

# eFolder BDR for ShadowProtect Solution Guide and Best Practices

Last Updated May 2015

## Best Practices

This guide will walk you step-by-step through the process of combining the eFolder and StorageCraft products.

## Process Overview

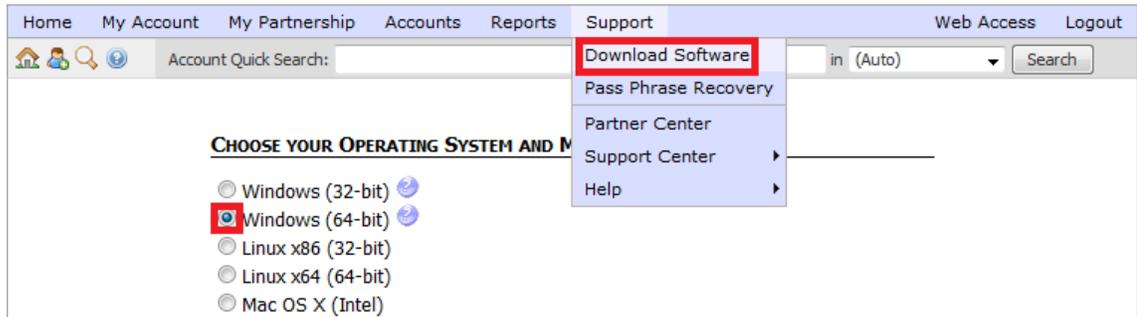
First, provision eFolder accounts for computers that will be backing up data remotely, and install ShadowProtect on those computers requiring volume-level backups. Next, configure ShadowProtect to perform volume backups of your OS and critical server applications. Finally, configure eFolder to backup other files and your ShadowProtect volume backup images.

If you have questions, wish to deviate from the guidelines, or have a different version of ShadowProtect, please contact us first at [support@efolder.net](mailto:support@efolder.net).

## Assess Requirements, Provision Accounts, and Install Software

1. First, assess the backup requirements of your customer. Identify the following:
  - Critical application servers, such as Exchange, SQL, and SharePoint
  - The Recovery Point Objective for these 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. Create the account as needed on the eFolder portal – see Create an account using the New Account Wizard video -  
<https://backup.securewebportal.net/efolder/learningcenter/How%20to%20video%20snippets/Create%20an%20account%20using%20the%20New%20Account%20Wizard/reate%20an%20account%20using%20the%20New%20Account%20Wizard.mp4>

3. Prior to beginning, verify that you have the correct version of ShadowProtect and ImageManager installed. The "Download Product Installers" link is available in the top left corner of <https://msp.storagecraft.com/msp/>
4. Download eFolder Online Backup Manager, if needed, by hovering over Support on the eFolder portal and selecting Download Software. Select the desired version.



Scroll to the bottom of the page and click the check box to agree and then click Download.

## Configure 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.

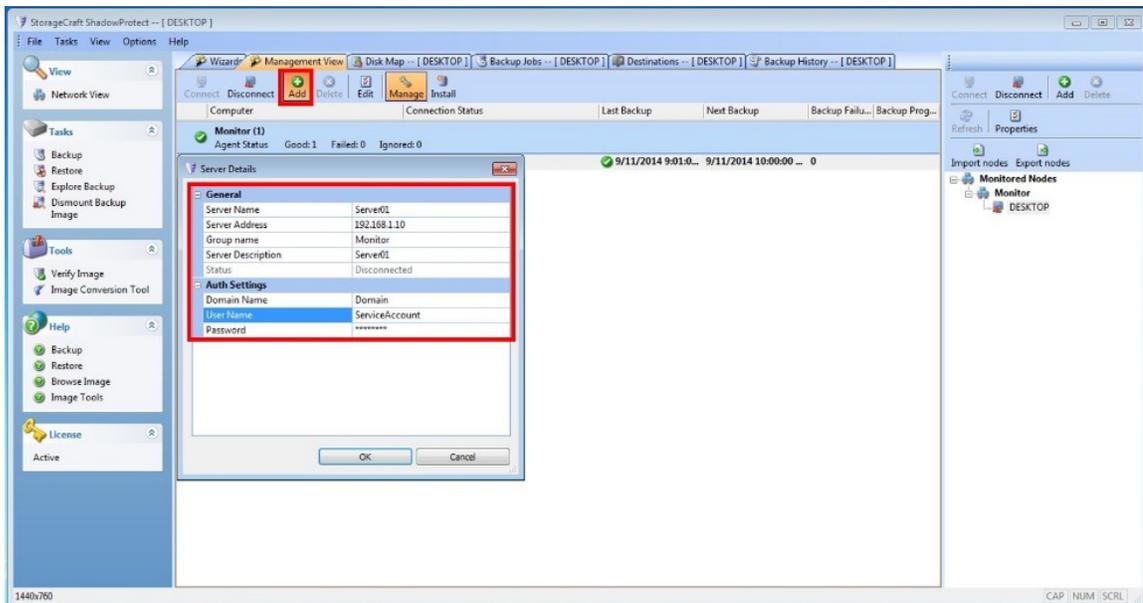
1. Prior to configuring ShadowProtect, complete the following preparation steps:
  - Disable automatic defrag in task manager
  - Do a defrag one time before first full backup
  - Add exceptions to firewall for ShadowProtect or Turn firewall off
  - Set the ShadowProtect Service to run as the highest level admin, domain or local admin, depending if protected server is in a domain or not
  - Disable Shadow Copies on each of the volumes to be backed up
2. To begin, on the BDR, click the ShadowProtect icon on the desktop to open the *ShadowProtect Console*.



