

Continuous Data Protection for Files / FastBack for Workstations

“Frequently Asked Questions”



Author: Erik Wilkinson

Date: November 13, 2012

Document revision: 3.4

Table of Contents....

General Questions.....	3
TSM Related.....	6
WebDav Related.....	8
Email Related.....	8
Encryption, Compression, Subfile questions.....	11
Install Related.....	11

General Questions

Can I set scheduled backup to run Monday – Friday?

No. The options for E-mail and Schedule backup are: (E-mail and files/directories include in the Schedule backup list will happen at the same time)

- 1) Never: No scheduled protection.
- 2) Hourly: Files will be backed up every hour.
- 3) Daily: If you choose this interval, also select the time of day for the backup.
- 4) Weekly: If you choose this interval, also select the day and time for the backup.
- 5) Monthly: If you choose this interval, also select the day of the month and time for the backup.

What is the criteria CDP uses to determine if a Scheduled backup should occur? (Daily example)

GO: If the scheduled ChangeJournal.log_LastSuccess file does not exist.

GO: If the date stamp on the last scheduled backup is more than 24 hours old (sysprotect-r remote-schedule setting).

GO: If we're within 1 minute of the scheduled target time, and it has been more than 30 minutes since we've done a forced backup.

GO: If a ChangeJournal.log_InProgress file exists

How do I properly setup my USB key as a remote server for CDP?

In order for CDP to backup data properly to a USB key it is best to set up the USB key as a mount point. Please refer to the technote below for proper setup.

<http://www->

[1.ibm.com/support/docview.wss?rs=2339&context=SS3PE6&dc=DB520&dc=DB560&uid=swg21245761&loc=en_US&cs=utf-8&lang=en](http://www-1.ibm.com/support/docview.wss?rs=2339&context=SS3PE6&dc=DB520&dc=DB560&uid=swg21245761&loc=en_US&cs=utf-8&lang=en)

Can I delete files manually from my local or Remote RealTimeBackup directory?

No, Let CDP handle purging of old files. When CDP needs more space in the local or remote location it will delete old versions of files first then continue to delete the oldest files until it has enough space to save the current file it is backing up.

Does Scheduled backup pickup all changes to a file when backed up?

No, the scheduled backup will only backup the most recently changed version of the file to the remote server. CDP for files does not cache files that are queued for scheduled backup. If the remote server is not available when the scheduled backup is supposed to happen, and the file has been changed multiple times since the last scheduled backup. Only the most recent copy of the file is backed up when the scheduled backup occurs.

How do I import a new configuration file (fpa.txt) for CDP?

There are two ways, which will force CDP to consume a new configuration file:

- a. Kill FilepathSrv.exe using Task Manager, copy the new fpa.txt into CDP's data directory, reboot the system.
- b. Open a command window, change directory into CDP's install directory (default C:\Program Files\Tivoli\CDP_for_Files) and run the command
fpa import file=c:\fpa.txt ****Note:** the fully qualified drive and folder location of the fpa.txt file must be specified in the command

Can I pause Remote Backup when there is heavy traffic on the network?

Yes, right click on the CDP icon in the systray and select the Pause Remote Replication. When you want Remote Replication to continue you can right click on the icon again and chose Resume all Replication. You will want to look through technote "What to expect when pausing CDP's Remote Replication" for expected behavior to different types of remote servers. http://www-1.ibm.com/support/docview.wss?rs=2339&context=SS3PE6&dc=DB520&dc=DB560&uid=swg21284766&loc=en_US&cs=utf-8&lang=en

If I am set up to do local and remote continuous protection but I am not connected to the Remote server what will happen when I make changes to watched files?

If watched files are changed when the cdp client is not connected to the Remote Server the file is queued for backup. If multiple changes happen to the file each time the file is save it will be added to the queue. When the Remote storage is back online, CPD will backup the most recent copy of the file and the others in the queue are skipped.

