InfoBackup Provider

Administrator's Guide

Revision History

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	19.3 Install code signing cert with the restorer applet	New

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1. Overview

Conventions

A list of notations that are used throughout this document.

Convention	Descriptions	Example
Bold	Important information	**Warning : You must check the timestamp of obrA.jar before proceeding to step2.**
Italic	Folder Path or File Path	*/usr/local/obs/conf*
[]	Graphical Interfcace Elements	[Manage Log]
%%	Filepath in Wondows format	%OBSR_HOME%
$	Filepath in Linux/Unix/BSD format	$OBSR_HOME
`Italic`	Command	`Mkdir /usr/local/obs`

Notation that are used specifically for API section:

Convention	Descriptions
<Text inside angle brackets>	Placeholder for which you must supply a value.
[Text inside square bracket]	Optional items.
{Text insides braces}	Set of required items; choose one.
Vertical bar (|)	Separator for mutually exclusive items; choose one.
Ellipsis (…)	Items that can be repeated

Definitions, Acronyms and Abbreviation

Term / Abbreviation	Definition
ISR	InfoBackup Provider
IRS	InfoBackup Replication Server
IRDR	InfoBackup Redirector Server
IM	InfoBackup Manager
1'CB	1'ClickBackup
OBSR_HOME	The install location of InfoBackup Provider & InfoBackup Replication Server Windows: *C:\Progam Files\OBSR and RPS* Linux/FreeBSD/Solaris */usr/local/obs*

OBSR_HOME_BAK	The Backup location of InfoBackup Provider and InfoBackup replication Server. It is used temporary during the install/upgrade process.
	
	Windows
	`C:\Programm Files\OBS and RPS.bak`
	
	Linux/FreeBSD/Solaris
	`/usr/local/obs.bak`

CONF_HOME	The backup location of InfoBackup Provider and InfoBackup replication Server. It is used temporary during the install/upgrade process.

	Windows *%OBSR_HOME%\conf* Linux/FreeBSD/Solaris *$OBSR_HOME/conf*
USER_HOMES	The directories where InfoBackup Provider and InfoBackup Replication Server store the InfoBackup Manager & 1'ClickBackup users accounts. The default location is: *%OBSR_HOME%\users*
POLICY_HOME	The directory where InfoBackup Provider and InfoBackup Replication Server store its system users and group policy information. Windows *%OBSR_HOME%\system\policy* Linux/FreeBSD/Solaris *$OBSR_HOME\system\policy*
WEBAPPS_HOME	Location of the webapps directory inside the installation directory of InfoBackup Provider & InfoBackup Replication Server. Windows *%OBSR_HOME%\webapps.* Linux/FreeBSD/Solaris *$OBSR_HOME\webapps*
WEBAPP_HOME_BAK	A backup of the webapps directory inside InfoBackup Provider et InfoBackup Replication Server. Windows *%OBSR_HOME%\webapps.bak* Linux/FreeBSD/Solaris *$OBSR_HOME\webapps.bak*
RECEIVER_HOME	The location where the replicated data is stored for a particular replication receiver.
JAVA_HOME	The location where JAVA is installed

System Requirements

It is recommended to install InfoBackup Provider on server grade O/S and hardware platform. However, for evaluation purposes installation on Windows XP or Windows 7 platforms would be fine for testing.

2. Quick Start

This chapter describes the minimum steps required to start using InfoBackup Provider. Please consult the information in the following chapters for a complete reference to all features available in InfoBackup Provider.

Getting started

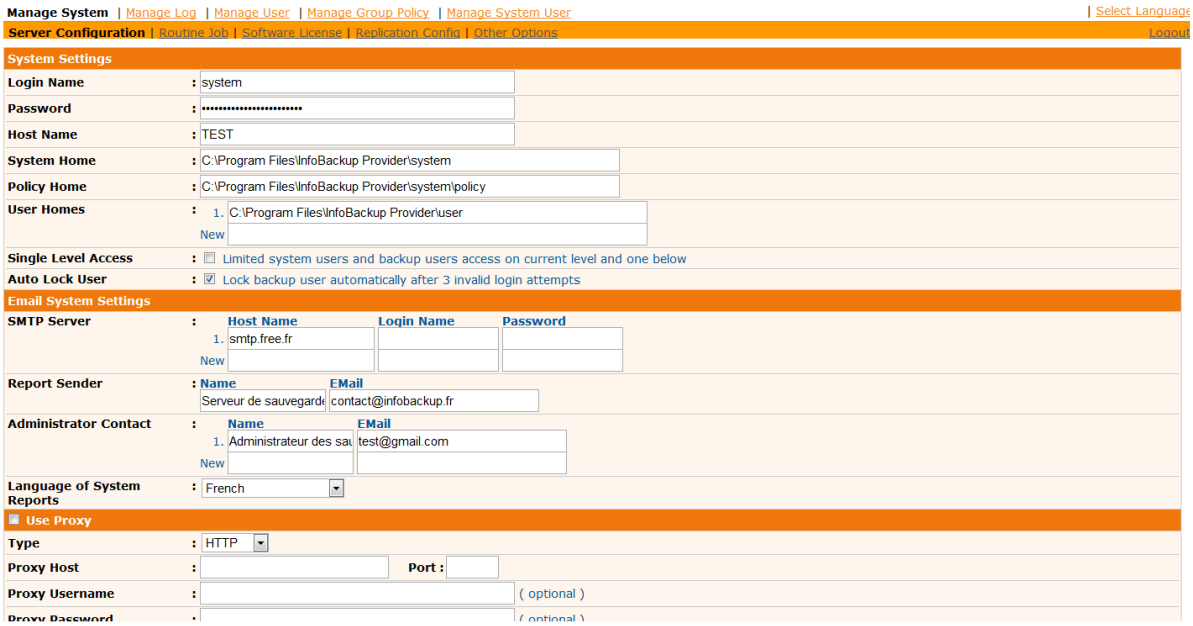
To setup your InfoBackup Provider, please do the following:

Setup your backup Server

1. Point your browser to http://<your-ISR>
2. Login as InfoBackup Provider administrator.

The default login name and password are "system" and "system respectively.

3. Set your hostname



Enter a resolvable hostname for your backup server (e.g. backup.your-company.com) into the [Hostname] text field. Although you can supply an IP address here, it is preferable to use a hostname instead.

If you are using custom TCP port for HTTP/HTTPS connection (i.e. non 80 or 443), you need to append the custom port number to the [Host Name] field.

e.g. backup.yourcompanyname.com:8080

If you are not using custom TCP port, open a browser on the backup server and type in the value of [Host Name] as an URL and check if you get the backup server homepage. If you are not able to connect to the webpage, please try until you can reach it and put this value in the [Host Name] field.

Set the [User Homes] directory.

[User Homes] refers to directories where InfoBackup Provider stores the backup files and backup log for all its users. You should set [User Homes] to directories where there are lot of free spaces.

Set your SMTP Server

Enter a resolvable hostname (or en IP address) of your SMTP server into the [SMTP Server] text field. If your SMTP server is not running on standard SMTP port (i.e. port 25), you can append your custom port number to your SMTP server address to use this server e.g. mail.your-company.com:8025.

You are only required to enter the [Login Name] and [Password] if your SMTP server enquires user authentication when sending emails.

Press the [Update] button

Enter your License key (you can skip this step if you are evaluating this software)

Entre the licensing information printed on [End User License Agreement] printout into the text fiel provided in the [Manage System] → [Software License] panel. Please note that both [License Name] and [License Key] are case sensitive.

Note:

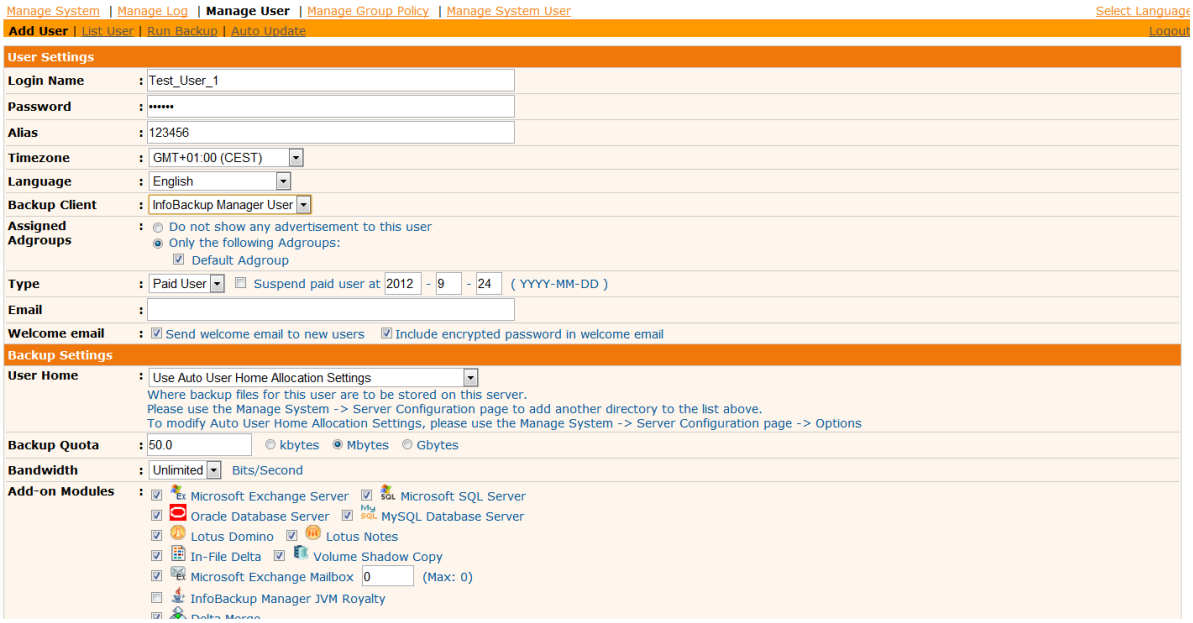
By default InfoBackup Provider service listens to port 80 for http and port 443 for https. Please make sure your server firewall is configured to allow incoming access via these ports.

Add Backup User

You need to add backup user to the system before you can start backing up data to InfoBackup Provider. To add a backup user to the system, please do the followings:

Click the [Manage User] link available at the top menu and choose [Add user].

Enter the user information for the new user account into the form provided.



Key	Description
Login Name	Login Name of the new account
Password	Password of the new account
Time zone	Time zone of the new account
Language	Preferred language for email report of the new account
Backup Client	Choose InfoBackup Manager Client or 1'ClickBackup Client
Advertise Group	Choose whether advertisements are displayed at the bottom at IM or 1'CB Client
Type	Trial User – Account of this type will be deleted form the system after an inactivity period of 30 days by default

	Paid User – Account of this type will stay within the system until it is removed from the system by administrator
Email	Email address of the new account.
Welcome email	Check this option to send a welcome email to the user.
User Home	The top directory where the software stores backup files and all other information for the new account.
Backup Quota	Backup Quota of the new account.
Bandwidth	Bandwidth throttling for this user account.
Add-on modules	Add-on modules for this user account

1. Press the [Add] button to create the user
2. The account is now ready

Login and Run Backup

1. Point your browser to http://<your-ISR>/.
2. Click the [User Login] link at the top
3. Login with the login name and password you have created in previous section.
4. Follow the [Quick Start] information available in the User's Guide to install the InfoBackup Manager or 1'ClickBackup onto users computer to start backing up data.

3. Best practices and Recommendations

This chapter lists out all best practices and recommendations which you should consider before deploying InfoBackup Provider to a product environment.

InfoBackup Provider Hardware Requirements

InfoBackup Provider should be installed on a machine supporting 64 bit multiple CPU and multiple cores. A 64 bit operating system will allow InfoBackup Provider to run on a 64 bit Java JRE platform, as 64 bit Java is capable of supporting larger Java heap size settings. This type of configuration will provide sufficient capacity for future business expansion, to meet the needs of existing customers, and support new InfoBackup Provider features.

A more powerful machine will also reduce the need for frequent hardware upgrades, which will require service down time for data migration.

It is good idea to ensure your InfoBackup Provider is equipped with some redundancy features, i.e. power supply, network card, and is connect it to a UPS (Uninterruptable Power supply).

InfoBackup Provider Configuration

One of the most important factors in determining backup and restore performance is the disk performance of your InfoBackup Provider. Poor backup and restore performance can be attributed to:

i. The use of network drives for InfoBackup Provider system and user homes.
ii. The use of a single large disk or volume for multiple InfoBackup Provider User homes.
iii. Inadequate balancing of the disk I/O across multiple physical drives

To improve performance of your InfoBackup Provider, you should consider using:

i. A separate drive dedicated for your O/S installation
ii. A separate local dedicated for your InfoBackup Provider installation home
iii. A separate local drive for each individual InfoBackup Provider user home
iv. A separate local drive for InfoBackup Provider system home
v. Distribute user accounts across multiple user homes to balance the I/O load.
vi. Your InfoBackup Provider service should be running on a dedicated machine.

It is not recommended to use O/S partition or drive as the InfoBackup Provider system or user home. If the O/S partition runs out of space, this will cause your o/S to become unstable and may even crash your InfoBackup Provider.

InfoBackup Provider Java Heap Size Setting

Due to features such as CRC checking, delta merging, support form image, Hyper-V, VMware backupsets InfoBackup Provider v6 may require more Java memory. Although, there is no exact formula for calculating the correct Java heap size setting for any given InfoBackup Provider. In general a maximum Java heap size setting of at least 2048M is recommended, assuming InfoBackup Provider is running on a 64 bit Operating System.

When setting the maximum Java heap size for InfoBackup Provider please ensure this value does not exceed 50% of the RAM on the server, to allow sufficient memory for O/S processes and operations.

It is not recommended to set excessively high values for the maximum Java heap size, as this could result in InfoBackup Provider performance issues during internal Java VM garbage collection or memory recycling routines.

InfoBackup Provider QPS Settings

TO ensure user accounts are evenly distributed across your user home drives. It is recommended you configure your QPS settings, this can be under via your InfoBackup Provider web console under [Manage System] → [Server Configuration] → [Auto User Allocation]. The QPS settings for each user home drives should not be to "unlimited" or "Not Used".

For InfoBackup Providers with multiple user homes, you should consider a QPS setting of 50% to 70% for each user home drive. This will prevent user accounts being concentrated onto one drive, which may cause the drive to run out of disk space very easily. This could result in data corruption on the affected user home(s).

Also, an even distribution of user accounts across your InfoBackup Provider user homes will improve backup performance, by spreading the disk I/O load.

Maximum Number of Users on InfoBackup Provider

There is no exact formula for calculating the maximum number of user accounts on for any InfoBackup Provider. As it dependent on many factors such as but not limited to:

i. InfoBackup Provider hardware
ii. The composition or mix of users accounts, i.e. InfoBackup Manager or 1'ClickBackup
iii. The number of backupsets per a user account
iv. The type of backupsets user account
v. The backup behaviour of each user

Also, IM / 1'CB v6 clients are enhanced to utilize multiple threads for backup and restore. It is recommended to keep this number to around 300 user accounts, to avoid potential performance problems.

Use a Static IP Address

The use of dynamic IP addresses for InfoBackup Provider domain names may result is an unstable backup service whenever the IP address re-cycles.

A static IP address will ensure the remote IP address sent by InfoBackup Provider to the license server will remain the same during daily routine license check. This will avoid potential license errors, i.e. 1011 or 1012 license errors which could result of the automatic shutdown of your InfoBackup Provider service.

It is strongly recommended to use a static IP address for your InfoBackup Provider to ensure and reliable backup service.

Scheduling of Backup Jobs on InfoBackup Provider

To improve overall backup performance we recommend that scheduled backup jobs (by default starts at 09:00pm) should not be confined to a few start times.

The start times of scheduled backup jobs should be evenly distributed throughout the days to avoid potential performance bottlenecks on your InfoBackup Provider.

Enable Replication on InfoBackup Provider

To ensure you have a backup of your InfoBackup Provider in the event of any hardware issues. We recommend enabling replication on your InfoBackup Provider to a separate InfoBackup Replication Server.

InfoBackup Provider Scaling

To cope with business and or data growth, instead of upgrading to new hardware to support additional users and data, which could involve a lengthy data migration process?

Your backup service capacity can be upgraded using an InfoBackup Redirector Server solution. The advantage of using InfoBackup Redirector is it allows you to expand your backup service easily by adding new InfoBackup Providers to the current setup with minimal interruption to your backup service.

Anti-Virus Software on InfoBackup Provider

If you have anti-virus software installed on your InfoBackup Provider, please make sure the user home and system home drives are excluded from scanning, as this may interfere with normal InfoBackup Provider operation.

Enable CRC Checking

It is strongly recommended the CRC checking on InfoBackup Provider is enabled to ensure the integrity of the backup files.

Running InfoBackup Provider as a non-root user

If you are running InfoBackup Provider on Linux, you are advises to run the InfoBackup Provider service as non-root user. (InfoBackup Provider Service is run under root by default). This minimizes the impact of damages that could be done on the system in case the system has been compromised by hackers.

Expose only TCP port 80 and 443 to the public

It is recommended to expose only TCP port 80 and 443 to the public on your firewall. Please consult the user's manual of your firewall for more information on how to do so.

Restricting Access on Administration Panel

For security reasons, we would recommend that the administration panel of InfoBackup Provider/Replication Server must be hidden from public address, i.e. it should be exposed to local area network only.

System Resources

Extra system resources may require for the following backup set types:

- Windows System Backup
- Windows 2008 System State
- Shadows Protect
- Microsoft Exchange
- Microsoft SQL Server
- Oracle Database
- Lotus Domino Server
- VMware Server
- Microsoft Hyper V

In most cases, the file size of a single file in these backup set types are large, therefore extra system resources (such as memory and disk space) are required for using the delta merging feature. For user homes containing backupsets with delta merge enabled; It is recommended to maintain at least 30% to 40% free disk space.

InfoBackup Provider File System Tuning

In order to ensure optimal performance from InfoBackup Provider file system, please ensure that you:

1. Use local drives instead of network drives, i.e. iSCSI, NFS, SAMB etc
2. Tune your file system. For example , for NTFS, run the followings:

```
fsutil behavior set disasble8dot3 1
fsutil behavior set mftzone 2
fsutil behavior set disablelastaccess 1
fsutil behavior set memoryusage 2
```

3. Turn off drive indexing [On MS Windows O/S this is used for faster searching] feature for each system and user home drive(s).
4. For Linux/Unix mount point consider mounting them using "noatime".

Network Load Balancing Configuration

For InfoBackup Provider which are configured with network load balancing, i.e. a dual WAN router or Round Robin routing. A static route should be configured for your InfoBackup Provider connection to License Server. This will ensure the remote IP address sent by InfoBackup Provider to the License Server will remain the same during daily routine license checks. This will avoid potential license errors, i.e. 1011 or 1012 license errors which could result of the automatic shutdown of your ISSR service.

ISSR Reseller Panel and InfoBackup Redirector

If the Reseller Panel feature is enabled on your InfoBackup Provider and your plan to configure InfoBackup Provider as part of an InfoBackup Redirector setup both InfoBackup Provider and InfoBackup Redirector must be on v6.7.0.0 or above. For backup users accounts created by reseller, InfoBackup Manager / 1'ClickBackup v6.7.0.0 or above client are only supported.

InfoBackup Provider Service on InfoBackup UBS with ZFS

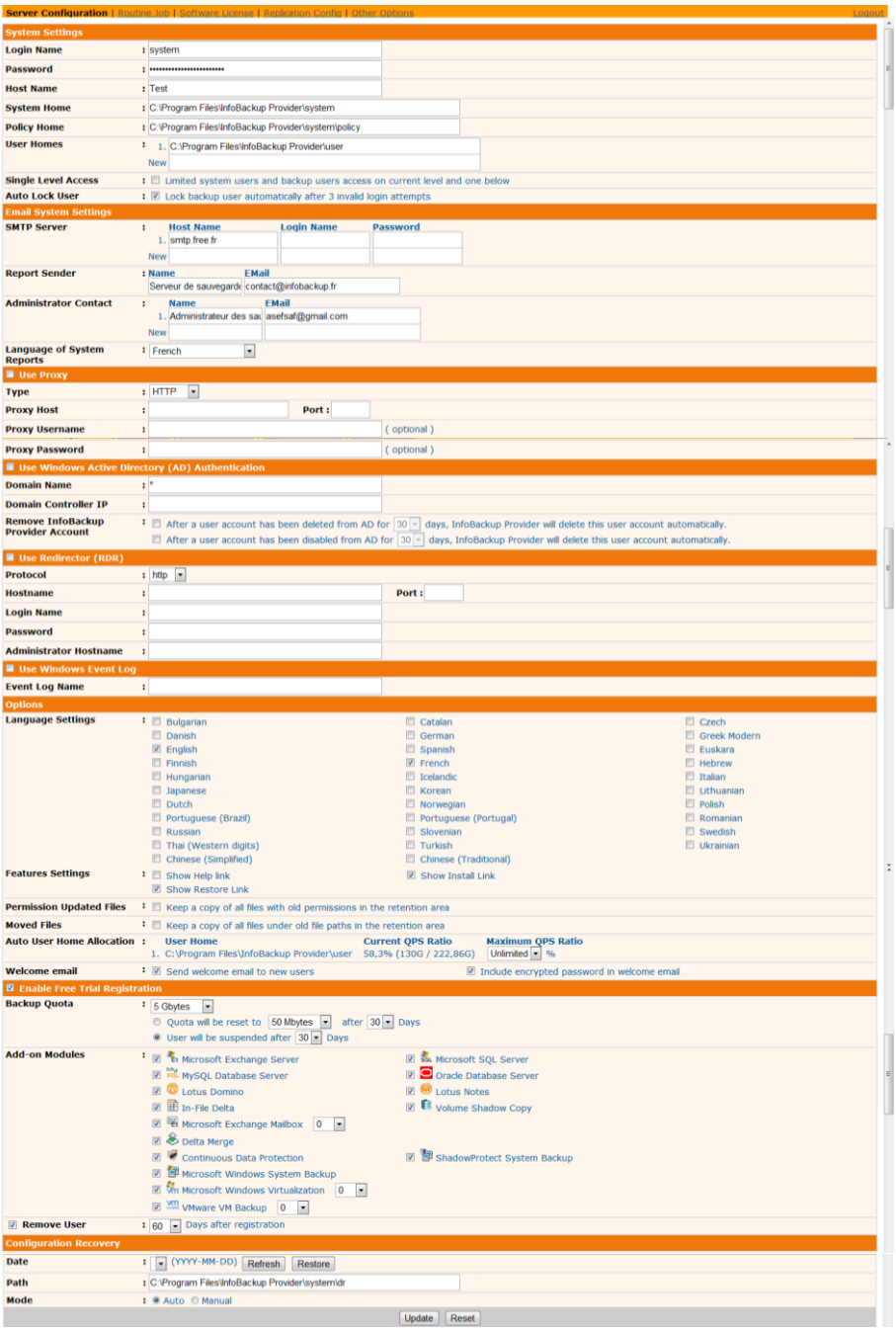
For InfoBackup Provider service which are running on an InfoBackup UBS (v2.3.00 or above) server and is configured with ZFS volume(s). It is strongly recommended to install at least 4GB RAM, as ZFS volumes require relatively large amount of memory to run. The amount of memory required is dependent on size of the ZFS volume and the amount of I/O activity.

Maximum Number of Backup Sets for a Backup User Account

Although there are no restrictions on the maximum number of backup sets that can be created on a backup user account. For administration purposes it is recommended that each backup user account have no more than 10 backup sets.

4. Server Configuration

This chapter describes how you can use the [Manage System] → [Server Configuration] page (shown below) to manage the configuration of your backup server.



Key	Description
Login Name / Password	Username and password of the system account.
Host Name	A resolvable hostname of this server (e.g. backup.your-company.com). Although you can supply an IP address here, it is preferable to use a host name instead.
System Home	The directory where InfoBackup Provider stores its system information. The default directory for [System Home] is %OBSR_HOME%\system. Normally, you do not need to modify the value of this setting unless you want to store this information elsewhere.
Policy Home	The directory where InfoBackup Provider stores its system user and group policy information. The default directory for [Policy Home] is %OBSR_HOME%\system\policy. Normally you do not need to modify the value of this setting unless you want to store this information elsewhere.
User Homes	The directories where InfoBackup Provider store the backup files and backup log for all its users. You should set [User Homes] to partition where there is lots of free space.
Single Level Access	It determines whether system user has been restricted access to own created system users and backup users.
Auto Lock User	The backup user will be locked automatically after 3 consecutive invalid login attempts via InfoBackup Provider web console, Redirector web console and backup client console.
SMTP Server	The SMTP server that InfoBackup Provider will use to deliver its email reports.
Report Sender	The name of email address that will be used as a sender for all outgoing emails.
Administrative Contact	The name(s) and email address (es) of the system administrator. System reports (e.g. Daily Usage Report and Daily Error Report) will be delivered to these mailboxes.
Language System Reports	The language which will be used in all system reports.
Use Proxy	Whether to use proxy to access the internet.
Type	The type of proxy to be used (HTTP / SOCKS).
Proxy Host/Port	Proxy server host and port number.
Proxy Username/password	Proxy user name and password if user authentication is used.
Use Windows Active Directory (AD) Authentication	Whether to use Windows Active Directory Authentication.

Domain Name	The domain name to be used for AD authentication.
Domain Controller IP	The IP address of the domain controller.
Remove InfoBackup Provider Account	Whether to delete InfoBackup Provider user account when AD user account is disabled/deleted.
Use Redirector (RDR)	Whether to use redirector.
Protocol	The type of protocol to be used (HTTP/HTTPS)
Hostname/Port	Redirector host and port number.
Login Name/Password	System username and password for the redirector.
Administrator Hostname	The host name/IP address that backup users created by administrator will be used to contact this server via redirector (e.g. redirector.company.com)
Use Windows Event Log	When this option is enabled, this backup server writes the system log message to Windows Event Log. This feature is only valid in Windows platform.
Language Settings	It determines whether different languages are enabled.
Feature Settings	It determines whether the [HELP], restore link and install link should be available to users.
Permission updated files	It determines whether the existing files are copied to retention area before updating the permission settings.
Moved Files	It determines whether the existing files are copied to retention are before updating the file paths.
Auto User Home Allocation	Maximum QPS Ratio can be changed.
Welcome Email	It determines if welcome email will be sent to new users and other options on welcome emails.
Enable Free Trial Registration	Whether to enable free trial user registration.
Backup Quota	The default backup quota of trial users
Add-on Modules	The default modules available to trial users
Remove User	Whether to remove trial users and the length of trial period.
Configuration Recovery	System settings, policies and user profiles of a preferable date can be recovered.

Date	Dates of configuration can be recovered. At most 30 copies of configuration will be archived.
Path	Destination of recovered configuration.
Mode	Mode of configuration recovery. If "Auto" is selected and InfoBackup Provider user home is empty, the configuration including system settings, policies and user profiles will be decrypted and downloaded to their original locations. If "Manual" is selected, the configuration will be decrypted and downloaded to destination path.
Refresh	Reload archival dates
Restore	Download configuration to the destination path and perform configuration recovery in either "Auto" or "Manual" mode.

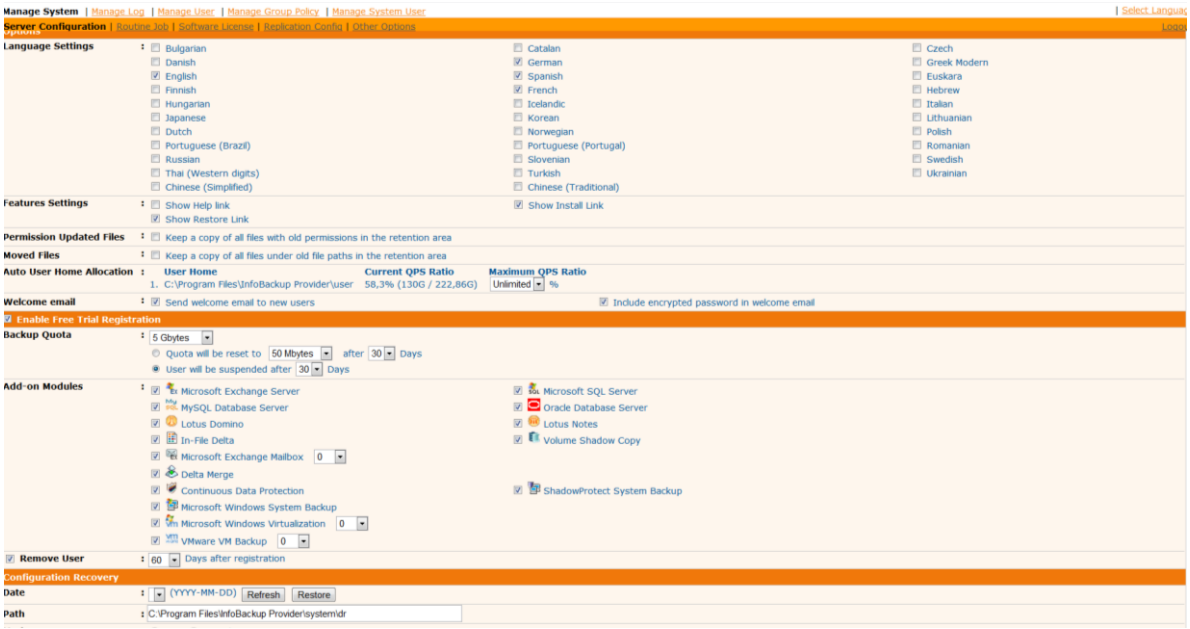
User Languages Setting

The language of the web interface can be easily changed to another language by:

1. Click the [Select Language] link available on the top right hand corner of the web interface.
2. Select the language of your choice
3. All text messages from the original windows are now displayed in the language you have just selected (for example below).

The languages currently supported by InfoBackup Provider are listed in Appendix A. You can limit the list of languages available to users by using the [Manage System] → [Server Configuration] → [Language Setting] options.

If you uncheck all checkboxes for all languages available in [Manage System] → [Server Configuration] → [Language Setting], the [Select Language] will no longer be available on the top right hand corner of the web interface (you need to refresh the top menu bar to see the change). Users will not be able to change the language of the web interface.



System Login Name / Password

The [Login Name] and [password] setting under the [Manage System] → [Server Configuration] page sets the login name and password (the default username is system password is system] that you would use to logon the system administration console. Users are strongly recommended to change both the login name and the password to something other than the default setting to reduce the possibility of unauthorized access to InfoBackup Provider.

Host Name

The [Host Name] setting under the [Manage System] → [Server Configuration] page sets the hostname of the backup server. This entry will be used as a reference to the backup server in all email reports. Please enter a hostname/IP address (a public hostname/IP address if you expect backup request originating from the Internet).

Please make sure the [Host Name] entry is resolvable from the backup server itself. This means that if you enter "Backup.yourcompany.com" into [Host Name] entry, you can access the backup system welcome page via http://backup.tourcompany.com.

If you are running InfoBackup Provider on custom TCP port (i.e. Not Port 80 and Port 443), please append your custom TCP port number to the [Host Name] entry. For example, if you are running InfoBackup Provider on TCP port 8080 for HTTP, please enter "backup.yourcompany.com:8080" as your [Host Name] entry (please do not enter the customer TCP Port for HTTPS, e.g. 8443, into the [Host Name] field as it will not work).

System Home, Policy Home and User Home Directories

The [System Home], [Policy Home] and [User Home] setting under the [Manage System] → [Server Configuration] page sets the system home directory, policy home directory and user home directories for InfoBackup Provider (the default values are %OBSR_HOME%\system, %OBSR_HOME%\system\policy and %OBSR_HOME%\user).

The system home directory for InfoBackup Provider defines a directory in which InfoBackup Provider will store all its system users and group policy information.

The user home directories for InfoBackup Provider define a list of directories in which InfoBackup Provider can be used to store folder for each backup users. Each user folder contains the backup setting as well as all backup data owned by this particular user.

InfoBackup Provider can be configured with multiple user home directories, this allows for the distribution of user accounts across different hard disk partitions or different hard disks. This enables server administrator's to easily distribute the I/O loading across multiple drives, which helps to improve overall backup server performance. Also, the support of multiple user homes will allow for easy expansion of the server storage. For example, if you want to add more storage to InfoBackup Provider, you can simply add another hard disk to the system and add the path to this new drive (e.g. E:\Users) to the [User Homes] setting. You can then add new backup users or move existing backup users to this user home drive.

Backup users created by InfoBackup Manager or 1'ClickBackup "Free Trial registration" wizard will always use the first [User Homes] entry as the user home to create backup users. If you want to offer free trial to your users and have enabled the "Free trial registration" option on the [Manage system] → [Server Configuration] page, please make sure that there is enough free space available in the first entry of the [User Homes] settings to avoid running out of free space.

Single Level Access

The [Single Level Access] settings under the [Manage System] → [Server Configuration] page defines system user access restriction to own created system users, backup users and backup users of system users. This restriction does not apply to system administrator. If you uncheck [Single Level Access] checkbox, system user can access all descendant system users and backup users.

Email System Setting

The [Email System Setting] settings under the [Manage System] → [Server configuration] page defines the various email setting that InfoBackup Provider will use to generate email reports to backup system administrator and backup users.

The [Email System Setting] → [SMTP Server] → [Host Name] entry defines the SMTP server that will be used by InfoBackup Provider to deliver its email reports. If you are using a SMTP server that is not running on SMTP standard TCP port (port 25), please append your customer TCP port number for SMTP service to the [SMTP Server] → [Host Name] entry (e.g. mail.your-company.com:8025).

You are only required to fill in the [SMTP Server] → [Login Name] and [SMTP Server] → [Password] entry if the SMTP server you are using required user authentication before accepting mail delivery requests.

Multiple SMTP servers can be setup for InfoBackup Provider. If the first SMTP server is unavailable, the next SMTP server will be used.

The [Email System Setting] → [Report Sender] entry defines the "Mail-From" email address that appears in all outgoing emails generated by InfoBackup Provider.

The [Email System Setting] → [Administrator Contact] entry defines the administrative contact of InfoBackup Provider. InfoBackup Provider will send daily usage and error report and all critical system alerts to all email addresses defined here.

Proxy Setting

The [User Proxy] settings under the [Manage System] → [Server Configuration] page, defines whether InfoBackup Provider should use a proxy to gain access to the internet.

Two types of proxy, HTTP/HTTPS and SOCKS 4/5, are supported. You can use the [Proxy Host] and [Port] entries to define the location of your proxy server. If the proxy server you are using requires user authentication, please use the [Proxy Username] and [Proxy Password] entries to set the username/password for your proxy server.

Note:

Please make sure there are no traffic restrictions on the proxy server, which could affect backup/restore performance.

Windows Active Directory (AD) Authentication Setting

When Windows Active Directory Authentication is enables, user authentication will be dispatched to Windows Active Directory (AD) automatically if InfoBackup Provider fails to authenticate a user logon using its own records. This means that if an AD is presented in the network, it is only required to create a user account once in AD and the same user account can also be used in InfoBackup Provider, because the backup server will create this user account automatically after authenticating this logon using AD. When this user logons to InfoBackup Provider, InfoBackup Provider will use Fee Trial Registration settings above (even if it is not enabled) as template of user profile (i.e. backup quota and add-on modules settings, but not Microsoft Exchange Mailbox which will be disabled by default) to be created. The user account created will be of "Paid" type and of "1'clicbAckup" backup client (unless the user logons using "InfoBackup Manager").

To enable this feature, simply check the box of [Use Windows Active Directory (AD) Authentication] under the [Manager System] → [Server Configuration] page (by default is enabled).

To synchronize InfoBackup Provider and AD, removal of users can be configured. If you want to delete/disable InfoBackup Provider user account when the user is removed from AD, you can check the boxes in the section of [Remove InfoBackup Provider Account]. You can have both options checked and create your own standard. For example, setting [After a user account has been deleted from AD for 20 days, InfoBackup Provider will delete this user account automatically] and [After a user account has been deleted form AD for 10 days, InfoBackup Provider will disable this user account automatically], can results that when the user account is removed from AD after 10 days, the user account will be disabled ad after 10 more days, the user account will be deleted.

Warning:

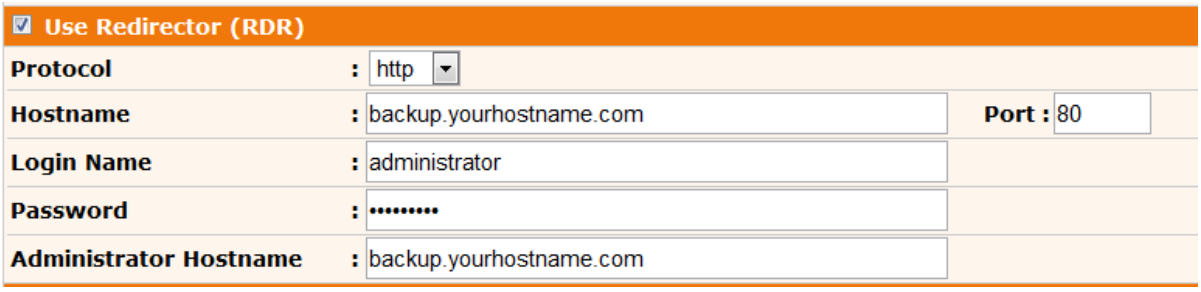
InfoBackup Provider servers with Windows Active Directory Authentication enables are not supported in an InfoBackup RDR environment.

Redirector

The [Use Redirector (RDR)] settings under the [Manage System] → [Server Configuration] page, defines whether the current InfoBackup Provider is used behind a redirector. If InfoBackup Provider is member machine of an InfoBackup RDR setup, you must specify the InfoBackup RDR settings.

In order to setup InfoBackup Provider v6 in an InfoBackup RDR environment, you must use InfoBackup RDR v6.

Note: for users' connection to the InfoBackup Provider user console connection to the InfoBackup Manager/1'ClickBackup client agent though InfoBackup RDR, the hostname must be configured exactly as the InfoBackup RDR hostname configured in the "Use Redirector RDR" > "Hostname" setting.



WARNING

Please make sure on the InfoBackup RDR server the "UserConsole" filter in the %RDR_HOME%\webapps\rdr\WEB-INF\web.xml" file is amended to include the IP address range of all member InfoBackup Provider servers, as by default the range setting is 127.0.0.1-127.0.0.1

Otherwise the affected InfoBackup Provider member servers will not be able to connect to InfoBackup RDR.

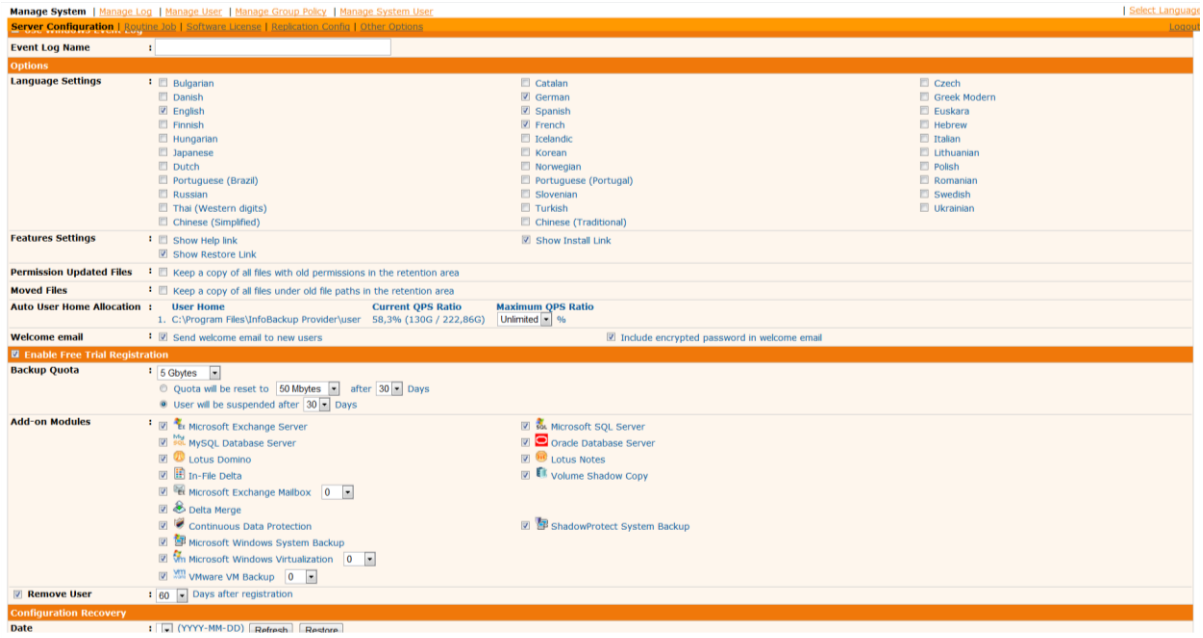
```
<filter-name>UserConsole</filter-name>
<filter-class>com.InfoBackup.rdr.www.IPFilter</filter-class>
<init-param>
<param-name>Range1</param-name>
<param-value>localhost</param-value>
</init-param>
<init-param>
<param-name>Range2</param-name>
<param-value>127.0.0.1-127.0.0.1</param-value>
</init-param>
</filter>
```

Language Setting

The [Language Setting] settings under the [Manage System] → [Server Configuration] page, defines the list of available languages on the web interface.

Features Setting

The [Feature Setting] settings under the [Manager System] → [Server Configuration] page, defines whether some customizable features on the web interface should be enabled or not.



Key	Description
Show Help link	It defines whether the [Help] link should appear at the top right hand corner of the web administration console (user interface only).
Show Restore link	It defines whether the [Restore] link should appear at the top right hand corner of the web administration console (user interface only).
Show Install link	It defines whether the [Install Software] link should appear at the top right hand corner of the web administration console (user interface only).

Permission Updated Files

The [Permission Updated Files] settings under the [Manage System] → [Server Configuration] page, defines whether InfoBackup Provider should make a copy of the file to the retention area before the file permission changes. When this option is set, all backup accounts will use more retention space but allows the users to restore the same file with various permissions. When this option is not set, the permission changes are updated to the backup file directly. No copies of the previous version(s) will be available to restore.

Moved Files

The [Moved Files] settings under the [Manage System] → [Server Configuration] page, defines whether InfoBackup Provider should make a copy of the file retention area before the file path is updated, i.e. the files is moved to another location. When this option is set, all backup accounts will use more retention space but allows the users to restore the same file with the correct location. When this option is not set, the file path changes are updated to the backed up file directly. No copies of the previous version(s) will be available for restore.

Auto User Home Allocation

The [Auto User Home Allocation] settings under the [Manage System] → [Server Configuration] page, defines the quota ration for each user home. InfoBackup Provider will automatically select the user home to be used for auto user allocation and trial user registration based on the quota ratio. InfoBackup Provider will always use the first user home with QPS ratio smaller than the value defined by the system user.

Welcome Email

The [Send welcome email to new user] settings under the [Manage System] → [Server Configuration] page, defines whether InfoBackup Provider should send a welcome email to new users. If this option is checked, it will send an email to the new users.

The [Include encrypted password in welcome email] settings under the [Manage System] → [Server Configuration] page, defines whether InfoBackup Provider should include the encrypted password in the welcome email. When this option is checked, the encrypted password will send with the welcome email to the new users.

Free Trial Setting

The [Enable Free Trial Registration] settings under the [Manage System] → [Server Configuration] page, defines various free trial settings available in the InfoBackup Provider.

Trial users do not count towards the maximum number of users allowed within InfoBackup Provider by the software license and there can be unlimited number of trial users within InfoBackup Provider. However, each backup user can have a maximum backup quota of 100GB for a trial period of 30 days. After expiration of the trial period, the backup quota will reset to a maximum of 500MB automatically.

To allow users to create a trial backup account from InfoBackup Manager or 1'ClickBackup, please enable the [Enable Free Trial Registration] option. If this feature is unchecked, the option to register for a trial account will not be available to end users.

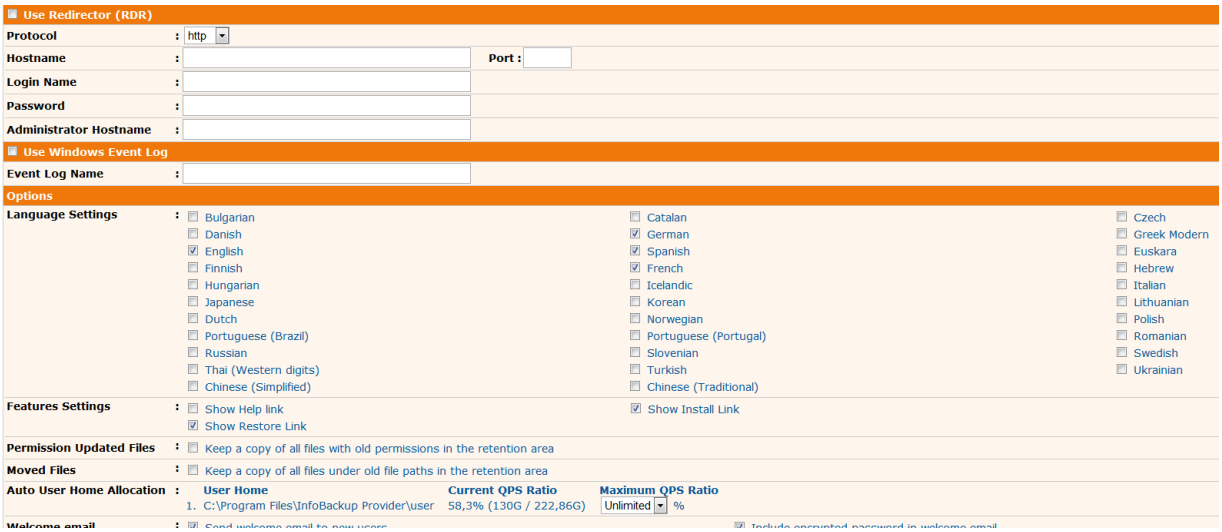
The [Backup Quota] defines the maximum backup quota of trial backup accounts upon registration.

The [Add-on Modules] option defines whether you want to allow trial users to have different add-on modules.

The [Remove User] option defines whether you want to remove trial backup users for certain number of days after registration. For example, you can use this option to tell InfoBackup Provider to remove trial backup users from the system automatically after backup users have registered for 60 days.

Use Windows Event Log

For InfoBackup Provider installations on Microsoft Windows Platform which have the "Windows Event Log" service enabled. When this feature is selected all InfoBackup Provider system log information, i.e. error, warning, and information messages types will be also be written to the Windows event logs. The Backup server administrator's can view the logs entries using the Windows event viewer. The event log name is limited to 8 characters.



The ID of each message type is shown in the following table.

Type	ID
Information	2012
Warning	305
Error	409

Configuration Recovery

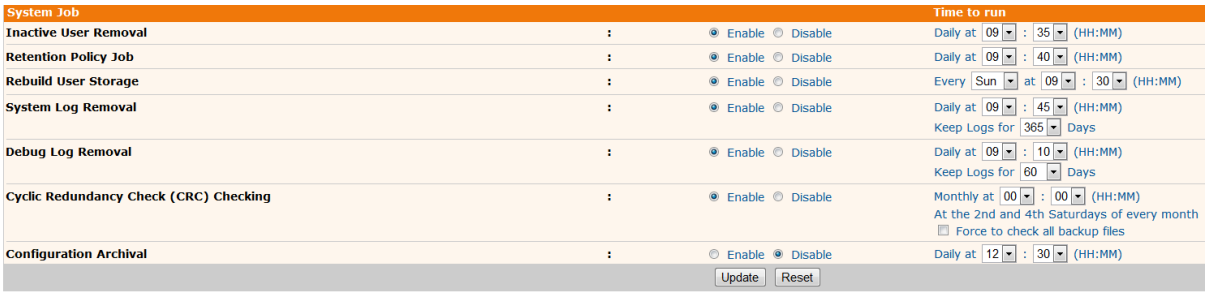
InfoBackup Provider Configuration Recovery feature available from InfoBackup Provide v6.7.0.0 onwards. It is designed to facilitate a quick and simple recovery of an InfoBackup Provider server after an outage, to ensure minimum down time of backup service. By allowing the backup server administrator to install a new InfoBackup Provider instance on another machine, using the backed up InfoBackup Provider server configuration downloaded from InfoBackup License Server.

In order to backup InfoBackup Provider server configuration files the backup server administrator, can schedule daily Configuration Archival backups of critical InfoBackup Provider server configuration files to the InfoBackup License Server, e.g. system configuration files in the %OBS_HOME%\CONF folder, Policy Home and User Home folders.

The Configuration Archival feature is available to InfoBackup Provider servers using paid license keys (including keys generated from License Management Portal) and with a valid "Free Upgrade until" date. **This feature is disabled for InfoBackup Provider servers using evaluation license keys.**

Setup

The InfoBackup Provider Configuration Recovery feature is disabled by default. To enable this feature do to the server configuration page [Manage System] → [Routine Job] → [System Job] → [Configuration Archival] and select "Enable" and press the [Update] button. The default InfoBackup Provider configuration backup time is at 12:30 PM.



For InfoBackup Provider servers using evaluation license keys or where the "Free Upgrade until" date has already expired, this option will be automatically disables until license key maintenance is renewed.

For license keys where the "Free Upgrade Until" has expired, the configuration files which have been previously uploaded to InfoBackup License Server are still available for restore via the Configuration Recovery feature.

InfoBackup Provider Configuration Files

The following is a list of critical InfoBackup Provider configuration files which are backed up to the InfoBackup License Server by the daily Configuration Archival backup job.

CONF folder	**\%OBS_HOME%\conf**	1'CB-config.xml, autoUpdate.bdb, debug.props, keystore, lfsConfig.xml, license.xml, obs.xml, rps.xml, rpsLicense.xml,

		rpsRecv.xml, rpsSend.xml, server.xml
POLICY HOME	**\%PolicyHome%**	policyGroup.xml, sysUser.xml, userGroup.xml, 1'CBGlobalFilter\db\Profile.xml, default1'CBUser\db\Profile.xml, defaultUser\db\Profile.xml, ObmGlobalFilter\db\Profile.xml
USER HOME %userhome1% %userhome2% . .	**\%User Home%**	The home folder and Profile.xml for all backup user accounts: %Userhome%\test1 %Userhome%\test1\db %Userhome%\test1\db\Profile.xml %Userhome%\test2#12345 %Userhome%\ test2#12345\db %Userhome%\ test2#12345\db\Profile.xml

Configuration Archival File Limits

Each configuration Archive file is limited to 2MB after compression per an upload.

File Size Restrictions

The following table shows the file size restrictions for each configuration file folder:

Directory	Uncompressed (MB)	Compressed (KB)
Temporary storage for CONF folder	1	149
Temporary storage for Policy Home	45	1716
Temporary storage for User Home(s)	30	183
Total	**76**	**2048**

Number of Files

Only the %OBS_HOME%\conf folder has an enforced maximum number files limit.

Directory	Number of files (max)
Temporary storage for CONF folder	50
Temporary storage for Policy Home	No limit
Temporary storage for User Home(s)	No Limit

For example, a 2MB compressed file can contain configurations files from an InfoBackup Provider server with the following setup:

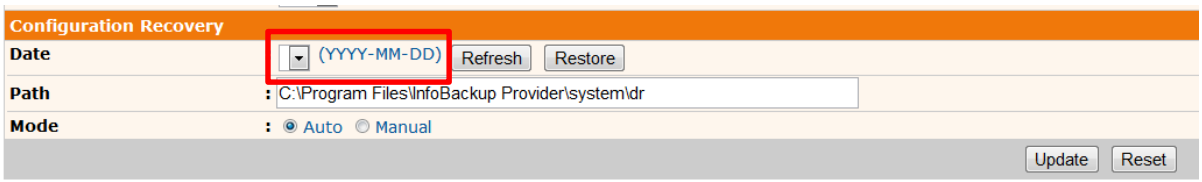
Number of backup user = 600
Number of system user = 80
Number of user group = 300
Number of policy group = 150
Average number of backup sets per backup user = 10

If after the configuration file is compressed, the file size exceeds 2MB, the Configuration Archival job will not upload the file to InfoBackup License Server. The exact nature of the error will be shown in InfoBackup Provider system log.

Configuration Archival Storage Retention

The InfoBackup License Server (ILS) allows each license key to store a maximum of 30 days of configuration file backups at any one time. When the Configuration Archival backup job uploads the configuration file on the 31st day, the ILS will immediately delete the existing configuration file upload on the 1st day and so forth.

The check how many backup "snapshots" are available on ILS, on the InfoBackup Provider web console go to [Manage System] → [Server Configuration] → [Configuration recovery]. Click on the [Refresh] button and select the "Date" combo box.



Warning:

ILS will only keep one snapshot of the Configuration Archive backup file per day. If there are more than one Configuration Archive backup jobs are run within a 24 hour period, ILS will only keep a copy of the latest snapshot.

Backup Process

Once Configuration Archival system jobs enabled and the daily backup time configured. InfoBackup Provider will automatically perform a backup of the configurations files to the ILS.

For each Configuration Archival backup job:

1. The InfoBackup Provider configuration files are copied to the %OBS_HOME%\temp folder.
2. The files are compressed and encrypted using AES 256bit encryption algorithm.

3. The compressed file is renamed according to the following format ***dr-YYYY-MM-DD.zip.gz*** and InfoBackup Provider uploads the file to ILS using https protocol.
4. After a successful backup the ***dr-YYYY-MM-DD.zip.gz*** file is then removed from %OBS_HOME%\temp folder.

Warning:

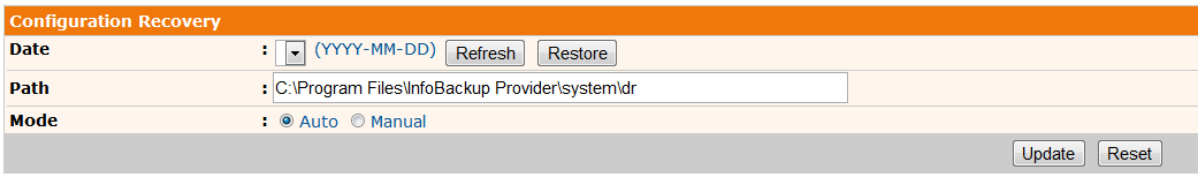
The encryption key used by InfoBackup Provider to encrypt the configuration file is a secret key and cannot be changed by the backup server administrator.

Once the InfoBackup Provider configuration files are uploaded to ILS, the backup server administrator cannot manually remove these files from ILS.

The Configuration Archival backup job statuses are recorded in the InfoBackup Provider system log.

When a configuration Archival backup job has completed successfully, the following messages will be shown in the InfoBackup Provider system log.

