Ahsay Backup

Ahsay Cloud Backup Suite v7

User's Guide

Ahsay Systems Corporation Limited

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A wholly owned subsidiary of
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Revision History

Date	Descriptions	Type of modification
27 September 2016	First Draft	New
27 January 2017	Overall format and style change; Added links in Add-on module table; Added details for Automated Encryption Key Recovery info in User Profile section	Modified
5 Apr 2017	Modified screen shot in Creating Backup Set (Generic Steps) section	Modified
18 August 2017	Modified screen shot in Downloading Software; Added language of Portuguese (Brazil), Slovenian, Polish, Finnish, Italian, Arabic and Czech; Modified detailed operation in Managing AhsayCBS Backup User; Modified definition of Home Directory, Quota, Per Destination and modified screen shot in User Profile; Modified Add-on Modules; Added Restore report part; Added Summary Tab in Statistics; Added monitoring list for different types of backup and restore jobs in Live Activities; Added Manage Backup Set in Managing Backup Set; Modified Run Direct Restore Options; Added steps in Appendix A for Google Drive authority	New / Modified
11 October 2017	Added offline installation for Ch.1.6; Modified scree shot for Ch.1.6	New/ Modified

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1 Overview

Introduction

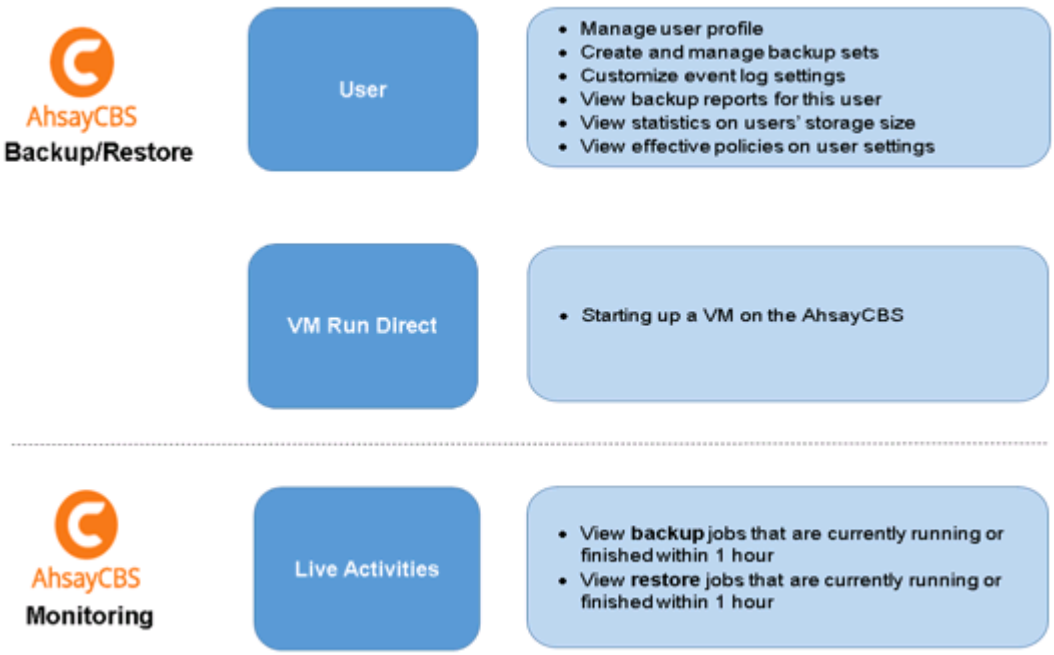
What is this software?

Ahsay Cloud Backup Suite v7 allows you to back up your data on the cloud. You can access the AhsayCBS server environment easily on a user web console. This is a user interface that allows you to login remotely to a backup server.

The **User** option in the main interface allows the AhsayCBS user to update user profile and manage other settings such as reports.

The **VM Run Direct** option allows the AhsayCBS user to restore a VM by running it directly from the backup files in the AhsayCBS. This is much faster than extracting from backup files and copying to the production storage, which can take hours to complete. This feature helps reduce disruption and downtime of your production VMs. Administrator can troubleshoot on the failed virtual machine, while users are back in production with minimal disruption.

The **Live Activities** option is a monitoring tool which allows you to view the backup jobs and restore jobs as they are running as well as to view all jobs that were run within the previous 1 hour.



About This Document

What is the purpose of this document?

This document aims at providing all necessary information for you to work with the AhsayCBS server at the user level to manage backup and restore jobs.

What should I expect from this document?

After reading through this documentation, you can expect to have sufficient knowledge to perform various tasks on the AhsayCBS server. These include modifying user profile settings, monitoring the backup and restore processes real time, and running the AhsayCBS from a virtual machine directly.

Who should read this document?

This documentation is intended for IT professionals who need to work with AhsayCBS server at the user level.

