



Pacnet DataVault

Frequently Asked Questions

Version 1.1

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TABLE OF CONTENTS

1. GENERAL	3
2. BACKUP	5
3. RESTORATION	8
4. CONFIGURATION	10
5. PERFORMANCE	13
6. SERVER BACKUP	14

1. General

1. What is Pacnet DataVault?

Pacnet DataVault is a secure online backup service providing a simple, smart, and economical way to protect your data from risks of file corruption, accidental deletion or hardware failure. Pacnet DataVault regularly and automatically backs-up your files in our secure servers so you never have to worry about losing your important business information again.

2. What makes Pacnet DataVault different?

Pacnet DataVault is the best online backup service in the market for a number of reasons:

- It is simple to set up
- It performs backups automatically in the background while you work
- It encrypts all your files before transferring them to storage
- It performs speedy backup as its saves only the data that has been modified
- It backs-up both open and locked files
- It is cost-effective and reliable

3. What is included in the Pacnet DataVault package?

Components	Minimum Storage	Minimum Start Up Purchase Qty	Charging Scheme
Desktop License	5GB per license*	5	Monthly
Server License	5GB per license*	3	Monthly
Setup Charge	–	–	One Off

*Additional storage can be subscribed at 5GB increments.

4. How do I use Pacnet DataVault?

You simply install the software on your computer and select the file(s) you want to back-up with the Pacnet DataVault Client. Once set up, DataVault automatically backs-up your data at regular intervals, which you can adjust and modify at anytime.

5. Which platforms does Pacnet DataVault support?

Pacnet DataVault desktop license supports Windows® 2000, Windows® XP, Windows® Vista (32- and 64-bit), and Windows® 7 (32- and 64-bit). Pacnet DataVault Server license supports all platforms available from desktop license and supports Windows® Server 2000, 2003 and 2008.

Note: Microsoft VSS support is only available on Windows® Server 2003 or later.

6. Is Pacnet DataVault secure?

Absolutely! Pacnet DataVault gives you the ability to select your preferred encryption method – the Pacnet DataVault key with 448-bit Blowfish encryption or your own private key with 256-bit AES encryption. Your files are encrypted on your computer using your preferred key, and then transferred to the servers using 128-bit SSL encryption, the industry standard for safe and secure data transfer. Should you opt to use your own private encryption, please note that Pacnet will not be able to decrypt your data. Please be aware of this issue so you don't get caught off guard.

7. How does Pacnet DataVault protect my data?

Your data is stored in its encrypted state in advanced data center facilities with 24/7/365 onsite monitoring and security, state-of-the-art fire detection and suppression systems, redundant power distribution units, and seismic safeguards that can withstand a 7.5 magnitude earthquake. We also use proprietary protection mechanism based on a complex encoding structures to ensure that your data is safe, even in the event of multiple hardware failures.

8. How long does Pacnet DataVault keep my files?

Pacnet DataVault always keeps the most recent copy of a file if the following conditions are met:

- You have an active account with Pacnet DataVault
- You have performed a backup within the last month
- The file has not been deleted or removed from your computer
- The file is selected for backup

Pacnet DataVault also keeps all previous copies of a file for 30 days.

Here are some examples to help explain how long a file can be saved on the Pacnet DataVault servers:

- If you signed up for a two-year account and backed-up once on January 1, 2009, you can still restore the same file on January 1, 2011.
- If you accidentally deleted a file on the 1st day of the month, you will have until the 30th of that same month to restore the file.
- If you removed a file on the files for backup on the 1st day of the month, you will have until the 30th of that same month to restore the file.
- If you run a backup once a day, after 30 days you will have 30 different restores to select from.
- If you changed a file, you will have 30 days from the day the change was uploaded to restore the previous version of the file.

9. How can I get the License Key for installing Pacnet DataVault software?

Your administrator will email a license key to you so you can register and activate your Pacnet DataVault client. You will find the license key at the bottom of the email.

2. Backup

1. Which files should I back-up?

We recommend that you back-up data that are difficult to replace like email, contact lists, financial records and office documents. If you are not sure what you want to back-up, Pacnet DataVault offers you several backup sets in the Backup Sets tab of the application. You can tell Pacnet DataVault to use the default backup sets, create custom backup sets, or select specific files or folders that you want to back-up.

