

BDR for ShadowProtect Solution Guide and Best Practices

Updated September 2015



Table of Contents

Process Overview	. 3
1. Assess backup requirements	. 4
2. Provision accounts	. 4
3. Install ShadowProtect	. 5
4. Prepare to configure ShadowProtect	. 5
5. Configure ShadowProtect	. 5
Add additional managed computers to this console	. 6
Connect and manage from this console	. 6
Activate a license	. 7
Create a new destination	. 7
Create a new backup job	. 8
Configuring ImageManager	11
Customizing retention settings	13
Configuring eFolder Online Backup Manager	14
Create a preload (seed) drive2	20
Restoring, migrating, or virtualizing servers2	20
Restoring individual files	20
Recovering from a disaster	21
Additional assistance	21

Copyright © 2015 eFolder Inc. All rights reserved. eFolder, Inc. is the sole author of this document; use of the StorageCraft and ShadowProtect trademarks does not imply official endorsement by StorageCraft Technology Corporation. eFolder and the eFolder logo are trademarks of eFolder Inc. StorageCraft, ShadowProtect, and their respective logos are a trademarks of StorageCraft Technology Corporation. eFOLDER AND STORAGECRAFT TECHNOLOGY MAKE NO WARRANTIES, EXPRESSED OR IMPLIED, IN THIS DOCUMENT.

Process Overview

This Solution Guide will walk you step-by-step through the process of implementing your customer's **StorageCraft ShadowProtect** software with **eFolder BDR for ShadowProtect's** services.

To complete this process for your customer, you will:

- 1. Assess the backup requirements of your customer.
- 2. Provision eFolder accounts for computers that will be backing up data remotely.
- 3. Install ShadowProtect on those computers requiring volume-level backups.
- 4. Prepare and then configure ShadowProtect to perform volume backups of OS and critical server applications.
- 5. Configure eFolder Online Backup Manager to backup other files and your ShadowProtect volume backup images.

This Solution Guide will also briefly discuss how to

- Add managed computers to the ShadowProtect console,
- Connect and manage computers once they are on the ShadowProtect console,
- Activate a license,
- Create a new backup job,
- Configure ShadowProtect ImageManager,
- Restore, migrate, or virtualize servers,
- Restore individual files, and
- Recover from a disaster

If you have questions, wish to deviate from these guidelines, or have a different version of ShadowProtect, please contact us first at support@efolder.net.



1. Assess backup requirements

Assess the backup requirements of your customer by identifying the following:

- Critical application servers, such as Exchange, SQL, and SharePoint
- **D** The recovery point objective for critical applications
- □ Where to store volume backup images
- Data that must be retained for years, because of compliance or company policy
- □ Files that users may want to restore individually or access from the web

2. Provision accounts

- a) Create an account as needed on the **eFolder Web Portal**. For complete instructions, see <u>Create an account using the New Account Wizard</u>.
- b) Verify that the correct versions of ShadowProtect and ImageManager are installed. The *Download Product Installers* link is available in the top left corner of <u>https://msp.storagecraft.com/msp/</u>



c) Download **eFolder Online Backup Manager**, if needed, by hovering over **Support** on the eFolder Web Portal and selecting **Download Software**. Select the desired version. Scroll to the bottom of the page, click the **Export Regulation Compliance** box to agree, and then click **Download**.

Home My Account My Partnership Accounts Reports	Support W	eb Access Logout
Account Quick Search:	Download Software in (Auto)	✓ Search
	Pass Phrase Recovery	
	Partner Center	
CHOOSE YOUR OPERATING SYSTEM AND	Support Center	
🔘 Windows (32-bit) 🥝	Help 🕨	
🖾 Windows (64-bit) 🥝		
Linux x86 (32-bit)		
Linux x64 (64-bit)		
Mac OS X (Intel)		



3. Install ShadowProtect

Install ShadowProtect on each server that requires volume backups. **Do** *not* **use the PUSH install included with ShadowProtect.** Instead, use the installable package and install the **complete** package on your agents being backed up.

Note: The server must be rebooted prior to performing the first full backup.