Is there a way to specify a different machine name for the CDP clients? The users laptops have strange official machine name and would like to designate a different name for the CDP client.

Yes, you can create a file in the CDP/FastBack for Workstations install directory called MACHINENAME.TXT. This file should contain the new machine name with no carriage return after the name. This file can also be supplied during the install like a pre-configured fpa.txt file. Just put the file in either the C:\Windows\System32 directory or use the install command line parameter CUSTOM_CONFIG_FILES_PATH. Refer to the Users Guide for more information on installation parameters and how to use them.

What happens if I have scheduled backup set up within CDP and when the time comes to do the backup the CDP client is not connected to the Remote Server?

When the Remote Server does come back online CDP will perform the scheduled backup. CDP will backup all files in the scheduled backup queue, only the most recent file will be backed up to the Remote Server.

Does CDP notify me when it is going to purge files off the Local or Remote Storage Pools?

Not at the present time. CDP works quietly in the background backing up your files as they change. When you remote or local pools are at or near capacity CDP will purge files to make room for new files to be backed up. The oldest versions of files are purged first, then oldest files. CDP works on the idea of a FIFO(first in first out) for purging.

How do I change the CDP default port from 9003.

To change the port that the CDP daemon uses change the following registry key:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\FilePathsrv\FpPort

The value is a DWORD.

CDP automatically creates the key so it should already exist and show the default value of 9003. Change it to the number of a free port on your system. Use netstat -a -b > out.txt. Review the out.txt file to pick and unlisted port.

After making the change , kill the filepathsrv.exe process if it is running then go to Start->All Programs->Startup->CDPForFilesSrv to start the daemon again.

What application specific authentication measures, for example application based passwords does CDP use?

The authentication method CDP uses to connect up to the backup target is dependant on the target type.

If the backup target is a network file system then authentication is done by whatever means the file server demands, for example if you are connecting to a fileserver on a Windows domain then Windows domain authentication is used. In this case CDP is not involved in authentication.

Authentication is done outside of the CDP application.

If the target is a webdav server CDP will use basic authentication to log on and it will save the users credentials to a local file.

If the target is a TSM server then TSM will store a password locally in the registry that will automatically and periodically change.

Another area where CDP needs to handle a user's password is in the case where CDP's file encryption feature is enabled. In this case CDP will store a password in an encrypted local file that will be used to encrypt and decrypt the files that are backed up.

Finally, if CDP is used to backup encrypted Lotus Notes databases then the Lotus Notes password is stored in an encrypted file on the client machine.

If my hard drive crashed and I need to rebuild my machine is it possible to restore files from the old machines remote backup location?

Yes, after rebuilding the machine and installing CDP, click on the Restore button and then and then navigate to the old backup location on the remote server (other will need to be selected for the "From Location Type" under the Search link and then either browser or type in the full path to the old backup location). Select the file/files to restore and select a new location for the restore.(Do not select original location).

In the 6.3.X versions there is a Restore Wizard to help recover files and previous system configuration files.

I have continuous protection set but scheduled protection is off, why do I not get backup reports for continuous protection?

At this point, the backup reports are generated for scheduled protection only.

Can CDP be set up to backup new and changed files once a day?

Yes, there is a link to "Scheduled Backup Settings" on the Email Protection Page.

Click on that link and it will bring up an Include/Exclude list like the one for continuous backup.

Click on Include and select the directory/files you want to include

Click ok then ok

Then select "Daily" in the "How often to protect your e-mail" (Scheduled backup is at the same interval as email backup)

Then select what time of day you want the backup to occur...select a time when you expect the system to be up and running.

Click Apply.

The scheduled backup will now be set for daily backups at the time you specify.

When doing a Restore how is that initial list under "Files to Restore" populated?

The last 100 lines of the replication log are scanned for files backed up and display them in the table.

Can the CDP GUI work in the offline mode for the browser being used?