2. Pacnet DataVault stopped performing backups, what is happening?

Firstly, make sure that Pacnet DataVault is not set to **Suspended** mode by right-clicking on the **Pacnet DataVault icon** in the system tray. If there is a checkmark in **Suspend** in the menu entry, then click it again to unselect. Once it is unselected, the Pacnet DataVault service will resume.

Secondly, please make sure that the bandwidth throttle is not set to **Don't back-up** by right-clicking on the Pacnet DataVault icon in the system tray and select **Settings**. Go to **Options** tab, if the **Enable Bandwidth Throttle** under **Performance** tab is checked, please make sure that the slider bar is not all the way to the left. If you change these settings, make sure the changes are saved.

Finally, check the **Result** column under **History** from the **Settings** or the **Status Window**, and look for errors. It may be that Pacnet DataVault is trying to perform a backup, but there is something wrong.

For errors that cannot be solved, please contact our customer service hotline.

3. My backup froze and when I restarted it, the backup started over again. Why?

This could happen when Pacnet DataVault is starting over. However, it has the capability to pick up where it leaves off. Each time you start or restart a backup, Pacnet DataVault calculates what it needs to back-up and then commences from 0% of what it has left to complete the backup.

4. What happens if I deleted a file that I included into my backup selection?

If you deleted a file and then run the backup application, Pacnet DataVault will assume that you no longer need a backup copy of that file and will mark the file for removal from the backup system. (Pacnet will keep this record for the next 30 days, just in case you change your mind.) After 30 days, the file will be deleted from our servers and you will not be able to retrieve it.

5. How can I view the status of my backup?

Double-click the **Pacnet DataVault tray icon** to open the application and a status window will show you how your backup is progressing.

6. Are there certain file types or sizes that I cannot back-up?

Your allotted storage capacity depends on the package you subscribed to. You can backup files of any type or size with only a few exceptions. For example, on Windows® platform, OS-specific files such as **Pagefile** and **Prefetch** files are not allowed to be backed up. However, some types of encryption are supported by Pacnet DataVault; incremental backups of encrypted file systems are not supported.

7. How many files can I back-up?

Pacnet DataVault users may back-up as many files as they wish unless quota restrictions have been enacted by your administrator.

8. I have lots of data, how long will it take to back them up?

Internet today runs with higher bandwidth and more applications such as email and Instant Messenger (IM) are also using up your capacity. Pacnet DataVault gives these programs higher priority and then uses the remaining bandwidth to send your data to the backup servers. This lets you continue doing the tasks you have at hand without getting bogged down by backups.

Since the amount of bandwidth available to Pacnet DataVault is limited, the first backup takes longer because there are so much data to initially send to the servers. Other backup services may have similar issues.

9. Does it always take as long as the first time to back-up my data?

After your initial backup, subsequent backups are relatively quick. Chances are that you won't even notice them. This is possible because Pacnet DataVault performs what are called differential backups, which means that it only backs-up the portions of your files that have changed since the last time they were backed up. This saves a lot of time, bandwidth and storage space.

10. What if my Internet connection disconnects while Pacnet DataVault is performing a backup or I shut down my computer in the middle of a backup process?

No problem. The next time you get online, Pacnet DataVault will just continue where it left off.

11. Will Pacnet DataVault back-up my entire disk drive? What about my applications and system files?

Pacnet DataVault was designed to back-up your most important data files, such as your email, contact lists and financials. It was not designed to back-up your system and application files. If you need to restore these types of files, it is much easier and more reliable to restore them using your original CDs. Restoring your system and application files from backups or any type of “disk image” is risky and difficult to do properly. We don’t recommend or support it.

Instead, keep your original system and application CDs in a secure location. Then make sure to back-up your data files regularly with Pacnet DataVault. If your computer fails, use the CDs to restore your system and application files to your new hardware, and then use Pacnet DataVault’s Web Restore to restore your data files. With a combination of original CDs and Pacnet DataVault data backups, you can be confident that you can restore your system even after a serious hardware failure.

12. How do I delete old backups?

The short answer is that you cannot! You most likely do not need to delete anything because your quota is based on your current backup configuration. Your previous backups don't count against you, and they do not take up any of your quota.

