



Archiware P5: Technical Guide

v2.0 Dec 2020

Transfer to Cloud Storage using a Backblaze B2 Fireball

P5 Cloud storage - setup and best practise guide



P5 Archive: Transfer to Cloud Storage using a Backblaze B2 Fireball

Recent P5 versions allow large datasets to be archived to cloud storage by first obtaining a physical disk storage device from the cloud provider for archiving locally across your LAN, and then having this device shipped back to the cloud storage provider.

In this article, we'll look in detail at how to use the Backblaze B2 Fireball device to quickly transfer data up into the cloud. A detailed step-by-step is also available here on our YouTube channel.

https://youtu.be/kVNVFVX2PG0



More guides like this one available here:

p5.archiware.com/ manuals There are a number of steps involved in this process, including interactions with Backblaze Fireball and the Backblaze website using your Backblaze account.

- 1. Request and receive a Backblaze Fireball (Synology NAS device), choose a cloud storage bucket that will be associated with the Fireball
- 2. Connect device to LAN, locate IP and configure the Fireball storage so that it's shared with the host where P5 runs (via SMB)
- 3. Use Archiware P5 Archive to write archive data to the Fireball
- 4. Detach Fireball storage from P5
- 5. Return Fireball to Backblaze, await data in nominated B2 bucket
- 6. Attach B2 bucket (cloud storage) to P5
- 7. Test!

This guide assumes some knowledge of the Backblaze B2 cloud storage product. You should familiarise yourself with B2 by setting up an account at www.backblaze.com and learn how to create B2 storage 'buckets' and perform some basic operations on them.

Let's now go through the whole process in more detail.

A – Configuring storage outside of P5

A1. Once unpacked, and connected to power and your LAN, you'll need to discover the IP of the Fireball/Synology device. Point your web browser at http://find.synology.com to run a utility that will scan your LAN and provide the IP of the device which you can then use to further configure. Your Backblaze B2 account login will provide the login credentials required to login to and configure the Fireball.

Once connected to the web-admin interface of the Synology device, click on the Control Panel and then 'Shared Folder'. In here you'll find a pre-configured share called 'DataForB2'. This shared volume is encrypted by Backblaze so that any data you write here will remain encrypted as the device travels back to Backblaze. In order to write to this share, it must be temporarily de-crypted using the 'Encryption Key' password available in the Backblaze B2 website.

Highlight the DataForB2 share, and select 'Mount' in the 'Encryption' menu. You'll be prompted for the Encryption Key password. This will unlock/decrypt the share, you'll now be able to mount this share via SMB from other hosts on the LAN.

• < > 🗉	0	192.168.234.158	Ċ	0 0
5 Fi	reball	Synology Web Assistant		ireball78 - Synology DiskStation
**				👳 👤 🔎 🛅
Search File Sharing	Creste - Edit DataForB2 Volume 1	Control Panel Delete Encryption - Action -	P - C	× 3
 Shared Folder File Services User Group Domain/LDAP Connectivity 	Enter encryption key: Import encryption key:	Mount This field is required. Browse OK Cano		— 🖈 च System Health
QuickConnect External Access Network DHCP Server			1 item(s)	Healthy Your DiskStation is working well. ver Name firebal78 N 1 - 192.168.234.158 C time 19:32:11
				RAM 1% LAN •1 kB/s •1 kB/s 00 60 60 00 0 0

A2. Now that you have your Synology device configured, go to the host running P5. In our example we're using a Mac. Connect to the SMB share by providing the IP of the Synology device. Provide the authentication information from the B2 website to connect to the DataForB2 share. This will now become mounted within your operating system. P5 will now be able to write to this storage.