To verify the current backup of configuration files are available on the ILS, on the InfoBAckup Provider web console go to [Manage System] → [Server Configuration] → [Configuration Recovery]. Click on the [Refresh] button to show the latest snapshot available on the ILS.



Backup Error Handling

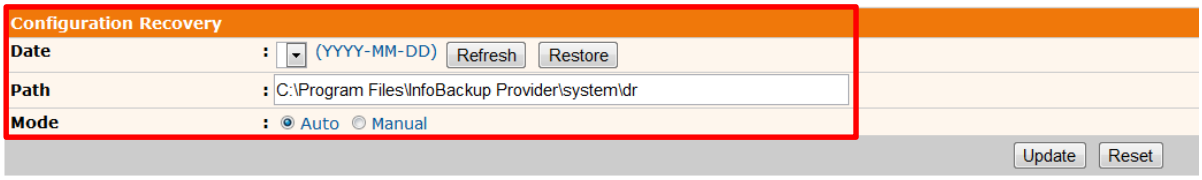
If the Configuration Archival backup job encounters any connection issues to the ILS, InfoBackup Provider will attempt to reconnect to the ILS again upload the configurations file after 15 minutes.

In total InfoBackup Provider will retry three times in 15 minutes intervals to establish a connection to ILS before the backup job is aborted.

In the Configuration Archival backup job does not successfully upload the configuration file to ILS after the third retry, the backup job for the current day will end. InfoBackup Provider will run the Configuration Archival backup job again on the following day at the schedules time.

Restoring Configuration Files

To restore the configuration files from ILS to InfoBackup Provider, open the web management console and go to the server configuration page [Manager System] → [Server Configuration] → [Configuration Recovery].



The [Path] is the destination path where the restored configuration files will be saved on the InfoBackup Provider server. After the configuration file is restored from the ILS, when Configuration Recovery is performed using "Manual" mode. The default setting for the [Path] is *%OBS_HOME%\SYSTEM_HOME\dr*.

The InfoBackup Provider server configuration can be restored from ILS by:

1. Clicking the [Refresh] button to obtain a list of the configuration file snapshots stored on the ILS.
2. Use the [Date] option, to select the configuration file snapshot to be restored.
3. Select the recovery mode in the [Mode] option.
   i. If "Auto" mode is selected, InfoBackup Provider will download the select configuration file snapshot from ILS. It will be automatically decrypted and copied to their original locations, only if the InfoBackup Provider user home(s) are empty.
   ii. If "Manual" mode is selected, the configuration files will be decrypted and downloaded to the destination path. The restored files have to be manually copied to new InfoBackup Provider user home(s)
4. Click [restore] button to execute the configuration recovery process.
5. The restored InfoBackup Provider configuration settings will take effect after the InfoBackup Provider service is restarted.

When a configuration Recovery has been performed successfully, the following messages will be shown in the InfoBackup Provider system log.

Warning:

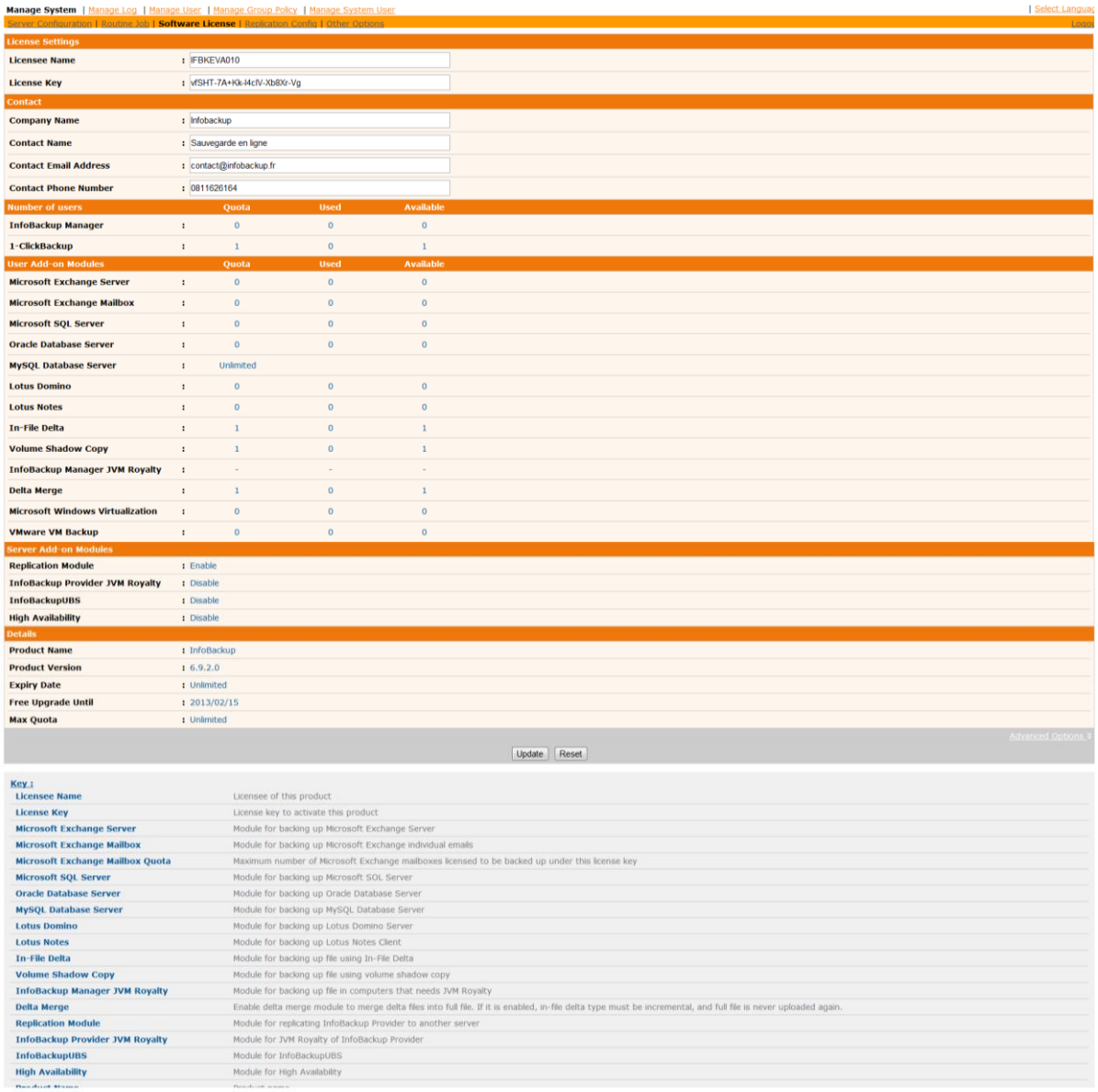
i. The configuration Recovery feature does not support recovery of InfoBackup Provider system configuration on a cross O/S platform environment, i.e. configuration files from a Windows InfoBackup Provider cannot be recovered to a Linux/FreeBSD/Solaris InfoBackup Provider vice versa.

ii. To perform a Configuration Recovery to a new InfoBackup Provider installation the license key from the original InfoBackup Provider server must be applied.

iii. The new InfoBackup Provider server must be able to connect to the ILS in order to perform a Configuration Recovery.

5. Software License

This chapter describes how you can use the [Manager System] → [Software License] page (shown below) to manage soft<are license of InfoBackup Provider.



Key	Description
License Name	Business name of the licensee
Company Name	License Key to activate this software. Please enter [License Key] as a printed on the [Software License Agreement] into the text field provided.
Company Name	The company name used for contact.
Contact Name	The name of the contact person.
Contact Email	The email address of the contact person.
Contact Number	The phone number of the contact person.
InfoBackup Manager	The maximum number of the InfoBackup Manager backup account allowed.
1'ClickBackup	The maximum number of the 1'ClickBackup backup accounts allowed.
User Add-on Modules	It shows whether different client side add-on modules are enabled for InfoBackup Manager/1'ClickBackup. You need to have a new license key to enable these modules. Quota – the total number of licenses of a particular module available. Used – the total number of licenses of a particular module assigned to users. Available – the total number of license of a particular module available for future use.
Server Add-on Modules	It shows whether different server side add-on modules are enabled for InfoBackup Provider. You need to have a new license key to enable these modules.
Product Name	Name of the licensed product.
Product Version	Version number of the licensed product.
Expiry Date	The date when the current license key will expire. You will not be able to use InfoBackup Provider after this date.
Free Upgrade Until	The last date you are allowed to upgrade to the latest InfoBackup Provider available. You will not be able to upgrade to any software release after this date with your current license key.
Max Quota	The maximum quota for each backup user supported

Licensee Name and License Key

When you click the [Manager System] → [Software License] link available at the top menu the [Software License] panel will appear. You can use the form available on this panel to activate the software.

Please remember the following notes when you enter your licensee name and your license key:

- Both [Licensee Name] and [License Key] are case sensitive and they must be entered EXACTLY as stated in your software receipt. If possible, please use copy and paste shortcuts (CTRL-C and CTRL-V) to enter both [Licensee Name] and [License Key] into the field provided to avoid typo error.
- If a proxy server is required to access the Internet form InfoBackup Provider, please setup the [proxy setting] in the [Manage Server] page. Access to the Internet is required because the license key must be activated by our license server before it is usable.
- If Internet connection is not available in your environment, you can use the offline activation method to activate your license.
- One license key can only be used on one machine once it has been activated. If you use the same license key to activate another copy of InfoBackup Provider on another server, you will get "Internal Error 1011" or "Internal Error 1012" message. You can still run this copy of InfoBackup Provider for another 7 days without any problems but it will stop working after this grace period. Please contact us to re-activate your license key if you run into this situation.

Automatic License Renewal

If InfoBackup Provider is under a monthly leasing plan, the license key will have an expiry date of 30 days. Upon expiration, the license key will be renewed automatically.

In the event of any problems during the license renewal process, i.e. InfoBackup Provider is not able to connect to the ILS. The expired license key will have a grace period of 14 days. InfoBackup Provider can still function normally using the expired license for an extra 14 days before the service is automatically shutdown. The 14 day grace period is to allow sufficient time to resolve any license related problems.

Evaluation Expiry

After the evaluation period, the evaluation key will expire and the InfoBackup Provider will automatically be stopped. Although the service will still be alive, InfoBackup Manager and 1'ClickBackup cannot do backups anymore. You should get the following screen when it happens:

If you want to continue using InfoBackup Provider, contact our sales team to purchase new licenses.

However, if you have not yet decided to purchase our product, you are welcome to apply for a free license.

After you have purchased a new license, you can apply the licensee name and license key as described in previous sections. You can then re-activate the users by using the tools in [Manager User]. For more information on [Managing Users] please refer to the section of Managing User in this document.

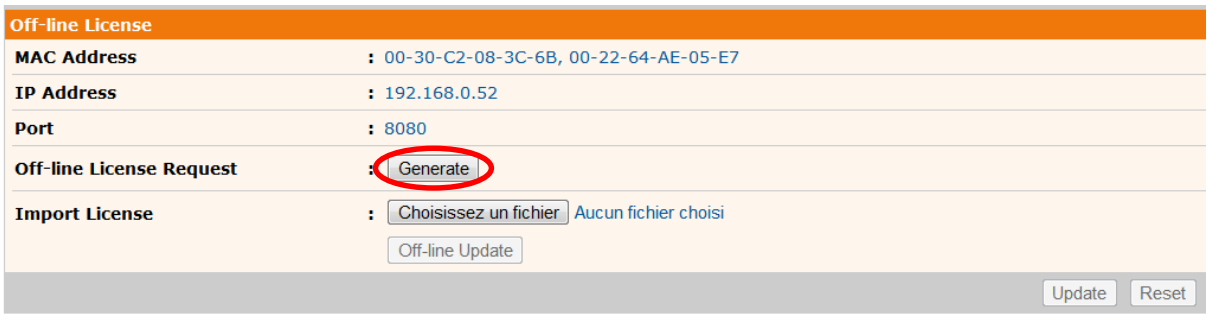
Offline License Activation

Offline License Activation is a new feature added to InfoBackup Provider since v5.5.7.0. It is used to activate the InfoBackup Provider License for servers that does not haver internet connection.

In order to use the offline license activation, you must first install InfoBackup Provider v5.5.7.0 or above.

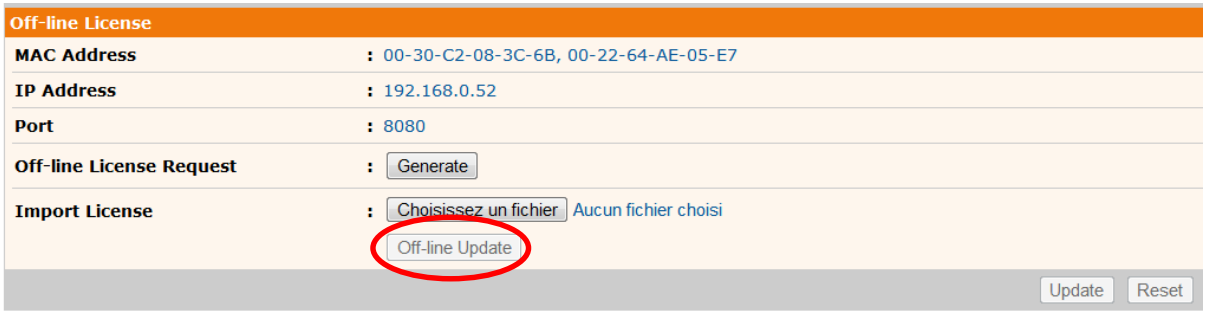
After you have finished installing the InfoBackup Provider, please open the web management console and go to the license page. On that page, you should be able to see the [Advanced Option] link near the bottom right hand corner. Please click on that link to display the offline license options.

The offline license options should now be shown on the screen. The next step in offline license activation process is to generate an offline license request file. This file is an encrypted file that contains all the information required for the activation process, e.g. MAC address and local IP address. To generate the offline license request file, please press the [Generate] button under the [Advanced Option] under of the license page. The offline license request file will then be generated and it will prompt for the location to save the offline license request file.



When the offline license request file is ready, please send it to our Support team via email (support@infobackup.fr). An offline license file will then be generated and sent back to you. The offline license file is the license file used in the offline license activation process.

After you have received the offline license file, you would need to import it to InfoBackup Provider to complete the offline activation process. Before importing the offline license file to InfoBackup Provider, you must ensure that it is placed in the system home folder of InfoBackup Provider. Then, you should logon to the InfoBackup Provider web interface to import the license from the [Software License] page (i.e. [Manage System] → [Software License]) and click on the [Advanced Option] link. Press on the [Browse] button and select the offline license file from InfoBackup Provider system home. Click on the [Offline Update] button to complete the process. If there is no error message shown on the [Software License] page, the offline License Activation Process is completed successfully.



6. Managing Routine Job

This chapter describes how you can use the [Manage System] → [Routine Job] page (shown below) to manage number of system routine jobs of InfoBackup Provider. When you click the [Manage System] → [Routine Job] link available at the top menu, the [Routine Job] panel will appear. You can use the form available on this panel to define your preferences of how you want different system routine jobs to run.

Key	Description
Backup Report	Hourly job sending backup reports to users whose backup job have completed within the last hour.
Online Restore Report	Hourly job sending online file restoration reports to users who have performed and completed an online file restoration action within the last hour.
Setting Change Report	Hourly job sending setting change reports to users who have updated their backup setting within the last hour.
Missed Backup Report	Hourly job checking whether any scheduled backup job has been missed for all backup users and sending missed backup reports to users who have missed their backup jobs.
Inactive User Report	Daily job sending inactive user reports to users if their accounts have been inactive for more than 7 days.
Off-line Backup Reminder	Daily job sending off-line backup reminders to users who have set the off-line backup option and have not performed a backup for the required number of days.

Backup Quota Reminder	Daily job sending backup quota reminders to users whose storage quotas are above a certain percentage
Trial user Reminder	Daily job sending trial user reminders to users whose trial account are about to expire.
Usage Report	Daily job sending system usage reports to system administrators.
Error Report	Daily job sending system error reports to system administrators.
Replication Error Report	Daily job sending replication error reports to system administrators
Inactive User Removal	Daily job deleting all trial accounts that have been inactive for 60 days.
Retention Policy Job	Daily job removing obsolete files from the retention area according to each user's retention policy setting.
Rebuild User Storage	Weekly job rebuilding all users' storage information by walking through all users' backup files.
System Log Removal	Daily job removing system logs older than this number of days from the system.
Debug Log Removal	Daily job removing debugging logs older than this number of days from the system.
Cyclic Redundancy Check (CRC) Checking	Routine job that will run at 2nd and 4th Saturdays of every month. It will verify the CRC of the files backed up to the server.
Force to check all backup files	If selected the CRC job will check all backup files regardless of last checked date.
Configuration Archival	Daily job sending system settings, policies and user profiles to a secure remote storage.

Note:

It is strongly recommended you enable the CRC checking so that regular file integrity checks are made on the backup data files.

Backup Report

The [User Report] → [Backup Report] setting under the [Manage System] → [Routine Job] page defines the setting of the [Backup Report] routine job. The role of the [Backup Report] routine job is to send backup reports to users who have finished one of their backup jobs within the last hour. The backup report is scheduled to run every 57 minutes past the hour.

Online Restore Report

The [User Report] → [Online Restore Report] setting under the [Manage System] → [Routine Job] page defines the setting of the [Online Restore Report] routine job is to send online file restoration reports out to users who have performed and completed an online file restoration action within the last hour. The online restore report is scheduled to run every 58 minutes past the hour.

Setting Change Report

The [User Report] → [Setting Change Report] setting under the [Manage System] → [Routine Job] page defines the setting of the [Setting Change Report] routine job. The role of the [Setting Change Report] routine job is to send report out to users who have updated their profiles or backup set within the last hour. The setting change report is scheduled to run every 59 minutes past the hour.

If you want your users to receive these reports, please select the [Enable] option. Otherwise, select the [Disable] option.

Missed Backup Report

The [User Report] → [Missed Backup Report] setting under the [Manage System] → [Routine Job] page defines the setting of the [Missed Backup Report] routine job. The role of the [Missed Backup Report] routine job is to send reminder notice to users who have missed one of their scheduled backup jobs. InfoBackup Provider defines a schedules backup job to be a missed backup job if there is no backup run 6 hours after a backup has been scheduled. The missed report is scheduled to run every 46 minutes past the hour.

If you want your users to receive these reports, please select the [Enable] option. Otherwise, select the [Disable] option.

Off-line Backup Reminder

The [User Report] → [Off-line Backup Reminder] setting under the [Manage System] → [Routine Job] page defines the setting of the [Off-line Backup Reminder] routine job. The role of the [Off-line Backup

Reminder] routine job is to send a reminder notice to users who have set the off-line backup option in their backup sets but failed to backup for a certain amount of time.

This job will run daily as defined by the [Daily at] setting, the default start time is 09:25 AM. If you want your users to receive these reports, please select the [Enable] option. Otherwise, select the [Disable] option.

Backup Quota Reminder

The [User Report] → [Backup Quota Reminder] setting under the [Manage System] → [Routine Job] page defines the setting of the [Backup Quota Reminder] routine job. The role of the [Backup Quota Reminder] routine job is to send a reminder notice to users whose storage quota usage has hit a pre-defined percentage, the default quota usage setting is more than 90%.

This job will run daily as defined by the [Daily at] setting, the default start time is 09:05 AM. If you want your users to receive these reports, please select the [Enable] option. Otherwise, select the [Disable] option. Please also set the pre-defined percentage of storage divided by quota that will trigger this reminder.

Trial User Reminder

The [User Report] → [Trial User Reminder] setting under the [Manage System] → [Routine Job] page defines the setting of the [Trial User Reminder] routine job. The role of the [Trial User Reminder] routine job is to send a reminder notice to users whose trial accounts that their account will expire. The default setting is to send reminder reports 25 days after trial account registration.

This job will run daily as defined by the [Daily at] setting, the default start time is 09:50 AM. If you want your users to receive these reports, please select the [Enable] option. Otherwise, select the [Disable] option. Please also set the number of days after registration that the users should get this reminder.

Usage Report

The [System Report] → [Usage Report] setting under the [Manage System] → [Routine Job] page defines the setting of the [Usage Report] routine job. The role of the [Usage Report] routine job is to send usage report, which contains a statistics of all backup users' activities, to the administrative contacts of InfoBackup Provider.

This job will run daily as defined by the [Daily at] setting, the default start time is 09:55 AM. If you want the administrative contacts of InfoBackup Provider to receive the usage report, please select the [Enable] option. Otherwise, select the [Disable] option.

Error Report

The [System Job] → [Inactive User Removal] setting under the [Manage System] → [Routine Job] page defines the setting of the [Inactive User Removal] routine job. The role of the [Inactive user Removal routine job is to remove inactive trial users (i.e. no logon or backup traffic from this user) from InfoBackup Provider as defined by the Free Trial Setting.

This job will run daily as defined by the [Daily at] setting, the default start time is 09:35 AM. If you want this job to run, please select the [Enable] option. Otherwise, select the [Disable] option.

Retention Policy

The [System Job] → [Retention Policy] setting under the [Manage System] → [Routine Job] page defines the setting of the [Retention Policy] routine job. The role of [Retention Policy] routine job is to delete files from the retention area for each user according to the retention policy for each backup set of each backup user.

This job will run daily as defined by the [Daily at] setting, the default start time is 09:40 AM. If you want this job to run, please select the [Enable] option. Otherwise, select the [Disable] option.

Note:

The retention policy job would retain data in accordance to the retention policy configured for the corresponding backup set. A formula is used to determine which file should be "retained" in "Days" unit, at "00:00" of each day (NOT the system routine job execution time). For a backup set with a 7 'days' retention policy, the system routine job would retain modified/deleted data of the past 7 days (oldest data being uploaded after 00:00, 7 days ago).

Warning:

Disabling the retention Policy job could result in:

i. **User accounts exceeding there quota limits and therefore interrupting normal backup operations.**
ii. **InfoBackup Provider user home(s) drives running out of space, which could result in your InfoBackup Provider becoming unstable and or cause data corruption.**

Rebuild User Storage

The [System Job] -> [Rebuild User Storage] setting under the [Manage System] -> [Routine Job] page defines the setting of the [Rebuild User Storage] routine job. The role of the [Rebuild User Storage] routine job is to recalculate all users' storage information (e.g. data area file size/number, retention area file size/number) by traversing through all backup files for all users within the system.

The job is designed to run weekly and will run at the time defined by the [Every WEEKDAY at] setting, the default start time is every Sunday at 09:30 AM. If you want this job to run, please select the [Enable] option. Otherwise, select the [Disable] option.

Note:

i. **As the Rebuild User Storage job is relatively I/O intensive job, it is recommended to schedule this job to run during off peak periods.**
ii. **When a rebuild user storage is run on a user account with active backupsets, the calculations for the storages statistics may not reflect the actual storage used as all active backupsets are skipped.**

System Log Removal

The [System Job] → [System Log Removal] setting under the [Manage System] → [Routine Job] page defines the setting of the [System Log Removal] routine job. The role of the [System Log Removal] routine job is to remove all system logs (i.e. all information under the System Home, e.g. system error logs or backup error logs) from InfoBackup Provider after the [Keep Logs For] number of days.

This job is designed to run daily and will run at the time defined by the [Daily at] setting, the default start time is 09:45 AM. If you want this job to run, please select the [Enable] option. Otherwise, select the [Disable] option.

Debug Log Removal

The [System Job] → [Debug Log Removal] setting under the [Manage System] → [Routine Job] page defines the setting of the [Debug Log Removal] routine job. The role of the [Debug Log Removal] routine job is to remove all debugging logs (e.g. access logs and web application context logs) from InfoBackup Provider after the [Keep Logs for] number of days.

This job is designed to run daily and will run at the time defined by the [Daily at] setting, the default start time is 09:10 AM. If you want this job to run, please select the [Enable] option. Otherwise, select the [Disable] option.

Cycling Redundancy Check (CRC) Checking

The [System Job] → [Cyclic Redundancy Check (CRC) Checking] setting under the [Manage System] → [Routine Job] page defines the setting of the [Cyclic Redundancy Check (CRC) Checking] routine job.

The role of this routine job is to check the CRC of the backup files on every 2nd and 4th Saturdays every month, the default start time is 12:00 AM.

The "Cyclic Redundancy Check (CRC) Checking" job will check all new files on InfoBackup Provider. When the CRC job checks a file it will update the file header with an 'InfoBackup Provider CRC next check date'. This is calculated as 180 + (random number of 0 to 60) days, so for existing files which have been checked previously. The next CRC check on the file will be performed after 180 to 240 days.

During this checking, it will check the followings things:

- The file size of the backup file with the size stored in the header of backup file.
- The CRC value of the backup file with the checksum value stored in the header of the backup file.

If a file is found to be invalid or corrupted it will be deleted, if the file is in the retention area or retained if the file is in the "Current" folder.

To configure the "Cyclic Redundancy Check (CRC) Checking" job to validate all files regardless of the last checked date, please check the [Force to check all backup files] option.

Warning:

Using the [Force to check all backup files] option could result in performance issues with your InfoBackup Provider server. This option may impact on backup and restore performance.

Configuration Archival

The [System Job] → [Configuration Archival] setting under the [Manage System] → [Routine Job] page defines the setting of the [Configuration Archival] routine job. The role of the [Configuration Archival] routine job is to backup critical InfoBackup Provider configuration files (e.g. CONF folder, Policy Home and User Home) and upload them to the InfoBackup License Server (ALS). At most 30 days of configuration files will be kept on the ALS. This job is designed to run daily and will run at the time defined by the [Daily at] setting, the default start time is 12:30 PM. This job is disabled by default.

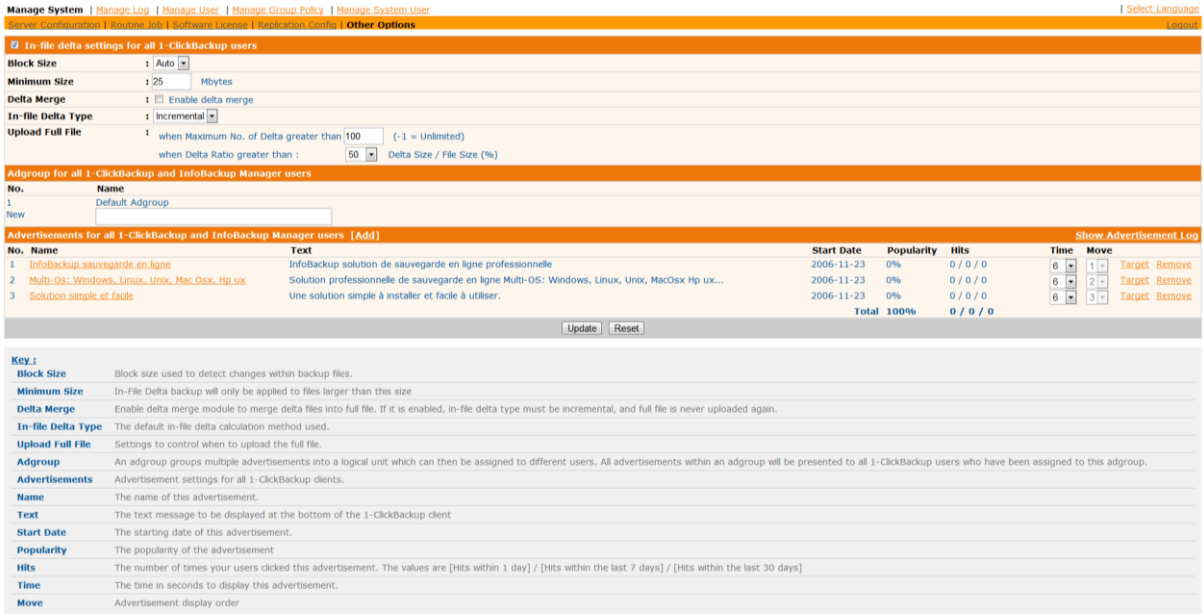
7. Managing Replication

The replication module is managed by the [Manage System] → [Replication Config] page. For more information about this feature, please refer to the InfoBackup Replication Server Administrator's Guide.

Also, please refer to the InfoBackup Provider Setup Guide form information on how to install the InfoBackup RPS to work with InfoBackup Provider.

8. Managing Other Options

This chapter describes how you can use the [Manage System] → [Other options page (show below) to manage the advertisements for all users and default On-File delta setting for 1'ClickBackup users.



Key	Description
In-file delta setting	Select this option to enable and use in-file delta technology for all 1'ClickBackup clients.
Block Size	The in-file delta block size used to detect changes within a file. A smaller block size should produce a smaller delta file but requires more processing power. The default setting of [Auto] will choose the optimal block size for each file based on the file's original file size.
Minimum Size	The minimum size setting defines the smallest file size to apply the in-file delta.
Delta Merge	To enable delta merging on all users.
In-File Delta Type	The In-File delta type to use for calculating the delta file: - Incremental – this option uses the previous uploaded full or incremental file to calculate the delta. It produces the smallest delta for upload but requires the most time and processor power to restore. - Differential – this option always uses the latest uploaded full file to calculate the delta. It produces a larger delta but allows for the fastest restore.

Upload Full File	The upload full file setting determines when the full file should be uploaded to the server instead of the delta. It depends on either of the following rules being true: Maximum No. of Delta – the total number of deltas uploaded since the last full file. The default setting is 100 deltas. Delta Ratio – the ratio of the Delta Size divided by the Full file size. The default setting is 50%.
Adgroup for all 1'ClickBackup and InfoBackup Manager users	An adgroup groups multiple advertisements into a logical unit which can then be assigned to different users. All advertisements within an adgroup will be presented to all users who have been assigned to this adgroup.
Advertisements	Click the [Add] link to add new advertisements.

Note: the compression type option for 1'ClickBackup is not configurable, new 1'ClickBackup user created with InfoBackup Provider 6.9 or above will use the "Fast" compression setting for default. Fast compression has less compression ratio; the size of the backup should be larger than those pre-existing 1'ClickBackup customers will use normal compression settings.

In-File Delta Settings for all 1'ClickBackup users

The [in-File delta settings for all 1'ClickBackup users] setting under the [Manager System] → [Other Options] page defines a global setting of In-File Delta Technology for all 1'ClickBackup clients. Select this option to enable in-File Delta Technology for 1'ClickBackup clients.

Block Size

The [block Size] setting defines the size of data block being used to detect changes between the last full backup file and the file being backed up. In general, the smaller the block size, the more likely a matched data block can be found, hence produces a smaller delta file but will require more processing power to detect these changes. On the other hand, In-File delta backup running with a larger block size will run faster but this will generally produce a larger delta file.

The default setting [Auto] will select the optimal block size for each file depending on the size of the file. The [Auto] setting will set the block size according the following criteria:

File Size	Block Size
>2GB	4KB
2 GB to 8 GB	8 KB
>8 Gb	16 KB

Minimum Size

The [Minimum Size] setting defines the smallest file size a file (the default value is 25 MB) must have before the use and application of in-file delta backup technology.

If the size of a file being backed up is smaller than the [Minimum File Size] setting, in-file delta backup technology won't be applied to this file and the whole file, instead of just the delta file, will be uploaded to the backup server. For backupsets which contain relatively small files, the [Minimum Size] should be increased. As it is not necessary to perform in-file delta backup on small files because backing up the full file doesn't take too long anyway. The advantage of backing up the full file is it will reduce the amount of time required to restore, i.e. the restore of one small full file is much quicker than the restore a small file with associated incremental delta's.

Delta Merge

The [Delta Merge] setting under the [Manage System] -> [Other Options] page defines a global setting of delta merging for all 1'ClickBackup clients. This setting is disabled by default. If delta merge is enabled, it is recommended to use the in-file delta type "Incremental".

Warning:

When the delta merge option is enabled and the in-file delta type "Differential" is selected. The Delta merge feature will not merge differential delta files with the full file. Delta merge will only work if there are pre-existing incremental delta files in the delta chain. Once the incremental delta's are merged, the delta merge feature will no longer merge files in the delta chain.

In-File Delta Type

The [In-file Delta Type] setting defines the way In-File Delta files are handled. There are two different versions as follows:

Incremental In-File Delta

All delta files are generated with respect to changes made since the last incremental backup. This means that the last full backup file and all related incremental delta backup files are required to restore the latest snapshot of a backup file.

The full backup file, its checksum file and all incremental delta files are always stored in the data area. This means that these files are not affected by the setting of the retention policy and will always be kept on the backup server. But for backupsets with delta merge enabled, the retention policy setting is also used by the delta merge feature to determine when InfoBackup Provider will merge the full and incremental delta files into a new full file.

Differential In-File Delta

All differential delta files are generated with respect to changes made since the last full backup file. This means that only the last full backup file and the last differential delta file are required to restore the latest snapshot of a backup file. The other intermediate differential delta files are only required if you want to restore intermediate snapshots of a backup file.

The advantage of a differential In-File delta backup is that a corrupted differential delta file would only make one particular snapshot of a backup file non-recoverable. All other snapshots can still be recovered using the remaining differential delta files.

The full backup file, its checksum file and the last delta file uploaded (if more than one delta files have been uploaded to the backup server) is always stored in the data area. This means that these files are not affected by the setting of the retention policy and will always be kept on the backup server. It is done this way because all these files are required to get the latest snapshot of the backup file and they should not be removed from the backup server by the retention area clean-up routine. All other intermediate delta files are stored in the retention area.

Upload Full File

The [Upload Full File] setting defines when to upload a full file instead of a delta file.

No. of Delta

The [No. of delta] setting defines the maximum number of delta files from the same full backup file to be generated and backed up to the backup server before a full backup (the whole file) of this file is uploaded to the backup server instead.

For example, if you have created 100 delta files from the full backup file already and this [No. of delta] setting is set at 100, the next backup will upload a full backup file (the whole file) instead of just the delta file. However, if the [No. of delta] setting is set to unlimited. It will keep generating delta files and uploading these delta files to the backup server until the other delta setting condition (delta ratio exceeded) forces a full backup. This setting is here to make sure that there will always be a full backup file after a certain number of delta files have been generated.

Delta Ratio

The [Delta Ratio] setting is defined as the file size of a delta file (the file size of the delta file generated by InfoBackup Manager on the client computer) and divided by the file size of its full backup file (the file size of the backup file on the disk of client computer), i.e. the percentage of changes detected between the last full backup file and the current file.

If the delta ratio calculated from the size of the generated delta file and the size of the full backup is greater than the [Delta Ratio] setting, the whole file, instead of just the delta file, will be backed up to the backup server. It is done this way because the difference between backing up the whole file and the delta file is not significant and it is better to upload the whole file instead.

The default setting of [Delta Ratio] is 50%. This means that if the changes detected within a file are more than 50%, the whole file, instead of the delta file will be backed up and uploaded to the backup server.

It is recommended for backupsets where the full file size(s) are relatively small:

1 The [No. of delta] settings be kept to a low value
2 The [Delta Ratio] setting should be less than 50%
3 The [Minimum Size] setting should be increased to more than 25 MB

This will minimize the probability of future restore problems caused by invalid or corrupted delta files.

Adgroups

An adgroup groups multiple advertisements into a logical unit which can then be assigned to different users. All advertisements within an adgroup will be presented to all users who have been assigned to this adgroup.

To add a new adgroup, type the name of the adgroup in the empty field located under [Adgroup for all 1'ClickBackup and InfoBackup Manager users] and next to the [New] text. Press the [Update] button at the bottom and a new adgroup will be created.

Advertisements

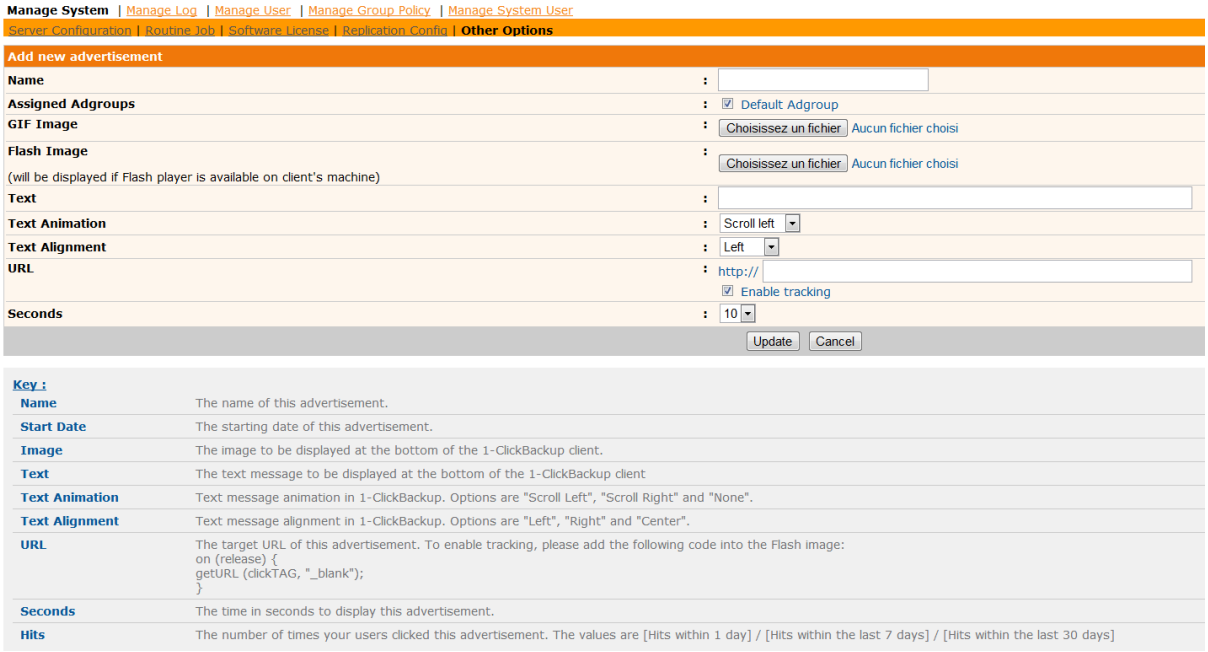
The [Advertisements] setting defines the advertisements and related information that are displayed at the bottom of all 1'ClickBackup clients.

Key	Description
Add	Click this link to add a new advert
Show Advertisement Log	Click this link to view the advertisement log.
Name	The name of the advertisement. Click the link to edit this ad.
Text	The text to be displayed at the bottom of the InfoBackup Manager/1'ClickBackup client.
Start Date	The data when this ad was created.
Popularity	Calculated value to indicate which ad. Is the most popular. The value is calculated as the percentage of [Hit for this ad.] divided by [Total Hits].
Hits	The "Hits" counter indicates the number of times this ad. has been clicked. These counters are only updated if the option "Enable Tracking" is set. The three values are [Hits within 1 day] / [Hits within the last 7 days] / [Hits within the last 30 days].

Time	The number of seconds to display the ad.
Move	The display sequence of the adverts.
Target	Click this link to test the advertisement's URL. This will open a browser and displays the URL web page.
Remove	Click this link to delete the ad.

Add New Advertisement

Click the [Add] link to add new advertisements. Enter the ad. Information into the form provided.



Key	Description
Name	The name of the advertisement.
Assigned Adgroups	It determines if the advertisement should be included in the adgroup(s).
GIF Image	The full pathname of the image file to be displayed at the bottom of the InfoBackup Manager / 1'ClickBackup client. The image size should be 468 x 60, and the format should be in GIF.
Flash Image	The full pathname of the flash image file to be displayed at the bottom of the InfoBackup Manager / 1'ClickBackup client. The image size should be 468 x 60. Flash player must be available on the client's machine in order to display the image.
Text	The text to be displayed at the bottom of the InfoBackup Manager / 1'ClickBackup client.

Text Animation	Setting to define whether the text should scroll. - Scroll Left – text scrolls from right to left. - Scroll Right – text scrolls from left to right. - None – do not scroll text.
Text Alignment	Setting to define the text alignment. - Left – text is aligned left. - Center – text is centered. - Right – text is aligned right.
URL	The URL of the ad. If the user clicks the ad. in InfoBackup Manager / 1'ClickBackup, a browser will open and displays this web page.
Enable Tracking	When selected, every time the user clicks the advert in the InfoBackup Manager / 1'ClickBackup client, a "Hits" counter is incremented.
Seconds	The number of seconds to display the ad.

9. Manage System User (Reseller Panel)

This chapter describes how can use different function under the [Manager System User] menu to manager the system users or resellers within InfoBackup Provider.

The [Manage System User] feature allows backup server administrators to create two types of system users, "Sub Admin" and "Non-Admin". System users with the "Sub-Admin" role have full control to managing their own backup user accounts. While "Non-Admin" system users only have read only access to the backup user accounts created by the "Sub-Admin" system user. System users or resellers can independently manager their own group policy settings. Please refer to chapter 11 Group Policy Management for further details.

The backup server administrator can utilize system user accounts depending on the environment where the InfoBackup Provider server is deployed.

1. If InfoBackup Provider is deployed as an internal company backup service. The backup server administrator can create system user account with "Sub-Admin" role for each department to manager their own backup users.
2. If InfoBackup Provider is deployed as a commercial backup service. The backup server administrator can create a system user account with "Sub-Admin" role for each of their resellers to manage their own clients.

Each system user (Sub-Admin) or reseller account on InfoBackup Provider supports the following customization features.

1. The look and feel of InfoBackup Provider web console along with the customized logos.
2. Customized logo for the reports sent to backup users.
3. Customized user guide.
4. Report can be sent via a system users own SMTP server. Each backup client type, i.e. InfoBackup Manager, 1'ClickBackup can have its own designated report sender and reply email address.
5. Each system user or reseller can install their own web SSL certificate.

From InfoBackup Provider v6.7.0.0 onward each system user (Sub-Admin) or reseller account has full control in deploying client side upgrades for each backup user account under their control.

My Profile / Edit System User

When you click the [Manager System User] → [My Profile] link available at the top menu, the [My Profile] form will be shown. You can the update system user profile to the system by submitting this form to InfoBackup Provider. The panel will display differently depending on the role of current logins system user.

Admin Role

Admin Role system user has the highest authorization level, all system and backup users can be accessed by Admin role system user at all times. On InfoBackup Provider only the "system" user possesses the admin role.

Manage System | Manage Log | Manage User | Manage Group Policy | **Manage System User**

My Profile | Add System User | System User | Change Ownership

System User Settings	
Login Name	: system
Role	: Admin
Password	: ******

Key :

Login Name	Login Name used to logon to web interface.
Role	Role of system user
Password	Password used to logon to web interface.

Non Admin Role

Non admin role system user shares the similar accessibility as its creator except with read permission only (Descendant system users and backup users of its creator could be accessed). If Non Admin role system user needs to have the same User Control Policy Settings as its creator, remember to add the Non Admin role system users in the same user group as its creators.

Manage System | Manage Log | Manage User | Manage Group Policy | **Manage System User**

My Profile | Add System User | **System User** | Change Ownership

System User Settings	
ID	: 13314
Login Name	: Non-Admin
Role	: Non Admin
Password	: ••••••••••••••••••••••••

Key :

Login Name	Login Name used to logon to web interface.
Role	Role of system user
Password	Password used to logon to web interface.

Sub Admin Role

Sub admin role system user can access all descendant system users and backup users. When Single Level Access is enabled, system users are restricted to only accessing their own created system users, backup users of system users. Please refer to chapter 4.5 Single Level Access for further details.

Note

1. **Backup user accounts created by "Sub Admin" system users are only supported by InfoBackup Manager and 1'ClickBackup v6.3.0.0 or above clients.**
2. **Backup user accounts created by "Sub Admin" system users running in an InfoBackup RDR setup, are only supported by InfoBackup Manager and 1'ClickBackup v6.70.0 or above clients.**
3. For sub admin with a different hostname setting than the default system account, all backup accounts created by that sub admin must use the corresponding hostname when logging into the InfoBackup Manager/1'ClickBackup client or web interface.
4. If your domain name has already mapped with the port name.
   E.g; 192.168.1.123:8080 → backup.backupvault.com
   The port number 8080 is not required in the client connection settings.

SMTP Settings

[SMTP Settings] is available for Sub Admin role system user only. When [SMTP Settings] is enabled, user reports and system reports for current Sub Admin role system user and the associated backup users will be sent through system user defined SMTP server instead of default SMTP server defined at [Manage System] -> [Server Configuration] panel. The report sender contact information can be separated for IM and 1'CB backup clients. A maximum of one report sender contact information can be defined for each backup client type.

Customize Interface

[Customize Interface] is available for Sub Admin role system users only. This option allows Sub Admin role system users to customize their InfoBackup Provider web interface, documentation and company logo in email report with their own branding.

The default customization files are compressed into custom.zip file and can be downloaded from the key section (circled in RED). It consists of three folders for different customization formats:

1. "css" for web style sheets.
2. "gif" for InfoBackup Provider web interface logos.
3. "pdf" for documentation.

When updating the contents of the custom.zip file, please be careful not to change the folder structure or the folder names otherwise the customization cannot be applied to InfoBackup Provider. The custom.zip should only contain the following folders:

→ css

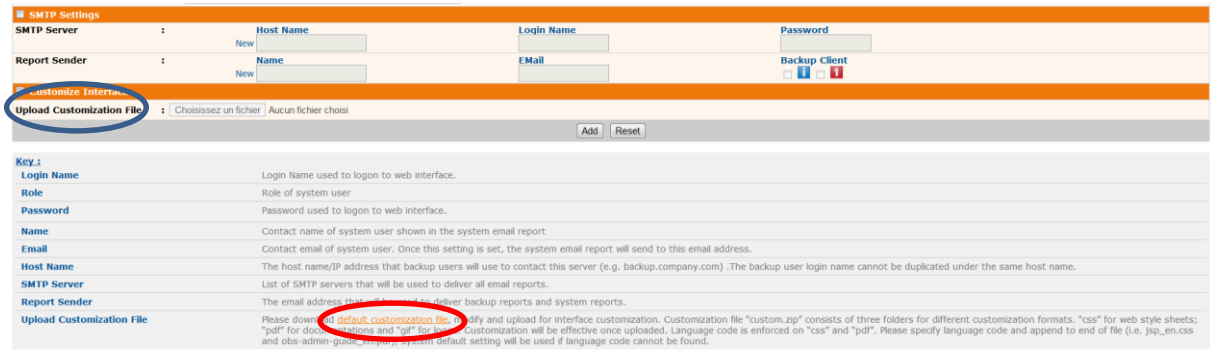
→ gif

→ pdf

The language code is enforced on .css and .pdf customization files. Please specify language code and appended it to the end of the file (e.g. jsp_en.css, jsp_da.css, obs-admin-guide_en.pdf, obs-admin-guide_da.pdf), system default settings will be used if language code cannot be found from uploaded files. Previous uploaded customized file can be downloaded again for further modification (circled in BLUE).

InfoBackup Provider reseller customization will be effective once "custom.zip" is uploaded from [Manage System] → [Manage System User] → [%system_user%] → [Upload Customization File].

Please refer to the section Branding InfoBackup Provider in this document for the use of customization files.



Key	Description
Login Name	Login Name of current system user.
Role	Role of the current system user.
Password	Password of the current system user used to logon to web interface.
Name	Email report contact name of the current system user.
Email	Email address of the current system user.
Host Name	A resolvable hostname of dedicated for the current system user. (e.g. backup.company.com). Although you can supply an IP address here, Login name cannot be duplicated under the same host name.
SMTP Server	The SMTP server that InfoBackup Provider will use to deliver its email reports to current system user and backup users of current system user.
Report Sender	The name and email address that will be used as a sender for all outgoing mails to backup users of current system user. A maximum of two different report senders can be defined for IM and 1'CB users separately.
Upload Customization File	Upload InfoBackup Provider web customization file 'custom.zip' to the system.

Once the "custom.zip" file has been successfully uploaded to the reseller or "system user" account, the files will be uncompressed and saved under the %OBSR_HOME%\system\policy\SystemUser\%systemUser% folder along with a copy of the "custom.zip" file.

Customize Reseller Reports

In addition to modifying the look and feel of the InfoBackup Provider web console, each reseller can customize "logo" and "home page link" for the following email reports:

1. Backup Job Reminder Report
2. Backup Quota Reminder Report
3. Backup Report
4. Error report
5. Forgotten Password Report
6. Inactive User Report
7. New User Report
8. Offline Backup Reminder Report
9. Setting Change Report
10. Trial User Reminder Report

In order to customize the email reports, please replace the "default.large.gif" found in the "gif" folder of the custom.zip file, with the reseller customized logo and rename it to "default.large.gif"

The customized reseller logo will appear on the top left hand corner of each report.

1. The logo is linked to the IP Address/URL of particular resellers InfoBackup Provider web console, when the logo is double clicked the resellers InfoBackup Provider web console will be loaded on the machines default web browser.
2. The "installation wizard" link will load the InfoBackup Manager/1'ClickBackup installation page using the resellers IP Address/URL.

Add System User

When you click the [Manage System User] → [Add System User] link available at the top menu, the [Add System User] panel will be shown. This panel allows user to add a Sub Admin or Non Admin role system user to the system. This panel is similar to the [My Profile] page under [Manage User] setting, except that user has the choice to select the [Role] on this page. The SMTP settings will be inherited to its associated users.

List / Remove System User

When you click the [Manage System User] → [List System User] link located at the top menu, the [List System User] panel will appear. This panel allows you to list and access all other system users within your authority. You can use the alphabet categories at the top of the user listing to filter the listing to show those users whose login name starting with a certain alphabet. You can also use the [ALL] function to list all system users.

When you click the [Login Name] link available on the system user list, the [System User Settings] panel will appear for system user profile editing. When you click the [Role] link available on the system user list, the system user list will be filtered again by the selected system user. When you click the chain of system user list link under the alphabet categories (circled in RED), the system user list will be filtered again by the selected system user.

Some definitions of the fields related are shown in the following table:

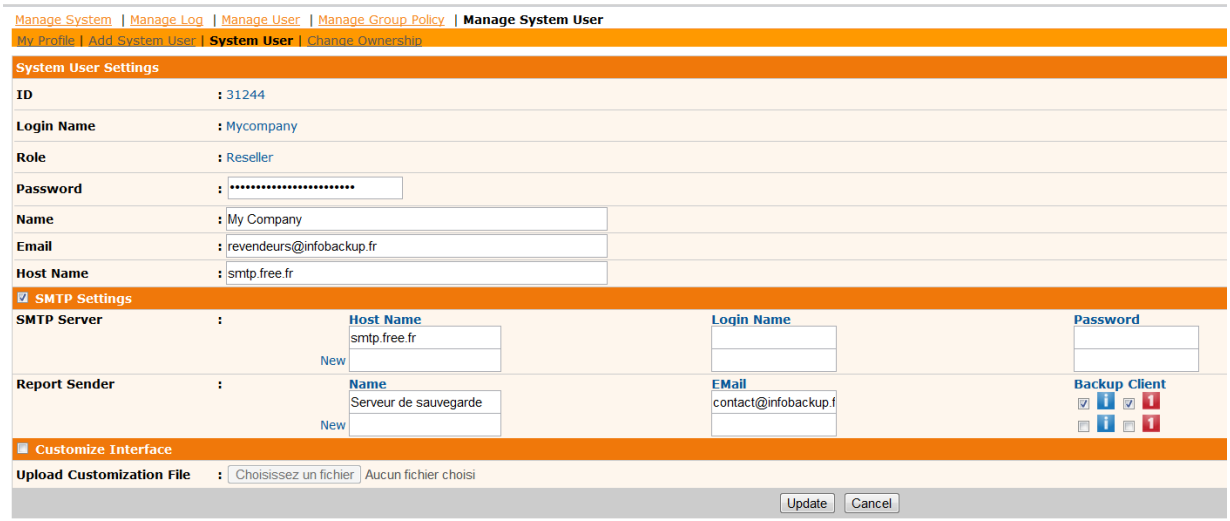
Key	Description
Chain of System User Login Names	It is shown by click on the role column in the [Manage System Users] Page. You can filter a list of accessible system users of the selected system user by clicking on the login name link on the chain.
Login Name	Login Name of the system user. Clicking [Login Name] link to access system user profile.
Role	Role of the system user. Select system user by clicking [Role] link to filter accessible system users of selected system user.
Name	Email report contact name of the system user.
Email	Email address of the system user.
Host Name	Host name/IP address assigned to the system user.
Backup User	Display in IM and 1'CB icons to indicate system user has one or more backup users. Clicking on the icon to view the list of backup users owned by the selected system user.
Owner	The owner of the corresponding system user.
Remove	To remove a system user from the system, just press the [Recycle Bin] icon next to the system user that you would like to remove. The recycling bin appears when the system user has created one or more system users or backup users.

For sub admin accounts the link will only be visible if there are no existing dependencies for the sub admin accounts, i.e. system and backup users created by this account. If you wish remove a sub admin account, you will need to remove all system and backup users accounts by this particular sub admin account.

Recovering a System User/Non-admin Password

Although the backup server administrator can create system users or reseller and non-admin accounts, each system user or reseller can in turn create their own system user and non-admin accounts. If a system user or non-admin account user has forgotten their password, the backup server administrator can also reset the password.

The backup server administrator can reset any sub admin password via the InfoBackup Provider web console [Manage System] → [Manage System User] → [List System User] → [%system_user%] → [System User Settings] → [Password], then enter a new password and press the [Update] button.



Alternatively, the backup server administrator can reset a system user or non-admin password using the following procedure:

1. Open the %OBS_HOME%\system\policy\sysUser.xml file in a text editor.
2. Locate the entry for the affect system user or non admin account:

   <user name="reseller1" **password="6ZoYxCjLONXyYIU2eJluAw==**" role="reseller" **hashed-pwd="Y"** contact-name="Reseller 1" contact-email="reseller@infobackup.local" host-name="10.10.1.98" uid="13512" enable-smtp-setting="Y">
   <smtp-server host-name="10.1.0.110" login-name="" password=""/>
   <report-sender name="Reseller 1 Manager" email="reseller@infobackup.local" obm="Y" 1'CB="Y"/>
   <interface-customization enable="Y"/>
3. Change the hashed-pwd="Y" to hashed-pwd="N"
4. Change the password="6ZoYxCjLONXyYIU2eJluAw==" to password="%New_Password%"

   The %New_Password% must be in clear text.

5. Restart your InfoBackup Provider service for the changes to take effect.

Reseller Backup User Account Restrictions

Each system user or reseller is allowed to create their own backup user accounts. But for system users or resellers on an InfoBackup Provider server which **share the same hostname**, they cannot create backup user accounts with identical user names.

If a system user or reseller tries to create a backup user account whose username already exists under another reseller, the account creation will not be permitted.