No, the user will experience browser popup error messages when working in the offline mode.

TSM Related

What is the ideal setup for using CDP with TSM?

The best setup for using CDP with TSM is to create a dedicated fileserver for all CDP clients as the remote backup location. Then use TSM to backup the fileserver.

Refer to the technote titled: **Tivoli Storage Manager FastBack for Workstations / IBM Tivoli Continuous Data Protection for Files Setup, Usage Recommendations, Problem Resolution, Limitations and Known issues when using a Tivoli Storage Manager server as the remote backup location.**

How do I set up CDP to go to a TSM server if my node name in TSM is not the same as my machine name?

1. Using an editor like Notepad, open the dsm.opt file in the CDP_for_Files data directory. The directory is: C:\Documents and Settings\All Users\Application Data\Tivoli\CDP_for_Files, on Vista or Longhorn the Directory is C:\ProgramData\Tivoli\CDP_for_Files.
2. Add the NODENAME to CDP's dsm.opt file. To do this, go to the end of the file, and on a new line add the following text:

NODENAME (type name)

3. Save the dsm.opt file.
4. Open Task Manager and kill FilepathSrv.exe process
5. Restart the FilepathSrv. All Programs->Startup->CDPforFilesSrv

Note: in place of steps 4 and 5 the system can be rebooted

Why does the password prompt keep popping up when using Tivoli Storage Manager as the remote backup location?

When using a Tivoli Storage Manager Server as a backup target, the password prompt keeps popping up if the User account on the machine does not have administrative privileges. The reason is because Tivoli Storage Manager needs full access to the following registry path in order to save the password:

HKEY_LOCAL_MACHINE\SOFTWARE\IBM\ADSM

This only applies to users in the users group on Windows XP, Windows Vista and Windows 7, and users in the administrator groups on Windows Vista and Windows 7.

To fix the problem, use regedit to grant full access to the user running CDP or Tivoli Storage Manager FastBack for Workstations. Full access must be granted to the following keys:

HKEY_LOCAL_MACHINE\SOFTWARE\IBM\ADSM

Note: Applies to CDP version 3.1.7, FastBack for Workstations 6.1.1 and higher

Prior releases require full access be granted to the following keys:

HKEY_LOCAL_MACHINE\SOFTWARE

HKEY_LOCAL_MACHINE\SOFTWARE\IBM

HKEY_LOCAL_MACHINE\SOFTWARE\IBM\ADSM

Can I turn on CDP's sub-file setting when going to a TSM Remote server?

No, sub-file to a TSM server is not supported.

Why does my TSM activity log show CDP restores sessions although no restores were taking place?

If CDP's compression is turned on, CDP needs to occasionally read header information from the files on the server. These reads will show up as restores in the TSM activity log.

I setup my remote backup location to be a TSM server but have noticed the following error in the View Report page:

"FilePath ERROR ANS1126E (RC27) The file space cannot be deleted because this node does not have permission to delete archived or backed up data."

What should I do?

This is caused by the client node not have Backup Delete permissions on the TSM Server. Have the TSM Admin add backup delete permissions for you node.

Can I turn on CDP's compression or encryption when going to a TSM server?

When going to a TSM Server, CDP's compression/encryption, and subfile need to be turned off. If compression or encryption is required then TSM compression/encryption should be turned on. Refer to the technote titled: **Tivoli Storage Manager FastBack for Workstations / IBM Tivoli Continuous Data Protection for Files Setup, Usage Recommendations, Problem Resolution, Limitations and Known issues when using a Tivoli Storage Manager server as the remote backup location.**

When using TSM encryption what settings can I use to activate the encryption?

CDP for Files/Tivoli Storage Manager FastBack for Workstations does not support prompted encryption. If you specify Tivoli Storage Manager server as your remote storage area, you must configure non-prompted encryption in the dsm.opt options file.