Enter your na "192.168.234	me and password for the server .158".
Connect As:	Guest
	Registered User
Name:	backblaze
Password:	
Rememb	per this password in my keychain

• • •		📇 DataForB2		
< >		🗸 🏘 🖌 🚹 🖂 🔍 Sear	ch	
Favourites	Name	Date Modified	Size	Kind
() AirDrop				
Recents				
Applicatio				
Desktop				
P Documents				
O Downloads				
Locations				
■ 192.16 ▲				
fireball78				
Network				
Network				
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le Rot				
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Calb		0 items 69 09 TB available		
		0 items, 69,09 TB available		

B – Configuration of P5 Archive

In this section, we configure an Archiware P5 Archive workflow, via configuration of storage and creation of an Archive Plan. This will allow archival of data accessible by the P5 system. This data will later be moved to B2 cloud storage.

B1. Connect to the Archiware P5 web-admin interface. Within the P5 Archive tab, click on 'Storage Manager' and then the 'New Disk Storage' button. This Disk Library will create virtual tape volumes on the Synology NAS volume that is mounted. You'll therefore need to select the folder where the SMB share is mounted. Allow P5 to use 'the entire free space' and click to label the volumes into the 'Default Archive Pool'.

	jd-1015.local
Setup a virtual disk library	
P5 automatically configures the sto	prage space at its disposal. For this purpose it creates
files (P5 volumes) into which your o	data will later be saved.
Volumes directory:	/Volumes/DataForB2
P5 can u	ise:
	• the entire free space
	limited space
	GBytes
Create (label) volumes	for:
	🔿 Default Backup Pool
	Default Archive Pool
	🔿 do not label
	- Select a pool -
	Close Apply

B2. An extra step is required to avoid P5 compressing data before it's written to the Synology/Fireball device. Avoiding have the P5 host needing to compress everything written to the Synology, allowed best possible write performance.

Visit 'Standalone Tape Drive' to edit the virtual tape drives. In here you'll find two drives. Double click on each in turn, and set 'Data Compression' = 'No' for both of the drives.

n				2	C		
	ckup	Backup20	6o Synchronize Arc	hive	Restore		
ARCHIVE	Standa	alone Tape Driv	re 🔽				
Oetting Started		Name	Description	Media type	Drive type	Cleaning	Operation
🕞 Overview	8	drive_1.1	Drive 1 of disk library 1	DISK	DISK	no	Empty
🛱 Manual Archiving	F	drive_1.2	Drive 2 of disk library 1	DISK	DISK	no	Empty
SOURCE							
Clients							
TARGET							
🔠 Storage Manager							
🔚 Standalone Tape Drive							
Loud Service							

		jd-1015.local				
General Setup	Additional Option	s				
Drive	Description		Status			
drive_1.1	Drive 1 of disk lib	rary 1	Enabled	*		
Drive Option						
	Data compression:	No 👻				
			1	Close	Apply	
					пррту	

B3. Create an archive plan, selecting as Target Storage the 'Disk Archive' pool. If needed, create your own index (rather than the 'Default – Archive' index), and configure meta-data fields and preview generation according to your requirements.

Indexes, previews and meta-data will be stored within P5's index databases and 'Clips' folders and remain part of the P5 installation on local storage within the installation directory. Only the Volume folders are migrated to cloud storage.

				d-1015.local		
General	Indexing	Auto Archive Op	otion	s Previews Me	tadata	
Plan	Descri	otion		Status	Auto start	
	Backb	aze_B2_Archiver		Enabled 👻	Disabled 👻	
Data						
Targ	et storage:	Disk-Archive	•		disk volumes or an online	cloud
T	arget index:	Defects Archite	•	service . More Option	s or indexing archived data	
Ic		Default-Archive				
	File filter:		*	Use a filter to exclude	data from archiving.	
Access						
List o	of group(s):			A list of valid groups t	o allow access to this arcl	nive plan.
				If empty, all groups ar	e authorized.	
Sele	ect a group:		Ŷ	- +		
					Close	Apply
					Close	Арріу
			_			

B4. Using the Archive Plan that you just created, archive your data. Use 'Manual Archiving' to browse local or remote filesystems and select the data you wish to archive. Trigger the archive job using the plan you created in the previous step.

