Xpresstransfer Online Backup Manager – General Technical FAQ

1.	<u>General</u>	2
1.1.	Can you explain the concept briefly on how the Xpresstransfer software works?	2
2.	Xpresstransfer Online Backup Manager (XpresstransferOBM)	2
2.1.	What is the recommended bandwidth?	2
2.2.	How do I install XpresstransferOBM on FreeBSD?	2
2.3.	How do I install XpresstransferOBM on SCO Unix?	2
2.4.	How do I install XpresstransferOBM on AIX?	2
2.5.	The Installer doesn't seem to work. How can I manually install XpresstransferOBM on Windows?	3
2.6.	When we run the installer for Mac, the program starts and then after a few seconds just quits. What can we do?	3
2.7.	Are there any command line tools for XpresstransferOBM?	3
2.8.	How can I backup a huge dataset over the Internet?	3
2.9.	What is the best way to restore a huge data set?	3
2.10.	Can I change my encrypting key?	3
2.11.	What kind of encryption employed by XpresstransferOBM?	4
2.12.	Can I backup an entire Operating System?	4
2.13.	What are the upsides and downsides of backing up multiple computers using a single backup account?	4
2.14.	Does the XpresstransferOBM upgrade the installation of Java on a client machine, or does it install a separate copy for it own use?	4
2.15.	How does the "Remove retention files for overlap policy" under Advanced Retention Policy work?	4
2.16.	What is incremental backup and how does In-File Delta work?	5
2.17.	Does XpresstransferOBM have to stop the application when doing online backups?	5
2.18.	What are Off-line backup, Logout backup reminder and Local backup features?	5
2.19.	What do I have to do in order to backup open files?	5
2.20.	How does Volume Shadow Copy works?	5
2.21.	Is there a way to backup Oracle 7.3.4 on NetWare?	5
2.22.	How do I remove OBM completely from my Windows machine?	5
2.23.	Does XpresstransferOBM work with dial-up connections?	5

1. GENERAL

1.1. Can you explain the concept briefly on how the Xpresstransfer software works?

XpresstransferOBM is the client side program which uploads selected files to the Backup server and looks after scheduled backup jobs. It also provides a user-interface for configurations of desired backup sets. XpresstransferOBM supports a number of operating systems, e.g. Windows 2000, XP, 2003, Linux, Mac OS X, etc. Apart from file backups, XpresstransferOBM can backup a range of applications such as MS Exchange, MS SQL, Oracle, MySQL, Lotus Domino, etc.

2. Xpresstransfer Online Backup Manager (XpresstransferOBM)

2.1. What is the recommended bandwidth?

It really depends on the kind of data to be backed up, e.g. for personal file backups, the daily data transfer should be limited, while MS Exchange backup could be significant. You may want to use the following white paper as a reference: https://www.xpresstransfer.net/pdfs/white-paper-backup-speed.pdf.

2.2. How do I install XpresstransferOBM on FreeBSD?

You can either run XpresstransferOBM on a Linux version of Sun Java JDK (performance might not be optimized) or on a FreeBSD native Java SDK.

For the Linux version of Sun Java JDK option you need to:

- 1. Install Linux binary compatible port to the FreeBSD machine
- 2. Install the Linux version of Sun Java 1.4.2 or above JDK onto the FreeBSD machine
- 3. Create a symbolic link from \$OBM_HOME/jvm to \$JAVA_HOME (installed in previous step)
- 4. Run \$OBM_HOME/bin/RunBackupSet.sh [BACKUP_SET_NAME] to run your backup
- 5. Run \$OBM_HOME/bin/Scheduler.sh to start the backup scheduler

For the FreeBSD native Java SDK option you need to:

- 1. Install Linux binary compatible port to the FreeBSD machine
- 2. Install the Linux version of Sun Java 1.4.2 or above JDK onto the FreeBSD machine
- 3. Compile the FreeBSD native Java 1.4.2 SDK using the JDK compiler installed in the previous step
- 4. Install the FreeBSD native Java 1.4.2 SDK onto the FreeBSD machine
- 5. Create a symbolic link from \$OBM_HOME/jvm to \$JAVA_HOME (installed in previous step)
- 6. Run \$OBM_HOME/bin/RunBackupSet.sh [BACKUP_SET_NAME] to run your backup
- 7. Run \$OBM_HOME/bin/Scheduler.sh to start the backup scheduler