To enable the TSM API level of encryption, do the following:

1. Open the CDP's or Tivoli Storage Manager FastBack for Workstations dsm.opt file and enter:
 encryptkey generate
 enableclientencryptkey yes
 include.encrypt *\\...*
2. Restart the filepathsrv.exe.

The above setting will tell the TSM API to encrypt all data.

In the dsm.opt file, use the statement: encryptkey generate. See *Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide* for information about setting encryption options in Tivoli Storage Manager dsm.opt file.

If you back up directly to a TSM server, do you need a TSM client license in addition to a CDP license?

No.

Can you back up directly to a TSM Extended Edition server, or do you have to back up to TSM Express?

You can back up to TSM/TSM EE/TSM Express, CDP uses the TSM API to do the backups to the TSM server.

If there will be thousands of CDP "Clients" to register with TSM, can CDP perform auto registration?

No. You have to register the client via the TSM admin tool.

When backups are scheduled, are files backed up only if they were modified since the last backup?

Yes, it's a journal based backup

If the policy at the TSM server is set to keep three versions of a backed up file, will those three versions be visible to the CDP machine for restore activities?

No. CDP does its own versioning.

WebDav Related

What authentication type is supported with a WebDav server?

Basic authentication is supported by CDP to a WebDav server. CDP does not support any Microsoft proprietary type authentication.

Email Related

Can I include my email files in continuous protection and have it set for email protection too?

This is not the correct setup to get all the benefits of CDP's email protection.

You should only include your email files on the Email Protection page in the Settings Notebook. Otherwise, the full file will be backed up each time it changes, you will not get the bitmap level changes.

What should I expect if I have my Email Application folder set to *.rob and I have files included in my Continuous include list like test.rob?

If you have file full names in the continuous include like test.rob and have *.rob for the Email Application folder. When test.rob changes it will be added to the remote replication queue and the scheduled replication queue. When CDP tries to replicate the file to the remote server it checks the email list (.rob there), so it will skip the test.rob backup for continuous backup. The changes to test.rob will be backed up when the schedule backup kicks off.

If you reverse the includes and have *.rob in the continuous and test.rob for the email file. Only test.rob will be included in the email backup, the rest will be handled by continuous backup. When the continuous replication queue handles the backup then the entire file will be copied to the server when it is changed. When the scheduled backup handles the email backup then only the parts of the file that changed will be sent to the server when there is a full version on the server already.

What is fpapicomsrv.exe under the CDP install directory?

fpapicomsrv.exe is a proxy that allows filepathsrv.exe to coordinate backups of Lotus Notes databases with Lotus notes. It does this by calling the Lotus Notes API on behalf of filepathsrv.exe.

Why is the fpapicomsrv.exe process running? And will it disturb other application processes?

The process gets launched whenever CDP is backing up a Lotus Notes database.

Because of its architecture any application that calls into the Lotus Notes API has the potential of causing applications that use the Notes API, including Lotus Notes itself to fail. In fact, the reason filepathsrv.exe does not link to and call the Notes API directly is to isolate it from crashes caused by other Notes API using processes.

When using the email backup and selecting Outlook as the email application will all my *.pst files be backed up?

As the pst files change they will be backed up when the next Scheduled backup runs. If the pst files is open in Outlook during the backup the file will be a crash consistent backup.

What is the difference between Email bitmap backup and Subfile backup?