••• < > 🗉		0		jd-1015.local		Ċ			0 0	Ø
💧 Firebal		Synology Web A	sistant		ireball78 -	Synology DiskStation		P5 Application Server: J	0-1015.local	+
		ynchronize Archive	Restore					Jobs/Logs P5	1	
ARCHIVE		calhost) Users) david) De								
Getting Started	Name ~	Modification Date								
Overview	Data for Archive	14-Oct-2020 17:2 15-Oct-2020 11:2								
Manual Archiving		10-04/2020 112	1.46 00							
SOURCE						Archive Selection	()			
Clients						Name		*		
TARGET						Data for Archive				
🔢 Storage Manager						fireball-credentials.rtf				
🔚 Standalone Tape Drive										
Cloud Service										
JOB SCHEDULE										
🛱 Archive Plan										
MEDIA MANAGEMENT										
Pools										
🖹 Volumes										
LTFS Exchange										
						— + Ar	rchive			
	5									_
ADVANCED OPTIONS	Archive Add to	archive selection					_			

B5. After the archive job completes, look at the used storage on the Synology/ Fireball device and confirm your data is correctly being written.

Browse the archive index and verify you can see your archived data inside. Previews and meta-data captured will also be visible if you configured this in the archive plan setup.

••• < > 🗆	0		jd-1015.	local	C		0 1
🔥 Fir	eball	O Synology Web Assis	tant	🔄 fireball78 - Synolog	/ DiskStation	P5 Application Server: JD-1	015.local
Home	Backup Backup2Go Synchronize	Archive	Restore			Jobs/Logs P5	
	Search 📑 Gallery 📑 Inform	nation				🕲 15-0ct-2	020 13:17 • 🕅
Getting Started	◀ Default Archive 〉 Users 〉 day	id 〉 Desktop 〉 Data for	Archive) JPG_DEMO1	>			
ROWSE	Name +	Archive Date	Modification Date	Size	P1060467.jpg	P1080143.JPG	
Backup	GDPR.docx	15-Oct-2020 13:17	06-Jul-2018 12:21	201.51 KB	1	1	
	P1060467.jpg	15-Oct-2020 13:17	12-Apr-2017 10:16	5.23 MB			
Archive	P1080143.JPG	15-Oct-2020 13:17	27-May-2013 14:34	3.60 MB			
	P1090311.JPG	15-Oct-2020 13:17	16-Jun-2012 23:59	4.81 MB		100 M 100	
	P1090319 - Version 2.JPG	15-Oct-2020 13:17	27-May-2013 14:32	4.10 MB		NA CA	
	P1090345.jpg	15-Oct-2020 13:17	18-Jun-2012 11:16	3.42 MB		KAN BY NO BR	
	P1090345.png	15-Oct-2020 13:17	14-Feb-2013 10:33	13.98 MB	P1090311.JPG	P1090319 - Version 2.JPG	
	P1090347.jpg	15-Oct-2020 13:17	18-Jun-2012 11:16	4.25 MB	27 1 10 10 10 10 10 10 10 10 10 10 10 10 1	Subjective Statistics	
	P1090347.png	15-Oct-2020 13:17	14-Feb-2013 10:33	15.23 MB			
	1090349.JPG	15-Oct-2020 13:17	17-Jun-2012 03:52	5.35 MB	the state of the second	and malesting	
	P1090349.png	15-Oct-2020 13:17	14-Feb-2013 10:33	13.47 MB			
	P1090357.JPG	15-Oct-2020 13:17	17-Jun-2012 04:00	5.85 MB			
	P1090357.png	15-Oct-2020 13:17	14-Feb-2013 10:33	15.57 MB			
	P1090410.jpg	15-Oct-2020 13:17	23-Jun-2012 16:27	4.08 MB	P1090345.jpg	P1090345.pig	
	P1090410.png	15-Oct-2020 13:17	14-Feb-2013 10:33	15.59 MB	Store Frank	Street and	
	P1090411.jpg	15-Oct-2020 13:17	23-Jun-2012 16:27	4.75 MB	8986 21	E 936 20 20	
	P1090411.png	15-Oct-2020 13:17	14-Feb-2013 10:33	16.72 MB	6698.333	18 6 9 8 9 8 9 8 9 8 9 8 8 9 8 9 8 9 8 9	
	P1090412.jpg	15-Oct-2020 13:17	23-Jun-2012 16:27	4.41 MB			
	P1090412.png	15-Oct-2020 13:17	14-Feb-2013 10:33	15.69 MB	Nu a	No. 6	
	P1090438.JPG	15-Oct-2020 13:17	23-Jun-2012 08:39	6.31 MB			
	P1090438.png	15-Oct-2020 13:17	14-Feb-2013 10:34	18.52 MB	P1090347.jpg	P1090347.pig	
	P1090439.JPG	15-Oct-2020 13:17	23-Jun-2012 08:40	5.15 MB			
	P1090439.png	15-Oct-2020 13:17	14-Feb-2013 10:34	13.18 MB	A ION AND		
	D1000510 IDG	15.0+.2020 12-17	15. Jul 2012 00-22	6.76 MD	NY/ZOZ		
	Page 1 @	Items per page: 200		Displaying 1 - 45	Preview size:		
		e selection					