3. Click the Management View tab.

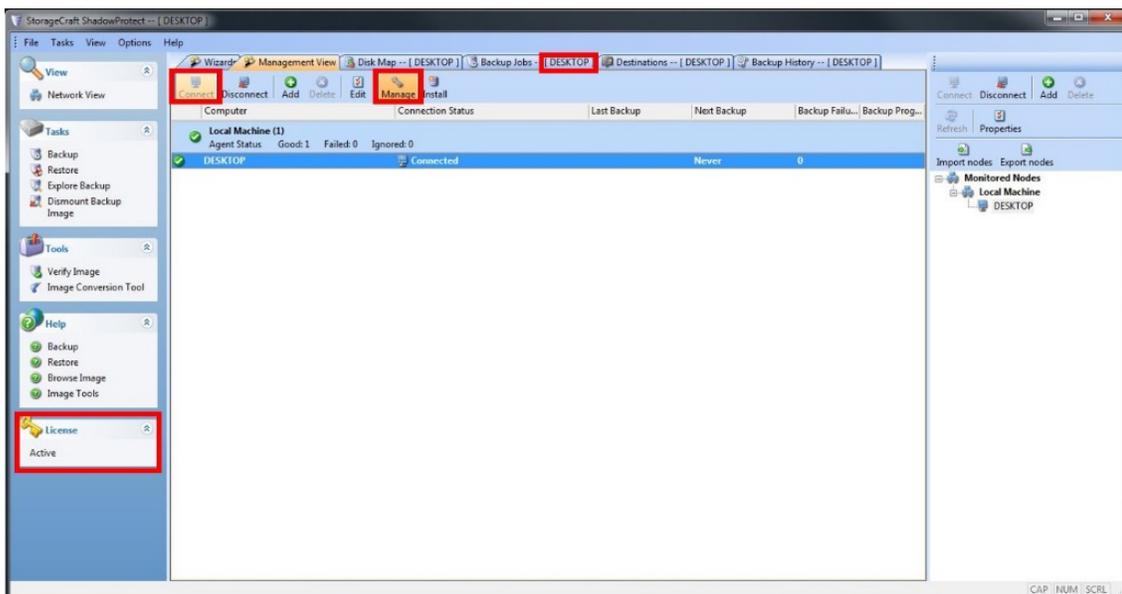


- To add the additional computers to this Management View console for which you have already installed the ShadowProtect agent, click the Add icon. Add the *Server Name*, *Server IP Address*, *Group name of Monitor*, *Server Description* (can be the server name) and the *Domain* (or server name), *User Name*, and *Password*.

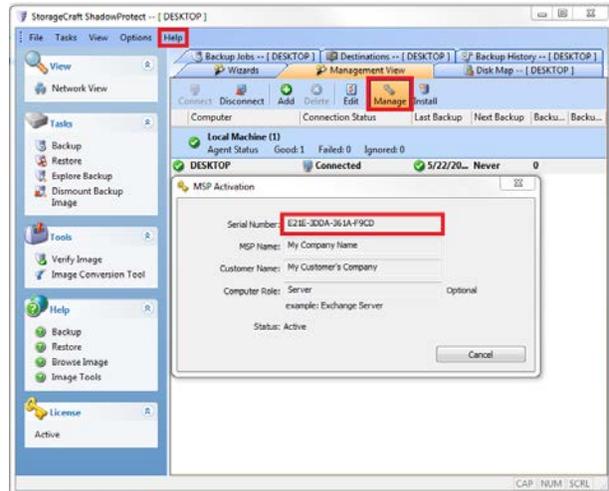


The computers are now displayed in the list.

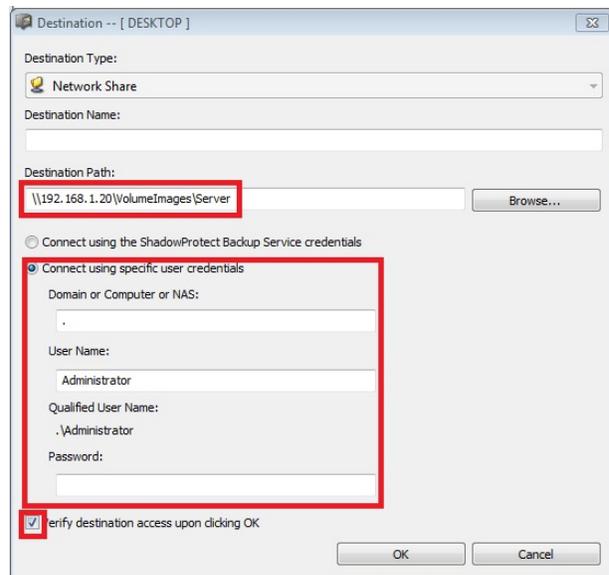
- Highlight the desired computer and click Connect. After the computer shows Connected, click Manage. Note: When you are managing a computer, the computer name appears in the new tabs along the top and in the Window banner. In addition, the license status for the server that you are managing is shown in the bottom left corner.



- To activate the license, Manage the desired computer, click Help and then click Product Activation. Paste the ShadowProtect Key that you provisioned on the eFolder Portal.



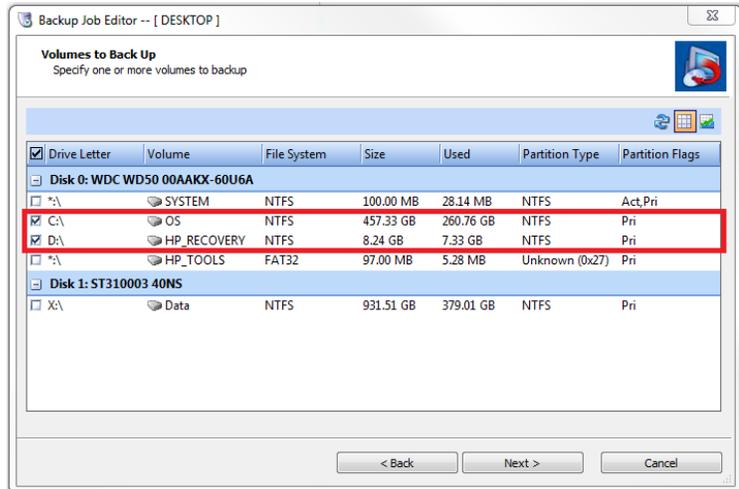
- Before creating the new job, first click on the Destination tab. Click Add button to create a new destination. Enter the UNC path, credentials, and verify that the check box is clicked for "Verify destination access upon click OK", then click OK.