4. Prepare to configure ShadowProtect

Prior to configuring ShadowProtect, complete the following preparation steps:

- Disable automatic defrag in the task manager.
- Do a defrag one time before the first full backup.
- Add exceptions to the firewall for ShadowProtect (or turn the firewall off).
- Set the **ShadowProtect Service** to run as the highest level admin, domain, or local admin. (This setting is based on whether the protected server is in a domain or not.)
- Disable Shadow Copies on each of the volumes to be backed up.

5. Configure ShadowProtect

a) On the BDR desktop, click the **ShadowProtect** icon to open the *ShadowProtect Console*.



b) Click the Management View tab.

For StorageCraft ShadowProtect				<u> </u>
File Tasks View Option	s Help			
View	🔊 🤔 Wizar 🖉 🌮 Manage			
🚑 Network View	Connect Disconnect	🕽 🚳 💆 🗞 dd Delete Edit Manage	1nstall	
	Computer	Connection Status	Last Backup Next Backup	Backu Backu

Add additional managed computers to this console

- 1. To add computers which already have a ShadowProtect agent installed to this *Management View* console, click the **Add** icon.
- 2. Enter data in the fields for Server Name, Server IP Address, Group name, Server Description (this can be the server name), Domain (or server name), User Name, and Password.
- 3. When all fields are completed, click OK.

View 🌸	Wizard & Managemer	nt View (3) Disk Map [DESKTOP] (3) Backup Job Delete Edit <mark>Manage</mark> Install	s [DESKTOP] 🖗 Destinations [DE:	SKTOP]
	Computer	Connection Status	Last Backup	Next Bac
Tasks ®	Monitor (1) Agent Status Good: 1	Failed: 0 Ignored: 0		
 Backup Restore Explore Backup 	🧳 Server Details		Ø 9/11/2014 9:01:0 9)/11/20
Dismount Backup	 General Server Name 	Server01		
image	Server Address	192.168.1.10		
4	Group name	Monitor		
Tools 🛞	Server Description	Server01		
🖪 Verify Image	Status	Disconnected		
Image Conversion Tool	Auth Settings			
a mage conversion room	Domain Name	Domain		
Help	User Name	ServiceAccount		
🖉 Help 🔹	Password	*******		
Backup				
Restore				
Browse Image				
Image Tools				
kicense 🛞				
Contraction of the second s				
Active		OK Cancel		

The newly added computers which have

a previously-installed ShadowProtect agent will now display in the list on this console.

Connect and manage from this console

- 1. Highlight the desired computer and click **Connect**.
- 2. After the computer shows **Connected**, click **Manage**.

Note: When you are actively managing a computer, that **computer's name** appears in new tabs along the top and in the Window banner.

Also, notice that the **license status f**or the server you are currently managing is now shown in the bottom left corner.





Activate a license

- 1. To activate a license, first Manage the desired computer.
- 2. Next, click Help; then, click Product Activation.
- 3. Now paste the **ShadowProtect Key** (previously provisioned on the eFolder Web Portal) in the **Serial Number** field.

😈 StorageCraft ShadowProtect [[DESKTOP]	
File Tasks View Options	lelp	
View	Backup Jobs [DESKTOP] Destinations [DESKTOP] Backup Hist Wizards Management View Disk Map	ory [DESKTOP] [DESKTOP]
붥 Network View	Connect Disconnect Add Delete Edit Manage Install	
Tasks 🛞	Computer Connection Status Last Backup Next Backup	Backu Backu
J Backup	Local Machine (1) Agent Status Good: 1 Failed: 0 Ignored: 0	
Restore	📀 DESKTOP 📃 Connected 📀 5/22/20 Never	0
 Explore Backup Dismount Backup Image 	Sectivation 23	
Tools	Serial Number: E21E-3DDA-361A-F9CD	
	MSP Name: My Company Name	
Verify Image Image Conversion Tool	Customer Name: My Customer's Company	
	Computer Role: Server Optional	
🕑 Help 🔹	example: Exchange Server	
Backup	Status: Active	
Restore	Cancel	1
Ø Browse Image	Concer	·]
Image Tools		
License		
Active		
ACUVE		
	C	AP NUM SCRL

Create a new destination

- 1. Before creating a new job, click on the **Destinations** tab.
- 2. Then click the **Add** button to create a new destination.