The example shows a system user "reseller2" creating a backup user account "test2", which has already been created by another system user 'reseller1". The following error will be shown on the InfoBackup Provider web console:

Reseller Web SSL Certificate Installation

It is possible to install an individual web SSL certificate for each reseller on InfoBackup Provider. In order to install a web SSL cert for a reseller, each reseller must assigned an individual IP address.

Example 1:

A customer wants to setup an InfoBackup Provider server with the following configuration.

1. InfoBackup Provider server with URL main.xyzbackup.com which resolves to local IP address 10.10.1.7 using ports 80 and 443.
2. Reseller 1 is assigned a URL res.1xyzbackup.com which resolves to local IP address 10.10.1.97 using ports 80 and 443.
3. Reseller 2 is assigned a URL res2.xyzbackup.com which resolves to local IP address 10.10.1.98 using ports 80 and 443.

Each individual URL; main.xyzbackup.com, res1.xyzbackup.com, and res.xyzbackup.com will have its own web SSL certificate.

1. Make copies of the default %OBS_HOME%\conf\keystore file
   i. Make copies of the default %OBS_HOME%\conf\keystore_res1 for Reseller 1
   ii. Make copies of the default %OBS_HOME%\conf\keystore_res2 for Reseller 2

2. Edit the server.xml file

```
<Connector address="10.10.1.7" port="80" maxHttpHeaderSize="8192" socketBuffer="65536" maxThreads="1000" minSpareThreads="100"
maxSpareThreads="8192" maxKeepAliveRequests="100" enableLookups="false" redirectPort="443" acceptCount="200"
connectionTimeout="60000" disableUploadTimeout="true" URIEncoding="utf-8" />
<Connector address="10.10.1.7" port="443" maxHttpHeaderSize="8192" socketBuffer="65536" maxThreads="1000" minSpareThreads="100"
maxSpareThreads="8192" maxKeepAliveRequests="100" enableLookups="false" redirectPort="443" acceptCount="200"
connectionTimeout="60000" disableUploadTimeout="true" URIEncoding="utf-8" SSLEnabled="true" scheme="https" secure="true"
keystoreFile="conf/keystore" keystorePass="changeit" clientAuth="false" sslProtocol="TLS" />
<Connector address="10.10.1.97" port="80" maxHttpHeaderSize="8192" socketBuffer="65536" maxThreads="1000" minSpareThreads="100"
maxSpareThreads="8192" maxKeepAliveRequests="100" enableLookups="false" redirectPort="443" acceptCount="200"
connectionTimeout="60000" disableUploadTimeout="true" URIEncoding="utf-8" />
<Connector address="10.10.1.97" port="443" maxHttpHeaderSize="8192" socketBuffer="65536" maxThreads="1000" minSpareThreads="100"
maxSpareThreads="8192" maxKeepAliveRequests="100" enableLookups="false" redirectPort="443" acceptCount="200"
connectionTimeout="60000" disableUploadTimeout="true" URIEncoding="utf-8" SSLEnabled="true" scheme="https" secure="true"
keystoreFile="conf/keystore_res1" keystorePass="changeit" clientAuth="false" sslProtocol="TLS" />
<Connector address="10.10.1.98" port="80" maxHttpHeaderSize="8192" socketBuffer="65536" maxThreads="1000" minSpareThreads="100"
maxSpareThreads="8192" maxKeepAliveRequests="100" enableLookups="false" redirectPort="443" acceptCount="200"
connectionTimeout="60000" disableUploadTimeout="true" URIEncoding="utf-8" />
<Connector address="10.10.1.98" port="443" maxHttpHeaderSize="8192" socketBuffer="65536" maxThreads="1000" minSpareThreads="100"
maxSpareThreads="8192" maxKeepAliveRequests="100" enableLookups="false" redirectPort="443" acceptCount="200"
connectionTimeout="60000" disableUploadTimeout="true" URIEncoding="utf-8" SSLEnabled="true" scheme="https" secure="true"
keystoreFile="conf/keystore_res2" keystorePass="changeit" clientAuth="false" sslProtocol="TLS" />
```

Create new entries in the server.xml for Reseller 1 (10.10.1.97) and Reseller 2 (10.10.1.98). ensure that each entry for https refers to a unique keystore file.

10.10.1.7 - keystoreFile="conf/keystore"

10.10.1.97 - keystoreFile="conf/keystore_res1"

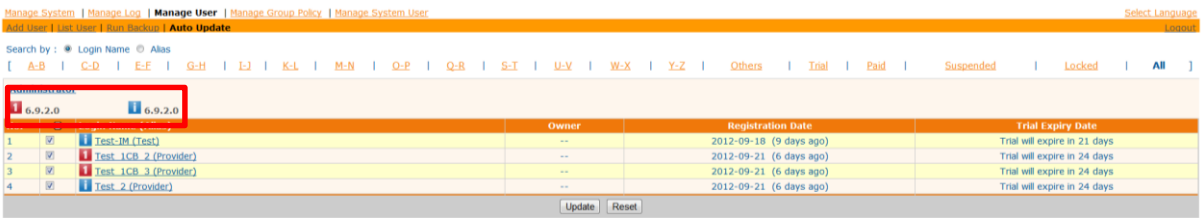
10.10.1.98 - keystoreFile="conf/keystore_res2"

3. To install the individual web SSL certificates for each reseller, please refer to the instructions in chapter naming Installation a trusted SSL certificate.

Auto Update

Each reseller can manage the Auto Update of their own backup users and those of their own sub resellers from the InfoBackup Provider web console under the [Manage User] → [Auto Update] page. The backup users accounts displayed include account created by the reseller and sub resellers, by default all backup users are selected for auto update.

In addition to displaying the list of backup users, when Auto Update is enabled on InfoBackup Provider. Both the latest available upgrade versions for 1'ClickBackup and InfoBackup Manager are shown.



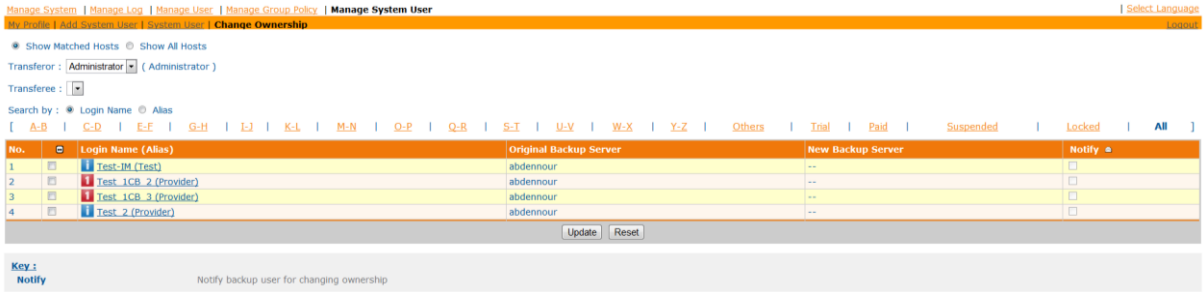
If the Auto Update feature is disabled on InfoBackup Provider the [Manage User] → [Auto Update] page, will display the status "Auto Update is disabled". Both the latest available upgrade versions for 1'ClickBackup and InfoBackup Manager will not be shown

Note:

If the Auto Update feature is disabled on InfoBackup Provider, the reseller(s) will have to contact the InfoBackup Provider server administrator to enable this feature.

Change Ownership

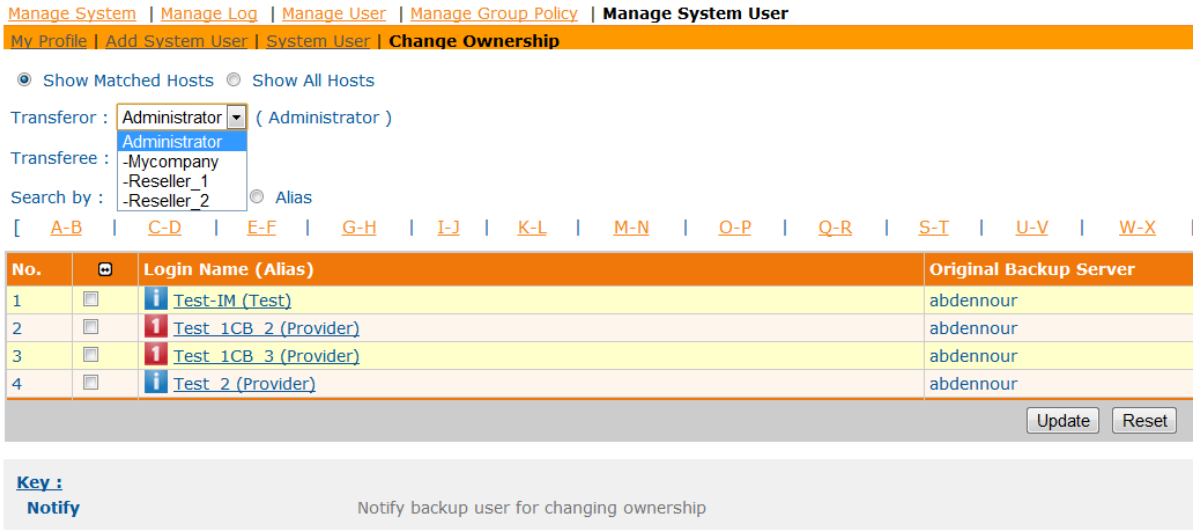
Users can be relocated between different system administrator and reseller, or relocate between reseller and reseller on the InfoBackup management console > [Manage System User] > [Change Ownership] page.



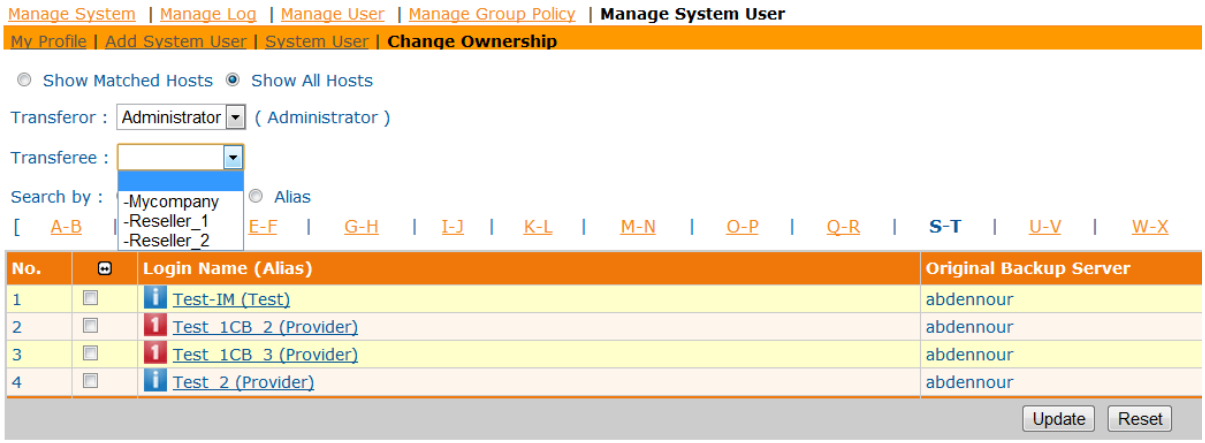
Migrating users from administrator to reseller

To transfer users from administrator to reseller, please try the following steps:

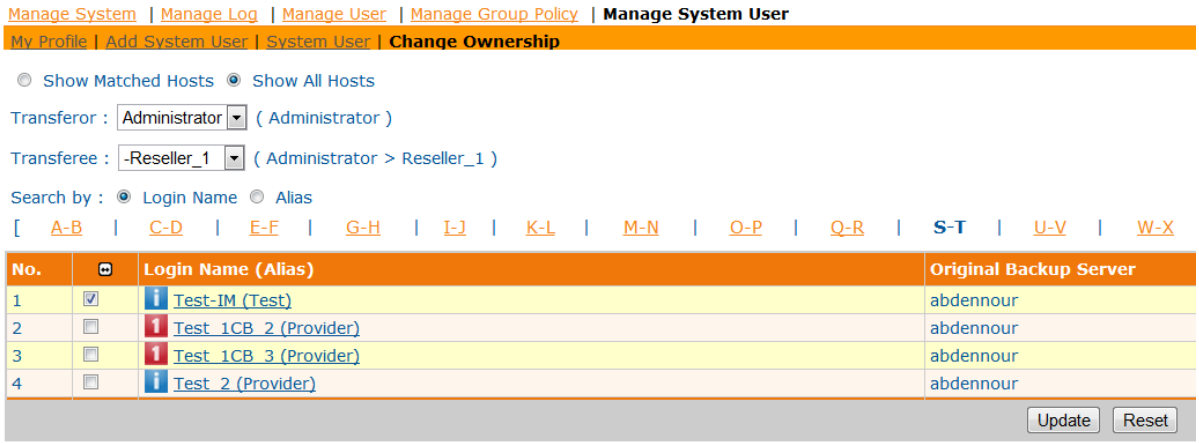
1. Select the "Transferor" from the dropdown list to administrator



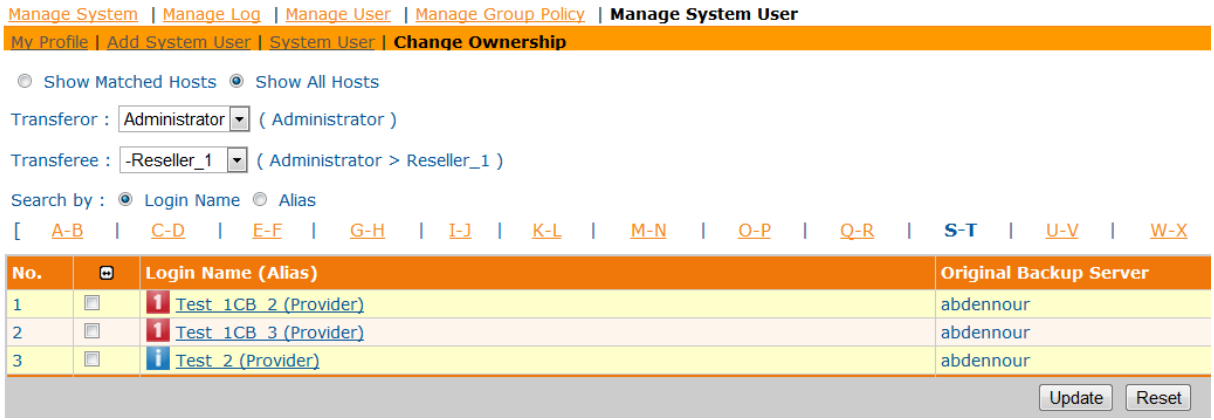
2. Select the reseller from the "Transferee" dropdown list (e.g. Reseller_1)



3. Select the user to transfer by checking the check box next to the user. (e.g. Reseller_1) and press the [Update] button.



4. The User Test-IM disappeared because it is no longer under the Administrator's user list. Transfer completed



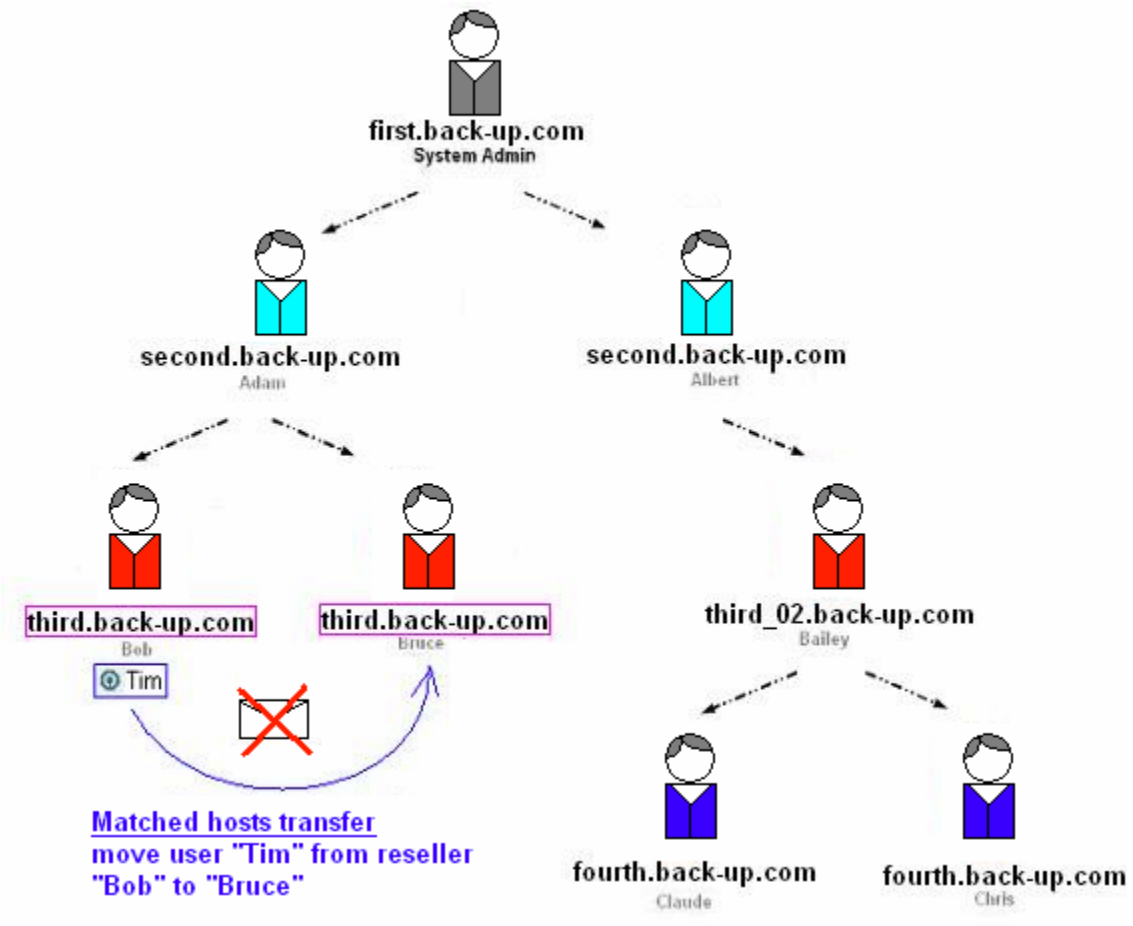
Note:

1. Email notification will not be turned on, as the user transfer is within the same host.
2. Backup users can be transferred between the same of different hosts. Section 9.10.2 shows you how the user is transferred with the same host, while section9.10.3 shows you how the user is transferred between hosts.

Matched host transfer

The above example in section 9.10.1 demonstrates how to transfer a user between matched hosts. They are all in the same host name e.g.: third.back-up.com. You need to select the radio button 'Show Matched Hosts' and you can transfer users within the same host name.

Matched host transfer has less impact to backup user (i.e. user does not require to change the connection host). Below is a diagram to illustrate how the user's ownership is transferred under a matched host.



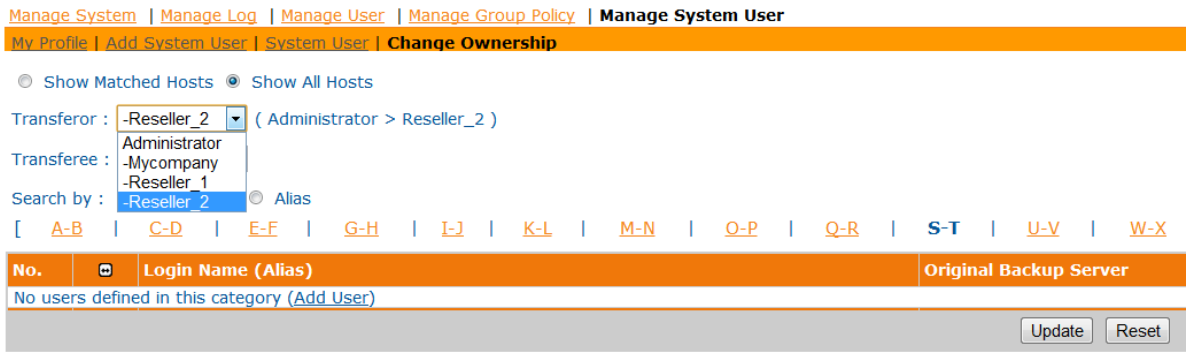
Backup user ownership can be transferred to the same hosts without email notification.

Mismatched host transfer

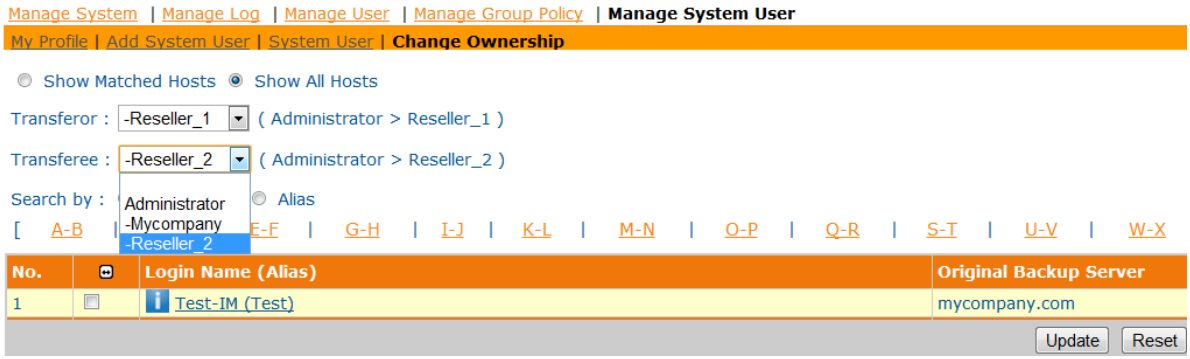
When a user is required to transfer between a different host name, e.g.: third.back-up.com to fourth.backup-up.com

1. In InfoBackup Provider management console > [Manage System User] > [Change Ownership] page.
2. Select the radio button 'Show All Hosts

3. Select the 'Transferor' from the dropdown list to 'Reseller_1'



In this example Reseller_ 1 has a few users and wants to transfer user 'Test-IM to reseller_2



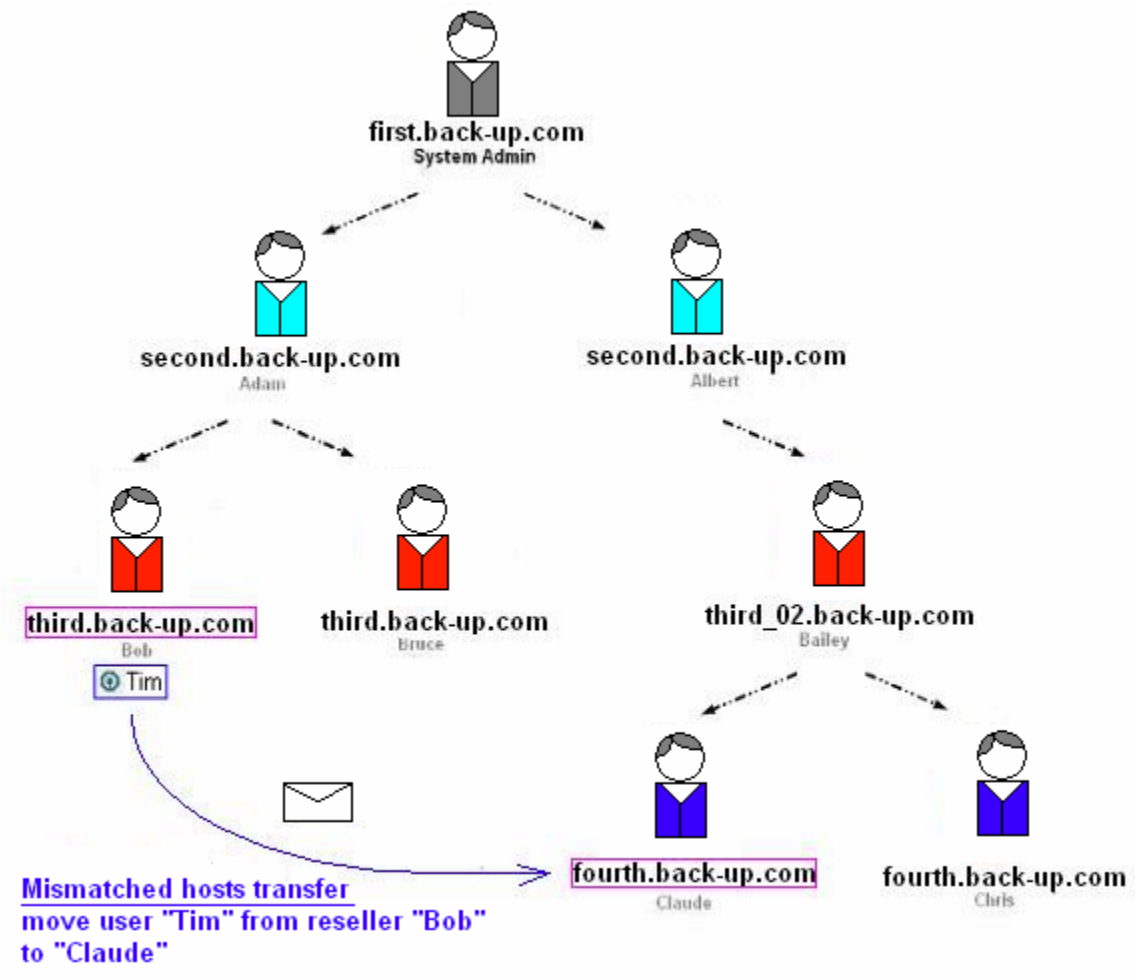
4. Select the reseller from the 'Transferee' dropdown list to 'Reseller_2

5. Select the user to transfer by checking the check box next to the user. (e.g. Test-IM), you can notify check box on the right hand side is also checked.
6. Click on the [Update] button.
   (A notification email will be sent to backup user 'Test-IM' to remind using a new connection host. All services will resume normal only after backup user re-login with new connection host).
7. User 'Test-IM' disappeared because it is no longer under the Reseller_1's user list. Transfer completed.

Note:

Email notification can be disabled by unchecking the notify check box, user cannot connect to the backup server until the hostname setting is changed on the InfoBackup Manager / 1'ClickBackup on the user machine.

Below is a diagram to illustrate how the user's ownership is transferred under a mismatched host.

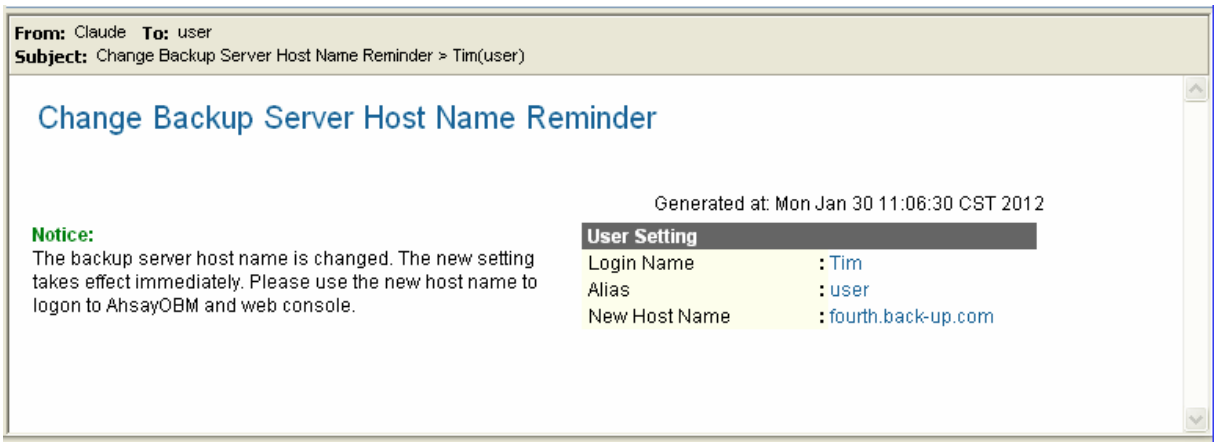


Backup user's ownership can be transferred even when hosts are mismatched.

The above example shows reseller 'Bob' and 'Claude' are under two different hosts, user 'Tim' will receive email notification and must re-login InfoBackup Manager / 1'ClickBackup to allow the changes effective.

Reminder email

A notification email will be sent to backup user when 'Notify' option is selected. This email reminds backup user to change their current backup connection settings to new connection settings on the InfoBackup Manager / 1'ClickBackup. The reminder email will only be sent when backup account is transferred successfully.



The message "[ChangeOwnership.sendEmail] will be logged in the system log and user log when the email is send to "Tim".

Suggestions and Best Practice

1. When the system is running other process simultaneously on the backup user account, such as the following list of operations, change of ownership cannot be performed.
    - Backup (including server initiated backup jobs)
    - Restore
    - Rebuild (including on the fly rebuild, single user rebuild or weekly storage rebuild)
    - Delta merge
    - Delete files or backup set using InfoBackup Manager / 1'ClickBackup or restore applet
    - Undelete
    - Retention policy
    - CRC job
    - Configuration archival
    - Delete backup file using API
    - Delete backup set using API
    - Delete backup data using API
    - Modify backup user using API
2. If a user is using CDP, user should disable the CDP before the ownership transfer. After the change ownership process, user must re-login to the InfoBackup Manager / 1'ClickBackup to enable the CDP.
3. Backup user account cannot be transferred if a duplicated account already exists on the transferee (reseller).

4. Backup user cannot be transferred if the user home is locked by external factor e.g.: file level access to the original user home.
5. If the transferred user has been replicated to the InfoBackup RPS server, after the change ownership process, the replicated user will be moved to the retention area on the RPS and the whole user folder of the newly ownership changed user will be replicated to the InfoBackup RPS again. This will affect users when the replication is running in UNSYNC and SYNC mode. If it is already in LOGGING mode, only the changes (e.g. folder rename, cloned policies) will be replicated to InfoBackup RPS. Please reserve enough disk space on the InfoBackup RPS.
6. When a user is transferred, all associated user groups and policy groups will be cloned under transferee to preserve the settings and uploaded data.

   Due to the current limitation, when another user under the same policy group is transferred, a new policy group will be cloned again on the reseller's policy group and this will end up duplicated policy groups. If you move the users one by one, it could end up with many duplicated policy groups, administrator or resellers are required to manually re-apply users to the dedicated policy group after user transfer and remove all those duplicated policy groups.

Common error messages

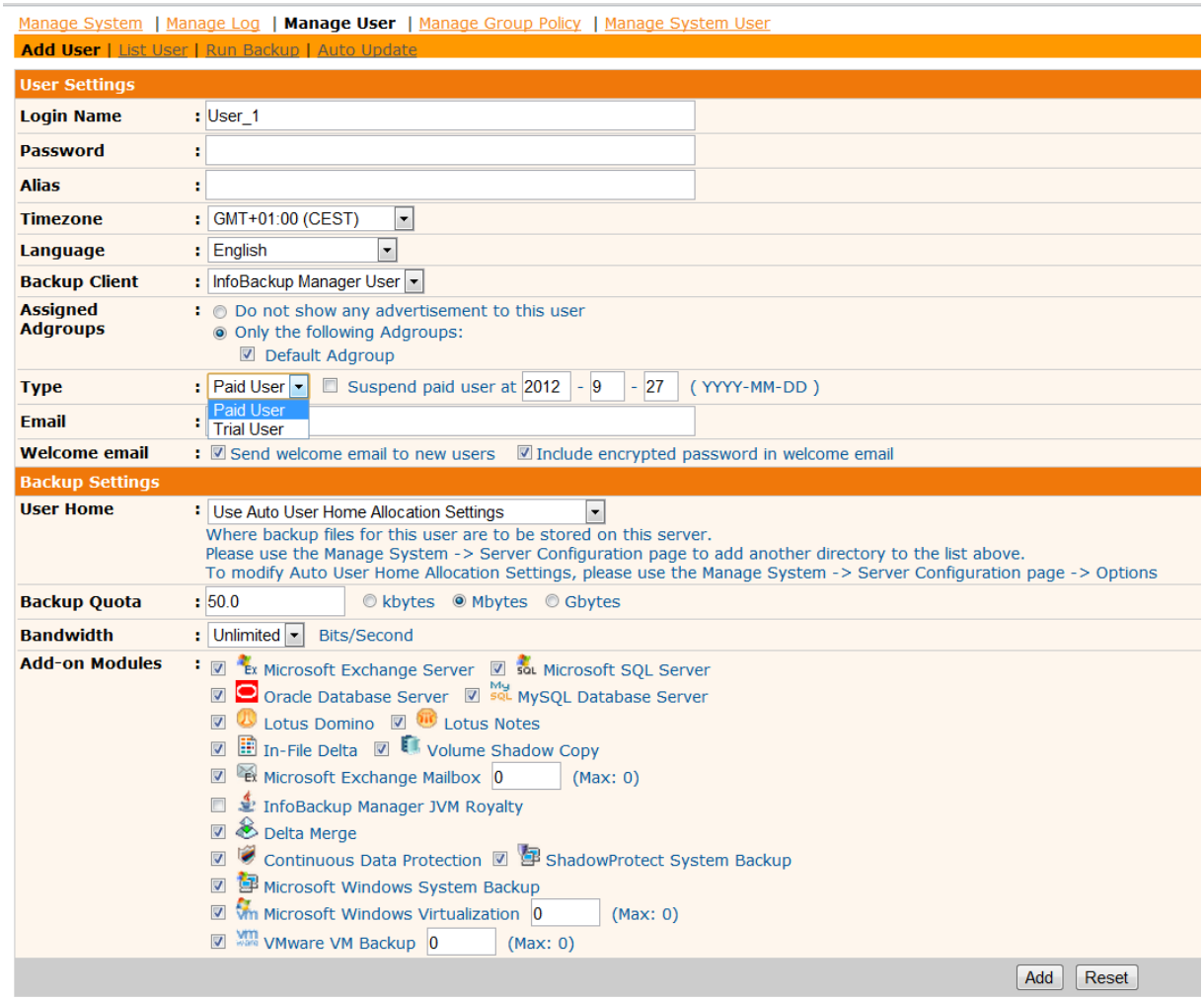
Error	Description
Transferee cannot be empty	No Transferee is selected.
The host name of transferee cannot be empty	Transferee has no host name entry in the reseller's setting.
User 'xxx' is running 'Backup' operation. Ownership transfer cannot be proceed until the operation finished.	Backup user cannot be transferred when user is running a backup operation.
User 'xxx' is running some operations. Ownership transfer cannot be proceed until all operations finished.	Backup user cannot be transferred when running multiple operations. Actual reason can refer to the InfoBackup Provider system log.
User 'xxx' ownership transfer cannot be proceeded.	Backup user cannot be transferred when user home is locked by external factor, e.g. file system is locked.
The backup user, 'xxx', already exists in the system user, yyy	A system administrator cannot transfer a backup user to a reseller because a duplicate user name already exists.
E409 – 12345 The backup user, xxx, has been reserved. Please contact the System Administrator for assistance.	Backup user cannot be transferred because transferee (reseller) is holding a backup client with the same login name. Note: 12345 is the reseller's ID.
Login Name 'xxx' is used	Backup user cannot be transferred because transferee (System Administrator) is holding a backup client with the same login name.
User 'xxx' ownership transfer is in progress.	Backup users can only be transferred at most one transferee at a time.

10. Managing Backup Users

This chapter describes how you can use all pages under the [Manage Users] menu to manage the backup users within InfoBackup Provider

Create Backup User

When you click the [Manage User] → [Add User] link available at the top menu, the [Add User] form will appear (see below). You can then add a backup user to the system by submitting this form to InfoBackup Provider.



A description of all fields above is provided in the following table.

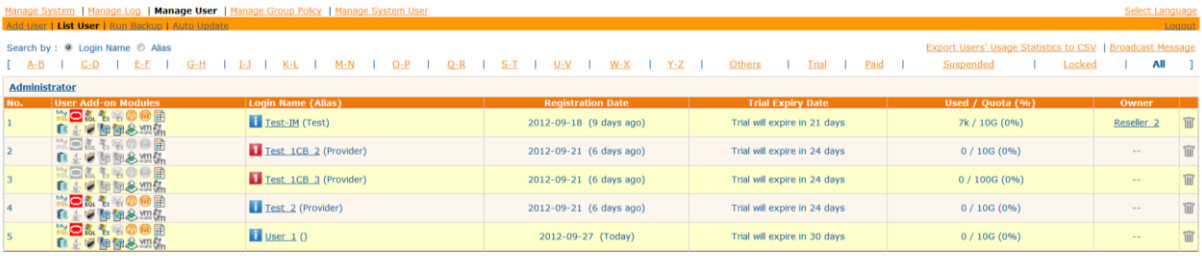
Key	Description
Login Name	Login Name of the new backup user.
Password	Password of the new backup user.
Alias	Another name of the new backup user.

Time zone	Time zone of the new backup user.
Language	Preferred language for all email reports of the new backup user.
Backup Client	Choose InfoBackup Manager client or 1'ClickBackup client.
Assigned Adgroups	Choose whether advertisements are displayed at the bottom of the backup client.
Type	Either [Trial] or [Paid] type. Trial accounts and paid users differ in the following ways: 1. Trial users can only have a maximum backup quota of 500MB within the trial period. 2. Trial users subject to automatic removal as defined by the [Free Trial Registration] setting (though automatic removal can be disabled). Other than the differences listed above, both trial and paid users are the same in all other areas.
Email	Email address of the new backup user.
Welcome email	Define whether a welcome email should be sent to the new user email address.
User Home	The top directory where the software stores backup files and all other information for the new account. If you want this user to be in another partition (or in another drive), please add another user home to InfoBackup Provider by using the [Manage System] -> [System Configuration] page. If you want to setup your user home directories to a network drive, please do refer to InfoBackup Support Centre for more information.
Backup Quota	Backup Quota of the new account.
Bandwidth	Bandwidth allowed for the new account.
Add-on Modules	Whether to enable any of the add-on modules to the new backup user. The [Microsoft Exchange Mailbox] text field defines the number of exchange mailboxes that is allowed to be backed up under this user account.

List / Remove Backup User

When you click the [Manage User] → [List User] link available at the top menu, the [List User] panel will appear. You can use the alphabet categories at the top of the user listing to limit the listing to show only those users whose login names starting with a certain alphabet. You can also use the [All] function available to list all users within the system.

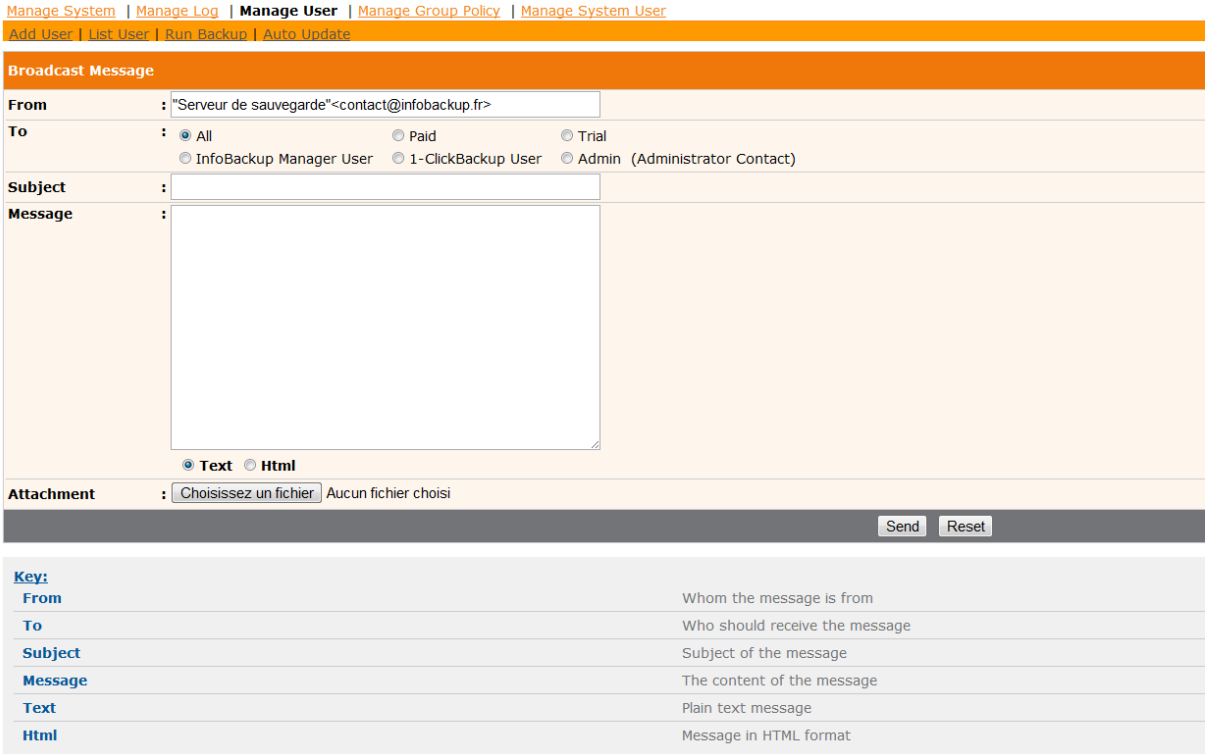
To remove a user from the system, just press the 'Recycle Bin' link next to the user you would like to remove.



Key	Description
Search By	Define whether alphabetically search should be applied to [Login Name] or [Alias].
User Add-on modules	Indicates the add-on modules for this account.
Login Name (Alias)	Login Name of this account. Click the link to see account details. The name in blankets is the alias, and the icon indicates the client type (InfoBackup Manager or 1'ClickBackup).
Registration Date	Date when this account was created.
Trial Expiry Date	The expiry date of trial users. If it expires, the user account will be suspended. Paid users will show "Never Expire" in this field.
Used/Quota (%)	The used/allocated quota (and the quota usage percentage) of this backup user.
Owner	Owner of this backup user.
Remove	Remove this backup user.
Export Users' Usage Statistics to CSV	Export all users' usage statistics to a .csv file.
Broadcast Message	Use this option if you want to broadcast messages to backup users.

Broadcast messages to backup users

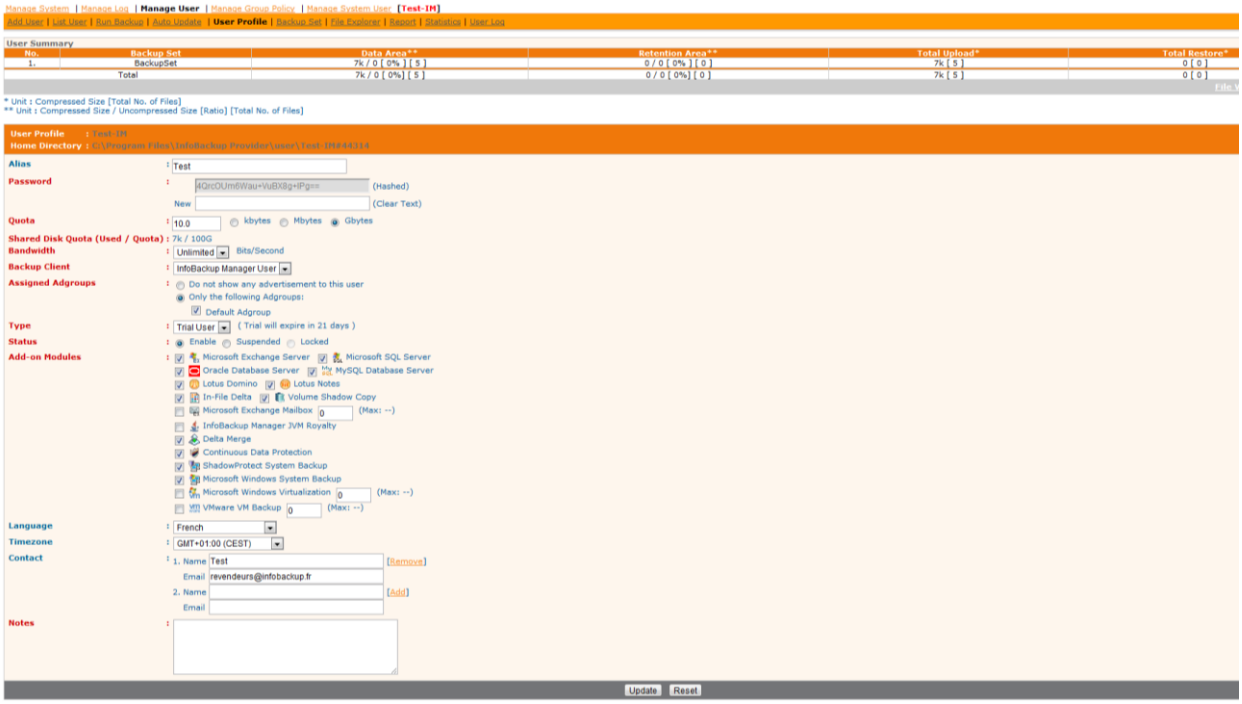
After you press the [Broadcast Message] link on the top right hand corner of the [Manage User] → [List User] panel, you will be brought to the [Broadcast Message] page. You can use this page to broadcast messages to different types of backup users.



Key	Description
From	Sender of this message
To	Broadcast message to the following users types: – all backup users Paid – backup users of [Paid] user type Trial – backup users of [Trial] user type InfoBackup Manager User - backup users of InfoBackup Manager client type 1'ClickBackup User – backup users of 1'ClickBackup client type Admin – backup administrator, i.e. email address defined on the [Manage System] → [System Configuration] → [Administrator Contact] list (useful if you want to test the broadcast feature before sending the message out to all users).
Subject	Subject of this message
Message	Content of this message
Text/HTML	The content type of this message, i.e. whether content should be considered as plain text or HTML.
Attachment	A file to be broadcasted with this message.

Managing User Profile

After you press the user name link on the [Manage User] → [List User] panel, you will be brought to the [User Profile] for this particular user. You can use this panel to update the profile of this user.



This panel is no different to the [User Profile] panel that users will see when they logon to the user areas except that you can now update the [Type], [Quota] and [Add-on Module] (shown in RED) entries on this page.

Click the [File Validation Option] link to rebuild this user's storage information. When a rebuild user jobs is started, InfoBackup Provider will check if there is an active job running on the backupset before a rebuild is performed on the backupsets. If a backup job is active, the rebuild user storage job will skip rebuilding the active backupset, this will be recorded in the InfoBackup Provider system log.

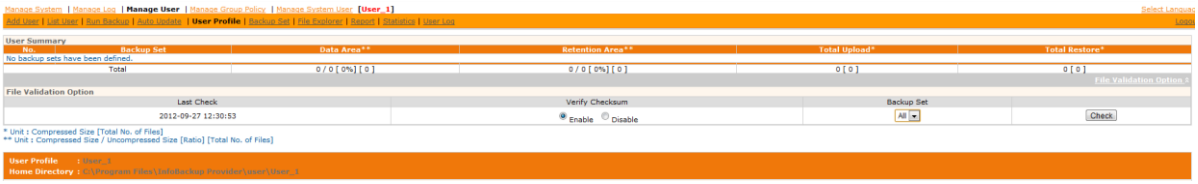
2249	09:47:18 PM	test1	--	[info][system][BackupSetBFS.rebuildBFS] Rebuilding User='test1' BSet='1300766064953' Job='2011-03-22-21-00-01'
2250	09:47:18 PM	test1	--	[info][system][BackupSetBFS.rebuildBFS] Rebuilding User='test1' BSet='1300766064953' Job='Current'
2251	09:47:18 PM	test1	--	[info][system][BackupSetBFS.rebuildIndexDir] Rebuilding User='test1' BSet='1300766064953' Job='Current' Directory='/data/user/test1/files/1300766064953/Current/root'
2252	09:47:18 PM	test1	--	[info][system][BackupSetBFS.rebuildBFS] Rebuilding User='test1' BSet='1300785135934' Job='2011-03-22-17-13-28'
2253	09:47:18 PM	test1	--	[info][system][BackupSetBFS.rebuildBFS] Rebuilding User='test1' BSet='1300785135934' Job='2011-03-22-17-13-55'
2254	09:47:18 PM	test1	--	[info][system][BackupSetBFS.rebuildBFS] Rebuilding User='test1' BSet='1300785135934' Job='Current'
2255	09:47:18 PM	test1	--	[info][system][BackupSetBFS.rebuildIndexDir] Rebuilding User='test1' BSet='1300785135934' Job='Current' Directory='/data/user/test1/files/1300785135934/Current/root'
2256	09:47:45 PM	test1	--	[info][system][BfsManager.rebuildUserBFS] The rebuild is skipped on the running backup set ESXi4(1300930261358) of user test1
2257	09:47:45 PM	test1	--	[info][system]Thread-40 [SingleUserRebuild] Finished single user rebuild. User='test1' Owner='' DataSize(compressed)=3.02G DataSize=14.09G DataFileNo=60 RetentionSize(compressed)=3.73M RetentionSize=24.12M RetentionFileNo=65

The information message "[info][system][BfsManager.rebuildUserBFS] The rebuild is skipped on the running backup set ESXi4(1300930261358) of user test1" is recorded when a backupset is skipped.

From InfoBackup Provider v6.7.0.0 onwards, for the single user rebuild feature backup users or backup server administrators will have the option of selecting either:

i. Rebuilding all backup sets under the backup user account or
ii. Rebuilding a single backup set under the backup user account

By default the single user rebuild will rebuild all backup sets under a backup user account.



To perform a single user rebuild of a specific backup set, click on the "Backup Set" combo box and select the desired backup set.

Note:

i. **When a rebuild user storage is run on a user account with active backupsets, the calculations for the storages statistics may not reflect the actual storage used as all active backupsets are skipped.**
ii. **For issues relating to incorrect storage statistics, please make sure the rebuild user storage job is run when no backup jobs are active.**
iii. **If all backup sets under a user accounts need to be rebuilt, it is recommended that a single rebuild user storage job is started at least 45 minutes after the completion of the last backup job.**
iv. **If a single user rebuild is run for a single backup set, the "Last Check" date and time will also be updated.**

You can reset a user password by entering a new password in [User Profile] → [Password] → [New] entry and press the [Update] button. Even though the user password has been updated, both old and new passwords will be temporarily valid, until the user connects to InfoBackup Provider via InfoBackup Manager/ 1'ClickBackup with the new password. This is because a copy of the user's old password is still saved on the client machine. It's required by InfoBackup Manager/ 1'ClickBackup scheduler service to connect to InfoBackup Provider in order to run scheduled backups in the interim period.

The [Microsoft Exchange Mailbox] text field defines the number of exchange mailboxes allow to be backed up under this backup account. The [Max] message indicates the maximum number of remaining licenses available.

The [Bandwidth] option allows you to set a maximum network usage for all running backup sets of this particular backup account. All backup sets will share the same bandwidth defined by this setting. If you have set the bandwidth to be 128kbits/second and there are two backup sets running at the same time, each backup set will share roughly half of the bandwidth assigned, i.e. 64kbits/second.

The [Notes] field allows you to attach some other information, e.g. telephone number or billing address, with this backup account.

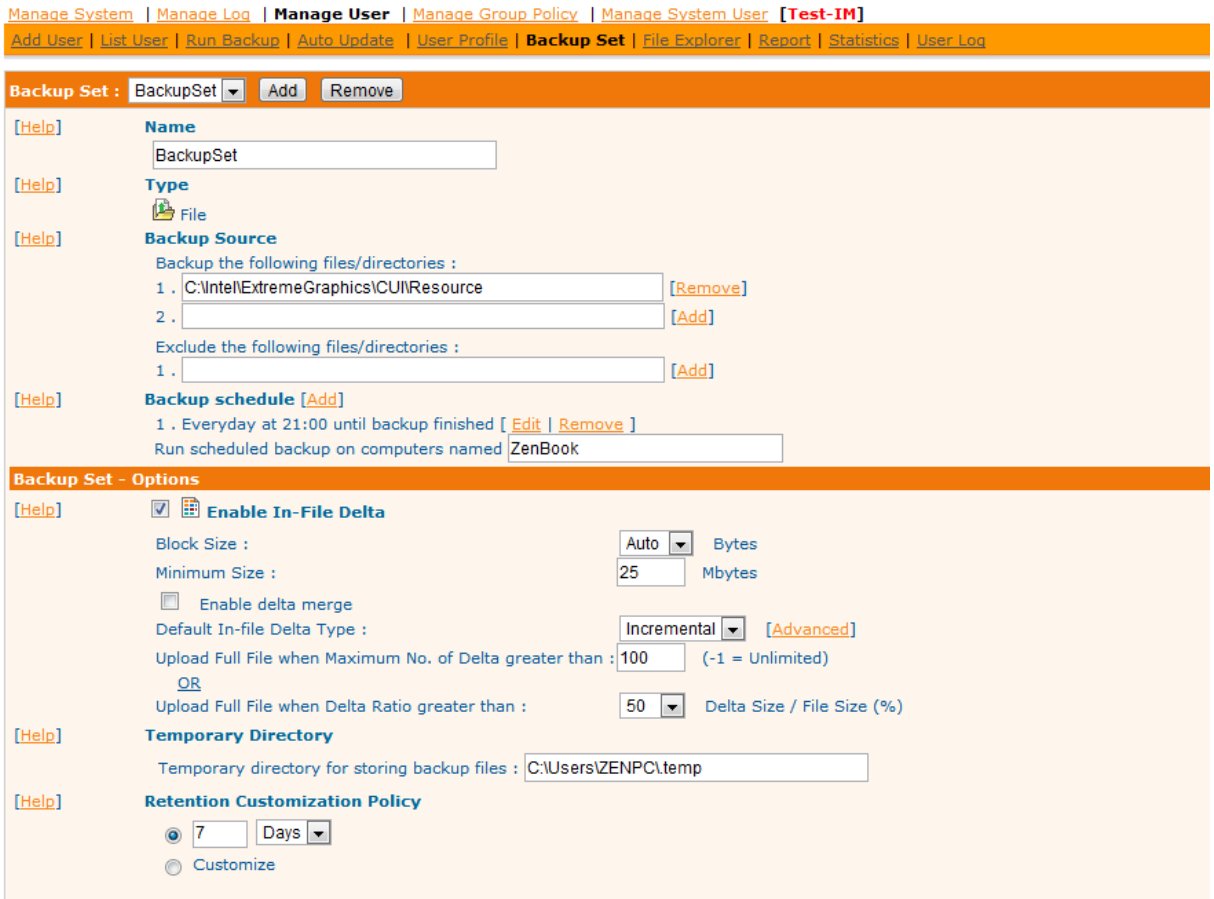
Any updates made to the user profile will trigger:

i. A "Settings Change Report" will be sent to the user (if the routine job is enabled).
ii. A log entry of the change will be recorded in the [Manage System] -> [Manage Log] -> [System Log]
iii. A log entry of the change will be recorded in the [Manage System] -> [Manage User] -> [%USERNAME%] -> [User Log]

Managing Backup Set

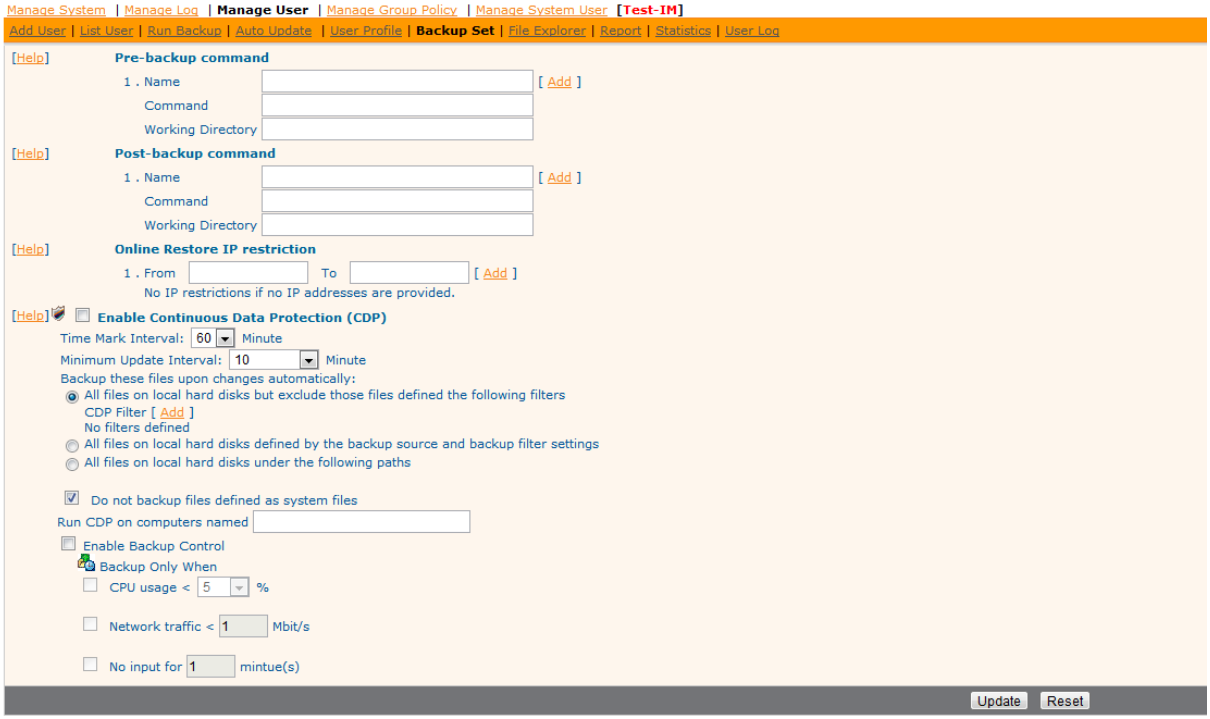
After pressing on the link of the selected user on the [Manage User] → [List User] panel, a [Backup Set] link is now available in the extended user menu. You can review the backup sets setting of this particular user by clicking the [Backup Set] link.

