This collection of Frequently Asked Questions provides answers to common questions asked by customers. Areas covered are Connectivity, Hardware, Backup, Restore and Updates. The online Administrators Guide is available via the “Help” link in the 3X Manager or Client interface. Also, by clicking the “FAQ” link there, you will be directed to the current online version of this document.

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CONNECTIVITY

Q – I can’t connect to the Manager from outside the LAN
A – If you can access the Manager from inside the LAN but cannot access it from “outside”, then incorrect port forwarding is almost certainly the problem.

1) Use the “Communication Diagnostics” in the Manager’s Administration section, under “Diagnostics”. This will show if the backup appliance can be accessed from the Internet, and if so, the external IP address.

2) Verify that the Manager port (443 by default) is open and available for outbound and inbound TCP communication. The port being used on the vault must match the port on the outbound side of the firewall. You can find out what port the Manager is using by going to Administration Settings -> System Settings -> Network Settings, under the Host Options section. Depending on your network, other services may already be using that port, such as Outlook Web Access. If so, consider changing the port the Manager uses.

Q – How can I verify that my appliance is accessible to Clients outside my local LAN?
A – In the Manager, click Administration ->Diagnostics ->Communication, and you can use the “Check for vault accessibility from internet” utility. If this fails, you should verify that you are forwarding the appropriate port on your firewall (default is TCP port 5543).

Q - Can I restrict access to the appliance?
A – You can and should use a strong password on the Manager interface, as you would on any other server. You can also restrict access to both the Manager and the Backup Service by creating an IP address “whitelist” for each component (only traffic from those IPs or ranges will be accepted). This is available in the Manager under Administration ->System Settings ->Network Settings.

Q – On a 2003 Server with Microsoft Forefront Security installed, the 3X Client Agent never completes the registration process – the agent reports “transmitting data to vault”.
A – Forefront may cause the registration to hang, even though the rules are set to allow the 3X Client Agent process. A workaround is to temporarily disable Forefront, and the registration will complete. You can then restart Forefront.

Q – I can’t complete the registration on a remote Client, it seems to time out.
A – Verify that the backup service port (by default, port 5543) is open for TCP communication; this is the port the Client Agent uses to communicate with the vault. You can find out what port

the backup service is using by going to Administration Settings -> System Settings -> Network Settings under the Host Options section. If you are using the locator service, you should also verify that it shows the correct connection information for your Appliance (IP address and ports used).

The locator is available here: http://www.3x.com/locator/ If the locator is **not** showing the correct public IP, you can set the public IP that is reported to the locator in the "Network Settings" area in the Manager.

Q – My Windows XP Firewall pops up with a "Java [TM] Platform SE Binary" warning during Client registration, should I unblock this?

A –Yes, the Client Agent uses Java. You must unblock this request to allow the Client to communicate with the RBA.

Q – I have more than one Remote Backup Appliance on my LAN, how can I set up external access for each one as I only have one public IP address?

A – To be fully functional, each RBA requires two ports to be accessible to the Internet, and these ports cannot be shared by two boxes on the same IP address. To place two appliances behind the same IP address, you must change the ports (and any associated port forwarding) on one of the two appliances. Once this change has been made, the locator service will automatically update this information on the clients and service should be restored. Limited operation can be achieved by forwarding just one of the ports. For Client operation without remote management, the Backup Service port (5543 by default) must be reassigned. Remote management can be restored separately (or individually) by forwarding the Manager Console port (443 by default).

To change these ports, log onto the Manager, go to Administration-System Settings, enter new port information and apply these settings. Note: If you change the port of the Manager, you will need to reconnect to the manager (at the new port) to complete any further administrative tasks. Port forwarding should be set for outbound and inbound TCP communication on the ports in question.

HARDWARE

Q – What is the power draw on the 3X Remote Backup Appliance?

A – The power draw, in amperes, is listed below:

Form Factor	Drives	Idle	Under load
Rack (standard)	2x500GB	0.65A	0.85A
Rack (Tera)	2x1000GB	0.70A	0.90A
Cube (Standard)	2x500GB	0.75A	0.85A
Cube (Tera)	2x1000GB	0.75A	0.95A
Cube (e-Series)	1x250GB	0.35A	0.50A

Q – What environmental conditions does the 3X Remote Backup Appliance require?

A – The 3X RBA is a high performance PC based appliance, and should be given the same physical considerations any server or high end workstation would need:

1) Good quality AC power, preferably using a UPS or other backup power.

2) Normal humidity and temperature levels, with adequate air circulation.