B6. Once all archiving is complete, highlight the Pool and select 'Detach' from the cog menu at the bottom of the window.

You will be prompted for a local folder that will serve as a 'Staging Area'. This area is used as a cache where data is stored temporarily before upload to cloud and volumes are cached during restores. The recommended size is 1/1000 of the transfer capacity. If using version 6.1 or later, considerably less storage is required for the staging area. Refer to 6.1 release notes for further details.

ARCHIVE	Pools	•			
Oetting Started		Name		Description	Media type
ᠾ Overview	ď D	Disk-Archive		Default disk archive pool	DISK
🚊 Manual Archiving			etach	- Prepare Data for Transfer	
SOURCE		A	ttach	- Finish Data Transfer	
Clients			inable		
TARGET			isable		
🔠 Storage Manager					
🔚 Standalone Tape Drive					
Cloud Service					

Preparing the Pool for Cloud Import
This process prepares the data transfer for a first time import using an import service from the cloud provider. The following changes are made in the P5 configuration and the data storage structure:
The pool will be detached (disabled) for local use and set into transfer mode.All associated P5 disk libraries will be moved to the staging area.
Staging Area - This area is used as cache to prepare the cloud transfer and as buffer for recovery. The required she depends primarily on the maximum expected capacity of a recovery. Recommended size is 1/1000 of the total capacity.
Staging Area: /Users/david/Desktop/B2_Cache_fcr_P5 ····
Note: This process can take some time depending on the data structure. If there are volumes relating to other pools in the disk libraries which are not being transferred, the staging area must be increased accordingly.
Next: After the successful completion of this process, the data can be sent to the cloud storage provider for import using the transfer unit. Finally, the pool can be re-attached for use.
Cancel Detach

B7. Verify pool is now detached – it will show within the P5 UI as disabled, along with all the volumes contained within it. Later, when the volumes are moved to cloud storage, we will re-attach the pool, causing the volumes to be enabled and available to use.

ARCHIVE	Pools				
💿 Getting Started		Name	Description	Media type	Cloud serv
🚺 Overview	×	Disk-Archive	Default disk archive pool	DISK	
🞴 Manual Archiving					
SOURCE					
Cliente					

C - Sending data to cloud storage provider

C1. We now prepare the Synology/Fireball device to returning to Backblaze. Re-visit the web-admin interface for the device, highlight the shared volume 'DataForB2' and click on 'Unmount' in the 'Encryption' menu. Unmounting the volume allows the encryption to protect your data stored on the volume during transit.



C2. Shutdown the device, using the command in the user menu (top right). Repackage according to the instructions provided and arrange pickup by Backblaze.



D – Await news from Backblaze, re-attach the pool to connect to cloud service

D1. Once the Fireball has been received by Backblaze, they will copy its contents into the B2 Bucket you specified when ordering. When you receive an email letting you know this has happened, login to your B2 account and browse the bucket. You should see volume folders that were written by P5 Archive.