2.3. How do I install XpresstransferOBM on SCO Unix?

Do the following to install XpresstransferOBM on SCO:

- 1. Install Java 1.4.x or above onto your SCO Unix box
- 2. Download obm-linux.tar.gz and expand it to \$OBM_HOME (e.g. /usr/local/obm)
- 3. Delete \$OBM_HOME/jvm and create a symbolic link from \$OBM_HOME/jvm to the SCO Unix Java VM
- 4. Run \$OBM_HOME/bin/BackupManager.sh to setup your backup set (or run \$OBM_HOME/bin/Configurator.sh if you are under command line mode. Then use the XpresstransferOBS Management Console to setup your backup sources and other settings)
- 5. Run \$OBM_HOME/bin/RunBackupSet.sh [BACKUP_SET_NAME] to run your backup
- 6. Run \$OBM_HOME/bin/Scheduler.sh to start the backup scheduler

2.4. How do I install XpresstransferOBM on AIX?

Do the following to install XpresstransferOBM on AIX:

- 1. Install Java 1.3.x or above (Java 1.4.2 or above recommended) onto your AIX box
- 2. Download obm-linux.tar.gz and expand it to \$OBM_HOME (e.g. /usr/local/obm)
- 3. Delete \$OBM_HOME/jvm and create a symbolic link from \$OBM_HOME/jvm to the AIX Java VM
- 4. Run \$OBM_HOME/bin/BackupManager.sh to setup your backup set (or run \$OBM_HOME/bin/Configurator.sh if you are under command line mode. Then use the web interface to setup your backup sources and other settings)
- 5. Run \$OBM_HOME/bin/RunBackupSet.sh [BACKUP_SET_NAME] to run your backup
- 6. Run \$OBM_HOME/bin/Scheduler.sh to start the backup scheduler

2.5. The Installer doesn't seem to work. How can I manually install XpresstransferOBM on Windows?

Try manually installing XpresstransferOBM by zipping the program directory (e.g. C:\Program Files\XpresstransferOBM) on another machine with XpresstransferOBM installed and do the followings on the target machine:

- 1. Create the directory C:\Program Files\XpresstransferOBM
- 2. Unzip the XpresstransferOBM program directory archive to C:\Program Files\XpresstransferOBM
- 3. Run C:\Program Files\XpresstransferOBM\bin\install.bat
- 4. Run C:\Program Files\XpresstransferOBM\bin\Install-Scheduler.bat

2.6. When we run the installer for Mac, the program starts and then after a few seconds just quits. What can we do?

Try manually installing XpresstransferOBM on your Mac with following instructions:

- 1. If you do not have the Macintosh version of the Backup manager, send an email to support@xpresstransfer.net requesting it. If you have not registered on our website, go to https://www.xpresstransfer.net/order.htm.
- 2. you will then be given the location to download the software
- 3. Expand obm50-mac.zip into /Applications/XpresstransferOBM
- 4. Run "chmod -R 755 /Applications/XpresstransferOBM" using Terminal
- 5. Double-click the /Applications/XpresstransferOBM/BackupManager.app bundle

2.7. Are there any command line tools for XpresstransferOBM?

Yes, there are a set of scripts in [XpresstransferOBM Program Home]\bin and they are described below:

<u>Windows:</u> -Decrypt.bat: decrypts the specified backup files -install.bat: installs the XpresstransferOBM icon to the System Tray and registers the Online Backup Scheduler as a service -Install-Scheduler.bat: registers the Online Backup Scheduler as a service -RegisterVSS.bat: re-registers Microsoft's Volume Shadow Copy service DLLs -Remove-Scheduler.bat: unregisters the Online Backup Scheduler service -Restore.bat: restores the specified snapshot of the backup set to the specified location -RunBackupSet.bat: runs the specified backup set -RunOBM.bat: launches the Online Backup Manager user interface -Run-Scheduler.bat: starts the Online Backup Scheduler service -SeedLoad.bat: runs seed load for the specified backup set to the specified location -Uninstall.bat: removes the XpresstransferOBM icon from the System Tray and unregisters the Online Backup Scheduler service