🔰 s	Stora	ageCraft	Shadov	vProtect	[DESKTOP]						23
🕴 Fi	ile	Tasks	View	Options	Help	_		_			
C	2	View		۲	Backup Jobs Wizards		Destinations [anagement view	and the second	P Backup Histo Disk Map [
	*	Network	. View		Connect Disconnect	Add Delete	🚺 💊 Edit Manage	9 Install			
	>	Tasks		۲	Computer	Connecti	on Status	Last Backup	Next Backup	Backu E	Backu
	-	Backup			Local Machine Agent Status	(1) Good: 1 Failed	d: 0 Ignored: 0)			
					DESKTOP	🚽 Conne	ected	Ø 5/22/20	Never	0	
		Dismour Image									
		Restore Explore I Dismour	Backup		Agent Status	State and the second second			Never	0	

ShadowProtect Solution Guide and Best Practices

efolde:

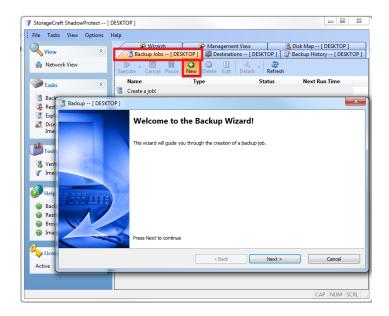
- 3. Enter the **destination path** and the **ShadowProtect credentials** in their respective fields.
- 4. Next, verify that the checkbox is clicked for the Verify destination access upon clicking OK field; then, click OK.

stination Name:		
estination Path:		
\192.168.1.20\VolumeImages\Server		Browse
Connect using the ShadowProtect Backup Service credential		
Domain or Computer or NAS:		
	-	
User Name:		
Administrator	-	
Qualified User Name:		
14 desistation bare		
. Administrator		
. vaministrator Password:		

Create a new backup job

1. To create a new backup job, click the **Backup Jobs** tab; then, click the **New** icon to start the Backup Wizard.

Click Next to continue.



2. Select the volume(s) for which you want to create images. Click **Next** to continue.

Note: It is important that the volumes be together in the same job.

If you are running Exchange or SQL and the logs are not on the same volume as the application database, the logs will not truncate **unless the volumes are together in the same backup job**.

Volumes to Ba Specify one or	ck Up more volumes to backup					
Drive Letter	Volume	File System	Size	Used	Partition Type	Partition Flags
-	WD50 00AAKX-60U6A		1	1	1	
□ *:\	SYSTEM	NTFS	100.00 MB	28.14 MB	NTFS	Act, Pri
☑ C:\	SO 🕥	NTFS	457.33 GB	260.76 GB	NTFS	Pri
☑ D:\	HP_RECOVERY	NTFS	8.24 GB	7.33 GB	NTFS	Pri
□ *:\	HP_TOOLS	FAT32	97.00 MB	5.28 MB	Unknown (0x27)	Pri
Disk 1: ST310	0003 40NS					
□ X:\	🌍 Data	NTFS	931.51 GB	379.01 GB	NTFS	Pri

elocer

 If the target path is on a network share, click the down arrow and select the destination previously created. Click Next to continue.

Backup Name and Destination Specify a name for your backup image	and select a location to save the backup	Į
elect network location or browse to a loca	al path	
(\\192.168.1.20\VolumeImages\S	erver)	Browse
pecify image names		-
File Name	Volume	
SYSTEM_VOL	*:\ (SYSTEM)	
C_VOL	C:\(OS)	
D_VOL	D:\(HP_RECOVERY)	
Double-click to rename file, or select	t it and hit space or F2	
	< Back Next >	Cancel

- 4. On the *Specify backup schedule* screen:
- a. Select Continuous Incrementals.
- b. Set the desired schedule.

The schedule on the top row will run a single incremental backup.

The schedule on the second row will run multiple backups according to the set schedule.

c. Click **Next** to continue.