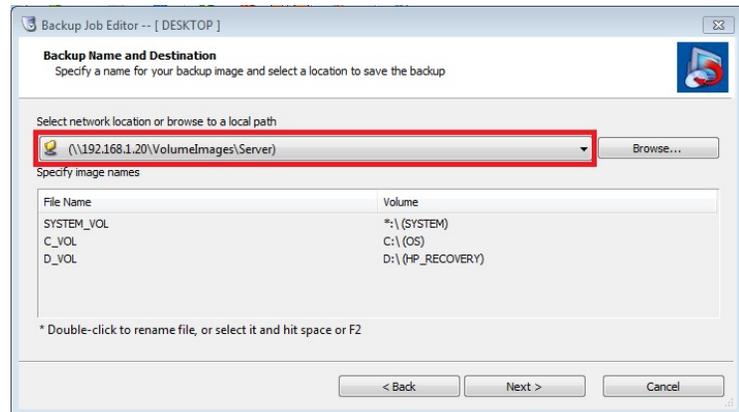
- To create a new backup job, click the Backup Jobs tab and then click the New icon to start the Backup Wizard.



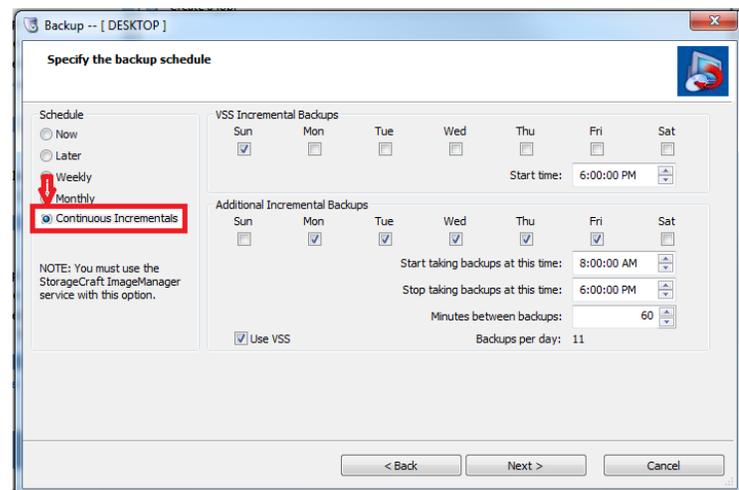
9. Select the volume(s) for which you want to create images. Note – if the Exchange or SQL logs are not on the same volume as the application database, it is important that the volumes be together in the same backup job, otherwise the logs will not be truncated.



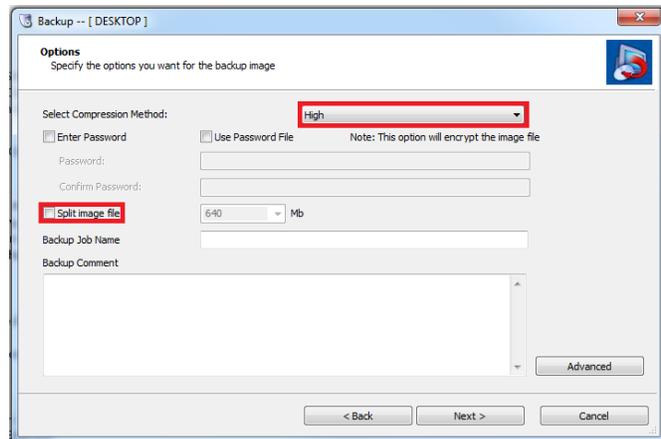
10. If the target path is on a network share, click the down arrow and select the destination that was created in step 5.



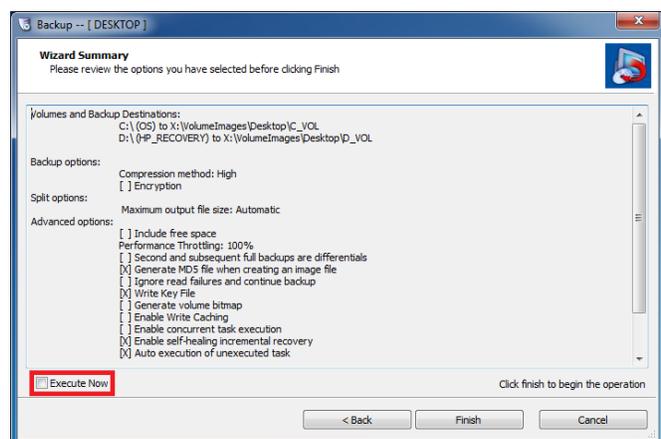
11. On the *Schedule* screen, select *Continuous Incrementals*. Set the desired schedule. The top row will run a single incremental backup. The bottom row will run multiple backups according to the set schedule.



12. On the *Options* screen, we recommend that you select the *High* compression method. *High* has about a 50% compression while *Standard* has about a 40% compression. Do not split the image files.



13. On the *Wizard Summary* page, leave the Execute Now box unchecked to run the initial backup at the next scheduled time. If you wish to run the backup immediately, select the check box.



## Configuring ImageManager

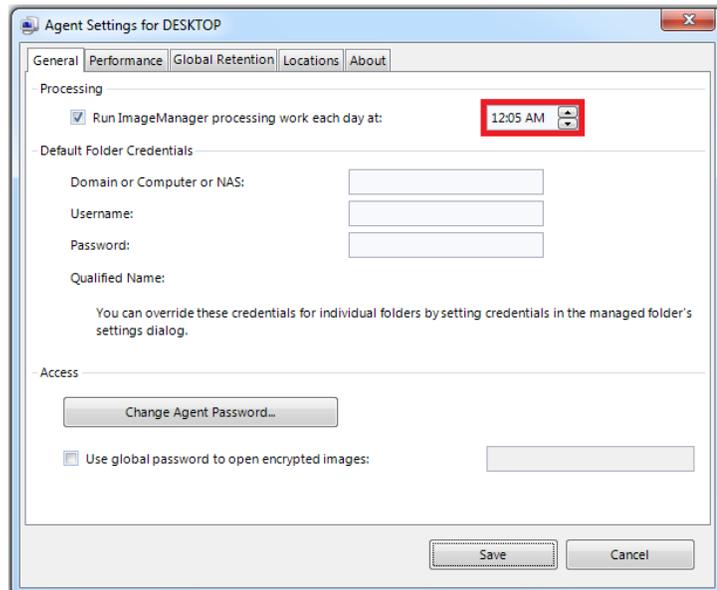
ShadowProtect uses forward deltas that require periodic management. ImageManager is a utility that consolidates hourly incrementals into daily incrementals, daily incrementals into weekly incrementals, weekly incrementals into monthly incrementals, and monthly incrementals into rolling incrementals. You 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 backup only the *daily*, *monthly*, and *rolling* collapsed incrementals. The hourly and weekly incrementals will not be backed up remotely.

