maximum protection of (and immediate access to) irreplaceable files, BackJack's Advanced File Protection Plan is structured such that all original files uploaded are immediately duplicated to multiple sites located in geographically-dispersed locations. The sites themselves offer limited physical access, multiple internet connections, etc. to guarantee full security and maximum uptime.

Guaranteeing File Availability: Live Storage

In order to ensure that users have immediate access to the files 24/7, the files reside on live, spinning drives as opposed to being stored nearline or offline.

How our Advanced File Protection Plan Works



- 1 Computer to be backed up sends request to database servers to initiate a backup session
- 2 All requests sent through user's internet connection to our secure, high speed facilities
- 3 Database server authenticates the user and replies with the server to handle based on current traffic loads
- 4 Files are stored on least busy and then transferred to other 2 sites for complete fault tolerance and redundancy

Summary

BackJack is *the* solution for Mac users who want hassle-free, uncomplicated setup and maintenance of their backups. It is undeniably the easiest way to commence and maintain a backup routine with the important end goal of ensuring Mac users never lose invaluable files.

About Synectics Business Solutions, Inc.

Established in 1990, Synectics Business Solutions, Inc. is rooted in Macintosh. From its inception until early 1997, Synectics operated as a Mac-only consulting/software development company, dedicated to both recommending and implementing complete Mac solutions. This business focus provided the company with a unique insight into the need for a unique backup solution for Macintosh users. The growing popularity of the Internet combined with their knowledge of the industry, made it possible for them to research the potential for online backup technology and undertake its development exclusively for the Mac platform. In June of 1998, they proudly introduced BackJack™ and continue to dedicate 100% of their time to the offsite backup needs of Mac users worldwide. Synectics is an independent, privately-held company located 2 hours outside of Toronto, Canada.