Specify the backup schedu							
Schedule	VSS Increme	ntal Backups					
Now	Sun	Mon	Tue	Wed	Thu	Fri	Sat
🔿 Later	\checkmark						
R Weekly					Start time:	6:00:00 PM	*
Monthly							
Continuous Incrementals	Additional In Sun	cremental Back Mon	ups Tue	Wed	Thu	Fri	Sat
	Sun		V	Veu			Sat
NOTE: You must use the StorageCraft ImageManager			Sta	rt taking backu	ips at this time:	8:00:00 AM	*
service with this option.			Sto	op taking backu	ips at this time:	6:00:00 PM	· · · · · · · · · · · · · · · · · · ·
				Minutes bet	ween backups:		50 🌲
	✓ Use V	55		Ba	ckups per day:		
	i osc v				chaps per day.	**	

- 5. On the *Options* screen:
- a. We recommend that you select the **High** compression method.

High has about a 50% compression while **Standard** has about a 40% compression.

- b. Confirm that the **Split image file** check box is unchecked (do not split the image files).
- c. Click **Next** to continue.
- 6. On the *Wizard Summary* page:
- a. Leave the **Execute Now** checkbox *unchecked*. This setting will run the initial backup at the next scheduled time.
- b. Click **Finish** to complete the new backup job setup.

Note: If you wish to run the backup immediately, select the **Execute Now** checkbox.

Select Compression Method:	High	1	-	
Enter Password	Use Password File	Note: This option will encr	ypt the image file	
Password:				
Confirm Password:				
Split image file	640 - Mb			
Backup Job Name				
Backup Comment				
			*	
			- Advanc	

efolder

😼 Backup [DE	SKTOP]	×
Wizard Sumn Please review	hary the options you have selected before clicking Finish	
Volumes and Back Backup options: Split options: Advanced options	C: ((OS) to X: (VolumeImages)Desktop(C_VOL D:\(\PP_RECOVERY) to X: (VolumeImages)Desktop(D_VOL Compression method: High [] Encryption Maximum output file size: Automatic	E E E E E E E E E E E E E E E E E E E
Execute Now	Click finish to begin the ope	eration
	< Back Finish Cancel	



Configuring ImageManager

ShadowProtect uses forward deltas that require periodic management. **ImageManager** is a utility that consolidates hourly incrementals into daily incrementals, daily incrementals into weekly incrementals, weekly incrementals into monthly incrementals, and monthly incrementals into rolling incrementals.

TIP: You will only need to install **ImageManager** on the computer that is physically storing or managing the volume images. Typically, this is the same computer that is also using **eFolder Online Backup Manager** to transfer the volume images to the cloud.

The strategy for efficient off-site disaster recovery backups is to have eFolder back up only the daily, monthly, and rolling collapsed incrementals. The hourly and weekly incrementals will *not* be backed up remotely.

The first step after installing ImageManager is to configure the settings.

1. Click the ImageManager icon on the desktop.



- 2. Next, click the Agent Settings... button near the bottom left corner.
- 3. Verify that ImageManager is set to run shortly after midnight, as in this example where it is set to run at *12:05 a.m.*

🎒 Agent	Settings for D	DESKTOP					×
General	Performance	Global Retention	Locations	About			
Process							
	Folder Creden	anager processing tials	work each	day at:		12:05 AM	
Do	omain or Comp	outer or NAS:					
Us	ername:						
Pa	ssword:						
Qu	ualified Name:						
	You can over settings dial		ials for indiv	idual folde/	rs by settin <u>c</u>	g credentials ir	n the managed folder's
- Access							
	Change	Agent Password					
	Use global pa	ssword to open en	crypted ima	ges:			
					1	Save	Cancel

ShadowProtect Solution Guide and Best Practices

4. Click the **Global Retention** tab.

- Verify that Keep consolidated daily image files is set to at least 35 days.
- b. Clear the last checkbox, Move all consolidated image files to a subdirectory instead of deleting them. This checkbox should be unchecked.
- c. Finally, click Save.