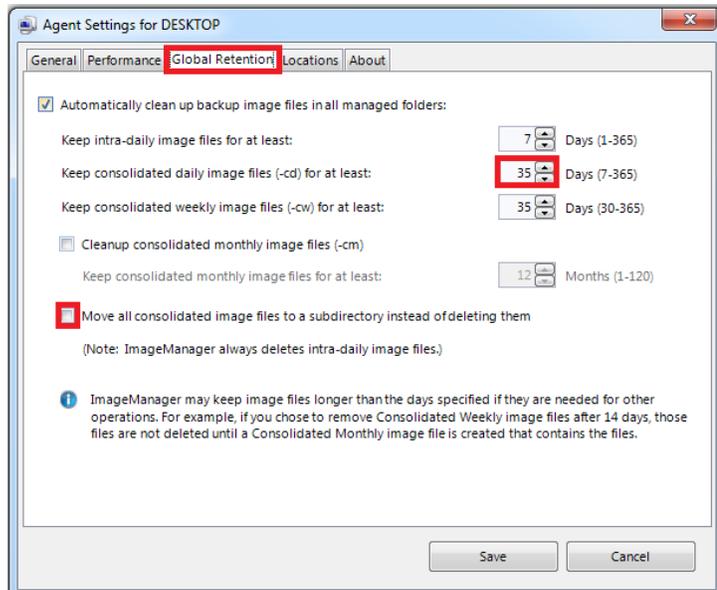
1. The first step after installing ImageManager is to configure the settings. Click the ImageManager icon on the desktop.



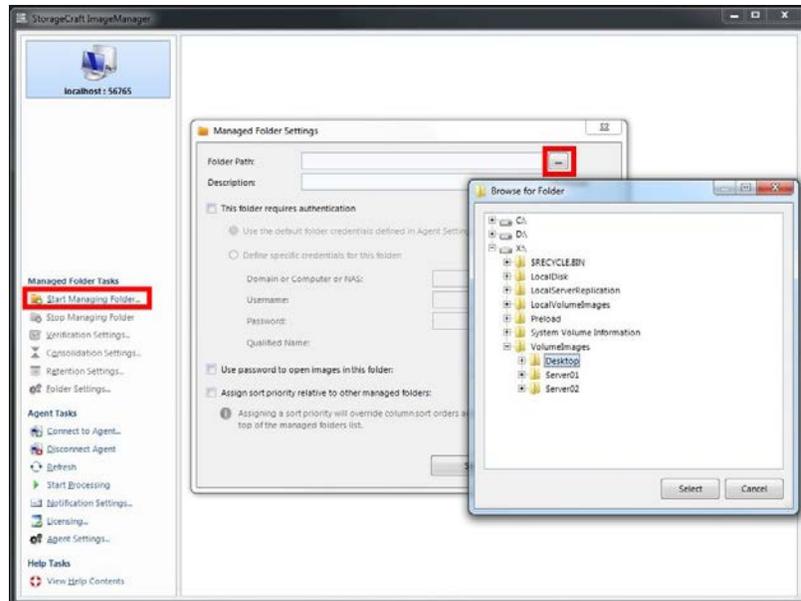
2. Click the  [Agent Settings...](#) near the bottom left corner.
3. Verify that ImageManager is set to run shortly after midnight, such as *12:05 A.M.*



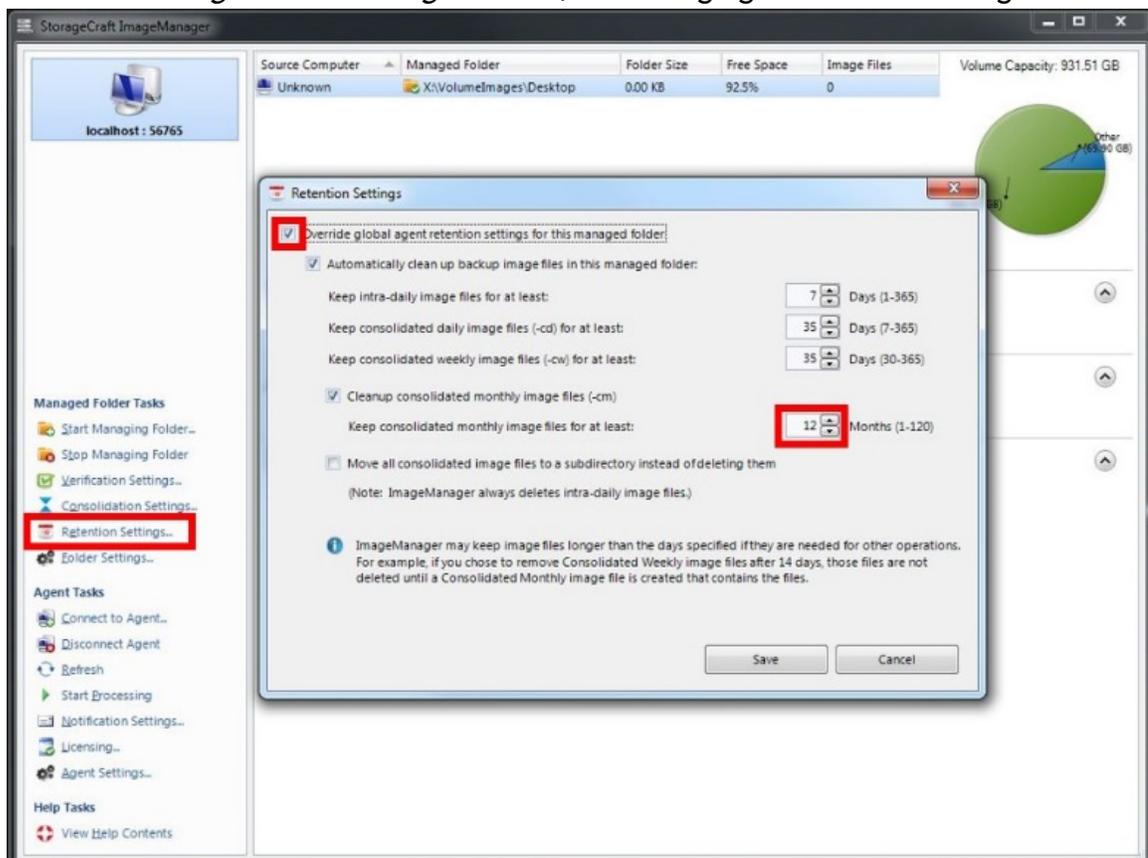
4. Click the Global Retention tab. Verify that *Keep consolidated daily* is set to at least 35 days. Clear the last check box to *Move all consolidated image files to a subdirectory instead of deleting them*.