To update the backup set setting of this particular user, just make the required changes on the form below and press the [Update] button.



Setting Online Restore IP Restriction

At the bottom of the [Backup Set] panel, you should be able to find the [Online Restore IP Restriction] section. If you would like to restrict online file restore of this backup set to only a subset of trusted IP addresses, you just need to enter the trusted IP addresses here. Once you have entered some IP addresses into the IP restriction list, online file restore request originating from IP addresses into the IP restriction list, online file restore request originating from IP addresses not listed on this list will no longer be able to restore any files from this backup set. (You can use the IP range of 127.0.0.1 – 127.0.0.1 to disable online restore completely).



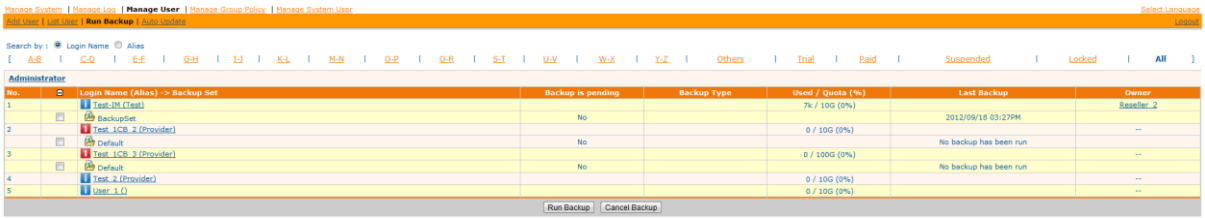
Global Backup Set Values

The following values are only valid for Group Policy enforcement and default backupsets only, do not use these values in normal backupsets.

Value :	
${lotus.notesini}	Notes INI path
${mac.desktop}	Desktop directory in Mac OS
${mac.documents}	Documents directory in Mac OS
${mac.movies}	Movies directory in Mac OS
${mac.music}	Music directory in Mac OS
${mac.pictures}	Pictures directory in Mac OS
${mysql.mysqldump}	MySQL dump path
${sys.KEY}	KEY is the name of the System Property e.g. ${sys.user.home} is the home directory of the user
${win.desktop}	Desktop directory in Windows
${win.favorites}	Favorites directory in Windows
${win.mail}	User data of Outlook Express or Windows Mail (Windows Vista / Windows 7 / Windows Server 2008 / Windows Server 2008 R2) in Windows
${win.mydocuments}	My Documents directory in Windows
${win.outlook}	User data of Outlook in Windows
${winenv.KEY}	KEY is the name of the Windows Environment Variable e.g. ${winenv.SYSTEMDRIVE} is the drive containing the Windows root directory (C: by default)
${winreg.KEY}	KEY is the name of the Windows Registry Key e.g. ${winreg.HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\ShadowProtectSvc\ImagePath} is the value of ShadowProtect installation path

Initiating Backup from InfoBackup Provider Server

While end users can initiate backup jobs from their computers by using manual or scheduled backup jobs from InfoBackup Manager or 1'ClickBackup. The InfoBackup Provider server administrator can initiate a backup job from InfoBackup Provider web console. In order to initiate a backup job go to the [Manage User] -> [Run Backup], and you will have something similar in the following screenshot:



Some definitions of the fields related are shown in the following table:

Key	Description
No.	Number count of user.
Login Name (Alias) -> Backup Set	The login name of the user with the alias bracketed behind. If there is any backup set, the name of the backup set will be shown under the user login name.
Backup is pending	"Yes" if the backup job is pending after pressing [Run Backup]; Otherwise "No".
Backup Type	Type of backup. For files only backup, the backup type will be empty.
Used / Quota (%)	The used data size of the user on the server and the total quota of data size that the user can use. The percentage of used size over quota is bracketed behind.
Owner	Owner of this backup user.
Last Backup	The creation time of the latest backup.

In order to use the feature:

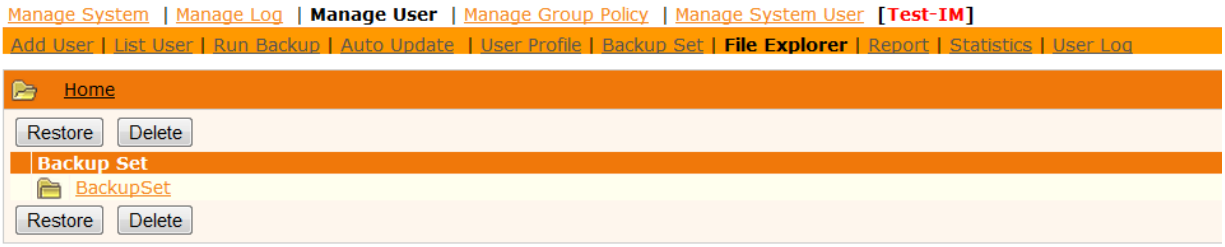
- The InfoBackup Manager / 1'ClickBackup scheduler service must be running on the client machine and connect to InfoBackup Provider Server
- The "Run scheduled backup on computer named" field on the backupset must be filled in with the correct computer name of the client machine.

To initiate a backup job from InfoBackup Provider, check the box next to each of the required backupsets. Then press the [Run Backup] button at the bottom of the page. The status of [Backup is pending] of the chosen backup set will be changed to "Yes", and after a short time InfoBackup Manager / 1'ClickBackup will start backing up the data sources from the specific machine.

When the backup is finished, the status of [Backup is pending] will become "No", and the [Last backup] will be update with date and time of the last backup job.

Browsing User Backup File

You can click the [File Explorer] link available at the extended [Manage User] menu to invoke the [File Explorer] panel. You can use this panel to browse and restore user's backup files. This panel is the same [File Explorer] panel that users would see when they click the [File Explorer] link after they have logged on to the system. Please refer to the User's Guide for information on how to restore users' backup files.



Note:
1. This shows all backup sets available within this backup account.
2. To restore backup files, please click the [Restore] link shown above.
3. To delete a backup set, please click the [Delete] link shown above.

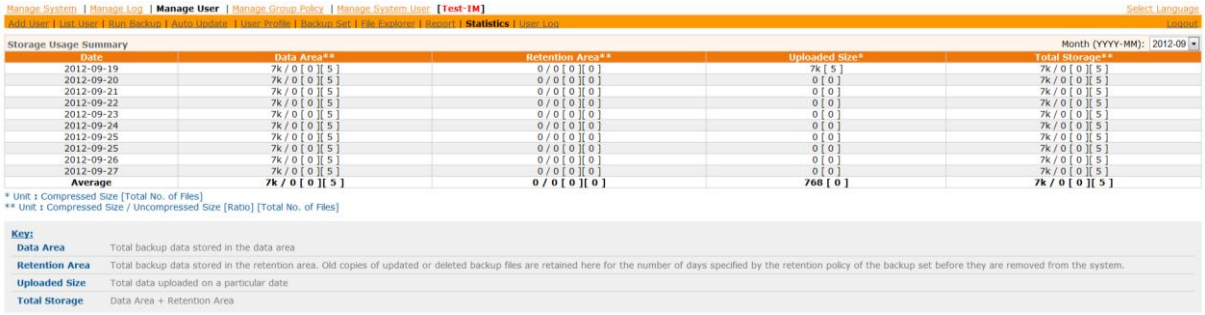
Reviewing User Backup Report

You can click the [Report] link available at the extended [Manage User] menu to invoke the [Report] panel. You can use this panel to review users' backup activities. This panel is the same [Report] panel that users would see when they click [Report] link after they have logged on to the system. Please refer to the User's Guide for information on how to review users' backup activities.

To review CDP backup reports instead of selecting the backup time, select "(CDP)", as CDP backup jobs are constantly active the job status prior to the daily cut off at 12:00 AM is "Backup not yet finished"

Reviewing User Storage Statistics

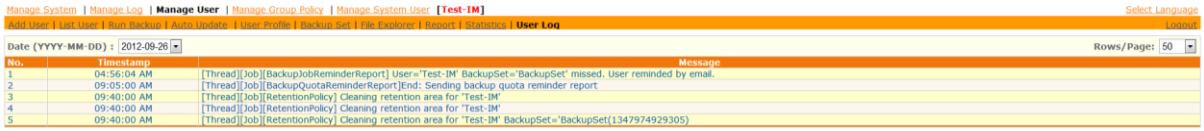
You can click the [Statistics] link available at the extended [Manage User] menu to invoke the [Statistics] panel. You can use this panel to review users' storage statistics. This panel is the same as the [Statistics] panel that users would see when they click the [Statistics] link after they have logged on to the system. Please refer to the User's Guide for information on how to review user' storage statistics.



User statistics are calculated on a daily basis by the "Usage Report" system job. If the "Usage Report" is disabled or if your InfoBackup Provider service is offline when the "Usage Report" system job is due to run, no user statistics will be calculated for those days. InfoBackup Provider cannot calculate user statistics for past days which have been missed.

User Log

You can click the [Statistics] link available at the extended [Manage User] menu to invoke the [User Log] panel. You can use this panel to review the user specific activities on the InfoBackup Provider server.



A copy of user related activities can also be seen in the InfoBackup Provider system log, under [Manage System] → [Manage Log] → [System Log].

11. Group Policy Management

This chapter describes how you can use the [Manager Group Policy] menu to manage your user groups on InfoBackup Provider.

Term	Descriptions
Policy Control	Areas that are affected by group policy
Policy Group	A group of preset policy control objects
User Group	A group of Users

About Group Policy

The group policy feature is designed to simplify administration and to reduce the effort required for managing use, e.g. security settings and backup set settings. It allows backup server administrator a greater degree of flexibility in tailoring features and services to target specific customer segments.

User Groups

When Group Policy is implemented on InfoBackup Provider, the backup user accounts will be consolidated into common user groups. Each user group will have its own set policy groups which govern behaviour of the backup clients. The types of features that can be configured from a policy are restricting or hiding certain functions or features on InfoBackup Manager/1'ClickBackup user interface or the InfoBackup Provider web console.

For example, a backup service provider wishes to offer customers a cut rate service plan, i.e. "InfoBackup Manager Basic Plan", which consists of fixed quota limit and where customer cannot change backup settings. The service provider will create a user group on InfoBackup Provider called "InfoBackup Manager Basic Plan". To customize the features for each group, a policy group will need to be created called "InfoBackup Manager Basic Plan Policy", which will contain a group share quota setting and Policy Control Setting for InfoBackup Manager to disable access to some InfoBackup Manager controls.

[InfoBackup Manager Basic Plan Policy] → [InfoBackup Manager Basic Plan]

Once the policy group "InfoBackup Manager Basic Plan Policy" is assigned to user group "InfoBackup Manager Basic Plan", it will be effective immediately. Any InfoBackup Manager users that are assigned to the "InfoBackup Manager Basic Plan" group will be governed by the "InfoBackup Manager basic Plan Policy" settings.

Policy Controls

The policy controls which can be customized for each user group are:

1. Shared Quota Settings

A maximum quota or "Shared Size" can be specified for each user group via a policy group setting, each backup user assigned to the user group will automatically be allocated a portion of this quota, according to the "Maximum percentage of shared size for each user" value.

2. Backupset configuration

- Define a default Backupset for InfoBackup Manager/1'ClickBackup users who belong to the group
- Define an enforcement Backupset for InfoBackup Manager/1'ClickBackup users who belong to the group. When an Enforcement Backupset is configured for a Backupset type. It will overwrite all settings on any pre-existing Backupset types.

3. Policy Control Settings

The Policy Control Setting allows the backup server administrator to customize the user interface for InfoBackup Manager/1'ClickBackup and InfoBackup Provider user interface.

4. Global Filter Setting

This setting defines a global file filter for InfoBackup Manager and 1'ClickBackup backupsets which belong to the user group. The backupsets which can be configured with global filtering on InfoBackup Manager are restricted to File, CDP, Lotus, Domino and Lotus Notes backupsets. When a global is applied to a user group, any of the pre-existing backupset filters will be overwritten by the global filter.

Best Practices for using Group Policy

In order to avoid any confusion and for better InfoBackup Provider administration, it is recommended to keep the group policy design as simple as possible:

1. One-to-One relationship between policy and user group. Each policy group should only be applied to one user group.
2. One-to-One relationship between user account and user group. Each User group should only belong to one user group.
3. Active user accounts should not be transferred between user groups.
4. New user groups and policies should thoroughly tested before they are implemented on a production server.
5. A separate policy should be created for each type of policy type.

   E.g. *A policy name "InfoBackup Provider – Read-only main menu" for policies that restrict the use users to have Read only access on main menu.*

   E.g. *A user group named "InfoBackup Provider – System User Read-Only Main Menu" for a user group with "InfoBackup Provider – Read-Only Main Menu" policy assigned.*
6. The naming conventions for user groups and policies should be meaningful and easily distinguishable. Example: for a new user group called "1'ClickBackup Premium" group which has some restrictions to the 1'ClickBackup UI interface control and features. The associated policy group would be called "1'ClickBackup_Premium_UI".
7. Once a user group is operational, i.e. user accounts have been assigned and backups are running according to the policy settings, there should be no further policy changes.
8. For user group defined with shares quota policy, please make sure the sum of the individual user backup quota does not exceed the shared size. For example, a group with shared quota defined as, shared size of 500GB and maximum percentage of shared size for each user of 25% (125GB). Should only have a maximum of four backup users assigned to it (125GB x 4 users = 500GB).
9. Extreme caution must be exercised when assigning policies to user groups. As a policy will be effective and enforced as soon as it is assigned to a group, any errors in policy assignment could result in unforeseen problems for all members of the affected user group.
10. Any backup user accounts which are sing v5.5 InfoBackup Manager/1'ClickBackup clients on InfoBackup Provider v6 should not belong to any user groups. As they are not compatible with group policy features.

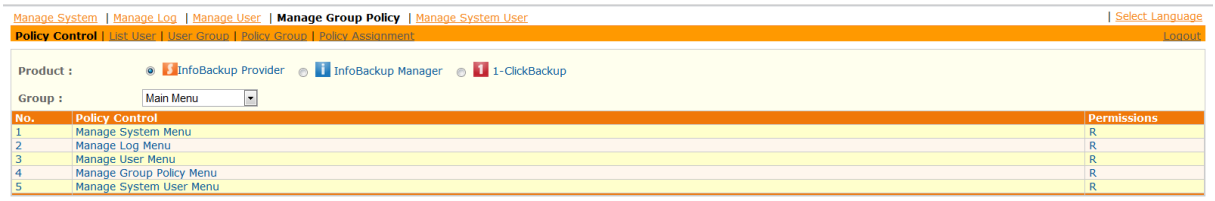
Group Policy Limitations and restrictions

1. Each user group is restricted to only one shared quota policy.
2. Each user group is restricted to only one set of Default and enforcement backupsets for each backupset type.
3. Each backup user account is permitted to have one Default Backup Set and one Enforcement Backup Set for each available Backup Set Type.
4. Only one Global Filter is allowed for each backupset type.
5. A backup user cannot be a member of more than one user group with shared quota policy enabled.
6. Only InfoBackup Manager and 1'ClickBackup v6 or above clients support group policy.

List Policy Control

There are three main categories for policy control objects InfoBackup Provider, InfoBackup Manager, and 1'ClickBackup. Each control object allows the backup server administrator to configure the controls or features which can be accessible or visible to the end user.

All policy control objects can be found in the [Manage Group Policy] → [Policy Control] Page.



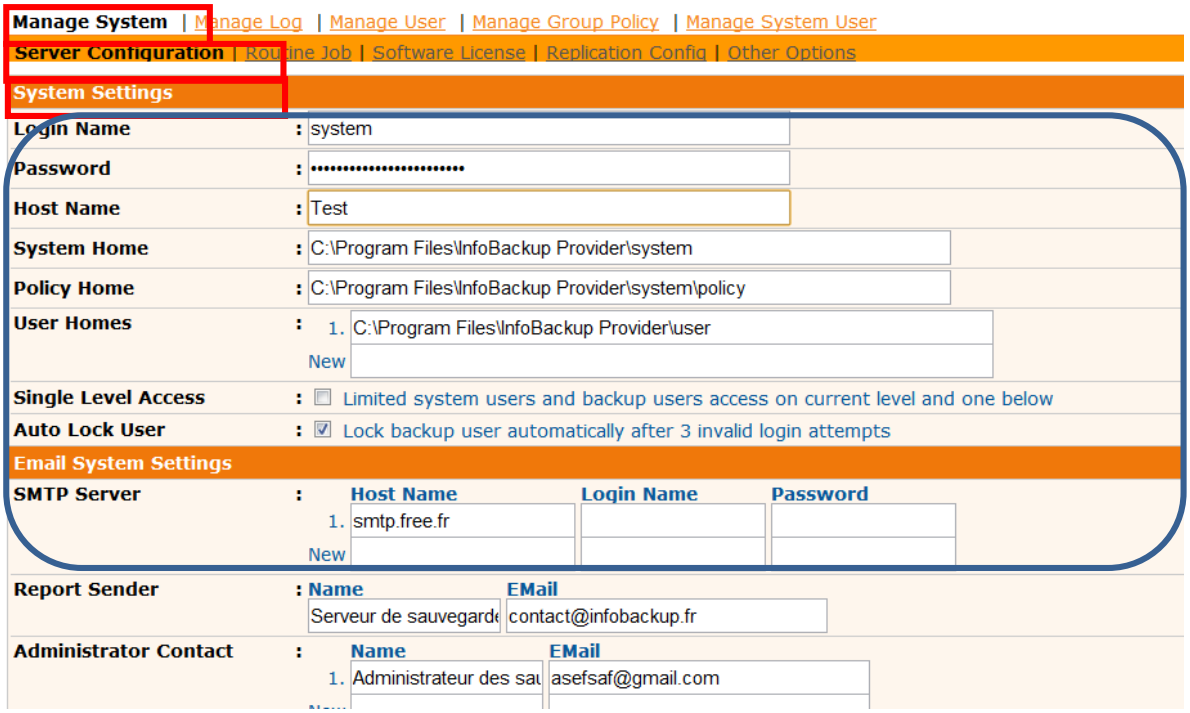
InfoBackup Provider

A group of policy control objects used to control the behaviour of InfoBackup Provider. The control area defined on InfoBackup Provider policy control group is in the format of:

[Menu Name] – [Page Name] – [Section Name] – [Section detail] (if any)

E.g. the name of the policy to control the System Settings section on Server Configuration page under the [Manage System] menu is:

"Manage System – Server Configuration – System Settings"



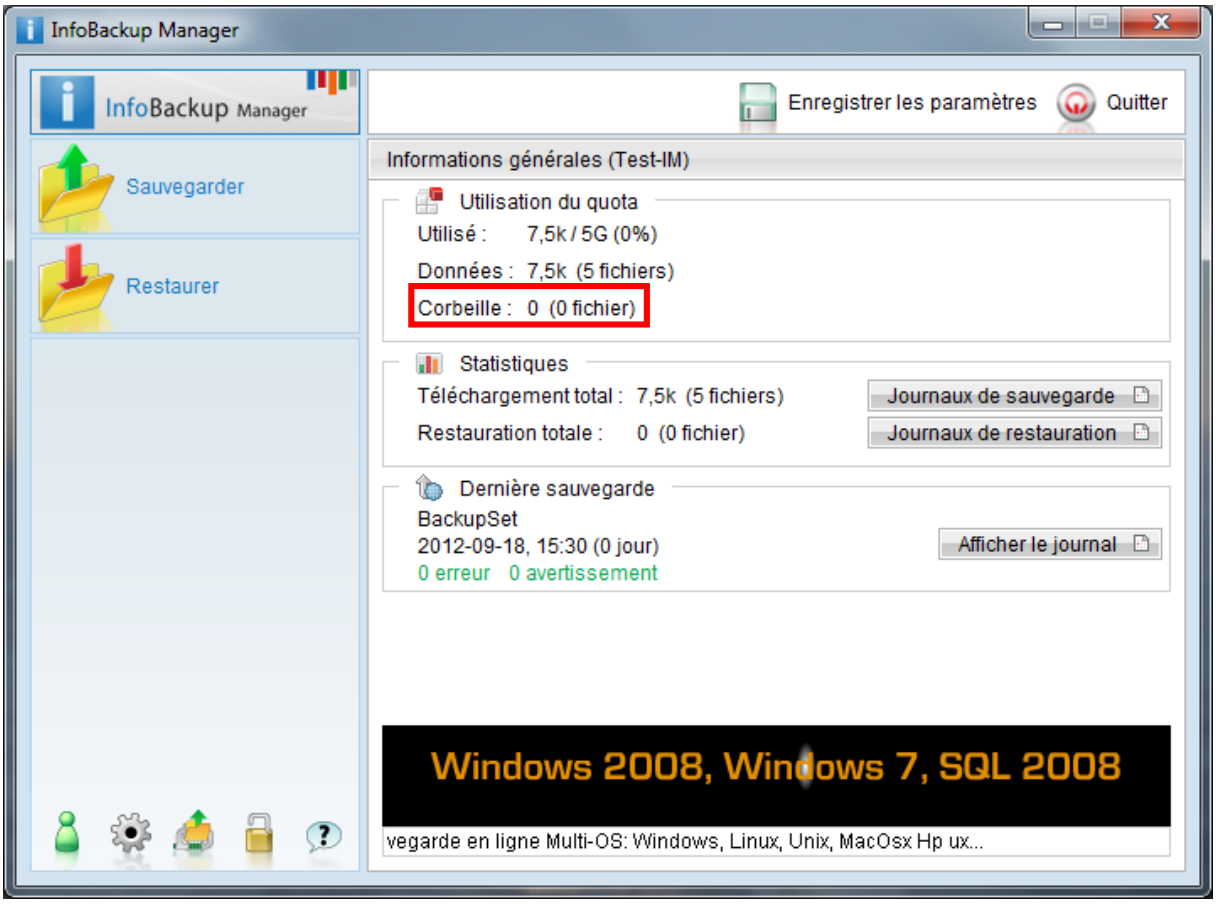
InfoBackup Manager

A group of policy control objects used to control the behaviour of InfoBackup Manager. The control area defined on InfoBackup Manager policy control group is in the format of:

[Section Name] – [Section details] (if any)

E.g. To restrict access to the Recycle Bin under Quota Usage section on the Main Frame, you should edit the settings in this policy:

"Quota Usage – Recycle Bin"



1'ClickBackup

A group of policy control objects used to control the behaviour of 1'ClickBAckup. The control area defined on 1'ClickBackup policy control group is in the format of:

[Section name] – [Section details] (if any)

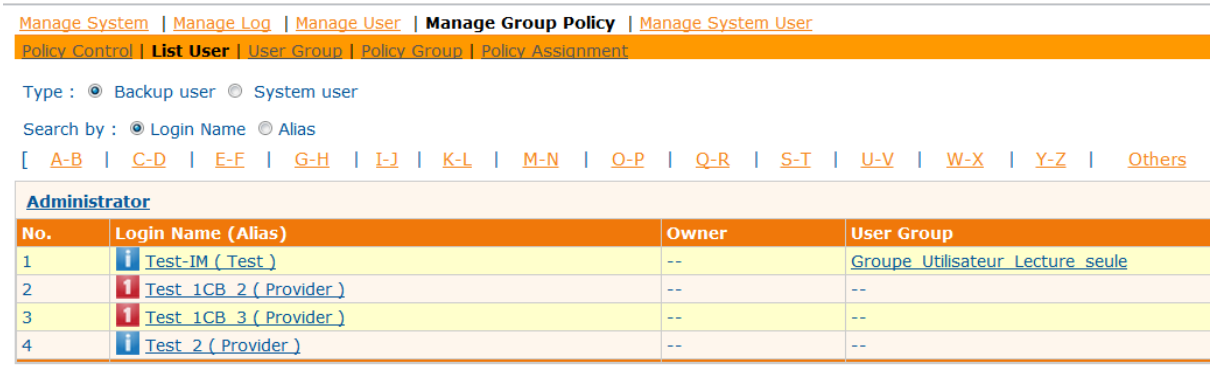
E.g. To restrict access to the Recycle Bin Quota Usage section on the Main Frame, you should edit the settings in the policy:

"Quota Usage – Recycle Bin"

User Group

List User

When you click the [Manage Group Policy] → [List User] Link available at the top menu, the [List User] panel will appear. An overview of users groups and owner on backup can be listed by default backup users are only shown.



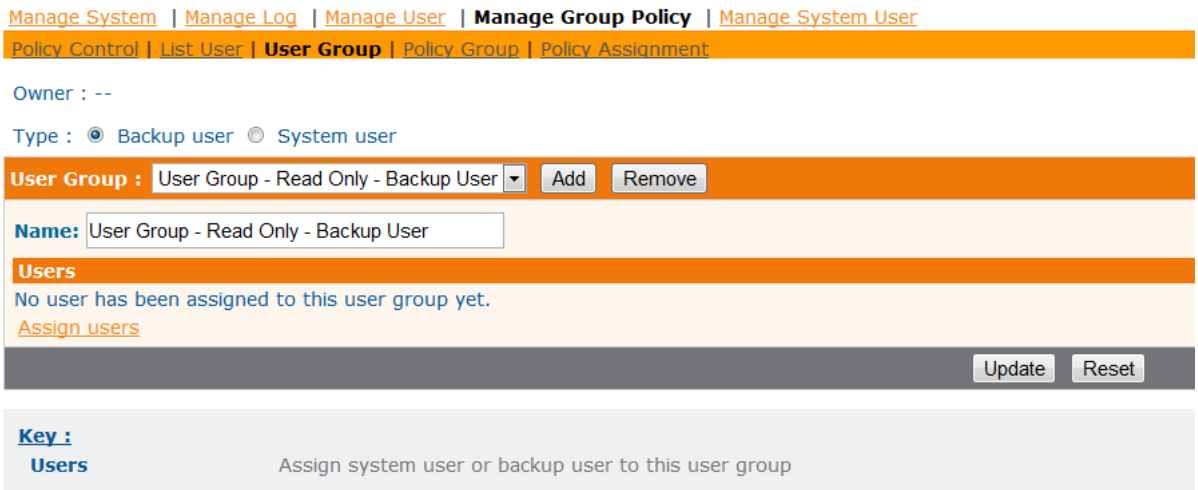
The system user list can also be listed by selecting the "System User" radio button near the top menu.

Press the [Login Name] link to show the details groups, user groups and owner on selected backup user. The system user detail can also be viewed by similar way.

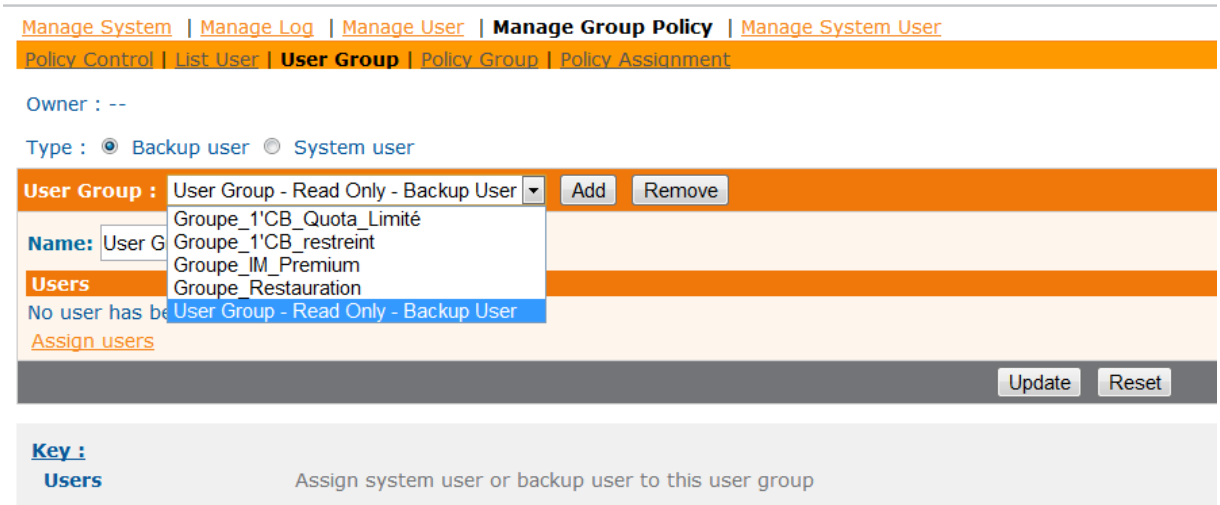
Manage User group

[User Group] panel is used to manage the user group's for both backup users and system users. Please click the [Manage Group Policy] → [User Group] link to enter [User Group] panel.

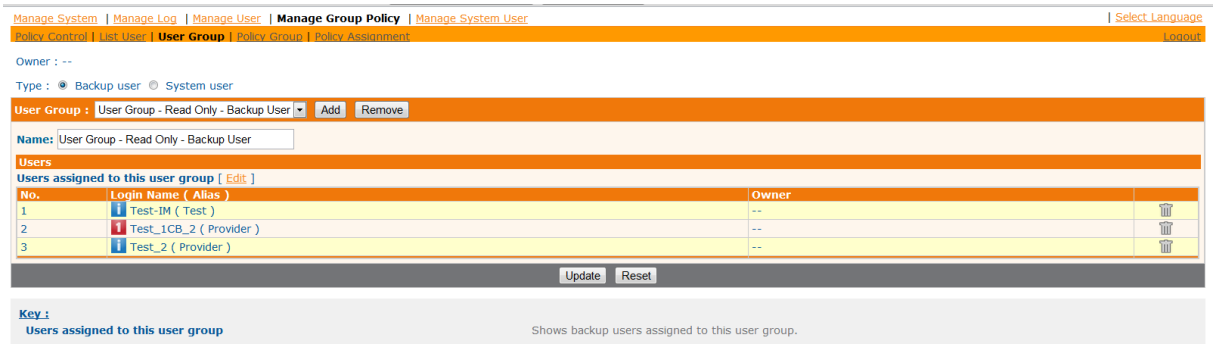
The default view shows the available user groups for "backup users". The user group list for "System user" radio button near the top menu.



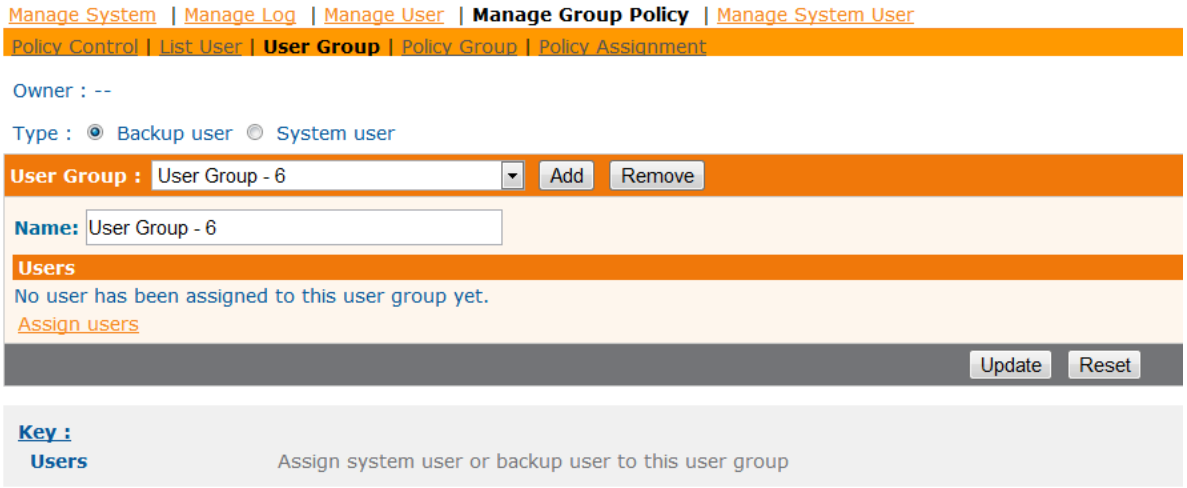
The user group feature can be used obtain information on how many users accounts have been assign to a user group.



You can use the combo box to list the number of existing user groups defined. After selecting the desired user group all user accounts assigned to this group will be displayed.



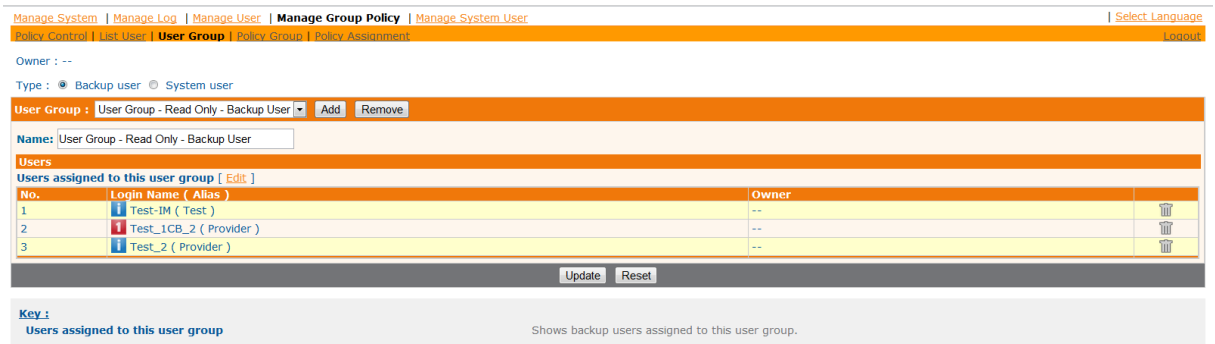
Create user group



Please follow the instructions below to create a user group:

1. Go to the [User Group] panel.
2. Select the user group type, i.e. Backup User or System User.
3. Press the [Add] button.
4. Change the default name or more descriptive user group name.
5. Press the [Update] button to complete the process.

Remove an existing user group



1. Go to the [User Group] panel.
2. Select the user group from the drop down list.
3. Press [remove] button to remove the user group.

WARNING:

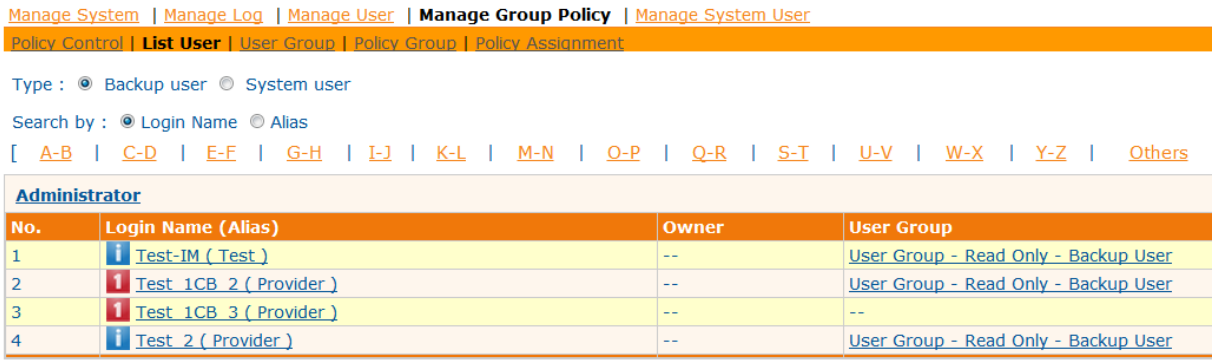
The remove user group feature will remove the selected user group from InfoBackup Provider even if:

i. There are active user accounts assigned to the group
ii. There are active policies assigned to the group

All member user accounts upon removal of the user group will be automatically unassigned. Once unassigned, the user accounts will retain the policy restrictions of the removed user group.

It is strongly recommended prior to removing a user group, to ensure that all member user accounts are re-assigned first.

Assign Users to a user group



Please follow the instructions below to assign users to a specific user group:

1. Go to the [User Group] panel.
2. Select the user group from the dropdown box.
3. Click the [Assign Users] link located in the [Users] section to go to the user list. This option is only shown when the list is empty.
4. If the list is not empty, please click on the [Edit] link in the [User] section.
5. Select users from the user list by checking the checkboxes and vice versa.
6. Press the [Update] button to add selected backup users to backup user group.

Remove Users from a user group

To remove users from a user group, please do the followings:

1. Go to the [user Group] panel.
2. Select a user group from the dropdown box.
3. Press the recycle bin icon next to the backup user you would like to remove or press the (Edit] link located in the [Users] section to enter the user list section.

Note:

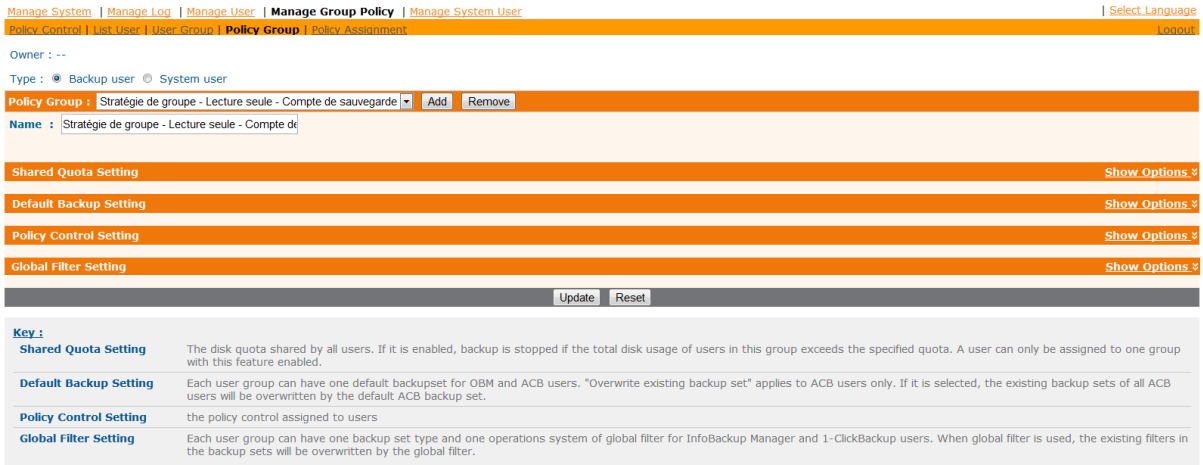
You can use the alphabet categories at the top of the backup user list to limit the list to show only those backup users whose login name starting with a certain alphabet. You can also user the [Owner] link to limit the listing to show backup users belong to the selected owner.

Policy Group

Manage Policy Group

When you click the [Manage Group Policy] → [Policy Group] link available at the top menu, the [Policy Group] form will appear. This is used to define policies for backup users or system users.

The default view shows the available Policy Groups for "Backup User". The Policy Group list "System User" can also be listed by selecting the "System user" radio button near the top menu.



Create Policy Group

To create a new policy group, please do the followings:

1. Go to the [Policy Group] form.
2. Select the backup user type, i.e. Backup User or System User
3. Change the name to a more descriptive policy group name
4. Press the [update] button to save the changes.

Remove an existing Policy Group

Please do the followings to remove a policy group

1. Go to the [Policy Group) form.
2. Select the policy group from the drop down list.
3. Press the [Remove] button to remove the policy.

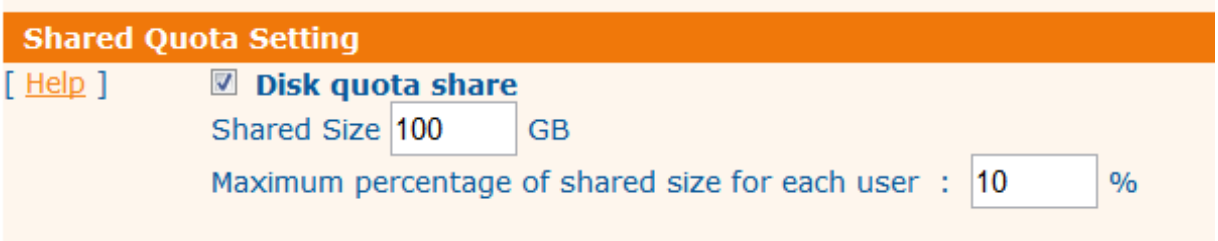
Below is a table showing the available policy types that can be assigned to a policy group.

Policy Group Type	Available Policy Types
Backup User	- Shared Quota Policy Control - Backup set Setting Policy Control - Backup User Policy Control - Global Filter Policy control
System User	- Share Backup Users Policy Control - System User Policy Control

Shared Quota Policy

Shared Quota Policy is available for Backup User Policy Group only. It is used to define a maximum storage limit for a particular group, which is evenly allocated to each individual backup user within the group. Each Backup user is allocated a fixed percentage of the total storage limit.

The advantage of using a share quota policy is it will simplify user home storage management. For example, if users for a group where assigned an individual user home drive, this setting will ensure the backup users cannot user more disk space than is physically available on the drive.



Assign Shared Quota Policy to a policy group

1. Go to the [Policy Group] form.
2. Select a Backup User Policy Group from the drop down list.
3. Click the [Show options] link at the right side of the [Shared Quota setting] section. The information of shared quota policy will be shown.
4. Check the checkbox next to the [Disk Quota Share].
5. Fill in the [Shared Size] and [Maximum percentage of shared size for each user] field.
6. Press [Update] button to save changes.

Reset Disk quota share

1. Go to the [Policy Group] form.
2. Select a Backup User Policy Group from the drop down list.
3. Click the [Show options] link at the right side of the [Shared Quota setting] section. The information of shared quota policy will be shown.
4. Uncheck the checkbox next to the [Disk Quota Share].

5. Press [Update] button to save changes.

When implementing a shared quota policy, you need to take into account any additional users assigned to the group will result in the reduction of backup quota for existing users and therefore impact on the backups operation of these users.

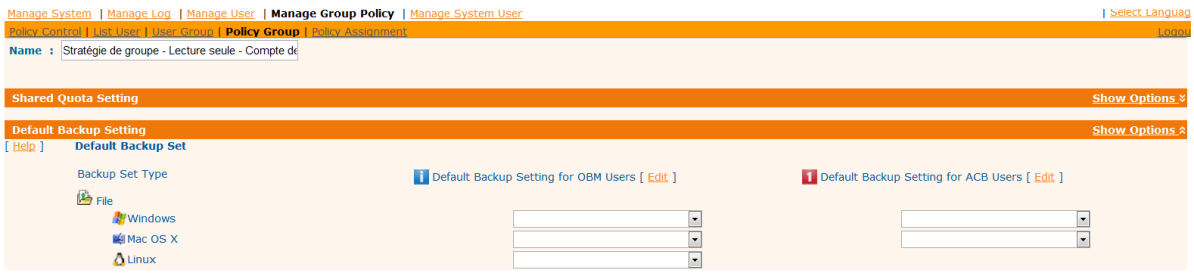
For example, if "Group VIP" was assigned a shared size of 100GB, with a maximum percentage of 20% for each user in the group. Initially 5 InfoBackup Manager users are assigned to group VIP, the backup quota for each individual user will be 20GB. For this setup each user can fully utilize their individual backup quotas without affecting others in the group.

But if another 5 users assigned to Group VIP, they too will be allocated 20GB each of backup quota. This will mean if all users fully utilize their backup quota's (10 users X 20GB =200GB), it wil exceed the shares size of 100GB. In this scenario, the first 5 backup users to who fully utilize their backup quotas, will cause the other 5 users backup jobs to fail with a *"Group Quota Exceeded. Please contact us to Increase your quota"* error.

Backup Set Setting Policy

Backup Set Setting Policy is available for Backup Policy Group only. It is used to pre-define the backup settings for backup users. This helps to pre-fill backup settings when backup users creates a new backup set (called "Default Backup Set") whereas other helps to enforce backup setting to backup users. This is known as an "Enforcement Backup Set".

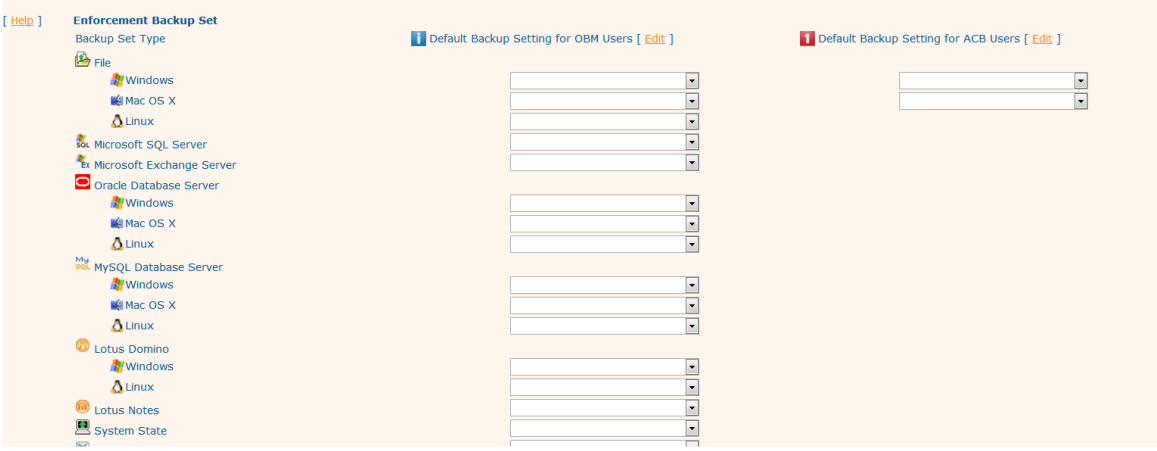
Default Backup Set



Note:

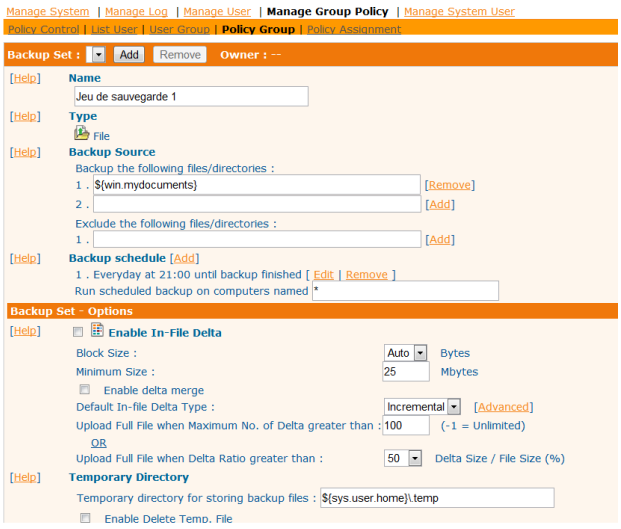
User cannot assign a higher level default backup set to a lower level policy group, i.e. If a user (User1) is created by a sub-admin role system user, and there is a default backup set policy (Policy1) created by a admin role system user. "Policy1" cannot be assigned to User1.

Enforcement Backup Set



Create pre-defined Backup setting Policy

1. Go to the [policy Group] form.
2. Select a backup User Policy group from drop down list.
3. Click the [Show Options] link at the right side of [Backup Set Setting] section t show the information of [Default Backup Set] and [Enforcement Backup Set] sub-sections.
4. If you are going to create a "Default Backup set", click the [Edit] link next to [InfoBackup Manager Users] or [1'ClickBackup Users] in the [default Backup Set] sub-section to show default backup set form. Otherwise, click the [Edit] link next to the [InfoBackup Manager Users] or [1'ClickBackup Users] in the [Enforcement Backup Set] sub-section to show the enforcement backup set form.
5. Click the [Add] button to create a new backup set.
6. Fill in the necessary field(s) in the backup set form and click the [Update] button to save changes.



Remove a Pre-defined Backup Setting Policy

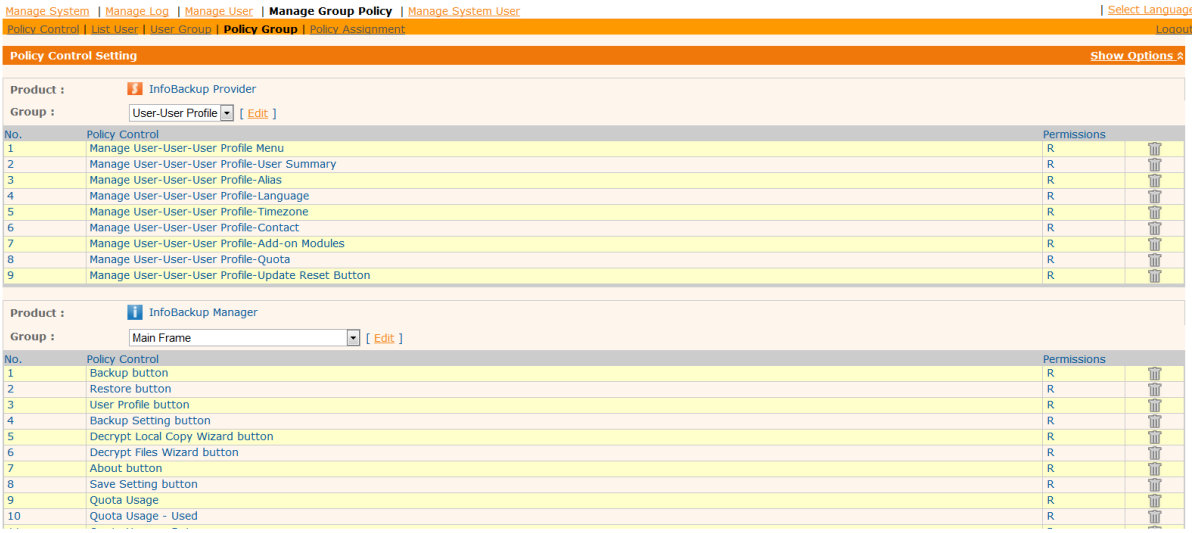
1. Go to the [policy Group] form.
2. Click the [Show Options] link at the right side of [Backup Set Setting] section t show the information of [Default Backup Set] and [Enforcement Backup Set] sub-sections.
3. To delete a "Default Backup Ste" setting, click the [Edit] link next to [InfoBackup Manager Users] or [1'ClickBackup Users] in the [Default Backup Set] sub-section. Otherwise, click the [Edit] link next to [InfoBackup Manager Users) or [1'ClicBackup Users] in the [enforcement Backup Set] sub-section.
4. Select the backup set from the drop down list.
5. Click the [Remove] button to remove it from the system.

Assign a Pre-Defined Backup set to a Default backup setting Policy

6. Go to the [Policy Group] form.
7. Click the [Show Options] link at the ride side of [Backup Set Setting] section to show the information of [Default Backup set) and [Enforcement Backup set] sub-section.
8. Select the pre-defined backup set from drop dawn.
9. Click the [update] button to save changes.

Backup User Policy Control

Backup Policy Control is available to Backup User Policy Group only. It is used to restrict the backup users' access privileges on InfoBackup Provider, InfoBackup Manager et 1'ClickBackup. By default, full access privilege is granted. A summary of access permission is listed below:



Permission	Meanings
R	Read
W	Write
X	Execute
D	Delete

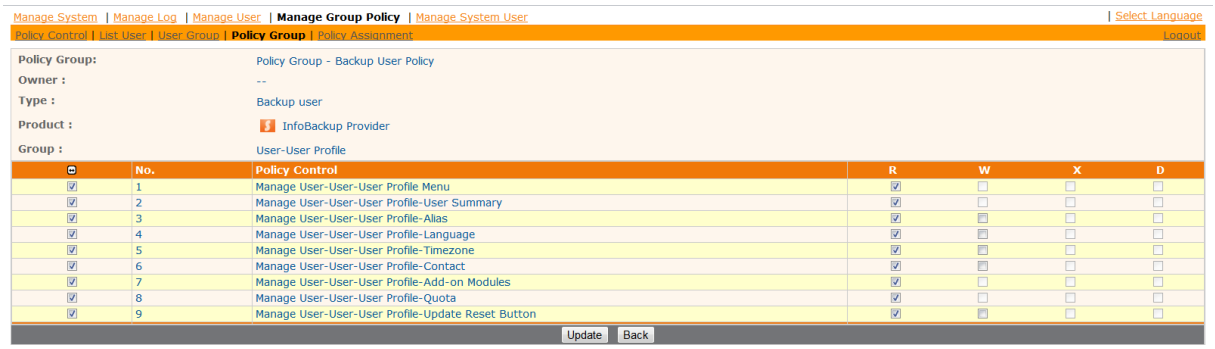
Edit Policy Control

1. Go to the [Policy Control] form.
2. Click the [Show Options] link at the ride side of [Policy Control Setting] section to show the permission information on [InfoBackup Provider], [InfoBackup Manager] or [1'ClickBackup] sub-sections.
3. Click the [edit] link next to the [Group] drop down list to go to the policy control selection.
4. Select the Policy Control that you would like to edit by checking the checkbox on the left side of the Policy Control ID, and the corresponding RWXD checkboxes will be enabled.
5. To assign access permission to a Policy Control, select/de-select the checkbox under the RWXD section.