J Agent Settings for DESKTOP	x
General Performance Global Retention Locations About	
Automatically clean up backup image files in all managed folders:	
Keep intra-daily image files for at least:	7 💽 Days (1-365)
Keep consolidated daily image files (-cd) for at least:	35 🚔 Days (7-365)
Keep consolidated weekly image files (-cw) for at least:	35 Days (30-365)
Cleanup consolidated monthly image files (-cm)	
Keep consolidated monthly image files for at least:	12 Months (1-120)
Move all consolidated image files to a subdirectory instead of deleting	them
(Note: ImageManager always deletes intra-daily image files.)	
ImageManager may keep image files longer than the days specified i operations. For example, if you chose to remove Consolidated Weekl files are not deleted until a Consolidated Monthly image file is create	y image files after 14 days, those
Sat	ve Cancel

efolder

5. Next, click **Start Managing Folder**.

- a. Browse to the folder that contains the ShadowProtect image files that you want to manage.
- b. Repeat this step for each folder that you want to manage.

🔜 StorageCraft ImageManager			×
localhost : 56765	Managed Folder Settings	2	
	Description:		
		🍌 Browse for Folder	
	This folder requires authentication		
	Use the default folder credentials defined in Agent Setting		
	O Define specific credentials for this folder:	B C XA	
Managed Folder Tasks	Domain or Computer or NAS:	🕀 🍶 LocalDisk	
Start Managing Folder	Username:	LocalServerReplication LocalVolumeImages	
Stop Managing Folder	Password:	Preload	
☑ ⊻erification Settings	Oualified Name:	🗉 🍶 System Volume Information	
Consolidation Settings	Quantieu Manie.	VolumeImages Desktop	
👿 Retention Settings	Use password to open images in this folder:	🕀 🍌 Server01	
👷 Eolder Settings	Assign sort priority relative to other managed folders:	🗄 🍶 Server02	
Agent Tasks	Assigning a sort priority will override column sort orders ar		
Connect to Agent	top of the managed folders list.		
Disconnect Agent			
🕂 Refresh	s		
Start Processing		S	elect Cancel
Notification Settings_			
🔀 Licensing			
Agent Settings			
Help Tasks			
View Help Contents			
			100

Customizing retention settings

If you have a system which requires a customized retention setting (different from the global default), you can adjust retention values manually.

StorageCraft ImageManager						×
localhost : 56765	Source Computer	 ▲ Managed Folder ➡ X\VolumeImages\Desktop 	Folder Size 0.00 KB	Free Space 92.5%	Image Files 0	Volume Capacity: 931.51 GB
	🗹 Automati	ngs al agent retention settings for this man cally clean up backup image files in this a-daily image files for at least:			7 (m) Days (1-365)	
	Keep con Keep con	solidated daily image files (-cd) for at la solidated weekly image files (-cw) for a	t least:		35 Days (7-365) 35 Days (30-365)	
Managed Folder Tasks		up consolidated monthly image files (- consolidated monthly image files for at			12 💮 Months (1-120)	,
Stop Managing Folder Verification Settings Consolidation Settings Retention Settings	(Note	all consolidated image files to a subdir : ImageManager always deletes intra-c geManager may keep image files longe	laily image files.)	-	needed for other operat	tions.
Solder Settings Agent Tasks Connect to Agent Disconnect Agent		example, if you chose to remove Conso ted until a Consolidated Monthly imag				
<u>Refresh</u> Start <u>Processing</u>				Save	Cancel	
Notification Settings Licensing Agent Settings						
Help Tasks View Help Contents						

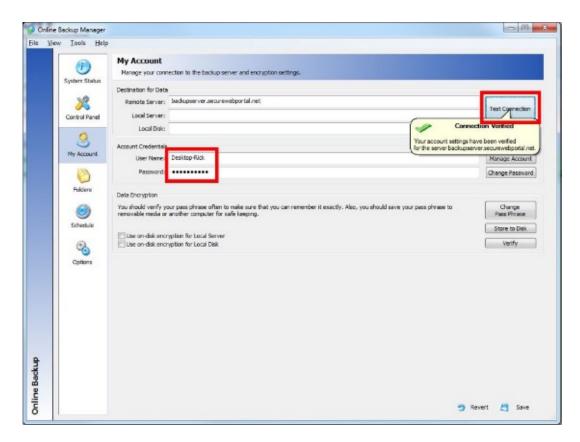
- a) Highlight the desired folder.
- b) Select **Retention Settings** on the left side.
- c) Click the checkbox Override global agent retention settings for this managed folder.
- d) Adjust the desired settings.
- e) Click **Save** when the new settings are complete.