- Next, click Start Managing Folder and browse to the folder that contains the ShadowProtect image files that you want to manage. Repeat for each folder that you want to manage.



- You can override the global retention settings by highlighting the folder, selecting Retention Settings on the left side, clicking the checkbox *Override global agent retention settings for this managed folder*, and changing the desired settings.

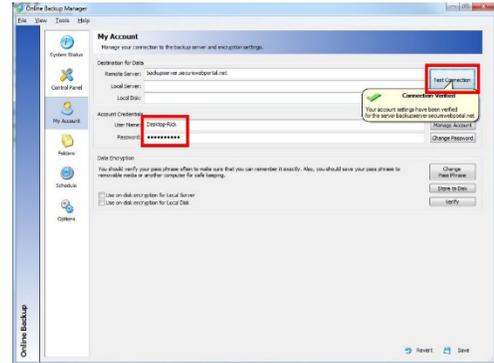


## Configuring eFolder Online Backup Manager

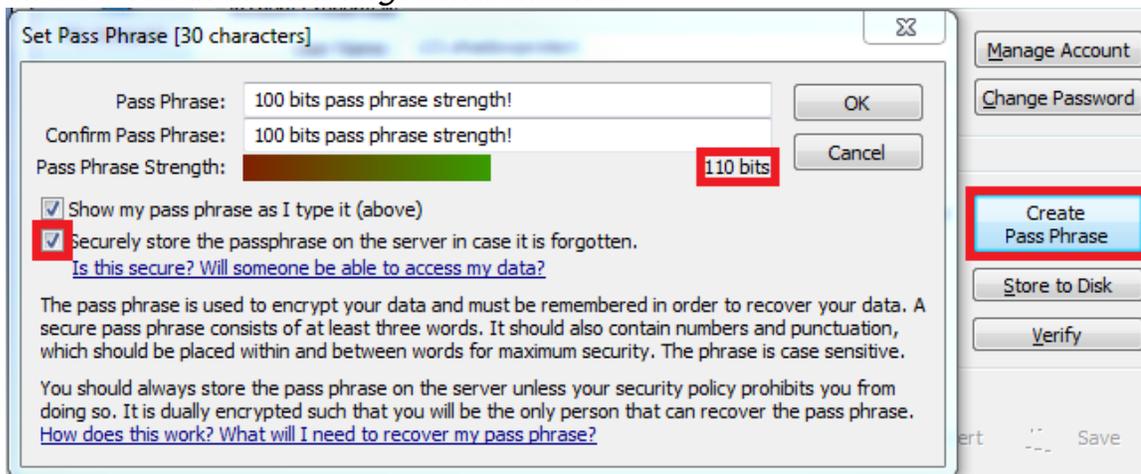
1. To configure the Backup Manager, click the Backup Manager icon on the BDR desktop.



2. Select the My Account tab. Enter the *User Name* and *Password* for the eFolder account and click the Test Connection button on the top right. Contact Technical Support if the *Connection Verified* window does *not* appear.



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



- 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. Set the desired security level.

Specify Security Questions and Answers...

You are saving the following pass phrase to server r21.sl.c.sc.efscloud.net:443:  
..... Show

For additional security your pass phrase will be encrypted using your answers to a list of security questions. You should choose questions that only you would know all of the answers to and yet would never be forgotten. Each additional question increases the level of security exponentially (answer at least 3 questions). [Click here for more information on pass phrase storage and recovery \(why it is secure and how it works\).](#)

Your name: Ryan Scott (optional; identifies who answered the questions)

Security level: High: Hints will include the lengths of the answer to each security question (lower levels provide more hints during recovery)

Choose your questions from the list (or type your own questions) and specify your answers:

Date of birth?	▼	March 24, 1971
Driver's license number?	▼	123456789
Type a question?	▼	Type the answer
	▼	
	▼	
	▼	
	▼	
	▼	
	▼	
	▼	
	▼	

You must remember your answers exactly. Answers ignore capitalization and whitespace, but punctuation is important (123-456 is not 123/456). When entering dates use a consistent format (such as mm/dd/yyyy).

OK Cancel

- 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.

Online Backup Manager

Please verify that the answers to your questions are correct. You must remember these answers exactly, including punctuation. If you cannot remember these answers exactly as shown it will be impossible to recover your pass phrase (under any circumstances).

You may want to print this information (or copy this information to the clipboard, paste it in a document, and print it) and place in a safe deposit box.