13. Does Pacnet DataVault support external drives?

Pacnet DataVault only supports drives that Windows recognizes as “fixed.” Pacnet DataVault does not support “unfixed” or removable drives such as thumb drives, flash, or external drives. If you want to back-up data from a removable drive, copy the data onto one of your fixed drives, and then select the data for back-up.

14. Does Pacnet DataVault support backups to local hard disk?

You can back-up files to a drive locally attached to your computer. This lets you keep a snapshot of your data in case you need to retrieve an older file you deleted or if you experienced a catastrophic hardware failure.

Unlike your online backup, the files in your local backup are not encrypted. This means your data can be readily accessed by you or someone else using the same drive.

The maximum size of your local backup is the same as your online backup account. For example, if your account is limited to 2GB, then your local backup is also limited to 2GB.

Local backup works with either the NTFS or FAT32 file system; however, FAT32 does not support backing up files larger than 4GB. You can use local backup with an internal drive, or an externally attached USB or Firewire drive; however, the drive must have an assigned drive letter.

15. Can I share my backed up data with another user?

The question is not really can you share your backup files, but should you? The only way that you can share your backed-up data is to give your username and password to someone else, and for obvious security reasons, we strongly advise against this. If you don’t want to compromise your privacy or data integrity, you should never share your Pacnet DataVault account information with anyone.

3. Restoration

1. How do I restore my data?

Pacnet DataVault offers you four easy ways to restore your data:

1. Performing a restore using the **Restore Tab**.
2. Using the **Pacnet DataVault Virtual Drive** (Windows® users only).
3. Right-click **Restore** (Windows® users only).
4. Web Restore (Recommended for restoring less than 20 GB of data).

2. How often can I restore my data?

You may restore files as many times as you need to.

3. How do I migrate from one computer to another?

One of the easiest ways to do this without having to reinstall Pacnet DataVault is to perform a Web restore. A Web restore allows you to log in to your account online and select the files you want to restore.

Additionally, you can migrate the data from within the Pacnet DataVault client. When you install the Pacnet DataVault client on the new computer and if you use the same license key and email to activate the client, your old computer is automatically replaced with the new computer. You can then use the **Restore** tab in the **Configuration** application to restore your files.

Once your old computer data is re-associated with your new computer, files that have been previously backed-up do not need to be backed-up again because they are already stored on our servers. You can back-up and restore files as usual through the client.

4. Where do I put my restored files for common applications?

When you perform a restore, Pacnet DataVault typically restores the files to their original locations. However, if you are doing a Web restore, the files in the zipped file have the same directory structure as your hard drive. This means you can browse the directory structure of the restore files and hard drive and see how similar they are. Then you can copy the files from the restore location to the original folder.

5. Why can I not find my deleted files when doing a Web restore?

When selecting files for a Web restore, deleted files are not displayed by default. To view the files you deleted, you have to change the date to the date when the deleted file was last backed-up. It will appear in the list of files you can restore.

6. How do I change the date for the files I want to restore?

When you restore files from the client restore or the Web, you have the option to select the date of the files and folders you want to restore.

1. In the drop-down menus on the top-right corner of the page, select the date and time that correspond to the backup you want to restore.
2. Once you have selected a date, select the files and folders you want to restore.

7. The 7zip diagnostic window appears

When you try to unzip your downloaded files from the Web using Windows, the **7zip diagnostic window** appears stating that a certain number of files could not be opened.

This is usually caused by Windows® having difficulty reading long file names. The total length of the file name shouldn't be more than 256 characters.

To resolve the problem:

1. Download and install the 7zip application.
(<http://downloads.sourceforge.net/sevenzip/7z457.exe>)
2. Once you have installed 7zip, extract the files using 7zip instead of the Windows default extraction utility.

8. I am trying to restore my file, but it keeps sitting at the Loading Backup screen, what should I do?

It sounds like your backup file is too large for Internet Explorer to process. Please try to use another browser. We recommend using Mozilla Firefox. It is free and works exceptionally well with the Pacnet DataVault restore system. You can download it at <http://www.getfirefox.com>.

4. Configuration

1. How do I change my password?

1. Go to <https://login.datavault.pacnet.com/>
2. Click **Forgot your password**
3. Enter your email address, and select **Reset Password**.
4. Click **Continue**. An email will be sent to your given email address with a link for resetting your password.
5. Click on the link in the email.
6. Enter your new password.
Note: Your password must contain at least 8 characters.
7. Click **Continue**. Your password has been changed.
8. Once you have changed your password, you also need to change your password in the client.
 - a. Right-click the Pacnet DataVault icon in the system tray, then click **Configure**.
 - b. When the password box is prompted, type in your new password in the appropriate field.
 - c. Click **Login**.