Configuring eFolder Online Backup Manager

1. To configure the Backup Manager, click the **Online Backup** icon on the BDR desktop.



- 2. Select the My Account tab.
 - a. Enter the User Name and Password for the desired eFolder account.
 - b. Click the **Test Connection** button on the top right.



Note: Contact Technical Support if the *Connection Verified* window does *not* appear.

- 3. To create a pass phrase:
- a. Click Create Pass Phrase.
- b. Enter a pass phrase that has a strength of 100 bits or more.
- c. Verify that the checkbox Securely store the passphrase on the server in case it is forgotten is checked.

Set Pass Phrase [30 cha	racters]]	Manage Account
Pass Phrase:	100 bits pass phrase strength! OK	Ш	Change Password
Confirm Pass Phrase:	100 bits pass phrase strength!	Н	
Pass Phrase Strength:	110 bits	н	
Show my pass phras	e as I type it (above)	н	Create
	assphrase on the server in case it is forgotten.	Ш	Pass Phrase
	omeone be able to access my data?	Ш	Store to Disk
	I to encrypt your data and must be remembered in order to recover your data. A sists of at least three words. It should also contain numbers and punctuation,	Ш	
	within and between words for maximum security. The phrase is case sensitive.	Ш	<u>V</u> erify
	the pass phrase on the server unless your security policy prohibits you from rypted such that you will be the only person that can recover the pass phrase.		
	nat will I need to recover my pass phrase?	6	ertSave
		J	

4. To store the **Pass Phrase** in the eFolder Cloud, create at least three questions and answers.

You can use the predefined questions or create your own.

Then, set the desired **security level** in the **Security level** field.

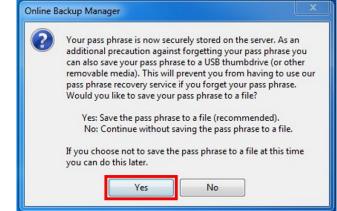
	the following pass phrase	e to server r21.	slc.sc.efscloud.net:443:
•••••	•••••		C Sho
ou should cho ach additiona	ose questions that only y question increases the le	ou would know	ed using your answers to a list of security questions. all of the answers to and yet would never be forgotts exponentially (answer at least 3 questions). and recovery (why it is secure and how it works).
Your name:	Ryan Scott		(optional; identifies who answered the questions)
ecurity level:	High: Hints will include t	he lengths of th	e answer to each security question
			(lower levels provide more hints during recover
		type your own o	uestions) and specify your answers:
Date of birth?	2	•	March 24, 1971
Driver's licens	e number?	•	123456789
Type a quest	ion?	•	Type the answer
		•	
		-	
		•	
		-	
		-	1
			ore capitalization and whitespace, but punctuation is es use a consistent format (such as mm/dd/vvvv).
hou course (rea		chi chitching out	

efolder

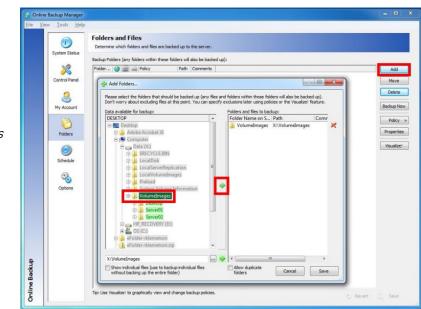
5. You can copy the questions and answers to the clipboard so you can paste them into your password vault or other location by clicking **Copy to Clipboard**.

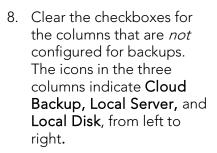


6. You can save the **Pass Phrase** to a text file on a removable drive, if desired, by clicking **Yes**.



- 7. To add the *VolumeImages* folder to the folders that will be backed up:
- a) Click the **Folders** button.
- b) Click Add.
- c) Browse to the X:\volumeimages folder.
- d) Click the **green arrow** to move the folder to the right side of the screen.
- e) Click Save.





- a. Highlight the VolumeImages folder.
- **b.** Click **Policy** on the right side.

from the *Policy* drop

c. Select Edit Policy.