Policy Type	Permission
Read-only	R
Editable	RW
Editable and Executable	RWX
Modifiable	RWD
Full	RWXD
Hidden	All checkboxes are unchecked

6. Click the [Update] button to save changes.

Remove Policy Control



1. Go to the [Policy Control] form.
2. Click the [Show Option] link à the ride side of |Policy Control Setting] section to show the permission information on [InfoBackup Provider], [InfoBackup Manager] and [1'ClickBackup] sub sections.
3. Press the [Recycle Bin] icon next to the policy control that you would like to remove.
4. The Policy Control is now removed from the system.

Global Filter Policy

Global filter policy is applied to system users only. It is used to set pre-defined backup filter to backup users.

Create Global filter policy

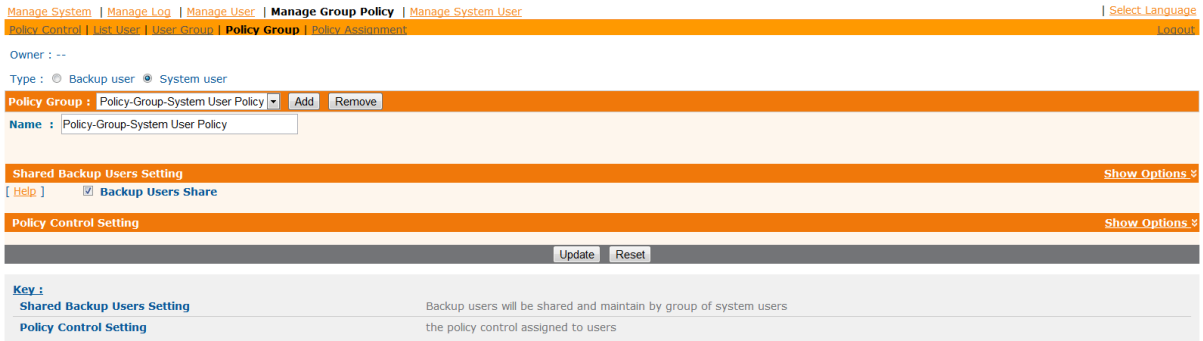
1. Go to the [Policy Control] form.
2. Click on [Shows Options] link in the [Global Filter] section.
3. Click the [Edit] link next to [InfoBackup Manager Users], [CDP Filter for InfoBackup Manager Users] or [1'ClickBackup Users].
4. Click the [Add] button to create a new policy.
5. Select the [Operating system] and [Type], then press the [Update] button.
6. Fill in the required information shown in the page.
7. Press the [Update] button to save changes.

Delete global filter policy

1. Go to the [Policy Control] panel.
2. Click the [Edit] link next to [InfoBackup Manager Users], [CDP Filter for InfoBackup Manager Users] or [1'ClickBackup Users].
3. Select the policy from the drop down box.
4. Press [Remove] button to remove it from the system.

Shared Backup User Policy

Shared Backup User Policy is only available to System User Policy Group. It helps Sub admin role system users to share their backup users provided they are under the same creator.



Edit Shares Backup User Policy

1. Go to the [Policy Group] panel.
2. Select the system user radio button for the user type.
3. Click the [Show Options] link in the (Shared Backup User Setting] section to show the information of shared backup user policy.
4. Check the [Backup User Share] checkbox to share the backup users, uncheck it to reset to default.
5. Press the [Update] button to update the change.

System Users Policy Control

The System User Policy Control is available to System User Policy Group only. It is used to restrict the system users' access privileges on InfoBackup Provider. By default, full access privilege is granted. A summary of access permission is listed below:

Permission	Meanings
R	Read
W	Write
X	Execute
D	Delete

Edit Policy Control

1. Go to the [Policy Control] form.
2. Select [System User] radio button.
3. Click the [Show Options] link at the right side of [Policy Control Setting] section to shows the permission information on [InfoBackup Provider] sub-sections.
4. Click the [Edit] link next to the [Group] drop down list to go to the policy control selection.
5. Select the Policy Control that you would like to edit by checking the checkbox on the left side of the Policy Control ID, and the corresponding RWXD checkboxes will be enabled.
6. To assign access permission to a Policy Control, select/de-select the checkbox under RWXD section.

Policy Type	Permission
Read-only	R
Editable	RW
Editable and Executable	RWX
Modifiable	RWD
Full	RWXD
Hidden	All checkboxes are unchecked

7. Click the [Update] button to save the changes.

Remove Policy Control

1. Go to the [Policy Control] form.
2. Select the [System User] radio button.
3. Click the [Show Options] link at the right side of [Policy Control Setting section to show the permission information on [InfoBackup Provider] sub-sections.
4. Press the [Recycle Bin] icon next to the policy control that you would like to remove.
5. The Policy Control is now removed from the system

12. Delta Merge Technology

Introduction

The delta merge feature combines the full, differential, and incremental delta files on InfoBackup Provider into a single full file. The advantage of using delta merge is it will speed up the restore of files. As a single (merged) file full can be restored faster than a file consisting of full plus related incremental files, which will require a lengthy merging process after restoring to a client machine.

Delta merge applies to full, differential, and incremental delta files which reside in the **data area only**. The criteria for file merging is governed by the retention policy setting for the backupset, delta merge will not work if there is more than one encryption key in use for a backup set. It is supported by InfoBackup Manager/1'ClickBackup v6.3 or above clients, there is no delta merging feature for Local Copy backups.

The delta merge of differential delta with the full file, will only apply if there are incremental delta files present in the delta chain.

Delta Merge Policy

The delta merge process relies on the retention policy setting to decide when to merge delta files with the full file. But delta merge does not apply to files in the retention area. Any backup sets configured with advanced or customized retention policy settings cannot use the delta merge feature.

Any reference to retention policy in the context of delta merge implies delta merge policy. As backupsets enabled with delta merge share a single setting, any changes in retention policy will impact on the availability of snapshots that can be restored from both data and retention area. Before enabling the delta merge feature please review your data restore requirements carefully.

Delta Merge Process

A delta merge will take place after a backup job is completed, IM/1'CB will only initiate a delta merge request at the end of a backup job. As part of the request, IM/1'CB will upload a copy of the backupset encryption key to InfoBackup Provider which is hashed for security purposes. Once a merge request is received by InfoBackup Provider it will be placed in the "delta merge queue", the information in the delta merge queue only exists in memory for security purposes.

A background job is used on InfoBackup Provider to identify any delta files that are out of retention period and merge them with the full file; this process handles one merge operation at a time.

When InfoBackup Provider processes a file merge request, the merge process will be carried according to the retention policy. Each delta merge operation is recorded in the InfoBackup Provider system logs. The following is an example of delta merge activity which is recorded under [Manage System] → [Manage Log] → [System Log].

```
[info][system][Thread][Job][MergeDelta] Start merging delta files in backup set 'b1' of user 'test0914'.
[info][system][Thread][Job][MergeDelta] Merging delta file 'C:\TestDM0914.txt' in backup set 'b1' of user 'test0914' , Backup
Job='2011-09-14-17-13-50', DataSize(compressed)='2k'
[info][system][Thread][Job][MergeDelta] Merged delta files in backup set 'b1' of user 'test0914' successfully.
[info][system][Thread][Job][MergeDelta] Finished merging delta files in backup set 'b1' of user 'test0914'.
```

Although, delta merge requests are submitted to InfoBackup Provider immediately after the completion of a backup job. In some situations it could take a few days before a merge request is finally processed. The actual execution of the merge requests is dependent factors such as:

i. The number of backupsets with delta merge enabled.
ii. The number of requests pending in the merge queue.
iii. The type and size of full and delta files which are pending to be merged, i.e. ESXi, Hyper-V, Shadow Protect backupsets which may take longer to merge.
iv. Performance of your InfoBackup Provider server

Delta Merge Queue

The delta merge queue stores the details of each merge request made by InfoBackup Manager / 1'ClickBackup client at the end of each backup job. In order to enhance security, from InfoBackup Provider v6.5.4.0 onwards, the delta merge queue will be held in memory only.

Each delta merge queue record includes the following information:

i. backup user account
ii. backup set ID
iii. hashed encryption key
iv. owner (the sub admin account which created the backup user if applicable)

Once a job in the delta merge queue is completed, the request will be immediately removed from the merge queue. InfoBackup Provider will then process the next request in the queue.

WARNING:

As the delta merge queue is only held in memory, if the InfoBackup Provider service is restarted or stopped, any pending delta merge requests will be lost. These delta merge jobs for the affected backup sets will only be processed on the next backup job, when InfoBackup Manager / 1'ClickBackup submits a new delta merge request.

Limitations

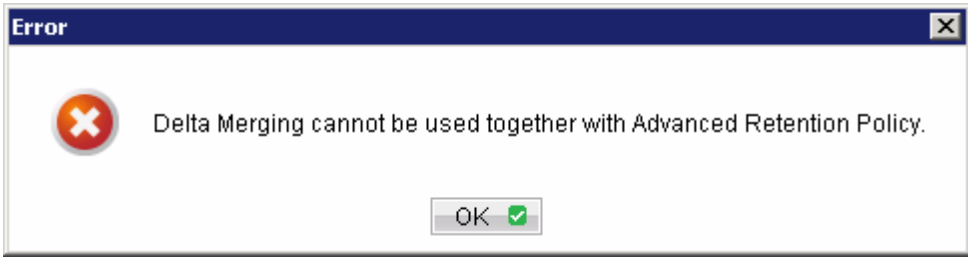
Differential Delta File Merge

The delta merge of differential delta files with the full file, will only apply if there are incremental delta files present in the delta chain. Therefore, no delta merge will take place for backup sets with delta merge enabled and in-file delta set to "Differential".

Advanced or Customized Retention Policy

Any backup sets which are configured with advanced or customized retention policy settings cannot use the delta merge feature.

This restriction is enforced on InfoBackup Manager, if delta merge is enabled on a backup set with advanced retention policy already configured or if you attempt to apply an advanced retention policy setting to a backup set with delta merge enabled. The following error messages will be displayed by InfoBackup Manager:



1'ClickBackup

For 1'ClickBackup user accounts the in-file delta and delta merge features are still dependent on InfoBackup Provider global settings, under [Manage System] -> [Other Options] -> [In-file delta settings for all 1'ClickBackup users]. Therefore, all 1'ClickBackup users are limited to either using delta merge or traditional incremental/differential delta model.

When the delta merge option is enabled and the in-file delta type "Differential" is selected. **The Delta merge feature will not merge differential delta files with the full file**.

Delta merge will only work if there are pre-existing incremental delta files in the delta chain. Once the incremental delta files are merged, the delta merge feature will no longer merge the remaining differential delta files with the full file.

It is recommended to set the in-file delta type as "Incremental" for 1'ClickBackup users.

InfoBackup Provider Storage

Even though the delta merge job processes one backupset at a time. For delta merge enabled backupsets which contain very large files, i.e. Exchange, MS SQL, Domino, Oracle , MS System backup, Windows 2008 SystemState, ShadowProtect, ESXi, and Hyper-V. **It is strongly recommended user home drives containing these backup sets should maintain at least 30% to 40% free disk space. As the delta merge needs to generate a temporary merged full file on the user home drive**

during this process. If the user home runs out of disk space, it could result in corruption temporary merged file, in the worse case the data of any other active backup sets could also be compromised.

Delta Merge Examples

The following is some simple examples to demonstrate the functionality of the delta merge feature:

Example 1:

The example below shows how delta files are merged into full file using a retention policy (delta merge policy) setting defined as 4 jobs for this backup set.

A full backup file is stored into data area (F) uploaded by Job 1, followed by incremental delta files I_1, I_2, I_3, and I_4. On the completion Job 5 (I_4), InfoBackup Manager / 1'ClickBackup will trigger a delta merge background job to execute the file merging. When the InfoBackup Provider delta merge job runs F + I_1 will be merged to become a "merged" full file. The data area now contains 4 snapshots including merged full file after file merging.

Retention Policy = 4 Jobs (Delta Merge Policy)

Job 1 = F

Job 2 = I_1

Job 3 = I_2

Job 4 = I_3

Job 5 = I_4 (delta merge initiated)

After job 5 InfoBackup Manager / 1'ClickBackup will initiate a delta merge for Job 1 & Job 2 files.

F (F + I_1) merged full file

I_2

I_3

I_4

Example 2:

The example below shows how delta files are merged into full file using a retention policy (delta merge policy) setting defined as 7 days for this backup set.

A full backup file is stored into data area (F) uploaded on Day 1, followed by incremental delta files I_1, I_2, I_3, I_4, I_5, I_6, I_7, and I_8. On the completion of the backup job on Day 9 (I_8), InfoBackup Manager / 1'ClickBackup will trigger a delta merge background job to execute the file merging. When the InfoBackup Provider delta merge job runs F + I_1 will be merged to become a "merged" full file. The data area now contains 8 snapshots including merged full file after file merging.

Retention Policy = 7 Days (Delta Merge Policy):

Day 1 = F

Day 2 = I_1

Day 3 = I_2

Day 4 = I_3

Day 5 = I_4

Day 6 = I_5

Day 7 = I_6

Day 8 = I_7

Day 9 = I_8 (delta merge initiated)

After job on day 9 InfoBackup Manager / 1'ClickBackup will initiate a delta merge for Day 1 & Day 2 files. As the incremental file I_1 has exceeded the 7 day retention policy setting.

F (F + I_1) merged full file

I_2

I_3

I_4

I_5

I_6

I_7

I_8

Example 3:

The example below shows how differential and incremental delta files are merged into full file using a retention policy (delta merge policy) setting defined as 4 jobs for this backup set.

A full backup file is stored into data area (F) uploaded by Job 1, followed by incremental and differential delta files I_1, I_2 I_3 and D_1.

Retention Policy = 4 Jobs (Delta Merge Policy)

Job 1 = F
Job 2 = I_1
Job 3 = I_2
Job 4 = I_3
Job 5 = D_1 (delta merge initiated)

After Job 5 InfoBackup Manager/1'ClickBackup will initiate a delta merge for Job 1 & Job 2. Unfortunately, differential delta D_1 is found in delta chain, this creates delta merge stoppage, the files in Job 1 and Job 2 will not be merged.

The backup job continues with subsequent incremental backups (I_4, I_5 and I_6).

Job 1 = F
Job 2 = I_1
Job 3 = I_2
Job 4 = I_3
Job 5 = D_1 (delta merge is initiated and stopped)
Job 6 = I_4 (delta merge is initiated and stopped)
Job 7 = I_5 (delta merge is initiated and stopped)
Job 8 = I_6 (delta merge is initiated)

After Job 8 InfoBackup Manager/1'ClickBackup will initiate a delta merge, InfoBackup Provider will merge the full file (F) uploaded in Job 1 with the differential delta D_1 uploaded in Job 5 to form the new full file (As the D_1 differential includes changes in $I_1 + I_2 + I_3$). The incremental files $I_1 + I_2 + I_3$ will be moved to the retention area, as they have already exceeded the retention policy of 4 jobs. These files will be purged on the next retention policy job.

After the delta merge has completed the follow files will be available for restore.

F ($F + D_1$)
I_4
I_5
I_6

Example 4:

The example below shows how delta merge handles multiple differential delta files using a retention policy (delta merge policy) setting defined as 4 jobs for this backup set.

A full backup file is stored into data area (F) uploaded by Job 1, followed by incremental and differential delta files I_1, I_2 I_3 and D_1.

Retention Policy = 4 Jobs (Delta Merge Policy)

Job 1 = F
Job 2 = I_1
Job 3 = I_2
Job 4 = I_3
Job 5 = D_1 (delta merge initiated)

After Job 5 InfoBackup Manager/1'ClickBackup will initiate a delta merge for Job 1 & Job 2. Unfortunately, differential delta D_1 is found in delta chain, this creates delta merge stoppage, the files in Job 1 and Job 2 will not be merged.

The backup job continues with subsequent differential delta backups (D_2 and D_3) and incremental delta backups (I_4, I_5, and I_6).

Job 1 = F
Job 2 = I_1
Job 3 = I_2
Job 4 = I_3
Job 5 = D_1 (delta merge is initiated and stopped)
Job 6 = D_2 (delta merge is initiated and stopped)
Job 7 = D_3 (delta merge is initiated and stopped)
Job 8 = I_4 (delta merge is initiated and stopped)
Job 9 = I_5 (delta merge is initiated and stopped)
Job 10 = I_6 (delta merge is initiated)

After Job 10 InfoBackup Manager/1'ClickBackup will initiate a delta merge, InfoBackup Provider will merge the full file (F) uploaded in Job 1 with the latest differential delta D_3 uploaded in Job 7 to form the new full file (As the D_3 differential includes changes in $I_1 + I_2 + I_3 + D_1 + D_2$). The files $I_1 + I_2 + I_3 + D_1 + D_2$ will be moved to the retention area, as they have already exceeded the retention policy of 4 jobs. These files will be purged on the next retention policy job.

After the delta merge has completed the follow files will be available for restore.

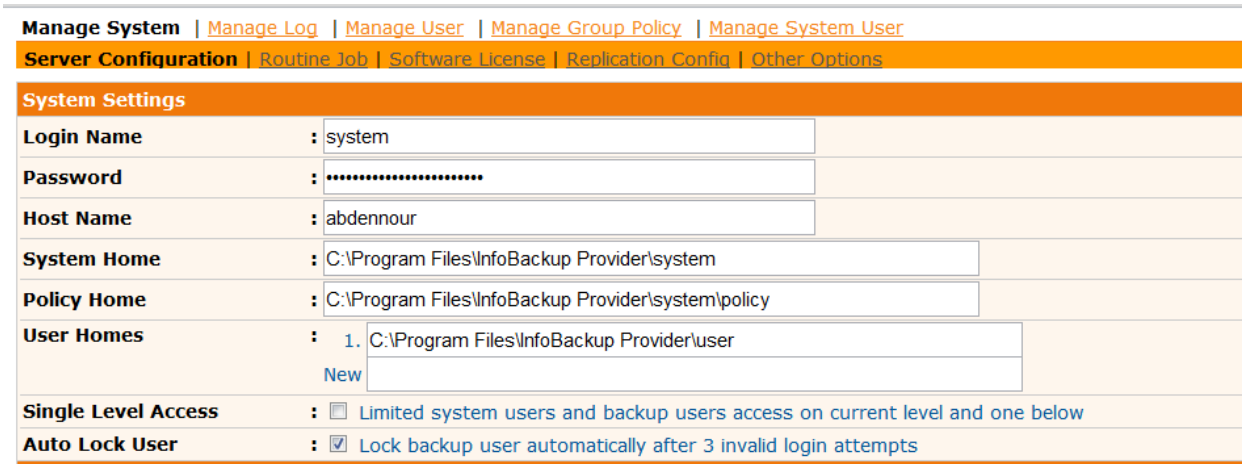
F ($F + D_3$)
I_4
I_5
I_6

13. Account Lockout

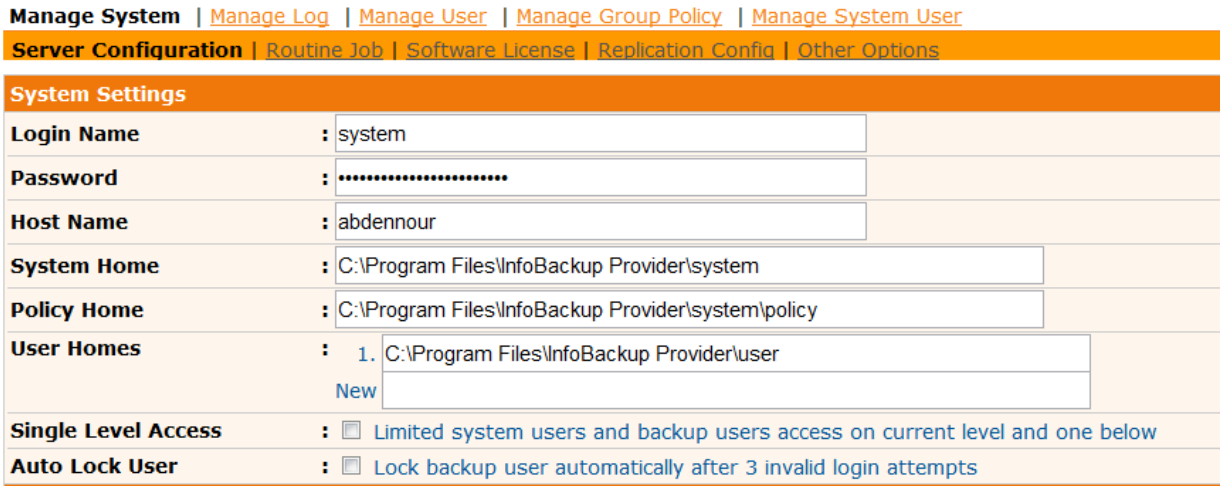
When the account lockout feature is enabled, a backup user account will be locked after three consecutive failed login attempts. The account lockout restriction applies unsuccessful logins via InfoBackup Provider web console, InfoBackup Manager, 1'ClickBackup, and InfoBackup RDR web console. The account lockout restrictions do not apply to "system", "sub admin", and "non admin" account types. **To enhance security on InfoBackup Provider, the account lockout feature is enabled by default.**

Configuration

The status of the account lockout feature is shown in the InfoBackup Provider web console under the [Manage System] -> [Server Configuration] -> [Auto Lock User].



To disable the InfoBackup Provider account lockout feature, simply uncheck the "Auto Lock User" setting and press the [Update] button. This setting will be effective immediately.



Even though the account lockout feature is disabled, any backup user accounts which were locked prior to the disabling of this feature will still remain locked. These backup user accounts will have to be enabled by either a "system" or "sub admin" user.

Note:

For InfoBackup RDR implementations, the account lockout configuration must be aligned on all members InfoBackup Provider Server.

Account Lockout Rules

For each unsuccessful login attempt via InfoBackup Provider web console, InfoBackup RDR web console, InfoBackup Manager, or 1'ClickBackup. The account lockout counter will increase by 1. After three consecutive unsuccessful login attempts the backup user account will be locked.

The account lockout counter will reset to zero if one of the following conditions are met:

- User logs on successfully via InfoBackup Provider web console, InfoBackup Manager/1'ClickBAckup or InfoBackup RDR web console.
- Change user [Status] from "Locked" to "Enable" or "Suspended in [Manage User] → User Profile] page.

The "System" or "Sub admin" users cannot manually lock a backup user account. An account lockout can only be triggered by consecutive failed account. An account lockout can only be triggered by consecutive failed login attempts.

Once an account is locked, all InfoBackup Manager/1'ClickBackup client scheduler(s) and CDP service(s) connecting to InfoBackup Provider using the locked account will automatically be stopped. They will not re-connect to InfoBackup Provider again after another six hours, even if the affected account is enabled immediately.

If a scheduled or manual backup job has started prior the account "locked" status", these backup jobs will continue as normal until completion. This behaviour will also apply to restore, seed load, and decrypt operations.

Warning:

If there are any backup jobs which are scheduled to start within this six hour period they will not be run, these jobs will be classified as a missed backups.

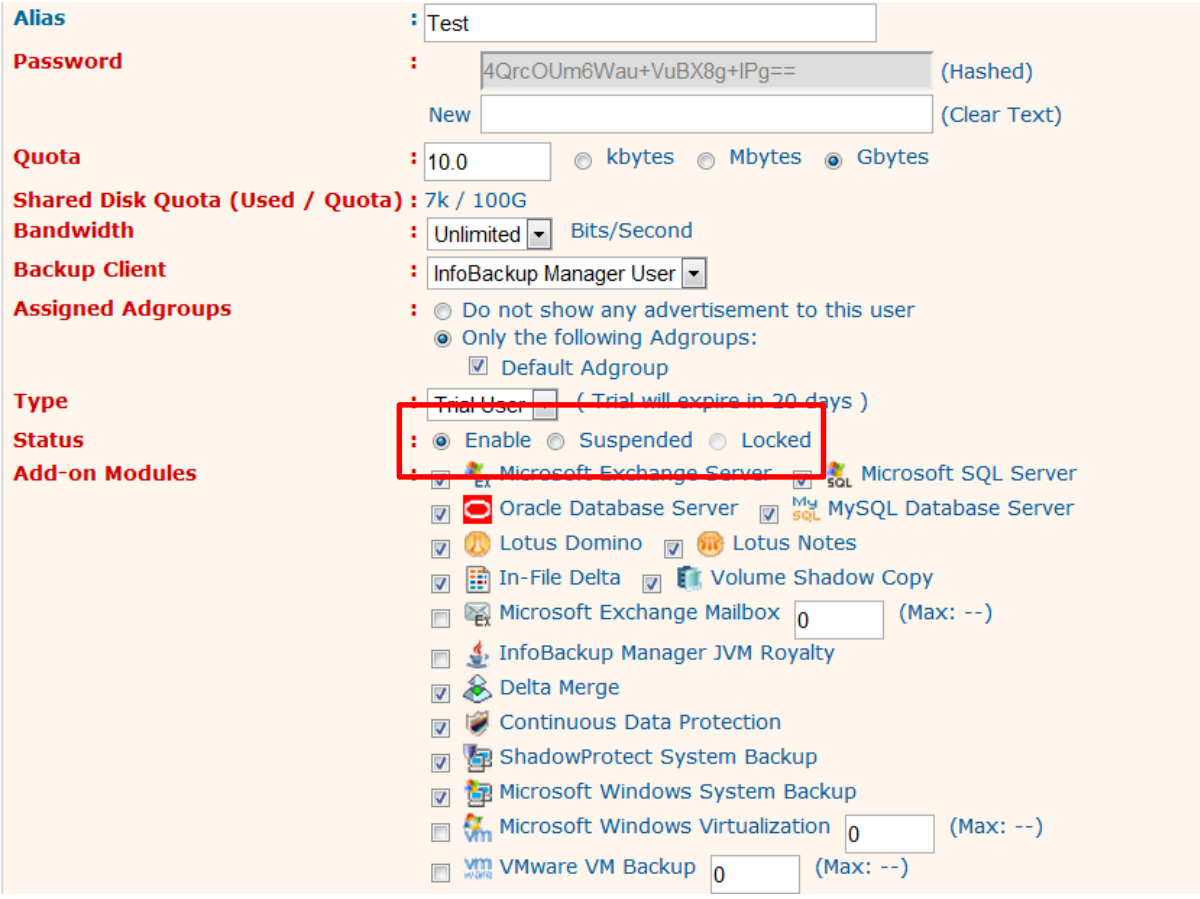
If you wish to minimize the problem of missed backups, you can consider restarting the InfoBackup Manager/1'ClickBackup scheduler and CDP services on all affected client machines after affected user account is unlocked.

Unlocking accounts

Once a backup user account is locked, it can only be enabled by either "system" or "sub admin" user.

To reset the status of a "Locked" backup user, please do the following:

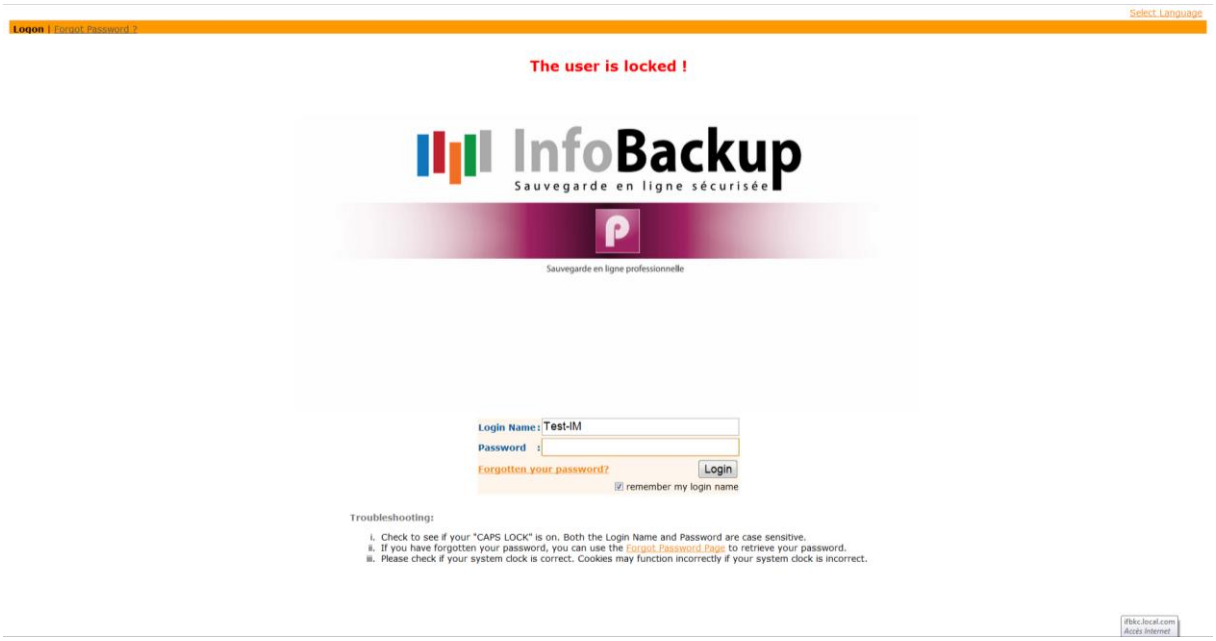
1. Login to InfoBackup Provider web administration Console using a "system" or "sub admin" user account.
2. Go to [Manage User] → [List User] page.
3. Find the backup user from the user list and click on the username to view [User Profile]
4. Chang [Status] by checking the [Enable] radio button.
5. Click [Update] to apply the change.



Account Lockout on InfoBackup Provider/RDR

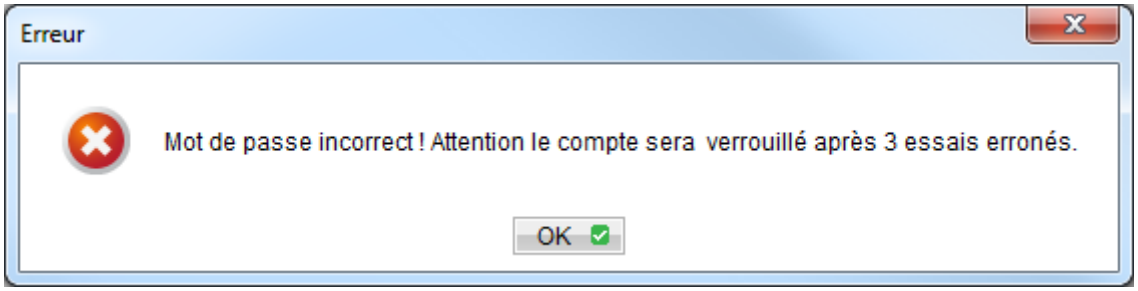
The following is an example of what is displayed when there is an incorrect user login attempt via InfoBackup Provider web console.

After three consecutive incorrect login attempts the user account will be automatically locked.

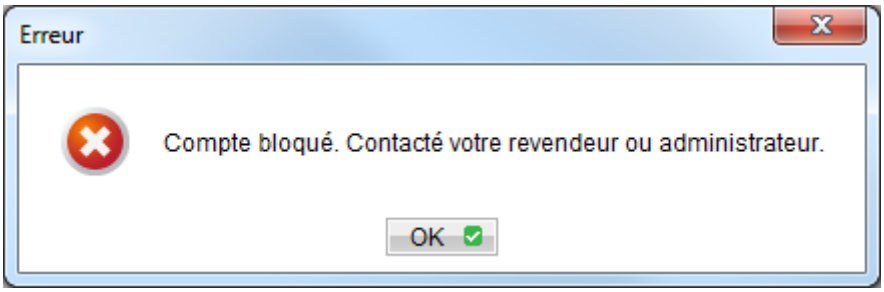


Account Lockout on InfoBackup Manager/1'ClickBackup

The following is an example of what is displayed when there is an incorrect user login attempt via InfoBackup Manager/1'ClickBackup client.



After three consecutive incorrect login attempts the user account will be automatically locked. The following dialog box will be displayed on the client machine.



InfoBackup Manager/1'ClickBackup scheduler logs (debug.log) will show the following error "[error] Account locked. Please contact your backup service provider. Retry in 6 hours…"

Debug.log

[2011/01/28 20:04:32][Info] Loading configuration file...
[2011/01/28 20:04:32][Info] Loading configuration file ... Completed
[2011/01/28 20:04:32][Info] Loading profile from server...
[2011/01/28 20:04:33][Error] Account locked. Please contact your backup service provider. Retry in 6 hours...

Account Lockout Auditing

Information relating to incorrect logins attempts will be recorded in the InfoBackup Provider system log, as well as the InfoBackup Provider logs located in %OBS_HOME%\logs.

The following is an example of what is recorded in the system log, when there is an incorrect user login attempt via InfoBackup Provider web console.

Login attempts via InfoBackup Provider web console are identified as "[www] [Logon] '%user_account%'"

948	11:00:00 AM	t1	--	[info][www][Logon] 't1' logon failed. IP='10.10.0.1'. Login Failure Count=1 . Reason= [UserCacheManager.PasswordIncorrectExpt] Incorrect password for user 't1'.
949	11:00:02 AM	t1	--	[info][www][Logon] 't1' logon failed. IP='10.10.0.1'. Login Failure Count=2 . Reason= [UserCacheManager.PasswordIncorrectExpt] Incorrect password for user 't1'.
950	11:00:05 AM	t1	--	[info][www][Logon] 't1' logon failed. IP='10.10.0.1'. Login Failure Count=3 . Reason= [UserCacheManager.PasswordIncorrectExpt] Incorrect password for user 't1'.
951	11:00:07 AM	t1	--	[info][www][Logon] 't1' logon failed. IP='10.10.0.1'. Reason=[UserCacheManager.UserLockedExpt] User 't1' is locked.

The following is an example of what is recorded in the system log, when there is an incorrect user login attempts from InfoBackup Manager/1'ClickBackup client.

Login attempt via InfoBackup Manager/1'ClickBackup are identified as "[system][getProfileRqt] '%user_account%'"

149	04:55:30 AM	t1	--	[info][system][GetUserProfileRqt][UserCacheManager.PasswordIncorrectExpt] Incorrect password for user 't1'. IP = '10.10.0.1'. Login Failure Count = 1
150	04:55:32 AM	t1	--	[info][system][GetUserProfileRqt][UserCacheManager.PasswordIncorrectExpt] Incorrect password for user 't1'. IP = '10.10.0.1'. Login Failure Count = 2
151	04:55:34 AM	t1	--	[info][system][GetUserProfileRqt][UserCacheManager.PasswordIncorrectExpt] Incorrect password for user 't1'. IP = '10.10.0.1'. Login Failure Count = 3
152	04:55:36 AM	t1	--	[info][system][GetUserProfileRqt][UserCacheManager.UserLockedExpt] User 't1' is locked.

14. Multiple Thread Support

Multiple thread support is available for the following InfoBackup Manager/1'ClickBackup functions; backup, restore, local copy, seed load, and file decrypt for all backup sets. In order to utilize this feature InfoBackup Manager and 1'ClickBackup need to be on version v6.3.0.0 or above. In addition, the web restore applet also supports multiple thread file restores for InfoBackup Provider v6.3.0.0 or above.

Multiple thread support is enabled by default and cannot be disabled. The maximum number of threads supported is automatically determined by the number of logical CPU's on a client machine:

Maximum number of threads = **Number of Logical CPU x 2 (up to a maximum of 8 threads)**

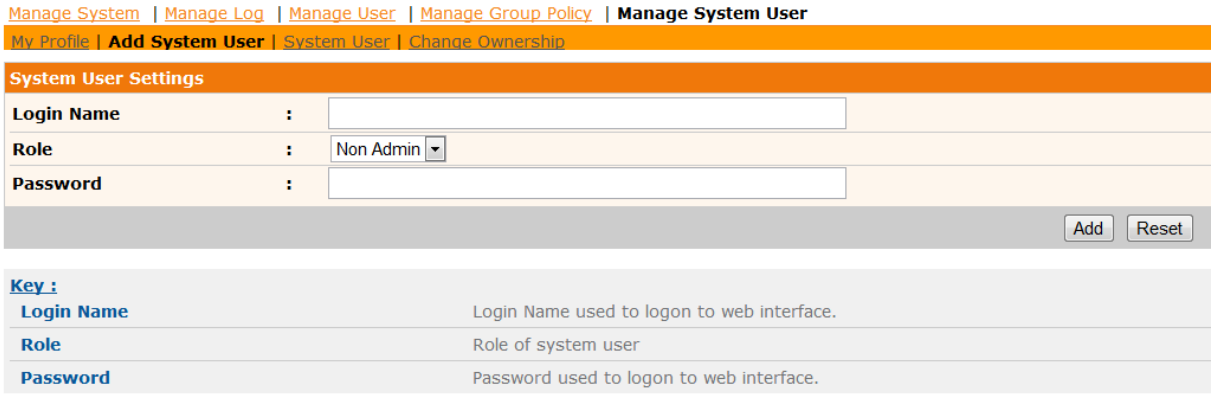
Multiple threading will result in increased memory and CPU usage on the InfoBackup Manager/1'ClickBackup client machine, the level of resource usage will be proportion to the number of active threads. In order to fully leverage this feature, it is recommended a client machine should be installed with multiple core processors and sufficient free memory.

WARNING:

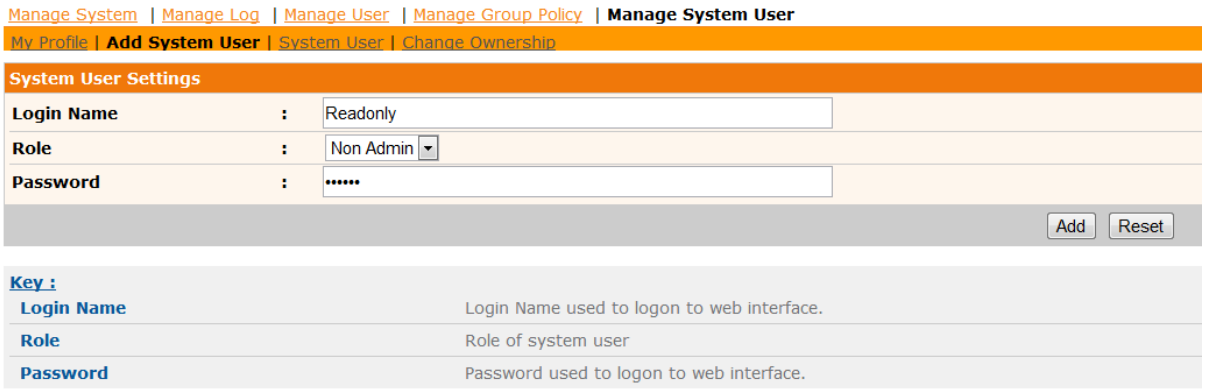
Multiple thread backup and restore operations can result in increased loading on your InfoBackup Provider server and could lead to InfoBackup Provider performance problems. It is strongly recommended a review of InfoBackup Provider hardware and configuration requirements is undertaken, to determine server suitability before mass deployment of v6 clients.

15. Create a "Read Only" or Non Admin System User

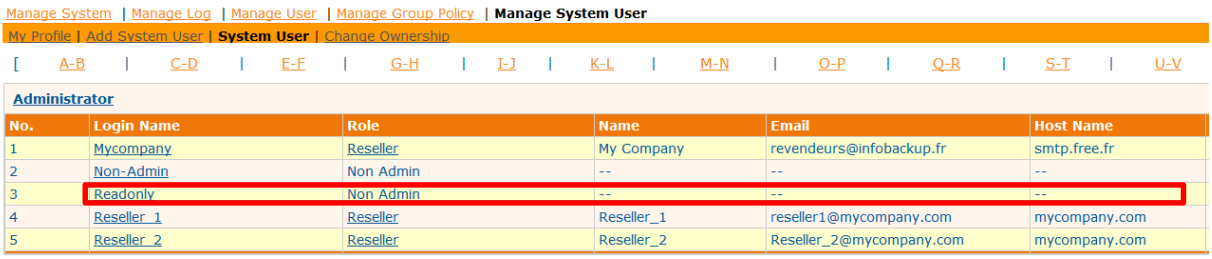
To create a read only admin user or non admin user account, go to the [Manage System] → [Manage System User] page and click on "Add System User" link



Enter the login name for the new system user account, the password must be at least six characters long, and the role must be "Non Admin".



To confirm the creation of the new user press the "Add" button. The account will be created and InfoBackup Provider will list the new and existing non admin account.



16. AutoUpdate

This chapter describes how you can use the AutoUpdate feature to automatically update InfoBackup Manager and 1'ClickBackup on all running instances:

How it works

The AutoUpdate operation relies on AutoUpdate Agent (AUA) to function properly. It is a service bundled with InfoBackup Manager/1'ClickBackup. No new updates will be delivered to a machine running InfoBackup Manager or 1'ClickBackup if AutoUpdate Agent service is stopped.

During each AutoUpdate cycle, AutoUpdate works in the following sequences:

1. The AutoUpdate Agent running on the client machine will download the index file (%OBSR_HOME%\webapps\obs\liveUpdate\index.xml) which contains the information of the latest client software available from InfoBackup Provider.
2. If the AutoUpdate Agent finds that InfoBackup Provider contains a patch for InfoBackup Manager or 1'ClicBackup which is newer than the current version, it will download and install the patch from InfoBackup Provider automatically (%OBSR_HOM%\webapps\obs\liveUpdate\obm????.zip).
3. After the InfoBackup Manager or 1'ClickBackup client is updated. The scheduled backup job will run using latest version of InfoBackup Manager/1'ClickBAckup.

Note:

In order for AutoUpdate to work, the "index.xml" file must be renamed from the file 'index.xml.disable" inside the directory "%OBSR_HOME%\webapps\obs\liveUpdate".

Using AutoUpdate

When you install an updated version of InfoBackup Provider on your backup server, a new version of the AutoUpdate module for InfoBackup Manager and 1'ClickBackup are already bundled with the updated version of InfoBackup Provider. This means that a new version of InfoBackup Manager or 1'ClickBackup will be delivered to all your client machines through the AutoUpdate Agent when you install an updated version of InfoBackup Provider on your server.

Forcing an extra AutoUpdate

If you want to customize the AutoUpdate patch file that will be delivered to your existing client installation (i.e. sending your own patch file to your client), please refer to the InfoBackup Software Upgrade Guide.

AutoUpdate Limitations

AutoUpdate is officially supported for InfoBackup Manager & 1'ClickBackup v5.5.1.0 or above to v6.7.0.0.

AutoUpdate of InfoBackup Manager & 1'ClickBackup to v6 is officially supported for O/S platforms specified in InfoBackup Support Centre

AutoUpdate Agent does not support InfoBackup Manager/1'ClickBackup upgrade from v4 to v6 on the following O/S platforms:

i. FreeBSD
ii. Solaris
iii. Mac OSX

AutoUpdate Agent may update details on bundled Java that is packaged with InfoBackup Manager/1'ClickBackup installation. Due to this reason, AutoUpdate Agent will not support upgrades on these platforms as propriety Java are in use.

AutoUpdate Changes

From InfoBackup Provider v6.5.0.1 onwards the configuration of AutoUpdate feature on InfoBackup Provider has been further enhanced, to allow InfoBackup Manager/1'ClickBackup client upgrades based on a specific client version or a range of versions. AutoUpgrades of InfoBackup Manager/1'ClickBackup clients can also be performed based on specific O/S versions (Windows only).

The 'force' attribute has been removed from 'index.xml' since the AutoUpdate Agent GUI has been disabled.

Attributes Changes

Attribute	Description
OS	Only accepts the OS family name (Windows/Mac OS/NIX)
compatible-OS	Accepts the list of supported OS name separated by ',' *(For Example "Windows XP, Windows 2003, Windows Vista, Windows Server 2008, Windows 7")*

The following is an example of an <AutoUpdate> entry in the "index.xml":

<AutoUpdate product="obm" version="6.5.0.0" compatible="5.5.x.x" host="">

<patch os="Windows" url="/obs/liveUpdate/obm6500-win.zip"

compatible-os="Windows XP, Windows 2003, Windows Vista, Windows Server 2008, Windows 7" include-users="" exclude-users="" force="false"/>*

<patch os="Mac OS" url="/obs/liveUpdate/obm6500-mac.zip" compatible-os="Mac OS X" include-users="" exclude-users="" force="false"/>*

<patch os="NIX" url="/obs/liveUpdate/obm6500-nix.zip" compatible-os="Linux, Solaris, SunOS, FreeBSD" include-users="" exclude-users="" force="false"/>*

</AutoUpdate>

Multiple InfoBackup Manager/1'ClickBackup Versions selection

A new value type has been introduced in the 'compatible' attribute in the <AutoUpdate>tag. So that AutoUpdate can target InfoBackup Manager/1'ClickBackup clients on specified version(s)

For example:

i. 5.5[5-8].x refers to versions 5.5.5.x, 5.5.7.x, and 5.5.8.x
ii. 6.5[0-4].x refers to versions 6.5.0.x, 6.5.2.x and 6.5.4.x

The product version range should be:

i. Specified inside brackets, i.e. [5-8]
ii. Be a positive integer, i.e. [5-40], [0-9]
iii. Starting range should be smaller than the range end. i.e. [8-5] is an invalid range.

The following are examples of <AutoUpdate> entries in the "index.xml":

i. Multiple versions

InfoBackup Manager/1'ClickBackupversions from 5.5.3.0 to 5.5.3.3
<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.3.x" host=""/>
<AutoUpdate product="1'CB" version="6.5.0.1" compatible="5.5.3.x" host=""/>

InfoBackup Manager/1'ClickBackupversions from 5.5.5.0 to 5.5.5.5 and InfoBackup Manager 5.5.7.0 to 5.5.7.5
<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.5.x, 5.5.7.x" host=""/>
<AutoUpdate product="1'CB" version="6.5.0.1" compatible="5.5.5.x, 5.5.7.x" host=""/>

InfoBackup Manager/1'ClickBackupversions from 6.3.0.0 to 6.3.1.0
<AutoUpdate product="obm" version="6.5.0.1" compatible="6.3.x.x" host=""/>
<AutoUpdate product="1'CB" version="6.5.0.1" compatible="6.3.x.x" host=""/>

ii. Version range

InfoBackup Manager/1'ClickBackupversions from 5.5.5.0 to 5.5.8.x
<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.[5-8].x" host=""/>
<AutoUpdate product="1'CB" version="6.5.0.1" compatible="5.5.[5-8].x" host=""/>
InfoBackup Manager/1'ClickBackupversions from 5.5.5.0 to 5.5.5.5
<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.[5].x" host=""/>
<AutoUpdate product="1'CB" version="6.5.0.1" compatible="5.5.[5].x" host=""/>

iii. Multiple version with version ranges

InfoBackup Manager/1'ClickBackupversions from 5.5.5.0 to 5.5.7.5 and 5.5.8.0 to 5.5.9.0
<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.[5-7].x, 5.5.[8-9].0, 6.3.x.x" host=""/>
<AutoUpdate product="1'CB" version="6.5.0.1" compatible="5.5.[5-7].x, 5.5.[8-9].0, 6.3.x.x" host=""/>
InfoBackup Manager/1'ClickBackupversions from 5.5.5.0 to 5.5.5.5 and 5.5.7.0 to 5.5.7.5

<AutoUpdate product="IM" version="6.5.0.1" compatible="5.5.[5].x, 5.5.7.x, 6.5.x.x" host=""/>
<AutoUpdate product="1'CB" version="6.5.0.1" compatible="5.5.[5].x, 5.5.7.x, 6.5.x.x" host=""/>

Multiple Host Selection

The AutoUpgrade can be configured to target InfoBackup Manager/1'ClickBackup clients which are connecting to certain host names using the 'host' attribute. The host attribute can accepted only valid hostnames or "", no wildcard values are allowed, i.e. host="*".

i. Single host configuration

<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.8.x" host="backup1.InfoBackup.com"/>

ii. Multiple hosts configuration

<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.8.x" host="backup1.infobackup.com, backup2Infobackup.com, backup3infobackup.com"/>

For InfoBackup Provider servers configured with multiple resellers and each reseller has an individual domain name.

iii. All hosts

<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.8.x" host=""/>
Or
<AutoUpdate product="obm" version="6.5.0.1" compatible="5.5.8.x"/>
Note:

The use wildcard values are not supported, for example:
<AutoUpdate product="im" version="6.5.0.1" compatible="5.5.8.x" host=""/>*

Backup User Account Selection

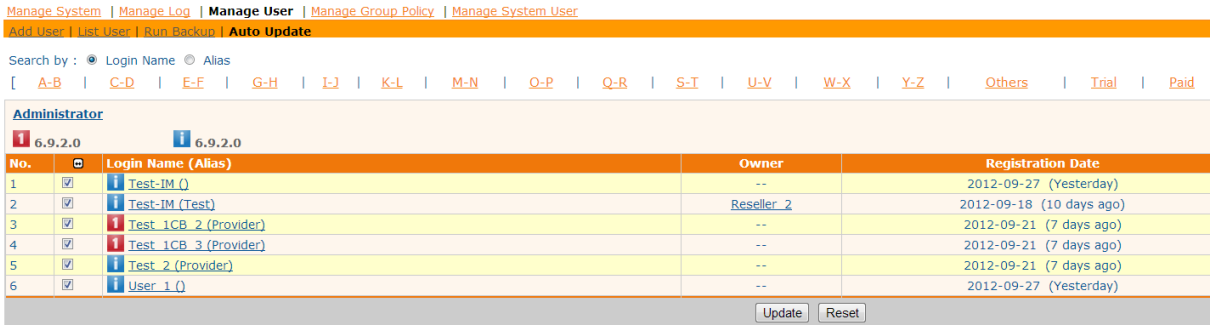
The Auto Update of InfoBackup Manager/1'ClickBackupclients can be managed directly from the InfoBackup Provider web console. The InfoBackup Provider system administrator or system users will be able to select backup clients to upgrade via the [Manage System] -> [Manage User] -> [Auto Update] page. By default all backup user accounts are selected. This information is then saved to the %OBS_HOME%\conf\ autoUpdate.bdb file. The "autoUpdate,bdb" file will be automatically created when InfoBackup Provider is installed or when upgraded to v6.7.0.0 or above during InfoBackup Provider service startup.

Once selected for Auto Update the InfoBackup Manager/1'ClickBackupclients connecting to the backup account will be updated. The InfoBackup Manager/1'ClickBackupclients will be updated regardless of the status of the backup account, i.e. enabled, suspended, or locked.

The following example is from the [Manage System] -> [Manage User] -> [Auto Update] page for the "system" user. By default all backup user accounts are selected for Auto Update. In addition to

displaying the list of backup users, when Auto Update is enabled on InfoBackup Provider. Both the latest available upgrade versions for 1'ClickBackup and InfoBackup Manager are shown.

The "system" user can view and change the auto update status for all InfoBackup Manager/1'ClickBackupuser accounts on the InfoBackup Provider server including those created by resellers. The reseller owned backup user accounts are identified with the 'Owner" name.



Some definitions of the fields related are shown in the following table

Key	Description
No.	Number count of the backup user.
Login Name (Alias)	The login name of the user with the alias bracketed behind.
Owner	Owner of this backup user.
Registration Date	The creation time of user.
Trial Expiry Date	The expiry date of trial user.

If the Auto Update feature is disabled on InfoBackup Provider the [Manage System] -> [Manage User] -> [Auto Update] page, will display the status "Auto Update is disabled". Both the latest available upgrade versions for 1'ClickBackup and InfoBackup Manager will not be shown.

Warning

Please do not modify the attributes "include-users" and "exclude-users" inside the <patch> tag in the file "index.xml" as the values inside the attributes will be replaced by the settings in this page.

Enable AutoUpdate on InfoBackup UBS

To rename the "index.xml" file from "index.xml.disable" on an InfoBackup UBS server. Please perform the following steps:

1. Stop the InfoBackup Provider service from the InfoBackup UBS web admin console under [Backup Server] > [Server Status] and press the [Stop] button.
2. After the [Backup Server] > [Server Status] > [Status] has changed to 'Stopped". Use a ssh client to login to the InfoBackup UBS server using 'root' account.
3. Mount "/ubs/mnt/esosfw" as read write using the "mount -uw /ubs/mnt/esfmfw" command.
4. cd /ubs/mnt/esfmfw/obsr/system/obsr/webapps/obs/liveUpdate
5. Rename the "index.xml.disable" to "index.xml" using the following command "mv index.xml.disable index.xml"
6. Reboot the InfoBackup UBS server from the InfoBackup UBS web admin console [System] > [Reboot] > [Now] and press [Yes] to confirm.
7. After InfoBackup UBS server has rebooted, start the InfoBackup Provider service from the InfoBackup UBS web admin console under [Backup Server] > [Server Status] and press the [Start] button. The [Backup Server] > [Server Status] > [Status] will change to 'Running".

Note:

After the InfoBackup UBS server is rebooted the "/ubs/mnt/esoftw" will be automatically mounted as read only.

17. Backup /Restore Files using off-line media

Backing up large amount of files (e.g. 300GB) online through the Internet is a very lengthy task. It is sometimes necessary to ship the first full backup through off-line media (e.g. removable USB hard disk) to the backup server. Once the first full backup is loaded onto the backup server through off-line media, all subsequent backups will be able to run and complete successfully in a timely manner because it is only necessary to upload new/updated files to the backup server.

Restoring large amount of files (e.g. 300GB) online through the Internet is also a very lengthy process. It is also important to be able to allow users to restore their backup file through offline media to reduce the time required to restore large amount of files.

This chapter describes the steps required to import/export backup files to/from InfoBackup Provider.