2. Can I use Pacnet DataVault behind an HTTPS proxy?

Yes! Pacnet DataVault needs direct outbound access through SSL port 443, or an HTTPS proxy server that will allow connections through public servers on SSL port 443. That is just a fancy way of saying that as long as your Internet Service Provider lets us through; we can back up your data even through an HTTPS proxy. If you are having trouble, we suggest you contact your Internet Service Provider to make sure your settings are properly configured.

3. Can I change my encryption key?

To change your encryption key, you need to uninstall and then reinstall Pacnet DataVault on your computer. During the installation process, you will be asked for the type of encryption you want to use. Select your new encryption type and click **Next**.

Note: An encryption key is not the same as a password. Because encryption is based on the key, Pacnet cannot tell if it is same data. It actually looks different to the system. This means your data needs to be uploaded again, even if it was previously uploaded. Data uploaded with your original key is still available for 30 days.

Both 448-bit Blowfish and 256-bit AES encryption are considered secure by the encryption community; the only difference is that 448-bit Blowfish encryption uses a Pacnet DataVault default key, and 256-bit AES encryption uses a custom key that you choose.

Please remember the key you set when using 256-bit AES encryption as Pacnet will not be able to help you recover your key or your data. With 448-bit Blowfish encryption, you do not need to remember any key.

4. Can I view or edit my files on the Pacnet DataVault servers?

No, your files are encrypted and secured on the Pacnet DataVault servers. You must restore and download your files to your computer in order to view or edit them.

5. Why I cannot find my Program Files or Windows folders in my Pacnet DataVault Configuration?

We have hidden these files and folders. We do not recommend backing up your Program Files or Windows folders. However, you can retrieve them by opening your Pacnet DataVault Configuration. Select the **Options** tab then select the **Advanced** tab. Check **Show all protected operating system files**. You will then be able to select and back-up files and folders from your **Program Files** and **Windows Folders**.

6. What should I do if I lose my private encryption key?

Unfortunately, your data is inaccessible without the correct encryption key. Since you chose to use your own private key, we do not have access to your data and cannot help you decipher the information.

Remember to choose a private encryption key that you will not forget, or use Pacnet DataVault's own encryption key.

If you cannot access your data, you need to do a full backup of all your data since the machine is new to Pacnet DataVault. Your user account settings, quota, credits, and preferences remain the same.

7. Can I uninstall and reinstall Pacnet DataVault without affecting the backup sets I already have?

1. Before you uninstall, go to C:\Program Files\Pacnet DataVault\Config then copy the conf.dat file to a safe place, such as your desktop or a USB drive.
2. After you reinstall and configure Pacnet DataVault, put your conf.dat file back in the same location.

If you have already uninstalled and reinstalled, then you will just need to reselect the same files and folders as you had before.

One way you can check this would be to log into your Pacnet DataVault account on the web as if you were going to do a web restore, go back to a date before you uninstalled (calendar in upper right) then select **File system** tab to see all the files and folders that were in you backup at that time.

8. Why do I keep getting a ConnectionError1?

There are two possible causes of this error. First, your firewall may not have been configured to allow Pacnet DataVault through. You can verify this by temporarily disabling your firewall and trying to perform a backup. If Pacnet DataVault allows you to back-up your files when your firewall is disabled, it may find that is the problem of your firewall setting.

Second, if you have scheduled your backup at the top of the hour (such as 12:00 or 3:00), our network may be experiencing excessive congestion which may cause the connection to timeout. To resolve this issue, try to schedule your backups just off the top of the hour (such as 12:07 or 2:53).

9. How to use Pacnet DataVault when setting up a Firewall?

If you have setup a firewall, you will need to configure it to let Pacnet DataVault through.

Pacnet DataVault backs-up your data by making a secure TCP connection over the Internet to the Pacnet DataVault servers. This will usually trigger any firewall software, which will simply ask you if you want to let it through. Since backups happen automatically throughout the day, select the option that will always allow access.

Sometimes firewall software does not prompt you and blocks Pacnet DataVault by default. In that case, you need to manually configure your firewall.