The following chart details the differences between the two backup types:

	Subfile Backup	Email Backup
Requires the Local pool to be enabled	Yes	No
Generations supported	No only one version is kept.	Yes, multiple versions are kept their number is limited by a setting.
Local pool support	No, .FPdelta files are not created for file backed up to the local pool	No, remote only
Method of change generation/tracking	Changes are generated at the time of the backup by comparing a revision kept in the local pool with the current file.	Changes made since the last backup are tracked by the kernel mode filter driver.
Filesystem Storage overhead	Disk space is used up by the copy in the local pool that generally contains the entire file minus the changes.	a small file is created to track changes. This file typically contains 8KB. The actual size depends on the size of the file being tracked.
Application Overhead	The only involvement of CDP is when the application "opens" "writes" and "closes" the file. The "write" path is monitored simply to see if any write was made. In the "close" path an event is added to CDP's replication queue.	CDP will monitor when the application "opens" , "writes" and "closes" the file. In the "write" path It keeps track of these changes in memory and periodically writes them to a file.
CPU Overhead During Backup	During backup the CPU is used when comparing the file to its local copy.	Considered, to be more IO bound than subfile backups. Files containing information about changes are read to determine the offset of the data from the original file that has changed and the original data is read then written to the offset in the remote base file.
Bandwidth	There is an 8 to 20 byte overhead in the expression of each change in the .FPdelta file. Change records in the .FPdelta file are created using byte differences between the base and the current version of the file. When a lot of changes accumulate then the entire file is sent to the remote target so bandwidth consumption increases.	There is an 8 to 20 byte overhead in the expression of each change in the .TPdelta file. Change records in the .TPdelta file are created using information about changed blocks. Blocks can be greater than the amount of data that was actually changed the block. The amount of data that a block represents varies depending on the size of the file. When more than 1/2 the file changes the entire file is sent to the remote target so bandwidth consumption increases.
Purge	Files are purged when the remote pool quota is reached to make room for more files.	Files are not purged to make room for more files.

Storage on remote system	a base file with a similar name as the source file and a .FPdelta file to contain the deltas.	can have multiple base files and multiple delta files up to the set number of versions. The delta files have the .tpdelta extension.
Scheduled or Continuous	Can only be done as a continuous backup	Can only be done as a scheduled backup
Supported Target Types	File servers and Webdav enabled Apache servers (This type of backup cannot be used for TSM and Webdav enabled IIS serves)	File servers and Webdav enabled Apache servers (This type of backup cannot be used for TSM and Webdav enabled IIS serves)
Suitability	Suitable for most files.	Suitable for Email applications whose architecture involves large files that are treated like a database. Example are Notes (.nsf files) and Outlook (.pst files)
CDP Encryption supported	yes	yes
CDP Compression supported	yes	yes
Open file support	Backups get triggered after a changed file is closed. Opened files will not trigger a back up until they are closed.	A backup for any opened files will be triggered at the scheduled time. The backup will be made in a crash-consistent state. (Backups of Lotus Notes databases are an exception to this, Notes backups are coherent backups because CDP uses the Lotus Notes backup during backup)

Encryption, Compression, Subfile questions

If I turn on sub-file will I get the same number of versions as set for remote backup?

No, when the file passes over the sub-file setting a .FPdelta file is generated with just the changes to the file. This .FPdelta file is later applied to the base file when a restore occurs.

Can I restore just the base file of a file that has an .FPdelta sub-file associated with it?

No, the GUI only lets you select and restore the combined base file plus the .FPdelta file

Can I turn on CDP's sub-file setting when going to a TSM Remote server?

No, sub-file to a TSM server is not supported.

What type of Encryption does CDP use?

CDP uses AES-128 bit encryption.

If I forget my encryption password can I still restore a file that was encrypted with CDP?

No, CDP has no file recovery when a password is lost or forgotten. We suggest using a password that is easily remembered.

Install Related

During and install how can I specify a folder for a default fpa.txt file, dsm.opt file, networks.xml file, or MACHINENAME.TXT file?

The files can either be placed in the System32 directory before the install.exe is run or open a cmd window and change directory to the location of the install executable file. Then type this command for example:

```
6.3.1-TIV-FB4WKSTNS-x86_windows-FP0000.exe /S /v"/qn  
CUSTOM_CONFIG_FILES="D:\Default Config Files\""
```

This will result in a silent install with that will pull in the custom config files from the D:\Default Config Files directory.