



How to use BackupAssist for Rsync for maximum efficiency and profit with your own SMB Data Hosting Service

Executive Summary

Setting up a profitable Data Hosting Service for your SMB clients is no easy feat. There are so many things to consider: what hardware should I use? In what format should I store the data? Should I use my own Servers, or store the data in the 'Cloud'? How can I keep my bandwidth costs to a minimum and maximize my profit margins?

This Whitepaper explains how you can use BackupAssist for Rsync with the popular, inexpensive Rsync protocol to create an easy to manage Data Hosting Service for all your SMB clients and offers some tips and recommendations to help you operate more profitably from the start.

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What is Rsync?

Rsync is an open source software application that was originally written for Unix systems, but is now also available for use with Windows and Macintosh platforms. Rsync is used to synchronize files and directories from one location to another, even via the internet.



Why use Rsync for your SMB Data Hosting Service?

Free to install and easy to set up.

As Rsync is an open source software application, it is free to download and install – helping you to minimize both your initial outlay and ongoing expenditure. Additionally, Rsync can be set up on any Linux or Windows machine that you may want to use as a data host, giving you more flexibility. It may even be used effectively when utilizing Cloud Storage Services like Amazon S3.

What's more, Rsync is very easy to set up and install. Most Linux distributions come with the necessary pre-requisites to set up an Rsync Server and for Windows platforms, you can easily download and install cw Rsync Server to facilitate the application. You can find easy to follow set up and installation instructions for Rsync on the BackupAssist website. Just visit www.backupassist.com/rsync/

Increase bandwidth efficiency for faster backups and reduced costs.

Rsync employs a bandwidth efficient method for offsite data transfer via the internet that makes it more reliable, cost effective and time efficient. Before Rsync, many I.T. Consultants and Resellers were reluctant to implement offsite internet backups for their clients due to some inherent problems: unreliable internet connections, the unpredictability of network speeds and business data growth, and the inefficiency of traditional internet-based software applications when it comes to transferring large amounts of data.

Rsync has solved all these problems, because it minimizes the amount of data transferred each time a backup runs. Only the data that has changed on your client's server since the last backup - right down to the byte level - is copied to your offsite data host. That makes the transfer more reliable, saves time and saves money. This technology is also known as "in-file delta incremental transfer".

In terms of providing a profitable SMB Data Hosting Service, Rsync is invaluable because the reduced data being pushed through the pipe each time a backup runs, allows you to stream more backups simultaneously to your data host machines (or Cloud Storage Service). This helps you accommodate more client sites per data host to maximize revenues, and also helps you to minimize your hardware or Cloud Storage investments in terms of drive space usage.

What is BackupAssist for Rsync?

BackupAssist for Rsync provides a fully automated management solution for internet backup. It works with the Rsync protocol to make it easy to control the perfect extra layer of protection that internet backups provide, in addition to facilitating traditional local backup to tape or disk at the same time. It's fully 'cloud' ready so you can **backup to any Rsync cloud provider** you choose, including Amazon S3 Rsync, or RSync.net. (Or, as this whitepaper outlines, easily set up your own Rsync Server for self-hosted backups.)

BackupAssist makes Rsync even more reliable by incorporating a simple, easy to use Windows-based user interface, open file VSS support, automatic scheduling and email reporting.

Why use BackupAssist for Rsync?

Set up quickly without any additional administrative overheads.

In order to make your SMB Data Hosting Service a profitable operation, you need to be able to set up a new client quickly and manage their requirements without any additional administrative overheads. BackupAssist for Rsync gives you a simple management tool kit that helps you provide fast set ups, and reliable, professional ongoing SMB Data Hosting Services.

BackupAssist for Rsync eliminates the headaches that traditionally go with managing Rsync internet backups for multiple clients. With simple wizards that give you the capacity to choose your Rsync destination, decide which files you want to back up and select one of the easy built-in scheduling options, you can set up a client in just a few minutes. You just point and click and the rest is automatic.

Profit from each installation of BackupAssist for Rsync on your client's systems.

To facilitate the ease-of-use that comes with using BackupAssist for Rsync's management features, install a copy of BackupAssist for Rsync on each client's server. In addition to supplying yourself with easy management of your accounts and your clients with an extremely reliable internet backup strategy, you can enjoy a significant margin on the RRP of each BackupAssist for Rsync installation as a BackupAssist Reseller. (Find out more and how to apply when you download a free trial at the end of this whitepaper.)

Minimize the risk of overload and maximize reliability.

Once you've set your options, BackupAssist will continue to run on autopilot, minimizing the requirement for intervention from you. BackupAssist's built-in scheduling options can also be used to help you maximize the efficiency of streaming data to your host machines – you can make sure that backup runs are timed to avoid the possibility of overloading your internet bandwidth capacities.

BackupAssist for Rsync will also send you an email report with the result of each backup. So you can check in a matter of minutes that all your client's internet backups have run successfully and their offsite data is safe and secure. (In the event that there is a problem, BackupAssist for Rsync will flag it in the report and reference you to a solution in our Knowledgebase, where you'll find step-by-step instructions to help you resolve the issue quickly).

Decide where the data goes and maximize your profits.

Unlike most internet backup software which locks you into a particular data host, BackupAssist allows you to choose where and when the data goes. This is vitally important if you're planning to host the data yourself using your own Servers. And if you're using a Cloud Hosting Service, you will have the flexibility to choose the service that gives you the best bulk rates, so you have more control over your expenditure which is vitally important to the profitability of your SMB Data Hosting Service business.