If you are a firewall administrator, you can configure it with the following settings:

PacNetconf.exe, open outbound port 443

PacNetbackup.exe, open outbound port 443

10. When I try to install or upgrade my Pacnet DataVault, everything stopped working suddenly, what is happening?

It happens when an anti-virus software incorrectly detects Pacnet DataVault software as a virus and deletes the Pacnet.sys or oem.dll files, which renders Pacnet DataVault unusable.

Some of our users have recently encountered this issue with their anti-virus software application. If this application is running when you install or upgrade the Pacnet DataVault client, a message will pop-up prompting you to delete, quarantine, or ignore the "virus" (Pacnet DataVault) found. You must choose "ignore" for Pacnet DataVault to function.

5. Performance

1. Why does Pacnet DataVault show a different quota on the website and the client?

It may occur when the Pacnet DataVault Client has not updated with our servers yet.

To update your quota, right-click the Pacnet DataVault icon in the system tray and select **Settings**. It will then connect with Pacnet DataVault Servers.

When you connect to the Pacnet DataVault Servers during this process, your quota value in the Pacnet DataVault client is updated.

2. When running Pacnet DataVault, it seems to slow down my computer system. Is there any solution for this?

Click the **Configure** button on the main Pacnet DataVault window (it comes up when you double click the Pacnet DataVault icon by your clock in the system tray), and select the **Options** tab. You should see a section labeled **Backup Speed** containing a slider bar that you can move between **Faster Computer** and **Quicker Backups**. If you move it toward **Faster Computer**, the backup slows down and the computer speeds up after you click the **Save** button. It may take it a minute to take effect.

6. Server Backup

1. What's the difference between Desktop and Server licenses?

Pacnet DataVault has two different types of licenses Desktop and Server. You need one desktop license for each business computer you want to back-up, and one server license for each server you want to back-up. The Pacnet DataVault server license offers all the features of the desktop license, plus these additional features:

- Microsoft Windows® Server OS support
- Network share support
- Backup and restore of Microsoft Exchange®, Microsoft SQL® Server
- VSS writer backup and restore to Exchange, SYSVOL, and Active Directory

2. Does Pacnet DataVault support network drives (shared a drive or folder on network)?

Yes. Network drives are supported by Pacnet DataVault Server license only.

3. Can I backup and restore an individual email?

Pacnet DataVault Service does not support individual email backup and restore. It backs up and restores the entire Microsoft Exchange® Mailstore.

4. Can I backup a Microsoft Volume Shadow Copy (VSS) backup set from a network-attached device?

No, Pacnet DataVault only supports backup from the file system, not a VSS backup set.

5. How can I configure Microsoft VSS backup set rules?

For server backups, you might want to back-up Microsoft Exchange®, Active Directory, Microsoft SQLV Server, SYSVOL, registry, and COM+ data. This enables quick restoration in the event of data loss. Pacnet DataVault uses native Microsoft VSS writers to back-up the data while the services are running. Microsoft VSS support is only available on Windows® Server 2003 or later.

Important: This functionality is only available with a Pacnet DataVault server license.

If these services are running on your machine, the Pacnet DataVault client automatically detects the available services and displays them in the **Backup Sets** tab.

Important: These VSS writers must be started automatically before running Pacnet DataVault service.