•• <>	O	🗎 🗎 tree-a	ms5-0000.backblaze.com		Ċ		ÔØ
BACKBLAZE			Personal Backup E	lusiness Backup	B2 Cloud Storage	Blog Help	My Account
		Browse Files			Welcome jd,	Sign Out	
Buckets App Keys	B2 Cloud Storage	DI OWSE FILES					
	Buckets						
		Buckets / EuropeFour					
	Browse Files Snapshots	↑ Upload 🖄 Download	🔁 New Folder 🛛 🖂 Del	ete 🔄 Snapshot			
	Reports				Selected: 0 Files	: 0 bytes	
	Caps & Alerts	Name Name		Size Uple	paded		
	Fireball	10001		62.3 GB 11/1	6/2020 17:22	0	
	Business Groups	-					
	Group Management Invite & Approve	0 🔚 10002		173.8 KB 11/1	6/2020 17:22	0	
	Users/Computers	10003		173.8 KB 11/1	6/2020 17:22	0	
	Account				2020		
	My Settings	10004		173.8 KB 11/1	6/2020 17:22	0	
	Billing	🗆 🚘 10005		173.8 KB 11/1	6/2020 17:22	0	
		10006		173.8 KB 11/1		0	

D2. Once you've confirmed you can see the volume folders, back in the P5 web-admin interface, visit 'Cloud Service' under the P5 Archive tab and add the credentials to allow access to the B2 Bucket where your data resides.

	jd-1015.local	
Object Storage		
Cloud Service Provider:	Backblaze B2	
Description:	Backblaze B2	
Account Credentials		
Account/Key ID:	0033b17d26220a9000000	0003
Application Key:	•••••	•••
Bucket Name:	EuropeFour	
Parallel uploads:	1	
	Number of files to upload cor	ncurrently
	Test Connection	Close Apply

Use the 'Test' button to verify P5 can connect to the cloud service before proceeding.

D3. Highlight the previously detached pool, and select 'attach' from the contextual menu.

	Name	Description	Media type	Cloud service	Usage	Approx. used capacity	Free	Volume
X Dis	Disk-Archine	Pofault disk arabius na	SK DISK		Archive	58.03 GB	61.94 TB	62
		Detach - Prepare Data for T	ransfer					
		Attach - Finish Data Transfe	r					
		Enable						
		Disable						

You will be prompted to select the Cloud Service that you set up in the previous step.

•	jd-1015.local
Finish data transfer	
This process completes the da	ata transfer to the cloud storage using an import service. It validates
the local P5 configuration and	the transferred data. The following steps are made in detail:
 If not already done, the c 	cloud service must be configured.
 The cloud service is assi 	gned to the pool and all its volumes.
 A label inventory of all juil 	keboxes containing volumes relating to the pool is executed.
 The pool is enabled for u 	se again and the transfer status is reset.
Cloud Service:	Backblaze B2
Note: This process can take s	ome time depending on the data structure.
Next: After the successful cor	npletion of this process, the pool can be used normally again.
	Cancel Attach

D4. The attach process that you just started will run a couple of jobs, visible in the Job Monitor window. Monitor execution of these jobs to completion.

		jd-1015.local				
Job Monitor	Plan Name/Operation		Client	Level	Start Time	Job
Status Any Scheduled Running	 Conclude pool transfer Running a mount inventory f Running a mount inventory for ju drive_1.2: found volume 100 	tebox disk_lib_1	localhost	Oct 15 13:1	16.Nov.2020 17:38 16.Nov.2020 17:38 0:10 +0200 2020	10011
🗹 Recently Finished Jobs						
Type Any Backup Synchronize			۲			
Others	Start now Stop/Cancel					
● Any ● localhost	Plan Name/Operation Client	Level Size	Start Time	End T	îme Duration	Job
Server Time 17:38:45 🧿		< Previous R	Result 0 - 1	Next >>		

This process connects and reads metadata information from the volumes stored in the cloud and copies some of this locally.