   Operating Temperature Range: 10 - 35°C (50° to 95° F)

Non-Operating Temperature: -40 - +70°C (-40° to 158° F)
Operating Humidity Range: 8 - 90% non-condensing
Non-Operating Humidity Range: 5 - 95% non-condensing

Q – How do I shut down the Remote Backup Appliance?

A – On both the Rack and Cube form factors, press and release the power button. This initiates a graceful shutdown, which should complete within 30 seconds. If you force a shutdown by holding in the power button, you should expect a potentially much longer start up time as a file system check will run. Additionally, you will likely receive a RAID warning until the disks are verified. You may also shut down or reboot the appliance remotely via the "Services" area of the Manager

Q – I have a server with a small system partition, can I install the 3X Client to a different drive?

A – Yes, the Client installer follows the usual Windows installer conventions. The Client itself takes up about 90MB of drive space, but the local database and (if applicable) System State files could require 1GB or more if a large number of files are being backed up for that computer.

BACKUP - GENERAL

Q – Do I need to "Generate a new key" for each Client I install?

A – No, Client keys are specific to the appliance not the endpoint. Consequently, an unlimited number of users can use the same key, even in multi-hosting environments. You may want to generate a new key if that key becomes public knowledge and you think anyone might try to install a Client on an unauthorized PC. Once a new key is generated, any previously generated client keys can no longer be used to install new clients. Existing installed clients are not adversely affected.

Q – When running a backup, why does the data rate shown beside the progress bar seem slow compared to the network speed?

A – The rate refers to the rate data is being written to the Appliance, not the transmission rate across the LAN or WAN.

Q - I had an empty directory in the backup set and it has not been restored -- what's going on?

A - When constructing its backup set, the 3X RBA uses an advanced filtering system that analyses the drive on a file by file basis. In this approach, an empty directory does not include any data for the 3X RBA to protect and is consequently excluded. This behavior is deliberate to ensure that you would not backup the full directory structure if you only wanted, for example, to backup the .doc files on the c: drive.

Under certain special circumstances, this has created issues for our customers. We are actively working on an enhancement to address these special cases. If you believe that you will need to protect and retain empty directory structures, please contact 3X support and we would be happy to assist you in a workaround until we have deployed a satisfactory technical solution.

Q - I am trying to add a folder to a backup set, why can't I navigate to it in the 3X Manager?

A – Please check the folder permissions. The 3X Client uses the SYSTEM account by default when running backups. If a folder has restricted access, make sure the SYSTEM account is available; otherwise you will be unable to "see" or add the folder during the creation of the backup set.

Q – I created a backup set and it showed "Backup Complete", yet when I check the files available to restore, some are not there.

A – Please check the folder permissions for those files, or the folders they are in. The 3X Client uses the SYSTEM account by default when running backups. If a folder has restricted access, make sure the SYSTEM account is available, or else change the account used by the 3X service to one that has sufficient permissions to access all the data in the backup set.

Q – Is there a more detailed view showing exactly which files and folders will be backed up?

A – Yes, in the Client you can click the "Preview" button to see this information for a particular backup set. Go to the "Backup Sets" tab, select the backup set you are reviewing and click 'Preview". Preview generation may take some time for a backup set with many thousands of files.

Q – I started a backup and it does not seem to be doing anything yet, it's not showing any progress.

A – If you have a large set of smaller files, it can take some time for a backup process to enumerate the files before the actual transmission of data starts. You may get a better idea of the progress by looking at the Client interface. You can click the "Detail" button for more information.

Q – Can I monitor the bandwidth being used for backups?

A – Not directly at the moment; however, if you can monitor the traffic on the backup service port (the port used by the Client Agent), you can get a representation of the bandwidth being used. The default port is TCP 5543.

Q - Can I schedule an individual backup set to run more than once per day?

A - Yes, by using the "CRON Scheduling" feature when you create a new schedule you can run backups hourly, every half hour, etc. Obviously, you would want to avoid situations where the backups are scheduled so closely that they are constantly running. The online Administrators Guide is available via the "Help" link in the Manager or Client interface.

Q – If I have two backups sets scheduled to start at the same time for the same Client computer, will they run simultaneously?

A – No, one job will complete and the other will start immediately afterwards. Each ***Client*** can run one backup job at a time, although the ***Backup Appliance*** can handle multiple backup jobs simultaneously.

Q – Can I have two backup sets with the same name if they are not for the same Client computer?

A – Yes, if you are running the Production Release software (version 1.14.6) or later.

Q – Can I cancel a backup job that is in progress?