<u>Linux</u>: -BackupManager.sh: launches the Online Backup Manager user interface -Configurator.sh: configures client parameters such as Backup Server address, username/password, encrypting key, etc. -Decrypt.sh: decrypts the specified backup files -Restore.sh: restores the specified snapshot of the backup set to the specified location -RunBackupSet.sh: runs the specified backup set -Scheduler.sh: starts the Online Backup Scheduler service -SeedLoad.sh: runs seed load for the specified backup set to the specified location -StopScheduler.sh: stops the Online Backup Scheduler service

- * You may have to set some variables in these scripts and more instructions are provided.
- 2.8. How can I backup a huge data set over the Internet? If you have a lot of data (e.g. 300GB) to backup to the backup server, it would take a considerable amount of time to perform the first full backup through the Internet. You can use the Seed Loading Utility to backup your backup set to local hard disk (instead of directly to the backup server) and then transport the backup data, using a removable hard disk, to us. We then load all your backup files from your removable hard disk into your backup account. This could save you days (even weeks) of performing your first full backup. And since subsequent backups are incremental (only new or updated files will be uploaded to the server), the amount of data transfer should be relatively small. Please refer to the User's Guide for details on the "Seed Loading Utility".
- 2.9. What is the best way to restore a huge data set? It is possible to copy the data of the particular backup set which resides on the Backup server to a removable media, e.g. external harddisk, which can be shipped to you. You can then use the "Decypt Files Tool" in XpresstransferOBM to restore the backup data on removable media to its original format. There is a fee for this service and the physical media. The fee depends on the amount of data we have to copy.
- 2.10. Can I change my encrypting key? Once set for a Backup Set, the encrypting key cannot be changed. This is necessary for the integrity of the Backup Set, making sure that backup data is only encrypted by one key. Otherwise, you will have problems remember two encrypting keys when you want to restore your Files in the future. You need to recreate your Backup Set if you really want to change your encrypting key.

2.11. What kind of encryption employed by XpresstransferOBM?

There are two encryptions being performed by XpresstransferOBM:

- 1. Encryption of backup data This is being done by 128-bit symmetric key encryption (AES, TripleDES, TwoFish). 256 bit is not available because it requires too much CPU and it is not really required (128-bit is what is being used by most banks currently)
- 2. Encryption of backup traffic This is being done by 1024 bit RSA public key encryption. The strength of the encryption depends on the key size you use when you generate your CSR before submitting to your CA. 1024 bit is what is being used by most CAs.

2.12. Can I backup an entire Operating System?

Currently, it is not possible to do hard disk image backup with XpresstransferOBM. However, you can still backup/restore the operating system by doing the followings:

To backup all files including the operating system, please do this:

- 1. Add all files to your backup source
- 2. Add a SystemState backup type to your backup account (Windows only)

To restore all files including the operating system, please do this:

- 1. Re-install the operating system and applications
- 2. Restore the SystemState backup to your machine (Windows only)
- 3. Restore all files to your machine

2.13. What are the upsides and downsides of backing up multiple computers using a single backup account?

Upsides: -You require less backup accounts -You can use one pair of username and password to configure the backup setting of all backup settings

Downsides: -You must use different backup sets for different computers -Whenever a new backup set is created under the backup account, you need to go back to all computers using the same backup account to uncheck the "Run scheduled backup on this computer" option for the new backup set (as backup setting is saved on server and new backup set is default to run on all computers, i.e. with the option checked) -Improper configuration could easily cause problems, which are difficult to debug.

2.14. Does the XpresstransferOBM upgrade the installation of Java on a client machine, or does it install a separate copy for it own use?

XpresstransferOBM uses its own copy of Java and leaves the system Java VM intact.

2.15. How does the "Remove retention files for overlap policy" under Advanced Retention Policy work?

In general, daily snapshots followed by a weekly snapshot or a monthly snapshot, etc. will be removed; weekly snapshots followed by a monthly snapshot or a quarterly snapshot, etc. will be removed; and so on.

This is illustrated by the following example. Assume today is 17 Jan 06, and the Advanced Retention Policy is as follows:

-Daily: retain for 7 days-Weekly: retain for 4 weeks (the job will be performed on Saturday)-Monthly: retain for 3 months (the job will be performed on 1st of each month)

If "Remove overlap policy" is NOT enabled: Then a total of 14 snapshots (7+4+3) will be kept on the server accordingly, i.e.: (daily) 10Jan06, 11Jan06, 12Jan06, 13Jan06, 14Jan06, 15Jan06, 16Jan06 (weekly) 24Dec05, 31Dec05, 7Jan06, 14Jan06 (monthly) 1Nov05, 1Dec05, 1Jan06

If "Remove overlap policy" is enabled: Then only the following snapshots are kept: 1Nov05, 1Dec05, 1Jan06, 14Jan06, 15Jan06, 16Jan06.

