



a white paper

# **Small Business Data Storage Solutions:**

Which Direction Should Your  
Creative Company Take?

April 2009

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## Introduction:

Digital files are multiplying at exponential rates. In the past ten years, many small businesses and creative companies have shifted to relying almost solely on digital files. Companies who rely on digital files routinely face challenges when it comes to IT data management and storage, mainly due to the increasing costs, time and IT resources needed to manage a network and file system. Nowhere is this issue more prominent than within the creative industry. With company assets that are almost entirely digital, creative companies produce data files across a variety of formats; web sites, print publications, logo designs, video, and others. These business assets then need to be stored securely and made easily accessible to their teams through a network and/or remote access. For creative companies and small businesses wishing to maximize productivity and secure company assets, effective data management across a network, and sharing data with multiple-platforms is no longer a luxury, it's a day to day mission critical requirement.

## Situation:

Regardless of size, creative companies are looking for ways to reduce costs associated with storing and managing their data. Traditionally many small businesses look to PC Servers to manage file sharing and storage needs within their network. While a PC server can meet the needs of small businesses, PC servers present a challenge to many small businesses who do not have on site IT staff or large IT budgets to outsource deployment and management. For many small businesses including creative companies, maintaining a network with various computers, platforms and complex file server software can be a difficult and costly task.

General purpose server operating systems, like Windows Server® can bring an extra level of complexity to the maintenance and management of a basic file server. These layers of complexity with a PC server increase the total cost of ownership, requiring professional IT experts to effectively manage and maintain the PC server. For most small businesses, having a system that requires an IT expert either onboard or as a consultant ongoing is a significant financial and operational burden. According to 2009 report titled “Servers in Small and Mid-sized Businesses”, conducted by BMighty.com research team, 82% of small businesses primarily use their PC servers as a file server<sup>1</sup>. With file serving being the primary task of

1 2009 Storage Report “Servers in Small and Mid-sized Businesses” is available for download at [http://i.cmpnet.com/bmighty/PDFS/bMightyResearch\\_SMBServers.pdf](http://i.cmpnet.com/bmighty/PDFS/bMightyResearch_SMBServers.pdf)

many small businesses, the need to pay for the increased abilities of a PC server and cost to maintain it may now become unnecessary.

## **Solution:**

Synology has invested heavily in learning about and listening to small businesses. We know that a top issue for creative companies and small businesses today, is digital file management and storage problems. Data is increasing and so is the need to manage it. Synology has taken this research and developed an integrated hardware/software solution just for small businesses that alleviates some of the most common file management and storage problems faced by creative companies and small businesses each day. Optimized for file serving needs, the Synology Disk Stations are fully integrated devices which attach to the network, simplify data sharing and offer easy management, and maintenance through the use of simple software wizards that almost anyone can run.

### ***Create New Users, and Manage Permissions Easily***

Sharing data is an absolute necessity for creative companies and most small businesses. Managing permissions effectively for the sharing of that data, and for who can access data on a file server is essential to keep a small business operational. Permission errors can often be detrimental to a small business, resulting in downtime or lost productivity. Permissions are generally delivered on a traditional PC server by a two-tier layer; permissions at the file system level, and then permissions at the protocol level. Without formal training and familiarity with this concept, managing permissions can be confusing and time consuming with a traditional PC file server.

The Synology Disk Station resolves the difficulty of managing permissions in an efficient manner, as Synology Disk Stations use a single method to control permissions. Through the integrated wizard, creating a new user is achieved in a few clicks, right from the main management screen. Permissions management is as simple as a check box menu for each user to control the access of data sharing. This integrated wizard provides a quick way to add new users when the business grows, and if a permission error occurs it makes it easy to identify, and resolve quickly.

## ***Licensing Made Simple***

Traditionally for small businesses that run a PC File server, growing the server with the business can be a costly experience. Whether using an older re-purposed PC as a server or a new PC server running Windows® Server, there can be limitations with connectivity and additional licensing fees. One such limitation is the number of available connections which a re-purposed computer can accommodate. For companies that choose to use a re-purposed computer for a file server, the Windows® operating system will support only ten concurrent connections to client computers<sup>2</sup>. Ten connections can easily be maxed out with a growing Creative Company, as multiple requests to the File Server to retrieve data can routinely happen. By choosing to go with a more expensive PC server, it is possible to increase the number of concurrent connection by purchasing additional CALs. This adds significant cost to the server, which is at the minimum thirty dollars per CAL for each single user.

Whether a small creative company, a large one, or a growing small business, the costs to scale a PC server as the business grows, increases with the number of connections needed to the file server. These not so obvious licensing fees can become overwhelming quickly for a growing company who adds new employees.

In contrast, Synology Disks Stations do not require CALs, and “out of the box”, supports thirty-two concurrent connections, with an even higher number of concurrent connections available in the business class models. With no additional file server CALs needed, there are no additional costs to grow the business, and new employees can begin sharing data immediately. The hassle of configuring new CAL licenses is pleasantly removed from the Synology experience. With no licensing fees to worry about, sharing data can be easily established on the Synology Disk Station, which means more time for small businesses to be productive and save money.