A – Yes, you may need to wait up to several minutes for the process to stop, depending on the size of the backup job. You can also refresh the 3X Manager browser window to confirm the job's status.

Q - When you mark the a backup set to save for 5 generations, does that mean the entire set is flagged, or specific files? For example, a Word document is not touched for a couple of months. Will that file be kept past the 5 generations of the backup set?

A - A copy of the Word document will be present on the appliance if it was included in the most recent 5 backup sets. 5 backup sets are kept; if the file has not been changed in any of these backup sets, only one version of the file will be present. Another way to think of it is that each backup session is a full backup, a snapshot of your files at the time of the backup.

Q - Do exclusions win over inclusions, for example:

------Backup up Documents and Settings was selected first

------Exclude mp3s on C:

Would MP3s be backed up under Documents and Settings, but nowhere else?

A – Yes; mp3 files will not be backed up anywhere within this backup set as defined, exclusions win over inclusions ***within a backup set***. If you created a second backup set which did not feature the exclude, then MP3s won't be excluded from the second set.

Q – What does "CFE" mean in the "Event Details" area of the History tab? Most jobs say "Success", but some say "CFE". Is something wrong?
A – Nothing is wrong; CFE stands for "Common File Elimination". Identical files in different locations are transmitted and stored (with pointers to the other instances), rather than being backed up multiple times. This provides the ability to backup and restore these duplicate files more efficiently.
Q – I have a 100GB system, yet the pie chart on the Manager says my system is protecting well over that figure?
A - You have 100GB physical capacity on the system, which includes compressed data (if compression is enabled). This can give a total storage capacity of perhaps 2 to 3 times the physical capacity of the drives.
Because the system also uses de-duplication and produces small delta backups, the "Total Data Protected" can be thought of as much more than the physical capacity of the system. You are effectively running a series of "full" backups, while transferring and storing "incremental" amounts of data.

BACKUP - EXCHANGE, SQL, WINDOWS 2000, LOCAL SEED, etc.

Q – How does the Exchange backup module handle logs during the backup?
A – The Exchange module follows the Microsoft procedure outlined in the following MSDN article: http://msdn.microsoft.com/en-us/library/ms878511(EXCHG.65).aspx
Briefly, When HrESEBackupSetup is called the storage groups are prepared so they can be read. For each storage group, all databases, logs, and patch files are backed up. HrESEBackupTruncateLog is then called to "delete logs after backup" if the "truncate logs" option for the Exchange backup set is enabled.
Q – When I run an Exchange backup, it seems to do nothing for a while, then the progress "jumps" to 20% and sits there for a while. Is this normal?
A – Yes. The Exchange backup progress will increment as each file in the set is transmitted. Typically, there may be four or five files (or more, depending on your Exchange setup), the largest one being the .edb file, which is usually transferred first. In this case, after the first of the 5 files has completed, the job will show 20% complete.
Q – How do I backup a Microsoft SQL database?
A – There are two main options:

1) When creating a backup set, use the drop down menu to select "SQL" instead of the default "filesystem" backup. Note this option is only present if the 3X Client is installed on a computer running Microsoft SQL Server. You will be prompted to select the database to back up.

2) You can use the backup capability built into SQL Server to create a backup file, which you can then backup using our filesystem backup agent. If you use the SQL backup feature to create a daily file to be backed up by the 3X RBA, make every effort to use the same filename for the file each time. Otherwise, the RBA will not transmit just the smaller "delta" file change, but will need to retransmit the whole new daily backup file.

Q – When I try to back up a SQL Express 2005 database, I can create the backup set and my authentication is accepted, but the backup job only runs for a few seconds and stops.

A – When creating the backup set for SQL Express, be sure to specify a "SQL Temporary Dump Location" directory in the Options section (last part of the job creation process). SQL Express does not have a default dump folder location, unlike the "full" Microsoft SQL Server products.

Q – When I backup up Windows 2000 Pro or 2000 Server I get a lot of "Backup Incomplete with Errors" notifications.

A - Windows 2000 does not support VSS, so files in use cannot be backed up. The errors usually reflect files in use at the time of the backup. One way to minimize these messages would be to filter your C Drive backup by eliminating the obvious directories that will often have open files: c:\windows, c:\program files, Temporary Internet, Temp, Application Data.

Q – I imported a previously created rule set to a Windows Vista client and the "Documents and Settings" data is not being backed up.

A – Windows Vista has a new folder structure for user data, such as the "C:\Users" folder instead of "Documents and Settings". The old rule set may have been created on Windows XP or Sever 2003.

Q – I am trying to import a "Local Seed" from a USB drive, but I can't see the seed session in the Manager after I connect the USB drive to the appliance.