Specifically, the weekly policy overrides the daily policy so 10Jan06, 11Jan06,12Jan06 and 13Jan06 will be removed. The monthly policy overrides the weekly policy, and 24Dec05, 31Dec05 and 7Jan06 will be removed as well.

2.16. What is incremental backup and how does In-File Delta work?

In an incremental backup, only modified files will be uploaded to the Backup Server.

On the other hand, In-File Delta is applicable to the physical files to be uploaded to the Backup Server, does not matter whether it is a MS SQL database file, MS Exchange transaction log file or any normal file in a FileBackupSet. Specifically, only the changed blocks in comparison the original file on the Backup Server (delta file) will be uploaded.

For each modified file, XpresstransferOBM would determine whether the entire file or only delta file should be uploaded. If the entire file is to be uploaded, the old version of the file will be moved to the Retention area. Else if only the delta file is to be uploaded, the previous delta files will be moved to the Retention area and the Data area should contain the original full backup file, checksum file and the latest delta file of this file.

- 2.17. Does XpresstransferOBM have to stop the application when doing online backups? XpresstransferOBM can backup application data while the application is still running. Particularly, we have special agents for MS Exchange Server, MS SQL Server, Oracle, Lotus Notes and MySQL, which allows these applications to be backed up while they are online. With the Volume Shadow Copy feature started from XpresstransferOBM v5.0, we are able to backup other types of applications while they are online.
- 2.18. What are Off-line backup, Logout backup reminder and Local backup features? Off-line backup is basically designed for notebook users who are off-line most of the time and cannot rely on backup schedule to backup regularly. The backup interval allows notebook users to specify the interval that they would like their data to backup. If this interval has elapsed, backup will run automatically once this machine is online. Logout backup reminder asks user if they would like to backup if they logout of the computer or shutdown their computer. Local backup allows an extra copy of backup to be kept on local hard disk when running
- 2.19. What do I have to do in order to backup open files? Volume Shadow Copy, which allows backup of open file, comes with Windows XP and 2003 by default. For older platforms, e.g. Windows 9x/ME/NT/2000 or NetWare, we would recommend adding a third party open file manager option (e.g. St. Bernard Open File Manager http://www.stbernard.com/) which might cost around US\$100 for each workstation and US\$300 for each server if open file backup is required. * Open file option is not required on Linux/Unix/Mac OS X because no files are held exclusively open by applications.
- 2.20. How does Volume Shadow Copy works? Please refer to

http://technet2.microsoft.com/WindowsServer/en/Library/2b0d2457b7d8-42c3-b6c9-59c145b7765f1033.mspx

- **2.21.** Is there a way to backup Oracle 7.3.4 on NetWare? To backup Oracle 7.3.4 on NetWare 5.1, it is not possible to use the Oracle agent, you need to do the followings:
 - 1. Backup all Oracle 7.3.4 datafiles, control files, and pfile.
 - 2. Use "exp" (export utility) to dump Oracle database to a dump file (make this a pre-backup command)
 - 3. Use OBM to backup this file

When you need to restore the database, just restore all datafiles, control files, pfile to its original location and use "imp" (import utility) to put the data back into Oracle database.

2.22. How do I remove OBM completely from my Windows machine? If you want to completely remove OBM from Windows, you need to ensure that the OBM installation directory is deleted (sometimes not removed when Windows somehow holds some of the files) remove the C:\Documents and Settings\administrator\.obm\ folder (intentionally left undeleted, as crucial information of the user and backup sets, such as the encryption keys, is stored here)

2.23. Does XpresstransferOBM work with dial-up connections?

It makes no difference to XpresstransferOBM if the connection is always on or dial-up. If you want to Windows to connect to the ISP automatically when a backup starts, you can go to [Control Panel] -> [Internet Options] -> [Connections] and select "Always dial my default connection. Due to limited bandwidth over dialups it may not be suitable for large backups.