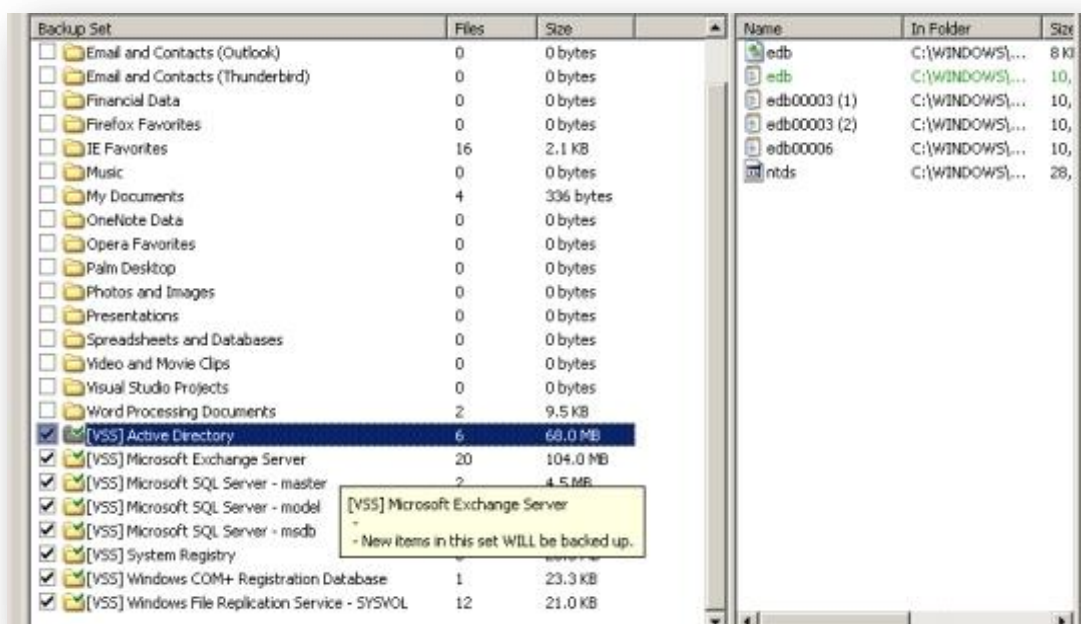


Figure 1: VSS Backup Sets

To back-up these applications for file sets, select the check box next to the backup set. The Pacnet DataVault client then automatically uses the Microsoft Volume Shadow-copy Service (VSS) Writer to do the backup.

At the time of backup, if the Exchange services are running, a request is made to the VSS, which notifies the Exchange services that a backup is about to take place. Once the backup has occurred, Exchange is notified that the backup has occurred successfully and Exchange deletes the Exchange logs.

To back up Microsoft SQL[®] Server, the SQL Server VSS Writer service must be re-started before the backup set displays. You should configure your SQL Server VSS Writer service to automatically start when Windows starts. When the backup sets appear for Microsoft SQL Server, each database displays as a separate backup set. The SQL Server services and SQL Server VSS Writer then flush any transactions pending on memory to the store file to ensure that the backup includes the most recent changes available; after which, a snapshot of the files are backed up.

After Pacnet DataVault has backed-up the file, only the changed blocks of the file are transmitted. This happens at the block level, not the file level, so subsequent backups can take minutes instead of hours.

This style of Exchange and SQL Server backup has minimal impact on the performance of the server as well as on the SQL/Exchange services. Because Pacnet DataVault avoids interfacing with the services directly, no downtime or slowdown of any kind is experienced.

Important: If you are configuring Pacnet DataVault to back-up a Microsoft Exchange[®] Server residing on the same hardware as the domain controller, it is important to select the VSS Active Directory and Windows File Replication Service (SYSVOL) backup sets.

6. How do I identify the cause of my VSS error?

Microsoft Windows contains several tools that aid in diagnosing VSS-related issues. Principle among these tools is the command line utility vssadmin.

Determine Writer Failure

VSS employs Writers that manage snapshots of different application data within Windows. To see what areas are encountering failures, we suggest doing the following:

1. Click on **Start**, then type **Command Prompt**. When **Command Prompt** appears, right-click on it and select **Run As Administrator**.
 - In Windows XP and Windows Server 2003, the command prompt can be found by clicking on **Start**, clicking **Run**, then typing *cmd* and clicking **OK**.
2. Type *vssadmin list writers* into the command prompt, then press **Enter**.

This command will indicate which VSS writers, if any, are failing. We recommend documenting the writer statuses for future reference. Knowing which writers fail is often essential to resolving any VSS-related issue. If you identify a failed writer belonging to a specific piece of software, please contact the maker of that software for a resolution. If there are multiple failed writers it may be a sign that the VSS service itself is not functioning properly.

Determine Provider Used

We recommend checking whether any other VSS providers have been installed. A standard install of Windows will create a single VSS provider; however several third-party backup programs can install separate providers that may be in conflict with Pacnet DataVault. To how many VSS provider, install in our desktop or laptop, please do the following

1. Type **vssadmin list providers** into the command prompt, then press **Enter**.

If you see more than one provider, this is likely the case of your current snapshotting issue, which prevents Pacnet DataVault from backing-up open files.