Seed loading backup files (Import)

A backup user can use the [Seed Load Utility] to transport its first full backup to an offsite backup server without having to upload a large volume of data through the Internet (Please refer to the InfoBackup Manager User's Guide for more information). When the seed load files are transported to the backup server (e.g. using removable hard disk), please follow the instructions below to install them into the required user account:

1. Locate the home directory of the backup user.
   A backup user's home directory is a directory named the login name of the backup user under one of the InfoBackup Provider's [User Homes] directories. [User Homes] is a system-wide setting which can be accessed under the [Manage System] menu after logging onto the web system management console.

   For Example:
   The default [Users Home] directory is "C:\Program Files\InfoBackup Provider and InfoBackup RPS\user". If the login name of the backup account is "john", the home directory os user "john" should be "C:\Program Files\InfoBackup Provider\user\john".

2. Copy all seed load files to the home directory.
   Find the "files" directory from the seed load files, and copy the "files" directory to the backup user's home directory.

   In this example, you should copy the "files" directory to "C:\Program Files\InfoBAckup Provider and InfoBackup RPS\user\john"

   If you are running InfoBackup Provider on Linux under a non-root user (e.g. obs), please make sure that the "files" directory and all its contents are owned and writable by the user running InfoBackup Provider '(e.g. obs).

3. Check if all files are installed correctly

Logon to the web interface of InfoBackup Provider with the backup user account ("john" in this example) and click the [File Explorer] link available at the top of the menu. Check if you can see all seed load files correctly installed.

4. Total number of files and total file size imported into the data through seed loading is not visible in the profile of this backup user (i.e. The [User Profile] page still reports no files in the data area). Administrator should run the "File Validation Option" ([InfoBackup web admin console]) for the corresponding user with the option "Verify Checksum" enabled to ensure that all backup files are seed loaded to InfoBackup Provider correctly.

If you need to perform another import (seed loading) when there are backup files on the backup server already, please remove all existing backup files from the backup server by removing the backup set ID directory (i.e. a numerically named directory under the "files" directory under a user directory) before copying all new seed loading files into the system. If you have more than one backup set ID directory under the "files" directory, please take a look at [User Home Directory]\db\Profile.xml to find out the correct Backup Set ID for the required backup set.

Saving backup Files to Off-line media (Export)

If you want to save a copy of all backup files under a backup user account to an offline media, please do the following:

1. Locate the home directory of the backup user.
2. Copy the complete home directory of this backup user to an offline media
3. Once the offline media is shipped to the user, the user can then use the [Decrypt File Wizard] available in InfoBackup Provider to decrypt and restore the backup files available in the offline backup back to its original format.

18. High Availability & Load-Balancing Configuration

For further information, please refer to the InfoBackup Provider High Availability Option setup Guide and InfoBackup Redirector Setup Guide available in our document section.

19. Secure connection with InfoBackup Provider

This chapter describes how you can use the Management Console to configure various secure connection settings of InfoBackup Provider.

Installing a trusted SSL certificate

Default installation of InfoBackup Provider enables SSL (Secure Socket Layer) support using a dummy certificate. For your own security, you are advised to replace the pre-installed dummy SSL certificate with a secure SSL certificate from a trusted CA (Certificate Authority). To replace the non-secure dummy SSL certificate with a secure SSL certificate, please do the following:

1. Identify the location of the keystore file.

You need to store your SSL certificate in a keystore file. The default location of the keystore file is %OBSR_HOME%\conf\keystore.

2. Delete dummy certificate from keystore.

You can delete the dummy SSL certificate from the keystore by running:

```
%OBSR_HOME%\java\bin\keytool -delete -alias tomcat -keystore
%OBSR_HOME%\conf\keystore.
```

You will be prompted for the keystore password. The default password is "changeit".

Platform	Example
Windows	*C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf> "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin\"keytool -delete -alias tomcat -keystore keystore*
Linux	*[root]# keytool -delete -alias tomcat -keystore /Applications/InfoBackup Provider/conf/keystore*

3. Generate RSA key pair.

A SSL certificate contains a RSA key pair. You can generate a RSA key pair by running:

```
%OBSR_HOME%\java\bin\keytool -genkey -alias tomcat -keyalg RSA -
keysize 2048 -keystore %OBSR_HOME%\conf\keystore
```

Also, the key password for the alias "tomcat" must be the same as the keystore password. Please simply press the [Enter] key when you are prompted for the key password for tomcat (i.e. Press [Enter] when you see the "key password for <tomcat>" prompt).

Platform	Example
Windows	*C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf> "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin\"keytool -genkey -alias tomcat -keyalg RSA -keysize 2048 -keystore keystore*
Linux	*[root]# keytool -genkey -alias tomcat -keyalg RSA -keysize 2048 -keystore /Applications/InfoBackup Provider/conf/keystore*

4. Create a local Certificate Signing Request (CSR).

You can create a CSR for your SSL certificate by running:

```
%OBSR_HOME%\java\bin\keytool -certreq -keyalg RSA -alias tomcat -file ssl.csr -keystore %OBSR_HOME%\conf\keystore
```

Platform	Example
Windows	*C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf> "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin\"keytool -certreq -keyalg RSA -alias tomcat -keystore keystore*
Linux	*[root]# $OBSR_HOME/java/bin/keytool -certreq -keyalg RSA -alias tomcat -keystore $OBSR_HOME/conf/keystore*

5. Submit the CSR file to a trusted CA of your choice. This process may take several hours to several days.
6. Download the SSL certificate from your CA, if your CA comes with intermediate certificate, please download it and import it into your keystore before you import your SSL certificate. Since the instruction may be different for different CA, please check with your CA for detailed instructions.
7. Import signed SSL certificate to the keystore from which the CSR was generated by:

```
%OBSR_HOME%\java\bin\keytool -import -alias tomcat -trustcacerts -file ssl.crt -keystore %OBSR_HOME%\conf\keystore
```

Platform	Example
Windows	*C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf> "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin\"keytool -import -alias tomcat -trustcacerts -file ssl.crt -keystore %OBSR_HOME%\conf\keystore*
Linux	*[root]# $OBSR_HOME/java/bin/keytool -list -alias tomcat -keystore $OBSR_HOME/conf/keystore*

If you are getting the "**keytool error: java.lang.Exception: Failed to establish chain from reply**" message when importing the SSL certificate file from CA, please try double-clicking the ssl.crt file on Windows to view all **intermediate certificates** being used to sign your certificate and import all intermediate certificates (downloadable from your CA) into your keystore file before importing your SSL certificate. You can check with your CA for detailed instructions.

5. Check if you have installed the SSL certificate correctly by:

%OBSR_HOME%\java\bin\keytool –list –alias tomcat –keystore %OBSR_HOME%\conf\keystore

Platform	Example
Windows	*C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf>"C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin"\keytool -list -alias tomcat -keystore keystore*
Linux	*[root]# $OBSR_HOME/java/bin/keytool -list -alias tomcat -keystore $OBSR_HOME/conf.keystore*

Sample Output:

Tomcat, 2003/6/13, keyEntry, Certificate fingerprint (MD5): xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx

Please make sure that you are getting the type "keyEntry" instead of "trustedCertEntry" from the output above. If you are getting "trustedCertEntry", the most likely cause of this is that you are NOT importing the SSL certificate back into the same keystore from which the CSR was generated. The only solution to this is to find this keystore file and import the certificate(s) to the keystore file again. If you can't find this file, please repeat the instructions in this section from step 1 and try again.

* When asked for your "first and last name" during the key generation, please specify the domain that you will be using this certificate for. Please refer to the following example:

Full Example
C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf> "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin\"keytool –genkey –alias tomcat –keyalg RSA –keystore keystore Enter keystore password: change it What is your first and last name? [unknown]: www.secure-company.com What is the name of your organizational unit? [unknown]: NOT SECURE What is the name of your organization? unknown]: NOT SECURE What is the name of your City or Locality? [unknown]: NOT SECURE What is the name of your State or Province? [unknown]: NOT SECURE What is the two-letter country code for this unit? [unknown]: NS Is <CN=www.secure-company.com, OU=NOT SECURE, O=NOT SECURE, L=NOT SECURE, ST=NOT SECURE, C=NS> correct? [no]: yes Enter key password for <tomcat> (RETURN if same as keystore password): C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf> "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin\"keytool –certreq –keyalg RSA – alias tomcat –file certreq.csr –keystore keystore Enter keystore password: change it C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf> "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin\"keytool –import –alias tomcat –keystore keystore –trustcacerts –file ssl.crt Enter keystore password: change it Certificate reply was installed in keystore C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf> "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin\"keytool –list –alias tomcat –keystore keystore Tomcat 2003/06/13, keyEntry, Certificate fingerprint (MD5): xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx:xx

Note: General SSL cert issued by CA is sufficient for the need of backup purpose. Extended Validation (EV) cert can also be used, it is designed for high-security usage, mainly used in browser. The cost of this cert is more expensive. Unified Communications Certificates (UCC) are also supported, please refer to http://support.godaddy.com/help/3908 for more information.

Enforcing SSL to the web interface

If you want all users to connect to the web interface of InfoBackup Provider using SSL to enforce secure connection, please do the followings:

1. Open %OBSR_HOME%\webapps\obs\WEB-INF\web.xml
2. Locate the [Enforce SSL] section at the end of "web.xml"

Web.xml

```
….
<!--
================================================================================ -->
<!-- ================================ Enforce SSL
==================================== -->
<!-- == Please uncomment the following section to enforce SSL for the web interface == -->
<!--
================================================================================ -->
<!--
<security-constraint>
<web-resource-collection>
<web-resource-name>Automatic SLL Forwarding</web-resource-name>
<url-pattern>/jsp/user/*</url-pattern>
<url-pattern>/jsp/system/*</url-pattern>
</web-resource-collection>
<user-data-constraint>
<transport-guarantee>CONFIDENTIAL</transport-guarantee>
</user-data-constraint>
</security-constraint>
-->
….
```

3. Remove the XML comment tags ("<!--" and "-->", shown in red and bold above) from "web.xml"
4. Restart InfoBackup Provider.

Please note that this only enforces SSL when users log onto the web interface of InfoBackup Provider. It does not enforce backup traffic from InfoBackup Manager to be SSL.

Install code signing cert with the restorer applet

Default installation of InfoBackup Provider includes a dummy code sign cert for the Java applet for file restoration. To replace the code sign cert for this applet, please do the following:

Assumptions:

* A JavaSoft Developer Certificate will be purchased.

* Keystore password is "changeit", Certificate Signing Request (CSR) file will be named "codesign.csr".

To sign the restorer applet, we need to first generate a CSR for the purchase of the JavaSoft Developer Certificate.

Please refer to the following instructions:

1. Open command prompt, browses to the InfoBackup Provider configuration directory:

```
cd %OBSR_HOME%\conf
```

Platform	Example
Windows	*cd "C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf"*
Linux	*[root]# cd /usr/local/obsr/conf*

2. Make a copy of the keystore file:

Platform	Example
Windows	*copy keystore keystore_cs*
Linux	*[root]# cp keystore keystore_cs*

3. Browses to the Java bin directory:

Platform	Example
Windows	*cd "C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin"*
Linux	*[root]# cd /usr/local/obsr/conf/java/bin* *Or* *your native Java bin folder path*

4. Enter the following command:

Platform	Example
Windows	*keytool -genkey -alias **Alias_Name** -keysize 2048 -keyalg RSA -keystore "..\..\conf\keystore_cs"*
Linux	*[root]# keytool -genkey -alias **Alias_Name** -keysize 2048 -keyalg RSA -keystore "../../conf/keystore_cs"*

Note: The **Alias_Name** is the cert store for your code sign cert, it will be used when you import the code sign cert from your CA.

Full Example
keytool -genkey -alias Alias_Name -keysize 2048 -keyalg RSA –keystore "../../conf/keystore_cs" Enter keystore password: changeit What is your first and last name? [Unknown]: backup.server.com What is the name of your organizational unit? [Unknown]: Unit Name What is the name of your organization? [Unknown]: Company Name What is the name of your City or Locality? [Unknown]: City What is the name of your State or Province? [Unknown]: State What is the two-letter country code for this unit? [Unknown]: XX Is CN=backup.server.com, OU=Product Name, O=Company Name, L=City, ST=State, C=XX? [no]: yes Enter key password for (RETURN if same as keystore password):

5. Enter the following command afterward to generate the CSR file:

Platform	Example
Windows	*keytool -certreq -keyalg RSA -alias Alias_Name -file "C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf\codesign.csr" -keystore "..\..\conf\keystore_cs"*
Linux	*[root]# keytool -certreq -keyalg RSA -alias Alias_Name -file "/usr/local/obsr/conf/codesign.csr" -keystore "../../conf/keystore_cs"*

6. A CSR file should be generated, similar to the example as follow:

Example:


```
-----BEGIN NEW CERTIFICATE REQUEST-----
MIIBzDCCATUCAQAwgYsxCzAJBgNVBAYTAkdCMQ8wDQYDVQQIEwZMb25kb24xDzANBgNVBAcTBkxv
bmRvbjEjMCEGA1UEChMaQ2VydWxlYW4gU29sdXRpb25zIExpbWl0ZWQxEjAQBgNVBAsTCURhdGFW
YXVsdDEhMB8GA1UEAxMYZGF0YXZhdWx0LmNlcnVsZWFuLmNvLnVrMIGfMA0GCSqGSIb3DQEBAQUA
A4GNADCBiQKBgQCdc7ehHP0RwSuxVgGlwmGszBjpcX3Gs4mAQUqP3SV2qj5V9BIExQdj+BEdp2Lr
XW618JTy25zHk/eil5RYfxJ2vFz+Ur/nkofa+H19XkugwMcvzNcnbzuyFMNXCSVwQ4qlwKw1wUIw
TqZKJO5q7TqDmThH9PjbpAGSRv8k3nHltQIDAQABoAAwDQYJKoZIhvcNAQEEBQADgYEAM6Max4hk
TTfyUwjVWtdECMiRejB1bFbx0cUSWSOXUXzHwTDBemrheq4asKh6DdfGKaK3jh21yhgNrvVtrtNX
zaskzKgHhay/PHXDgEx1gc0b3omKW5nOy4Lg3SBxf8ViWYQws7ZHhZENLbVg4pHj5dW0eLqXG1jb
//FpJA5ZQRI=
-----END NEW CERTIFICATE REQUEST-----
```


7. You can now purchase the JavaSoft Developer Certificate with the CSR generated.
   With the purchased JavaSoft Developer Certificate (e.g. codesign.crt), we can import it with the following instructions.

8. Open command prompt, browses to the Java bin directory:

Platform	Example
Windows	*cd C:\Program Files\InfoBackup Provider and InfoBackup RPS\java\bin*
Linux	*[root]# cd /usr/local/obsr/java/bin* *Or* *your native Java bin folder path*

9. Enter the following command to import the certificate:

Platform	Example
Windows	*keytool -import -trustcacerts -alias Alias_Name -file "C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf\codesign.crt" -keystore "..\..\conf\keystore_cs"*
Linux	*[root]# keytool -import -trustcacerts -alias Alias_Name -file "/usr/local/obsr/conf/codesign.crt" -keystore "../../conf/keystore_cs"*

Note: The Alias_Name should be the same name when you generate the CSR in step 4.

10. Prepare to sign the restorer applet (obrA.jar) by following the instructions below:

- Copy the obrA.jar file to a temporary directory,
  for example C:\temp_cert (Windows) or /temp_cert (Linux)
- Rename the obrA.jar file to obrA.zip
- Extract obrA.zip and remove all files within the META-INF directory
- Rename the obrA.zip file back to obrA.jar afterward

Note: By default, the obrA.jar file is located in

Windows

C:\Program Files\InfoBackup Provider and InfoBackup RPS\webapps\obs\jsp\applet\obr\obrA.Jar

Linux

/usr/local/obsr/webapps/obs/jsp/applet/obr/obrA.jar

11. Download and install Java JDK on the InfoBackup Provider server. You can download the Java Development Kit at:

http://java.sun.com/javase/downloads/index.jsp

Note: The Java bundled with the InfoBackup Provider application is Java JRE.

Platform	Example
Windows	`cd "C:\Program Files\Java\jdk1.6.0_17\bin"`
Linux	`[root]# cd /usr/local/jdk1.6.0_17/bin`

12. Sign the restorer applet (obrA.jar) with the following command:

${Java-JDK-Location}\jarsigner -keystore "..\..\conf\keystore_cs"
..\..\webapps\obs\jsp\applet\obr\obrA.jar Alias_Name

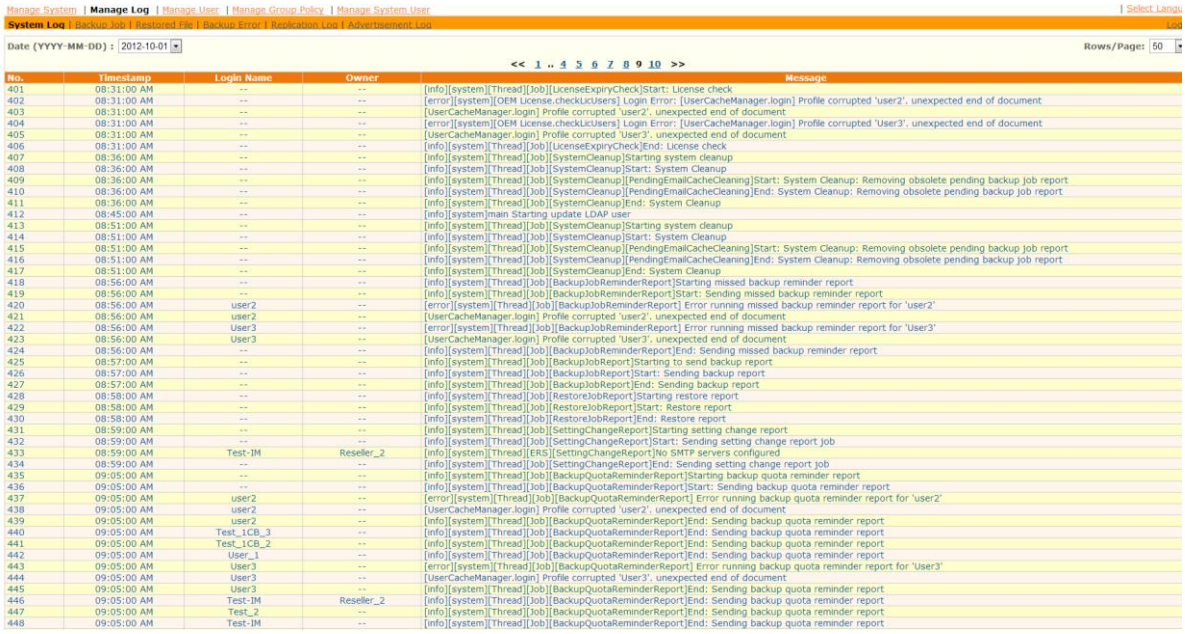
Platform	Example
Windows	jarsigner -keystore "..\..\conf\keystore_cs" ..\..\webapps\obs\jsp\applet\obr\obrA.jar Alias_Name
Linux	[root]# jarsigner –keystore ../../conf/keystore_cs ../../webapps/obs/jsp/applet/obr/obrA.jar Alias_Name

20. Monitoring System Activities

This chapter describes how you can use the [Manage Log] → [System Log] page (shown below] to review system and backup activities of InfoBackup Provider.

Reviewing System Log

When you click the [Manage Log] → [System Log] link available at the top menu, the [System Log] panel will appear. It lists all system messages / warnings / errors logged on any particular date by selecting the required date from the drop down list.

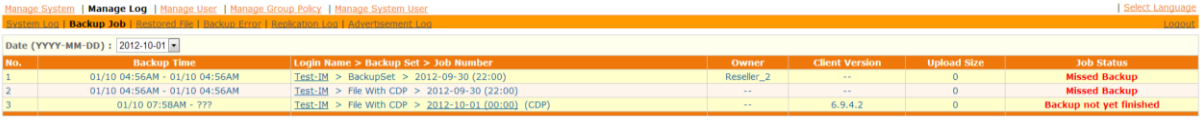


No.	Timestamp	Login Name	Owner	Message
401	08:31:00 AM	--	--	[info][system][Thread][Job][LicenseExpiryCheck]Start: License check
402	08:31:00 AM	--	--	[error][system][OEM License.checkLicUsers] Login Error: [UserCacheManager.login] Profile corrupted 'user2'. unexpected end of document
403	08:31:00 AM	--	--	[UserCacheManager.login] Profile corrupted 'user2'. unexpected end of document
404	08:31:00 AM	--	--	[error][system][OEM License.checkLicUsers] Login Error: [UserCacheManager.login] Profile corrupted 'User3'. unexpected end of document
405	08:31:00 AM	--	--	[UserCacheManager.login] Profile corrupted 'User3'. unexpected end of document
406	08:31:00 AM	--	--	[info][system][Thread][Job][LicenseExpiryCheck]End: License check
407	08:36:00 AM	--	--	[info][system][Thread][Job][SystemCleanup]Starting system cleanup
408	08:36:00 AM	--	--	[info][system][Thread][Job][SystemCleanup]Start: System Cleanup
409	08:36:00 AM	--	--	[info][system][Thread][Job][SystemCleanup][PendingEmailCacheCleaning]Start: System Cleanup: Removing obsolete pending backup job report
410	08:36:00 AM	--	--	[info][system][Thread][Job][SystemCleanup][PendingEmailCacheCleaning]End: System Cleanup: Removing obsolete pending backup job report
411	08:36:00 AM	--	--	[info][system][Thread][Job][SystemCleanup]End: System Cleanup
412	08:45:00 AM	--	--	[info][system]main Starting update LDAP user
413	08:51:00 AM	--	--	[info][system][Thread][Job][SystemCleanup]Starting system cleanup
414	08:51:00 AM	--	--	[info][system][Thread][Job][SystemCleanup]Start: System Cleanup
415	08:51:00 AM	--	--	[info][system][Thread][Job][SystemCleanup][PendingEmailCacheCleaning]Start: System Cleanup: Removing obsolete pending backup job report
416	08:51:00 AM	--	--	[info][system][Thread][Job][SystemCleanup][PendingEmailCacheCleaning]End: System Cleanup: Removing obsolete pending backup job report
417	08:51:00 AM	--	--	[info][system][Thread][Job][SystemCleanup]End: System Cleanup
418	08:56:00 AM	--	--	[info][system][Thread][Job][BackupJobReminderReport]Starting missed backup reminder report
419	08:56:00 AM	--	--	[info][system][Thread][Job][BackupJobReminderReport]Start: Sending missed backup reminder report
420	08:56:00 AM	user2	--	[error][system][Thread][Job][BackupJobReminderReport] Error running missed backup reminder report for 'user2'
421	08:56:00 AM	user2	--	[UserCacheManager.login] Profile corrupted 'user2'. unexpected end of document
422	08:56:00 AM	User3	--	[error][system][Thread][Job][BackupJobReminderReport] Error running missed backup reminder report for 'User3'
423	08:56:00 AM	User3	--	[UserCacheManager.login] Profile corrupted 'User3'. unexpected end of document
424	08:56:00 AM	--	--	[info][system][Thread][Job][BackupJobReminderReport]End: Sending missed backup reminder report
425	08:57:00 AM	--	--	[info][system][Thread][Job][BackupJobReport]Starting to send backup report
426	08:57:00 AM	--	--	[info][system][Thread][Job][BackupJobReport]Start: Sending backup report
427	08:57:00 AM	--	--	[info][system][Thread][Job][BackupJobReport]End: Sending backup report
428	08:58:00 AM	--	--	[info][system][Thread][Job][RestoreJobReport]Starting restore report
429	08:58:00 AM	--	--	[info][system][Thread][Job][RestoreJobReport]Start: Restore report
430	08:58:00 AM	--	--	[info][system][Thread][Job][RestoreJobReport]End: Restore report
431	08:59:00 AM	--	--	[info][system][Thread][Job][SettingChangeReport]Starting setting change report
432	08:59:00 AM	--	--	[info][system][Thread][Job][SettingChangeReport]Start: Sending setting change report job
433	08:59:00 AM	Test-IM	Reseller_2	[info][system][Thread][ERS][SettingChangeReport]No SMTP servers configured
434	08:59:00 AM	--	--	[info][system][Thread][Job][SettingChangeReport]End: Sending setting change report job
435	09:05:00 AM	--	--	[info][system][Thread][Job][BackupQuotaReminderReport]Starting backup quota reminder report
436	09:05:00 AM	--	--	[info][system][Thread][Job][BackupQuotaReminderReport]Start: Sending backup quota reminder report
437	09:05:00 AM	user2	--	[error][system][Thread][Job][BackupQuotaReminderReport] Error running backup quota reminder report for 'user2'
438	09:05:00 AM	user2	--	[UserCacheManager.login] Profile corrupted 'user2'. unexpected end of document
439	09:05:00 AM	user2	--	[info][system][Thread][Job][BackupQuotaReminderReport]End: Sending backup quota reminder report
440	09:05:00 AM	Test_1CB_3	--	[info][system][Thread][Job][BackupQuotaReminderReport]End: Sending backup quota reminder report
441	09:05:00 AM	Test_1CB_2	--	[info][system][Thread][Job][BackupQuotaReminderReport]End: Sending backup quota reminder report
442	09:05:00 AM	User_1	--	[info][system][Thread][Job][BackupQuotaReminderReport]End: Sending backup quota reminder report
443	09:05:00 AM	User3	--	[error][system][Thread][Job][BackupQuotaReminderReport] Error running backup quota reminder report for 'User3'
444	09:05:00 AM	User3	--	[UserCacheManager.login] Profile corrupted 'User3'. unexpected end of document
445	09:05:00 AM	User3	--	[info][system][Thread][Job][BackupQuotaReminderReport]End: Sending backup quota reminder report
446	09:05:00 AM	Test-IM	Reseller_2	[info][system][Thread][Job][BackupQuotaReminderReport]End: Sending backup quota reminder report
447	09:05:00 AM	Test_2	--	[info][system][Thread][Job][BackupQuotaReminderReport]End: Sending backup quota reminder report
448	09:05:00 AM	Test-IM	--	[info][system][Thread][Job][BackupQuotaReminderReport]End: Sending backup quota reminder report

Key	Description
Date	The date when all messages were logged.
Rows/Page	The number of rows to display per page.
Timestamp	The time when the message was logged.
Login Name	The login name of the related user.
Owner	The owner of this user.
Message	The system log message.

Reviewing Backup Log

When you click the [Manage Log] → [Backup Log] link available at the top menu, the [Backup Log] panel will appear. It lists all backup jobs run on a particular date. You can review the backup jobs run on any particular date by selecting the required date from the drop down list.



Key	Description
Date	The date when all backup jobs listed below were run.
Backup Time	Start and end time of this backup job.
Login Name > Backup Set > Job Number	Backup Account that ran this backup job.
Owner	Owner of this backup user.
Client Version	The InfoBackup Manager/1'ClickBackup version number that this backup user is using.
Upload Size	Size of backup data uploaded.
Status	Overall status of the backup job.

Reviewing Restored File Log

When you click the [Manage Log] → [Restored File] link available at the top menu, the [Restore Log] panel will appear. It lists all online file restoration activities logged within a date. You can review online file restoration activities recorded on any particular date by selecting the required date from the drop down list.

Key	Description
Date	The date when all online file restoration were recorded.
Restore Time	Start and end time of file restoration activities.
Login Name	Backup account restoring files from the server.
Owner	Owner of this backup user.
Size	Total backup data restored from the server.
IP	IP address to where backup data were restored.

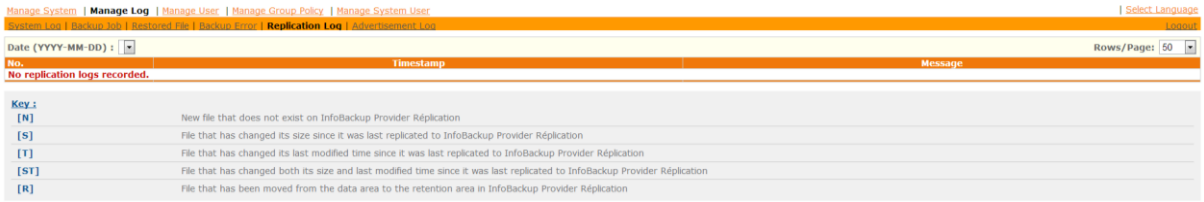
Reviewing Backup Error log

When you click the [Manage Log] → [Backup Error] link available at the top menu, the [Backup Error] panel will appear. It lists all backup errors or warning logged within a date. You can review backup errors or warnings logged on any particular date by selecting the required date from the dropdown list.

Key	Description
Date	The date when all messages were logged.
Timestamp	The time when this message was logged.
Login Name	Backup account raising this error or warning.
Owner	Owner of this backup user.
Errors/Warnings	Details of the error or warning recorded.

Reviewing Replication Log

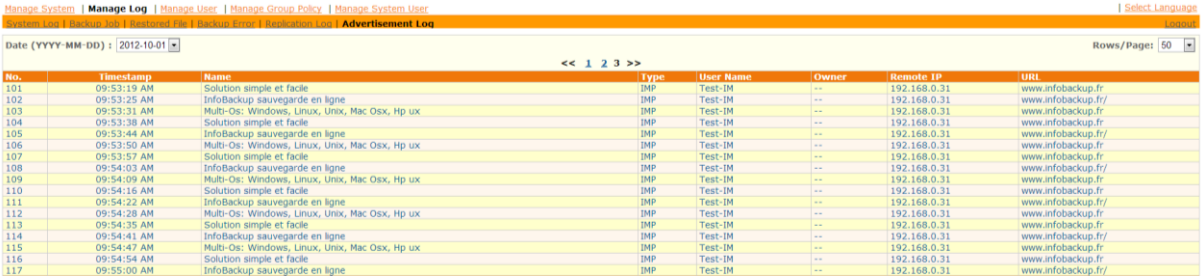
When you click [Manage Log] → [Replication Log] link available at the top menu, the [Replication Log] panel will appear. It lists all replication activities logged within a date. You can review the replication activities recorded on any particular date by selecting the required date from the drop down list.



Key	Description
Date	The date when the replication activities were logged.
Rows/Page	The number of rows to display per page.
Timestamp	The time when the replication was displayed.
Message	Details of the activities.

Reviewing Advertisement Log

When you click the [Manage Log] -> [Advertisement Log] link available at the top menu, the [Advertisement Log] panel will appear. It lists all the advertisements displayed by InfoBackup Manager/1'ClickBackup clients for a particular date. You can review displayed adverts on any particular date by selecting the required date from the dropdown list.



No.	Timestamp	Name	Type	User Name	Owner	Remote IP	URL
101	09:53:19 AM	Solution simple et facile	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
102	09:53:25 AM	InfoBackup sauvegarde en ligne	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr/
103	09:53:31 AM	Multi-Os: Windows, Linux, Unix, Mac Osx, Hp ux	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
104	09:53:38 AM	Solution simple et facile	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
105	09:53:44 AM	InfoBackup sauvegarde en ligne	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr/
106	09:53:50 AM	Multi-Os: Windows, Linux, Unix, Mac Osx, Hp ux	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
107	09:53:57 AM	Solution simple et facile	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
108	09:54:03 AM	InfoBackup sauvegarde en ligne	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr/
109	09:54:09 AM	Multi-Os: Windows, Linux, Unix, Mac Osx, Hp ux	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
110	09:54:16 AM	Solution simple et facile	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
111	09:54:22 AM	InfoBackup sauvegarde en ligne	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr/
112	09:54:28 AM	Multi-Os: Windows, Linux, Unix, Mac Osx, Hp ux	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
113	09:54:35 AM	Solution simple et facile	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
114	09:54:41 AM	InfoBackup sauvegarde en ligne	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr/
115	09:54:47 AM	Multi-Os: Windows, Linux, Unix, Mac Osx, Hp ux	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
116	09:54:54 AM	Solution simple et facile	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr
117	09:55:00 AM	InfoBackup sauvegarde en ligne	IMP	Test-IM	--	192.168.0.31	www.infobackup.fr/

Key	Description
Date	The date when the advertisements listed below were displayed.
Rows/Page	The number of rows to display per page.
Timestamp	The time when the advertisement was displayed.
Name	The name of the advertisement.
Type	Advertisement display types: • IMP – Impression, this advertisement was displayed. • HIT – Hit, this advertisement was displayed and the user clicked the advert to go to the target web page.
User Name	The user account name of the InfoBackup Manager/1'ClickBackup client.
Owner	The owner of this backup user.
Remote IP	The remote IP address of the InfoBackup Manager/1'ClickBackup client.
URL	The target URL associated with this ad.

21. Advanced Configuration

The default installation of InfoBackup Provider setup a typical environment to run your backup server but it is still possible that the default setting does not fit well into your environment. This chapter describes all supported customizations that you can do the software to fulfil your special needs.

Listening to non-standard TCP/IP Port

If you like to run your own web server, or some other services using port 80 and 433, on your backup server, you can change the listening TCP/IP port of InfoBackup Provider from port 80 and 443 to some other port numbers by:

1. Open %OBSR_HOME%\conf\server.xml

Server.xml

```
<Server port="8014" shutdown="SHUTDOWN" debug="0">

  <Service name="Tomcat-Standalone">

    <!-- Define a non-SSL HTTP/1.1 Connector on port 80 -->
    <Connector className="org.apache.coyote.tomcat5.CoyoteConnector"
        address="0.0.0.0" port="80" maxHttpHeaderSize="8192" maxKeepAliveRequests="1"
        maxThreads="1000" minSpareThreads="25" maxSpareThreads="100"
        enableLookups="false" redirectPort="443" bufferSize="32768" acceptCount="1000"
        connectionTimeout="600000" disableUploadTimeout="true"/>

    <!-- Define a SSL HTTP/1.1 Connector on port 443 -->
    <Connector className="org.apache.coyote.tomcat5.CoyoteConnector"
        address="0.0.0.0" port="443" maxHttpHeaderSize="8192" maxKeepAliveRequests="1"
        maxThreads="1000" minSpareThreads="25" maxSpareThreads="100"
        enableLookups="false" disableUploadTimeout="true"
        acceptCount="1000" bufferSize="32768" scheme="https" secure="true"
        keystoreFile="conf/keystore" keystorePass="changeit"
        clientAuth="false" sslProtocol="TLS" connectionTimeout="600000"/>
```

2. Change the [port] values (shown in red and bold above) to the preferred port numbers. For example, to change the HTTP port from port 80 to 8080 and HTTPS port from port 443 to port 8443, please do the followings:

port="80" -> port="8080"

redirectPort="443" -> redirectPort="8443"

Port="443" -> port "8443"

3. Restart InfoBackup Provider
4. Logon the System Management Console

Listening to a single IP address

If the backup server has more than one network interface installed or has more than one IP address bind to a single network interface, you can configure InfoBackup Provider to use only a single IP address for backup services (by default the TCP port of all IP addresses available within the system are used and open). This has the benefits of sparing other IP addresses for other applications, e.g. Apache Web Server or Microsoft Internet Information Server (IIS). To do so,

1. Open %OBSR_HOME%\conf\server.xml

server.xml

```
<Server port="8014" shutdown="SHUTDOWN" debug="0">


  <Service name="Tomcat-Standalone">


    <!-- Define a non-SSL HTTP/1.1 Connector on port 80 -->
    <Connector className="org.apache.coyote.tomcat5.CoyoteConnector"
        address="0.0.0.0" port="80" maxHttpHeaderSize="8192" maxKeepAliveRequests="1"
        maxThreads="1000" minSpareThreads="25" maxSpareThreads="100"
        enableLookups="false" redirectPort="443" bufferSize="32768" acceptCount="1000"
        connectionTimeout="600000" disableUploadTimeout="true"/>


    <!-- Define a SSL HTTP/1.1 Connector on port 443 -->
    <Connector className="org.apache.coyote.tomcat5.CoyoteConnector"
        address="0.0.0.0" port="443" maxHttpHeaderSize="8192" maxKeepAliveRequests="1"
        maxThreads="1000" minSpareThreads="25" maxSpareThreads="100"
        enableLookups="false" disableUploadTimeout="true"
        acceptCount="1000" bufferSize="32768" scheme="https" secure="true"
        keystoreFile="conf/keystore" keystorePass="changeit"
        clientAuth="false" sslProtocol="TLS"
connectionTimeout="600000"/>
```

2. Change the [address] values (shown in red and bold above) to the IP addresses that are to be used for InfoBackup Provider. For example, to use only the IP address, 192.168.1.1, for backup services, change address values from "0.0.0.0" (means all available IP addresses) to "192.168.1.1".

address="0.0.0.0" -> address="192.168.1.1"

3. Restart InfoBackup Provider.

If you are going to use IIS along with InfoBackup Provider on different IP addresses as mentioned here, please make sure that you have configured IIS to spare the IP address configured above to be used by InfoBackup Provider (by default IIS will use all the IP addresses available). Failing to do so will result in failing to start both IIS and InfoBackup Provider at the same time.

Restricting access to system page by IP address

For better security, you can restrict access to the system administration console by IP addresses. To do so, please do the followings:

1. Open %OBSR_HOME%\webapps\obs\WEB-INF\web.xml.
2. Locate the SystemConsole filter under "filter" section near the beginning of "web.xml".

web.xml
…. <filter> <filter-name>SystemConsole</filter-name> <filter-class>com.InfoBackup.obs.www.IPFilter</filter-class> <init-param> <param-name>Range1</param-name> <param-value>localhost</param-value> </init-param> <init-param> <param-name>Range2</param-name> <param-value>0.0.0.0-255.255.255.255</param-value> </init-param> </filter> ….

3. Change the "Range2" parameter value from "127.0.0.1-127.0.0.1" (shown in red and bold above) to a range of IP addresses from where access to the system administration console is allowed.

For example, changing [Range2] value from "127.0.0.1-127.0.0.1" to "192.168.1.1-192.168.1.255" to allow the 192.168.1.x network to invoke the APIs.

web.xml (Updated)
… <filter>

```
  <filter-name>SystemConsole</filter-name>
  <filter-class>com.InfoBackup.obs.www.IPFilter</filter-class>
  <init-param>
    <param-name>Range1</param-name>
    <param-value>localhost</param-value>
  </init-param>
  <init-param>
    <param-name>Range2</param-name>
    <param-value>192.168.1.1-192.168.1.255</param-value>
  </init-param>
 </filter>
….
```

Please note that you can configure more than one IP range by adding additional init parameters (i.e. "Range3", "Range4" and so do) to the filter XML tag. For example:

```
<filter>
  <filter-name>SystemConsole</filter-name>
  <filter-class>com.InfoBackup.obs.www.IPFilter</filter-class>
  <init-param>
    <param-name>Range1</param-name>
    <param-value>localhost</param-value>
  </init-param>
  <init-param>
    <param-name>Range2</param-name>
    <param-value>192.168.1.1-192.168.1.255</param-value>
  </init-param>
  <init-param>
    <param-name>Range3</param-name>
    <param-value>192.168.2.1-192.168.2.255</param-value>
  </init-param>
</filter>
```

4. Restart InfoBackup Provider

22. External API References

InfoBackup Provider contains a set of APIs (Application Programming Interface), which allows you to integrate external applications (e.g. billing system or automated registration system) with InfoBackup Provider. This chapter describes what APIs are available and how you can invoke different APIs.

You can find more information on processing XML using JAVA at http://java.sun.com/xml.

Overview

InfoBackup Provider APIs can be invoked by using standard HTTP request method (i.e. either POST or GET). For example, to invoke the [Remove User] API, simply use any programming /scripting languages of your choice to invoke:
http://BACKUP_SERVER/obs/api/RemoveUser.do?SysUser=system&SysPwd=system&LoginName=test
to delete user "test".

URL encoding must be applied to all non-alphanumeric parameters when submitting the API requests as specified in the HTTP protocol specification. For example, a value of "GMT-08:00 (PSL)" must submit to InfoBackup Provider as "GMT%2d08%3a00+%28PST%29" via external API.

Limitations

There are some limitations for using API:

API supports only System Administrator account (i.e. system user specified in %OBSR_HOME%\conf\obs.xml). Therefore, it is required to use System Administrator account for making any API call.

Currently, API only supports modifications related to backup users or backup user groups.

IP Restrictions

To avoid InfoBackup Provider's APIs from being exploited by hackers from an unauthorized network, InfoBackup Provider, by default, accepts and handles only the API requests originating from the same local machine. To loosen this restriction, please do the followings:

1. Open %OBSR_HOME%\webapps\obs\WEB-INF\web.xml.
2. Locate the ApiAccess filter under the "filter" section.

3. Change the [Range2] parameter value from "0.0.0.0-255.255.255.255" (shown in red and bold above) to another range of IP addresses from where APIs can be invoked.

web.xml

```
…
 <filter>
  <filter-name>ApiAccess</filter-name>
  <filter-class>com.infobackup.obs.www.IPFilter</filter-class>
  <init-param>
   <param-name>Range1</param-name>
   <param-value>localhost</param-value>
  </init-param>
  <init-param>
   <param-name>Range2</param-name>
   <param-value>0.0.0.0-255.255.255.255</param-value>
  </init-param>
 </filter>
…
```

For example, changing [Range2] value from "0.0.0.0-255.255.255.255" to "192.168.1.1-192.168.1.255" to allow the 192.168.1.x network to invoke the APIs.

web.xml (Updated)

```
…
 <filter>
  <filter-name>ApiAccess</filter-name>
```

```
  <filter-class>com.infobackup.obs.www.IPFilter</filter-class>
  <init-param>
    <param-name>Range1</param-name>
    <param-value>localhost</param-value>
  </init-param>
  <init-param>
    <param-name>Range2</param-name>
    <param-value>192.168.1.1-192.168.1.255</param-value>
  </init-param>
 </filter>
…
```

Please note that you can configure more than two IP ranges by adding additional init parameters (i.e. "Range3", "Range4" and so on) to the filter XML tag. For example:

```
….
 <filter>
  <filter-name>ApiAccess</filter-name>
  <filter-class>com.infobackup.obs.www.IPFilter</filter-class>
  <init-param>
   <param-name>Range1</param-name>
   <param-value>localhost</param-value>
  </init-param>
  <init-param>
   <param-name>Range2</param-name>
   <param-value>192.168.1.1-192.168.1.255</param-value>
  </init-param>
  <init-param>
   <param-name>Range3</param-name>
   <param-value>192.168.2.1-192.168.2.255</param-value>
  </init-param>
 </filter>
….
```

4. Restart InfoBackup Provider

User Authorization

URL:		
http://BACKUP_SERVER/obs/api/AuthUser.do		
Available since version:		
Pre-v6.0		
Parameters:		
Key	**Value**	**Descriptions**
SysUser	String	InfoBackup Provider's System Username
SysPwd	String	InfoBackup Provider's System Password
LoginName	String	Login name of the user
Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
Password	String	Login password of the user
Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:		
If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err> i. Login name does not exist or incorrect login name		

	<err>[UserCacheManager.NoSuchUserExpt] User '%USER_NAME%' not found.</err> ii. Incorrect user password specified *<err>[UserCacheManager.PasswordIncorrectExpt] Incorrect password for user '%USER_NAME%'.</err>* iii. Incorrect system username and or password *<err>Incorrect system username/password</err>*
Example:	
	To verify the a user with user name "test" and password "abc" **http://BACKUP_SERVER/obs/api/AuthUser.do?SysUser=system&SysPwd=system&LoginName=test&Password=abc**
Example for InfoBackup Redirector:	
	To verify the a user with user name "test" and password "abc" **http://REDIRECTOR_SERVER/rdr/api/AuthUser.do?SysUser=system&SysPwd=system&LoginName=test&Password=abc&Host=obs.yourserver.com**

Adding User

The following table describes all information required to invoke the [Add User] API to add a new user to InfoBackup Provider. For using this API with InfoBackup Redirector, new backup user will be added to first user home defined in InfoBackup Provider user homes settings by default.

URL:

	http://BACKUP_SERVER/obs/api/AddUser.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	New user's login Name
	Owner	String	Owner of new backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	Password	String	New user's password
	Alias	String	New user's alias
	Language	String	New user's language
	Type	String	New user's type
	AdGroup	String	Advertisement group. { ALL | NONE | <ADGROUP_ID> }
	Quota	Number	New user's quota, e.g. 104857600 (for 100MB)
	UserHome	String	(Optional) User Home to use for the new user It can be any one of the configured user home. E.g. C:\Program Files\InfoBackup Provider and InfoBackup Replicator\user First available user home will be allocated when UserHome is emptied or not given
	Enable MSSQL	Boolean	Whether to enable Microsoft SQL Server module for

			the new user. { Y | N}
	EnableMSExchange	Boolean	Whether to enable Microsoft Exchange Server module for the new user. { Y | N }
	EnableOracle	Boolean	Whether to enable Oracle module for the new user. { Y | N }
	EnableLotusNotes	Boolean	Whether to enable Lotus Notes module for the new user.{ Y | N }
	EnableLotusDomino	Boolean	Whether to enable Lotus Domino module for the new user. { Y | N }
	EnableMySQL	Boolean	Whether to enable MySQL module for the new user. { Y | N }
	EnableInFileDelta	Boolean	Whether to enable In-File Delta Module for the new user. { Y | N }
	EnableShadowCopy	Boolean	Whether to enable ShadowCopy module for the new user. { Y | N }
	EnableExchangeMailbox	Boolean	Whether to enable Brick Level Microsoft Exchange module for the new user. { Y | N }
	EnableCDP	Boolean	Whether to enable Continuous Data Protection (CDP) module for the new user. { Y | N }
	EnableShadowProtectBareMetal	Boolean	Whether to enable StorageCraft Shadow Protect module for the new user. { Y | N } (added since v5.5.5.0)
	EnableWinServer2008BareMetal	Boolean	Whether to enable Windows Server 2008 bare metal module for the new user. { Y | N } (added since v5.5.5.0)
	ExchangeMailboxQuota	Number	The number of Microsoft Exchange mailboxes allowed for the new user
	EnableNASClient	Boolean	Whether to enable InfoBackup Manager JVM Royalty for the new user. { Y | N }
	EnableDeltaMerge	Boolean	Whether to enable Enable Delta Merge module for the new user. { Y | N } (added since v6.3.0.0)
	EnableMsVm	Boolean	Whether to enable HyperV module for the new user. { Y | N } (added since v6.3.0.0)

	MsVmQuota	Number	The number of HyperV Guest VM allowed for the new user (added since v6.3.0.0)
	EnableVMware	Boolean	Whether to enable VMware module for the new user. { Y | N } (added since v6.3.0.0)
	VMwareQuota	Number	The number of VMware Guest VM allowed for the new user (added since v6.3.0.0)
	Contact	String	Extra contact name. (Max: 9) Notes: There can be more than one extra name added, extra contact name must be in pair with extra email
	Email	String	Extra contact e-mail. (Max: 9) Notes: There can be more than one extra email added. Extra contact email must be in pair with extra contact name.
	Timezone	String	New User's time zone setting. It has to be either one of the following entries: Please make sure the parameter is properly URL encoded. E.g. GMT-08:00 (PST) => GMT%2d08%3a00+%28PST%29
	Bandwidth	Number	0 = Unlimited Bandwidth
	Notes	String	
	Email	String	New user's contact email
	SendWelcomeMail	Boolean	{ Y | N }
	SuspendPaidUser	Boolean	{ Y | N }
	SuspendPaidUserDate	String	A date in yyyy-MM-dd format
	Replicated	Boolean	Whether to replicate the new user. { Y | N }
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL

Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/AddUser.do?SysUser=system&SysPwd=system&LoginName=test&Password=abc&Alias=Testing&Language=en&Email=abc%40abc%2Ecom&Type=PAID&Quota=100000&UserHome=E%3A%5C&EnableMSSQL=Y&EnableMSExchange=Y&EnableOracle=Y&EnableLotusNotes=Y&EnableLotusDomino=Y&EnableMySQL=Y&EnableInFileDelta=Y&EnableShadowCopy=Y&EnableCDP=Y&EnableShadowProtectBareMetal=Y&EnableWinServer2008BareMetal=Y&EnableDeltaMerge=Y&EnableMsVm=Y& MsVmQuota=10&EnableVMware=Y&VMwareQuota=10&Timezone=GMT%2d08%3a00+%28PST%29&Contact1=john&Email1=john%40someDomain%2Ecom&Contact2=paul&Email2=paul%40anotherDomain%2Ecom&EnableExchangeMailbox=Y&ExchangeMailboxQuota=10&ClientType=OBM		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/AddUser.do?SysUser=system&SysPwd=system&LoginName=test&Password=abc&Alias=Testing&Language=en&Email=abc%40abc%2Ecom&Type=PAID&Quota=100000&UserHome=E%3A%5C&EnableMSSQL=Y&EnableMSExchange=Y&EnableOracle=Y&EnableLotusNotes=Y&EnableLotusDomino=Y&EnableMySQL=Y&EnableInFileDelta=Y&EnableShadowCopy=Y&EnableCDP=Y&EnableShadowProtectBareMetal=Y&EnableWinServer2008BareMetal=Y&EnableDeltaMerge=Y&EnableMsVm=Y&MsVmQuota=10&EnableVMware=Y&VMwareQuota=10&Timezone=GMT%2d08%3a00+%28PST%29&Contact1=john&Email1=john%40someDomain%2Ecom&Contact2=paul&Email2=paul%40anotherDomain%2Ecom&EnableExchangeMailbox=Y&ExchangeMailboxQuota=10&ClientType=OBM&Host=obs.yourserver.com		

Modifying User Profile

The following table describes all information required to invoke the [Modify User] API to update a user's profile in an InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/ModifyUser.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	New user's login Name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	Password	String	New user's password
	Alias	String	New user's alias
	Language	String	New user's language Please refer to Appendix A for the list of available languages.
	Type	String	New user's type
	ClientType	String	New user's Client Type
	AdGroup	String	Advertisement group. { ALL | NONE |

			<ADGROUP_ID> }
	Quota	Number	New user's quota, e.g. 104857600 (for 100MB)
	UserHome	String	User Home to use for the new user (must be one of the configured user home), e.g. C:\Program Files\InfoBackup Provider and InfoBackup Replicator\user
	Enable MSSQL	Boolean	Whether to enable Microsoft SQL Server module for the new user. { Y | N }
	EnableMSExchange	Boolean	Whether to enable Microsoft Exchange Server module for the new user. { Y | N }
	EnableOracle	Boolean	Whether to enable Oracle module for the new user. { Y | N }
	EnableLotusNotes	Boolean	Whether to enable Lotus Notes module for the new user. { Y | N }
	EnableLotusDomino	Boolean	Whether to enable Lotus Domino module for the new user. { Y | N }
	EnableMySQL	Boolean	Whether to enable MySQL module for the new user. { Y | N }
	EnableInFileDelta	Boolean	Whether to enable In-File Delta Module for the new user. { Y | N }
	EnableShadowCopy	Boolean	Whether to enable ShadowCopy module for the new user. { Y | N }
	EnableExchangeMailbox	Boolean	Whether to enable Brick Level Microsoft Exchange module for the new user. { Y | N }
	EnableCDP	Boolean	Whether to enable Continuous Data Protection (CDP) module for the new user. { Y | N }
	EnableShadowProtectBareMetal	Boolean	Whether to enable StorageCraft Shadow Protect module for the new user. { Y | N } (added since v5.5.5.0)
	EnableWinServer2008BareMetal	Boolean	Whether to enable Windows Server 2008 bare metal module for the new user. { Y | N } (added since v5.5.5.0)
	ExchangeMailboxQuota	Number	The number of Microsoft Exchange mailboxes

			allowed for the new user
	EnableDeltaMerge	Boolean	Whether to enable Enable Delta Merge module for the new user. { Y | N } (added since v6.3.0.0)
	EnableMsVm	Boolean	Whether to enable HyperV module for the new user. { Y | N } (added since v6.3.0.0)
	MsVmQuota	Number	The number of HyperV Guest VM allowed for the new user (added since v6.3.0.0)
	EnableVMware	Boolean	Whether to enable VMware module for the new user. { Y | N } (added since v6.3.0.0)
	VMwareQuota	Number	The number of VMware Guest VM allowed for the new user (added since v6.3.0.0)
	EnableNASClient	Boolean	Whether to enable InfoBackup Manager JVM Royalty for the new user. { Y | N }
	Contact	String	Extra contact name. (Max: 9) Notes: There can be more than one extra name added, extra contact name must be in pair with extra email.
	Email	String	Extra contact e-mail. (Max: 9) Notes: There can be more than one extra email added, extra contact email must be in pair with extra contact name.
	Timezone	String	New User's time zone setting. It has to be either one of the following entries: Please make sure the parameter is properly URL encoded. E.g. GMT-08:00 (PST) => GMT%2d08%3a00+%28PST%29 Please refer to Appendix B for the list of available timezone.