D5. Verify that the pool is now enabled, and all the volumes within it are also now enabled and ready for use.

N	lame	Description	Media type	Cloud service	Usage	Approx. used capacity	Free	Volumes	Drive
¢ •	lisk-Archive	Default disk archive pool	DISK	Backblaze B2	Archive	(58.03 GB	61.94 TB	62	

D6. Perform a test restore. Data will be downloaded from cloud. Monitor the running restore job and confirm data is being downloaded from the cloud bucket.

••• < > 🗉	0		jd-1015	local		C	Ô Ć
	🎄 Browse Files				0	P5 Application Server: JD-1015.local	
Home	Backup Backup2Go Synchronize	Archive	Restore			Jobs/Logs	P5
	🖸 Search 📑 Gallery 📑 Inform	nation					🕙 15-Oct-2020 13:17 • 🛛 V
Getting Started	▲ Default Archive 〉 Users 〉 day	id) Desktop) Data for /	Archive) JPG_I	DEMO1 >			
ROWSE	Name +	Archive Date	Modification Da				
	GDPR.docx	15-Oct-2020 13:17	06-Jul-2018 12	21 201.51 KB			
Backup	P1060467.jpg	15-Oct-2020 13:17	12-Apr-2017	Restore Selection	×		
Archive	P1080143.JPG	15-Oct-2020 13:17	27-May-2013	Name			
	P1090311.JPG	15-Oct-2020 13:17	16-Jun-2012 :	P1090345.png			
	P1090319 - Version 2.JPG	15-Oct-2020 13:17	27-May-2013	P1090345.png			
	P1090345.jpg	15-Oct-2020 13:17	18-Jun-2012	P1090347.pg			
	J P1090345.png	15-Oct-2020 13:17	14-Feb-2013	P1090349.JPG			
	P1090347.jpg	15-Oct-2020 13:17	18-Jun-2012	P1090349.0PG	_		
	P1090347.png	15-Oct-2020 13:17	14-Feb-2013	P1090345.JPG	_		
	🗾 P1090349.JPG	15-Oct-2020 13:17	17-Jun-2012		_		
	P1090349.png	15-Oct-2020 13:17	14-Feb-2013				
	P1090357.JPG	15-Oct-2020 13:17	17-Jun-2012				
	P1090357.png	15-Oct-2020 13:17	14-Feb-2013				
	P1090410.jpg	15-Oct-2020 13:17	23-Jun-2012				
	P1090410.png	15-Oct-2020 13:17	14-Feb-2013				
	P1090411.jpg	15-Oct-2020 13:17	23-Jun-2012				
	P1090411.png	15-Oct-2020 13:17	14-Feb-2013				
	P1090412.jpg	15-Oct-2020 13:17	23-Jun-2012				
	P1090412.png	15-Oct-2020 13:17	14-Feb-2013				
	III P1090438.JPG	15-Oct-2020 13:17	23-Jun-2012				
	E P1090438.png	15-Oct-2020 13:17	14-Feb-2013				
	P1090439.JPG	15-Oct-2020 13:17	23-Jun-2012	- +	Restore To		
	/Users/david/Desktop/Data for Archive/Ji	PG_DEMO1/P1090357.JPG					
	Page 1 2	Items per page: 200					Displaying 1 -

• • •	jd-10	15.local					
Job Monitor	Plan Name/Operation		Client	Level	Start Time	Job	
Status Any Scheduled Running	Copy volume 10001 churks, total: // Copy volume 10001 churks path : /Users/david/Desktop/ // Copy volume 10001 churks, total:	B2_Cache_fo	_P5/DataF	orB2/10001/00/00			0013 @ 5.
	Start now Stop/Cancel						
Client							
 Any 	Plan Name/Operation	Client	Level Si			Duration	Jo
Iocalhost	E Conclude pool transfer E Running a mount inventory for jukebox disk_lil	localhost		16-Nov-202 16-Nov-202		8 mins 3 secs 7 mins 47 secs	10
	<< P.	revious	Result 0 - 2	Next >>	1		