To resolve the conflicts related to multiple providers, we will need to add a new key to the Pacnet DataVault section of the Windows Registry. The steps are as follows:

1. Open a **Command Prompt**. (This can be done by going to Start > Run, typing *cmd* and then pressing Enter.)
2. In the **Command Prompt**, type *vssadmin list providers*, then press **Enter**.
3. Record the GUID of the **System** provider, excluding the brackets.
4. Open the **Registry Editor**. (This can be done by going to **Start > Run** and typing *regedit* and pressing Enter.)
5. In the Registry Editor, go to: HKEY_LOCAL_MACHINE\Software\Pacnet\DataVault\options.
6. Create a new **String Key**, by right-clicking and selecting **New > String Value**. Name the key **snapshotprovider**.
7. Double-click on **snapshotprovider**.
8. Enter the GUID of the System provider without the brackets, then click **OK**.

To have this change take effect, you will need to stop and restart the Pacnet DataVault service.

Explore Event Logs

VSS errors are typically registered within the Windows' event logs.

1. Type **eventvwr.msc** into the open command prompt and then press **Enter**.

Within the **Event Viewer** there are two logs in which VSS-related errors may be chronicled: The **Application Log** and the **System Log**. In **Windows® Vista** and **Windows® 7** these logs will be under the category **Windows Logs**, while in **Windows® XP** these logs will be immediately viewable. **VSS errors** will appear in the **Application Log** as entries with a source labeled **VSS**, and in the **System Log** they will appear with a source labeled **volsnap**. For both logs, we suggest sorting by source, then look for any items that match either of those source types. Document the **Event IDs** associated with these errors, as Internet searches for those **Event IDs** will be a big help in finding a resolution to your issue.

Take another look at the logs to determine whether there are any repeating errors. There are many other issues that can contribute to **VSS errors**, and they may be listed under different source headings. Some common service errors that impact **VSS** deal with the **COM+** services, or the MSDTC. Issues with the hard drive or file system can also cause VSS issues. In particular, look within the System log for any errors under the source **Disk**, **Ftdisk** or **NTFS**. If you see any errors or warnings under those source types, you may need to perform a checkdisk.

7. Why one or more VSS Backup Sets are missing from the Backup Sets tab in the settings window?

VSS Backup Sets only appear if the computer is using a DataVault Server License key and is running on Windows® Server 2003 or later. VSS backup Sets are required for backing up the following:

- Microsoft Exchange
- Active Directory
- Microsoft SQL Server
- SYSVOL
- Registry
- COM+ data

Note: Microsoft VSS support is only available on Windows® Server 2003 or later.

If you use any of the services identified above but you don't see these services selected on the **Backup Sets** tab, verify the following:

- Verify the computer is using a DataVault Server license.
- Ensure that the system volumes are formatted as NTFS and not FAT32.
- Be sure the software you expect to back up is actually installed, for example SQL.
- If you have 2003 Small Business Server (SBS) and Exchange Server is not appearing as one of the backup sets, obtain the fix from Microsoft for backing up Exchange at <http://support.microsoft.com/kb/838183/>.

- Ensure that the required services are running (started and on automatic):
 1. Click **Start >Run**, then type services, then press **Enter**.
 2. Verify the following services are set to Started and that the Startup Type is set to Automatic:
 - COM+ Event System
 - COM+ System Application
 - Microsoft® Software Shadow Copy Provider
 - Distributed Transaction Coordinator (MSDTC)
 - DataVault Backup Service
 - Volume Shadow Copy
- Force a scan, and then restart the DataVault backup service:
 1. Click **Start > Run**, then type **regedit**, then type **Enter**.
 2. Browse to `hkey_local_machine\software\Pacnet\DataVault\state`.
 3. Right-click `vss_scan`, and then click **Modify**.
 4. Change the value of `vss_scan` to 1.
 5. Click **Start > Run**, then type services, then press **Enter**.
 6. Right-click on the **DataVault Backup Service**, then select **Restart**.

8. Why isn't Pacnet DataVault backing-up Exchange files?

If you are running Microsoft® Small Business Server® 2003, you need to perform the following steps to ensure your Exchange files will be backed up.