A – If you did not use the "Safely Remove Hardware" wizard when disconnecting the USB drive from the Windows system, the 3X appliance may not be able to mount the drive properly. To remedy this, reattach the USB drive to any Windows computer, then user the "Safely Remove Hardware" wizard before removing the USB drive. Reconnect to the 3X appliance and navigate to the Seed Import section again.

Q – I am trying to perform a vault backup; my system is licensed for 250GB and my external USB drive is 250GB, yet the Manager reports there is not enough space on the drive.

A – We calculate the storage requirements based upon 1024k=1GB, most drive manufacturers use 1000kb=1GB. To get an accurate idea of the size of drive required for a particular licensed capacity, use this formula:

L = licensed capacity of vault in GB

Minimum size of drive needed to ensure always being able to back up = L * 1.15 (assuming the disk drive is measured with 1000kb=1GB)

So, for a 250GB system, the drive would need to be at least 250x1.15= 288GB

Q – How do I backup System State for Server 2008?

A - An integrated System State backup option for Server 2008 is not currently supported, as of system software version 2.1.6. Consider scheduling a backup of the Windows System State and critical volume data using the command line Windows backup utility, wbadmin. That data may then be backed up by the 3X RBA.

RESTORE

Q – I am having trouble restoring encrypted files.

A – Make sure you select the "Restore Security Information" check box when restoring these files. In the production release of the system software, this is checked by default.

Q – Can I restore an Exchange store to an alternate location?

A –3X System Software after version 1.14.9 allows you to restore to the Recovery Storage Group, and use that feature's benefits.

Q – Can I restore individual Exchange mailboxes or emails?

A – Mailboxes can be restored; the process is available through the "help" link in the Manager, under "How-To".

Q – When I try to restore an Exchange store, the job fails almost immediately with an "unrecoverable error" message.
A - If a previously created "Recovery Storage Group" exists, you may need to delete it in order to allow the restore process to continue.
Q – How do I restore the "System State"?
A – When the System State is restored from the Appliance, it restores a .bkf file. This file can be opened and the components restored using NT Backup. NT Backup can be run from All Programs -> Accessories -> System Tools -> Backup.
Q – When I try to perform a Client Profile Recovery on a remote machine, the recovery process starts off okay, but shows as "idle" after a time and the process never completes.
A – The client should go to a "Manual Recovery Mode" when the recovery has initially completed (see the CPR documentation, under "Client Management" in the Online Help). On pre-version 1.15.x systems, the "Idle" status indicates that the network connection has been lost or reset during the process. On 1.15.x and later systems, there will be an indication that the client profile recovery has failed. In either case, the causes could be due to:

1) Network disruption during the CPR process, causing the connection to drop/reset

2) A router at either end may have a firewall (SPI in particular), NAT Session timeout, or TCP connection timeout setting that is causing the connection to be dropped during portions of the process where the vault is building the client profile and the connection is idle.

3) A bandwidth limiting solution may be limiting a burst of data traffic during the process and causing the connection to be interrupted

In any of these situations, you will need to start the CPR over again. If you can make temporary adjustments to compensate for any of the scenarios above, please do so. Uninstall the client, reinstall the client and go through the Client Profile Recovery again.

UPDATES

Q – How do I update the system software?
A – A notification of an available update appears in the Manager console, under the Administration – Software section. If the Automatic download feature is selected, the updates will be downloaded, ready to be installed when you choose.

1) Click on "Install Updates", you should see an indication of the update progressing.

2) After three or four minutes, click the "Home" link at the top of the Manager window.

3) Log in again and confirm the new software version.

4) If you cannot login, wait 30 seconds and try again in a new browser session.

Q – How do I update the Client software? ***Client upgrades will typically accompany system upgrades.***
A – Client upgrades will occur automatically if the Clients are set to do so (default behavior)

1) In the Manager, under Client Management->Default Client Settings->Software Update tab, verify that “Automatically install Client updates/upgrades” is checked. This will ensure **new** Client installations will be automatically updated in the future.

2) Make sure existing Clients are configured to automatically install Client updates & upgrades. To do this, in the Manager under Client Management->Manage Clients select the Client and click on “Manage Client” link. Then click on Options tab and then “Software Updates” sub-tab. Make sure that the Client is set to “Automatically install Client updates/upgrades”.

3) If a Client does not appear to automatically update, you may force an update by running the “Client Software Installer” from the Manager, under “Manage Clients”.

Note that the Client upgrade process does NOT force a reboot of the computer in the event one is needed, in case the computer is in use.