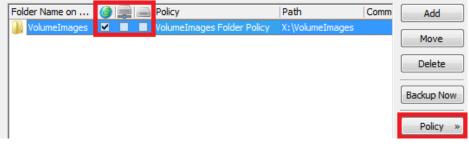
9. Select Backup

down menu.

Folders and Files [test]

Determine which folders and files are backed up to the server.

Backup Folders (any folders within these folders will also be backed up):



- Properties for Backup Object VolumeImages Backup Object: []] VolumeImages [X: \VolumeImages] • ShadowProtect Images Policy Properties 🛉 🇶 📭 😂 📇 Policy: Backup ShadowProtect Images A policy specifies what files/folders should be backed up via a list of include/exclude rules. If more than one rule applies then the highest numbered rule takes precedence (rules are applied top to bottom). Editing rules for: all backup destinations: 🔻 4 Include ▼ Files and Folders ▼ whose: 2. Exclude *.tmp × Relative
 vert pathname matches the wildcard: 3. Exclude *.spi;*.spi.bitmap;*-b*-i*.md5 4. Include *.cd.spi;*.cd.spi.bitmap;*.cd.nd5 5. Include *.cn.spi;*.cm.spi.bitmap;*.cm.nd5 6. Include *.cr.spi;*.cr.spi.bitmap;*.cr.nd5 Ť * * . 曑 ÷ 7. Include *-cy.spi;*-cy.spi.bitmap; *-cy.md5 8. Include *-LYM_*.spi;*_VM_*.spi.bitmap;*_VM_*.md5 9. Include regex:name:[0-9a-f]{5,}*spf B) 📃 Older than 0.000 days Ê. 0.000 days Newer than 10. Include *System*Reserved*.spf 📃 Older than 5/20/2015 👻 11. Exclude Incrementals folders
 - X Properties for Backup Object VolumeImages Backup Object: 🚺 VolumeImages [X:\VolumeImages] • Policy Properties 🐁 Settings Data History (File Versioning) Global Limit Number of Versions to Store Inherited: Yes Policy: Backup ShadowProtect 1 Number of Days to Keep Historical... Inherited: 365

10. Click the **Properties** tab.

efolder

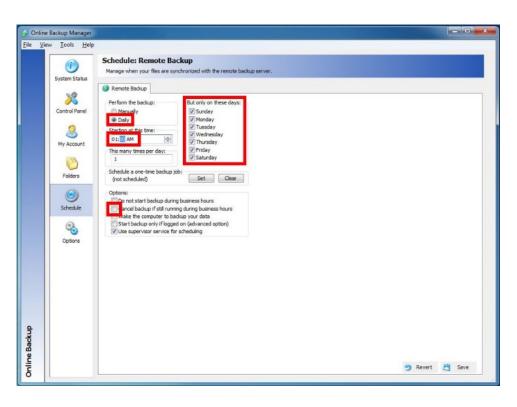
- 10. On the *Properties* tab:
- a. Change the Number of Days to Keep Historical Versions to 7.

This will also automatically change the **Number of Days.to Keep Deleted Files** to **7**.

b. Change Disable Open File Backup to Yes



- 12. Click **Schedule** on the left panel.
- a) Verify that **Daily** is selected.
- b) Set the time to about 1:00 AM and verify that all seven days are selected.
- c) Verify that the checkbox Cancel backup if still running during business hours is cleared. This checkbox should *not* be checked.



efolder

13. Click **Options** on the left panel. Then click the **Bandwidth** tab at the top.

i	Options		
System Status	Configure Online Backup according to your pro	eference.	
officer block	🖉 Notifications ersioning 🔗 Backur	Bandwidth	
×	Bandwidth Usage		
Control Panel	Usage Mode During Off Hours	Max	
	Usage Mode During Business Hours	Medium	
	High Bandwidth Usage (Kbits/sec)	1000	
	Medium Bandwidth Usage (Kbits/sec)	250	
My Account	Low Bandwidth Usage (Kbits/sec)	50	
	Local Server Bandwidth Multiplier	-1.0	
	Local Disk Bandwidth Multiplier	0.5	
Folders	Local Disk Max Disk Bandwidth (KB/sec) -1	
-	Business Hours		
	Starting Weekday	Monday	8
Schedule	Ending Weekday	Friday	
	Starting Time	07:00 AM	
	Ending Time	06:00 PM	
Options			
Opoons			

- a) Set **Business Hours** to an hour before and after normal working hours for your customer's employees.
- b) Set the Usage Mode During Business Hours field to Medium.
- c) Then set Medium Bandwidth Usage to 25% of the customer's upload speed.
- d) Set the Usage Mode During Off Hours field to Max.