Your questions and answers:

Q: Date of birth?  
A: March 24, 1971  
Q: Driver's license number?  
A: 123456789  
Q: Type a question?  
A: Type the answer

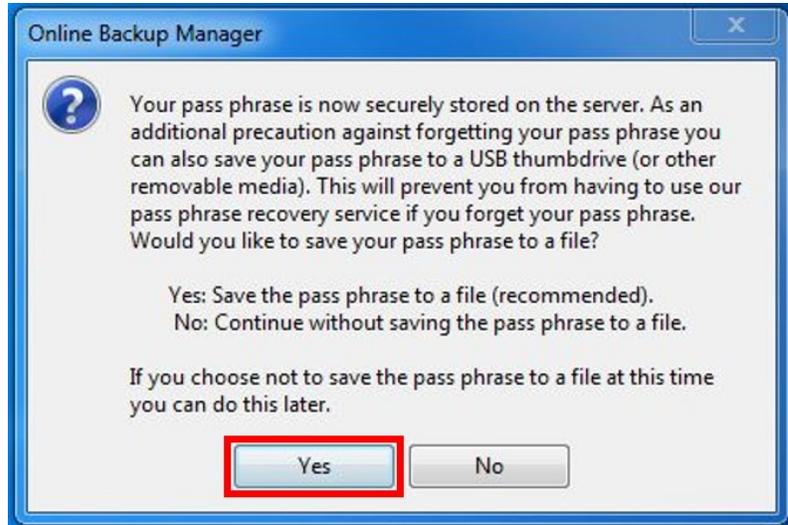
What do you want to do?

Print: Print your answers and then proceed (recommended).  
Copy to Clipboard: Copy your answers to the clipboard and proceed.  
Proceed: Encrypt and save the pass phrase on the server.  
Cancel: Return the dialog without doing anything.

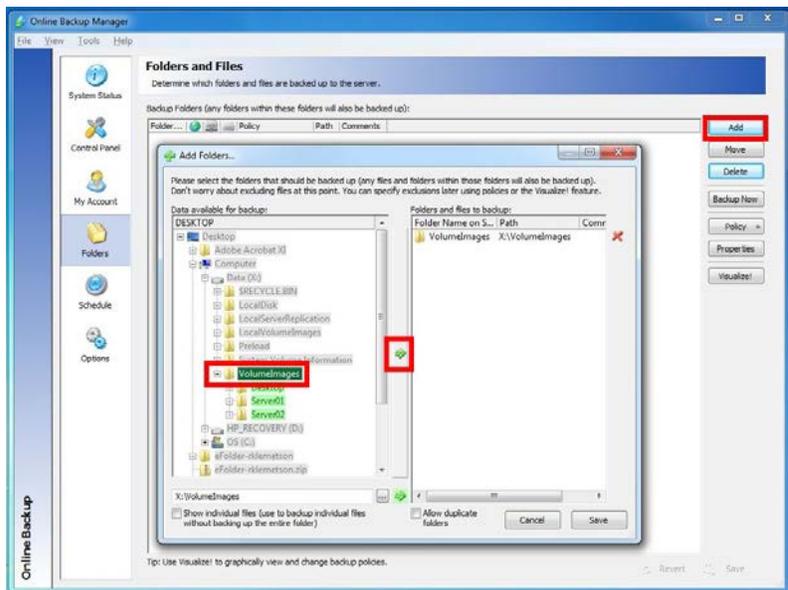
WARNING: You must be able to type these answers exactly or you will not be able to recover your pass phrase. Once your proceed you will not be able to see your answers again.

Print Copy to Clipboard Proceed Cancel

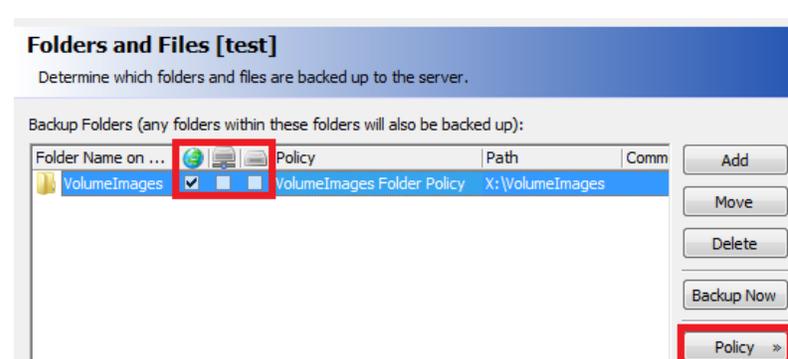
- You can save the *Pass Phrase* to a text file on a removable drive, if desired.



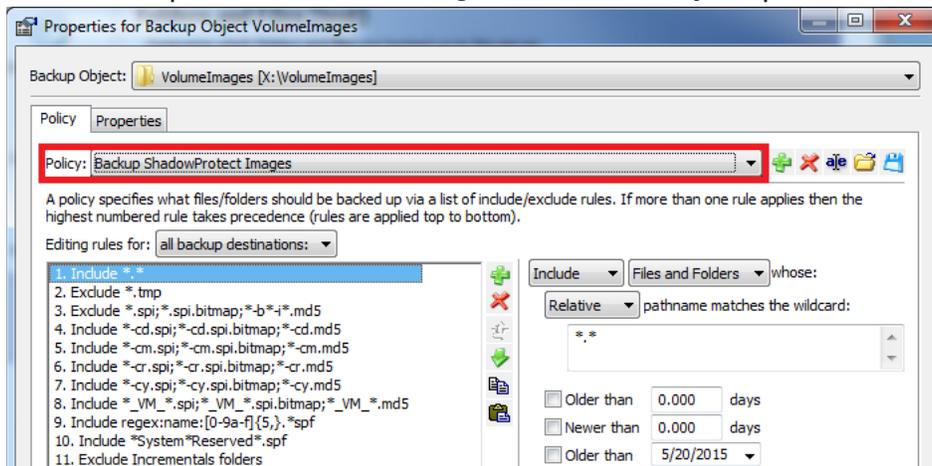
- To add the *VolumeImages* folder to the folders that will be backed up, click the Folders button, click Add, browse to the *X:\VolumeImages* folder, click the green arrow to move it to the right side of the screen, and then click Save.