	Bandwidth	Number	0 = Unlimited Bandwidth
	Notes	String	Notes for the user.
	Email	String	New user's contact email
	SuspendPaidUserDate	String	A date in yyyy-MM-dd format
	Replicated	Boolean	Whether to replicate the new user. { Y | N }
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/ModifyUser.do?SysUser=system&SysPwd=system&LoginName=test&Password=abc&Alias=Testing&Language=en&Type=PAID&Status=ENABLE&Quota=100000&UserHome=E%3A%5C&EnableMSSQL=Y&EnableMSExchange=Y&EnableOracle=Y&EnableLotusNotes=Y&EnableLotusDomino=Y&EnableMySQL=Y&EnableInFileDelta=Y&EnableShadowCopy=Y&EnableCDP=Y&EnableShadowProtectBareMetal=Y&EnableWinServer2008BareMetal=Y&EnableDeltaMerge=Y&EnableMsVm=Y&MsVmQuota=10&EnableVMware=Y&VMwareQuota=10&AppendContact=Y&Contact1=john.john&Email1=john.john%40someDomain%2Ecom&Contact2=paul&Email2=paul%40anotherDomain%2Ecom&EnableExchangeMailbox=Y&ExchangeMailboxQuota=10&ClientType=OBM		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/ModifyUser.do?SysUser=system&SysPwd=system&LoginName=test&Password=abc&Alias=Testing&Language=en&Type=PAID&Status=ENABLE&Quota=100000&UserHome=E%3A%5C&EnableMSSQL=Y&EnableMSExchange=Y&EnableOracle=Y&EnableLotusNotes=Y&EnableLotusDomino=Y&EnableMySQL=Y&EnableInFileDelta=Y&EnableShadowCopy=Y&EnableCDP=Y&EnableShadowProtectBareMetal=Y&EnableWinServer2008BareMetal=Y&EnableDeltaMerge=Y&EnableMsVm=Y&MsVmQuota=10&EnableVMware=Y&VMwareQuota=10&AppendContact=Y&Contact1=john.john&Email1=john.john%40someDomain%2Ecom&Contact2=paul&Email2=paul%40anotherDomain%2Ecom&EnableExchangeMailbox=Y&ExchangeMailboxQuota=10&ClientType=OBM&Host=obs.yourserver.com		

Deleting User

The following table describes all information required to invoke the [Remove User] API to remove an existing user from an InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/RemoveUser.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	Login name of the user
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err> i. LoginName incorrect or does not exist		

	<err>[UserCacheManager.NoSuchUserExpt] User '%USER_NAME%' not found.</err> ii. Blank Login name specified *<err>[Error] Parameter LoginName is null/empty!</err>*
Example:	
	http://BACKUP_SERVER/obs/api/RemoveUser.do?SysUser=system&SysPwd=system&LoginName=test
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/RemoveUser.do?SysUser=system&SysPwd=system&LoginName=test&Host=obs.yourserver.com

Listing Users

The following table describes all information required to invoke the [List Users] API to get a list of all users available within InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/ListUsers.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginNameOnly	String	Whether to display login names only
	ClientTypeOnly	String	Whether to display client types and login names only.
	Owner	String	Owner of backup users If parameter "Owner" is not used, all backup user accounts will be listed. If parameter "Owner" is used but empty, all backup users created by admin role system users will be listed. If parameter "Owner" is used and valid, all backup users created by the specified system user (admin or sub admin) will be listed.
	Host	String	InfoBackup Provider's URL

Return Value:	
	If successful, returns <users> <User LoginName="test1" Owner="" Alias="" UserType="PAID" ClientType="OBM" Quota="10737418240" Timezone="GMT+08:00 (CST)" Language="en" DataFile="1" DataSize="1536" RetainFile="0" RetainSize="0" EnableMSSQL="Y" EnableMSExchange="Y" EnableOracle="Y" EnableLotusNotes="Y" EnableLotusDomino="Y" EnableMySQL="Y" EnableInFileDelta="Y" EnableShadowCopy="Y" EnableExchangeMailbox="N" ExchangeMailboxQuota="0" EnableNASClient="Y" EnableDeltaMerge="Y" EnableMsVm="N" MsVmQuota="0" EnableVMware="N" VMwareQuota="0" Bandwidth="0" Notes="" Status="ENABLE" RegistrationDate="1302687743242" SuspendPaidUser="N" SuspendPaidUserDate="20140503" LastBackupDate="1302699594652" EnableCDP="Y" EnableShadowProtectBareMetal="Y" EnableWinServer2008BareMetal="Y" Hostname="123.abc.com" ><Contact Name=""Email="www@qqq.com"/> </user> … </users> If there is an error, returns <err>%ERROR_MESSAGE%</err>
	Where LoginName = login name Owner = user's owner Alias = user's alias UserType = user type { PAID | TRIAL } ClientType = client type { OBM | ACB } Quota = quota in bytes Timezone = user's time zone Language = user's language DataFile = total number of files in the data area DataSize = total amount of bytes in the data area RetainFile = total number of files in the retention area RetainSize = total amount of bytes in the retention area EnableMSSQL = MS SQL enabled { Y | N } EnableMSExchange = MS Exchange enabled { Y | N } EnableOracle = Oracle enabled { Y | N } EnableLotusNotes = Lotus Notes enabled { Y | N }

	EnableLotusDomino = Lotus Domino enabled { Y | N } EnableMySQL = MySQL enabled { Y | N } EnableInFileDelta = In-file Delta enabled { Y | N } EnableShadowCopy = Shadow Copy enabled { Y | N } EnableExchangeMailbox = MS Exchange Mailbox enabled { Y | N } EnableNASClient = InfoBackup Manager JVM Royalty enabled { Y | N } EnableDeltaMerge = Delta Merge enabled { Y | N } ExchangeMailboxQuota = MS Exchange Mailbox quota EnableMsVm= HyperV module enable { Y | N } MsVmQuota= HyperV Guest VM quota EnableVMware= VMware module enable { Y | N } VMwareQuota= VMware Guest VM quota Bandwidth = user's bandwidth Notes = user's notes Status = status of user account { ENABLE | SUSPENDED } RegistrationDate = registation date of user account SuspendPaidUser = Status of the Paid User { Y | N } SuspendPaidUserDate = Date t o suspend Paid User [yyyy-MM-dd] LastBackupDate = Date of last backup [Unix time format in millisecond] EnabledCDP = Continuous Data Protection (CDP) enabled { Y | N } EnableShadowProtectBareMetal = ShadowProtectBareMetal enabled { Y | N } EnableWinServer2008BareMetal = WinServer2008BareMetal enabled { Y | N } Hostname = host of backup user resides
Example:	
	http://BACKUP_SERVER/obs/api/ListUsers.do?SysUser=system&SysPwd=system
	http://BACKUP_SERVER/obs/api/ListUsers.do?SysUser=system&SysPwd=system&Owner=testing
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListUsers.do?SysUser=system&SysPwd=system&Host=obs.yourserver.com

Getting User Information

The following table describes all information required to invoke the [Get User] API to get a user's account information.

URL:			
	http://BACKUP_SERVER/obs/api/GetUser.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <User LoginName="test1" Alias="" UserType="PAID" ClientType="OBM" Status="ENABLE" Quota="10737418240" Timezone="GMT+08:00 (CST)" Language="en" DataFile="1" DataSize="1536" RetainFile="0" RetainSize="0" UncompressedSize="0" UncompressedRetainSize="0" EnableMSSQL="Y" EnableMSExchange="Y" EnableOracle="Y" EnableLotusNotes="Y" EnableLotusDomino="Y" EnableMySQL="Y" EnableInFileDelta="Y" EnableShadowCopy="Y" EnableExchangeMailbox="N" ExchangeMailboxQuota="0" EnableNASClient="Y" EnableDeltaMerge="Y" EnableMsVm="N" MsVmQuota="0"		

	EnableVMware="N" VMwareQuota="0" Bandwidth="0" Notes="" UserHome="E:\InfoBackup Provider and InfoBackup Replicator\user\test1" RegistrationDate="1302687743242" MailboxUsage="0" SuspendPaidUser="N" SuspendPaidUserDate="20140503" LastBackupDate="1302699594652" Owner="" EnableCDP="Y" EnableShadowProtectBareMetal="Y" EnableWinServer2008BareMetal="Y"><Contact Name="" Email="www@qqq.com"/></User> If there is an error, it returns <err>%ERROR_MESSAGE%</err>
	Where LoginName = login name Alias = user's alias UserType = user type { PAID | TRIAL } ClientType = client type { OBM | ACB } Status = status of user account { ENABLE | SUSPENDED } Quota = quota in bytes Timezone = user's timezone Language = user's language DataFile = total number of files in the data area DataSize = total amount of bytes in the data area RetainFile = total number of files in the retention area RetainSize = total amount of bytes in the retention area UncompressedSize = total amount (bytes) of uncompressed file size in data area UncompressedRetainSize = total amount (bytes) of uncompressed file size in retention area EnableMSSQL = MS SQL enabled { Y | N } EnableMSExchange = MS Exchange enabled { Y | N } EnableOracle = Oracle enabled { Y | N } EnableLotusNotes = Lotus Notes enabled { Y | N } EnableLotusDomino = Lotus Domino enabled { Y | N } EnableMySQL = MySQL enabled { Y | N }

	EnableInFileDelta = In-file Delta enabled { Y | N } EnableShadowCopy = Shadow Copy enabled { Y | N } EnableExchangeMailbox = MS Exchange Mailbox enabled { Y | N } ExchangeMailboxQuota = MS Exchange Mailbox quota EnableNASClient = InfoBackup Manager JVM Royalty enabled { Y | N } EnableDeltaMerge = Delta Merge enabled { Y | N } EnableMsVm= HyperV module enable { Y | N } MsVmQuota= HyperV Guest VM quota EnableVMware= VMware module enable { Y | N } VMwareQuota= VMware Guest VM quota Bandwidth = user's bandwidth Notes = user's notes UserHome = the directory where InfoBackup Provider stores the backup files and backup logs RegistrationDate = registation date of user account MailboxUsage = the number of mailboxes used SuspendPaidUser = Status of the Paid User { Y | N } SuspendPaidUserDate = Date to suspend Paid User [yyyy-MM-dd] LastBackupDate = Date of last backup [Unix time format in millisecond] Owner = user's owner EnabledCDP = Continuous Data Protection (CDP) enabled { Y | N } EnableShadowProtectBareMetal = ShadowProtectBareMetal enabled { Y | N } EnableWinServer2008BareMetal = WinServer2008BareMetal enabled { Y | N }
Example:	
	http://BACKUP_SERVER/obs/api/GetUser.do?SysUser=system&SysPwd=system&LoginName=John
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/GetUser.do?SysUser=system&SysPwd=system&Log

	inName=John&Host=obs.yourserver.com

Adding a Backup Set

The following table describes all information required to invoke the [Add Backup Set] API to add a new backup set.

URL:			
	http://BACKUP_SERVER/obs/api/AddBackupSet.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <BackupSet ID="1122260638375"></BackupSet > If there is an error, returns <err>%ERROR_MESSAGE%</err>		

	i. Login name incorrect or does not exist *<err>[UserCacheManager.NoSuchUserExpt] User '%USER_NAME%' not found.</err>* ii. Blank Login name specified *<err>[Error] Parameter LoginName is null/empty!</err>* iii. Cannot perform an add backup set to 1'ClickBackup user account *<err>[Error] ACB backup user can only have one backup set.</err>*
	where ID = new backup set ID
Example:	
	http://BACKUP_SERVER/obs/api/AddBackupSet.do?SysUser=system&SysPwd=system&LoginName=John
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/AddBackupSet.do?SysUser=system&SysPwd=system&LoginName=John&Host=obs.yourserver.com

Deleting a Backup Set

The following table describes all information required to invoke the [Delete Backup Set] API to delete a backup set for a particular user.

URL:	
	http://BACKUP_SERVER/obs/api/DeleteBackupSet.do
Available since version:	

	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupSetID	String	The ID of the backup set to delete
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err> i. Login name incorrect or does not exist *<err>[UserCacheManager.NoSuchUserExpt] User '%USER_NAME%' not found.</err>* ii. Blank Login name specified *<err>[Error] Parameter LoginName is null/empty!</err>*		

	iii. Blank BackupSetID specified *<err>[Error] Parameter BackupSetID is null/empty!</err>*
Example:	
	http://BACKUP_SERVER/obs/api/DeleteBackupSet.do?SysUser=system&SysPwd=system&LoginName=John&BackupSetID=1122260638375
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/DeleteBackupSet.do?SysUser=system&SysPwd=system&LoginName=John&BackupSetID=1122260638375&Host=obs.yourserver.com

Listing Backup Sets

The following table describes all information required to invoke the [List Backup Sets] API to list all the backup sets for a particular user.

URL:			
	http://BACKUP_SERVER/obs/api/ListBackupSets.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <BackupSets> <BackupSet ID="1302673387980" Name="BackupSet" Type="FILE" /><BackupSet ID="1302673465574" Name="BackupSet (2)" Type="VMware Virtualization" /><BackupSet ID="1303955350843" Name="BackupSet (3)" Type="Microsoft Windows Virtualization" /><BackupSet ID="-11302687382211" Name="enforced_test_win" Type="FILE" /><BackupSet ID="1302682595966" Name="ESXi-demo" Type="VMware Virtualization" /><BackupSet ID="1302684999063" Name="hyperv" Type="Microsoft Windows Virtualization" /><BackupSet ID="1303205174271" Name="HyperV-VSS" Type="Microsoft Windows Virtualization" /><BackupSet ID="1303203620407" Name="Volumes" Type="FILE" />		

	</BackupSets> If there is an error, returns <err>%ERROR_MESSAGE%</err> i. LoginName incorrect or does not exist *<err>[UserCacheManager.NoSuchUserExpt] User '%USER_NAME%' not found.</err>* ii. Blank Login name specified *<err>[Error] Parameter LoginName is null/empty!</err>*
Example:	
	http://BACKUP_SERVER/obs/api/ListBackupSets.do?SysUser=system&SysPwd=system&LoginName=John
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListBackupSets.do?SysUser=system&SysPwd=system&LoginName=John&Host=obs.yourserver.com

Get Backup Set

The following table describes all information required to invoke the [Get Backup Set] API to get a backup set.

URL:			
	http://BACKUP_SERVER/obs/api/GetBackupSet.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupSetID	String	The backup set ID
	ShowStatusOnly	String	If ShowStatusOnly="N" (default if no value is specified) the full backup set configuration will be returned. If ShowStatusOnly="Y" a summary of the backup set configuration will be returned
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns When ShowStatusOnly="N" <BackupSet ID="1303106066451" Name="Exchange 2010 DB" Type="Microsoft Exchange Server"><RunBackup Run="N" BackupType=""/></BackupSet> When ShowStatusOnly="N" or if ShowStatusOnly is omitted from the API <BackupSet ID="1303106066451" Name="Exchange 2010 DB" TransferBlockSize="262144"		

	FollowSymbolicLink="N" WindowsFollowLink="Y" Os="" Type="Microsoft Exchange Server" AdminUsername="" AdminPassword="" WorkingDir="E:\temp" OracleSID="" Port="" Host="" LogRetentionDays="60" NotesINI="" BackupSystemState="N" LanDomain="CSMAIL2010" LanUsername="Administrator" LanPassword="" LastBackupRun="1305550934179" LastBackupAccess="1305550944476" EnableInFileDelta="Y" MinDeltaFileSize="26214400" DeltaBlockSize="-1" MaxNumOfDelta="100" MaxDeltaRatio="50" EnableShadowCopy="N" EnableOfflineBackup="N" EnableLogoutBackup="N" FullBackup="N" LastBackupCompleted="1305550946617" BackupIntervalDay="1" BackupIntervalHour="0" LogoutType="" OfflineNotificiationDay="7" DeleteTempFile="N" SqlServer="" DefaultDeltaType="I" TotalUncompressedDataSize="6471213979" NumberOfFiles="165" TotalBackupSetSize="3124437892" TotalBSetRetainUncompress="390795288" TotalBSetRetainFileNo="358" TotalBsetRetainFileSize="19905055" TotalBsetRestoreSize="0" TotalBsetRestoreNo="0" ScheduleHost="WIN2008A" UploadPermission="N" EnableDeltaMerge="N" Version="14" OfflineBackupComputerName="" LogoutBackupReminderComputerName="" CompressType="GzipBestSpeedCompression"><SelectedSource>Microsoft Exchange Server\Microsoft Information Store</SelectedSource><RunBackup Run="N" BackupType=""/><WeeklySchedule ID="1302495192421" Name="Database Backup Schedule" Sun="N" Mon="N" Tue="N" Wed="N" Thu="Y" Fri="N" Sat="N" Hour="21" Minute="0" Duration="-1" BackupType="DATABASE" LastUpdated="0" Interval="-1" EnableSkipBackup="N"/><WeeklySchedule ID="1305623577798" Name="Transaction log Backup Schedule" Sun="Y" Mon="Y" Tue="Y" Wed="Y" Thu="N" Fri="N" Sat="N" Hour="21" Minute="0" Duration="-1" BackupType="LOG" LastUpdated="1305550944476" Interval="-1" EnableSkipBackup="N"/><RetentionPolicy Unit="DAYS" Period="7"><RetentionSetting ID="1305623577798" Name="Default" OverlapSensitive="N"></RetentionSetting></RetentionPolicy><ExtraLocalBackup ENABLED="N" Zip="Y" BackupTo="C:\LocalBackup" SkipOffsiteBackup="N" SetLocalCopyPermission="N"/><DeltaWeeklySchedule Sun="" Mon="" Tue="" Wed="" Thu="" Fri="" Sat=""/><DeltaMonthlySchedule Date="" Occurrence="" Criteria="" JAN="" FEB="" MAR="" APR="" MAY="" JUN="" JUL="" AUG="" SEP="" OCT="" NOV="" DEC=""/><Cdp EnableCDP="N" CdpTimeMarkInterval="60" CdpMinUpdateInterval="10" Type="all-volume" ExcludeSystemFiles="N" CdpComputerName="" IdlebkpIsConsiderCpu="N" IdlebkpCpuTsh="0" IdlebkpIsConsiderNwk="N" IdlebkpNwkTsh="131072" IdlebkpIsConsiderIpt="N" IdlebkpIptObserveForSecond="60"></Cdp><EncryptingKey KeyType="PWD" Algorithm="AES" Mode="ECB" Length="256" Key="6ZoYxCjLONXyYIU2eJluAw=="/></BackupSet> If there is an error, returns <err>[UserCacheManager] User 'Johnny' not found.</err> <err>Backup Set for ID='1065821983563' not found</err>
	where under Tag <BACKUP_SET> ID = backup set ID Name = backup set name TransferBlockSize = block size for transfer FollowSymbolicLink = follow symbolic link (Linux only) Os = Operating System Type = backup set type AdminUsername = administrator user name AdminPassword = administrator password WorkingDir = temporary working directory OracleSID = Oracle SID setting Port = Oracle port number

	Host = Oracle hostname LogRetentionDays = retention day logging NotesINI = path location of notes.ini file BackupSystemState = whether to backup system state LanDomain = LAN domain name LanUsername = LAN user name LanPassword = LAN password LastBackupRun = time of last backup run LastBackupAccess = time of last backup EnableInFileDelta = enabling in-file delta feature MinDeltaFileSize = minimum delta file size setting field DeltaBlockSize = delta block size setting field MaxNumOfDelta = maximum delta number setting field MaxDeltaRatio = maximum delta ratio setting field EnableShadowCopy = enabling shadow copy feature field EnableOfflineBackup = enabling offline copy feature filed EnableLogoutBackup = enabling logout backup feature field FullBackup = enabling full backup field LastBackupCompleted = time when the last backup was completed BackupIntervalDay = Offline backup day interval BackupIntervalHour = Offline backup hour interval LogoutType = unused OfflineNotificiationDay = Offline backup email reminder days DeleteTempFile = Remove temporary files after backup SqlServer = SQL server hostname DefaultDeltaType = Default in-file delta type TotalUncompressedDataSize = Total uncompressed size in bytes of the data area NumberOfFiles = Total number of files in the data area TotalBackupSetSize = Total compressed size in bytes of the data area TotalBSetRetainUncompress = Total uncompressed size in bytes of the retention area TotalBSetRetainFileNo = Total number of files in the retention area TotalBsetRetainFileSize = Total compressed size in bytes of the retention area TotalBsetRestoreFileSize = Total size in bytes of the files restored TotalBsetRestoreNo = Total number of restoration done ScheduleHost = Computer name of this backup set that the scheduler will use to determine whether to run EnableDeltaMerge = Delta merge enabled { Y | N } Version = Version number for MS Exchange Server UploadPermission = Upload the file permission { Y | N } OfflineBackupComputerName = Computer name of this backup set that extra local backup will use to determine whether to run LogoutBackupReminderComputerName = Computer name of this backup set that the logout backup reminder will use to determine whether to run CompressType = File size reduction {<Empty> | GzipDefaultCompression | GzipBestSpeedCompression } Tag < SelectedSource > SelectedSource = selected sources for backup Tag < DeseletedSource > DeseletedSource = deselected sources for backup Tag <Status>

Run = Whether the backup is pending
BackupType = Backup type { DATABASE | LOG | DIFFERENTIAL | LOG | COMPLETE | INCREMENTAL }

Tag < DailySchedule >
ID = schedule ID
Name = schedule name
Hour = time setting for such schedule
Minute = time setting for such schedule
Duration = how long to run. Use -1 for "Stop on completion"
BackupType = Backup set type
LastUpdated = last updated time of schedule
Interval = how long to run backup

Tag < WeeklySchedule >
ID = schedule ID
Name = schedule name
Sun = enable field
Mon = enable field
Tue = enable field
Wed = enable field
Thu = enable field
Fri = enable field
Sat = enable field
Hour = time setting for such schedule
Minute = time setting for such schedule
Duration = how long to run. Use -1 for "Stop on completion"
BackupType = Backup set type
LastUpdated = last updated time of schedule
Interval = how long to run backup

Tag < MonthSchedule >
ID = schedule ID
Name = schedule name
Date = exact day of the month. When "0" use occurrence and criteria.
Occurrence= occurrence to run e.g. First, Second, Third, Forth Last
Criteria = day to run e.g. Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday
Hour = time setting for such schedule
Minute = time setting for such schedule
Duration = how long to run. Use -1 for "Stop on completion"
BackupType = Backup set type
LastUpdated = last updated time of schedule
Tag < CustomSchedule >
ID = schedule ID
Name = schedule name
BackupType = Backup set type
Date = the date to run this schedule
Hour = time setting for such schedule
Minute = time setting for such schedule
Duration = how long to run. Use -1 for "Stop on completion"
LastUpdated = last updated time of schedule

Tag < Filter>

	ID = filter ID Name = filter name Type = filter type TopDir = the top most directory to apply this filter Include = filter mode Only = filter mode ApplyToDir = applying to such directory ApplyToFile = applying to such file Tag < Pattern> Pattern = the filter pattern to apply Tag < RetentionPolicy > Unit= type for the retention policy, by JOB, DAYS, or CUSTOMIZE Period= days for the policy Tag < RetentionSetting > ID = retention ID OverlapSensitive = enable feature setting Tag < Setting> ID = retention ID Name = retention name Type = retention type. Allowed values are { DAILY | WEEKLY | MONTHLY | QUARTERLY | YEARLY | CUSTOM } NumOfCopiesToKeep = number of copies to keep DateType = normally empty. Use "EXACT" when the date is known. Sun, Mon, Tue, Wed, Thu, Fri, Sat = days enabled Day, Week, Month, Year = date enabled Tag < PreBackupCommand> ID = pre-command ID Name = pre-command name Path = path for such pre command WorkingDir = directory for such pre-command Tag < PostBackupCommand > ID = post command ID Name = post command name Path = path for such post command WorkingDir = directory for such post command Tag < AllowedIP > ID = allowedIP ID StartIP = Start of online restore IP range EndIP = End of online restore IP range Tag < ExtraLocalBackup > ENABLED = enable "Extra Local Copy" feature field Zip = zip the copied file feature BackupTo = location to save extra copy SkipOffsiteBackup = whether to skip off-site backup

	SetLocalCopyPermission = set local copy permission Tag < DeltaWeeklySchedule> Sun, Mon, Tue, Wed, Thu, Fri, Sat = advance delta weekly schedule enabled. { I | D | F } Tag < DeltaMonthlySchedule> Date = exact day of the month. When "0" use occurrence and criteria. Occurrence= occurrence to run e.g. First, Second, Third, Fourth Last Criteria = day to run e.g. Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec = advance monthly schedule enabled. { I | D | F } Tag <Cdp> EnableCdp = Continuous Data Protection (CDP) Enabled { Y | N } CdpTimeMarkInterval = the interval of point-in-time views generated by CDP CdpMinUpdateInterval = the minimum interval that repeatedly updated files are backup again Type = Continuous Data Protection (CDP) type { all-volume | backup-source | custom-source } ExcludeSystemFiles = exclude system files { Y | N } CdpComputerName = Computer name of this backup set that the Cdp will use to determine whether to run IdlebkpIsConsiderCpu = whether to consider Cpu { Y | N } IdlebkpCpuTsh = the thredhold value of Cpu. If Cpu usage keeps below than the threshold for 1 minute, then Cpu is idle. IdlebkpIsConsiderNwk = whether to consider network (only the network activity sending out) { Y | N } IdlebkpNwkTsh = the thredhold value of network, in unit of "bytes sent per second". If network usage is below than the thredhold 2 second, then network is idle IdlebkpIsConsiderIpt = whether to consider input activity { Y | N } IdlebkpIptObserveForSecond = how long it observe. If no keyboard stroke and mouse movement within the observer period, then input activity is idle. Tag <CdpFilter> ID = Continuous Data Protection (CDP) filer ID Name = Continuous Data Protection (CDP) filter name Type = Continuous Data Protection (CDP) filter type TopDir = the top most directory to apply this filter Include = filter mode ApplyToDir = applying to such directory ApplyToFile = applying to such file Tag <Pattern> Pattern = the filter pattern to apply Tag <EncryptingKey> KeyType = encrypting key type { PWD | CUSTOM | NOENCRYPT } Algorithm = encrypting key algorithm { TwoFish | DESede | AES } Mode = encrypting key mode { ECB | CBC} Length = encrypting key length Key = hashed encrypting key
Example:	
	http://BACKUP_SERVER/obs/api/GetBackupSet.do?SysUser=system&SysPwd=system&LoginName=John&BackupSetID=1077097041763&ShowStatusOnly=N

Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/GetBackupSet.do?SysUser=system&SysPwd=system&LoginName=John&BackupSetID=1077097041763&ShowStatusOnly=N&Host=obs.yourserver.com

Updating a Backup Set

The following table describes all information required to invoke the [Update Backup Set] API to update a backup set. Note, use [Get Backup Set] API above to retrieve a backup set and save it as an xml file; modify the file as you need, and post it as a content using parameter name "Profile" when calling [Update Backup Set] API.

URL:			
	http://BACKUP_SERVER/obs/api/UpdateBackupSet.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	Profile	String	The whole content of backup set in XML format posted up when calling this API
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL

Return Value:	
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>
Example:	
	http://BACKUP_SERVER/obs/api/UpdateBackupSet.do?SysUser=system&SysPwd=system&LoginName=John
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/UpdateBackupSet.do?SysUser=system&SysPwd=system&LoginName=John&Host=obs.yourserver.com

Listing Backup Jobs

The following table describes all information required to invoke the [List Backup Jobs] API to get a list of all backup jobs for all backup sets.

URL:			
	http://BACKUP_SERVER/obs/api/ListBackupJobs.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	CDP	Boolean	Continuous Data Protection { Y | N }
	SkipEmpty	String	Skip if backup job has no files { Y | N }
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <BackupSets> <BackupSet ID="1121746638656">		

	<BackupJob ID="2005-12-29-12-00-00" /> <BackupJob ID="2005-12-30-12-00-00" /> <BackupJob ID="2005-12-31-12-00-00" /> </BackupSet> … </BackupSets> If there is an error, returns <err>%ERROR_MESSAGE%</err> i. LoginName incorrect or does not exist *<err>[UserCacheManager.NoSuchUserExpt] User '%USER_NAME%' not found.</err>* ii. Blank Login name specified *<err>[Error] Parameter LoginName is null/empty!</err>*
	Where under Tag <BackupSet> ID = backup set ID Tag <BackupJob> ID = backup job ID
Example:	
	http://BACKUP_SERVER/obs/api/ListBackupJobs.do?SysUser=system&SysPwd=system&LoginName=John
	http://BACKUP_SERVER/obs/api/ListBackupJobs.do?SysUser=system&SysPwd=system&LoginName=John&CDP=Y

	http://BACKUP_SERVER/obs/api/ListBackupJobs.do?SysUser=system&SysPwd=system&LoginName=John&CDP=Y&SkipEmpty=Y
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListBackupJobs.do?SysUser=system&SysPwd=system&LoginName=John&Host=obs.yourserver.com

Listing Backup Job Status

The following table describes all information required to invoke the [List Backup Job Status] API to get a list of all backup jobs for all backup sets.

URL:			
	http://BACKUP_SERVER/obs/api/ListBackupJobStatus.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	(Optional) The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupDate	String	A date in yyyy-MM-dd format
	Cdp	Boolean	Continuous Data Protection { Y | N }
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <BackupJobs BackupDate="2010-06-09" > <BackupJob ID="2010-06-09-14-03-54" LoginName="ListBackupJobStatus" StartTime="2010-06-09 14:04:49" EndTime="2010-06-09 14:05:02" BackupJobStatus="BS_STOP_SUCCESS" BackupSetID="1276063418281" BackupSetName="File" UploadSize="11456" RunVersion="6.0.1.2"/> </BackupJobs> If there is a Backup Job in progress, it returns "Backup in progress". If there is an error, it returns <err>%ERROR_MESSAGE%</err>		

	i. LoginName incorrect or does not exist *<err>[UserCacheManager.NoSuchUserExpt] User '%USER_NAME%' not found.</err>* ii. Blank Login name specified *<err>[Error] Parameter LoginName is null/empty!</err>* iii. Either incorrect backup job date specified or No backup job was run for the specified date *<err>[Error] No Backup Job on that day</err>* iv. Incorrect Backupdate format specified. BackupDate=YYYY-MM-DD *<err>[Error] Parameter BackupDate is not in correct format!</err>*
	where under Tag <BackupJobs> BackupDate = date of backup Tag <BackupJob> ID = backup job ID LoginName = user name StartTime = job start time EndTime = job end time BackupJobStatus = the status of the backup job as follows: 1. BS_STOP_SUCCESS = backup completed successfully 2. BS_STOP_BY_SYSTEM_ERROR = backup stopped due to system error 3. BS_STOP_BY_SCHEDULER = backup stopped by scheduler 4. BS_STOP_BY_USER = backup stopped by user 5. BS_STOP_BY_QUOTA_EXCEEDED = backup stopped due to quota exceeded 6. BS_STOP_SUCCESS_WITH_ERROR = backup completed with errors 7. BS_STOP_SUCCESS_WITH_WARNING = backup completed with warnings 8. BS_STOP_MISSED_BACKUP = backup missed 9. BS_BACKUP_NOT_FINISHED = backup in progress 10. Others = other client errors not defined above. BackupSetID = backup set ID BackupSetName = backup set name UploadSize = total uploaded size RunVersion = OBM / ACB version
Example:	
	http://BACKUP_SERVER/obs/api/ListBackupJobStatus.do?SysUser=system&SysPwd=system&LoginName=John&BackupDate=2007-01-08
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListBackupJobStatus.do?SysUser=system&SysPwd=system&LoginName=John&BackupDate=2007-01-08&Host=obs.yourserver.com

Getting Backup Job Report

The following table describes all information required to invoke the [Get Backup Job Report] API to get a backup job status.

URL:			
	http://BACKUP_SERVER/obs/api/GetBackupJobReport.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupSetID	String	A backup set ID
	BackupJobID	String	A backup job ID
	Cdp	String	Continuous Data Protection { Y | N }
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <BackupJob ID="2005-07-19-12-11-20" StartTime=" 2005-07-19 12:11:20" EndTime="2005-07-19 12:21:20" BackupJobStatus="BS_STOP_SUCCESS" NumOfErrorEntries="0" NumOfWarnEntries="0" NumOfNewFiles="1" TotalNewFilesSize="132864" TotalUnzipNewFilesSize="3951322" NewFilesZipRatio="96%" NumOfUpdatedFiles="1" TotalUpdatedFilesSize="132864" TotalUnzipUpdatedFilesSize="3951322" UpdatedFilesZipRatio="96%" NumOfUpdatedPermissionFiles="1" TotalUpdatedPermissionFileSize="132864" TotalUnzipUpdatedPermissionFilesSize="3951322" UpdatedPermissionFilesZipRatio="96%" NumOfDeletedFiles="1" TotalDeletedFilesSize="132864" TotalUnzipDeletedFilesSize="3951322" DeletedFilesZipRatio="96%" NumOfMovedFiles="1" TotalMovedFilesSize="132864" TotalUnzipMovedFilesSize="3951322" MovedFilesZipRatio="96%"> <Info Timestamp="2005-12-31 12:59:59" Message="??????" /> ... <Warn Timestamp="2005-12-31 12:59:59" Message="??????" /> ... <Error Timestamp="2005-12-31 12:59:59" Message="??????" /> ... <NewFile LastModified="2005-12-31 12:59:59" Name="C:\abc.doc"		

	FileSize="374" UnzipFilesSize="11656" Ratio="63%"/> ... <UpdatedFile LastModified="2005-12-31 12:59:59" Name="C:\abc.doc" FileSize="374" UnzipFilesSize="11656" Ratio="63%"/> <UpdatedPermissionFile LastModified="2005-12-31 12:59:59" Name="C:\abc.doc" FileSize="374" UnzipFilesSize="11656" Ratio="63%"/> ... <DeletedFile LastModified="2005-12-31 12:59:59" Name="C:\abc.doc" FileSize="374" UnzipFilesSize="11656" Ratio="63%"/> ... <MovedFile LastModified="2005-12-31 12:59:59" FromFile="C:\abc.doc" ToFile="C:\abc.doc" FileSize="374" UnzipFilesSize="11656" Ratio="63%"/> ... </BackupJob> If there is an error, returns <err>%ERROR_MESSAGE%</err>
	where under Tag <BackupJob> ID = backup job ID StartTime = backup job start time EndTime = backup job end time BackupJobStatus = status of backup job NumOfErrorEntries = number of backup job errors NumOfWarnEntries = number of backup job warnings NumOfNewFiles = number of new files TotalNewFilesSize = new files size TotalUnzipNewFilesSize = new files size before zip NewFilesZipRatio = ratio of new files being zipped NumOfUpdatedFiles = number of updated files TotalUpdatedFilesSize = updated files size TotalUnzipUpdatedFilesSize = updated files size before zip UpdatedFilesZipRatio = ratio of updated files being zipped NumOfUpdatedPermissionFiles = number of updated permission files TotalUpdatedPermissionFilesSize = updated permission files size TotalUnzipUpdatedPermissionFilesSize = updated permission files size before zip UpdatedPermissionFilesZipRatio = ratio of updated permission files being zipped NumOfDeletedFiles = number of deleted files TotalDeletedFilesSize = deleted files size TotalUnzipDeletedFilesSize = deleted files size before zip DeletedFilesZipRatio = ratio of deleted files being zipped NumOfMovedFiles = number of moved files TotalMovedFilesSize = move files size TotalUnzipMovedFilesSize = moved files size before zip MovedFilesZipRatio = ratio of moved files being zipped Tag <Info>, <Warn>, <Error> TimeStamp = time of this message Message = message text Tag <NewFile>, <UpdatedFile>, <UpdatedPermissionFile>, <DeletedFile>,<MovedFile> Name = filename FileSize = filesize LastModified = last modified time of such file

	UnzipFileSize = original file size before zipping Ratio = ratio of the size being zipped
Example:	
	http://BACKUP_SERVER/obs/api/GetBackupJobReport.do?SysUser=system&SysPwd=system&LoginName=john&BackupSetID=1108378758790&BackupJobID=2007-01-08-16-02-07
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/GetBackupJobReport.do?SysUser=system&SysPwd=system&LoginName=john&BackupSetID=1108378758790&BackupJobID=2007-01-08-16-02-07&Host=obs.yourserver.com

Getting Backup Job Report Summary

The following table describes all information required to invoke the [Get Backup Job Report Summary] API to get a backup job status.

URL:			
	http://BACKUP_SERVER/obs/api/GetBackupJobReportSummary.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupSetID	String	A backup set ID
	BackupJobID	String	A backup job ID
	Cdp	Boolean	Continuous Data Protection { Y | N }
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <BackupJob ID="2007-01-08-16-02-07"		

	StartTime="2007-01-08 16:02:07" EndTime="2007-01-08 16:02:12" BackupJobStatus="BS_STOP_SUCCESS" NumOfWarnEntries="0" NumOfErrorEntries="0" NumOfNewFiles="15" TotalNewFilesSize="790256" NumOfUpdatedFiles="0" TotalUpdatedFilesSize="0" NumOfDeletedFiles="0" TotalDeletedFilesSize="0" NumOfMovedFiles="0" TotalMovedFilesSize="0" NumOfUpdatedPermissionFiles="0" TotalUpdatedPermissionFilesSize="0" NumOfCopiedFiles="0" TotalCopiedFilesSize="0"> </BackupJob> If there is an error, returns <err>%ERROR_MESSAGE%</err>
	where under Tag <BackupJob> ID = backup job ID StartTime = backup job start time EndTime = backup job end time JobStatus = status of backup job NumOfErrorEntries = number of backup job errors NumOfWarnEntries = number of backup job warnings NumOfNewFiles = number of new files TotalNewFilesSize = new files size NumOfUpdatedFiles = number of updated files TotalUpdatedFilesSize = updated files size NumOfDeletedFiles = number of deleted files

	TotalDeletedFilesSize = deleted files size NumOfMovedFiles = number of moved files TotalMovedFilesSize = move files size NumOfUpdatedPermissionFiles = number of updated file permission files TotalUpdatedPermissionFilesSize = updated file permission files size NumOfCopiedFiles = number of copied files TotalCopiedFilesSize = copied files size
Example:	
	http://BACKUP_SERVER/obs/api/GetBackupJobReportSummary.do?SysUser=system&SysPwd=system&LoginName=john&BackupSetID=1108378758790&BackupJobID=2007-01-08-16-02-07
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/GetBackupJobReportSummary.do?SysUser=system&SysPwd=system&LoginName=john&BackupSetID=1108378758790&BackupJobID=2007-01-08-16-02-07&Host=obs.yourserver.com

Listing Backup Files

The following table describes all information required to invoke the [List Backup Files] API to get all backup files by given a directory.

URL:			
	http://BACKUP_SERVER/obs/api/ListBackupFiles.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupSetID	String	A backup set ID
	BackupJobID	String	A backup job ID
	Path	String	A directory path
	ListAll	String	(Optional) List all backup files from root directory {Y | N } Override the "Path" parameter if it is set to "Y"
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <u>When ListAll="N" or if ListAll is omitted from the API</u> <Files> <File Type="DIR" Name="My Document Folder" /> <File Type="FILE" Name="changeStatus.bat" OriginalFileSize="187" FileSize="1712" BackupByJob="2005-07-25-17-07-07" InBackupJob="Current" LastModified="1109233592750" /> </Files> When ListAll="Y" <Files> <File Type="D" Name="" FullPath="G:\" OriginalFileSize="0" FileSize="1536" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="0"/> <File Type="D" Name="Test-Data" FullPath="G:\Test-Data" OriginalFileSize="0" FileSize="1536" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="0"/>		

	<File Type="D" Name="DeltaFiles" FullPath="G:\Test-Data\DeltaFiles" OriginalFileSize="0" FileSize="1536" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="0"/> <File Type="D" Name="InUse" FullPath="G:\Test-Data\DeltaFiles\InUse" OriginalFileSize="0" FileSize="1536" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="0"/> <File Type="F" Name="delta.txt" FullPath="G:\Test-Data\DeltaFiles\InUse\delta.txt" OriginalFileSize="25962046" FileSize="201312" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188617569315"/> <File Type="F" Name="v1.txt" FullPath="G:\Test-Data\DeltaFiles\v1.txt" OriginalFileSize="3708862" FileSize="31584" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188611847813"/> <File Type="F" Name="v10.txt" FullPath="G:\Test-Data\DeltaFiles\v10.txt" OriginalFileSize="37088638" FileSize="286160" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188618121780"/> <File Type="F" Name="v2.txt" FullPath="G:\Test-Data\DeltaFiles\v2.txt" OriginalFileSize="7417726" FileSize="59872" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188611989940"/> <File Type="F" Name="v3.txt" FullPath="G:\Test-Data\DeltaFiles\v3.txt" OriginalFileSize="11126590" FileSize="88160" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188612049717"/> <File Type="F" Name="v4.txt" FullPath="G:\Test-Data\DeltaFiles\v4.txt" OriginalFileSize="14835454" FileSize="116432" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188612102929"/> <File Type="F" Name="v5.txt" FullPath="G:\Test-Data\DeltaFiles\v5.txt" OriginalFileSize="18544318" FileSize="144720" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188612176801"/> <File Type="F" Name="v6.txt" FullPath="G:\Test-Data\DeltaFiles\v6.txt" OriginalFileSize="22253182" FileSize="173024" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188617475605"/> <File Type="F" Name="v7.txt" FullPath="G:\Test-Data\DeltaFiles\v7.txt" OriginalFileSize="25962046" FileSize="201312" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188617569315"/> <File Type="F" Name="v8.txt" FullPath="G:\Test-Data\DeltaFiles\v8.txt" OriginalFileSize="29670910" FileSize="229584" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188617700799"/> <File Type="F" Name="v9.txt" FullPath="G:\Test-Data\DeltaFiles\v9.txt" OriginalFileSize="33379774" FileSize="257872" BackupedByJob="2010-03-25-17-26-18" InBackupJob="Current" LastModified="1188617913849"/> </Files> If there is an error, returns <err>%ERROR_MESSAGE%</err>
	where under Type = File or Directory { FILE | DIR } Name = name of the file OriginalFileSize = the original size of the uploaded file FileSize = the actual file size being uploaded BackupByJob = the date when the file was uploaded InBackupJob = The date when the file was last updated LastModified = The time of last modification

Example:	
	http://BACKUP_SERVER/obs/api/ListBackupFiles.do?SysUser=system&SysPwd=system&LoginName=john&BackupSetID=1108378758790&BackupJobID=2007-001-08-16-02-07&Path=C:\Documents%20and%20Settings\john.my.company.
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListBackupFiles.do?SysUser=system&SysPwd=system&LoginName=john&BackupSetID=1108378758790&BackupJobID=2007-001-08-16-02-07&Path=C:\Documents%20and%20Settings\john.my.company.&Host=obs.yourserver.com

Getting User Storage Statistics

The following table describes all information required to invoke the [Getting User Storage Statistics] API to get a list of storage information for a user.

URL:			
	http://BACKUP_SERVER/obs/api/GetUserStorageStat.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	The user's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	YearMonth	String	Year and month (yyyy-MM)
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			

If successful, returns

```
<Statistics YearMonth="2005-07"
   AvgDataSize="" AvgDataRawSize =”” AvgDataNo=""
   AvgRetainSize="" AvgRetainRawSize= “” AvgRetainNo=""
   AvgUploadSize="" AvgUploadRawSize=”” AvgUploadNo=""
   AvgTotalStorageSize="" AvgTotalStorageRawSize=”
   AvgTotalStorageNo="" >
   <Storage Date="2005-07-25"
      DataSize="0" DataRawSize=”0” DataNo="0"
      RetainSize="0" RetainRawSize="0" RetainNo="0"
      UploadSize="0" UploadRawSize="0" UploadNo="0"
      TotalStorageSize="0" TotalStorageRawSize="0" TotalStorageNo="0"
   />
   <Storage Date="2005-07-26"
      DataSize="0" DataRawSize="0"DataNo="0"
      RetainSize="0" RetainRawSize="0" RetainNo="0"
      UploadSize="0" UploadRawSize="0"UploadNo="0"
      TotalStorageSize="0" TotalStorageRawSize="0"TotalStorageNo="0"
   />
</Statistics>
```

If there is an error, returns <err>%ERROR_MESSAGE%</err>

	where under Tag <Statistics > YearMonth = month of a year AvgDataSize = average size in data area AvgDataRawSize = average size in data area (in bytes) AvgDataNo = average number of files in data area AvgRetainSize = average size in retention area AvgRetainRawSize = average size in retention area (in bytes) AvgRetainNo = average number of files in retention area AvgUploadSize = average uploaded size AvgUploadRawSize = average uploaded size (in bytes) AvgUploadNo = average number of uploaded files AvgTotalStorageSize = average size in storage AvgTotalStorageRawSize = average size in storage (in bytes) AvgTotalStorageNo = average number of files in storage Tag <Storage> Date = the date of the statistics calculated DataSize = total data size uploaded DataRawSize = total data size uploaded (in bytes) DataNo = total data number RetainSize = total size in retention area RetainRawSize = total size in retention area (in bytes) RetainNo = total number in retention area UploadSize = total uploaded size UploadRawSize = total uploaded size (in bytes) UploadNo = total uploaded number TotalStorageSize = total size of storage TotalStorageRawSize = total size of storage (in bytes) TotalStorageNo = total storage number
Example:	
	http://BACKUP_SERVER/obs/api/GetUserStorageStat.do?SysUser=system&SysPwd=system&LoginName=john&YearMonth=2005-07
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/GetUserStorageStat.do?SysUser=system&SysPwd=system&LoginName=john&YearMonth=2005-07&Host=obs.yourserver.com

Listing Users Storage

[List Users Storage] API invokes the [List Users] API with the same parameters to get a list of all users with profile and storage information available within InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/ListUsersStorage.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginNameOnly	String	Whether to display login names only
	ClientTypeOnly	String	Whether to display client types and login names only.
	Owner	String	Owner of backup users If parameter "Owner" is not used, all backup users will be listed. If parameter "Owner" is used but empty, all backup users created by admin role system user will be listed. If parameter "Owner" is used and valid, all backup users created by the specified system user (admin or sub admin) will be listed.
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <Users> <User LoginName="abc" Alias="" UserType="PAID" ClientType="OBM" Quota="52428800" Timezone="GMT+08:00 (CST)" Language="en" DataFile="0" DataSize="0" RetainFile="0" RetainSize="0" EnableMSSQL="Y" EnableMSExchange="Y" EnableOracle="Y" EnableLotusNotes="Y" EnableLotusDomino="Y" EnableMySQL="Y" EnableInFileDelta="Y" EnableShadowCopy="Y" EnableExchangeMailbox="N" ExchangeMailboxQuota="0" EnableNASClient="Y" EnableDeltaMerge="Y" EnableMsVm="N" MsVmQuota="0" EnableVMware="N" VMwareQuota="0" Bandwidth="0" Notes="" Status="ENABLE" RegistrationDate="1290493669199" SuspendPaidUser="N" SuspendPaidUserDate="20101123" LastBackupDate="0" Owner="" EnableCDP="Y" EnableShadowProtectBareMetal="Y" EnableWinServer2008BareMetal="Y"><Contact Name="" Email="a@a.c"/> </User> <User LoginName="xyz" Alias="" UserType="TRIAL" ClientType="OBM" Quota="52428800" Timezone="GMT+08:00 (CST)" Language="en" DataFile="0" DataSize="0" RetainFile="0" RetainSize="0" EnableMSSQL="Y" EnableMSExchange="Y" EnableOracle="Y" EnableLotusNotes="Y" EnableLotusDomino="Y" EnableMySQL="Y" EnableInFileDelta="Y" EnableShadowCopy="Y" EnableExchangeMailbox="N" ExchangeMailboxQuota="0" EnableNASClient="Y" EnableDeltaMerge="Y" EnableMsVm="N" MsVmQuota="0" EnableVMware="N" VMwareQuota="0" Bandwidth="0" Notes="" Status="ENABLE" RegistrationDate="1290494031805" SuspendPaidUser="N" SuspendPaidUserDate="19700101" LastBackupDate="0" Owner="" EnableCDP="Y" EnableShadowProtectBareMetal="Y" EnableWinServer2008BareMetal="Y"><Contact Name="" Email="xyz@a.c"/> </User> … … </users>		

	If there is an error, returns <err>%ERROR_MESSAGE%</err>
	Where LoginName = login name Alias = user's alias UserType = user type { PAID | TRIAL } ClientType = client type { OBM | ACB } Quota = quota in bytes Timezone = user's time zone Language = user's language DataFile = total number of files in the data area DataSize = total amount of bytes in the data area RetainFile = total number of files in the retention area RetainSize = total amount of bytes in the retention area EnableMSSQL = MS SQL enabled { Y | N } EnableMSExchange = MS Exchange enabled { Y | N } EnableOracle = Oracle enabled { Y | N } EnableLotusNotes = Lotus Notes enabled { Y | N } EnableLotusDomino = Lotus Domino enabled { Y | N } EnableMySQL = MySQL enabled { Y | N } EnableInFileDelta = In-file Delta enabled { Y | N } EnableShadowCopy = Shadow Copy enabled { Y | N } EnableExchangeMailbox = MS Exchange Mailbox enabled { Y | N } EnableNASClient = InfoBackup Manager JVM Royalty enabled { Y | N } EnableDeltaMerge = Delta Merge enabled { Y | N } ExchangeMailboxQuota = MS Exchange Mailbox quota EnableMsVm= HyperV module enable { Y | N } MsVmQuota= HyperV Guest VM quota EnableVMware= VMware module enable { Y | N } VMwareQuota= VMware Guest VM quota Bandwidth = user's bandwidth Notes = user's notes Status = status of user account { ENABLE | SUSPENDED } RegistrationDate = registation date of user account SuspendPaidUser = Status of the Paid User { Y | N } SuspendPaidUserDate = Date t o suspend Paid User [yyyy-MM-dd] LastBackupDate = Date of last backup [Unix time format in millisecond] Owner = user's owner EnabledCDP = Continuous Data Protection (CDP) enabled { Y | N } EnableShadowProtectBareMetal = ShadowProtectBareMetal enabled { Y | N } EnableWinServer2008BareMetal = WinServer2008BareMetal enabled { Y | N }
Example:	
	http://BACKUP_SERVER/obs/api/ListUsersStorage.do?SysUser=system&SysPwd=system
	http://BACKUP_SERVER/obs/api/ListUsersStorage.do?SysUser=system&SysPwd=system&Owner=testing
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListUsersStorage.do?SysUser=system&SysPwd=system&Host=obs.yourserver.com

Get License

The following table describes all information required to invoke the [List License] API to get version of InfoBackup Provider used and unused licenses available within InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/GetLicense.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <License ProductName="Offsite Backup Software, OEM Edition" ObsVersion="6.8.2.11" ExpiryDate="2012/12/31" SupportExpiryDate="2012/12/31" MaxQuota="Unlimited" LicenseeName="InfoBackup-00001" LicenseKey="jkc52-W63wy-l9yc-vcVQC-+A" LicenseType="4"><OBM Quota="2000" Available="1999" Used="1"/><ACB Quota="2000" Available="2000" Used="0" AcbUsedObmUsers="0"/><MSExchange Quota="2000" Available="1999" Used="1"/><MSExchangeMail Quota="2000" Available="2000" Used="0"/><MSSQL Quota="2000" Available="1999" Used="1"/><Oracle Quota="2000" Available="1999" Used="1"/><MySQL Quota="Unlimited" Available="Unlimited"/><LotusDomino Quota="2000" Available="1999" Used="1"/><LotusNotes Quota="2000" Available="1999" Used="1"/><InFileDelta Quota="2000" Available="1999" Used="1"/><VolumeShadowCopy Quota="2000" Available="1999" Used="1"/><DeltaMerge Quota="2000" Available="1999" Used="1"/><ClientJVMRoyalty Quota="10" Available="9" Used="1"/><MsVm Quota="2000" Available="2000" Used="0"/><VMWare Quota="2000" Available="2000" Used="0"/></License> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
	Where ProductName = product name of InfoBackup Provider ObsVersion = version of InfoBackup Provider ExpiryDate = expiry date of InfoBackup Provider SupportExpiryDate = support expiry date of InfoBackup Provider MaxQuota = maximum quota of InfoBackup Provider LicenseeName = License name of InfoBackup LicenseKey = License key of InfoBackup LicenseType = License type of InfoBackup Quota = quota Available = unused quota Used = used quota AcbUsedObmUsers = number of 1'ClickBackup users which used the quota of InfoBackup Manager users OBM = InfoBackup Manager users ACB = 1'ClickBackup users MSExchange = MS Exchange Brick level module MSExchangeMail = MS Exchange Mail level module MSSQL = MSSQL module		

	OracleUsers = Oracle module MySQL = MySQL module LotusDomino = Lotus Domino module LotusNotes = Lotus Notes module InFileDelta = In-file delta module VolumeShadowCopy = Volume shadow copy module DeltaMerge = Delta Merge module ClientJVMRoyalty = InfoBackup Manager JVM Royalty module MsVm = Microsoft Windows Virtualization module VMWare VMware VM Backup module
Example:	
	http://BACKUP_SERVER/obs/api/GetLicense.do?SysUser=system&SysPwd=system
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/GetLicense.do?SysUser=system&SysPwd=system&Host=obs.yourserver.com

Get Replication Mode

The following table describes all information required to invoke the [List Replication Mode] API to get the mode of replication available within InfoBackup Provider.

URL:		
http://BACKUP_SERVER/obs/api/GetReplicationMode.do		
Available since version:		
Pre-v6.0		
Parameters:		
Key	**Value**	**Descriptions**
SysUser	String	InfoBackup Provider's System Username
SysPwd	String	InfoBackup Provider's System Password
Host	String	InfoBackup Provider's URL
Return Value:		
If successful, returns <Replication Mode="DISABLED"/> Or <Replication Mode="UNSYNC" File="D:\Test-Data\obs52\user\kwong\files\1194504073875\Current\0x5f\0x3d\0xd2\0xc3\1103301195"/> Or <Replication Mode="SYNC" File="D:\Test-Data\obs52\user\kwong\files\1194504073875\Current\0x5f\0x3d\0xd2\0xc3\1103301195"/> Or <Replication Mode="LOGGING" File="D:\Test-Data\obs52\system\logfiles\log0001.alf"/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Where Mode = mode of replication as follow: 1. DISABLED = disabled replication 2. LOGGING = logging mode 3. UNSYNC = un-synchronization mode 4. SYNC = synchronization mode File = current replicating file		
Example:		
http://BACKUP_SERVER/obs/api/GetReplicationMode.do?SysUser=system&SysPwd=system		
Example for InfoBackup Redirector:		
http://REDIRECTOR_SERVER/rdr/api/GetReplicationMode.do?SysUser=system&SysPwd=system&Host=obs.yourserver.com		

Send Forgot Password Email

The following table describes all information required to invoke the [Send Forgot Password Email] API to invoke the sending forgot password email operation in InfoBackup Provider.

URL:		
http://BACKUP_SERVER/obs/api/SendForgotPwdEmail.do		
Available since version:		
Pre-v6.0		
Parameters:		
Key	Value	Descriptions
SysUser	String	InfoBackup Provider's System Username
SysPwd	String	InfoBackup Provider's System Password
LoginName	String	Login name of the use
Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:		
If successful, returns <Reply><Success/></Reply> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:		
http://BACKUP_SERVER/obs/api/SendForgotPwdEmail.do?SysUser=system&SysPwd=system&LoginName=test		
Example for InfoBackup Redirector:		
http://REDIRECTOR_SERVER/rdr/api/SendForgotPwdEmail.do?SysUser=system&SysPwd=system&LoginName=test&Host=obs.yourserver.com		

Delete Backup File

The following table describes all information required to invoke the [Delete Backup File] API to delete backup file in InfoBackup Provider by a given directory.