## ***Easy Maintenance***

While we haven't achieved a 100% maintenance free system, managing a Synology Disk

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<sup>2</sup> Microsoft Windows® Vista EULA from URL [http://download.microsoft.com/documents/useterms/Windows%20Vista\\_Ultimate\\_English\\_36d0fe99-75e4-4875-8153-889cf5105718.pdf](http://download.microsoft.com/documents/useterms/Windows%20Vista_Ultimate_English_36d0fe99-75e4-4875-8153-889cf5105718.pdf)

Station can be extremely easy. For most Windows® computers, routine updates are a frequent way of life, with a varying degree of urgency, patches and service packs. For small companies, with a limited IT staff if any, applying updates and patches multiple times a month can be overwhelming and sometimes disastrous if the consequences of each update is not fully understood. Often updates can cause downtime for the server, and interrupt day-to-day operations when the main file server has to be rebooted after every update. Often, because of the fear of downtime, companies will not perform routine maintenance to their PC file server as often as necessary, and as a consequence, the PC File Server may malfunction or cause problems within the network, requiring additional downtime to isolate and fix the problem.

As with software, the hardware of a PC server also requires monitoring. When hardware monitoring is neglected and hardware log files ignored, premature failure of the PC file server can go unnoticed until a critical shut down happens. Errors, such as disk failures, or fan failures can often go unnoticed by companies who do not have full-time IT staff continuously monitoring the systems, resulting in the data degrading, which results in an impact to the integrity of the data. Most business, including creative companies would prefer to devote their time and energy into creating content rather than the high-maintenance demands of traditional PC file servers.

For creative companies who want to create, rather than be IT experts, the Synology Disk Stations offers peace of mind, low maintenance requirements and easy to use wizards. Firmware updates occur quarterly, versus the weekly updates as required by PC file servers. The resilient, Linux based Synology Disk Station manager means less downtime to conduct system updates. Most importantly, Synology's built-in auto-notification features means that Synology's Disk Station Manager can send out e-mail notifications to denote disk failure, fan failure, or to indicate that the disk is nearing full capacity. This critical feature provides advance warning of a pending problem and allows for the appropriate action to be scheduled to fix the problem, thereby virtually eliminating downtime during productive office hours.

## ***Data Protection***

In our digital world, business data is a company's most important asset. Ensuring that appropriate layers of protection are in place for critical data is paramount in any sized

business. A multi-layered strategy for protecting data integrity is recommended, but is not integrated into traditional PC servers. It is recommended that all companies should implement a system for data backup and use RAID protection to provide additional defenses against data loss. Unfortunately, for PC servers, implementing a RAID solution can require additional costs, or additional expertise to implement the complex setup correctly. While most companies agree that they need a strategy in place for data protection, many small companies find themselves unable to afford the expertise to implement and manage a solution. Even simple backup can pose a problem to creative companies and small businesses as the lack of integrated backup software in PC servers makes it more challenging to implement a solution and with no solution in place, can leave a PC server vulnerable to the most mundane of errors, such as accidental file deletion.

The Synology Disk Station is fully integrated with a host of backup functions and RAID management, providing additional layers of defense against data errors. With RAID redundancy in Synology's multi-bay Disk Stations, data is further protected against hard drive failure and ensures that a Small Business can still operate while a disk is replaced within the Synology Disk Station.

All Synology Disk Stations support two methods of backing up the local contents. Backups can be executed to local USB/eSATA drives attached to the Disk Station, be sent through the network or the Internet to another Synology Disk Station, or a rsync-compatible server. With Synology Disk Stations supporting two different backup destinations, the business can tailor the backup needs to the needs of the business, rather than having to tailor the functions of the business to the abilities of the backup system.

This high level of integrated data resilience in the Synology Disk Stations is typically absent from traditional PC servers. With a increased level of data protection, small businesses can now have the data protection abilities that were typically only found in larger enterprise level data centers.

## Summary

For many small businesses, using an alternative to a PC server means cost savings, easy deployment and peace of mind. Disk Station solutions are robust, easy to use, affordable and meet the needs of 95% of all small businesses. Creative companies will benefit from

the simple licensing structure, built-in wizards, uncomplicated permission structure, and robust file management capabilities that are available “out of the box” with Synology Disk Stations. The added value comes from the ability to support multiple concurrent connections, auto-notification, wizard-based automatic backup and RAID functions.

For creative companies that want to focus on creating content and have a reliable and easy to use file and backup system in place, the Synology Disk Stations bring enterprise level technologies to smaller businesses. Creative Companies and businesses in all industries can remain productive, save money and stop worrying about IT resources with the Synology Disk Station.

### Traditional PC File Server Compared to Synology Disk Station

	Traditional PC File Server	Synology Disk Station
<b>Permission Creation</b>	Complex two-tiered process	Wizard-based user creation and management
<b># of Concurrent Connections Allowed</b>	Limited by OS or numbers of CAL	Starting with 32 concurrent connections, no CAL's
<b>Maintenance</b>	Frequent hardware/software checking, Updates required very frequently for patches, security fixes	Low-maintenance, auto-notification, updates quarterly
<b>Data Resilience</b>	None integrated	Integrated RAID, Backup wizards to DAS, DS, rsync
<b>Total Cost</b>	Hardware + CALs +IT Staff to manage	Hardware

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### For Additional Information on Synology Products

**Website:** <http://www.synology.com>

**Pre-sales support:** <http://www.synology.com/enu/company/contact.php>

**Resellers:** <http://www.synology.com/enu/sarp/index.php>

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