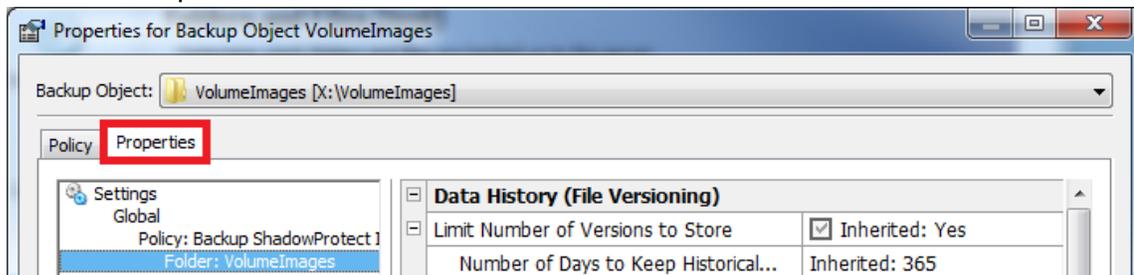
- Clear the checkboxes for the columns that are *not* configured for backups. The three columns are Cloud Backup, Local Server, Local Disk. Highlight the *VolumeImages* folder, click Policy on the right side, select Edit Policy.



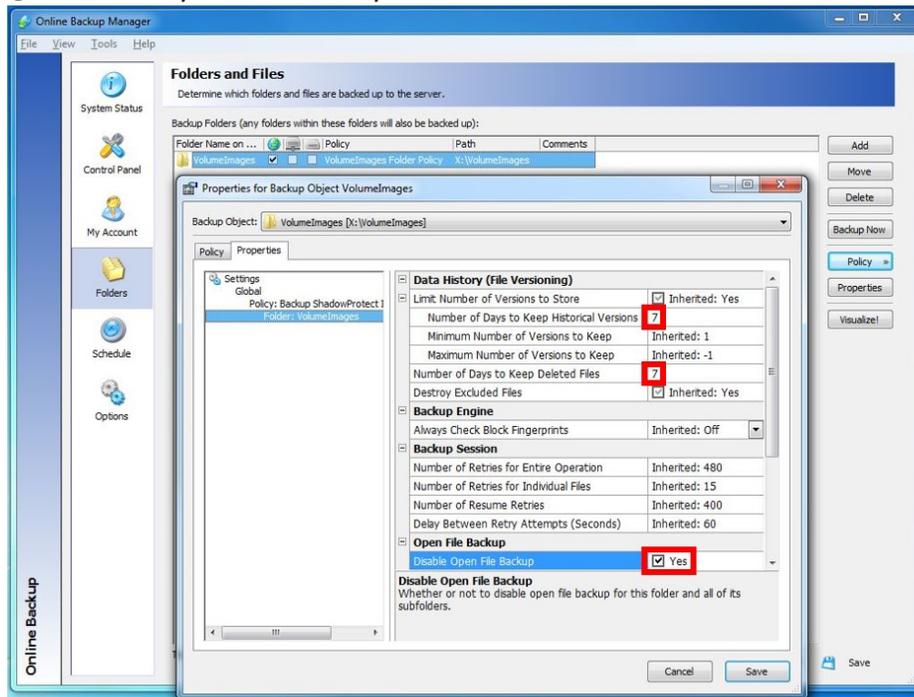
9. Select the Backup ShadowProtect Images from the Policy drop down menu.



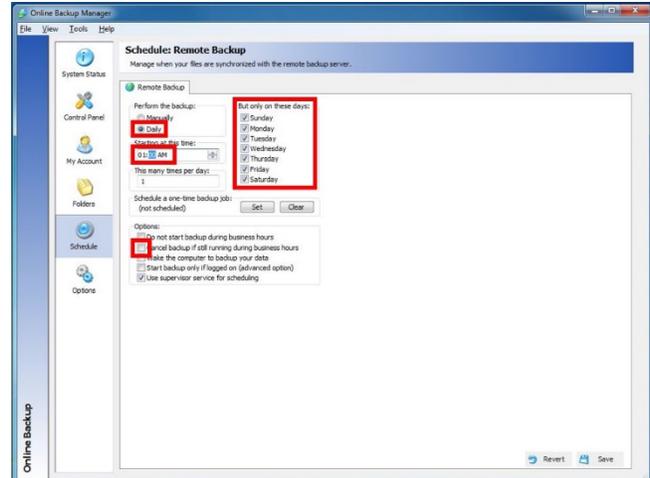
10. Click the Properties tab.



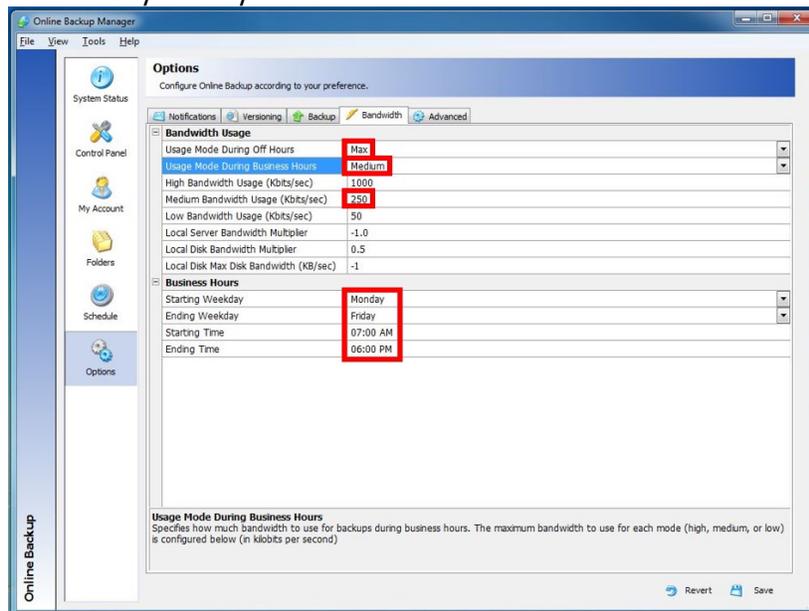
11. On the *Properties* tab, change the *Number of Days to Keep Historical Versions* to 7. This will also automatically change the *Number of Days to Keep Deleted Files* to 7. Change *Disable Open File Backup* to *Yes*.