URL:			
	http://BACKUP_SERVER/obs/api/DeleteBackupFile.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	Login name of the user
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupSetName	String	A backup set Name
	InBackupJob	String	A backup job ID (Date when the file was last updated).
	Path	String	Full path of backup file
	Type	String	{ T | F | I | D | C | CD | LC | LD } T – Directory F – Full Backup File (or simply a file) I – Incremental delta file D – Differential delta file C – Checksum file for the full file CD - Checksum file for the delta (both incremental and differential) file LC – Link of checksum file (same content but may contain different file permission or full path) LD – Link of backup data file (same content but may contain different file permission or full path)
	BackupByJob	String	A backup Job ID (Date when the file was uploaded)
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <Reply><Success/></Reply> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/DeleteBackupFile.do?SysUser=system&SysPwd=system&LoginName=john&BackupSetName=BackupSet -0&InBackupJob=Current&Path=&Type=D&BackupByJob=2007-01-08-16-02-07		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/DeleteBackupFile.do?SysUser=system&SysPwd=system&LoginName=john&BackupSetName=BackupSet -0&InBackupJob=Current&Path=&Type=D&BackupByJob=2007-01-08-16-02-07&Host=obs.yourserver.com		

Add Advertisement

The following table describes all information required to invoke the [Add Advertisement] API to add a new advertisement to InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/AddAdvertisement.do		
Available since version:			
	v6.1.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	AdvertisementName	String	The Name of the new Advertisement
	DisplayTime	String	The time in seconds to display, must be an even number between 2 and 60.
	Target	String	The target URL
	Text	String	The text message to be displayed.
	TextAnimation	String	Text message animation { scroll-left | scroll-right | none }
	TextAlign	String	Text message alignment { Left | Right | Center }
	Tracking	Boolean	Whether to enable tracking or not. { Y | N }
	AdGroupList	String	Advertisement group e.g. { ALL | NONE | <AdgroupID>}, accept multiple inputs each separated by a comma.
	GifImage	String	The URL of an GIF image, destination file must have .GIF extension
	SwfImage	String	The URL of an SWF image, destination file must have .SWF extension
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <Advertisement ID="1275547136700" Name="New" /> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
	where ID = Advertisement ID Name = Advertisement name		
Example:			
	http://BACKUP_SERVER/obs/api/AddAdvertisement.do?SysUser=system&SysPwd=system&AdvertisementName=New&DisplayTime=8&Target=abc.abc.com&Text=123456&TextAnimation=scroll-right&TextAlign=center&Tracking=Y&AdGroupList=1275362087428,1275297492353&GifImage=D:\Pic\test.GIF&SwfImage=D:\Pic\test.SWF		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/AddAdvertisement.do?SysUser=system&SysPwd=system&AdvertisementName=New&DisplayTime=8&Target=abc.abc.com&Text=123456&TextAnimation=scroll-right&TextAlign=center&Tracking=Y&AdGroupList=1275362087428,1275297492353&GifImage=D:\Pic\test.GIF&SwfImage=D:\Pic\test.SWF&Host=obs.yourserver.com		

List Advertisements

The following table describes all information required to invoke the [List Advertisements] API to get a list of all advertisements at InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/ListAdvertisements.do		
Available since version:			
	v6.1.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	AdvertisementID	Number	The ID of an advertisement. If provided, only the specified Advertisement will be Listed.
	AdvertisementNameOnly	Boolean	Whether to display names only or full advertisement details { Y | N }
	Host	String	InfoBackup Provider's URL.
Return Value:			
	If successful, returns <Advertisements> <Advertisement ID="1275443024656" Name="Advert001" AdGroupList="1275362087428,1275297492353" StartDate="1275443024656" Text="This is a test" TextAnimation="scroll-left" TextAlign="left" Target="www.yahoo.com" Tracking="N" DisplayTime="16" Hits="0/0/0" /> </Advertisements> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
	where ID = Advertisement ID Name = Advertisement name AdGroupList = The list of associated AdGroups StartDate= The starting date of this advertisement. Text = The text message to be displayed TextAnimation = Text message animation { scroll-left | scroll-right | none } TextAlign = Text message alignment { Left | Right | Center } Target = The target URL Tracking = Whether to enable tracking or not DisplayTime = The time in seconds to display Hits = The number of times your users clicked this advertisement. The values are { Hits within 1 day | Hits within the last 7 days | Hits within the last 30 days }		
Example:			
	http://BACKUP_SERVER/obs/api/ListAdvertisements.do?SysUser=system&SysPwd=system&AdvertisementNameOnly=Y&AdvertisementID=1275443024656		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/ListAdvertisements.do?SysUser=system&SysPwd=system&AdvertisementNameOnly=Y&AdvertisementID=1275443024656&Host=obs.yourserver.com		

Modify Advertisement

The following table describes all information required to invoke the [Modify Advertisement] API to modify an advertisement at InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/ModifyAdvertisement.do		
Available since version:			
	v6.1.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	AdvertisementID	Number	The Advertisement ID
	AdvertisementNameOnly	String	The name of the Advertisement
	DisplayTime	Number	The time in seconds to display, must be an even number between 2 and 60.
	Target	String	The target URL.
	Text	String	The text message to be displayed.
	TextAnimation	String	Text message animation { scroll-left | scroll-right | none }
	TextAlgin	String	Text message alignment { Left | Right | Center }
	Tracking	Boolean	Whether to enable tracking or not. { Y | N }
	AdGroupList	String	Advertisement group e.g. { ALL | NONE | <AdgroupID>}, accept multiple inputs each separated by a comma.
	ResetStats	Boolean	Whether to reset the hit counts of the advertisement. { Y | N }
	GifImage	String	The URL of a GIF image, destination file must have .GIF extension.

	SwfImage	String	The URL of a SWF image, destination file must have .SWF extension.
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/ModifyAdvertisement.do?SysUser=system&SysPwd=system&AdvertisementID=1275443024656&AdvertisementName=Advert001&DisplayTime=16&Target=www.yahoo.com&Text=Testing&TextAnimation=scroll-left&TextAlign=left&Tracking=N&AdGroupList=ALL&ResetStats=Y&GifImage=D:\Pic\test.GIF&SwfImage=D:\Pic\test.SWF		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/ModifyAdvertisement.do?SysUser=system&SysPwd=system&AdvertisementID=1275443024656&AdvertisementName=Advert001&DisplayTime=16&Target=www.yahoo.com&Text=Testing&TextAnimation=scroll-left&TextAlign=left&Tracking=N&AdGroupList=ALL&ResetStats=Y&GifImage=D:\Pic\test.GIF&SwfImage=D:\Pic\test.SWF&Host=obs.yourserver.com		

Delete Advertisement

The following table describes all information required to invoke the [Delete Advertisement] API to delete an advertisement from InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/DeleteAdvertisement.do		
Available since version:			
	v6.1.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username

	SysPwd	String	InfoBackup Provider's System Password
	AdvertisementID	Number	The Advertisement ID
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/DeleteAdvertisement.do?SysUser=system&SysPwd=system&AdvertisementID=1275374722809		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/DeleteAdvertisement.do?SysUser=system&SysPwd=system&AdvertisementID=1275374722809&Host=obs.yourserver.com		

Add AdGroup

The following table describes all information required to invoke the [Add AdGroup] API to add a new AdGroup to InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/AddAdGroup.do		
Available since version:			
	v6.1.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	AdGroupName	Number	The AdGroup's name
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/AddAdGroup.do?SysUser=system&SysPwd=system&AdGroupName=test		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/AddAdGroup.do?SysUser=system&SysPwd=system&AdGroupName=test&Host=obs.yourserver.com		

List AdGroups

The following table describes all information required to invoke the [List AdGroup] API to get a list of all AdGroups at InfoBackup Provider.

URL:		
http://BACKUP_SERVER/obs/api/ListAdGroups.do		
Available since version:		
v6.1.0.0		
Parameters:		
Key	**Value**	**Descriptions**
SysUser	String	InfoBackup Provider's System Username
SysPwd	String	InfoBackup Provider's System Password
Host	String	InfoBackup Provider's URL
Return Value:		
If successful, returns <AdGroups> <AdGroup ID="1" Name="Default" /> <AdGroup ID="1275297492353" Name="Test2" /> <AdGroup ID="1275297494619" Name="Test3" /> <AdGroup ID="1275297497275" Name="Test4" /> <AdGroup ID="1275362087428" Name="Test1" /> </AdGroups> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:		
http://BACKUP_SERVER/obs/api/ListAdGroups.do?SysUser=system&SysPwd=system		

Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListAdGroups.do?SysUser=system&SysPwd=system&Host=obs.yourserver.com

Modify AdGroup

The following table describes all information required to invoke the [Modify AdGroup] API to modify an AdGroup at InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/ModifyAdGroup.do		
Available since version:			
	v6.1.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	AdGroupID	Number	The AdGroup's ID
	AdGroupName	String	The AdGroup's name
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/ModifyAdGroup.do?SysUser=system&SysPwd=system&AdGroupID=1275382280645&AdGroupName=TestingAdGroup2		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/ModifyAdGroup.do?SysUser=system&SysPwd=system&AdGroupID=1275382280645&AdGroupName=TestingAdGroup2&Host=obs.yourserver.com		

Delete AdGroup

The following table describes all information required to invoke the [Delete AdGroup] API to delete an AdGroup from InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/DeleteAdGroup.do		
Available since version:			
	Pre-v6.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	AdGroupID	Number	The AdGroup's ID
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/DeleteAdGroup.do?SysUser=system&SysPwd=system&AdGroupID=1275382280645		
Example for InfoBackup Provider:			
	http://REDIRECTOR_SERVER/rdr/api/DeleteAdGroup.do?SysUser=system&SysPwd=system&AdGroupID=1275382280645&Host=obs.yourserver.com		

Run Backup

The following table describes all information required to invoke the [Run backup set] API to initiate backup for a specific backup set.

URL:	
	http://BACKUP_SERVER/obs/api/RunBackup.do
Available since version:	
	6.3.0.0
Parameters:	

	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	User's login name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupSetID	String	The backup set ID
	BackupType	String	The backup type: {empty} when backup set type is "File/MySQL Database Server/Lotus Notes/System State/Microsoft Exchange Mail Level Backup/Microsoft Windows System Backup" { Database | Log } when backup set type is "Microsoft Exchange Server/Oracle Database Server/Lotus Domino" { Database | Differential | Log } when backup set type is "Microsoft SQL Server" { Complete | Differential | Incremental } when backup set type is "ShadowProtect System Backup"
	CancelBackup	String	(Optional) Whether to cancel backup for the specific backup set.
	Host	String	(Optional: Use with InfoBackup Provider Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/>		

	If there is an error, returns <err>%ERROR_MESSAGE%</err>
Example:	
	http://BACKUP_SERVER/obs/api/RunBackup.do?SysUser=system&SysPwd=system&LoginName=2916_tester&BackupSetID=1280458302800&BackupType=COMPLETE&CancelBackup=N
Example for InfoBackup Redirector	
	http://REDIRECTOR_SERVER/rdr/api/RunBackup.do?SysUser=system&SysPwd=system&LoginName=2916_tester&BackupSetID=1280458302800&BackupType=COMPLETE&CancelBackup=N&Host=obs.yourserver.com

Get Backup Job Progress

The following table describes all information required to invoke the [Get Backup Job Progress] API to retrieve the backup job progress.

URL:			
	http://BACKUP_SERVER/obs/api/GetBackupJobProgress.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	User's login name
	Owner	String	(Optional - Use with LoginName) Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupSetID	String	The ID of the backup set
	BackupJobID	String	The ID of the backup Job
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns <BackupJob ID="2010-11-30-19-59-03" LoginName="John" StartTime="2010-11-30 19:59:05" EndTime="2010-11-30 19:59:17" BackupSetID="1289447020102" BackupSetName="testing"		

	CurrentFilename="C:\Program Files\Kaspersky Lab\NetworkAgent\Products\E07A4C8CB7A5029D3AA8E87E542DB0D5\~privdata.~dat~2" FileUploadTime="2010-11-30 19:59:13" CurrentFileCount="26" TotalFileCount="26" UploadedFileSize="1241247" TotalFileSize="1241247"/> If the backup is still running, the value of EndTime should become "1970-01-01 08:00:00" If there is an error, it returns <err>%ERROR_MESSAGE%</err> where under Tag <BackupJob> ID = backup job ID LoginName = user name StartTime = job start time EndTime = job end time BackupSetID = backup set ID BackupSetName = Backup set Name CurrentFilename = Current uploading filename CurrentFileCount = Number of uploaded files (including uploading file) TotalFileCount = Number of total uploaded files UploadedFileSize = Size of uploaded files TotalFileSize = Size of total uploaded files FileUploadTime= Start time of uploading file (yyyy-MM-dd HH:mm:ss)
Example:	
	http://BACKUP_SERVER/obs/api/GetBackupJobProgress.do?SysUser=system&SysPwd=system&LoginName=John&BackupSetID=1291008667235&BackupJobID=2010-11-30-10-39-01
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/GetBackupJobProgress.do?SysUser=system&SysPw

	d=system&LoginName=John&BackupSetID=1291008667235&BackupJobID=2010-11-30-10-39-01&Host=obs.yourserver.com

Add User Group

The following table describes all information required to invoke the [Add User Group] API to add a user group.

URL:			
	http://BACKUP_SERVER/obs/api/AddUserGroup.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	UserGroupName	String	The name of the User Group (Currently, API only supports modifications related to backup user groups.)
	LoginNameList	String	Users assign to the group e.g. [LoginName], accept multiple inputs, each separated by a comma, i.e. user1, user2, user3,..etc It is highly recommended to use URL encoding for long Login Names (e.g. User2#12345 -> User2%2312345)
	UserIdList	String	Users assign to the group e.g. [LoginName], accept multiple inputs, each separated by a comma, i.e. user1, user2, user3,..etc It is highly recommended to use URL encoding for long Login Names (e.g. User2#12345 -> User2%2312345) Same as parameter "LoginNameList". If the parameter "UserIdList" is not used, the parameter "LoginNameList" will be used.
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns:		

	<UserGroup ID="1275547136700" Name="User Group A" /> If there is an error, returns <err>%ERROR_MESSAGE%</err>: i. User Group Name already exists on InfoBackup Provider *<err>[PolicyControlException.DuplicatedUserGroupNameException] User Group Name '%GROUP_NAME%' is used</err>* ii. User name does not exist on InfoBackup Provider or an incorrect user specified *<err>[UserCacheManager.NoSuchUserExpt] User '%USER_NAME%' not found.</err>*
Example:	
	http://BACKUP_SERVER/obs/api/AddUserGroup.do?SysUser=system&SysPwd=system&UserGroupName=XYZ
	http://BACKUP_SERVER/obs/api/AddUserGroup.do?SysUser=system&SysPwd=system&UserGroupName=ABC&LoginNameList=GroupUser1,GroupUser2%2312345
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/AddUserGroup.do?SysUser=system&SysPwd=system&UserGroupName=XYZ&Host=obs.yourserver.com

List User Groups

The following table describes all information required to invoke the [List User Groups] API to list all the available user groups on InfoBackup Provider.

URL:	
	http://BACKUP_SERVER/obs/api/ListUserGroups.do
Available since version:	
	v6.3.0.0
Parameters:	

	Key	Value	Descriptions
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	UserGroupID	Number	(Optional) The ID of the User Group. If provided, only the specified User Group will be listed. (Currently, API only supports modifications related to backup user groups.)
	UserId	String	(Optional) Filter listed User Group by specific backup user (Only effective if UserGroupID has not been specified). It is highly recommended to use URL encoding for user ID. (e.g. User2#12345 -> User2%2312345)
	UserGroupOnly	Boolean	Whether to display User Group only or full User Group details. { Y | N }
	Host	String	InfoBackup Provider's URL
	Return Value:		
	If successful, returns (UserGroupOnly = N) <UserGroups> <UserGroup ID="1275897475792" Name="User Group - 3" Type="backup-user" Owner="" > <Users> <User Name="GroupUser1" /> </Users> <PolicyGroups> <PolicyGroup ID="1275897783056" Name="Policy Group - 2" /> </PolicyGroups> </UserGroup> </UserGroups> ….		

	If successful, returns (UserGroupOnly = Y) or if UserGroupOnly is not specified <UserGroups> <UserGroup ID="1243569613625" Name="User Group - Read Only" Type="backup-user" Owner="" /> <UserGroup ID="1275895771498" Name="Testing Group" Type="backup-user" Owner="" /> <UserGroup ID="1275897475792" Name="User Group - 3" Type="backup-user" Owner=""/ > </UserGroups> If there is an error, returns <err>%ERROR_MESSAGE%</err>
Example:	
	http://BACKUP_SERVER/obs/api/ListUserGroups.do?SysUser=system&SysPwd=system
	http://BACKUP_SERVER/obs/api/ListUserGroups.do?SysUser=system&SysPwd=system&UserGroupOnly=Y&UserGroupID=1275443024656
	http://BACKUP_SERVER/obs/api/ListUserGroups.do?SysUser=system&SysPwd=system&UserGroupOnly=N&UserId=test%2332333
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListUserGroups.do?SysUser=system&SysPwd=system&Host=obs.yourserver.com

Modify User Group

The following table describes all information required to invoke the [Modify User Group] API to modify the user group.

URL:			
	http://BACKUP_SERVER/obs/api/ModifyUserGroup.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	Value	Descriptions
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	UserGroupID	Number	The ID of the User Group. (Currently, API only supports modifications related to backup user groups.)
	UserGroupName	String	(Optional) The name of the User Group
	Mode	String	This defines whether the API will add or delete user from the User Group { A | D }. (Where A = add , D = delete)
	LoginNameList	String	List of users that will be assigned to the User Group. [LoginName], accepts multiple inputs, each separated by a

			comma. Please note that LoginNameList is ONLY compatible with this API in ADD mode.It is highly recommended to use URL encoding for login names
	UserIdList	String	List of users that will be assigned to the User Group. [LoginName], accepts multiple inputs, each separated by a comma. Please note that LoginNameList is ONLY compatible with this API in ADD mode.It is highly recommended to use URL encoding for login names Same as parameter "LoginNameList". If the parameter "UserIdList" is not used, the parameter "LoginNameList" will be used.
	UserId	String	The user ID of a specific user that will be assigned / removed from the User Group depending on the value of Mode. It is highly recommended to use URL encoding for user ID
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/ModifyUserGroup.do?SysUser=system&SysPwd=system&UserGroupID=1275895771498&UserGroupName=Testing_Group&LoginNameList=GroupUser2&UserId=GroupUser1&Mode=A		
	http://BACKUP_SERVER/obs/api/ModifyUserGroup.do?SysUser=system&SysPwd=system&UserGroupID=1275895771498&UserGroupName=TestingGroup&LoginNameList= Testuser1, Testuser2 &Mode=A		
	http://BACKUP_SERVER/obs/api/ModifyUserGroup.do?SysUser=system&SysPwd=system&UserGroupID=1275895771498&UserGroupName=TestingGroup&UserId=Testuser&Mode=A		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/ModifyUserGroup.do?SysUser=system&SysPwd=system&UserGroupID=1275895771498&UserGroupName=Testing_Group&LoginNameList=GroupUser2&UserId=GroupUser1&Mode=A&Host=obs.yourserver.com		

Delete User Group

The following table describes all information required to invoke the [Delete User Group] API to delete a user group.

URL:			
	http://BACKUP_SERVER/obs/api/DeleteUserGroup.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	UserGroupID	Number	The ID of the User Group. (Currently, API only supports modifications related to backup user groups.)
	Host	Number	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err> i. Incorrect UserGroupID specified *<err>[Error] Parameter UserGroupID, xxxxxxxxx does not existed!</err>* ii. The UserGroupID parameter was omitted from the API or the value of the UserGroupID is empty		

	<err>[Error] Parameter UserGroupID is null/empty!</err>
Example:	
	http://BACKUP_SERVER/obs/api/DeleteUserGroup.do?SysUser=system&SysPwd=system&UserGroupID=1275895280730
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/DeleteUserGroup.do?SysUser=system&SysPwd=system&UserGroupID=1275895280730&Host=obs.yourserver.com

List Policy Group

The following table describes all information required to invoke the [List Policy Group] API to list user assigned policy groups.

URL:			
	http://BACKUP_SERVER/obs/api/ListPolicyGroups.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	User's Login Name
	Owner	String	Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	Type	String	User's type, e.g. [backup-user] (Currently, API only supports modifications related to backup user groups.)
	PolicyGroupNameOnly	String	(Optional) Only policy ID and policy name will be listed. { Y | N }
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns		

```
<PolicyGroups>
  <PolicyGroup PolicyGroupID="1282186302196" PolicyGroupName="Policy Group - 4634 -1">
    <SharedQuota Enabled="Y" SharedSize="0" MaxPercentage="0"/>
      <DefaultBackupSets>
        <DefaultObmFileWindowsBackupSet ID="-1276842815367" Name=" BackupSet- Windows - File "/>
        <DefaultObmFileMacBackupSet ID="-1282618475562" Name="BackupSet- Mac - File"/>
        <DefaltObmFileLinuxBackupSet ID="-1282618461980" Name="BackupSet- Linux - File"/>
        <DefaultObmMsSqlWindowsBackupSet ID="-1282618486349" Name="BackupSet- MSSql - Windows"/>
        <DefaultObmMsExchangeWindowsBackupSet ID="-1282618503663" Name="BackupSet- Windows - MsExchange"/>
        <DefaultObmOracleWindowsBackupSet ID="-1282618537197" Name="BackupSet- Windows - Oracle"/>
        <DefaultObmOracleMacBackupSet ID="-1282618572791" Name="BackupSet- Mac - Oracle "/>
        <DefaultObmOracleLinuxBackupSet ID="-1282618554292" Name="BackupSet- Linux - Oracle "/>
        <DefaultObmMySqlWindowsBackupSet ID="-1282618598504" Name="BackupSet- Windows - MySql "/>
        <DefaultObmMySqlMacBackupSet ID="-1282618634395" Name="BackupSet- Mac - MySQL "/>
        <DefaultObmMySqlLinuxBackupSet ID="-1282618611321" Name="BackupSet- Linux - MySQL"/>
        <DefaultObmDominoWindowsBackupSet ID="-1282618650444" Name="BackupSet- Windows - Domino"/>
        <DefaultObmDominoLinuxBackupSet ID="-1282618667804" Name="BackupSet- Linux - Domino"/>
        <DefaultObmNotesWindowsBackupSet ID="-1282618683603" Name="BackupSet- Windows - Notes"/>
        <DefaultObmSystemStateWindowsBackupSet ID="-1282618697264"
```

Name="BackupSet- Windows - System State"/>

<DefaultObmMsExchangeMailWindowsBackupSet ID="-1282618717012" Name="BackupSet- Windows - MsExchange - Mail"/>

<DefaultObmShadowProtectWindowsBackupSet ID="-1282618736574" Name="BackupSet- Windows - Shadow Protect"/>

<DefaultObmMsWindowsWindowsBackupSet ID="-1282618760663" Name="BackupSet- Windows - Windows"/>

<DefaultObmVMwareWindowsBackupSet ID="-11307586662890" Name="BackupSet-VMware-Server2"/>

<DefaultObmMSVirtualizationWindowsBackupSet ID="-11307586685140" Name="BackupSet-MSVM-HyperV"/>

<DefaultAcbWindowsBackupSet ID="-127858712322" Name="BackupSet-4748_acb"/>

<DefaultAcbMacBackupSet ID="-1282618821970" Name="BackupSet- Mac"/>

<EnforcementObmFileWindowsBackupSet ID="-1282618858299" Name="BackupSet-0"/>

<EnforcementObmFileMacBackupSet ID="-1282618475562" Name="BackupSet-Mac - File"/>

<EnforcementObmFileLinuxBackupSet ID="-1282618461980" Name="BackupSet-Linux - File"/>

<EnforcementObmMsSqlWindowsBackupSet ID="-1282618858300" Name="BackupSet- Windows - MSSql "/>

<EnforcementObmMsExchangeWindowsBackupSet ID="-1282618503663" Name="BackupSet- Windows - MsExchange"/>

<EnforcementObmOracleWindowsBackupSet ID="-1282618537197" Name="BackupSet- Windows - Oracle"/>

<EnforcementObmOracleMacBackupSet ID="-1282618572791" Name="BackupSet-Mac - Oracle"/>

<EnforcementObmOracleLinuxBackupSet ID="-1282618554292" Name="BackupSet-Linux - Oracle"/>

<EnforcementObmMySqlWindowsBackupSet ID="-1282618598504" Name="BackupSet- MySql - Windows"/>

<EnforcementObmMySqlMacBackupSet ID="-1282618634395" Name="BackupSet-

Mac - MySQL"/>

<EnforcementObmMySqlLinuxBackupSet ID="-1282618611321" Name="BackupSet-Linux - MySQL"/>

<EnforcementObmDominoWindowsBackupSet ID="-1282618650444" Name="BackupSet- Windows - Domino"/>

<EnforcementObmDominoLinuxBackupSet ID="-1282618667804" Name="BackupSet- Linux - Domino"/>

<EnforcementObmNotesWindowsBackupSet ID="-1282618683603" Name="BackupSet- Windows - Notes"/>

<EnforcementObmSystemStateWindowsBackupSet ID="-1282618697264" Name="BackupSet- Windows - System State"/>

<EnforcementObmMsExchangeMailWindowsBackupSet ID="-1282618717012" Name="BackupSet- Windows - MsExchange - Mail"/>

<EnforcementObmShadowProtectWindowsBackupSet ID="-1282618736574" Name="BackupSet- Windows - Shadow Protect"/>

<EnforcementObmMsWindowsBackupSet ID="-1282618760663" Name="BackupSet- Windows - Windows"/>

<EnforcementObmVMwareWindowsBackupSet ID="-11307586662890" Name="BackupSet-VMware-Server2"/>

<EnforcementObmMSVirtualizationindowsBackupSet ID="-11307586662890" Name="BackupSet-VMware-Server2"/>

<EnforcementAcbWindowsBackupSet ID="-1278558712322" Name="BackupSet-4748_acb"/>

<EnforcementAcbMacBackupSet ID="-1282618821970" Name="BackupSet- Mac"/>

</DefaultBackupSets>

<PolicyControls>

<PolicyControl ID="OBS-UUP-10001" Name="Manage User-User-User Profile Menu" ShowRead="Y" ShowWrite="N" ShowExecute="N" ShowDelete="N" EnableRead="N" EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

<PolicyControl ID="OBS-UUP-10002" Name="Manage User-User-User Profile-User Summary" ShowRead="Y" ShowWrite="N" ShowExecute="N" ShowDelete="N" EnableRead="N" EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

<PolicyControl ID="OBS-UUP-10003" Name="Manage User-User-User Profile-Alias" ShowRead="Y" ShowWrite="Y" ShowExecute="N" ShowDelete="N" EnableRead="N"

EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

<PolicyControl ID="OBS-UUP-10004" Name="Manage User-User-User Profile-Language" ShowRead="Y" ShowWrite="Y" ShowExecute="N" ShowDelete="N" EnableRead="N" EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

<PolicyControl ID="OBS-UUP-10005" Name="Manage User-User-User Profile-Timezone" ShowRead="Y" ShowWrite="Y" ShowExecute="N" ShowDelete="N" EnableRead="N" EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

<PolicyControl ID="OBS-UUP-10006" Name="Manage User-User-User Profile-Contact" ShowRead="Y" ShowWrite="Y" ShowExecute="N" ShowDelete="N" EnableRead="N" EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

<PolicyControl ID="OBS-UUP-10007" Name="Manage User-User-User Profile-Add-on Modules" ShowRead="Y" ShowWrite="N" ShowExecute="N" ShowDelete="N" EnableRead="N" EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

<PolicyControl ID="OBS-UUP-10008" Name="Manage User-User-User Profile-Quota" ShowRead="Y" ShowWrite="N" ShowExecute="N" ShowDelete="N" EnableRead="N" EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

<PolicyControl ID="OBS-UUP-10009" Name="Manage User-User-User Profile-Update Reset Button" ShowRead="Y" ShowWrite="Y" ShowExecute="N" ShowDelete="N" EnableRead="N" EnableWrite="N" EnableExecute="N" EnableDelete="N"/>

</PolicyControls>

<GlobalFilters>

<ObmFileWindowsNormalFilter ID="" Name=""/>

<ObmFileMacNormalFilter ID="" Name=""/>

<ObmFileLinuxNormalFilter ID="" Name=""/>

<ObmDominoWindowsNormalFilter ID="" Name=""/>

<ObmDominoLinuxNormalFilter ID="" Name=""/>

<ObmNotesWindowsNormalFilter ID="" Name=""/

<ObmFileWindowsCdpFilter ID="" Name=""/>

<ObmFileMacCdpFilter ID="" Name=""/>

<ObmFileLinuxCdpFilter ID="" Name=""/>

<AcbFileWindowsNormalFilter ID="-11282635326290" Name="Filter Windows"/>

<AcbFileMacNormalFiler ID="-41282635346189" Name="Filter Mac"/>

```
            </GlobalFilters>
        </PolicyGroup>
</PolicyGroups>
```

If there is an error, returns <err>%ERROR_MESSAGE%</err>

Where

PolicyGroupID = policy group id

PolicyGroupName = policy group name

Tag <Shared Quota>

Enabled = share disk quota enabled { Y | N }

SharedSize = disk quota shared size

MaxPercentage = Maximum percentage of disk quota shared

Tag <Default Backup Sets>

ID = default backup set ID

Name = default backup set name

DefaultObmFileWindowsBackupSet = OBM file default backup set for windows

DefaultObmFileMacBackupSet = OBM file default backup set for mac

DefaltObmFileLinuxBackupSet = OBM file default backup set for linux

DefaultObmMsSqlWindowsBackupSet = OBM Microsft SQL server default backup set for windows

DefaultObmMsExchangeWindowsBackupSet = OBM Microsoft exchange server default backup set for windows

DefaultObmOracleWindowsBackupSet = OBM oracle default backup set for windows

DefaultObmOracleMacBackupSet = OBM Oracle database server default backup set for mac

DefaultObmOracleLinuxBackupSet = OBM Oracle database server default backup set for linux

	DefaultObmMySqlWindowsBackupSet = OBM MySQL default backup set for windows DefaultObmMySqlMacBackupSet = OBM MySQL default backup set for mac DefaultObmMySqlLinuxBackupSet = OBM MySQL default backup set for linux DefaultObmDominoWindowsBackupSet = OBM Lotus Domino default backup set for windows DefaultObmDominoLinuxBackupSet = OBM Lotus Domino default backup set for linux DefaultObmNotesWindowsBackupSet = OBM Lotus Notes default backup set for windows DefaultObmSystemStateWindowsBackupSet = OBM System State default backup set for windows DefaultObmMsExchangeMailWindowsBackupSet = OBM Microsoft Exchange Mail default backup set for windows DefaultObmShadowProtectWindowsBackupSet = OBM Shadow Protect System default backup set for windows DefaultObmMsWindowsWindowsBackupSet = OBM Microsoft Windows System default backup set for windows DefaultObmVMwareWindowsBackupSet = OBM VMware VM Backup default backup set for windows DefaultObmMSVirtualizationWindowsBackupSet = OBM Microsoft Windows Virtualization default backup set for windows DefaultAcbWindowsBackupSet = ACB File default backup set for windows DefaultAcbMacBackupSet = ACB File default backup set for mac EnforcementObmFileWindowsBackupSet = OBM File default backup set for windows EnforcementObmFileMacBackupSet = OBM File enforcement backup set for mac EnforcementObmFileLinuxBackupSet = OBM File enforcement backup set for linux EnforcementObmMsSqlWindowsBackupSet = OBM Microsoft SQL enforcement backup set for windows EnforcementObmMsExchangeWindowsBackupSet = OBM Microsoft Exchange enforcement backup set for windows EnforcementObmOracleWindowsBackupSet = OBM Oracle enforcement backup set for windows EnforcementObmOracleMacBackupSet = OBM Oracle enforcement backup set for mac

	EnforcementObmOracleLinuxBackupSet = OBM Oracle enforcement backup set for linux EnforcementObmDominoWindowsBackupSet = OBM Lotus Domino enforcement backup set for windows EnforcementObmDominoLinuxBackupSet = OBM Lotus Domino enforcement backup set for linux EnforcementObmNotesWindowsBackupSet = OBM Lotus Notes enforcement backup set for windows EnforcementObmSystemStateWindowsBackupSet = OBM System State enforcement backup set for windows EnforcementObmMsExchangeMailWindowsBackupSet = OBM Microsoft Exchange Mail enforcement backup set for windows EnforcementObmShadowProtectWindowsBackupSet = OBM Shadow Protect enforcement backup set for windows EnforcementObmMsWindowsBackupSet = OBM Microsoft Windows enforcement backup set for windows EnforcementObmVMwareWindowsBackupSet = OBM VMware VM Backup enforcement backup set for windows EnforcementObmMSVirtualizationWindowsBackupSet = OBM Microsoft Windows Virtualization enforcement backup set for windows EnforcementAcbWindowsBackupSet = ACB File enforcement backup set for windows EnforcementAcbMacBackupSet = ACB File enforcement backup set for linux Tag <Policy Controls> ID = policy control ID Name = policy control name ShowRead = show read permission ShowWrite = show write permission ShowExecute = show execute permission ShowDelete = show delete permission EnableRead = enable read permission EnableWrite = show write permission EnableExecute = show execute permission

	Tag <Global Filters> ID = global filter ID Name = global filter name ObmFileWindowsNormalFilter = OBM File normal filter for windows ObmFileMacNormalFilter = OBM File normal filter for mac ObmFileLinuxNormalFilter = OBM File normal filter for linux ObmDominoWindowsNormalFilter = OBM Domino normal filter for windows ObmDominoLinuxNormalFilter = OBM Lotus Domino normal filter for linux ObmNotesWindowsNormalFilter = OBM Lotus Notes normal filter for windows ObmFileWindowsCdpFilter = OBM File cdp filter for windows ObmFileMacCdpFilter = OBM File cdp filter for mac ObmFileLinuxCdpFilter = OBM File cdp filter for linux AcbFileWindowsNormalFilter = ACB normal filter for windows AcbFileMacNormalFiler = ACB normal filter for mac
Example:	
	http://BACKUP_SERVER/obs/api/ListPolicyGroups.do?SysUser=system&SysPwd=system&LoginName=4632_tester&Type=backup-user&PolicyGroupNameOnly=N
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListPolicyGroups.do?SysUser=system&SysPwd=system&LoginName=4632_tester&Type=backup-user&PolicyGroupNameOnly=N&Host=obs.yourserver.com

Add User Groups to Policy Group

The following table describes all information required to invoke the [Add user groups to policy group] within InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/AddUserGroupsToPolicyGroup.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	PolicyGroupID	String	The policy group ID
	UserGroupIDList	String	The user group ID, separated by "," (Currently, API only supports modifications related to backup user groups.)
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/AddUserGroupsToPolicyGroup.do?SysUser=system&SysPwd=system&PolicyGroupID=1280458302800&UserGroupIDList=1280458287815,1282186204737		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/AddUserGroupsToPolicyGroup.do?SysUser=system&SysPwd=system&PolicyGroupID=1280458302800&UserGroupIDList=1280458287815,		

	1282186204737&Host=obs.yourserver.com

Delete User Group from Policy Group

The following table describes all information required to invoke the [Remove user group from policy group] API to remove user groups from policy group within InfoBackup Provider.

URL:			
	http://BACKUP_SERVER/obs/api/DeleteUserGroupFromPolicyGroup.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	PolicyGroupID	String	The policy group ID
	UserGroupID	String	The user group ID
	Host	String	InfoBackup Provider's URL
Return Value:			
	If successful, returns <OK/> If there is an error, returns <err>%ERROR_MESSAGE%</err>		
Example:			
	http://BACKUP_SERVER/obs/api/DeleteUserGroupFromPolicyGroup.do?SysUser=system&SysPwd=system&PolicyGroupID=1280458302800&UserGroupID=1280458287815		
Example for InfoBackup Redirector:			
	http://REDIRECTOR_SERVER/rdr/api/DeleteUserGroupFromPolicyGroup.do?SysUser=system&SysPwd=system&PolicyGroupID=1280458302800&UserGroupID=1280458287815&Host=obs.yourserver.com		

List Backup Job Mode

The following table describes all information required to invoke the [Listing Backup Job Mode] API to get a list of all backup jobs for all backup sets or a backup set.

URL:			
	http://BACKUP_SERVER/obs/api/ListBackupJobMode.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	LoginName	String	(Optional) The user's login name. If specified, only the backup jobs of the user is displayed otherwise all backup jobs are displayed.
	Owner	String	(Optional - Use with LoginName) Owner of backup user If parameter "Owner" is not used or empty, the backup user is created by system admin. If parameter "Owner" is used and valid, the backup user is created by the specified sub-admin.
	BackupDate	String	A date in yyyy-MM-dd format
	BackupSetID	String	(Optional – Use with LoginName) The ID of the backup set to listing backup job mode
	Host	String	(Optional: Use with InfoBackup Redirector Only) InfoBackup Provider's URL
Return Value:			
	If successful, returns		

	<BackupJobs BackupDate="2010-11-30" > <BackupJob ID="2010-11-30-16-39-21" LoginName="John" StartTime="2010-11-30 16:39:22" EndTime="2010-11-30 16:39:47" BackupSetID="1291008667235" BackupSetName="1-4991" BackupJobMode="M"/> <BackupJob ID="2010-11-30-16-46-42" LoginName="John" StartTime="2010-11-30 16:46:43" EndTime="2010-11-30 16:47:02" BackupSetID="1291008667235" BackupSetName="1-4991" BackupJobMode="M"/> <BackupJob ID="2010-11-30-16-54-07" LoginName="John" StartTime="2010-11-30 16:54:07" EndTime="2010-11-30 16:58:55" BackupSetID="1291008667235" BackupSetName="1-4991" BackupJobMode="M"/> <BackupJob ID="2010-11-30-17-00-29" LoginName="John" StartTime="2010-11-30 17:00:30" EndTime="2010-11-30 17:02:59" BackupSetID="1291008667235" BackupSetName="1-4991" BackupJobMode="M"/> </BackupJobs> If there is an error, it returns <err>%ERROR_MESSAGE%</err>
	where under Tag <BackupJobs> BackupDate = date of backup Tag <BackupJob> ID = backup job ID LoginName = user name StartTime = job start time EndTime = job end time BackupSetID = backup set ID BackupSetName = Backup set Name BackupJobMode = the status of the backup job as follow: M = Manual backup S = Schedule backup

	R = Remote backup C = CDP backup
Example:	
	http://BACKUP_SERVER/obs/api/ListBackupJobMode.do?SysUser=system&SysPwd=system&LoginName=John&BackupDate=2010-11-30
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListBackupJobMode.do?SysUser=system&SysPwd=system&LoginName=John&BackupDate=2010-11-30&Host=obs.yourserver.com

List System Users

The following table describes all information required to invoke the [List System Users] API to get all system users.

URL:			
	http://BACKUP_SERVER/obs/api/ListSystemUsers.do		
Available since version:			
	v6.3.0.0		
Parameters:			
	Key	**Value**	**Descriptions**
	SysUser	String	InfoBackup Provider's System Username
	SysPwd	String	InfoBackup Provider's System Password
	RoleOnly	String	List the role of system users only {Y | N} (Optional)
	Host	String	InfoBackup Provider's URL
Return Value:			
	If RoleOnly=Y, returns <SystemUsers> <User Name="sa1" Role="reseller"/> <User Name="sa2" Role="reseller"/> … </SystemUsers> If RoleOnly=N or the parameter, RoleOnly, does not exists, returns <SystemUsers> <User Name="sa1" Password="4QrcOUm6Wau+VuBX8g+IPg==" Role="reseller" HashedPwd="4QrcOUm6Wau+VuBX8g+IPg==" ContactName="sa1" ContactEmail="sa1@a.c" HostName="sa1.a.c" Uid="41435" EnableSmtpSetting="N"> <InterfaceCustomization Enable="N"/>		

	<SubUser Name="sa2"/> </User> <User Name="sa2" Password="4QrcOUm6Wau+VuBX8g+IPg==" Role="reseller" HashedPwd="4QrcOUm6Wau+VuBX8g+IPg==" ContactName="sa2" ContactEmail="sa2@a.c" HostName="sa2.a.c" Uid="32441" EnableSmtpSetting="Y"> <SmtpServer HostName="sa2.a.c" LoginName="sa2.a.c" Password="sa2.a.c"/> <ReportSender Name="obm.sa2.a.c" Email="obm.sa2@a.c" OBM="Y" ACB="N"/> <ReportSender Name="acb.sa2.a.c" Email="acb.sa2@a.c" OBM="N" ACB="Y"/> <InterfaceCustomization Enable="N"/> </User> </SystemUsers> If there is an error, returns <err>%ERROR_MESSAGE%</err>
	where under Tag <User> Name = login name of system user Password = password of system user Role = role of system user HashedPwd = password of system user is hashed or not ContactName = contact name of system user ContactEmail = contact email of system user HostName = host name of system user Uid = uid of system user EnableSmtpSetting = enable or disable the SMTP setting of system user Tag <SmtpServer> HostName = host name of SMTP server LoginName = login name of SMTP server Password = password of SMTP server Tag <ReportSender>

	Name = name of report sender Email = email of report sender OBM = OBM user of report sender ACB = ACB user of report sender Tag <InterfaceCustomization> Enable = enable or disable the interface customization of system user Tag <SubUser> Name = login name of sub-level system user
Example:	
	http://BACKUP_SERVER/obs/api/ListSystemUsers.do?SysUser=system&SysPwd=system
Example for InfoBackup Redirector:	
	http://REDIRECTOR_SERVER/rdr/api/ListSystemUsers.do?SysUser=system&SysPwd=system&Host=obs.yourserver.com

23. Appendix

Appendix A – Supported Language Code

Language Code	Language
bg	Bulgarian
ca	Catalan
cs	Czech
da	Danish
de	German
el	Greek
en	English
el	Spanish
eu	Basque
fi	Finnish
fr	French
hu	Hungarian
is	Icelandic
it	Italian
iw	Hebrew
ja	Japanese
ko	Korean
lt	Lithuanian
nl	Dutch
no	Norwegian
po	Polish
pt_BR	Portuguese (Brazil)

pt_PT	Portuguese (Portugal)
ro	Romanian
ru	Russian
sl	Slovenian
sv	Swedish
th_th	Thai (Thai Digit)
tr	Turkish
zh_CN	Chinese (Simplified)
zh_TW	Chinese (Traditional)

Appendix B – Supported Time Zone

Timezone String	Timezone Name
GMT-11:00 (WST)	Western Standard Time
GMT-11:00 (NUT)	Niue Time
GMT-11:00 (SST)	Samoa Standard Time
GMT-10:00 (HADT)	Hawaii-Aleutian Daylight Time
GMT-10:00 (HST)	Hawaiian Standard Time
GMT-10:00 (TKT)	Tokelau Time
GMT-10:00 (HST)	Hawaiian Standard Time
GMT-10:00 (CKT)	Cook Islands Time
GMT-10:00 (THAT)	Tahiti Time
GMT-09:00 (AKST)	Alaska Standard Time
GMT-09:00 (GAMT)	Gambier Time
GMT-08:00 (PST)	Pacific Standard Time (North America)
GMT-07:00 (PDT)	Pacific Daylight Time (North America)
GMT-07:00 (MST)	Mountain Standard Time
GMT-07:00 (MDT)	Mountain Day Time
GMT-06:00 (CST)	Central Standard Time
GMT-06:00 (CDT)	Central Daylight Time
GMT-06:00 (EAST)	Easter Island Time
GMT-06:00 (GALT)	Galapagos Time
GMT-05:00 (EST)	Eastern Standard Time (North America)
GMT-05:00 (EDT)	Eastern Daylight Time (North America)
GMT-05:00 (COT)	Colombia Time
GMT-05:00 (ECT)	Ecuador Time
GMT-05:00 (CDT)	Central Daylight Time (North America)

GMT-05:00 (PET)	Peru Time
GMT-05:00 (ACT)	Atlantic/Proto Acre
GMT-05:00 (GMT-05:00)	GMT -05:00
GMT-04:00 (AST)	Atlantic Standard Time
GMT-04:00 (PYT)	Paraguay Time
GMT-04:00 (VET)	Venezuela Time
GMT-04:00 (GYT)	Guyana Time
GMT-04:00 (ADT)	Acre Daylight Time
GMT-04:00 (BOT)	Bolivia Time
GMT-04:00 (AMT)	Armenia Time
GMT-04:00 (CLT)	Chile Time
GMT-04:00 (FKT)	Falkland Islands
GMT-03:00 (ART)	Argentina Time
GMT-03:00 (GFT)	French Guiana Time
GMT-03:00 (BRT)	Brasilia Time
GMT-03:00 (WGST)	West Greenland Summer Time
GMT-03:00 (PMDT)	Pierre & Miquelon Daylight Time
GMT-03:00 (UYT)	Uruguay Time
GMT-03:00 (SRT)	Suriname Time
GMT-02:00 (FNT)	Fernando de Noronha Time
GMT-02:00 (GST)	Gulf Standard Time
GMT-01:00 (EGST)	East Greenland Summer Time
GMT+00:00 (GMT)	Greenwich Mean Time
GMT+00:00 (WET)	Western European Time
GMT+00:00 (WEST)	Western European Summer Time
GMT+00:00 (IST)	Israel Standard Time

GMT+00:00 (BST)	Brazil Standard Time
GMT+00:00 (UTC)	Coordinate Universal Time
GMT+01:00 (CET)	Central European Time
GMT+01:00 (WAT)	West Africa Time
GMT+01:00 (CEST)	Central European Summer Time
GMT+02:00 (EEST)	Eastern European Summer Time
GMT+02:00 (CAT)	Central Africa Time
GMT+02:00 (SAST)	Soft Africa Standard Time
GMT+02:00 (EET)	Eastern European Time
GMT+02:00 (IDT)	Israel Daylight Time
GMT+03:00 (EAT)	East Africa Time
GMT+03:00 (AST)	Acre Standard Time
GMT+03:00 (ADT)	Acre Daylight Time
GMT+03:00 (MSD)	Moscow Daylight Time
GMT+04:00 (AQTST)	Aqtau Time
GMT+04:00 (AZST)	Azerbaijan Summer Time
GMT+04:00 (GST)	Gulf Standard Time
GMT+04:00 (GEST)	Georgia Time
GMT+04:00 (AMST)	Armenia Summer Time
GMT+04:00 (SAMST)	Samara Time
GMT+04:00 (SCT)	Seychelles Time
GMT+04:00 (MUT)	Mauritius Time
GMT+04:00 (RET)	Reunion Time
GMT+05:00 (TMT)	Turkmenistan Time
GMT+05:00 (KGST)	Kirgizstan Time
GMT+05:00 (TJT)	Tajikistan Time

GMT+05:00 (PKT)	Pakistan Time
GMT+05:00 (UZT)	Uzbekistan Time
GMT+05:00 (YEKST)	Yekaterinburg Time
GMT+05:00 (IDT)	Indian Standard Time
GMT+05:00 (TFT)	French Southern & Antarctic Lands Time
GMT+05:00 (MVT)	Maldives Time
GMT+06:00 (MAWT)	Mawson Time
GMT+06:00 (LKT)	Lanka Time
GMT+06:00 (BDT)	Bangladesh Time
GMT+06:00 (NOVST)	Novosibirsk Time
GMT+06:00 (BTT)	Bhutan Time
GMT+07:00 (ICT)	Indochina Time
GMT+07:00 (JAVT)	Java Time, Indonesia Time
GMT+07:00 (KRAST)	Krasnoyarsk Time
GMT+07:00 (CXT)	Christmas Island Time
GMT+08:00 (HKT)	Hong Kong Time
GMT+08:00 (CST)	Cuba Standard Time
GMT+08:00 (BNST)	Brunei Time
GMT+08:00 (WST)	West Samoa Time
GMT+08:00 (IRKST)	Irkutsk Time
GMT+08:00 (MYT)	Malaysia Time
GMT+08:00 (PHT)	Philippine Time
GMT+08:00 (SGT)	Singapore Time
GMT+08:00 (BORT)	Borneo Time
GMT+08:00 (ULAT)	Ulan Bator Time
GMT+08:00 (JAYT)	Jayapura Time

GMT+09:00 (KST)	Korean Standard Time
GMT+09:00 (JST)	Japan Standard Time
GMT+09:00 (YAKST)	Yakutsk Time
GMT+09:00 (PWT)	Palau Time
GMT+10:00 (EST)	Eastern Standard Time (Australia)
GMT+10:00 (DDUT)	Dumont-d'Urville Time
GMT+10:00 (VLAST)	Vladivostok Time
GMT+10:00 (ChST)	Chamorro Standard Time
GMT+10:00 (PGT)	Papua New Guinea Time
GMT+10:00 (TRUST)	Truk Time
GMT+11:00 (MAGST)	Magadan Time
GMT+11:00 (VUT)	Vanuatu Time
GMT+11:00 (KOSST)	Kosrae Time
GMT+11:00 (NCT)	New Caledonia Time
GMT+11:00 (PONT)	Ponape Time (Micronesia)
GMT+12:00 (NZST)	New Zealand Standard Time
GMT+12:00 (ANAST)	Anadyr Time
GMT+12:00 (PETST)	Petropavlovsk-Kamchatski Time
GMT+12:00 (FJT)	Fiji Time
GMT+12:00 (TVT)	Tuvalu Time
GMT+12:00 (MHT)	Marshall Islands Time
GMT+12:00 (NRT)	Nauru Time
GMT+12:00 (GILT)	Gilbert Island Time
GMT+12:00 (WAKT)	Wake Time
GMT+12:00 (WFT)	Wallis and Futuna Time

Appendix C – Error Code 1011 and 1012

Internal Error 1011

This error could occur when one of the following conditions is true:

1. The license key has been used on more than one machine.
2. Change of network card of the server machine or moving the InfoBackup Provider system to a new server.

Solution:

In the cases where the license key was used on a second server for testing purposes, please use an evaluation key instead.

Alternatively, please shutdown the InfoBackup Provider service on the second server, and then contact our Support Engineer with your "License Name" and "License Key", and we shall update the license server to allow your key to be used again.

In the cases where the network card of the server machine is changed, or an InfoBackup Provider relocation has been performed. Please also contact our Support Engineer with your "License Name" and "License Key", and we shall update the license server to allow your key to be used again.

If the problem still persists, please ensure that there are no connectivity issues from the InfoBackup Provider server to the internet and that you can connect to lic.InfoBackup.com with HTTPS from the InfoBackup Provider backup server.

Please also verify if the machine in concern contain any software that would create virtual MAC address, for example, VPN software. If yes, please disable them such software, and notify us again.

Internal Error 1012

Internal Error 1012 can occurs when one of the following conditions is true:

1. The license key has been used on more than one machine.
2. Change of the MAC address, local / remote IP address, or local port that InfoBackup Provider is installed on.

Solution:

Persistent 1012 license errors can occur if your InfoBackup Provider server is operating in a network environment where network traffic is routed to the internet via multiple external IP addresses. For example, network load balancing is implemented using, i.e. a dual WAN router, Round Robin routing, or network card with multiple external IP.

For these cases, we would suggest setting up a static route for the server's connection to lic.InfoBackup.com, so that the remote IP address on the server will remain the same every time a connection to lic.InfoBackup.com is established.

Appendix D – How can I rebuild an InfoBackup Provider server from scratch?

To rebuild an InfoBackup Provider server from backup, please perform the following procedure:

1. Restore the program directory (the default location is shown below) to the new machine.
    a. Windows – "C:\Program Files\InfoBackup Offsite Backup Server"
    b. Linux/FreeBSD/Solaris – "/usr/local/obs"
2. Restore the [System Home] directory (back to its original directory if possible)
3. Restore all [User Homes] directories (back to their original directories if possible)
4. If you have restored the [System Home] directory or any of the [User Homes] directories to another directory (instead of the original directory), please modify the <system-home> and/or <user-home> parameters within the [obs.xml] file to reflect the new locations.
    a. Windows – "C:\Program Files\InfoBackup Offsite Backup Server\conf\obs.xml"
    b. Linux/FreeBSD/Solaris – "/usr/local/obs/config/obs.xml"
5. (for Windows) Run [C:\Program Files\InfoBackup Offsite Backup Server\bin\Install-Service.bat] to install InfoBackup Provider as Windows service.
6. Startup the InfoBackup Provider service.

Appendix E – How to start up InfoBackup RPS as InfoBackup Provider Server

This chapter describes the information on how you can start up InfoBackup RPS as InfoBackup Provider.

Scenario

You want to start InfoBackup Provider by using the replication data and using the same InfoBackup Provider & InfoBackup RPS service on the replication server side.

- InfoBackup Provider & InfoBackup RPS is installed in *C:\Program Files\InfoBackup Provider and InfoBackup RPS* on the backup server side.
- InfoBackup Provider & InfoBackup RPS is installed in *C:\Program Files\InfoBackup Provider and InfoBackup RPS* on the replication server side.
- The RECEIVER_HOME of the receiver of InfoBackup Provider configured on InfoBackup RPS is *D:\RepHome*.
- The USER_HOMES of InfoBackup Provider are *E:\Users and F:\Users on InfoBackup Provider*.
- The SYSTEM_HOME of InfoBackup Provider is *E:\System on InfoBackup Provider*.
- The POLICY_HOME of InfoBackup Provider is *E:\Policy on InfoBackup Provider*.

To startup the replication server as a backup server, please follow the steps below:

1. Shutdown the InfoBackup Provider & InfoBackup RPS service on the replication server side.
2. Copy the CONF folder, i.e. copy the D:\RepHome\files\C%3A\Program Files\InfoBackup Provider and InfoBackup RPS\conf to C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf, exclude rps.xml, rpsRecv.xml, rpsLicense.xml and server.xml.
3. Copy the WEBAPPS folder, i.e. copy *D:\RepHome\files\C%3A\Program Files\InfoBackup Provider and InfoBackup RPS\webapps\obs to C:\Program Files\InfoBackup Provider and InfoBackup RPS\webapps\obs*.
4. Copy the USER_HOMES, i.e. copy *D:\RepHome\files\E%3A\Users to E:\Users, D:\RepHome\files\F%3A\Users* to *F:\Users* and *D:\RepHome\files\E%3A\System to E:\System*.
5. If the partitions for E:\ or F:\ are not available, you can copy these directories to any location you want. However, you must remember to *open C:\Program Files\InfoBackup Provider and InfoBackup RPS\conf\obs.xml* and modify the entries for "user-home" and "system-home" with the correct paths.
6. Copy the POLICY_HOME, i.e. copy *D:\RepHome\files\E%3A\Policy to E:\Policy*.
7. Startup InfoBackup Provider & InfoBackup RPS service on the replication server. This service is running both InfoBackup Provider service from the original backup server and the InfoBackup RPS service now.
8. Please take a look at *%OBSR_HOME%\logs\obs*.log and %OBSR_HOME%\logs\cat*.log* if you run into any problem.

WARNING:

Do not copy the license.xml, rps.xml, rpsRecv.xml, or rpsSend.xml file over to the new InfoBackup Provider instance.