Other internet backup software packages offer very limited functionality and flexibility in this regard. BackupAssist will give you more options including:

- A choice of hardware and operating systems: any Rsync Server (Windows or Linux) can be used to host your data.
- Complete control over the end destination of the data – you can store it in your own office, or even at an interstate or overseas branch office.
- You can even choose a third-party data centre to reduce your initial hardware setup costs. (See the end of this document for BackupAssist partner recommendations). This makes it easy to store data in another state or country if you do not have any satellite offices and gives you the freedom to negotiate with suppliers for bulk discount rates.
- We also recommend that you store your data in an Rsync-enabled NAS device. These can provide an inexpensive turnkey solution. (You'll also find some hardware recommendations at the end of the document.)

Seed the initial backup to save time and money on setups.

When performing the initial set up process on the data host for a new client, you will need to transfer a full backup of all selected files required. Depending on the amount of data selected, performing a full backup via the internet may be slow and costly. If you have a large amount of data to transfer on the initial backup, you may want to save time and money by transferring the data physically using a USB HDD or disks, which can be easily transported to the data host and uploaded locally.

This process is referred to as 'seeding'. Cloud Data Hosting Services usually offer a seeding option for new client setups. It's an easy, inexpensive way to ensure that your initial backup is complete and can provide a reliable platform for your ongoing data transfer schedule.

Once the initial seed to the data host is complete, each successive backup will be an in-file delta incremental backup. That means only the information that has changed on a day to day basis will be transferred, incurring minimal data transfer costs.

Increase profits and data security with automatic compression and encryption.

BackupAssist recommends hardware data storage devices that have SSH enabled, in order to facilitate further data compression and the added security of data encryption. **Rsync over SSH** communication provides encrypted data transfer over the wire, so BackupAssist automatically uses a public/private key method of authentication to facilitate the process. With BackupAssist, you will only be asked for your password once when registering with the Server and your public key will be uploaded to the server, enabling BackupAssist to log on in a secure manner in future.

BackupAssist actually supports three types of Rsync server modes – **Rsync over SSH, Rsync Daemon over SSH, and Rsync Daemon**. Where possible, we recommend **Rsync over SSH** or **Rsync Daemon over SSH**. (Rsync Daemon mode is only provided for compatibility reasons, in order to support devices or Rsync Servers that do not have SSH enabled.)

What's the difference?

- **Rsync over SSH** and **Rsync Daemon over SSH** encrypts all communication “over the wire” so your data is secure in transit.
- **Rsync Daemon** uses non-encrypted data transfer.

When using Daemon mode with BackupAssist, your password is stored in encrypted format by BackupAssist and provided every time the backup runs. When transferring data over the internet in Daemon mode without SSH, traffic will be unencrypted, so we recommend that you only use it with closed network environments, such as LANs or WANs connected by a secure VPN. Note that VPNs inherently encrypt communication between nodes, so using Rsync in Daemon mode over a VPN is still secure.

Rsync limitations

The more information you have, the slower it is.

Even though Rsync only transfers the data that has changed on a day to day basis, it still must read all of the data in the file set to check which data has changed. This makes Rsync internet backups a disk/CPU intensive operation that can take longer and longer the more your data grows, no matter how little data has actually changed. This can make Rsync internet backup unsuitable for businesses that may have large amounts of information in day to day use.

We recommend that wherever possible, you use one of the other backup methods provided in BackupAssist (such as the BackupAssist Zip Engine) to regularly archive infrequently used data, so the amount of actual data in day to day use is minimized.

Simultaneous connections may become unreliable with heavy data transfer loads.

With Rsync, simultaneous connections may become unreliable with heavy data transfer loads, and it is therefore recommended that you limit connections to your own Server to **five at any one time**. Depending on the client's data storage requirements and the bandwidth speeds available, you may

increase this number with caution – however day to day data transfer requirements are difficult to predict and we recommend that you remain within the recommended limit wherever possible.

With BackupAssist it is possible to schedule data transfer to your Server at different times. We recommend that you use this facility to minimize the risk of overloading.

Additional resources

To find out more about BackupAssist for Rsync and how you can use it to maximize efficiency and profitability in your SMB Data Hosting Service, please read these articles and whitepapers.

[BackupAssist for Rsync Product Tour](#)

[BackupAssist for Rsync Setup Whitepaper](#)

[BackupAssist for Rsync Powerpoint Presentation](#)

Hardware recommendations

For information about NAS devices that we've tested, which work well with Rsync see our Technical Whitepaper [Rsync-enabled NAS Hardware Compatibility List](#).

Hosting service recommendations

At present, BackupAssist recommendations for hosting services include Amazon S3 via S3Rsync. We are currently researching further companies to assess their reliability and will post these results on our website at www.backupassist.com as they become available.

Get a 30 day free trial of BackupAssist for Rsync now!

You'll find BackupAssist for Rsync one of the most user-friendly backup software packages currently available on the market. Starting at US\$129.00 for a Standalone Version installation, it's also one of the most cost-effective ways to help you set up an SMB Data Hosting Service.

So why not try it for yourself with a no-obligation, 30 day free trial? If you're planning to set up your own SMB Data Hosting Service, simply apply to become a BackupAssist Reseller when you download the free trial – that way you'll make a significant margin on each installation of BackupAssist for Rsync for every client using your service and increase your profits whilst enjoying easy monitoring of all your accounts. Once approved as a Gold Reseller, you'll also receive a fully functional free NFR of BackupAssist valued at over US\$249!



<http://wp.backupassist.com/datahosting-BA>