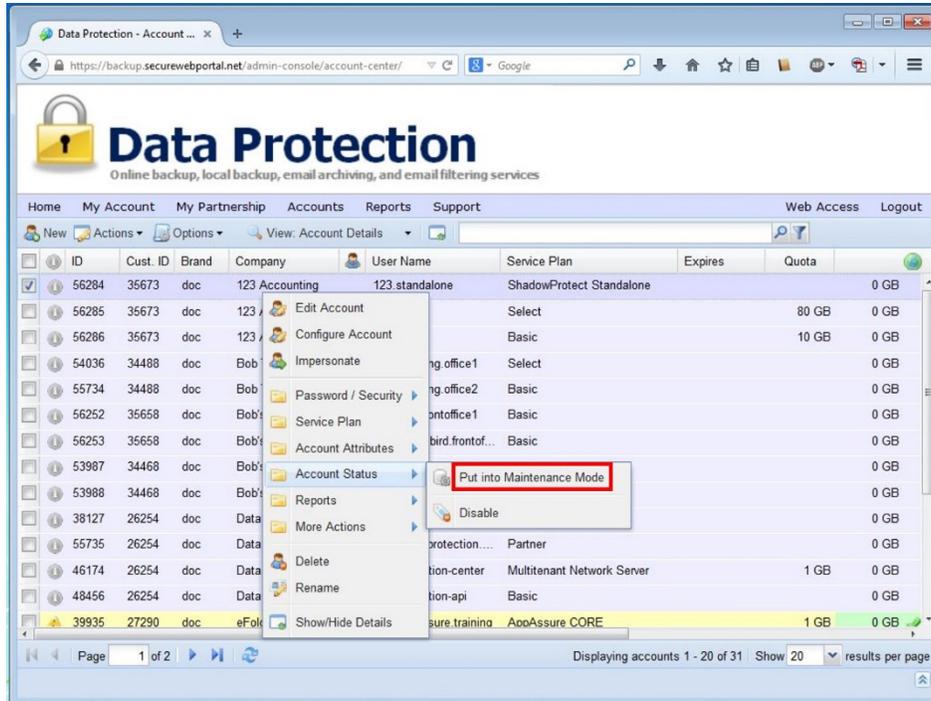
12. Click the Schedule tab on the left. Verify that *Daily* is selected. Set the time to about *1:00 AM* and verify that all seven days are selected. Verify that the checkbox *Cancel backup if still running during business hours* is cleared.



13. Click the Options tab on the left. Then click the Bandwidth tab at the top.
14. Set the *Business Hours* to an hour before and after the employees' normal working hours.
15. Set the *Usage Mode During Business Hours* field to *Medium* and then set *Medium Bandwidth Usage* field to *25% of the customer's upload speed*.
16. Set the *Usage Mode During Off Hours* field to *Max*. If the client needs the Internet afterhours, set this field to *High* and then set the *High Bandwidth Usage* field to *75% of the customer's upload speed*.

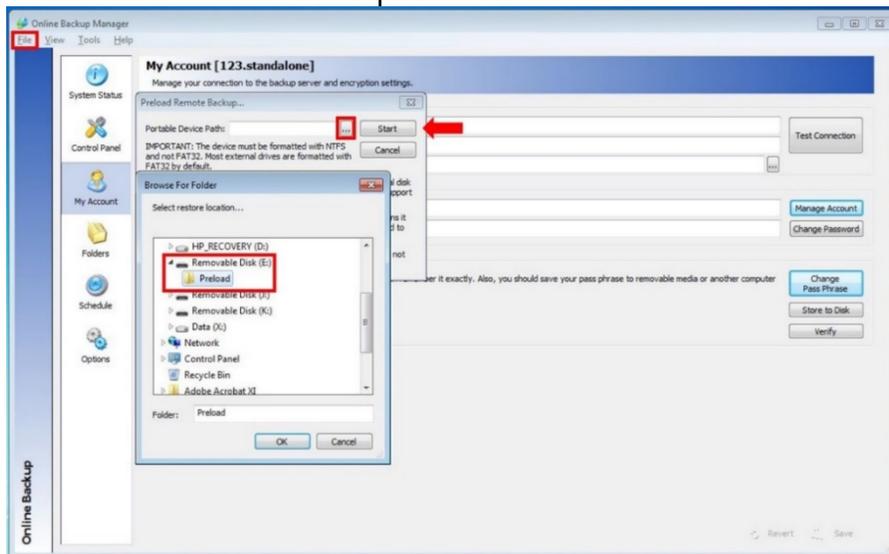


- If you want to create a preload drive or seeding drive to ship to the eFolder data center, first put the account into maintenance mode by selecting *Account Center* in the Accounts main menu bar of the eFolder Web Portal, right-clicking the desired account, and selecting *Put into Maintenance Mode* in the Account Status menu option.



- Next, perform the initial Preload backup to the USB disk. To do this, open the Backup Manager, click File on the menu bar, and select *Preload Remote Backup*. Then specify a new empty directory on the external USB disk. When you are ready, click the Start button.

Note: You can run Preload multiple times before shipping the drive to the data center. It will copy new and additional files that were not copied previously. Once the data center team loads the data to the cloud servers, then will take the account out of maintenance mode and the backups will run as scheduled.



 **CAUTION:** Never destroy any of the full backup or incremental files (\*.spf, \*.spi) in the backup repository. ShadowProtect continuous backups require an unbroken chain of deltas back to the full backup in order to restore a current volume image properly. Older daily delta files will be automatically purged from the backup when it is safe to do so according to the retention settings as described above.

### 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 to 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. See the eFolder Continuity Cloud ShadowProtect Howto Guide 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.

You should make sure that you are utilizing the notification and alerting features in the eFolder partner 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 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.

 **TIP:** 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 to restore any remaining file-based data as needed.
6. With all data fully restored, set the eFolder schedule back to Weekly.

### Additional Assistance

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