1. Click the **Start** menu, then click **Run**.
2. Type **regedit**, and then click **OK**.
3. Locate and then double-click the following registry subkey:
`HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSExchangeIS\Parameters System`
4. Double-click the **Disable Exchange Writer** value.
5. In the **Value** data text box, change the value from 1 to 0, and then click **OK**.
6. Quit the **Registry Editor**.
7. Click the Start menu, then select **Control Panel**.
8. Double-click **Administrative Tools**, then click **Services**.
9. Stop and then restart the Microsoft® Exchange Information Store service.
10. Click the **Start** menu, then click **Run**.
11. Type **regedit**, and then click **OK**.
12. Locate and then double-click the following registry subkey:
`hkey_local_machine\software\PacNet\DataVault\state`
13. Right click on the **vss_scan** and select **Modify**.
14. Change the value of `vss_scan` to 1.
15. Restart the **Pacnet DataVault** service.

9. Why isn't Pacnet DataVault backing up Outlook .ost files on Microsoft Vista or 7?

Microsoft Outlook generates an OST database file when it is used to import email from an Exchange server. The OST is a local database copy of the user's Exchange data. Microsoft blacklists this file from being snapshotted by VSS because it is a redundant copy of server-side data. As of the DataVault Windows version of the client the OST file is blacklisted in Pacnet DataVault as well and is unavailable to be backed-up. In the event of data loss, it's recommended that the user contact their Exchange administrator for help in restoring their email.

10. When performing a restore, Pacnet DataVault stops with the following error message: Snapshot Error5.

A snapshot error occurs because Pacnet DataVault received an error or invalid response from the Volume Shadow Copy service.

A snapshot error does not necessarily mean that no files were backed-up; rather it is an indication that Pacnet DataVault could not use VSS. It is possible for Pacnet DataVault to successfully back-up all files and still receive this error. To determine which files failed, look to the Other Details column in the Pacnet DataVault history for the associated backup

Here are a few general troubleshooting steps that may help resolve your snapshot error:

1. Ensure that you are using a version of Windows® 2003 or above.
2. Reboot your computer. This will close any open or locked files and restart any crashed services required by VSS.
3. Ensure there is sufficient free disk space. If the errors are occurring while backing-up from a drive with low free disk space, you can use the vssadmin tool to point the VSS storage location to another volume. You may also use the vssadmin tool to adjust the portion of the volume set aside for shadow copies.
4. Check the file system in use on the drive experiencing the problem. This can be viewed by right-clicking on the drive under Computer, and selecting properties. The drive using VSS must be NTFS.
5. Ensure no other backup software is running while Pacnet DataVault is performing a backup.
6. Open the services console and verify that the properties of the following services have their Startup type set to Started and their Service type set to Automatic:
 1. COM+ Event System
 2. COM+ System Application
 3. MS Software Shadow Copy Provider
 4. Volume Shadow Copy
 5. Distributed Transaction Coordinator

If you are running multiple backup services, determine whether a 3rd party VSS provider is installed. If there are multiple providers listed, please force Pacnet DataVault to use the Microsoft System Provider.

11. How do I backup File Replication Service (SYSVOL)?

SYSVOL content can be backed up through the **SYSVOL Backup Set**.

First ensure that **Show all Pre-configured Backup Set** option is enabled.

To do this, open the **Pacnet DataVault Settings** window. Click on the **Options** tab and then on the **Advanced** sub-tab. Once enabled, click on the **Backup Sets** tab and then on **File Replication Service (SYSVOL)**.

If the **Backup Set** still isn't listed, follow the instructions below to rescan the VSS writers:

1. Open the **Windows Services Management** tool (run the command `services.msc` in Command Prompt) and ensure that the **File Replication System** writer is running. Alternatively run the command `net start ntfrs` in the command prompt.
2. Then force Pacnet DataVault to rescan the list of VSS Writers by opening the **Registry Editor**, navigating to the following Registry Branch:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Pacnet\DataVault\state
```

From this registry branch, change the value of **vss_scan** to 1. Alternatively you can run the following command in Command Prompt:

```
REG.EXE ADD HKEY_LOCAL_MACHINE\SOFTWARE\Pacnet\DataVault\state /v vss_scan /t REG_DWORD /d "1" /f
```

3. For the changes to take effect, restart the **Pacnet DataVault Backup Service** through the Services window. Alternatively you can run the following commands in Command Prompt:


```
net stop PacNetbackup
```

```
net start PacNetbackup
```
4. Open the **Backup Sets** tab from the DataVault settings window once more and ensure that the **File Replication Service (SYSVOL)** backup set is listed.