Note: If the client needs the Internet after hours, adjust these settings:

- Set Usage Mode During Off Hours to High.
- Set the High Bandwidth Usage to 75% of the customer's upload speed.

Create a preload (seed) drive

- To request a preload (seed) drive form eFolder: <u>Request a Preload (Seed) Drive Form</u>
- For help completing the request form: <u>How to request a preload (seed) drive</u>
- To create a ShadowProtect preload (seed) drive to ship to the eFolder data center: <u>How to create a ShadowProtect preload (seed) drive:</u>

Restoring, migrating, or virtualizing servers

To restore servers (or migrate servers to new hardware) when you still have access to the local ShadowProtect volume images, follow the normal ShadowProtect bare-metal restore procedure using the bootable restore environment. If you have been backing up your volume images with eFolder local or remote backups, you can use eFolder local or remote restore to restore your .SPF and .SPI files if they ever become damaged.

You can also use StorageCraft **VirtualBoot t**o quickly virtualize any of your backup recovery points that are local. You can use the **eFolder Continuity Cloud** to virtualize your ShadowProtect backups in our cloud, if you have previously signed up for this service. Contact your Account Manager for detailed instructions.

Files that are remotely backed up to eFolder's data center are protected by eFolder's extremely rigorous data integrity procedures. All remotely backed up data has an embedded cryptographic fingerprint that is verified upon restore, certifying the restored file is exactly identical to the backed up file. Additionally, we use block-level checksums to automatically guard against and safely repair any silent data corruption that occurs with any electronic storage device. eFolder also verifies the MD5 checksum that was generated by ShadowProtect to ensure that the file that was backed up was not damaged. Your files are safe with us. If your local "chain" of ShadowProtect incrementals becomes damaged, you can be assured that eFolder will have a good, undamaged copy ready for restore.

Note: Use the notification and alerting features in the eFolder Web Portal so that you will be alerted if any local ShadowProtect or cloud backups fail and need attention.

Restoring individual files

The eFolder restore wizard allows you to easily restore files and folders (for data backed up directly with the eFolder Backup Manager) simply by logging in, checking off the data you want to restore, choosing the point-in-time version, and choosing where you want to restore the data.

Recovering from a disaster

To recover from complete data loss at the local site:

- 1. Provision appropriate bare-metal or virtual machines for the server(s) you need to restore. Make sure there is enough disk space to fully contain the restored volumes.
- 2. Use eFolder Web Access (select **Online Access** on the **Web Access** option on the main menu bar in the <u>eFolder Web Portal</u>) to download the .spf and all .spi files for the relevant OS and application volume image(s) to a portable USB disk or network share accessible from the ShadowProtect bootable restore environment.

Note: Be sure to *uncheck* the **Include the deleted date and time in the restored filename** option, so that the restored files are named properly.

- 3. Use the ShadowProtect bootable restore environment to deploy the volume images to the new bare-metal server or virtual machine. Or, if you have ShadowProtect 4 or 5 and used ShadowProtect to backup all volumes of your server, you can also use the VirtualBoot feature to instantly boot a virtual machine from the most current *.spi file.
- 4. With the server and critical applications fully restored, login and immediately change the eFolder schedule to manual (if eFolder is configured on the machine).
- 5. Start the eFolder File Manager (by clicking the **Control Panel** tab of the Backup Manager and selecting **File Manager**) to restore any remaining file-based data as needed.
- 6. With all data fully restored, set the eFolder backup schedule back to Weekly.

Additional assistance

We will assist you any way that we can. Please submit questions to <u>support@efolder.net</u>, call us at 800-352-0248, or browse our Knowledgebase at <u>https://secure.efoldering.com/support/kb/</u>