Requirements for Using the AhsayCBS User Web Console

In order to use the AhsayCBS user web console, you need the following:

- **Internet connection**

  You need to have internet connection to access the AhsayCBS user web console.

- **Web browsers**

  The AhsayCBS user web console runs with all major browsers such as Google Chrome, Microsoft Internet Explorer, Mozilla Firefox, and Apple Safari. Please make sure that you are using the latest version of the browser.

  Note

  You can also monitor live backup and restore activities on AhsayCBS user web console of your mobile device. For more information, refer to the **Ahsay Mobile User Guide**.

- **AhsayCBS login account**

  You need an AhsayCBS login account to access the AhsayCBS server component.

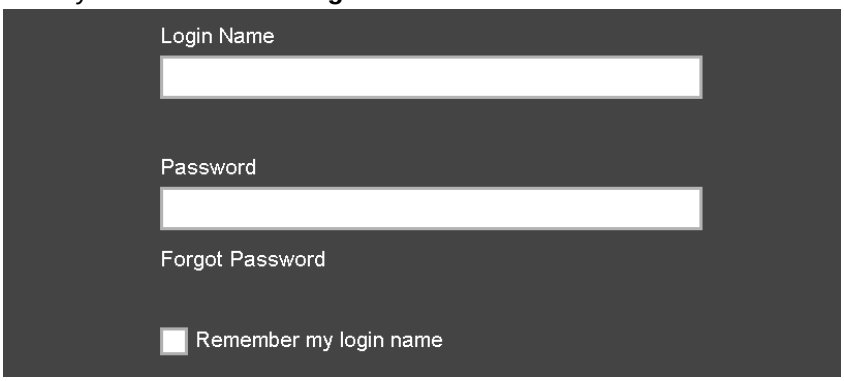
  Note

  Please contact your Ahsay backup service provider to create an AhsayCBS login account for you.

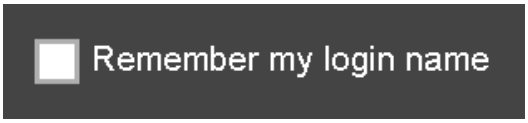
Logging on to AhsayCBS User Web Console

1. Enter the IP address provided by your backup service provider.
   `https://<IP_AhsayCBS_Server>:60443>/`

2. Enter your user account **Login Name** and **Password**.

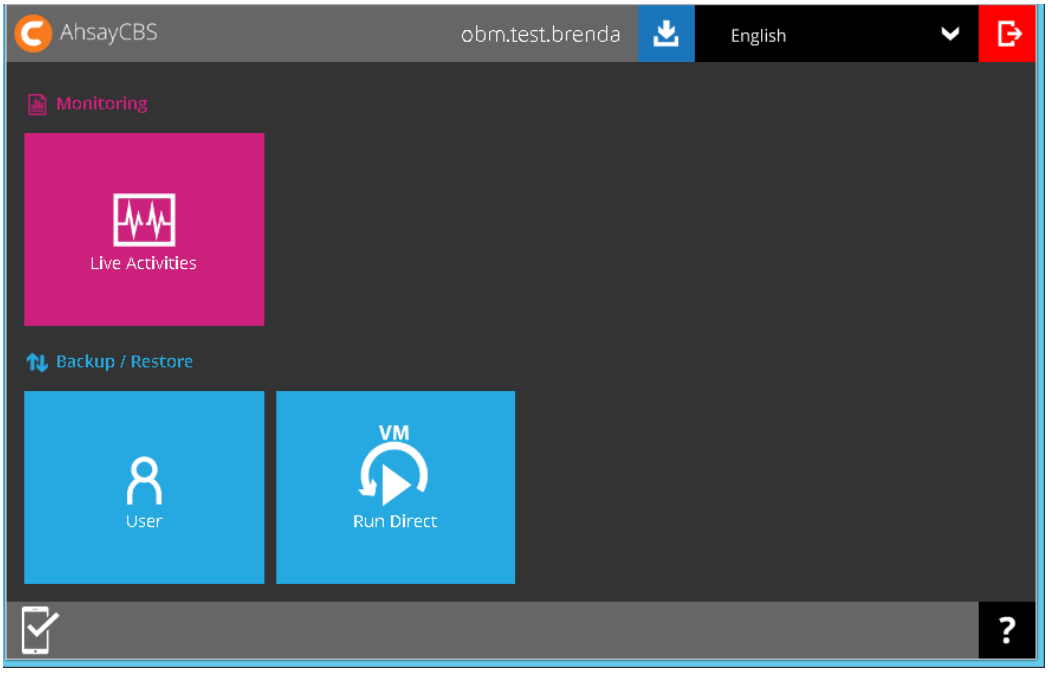


3. If you want the system to remember your login name for the next time, check **Remember my login name**.



4. Click the green **Login** button in the middle to login.

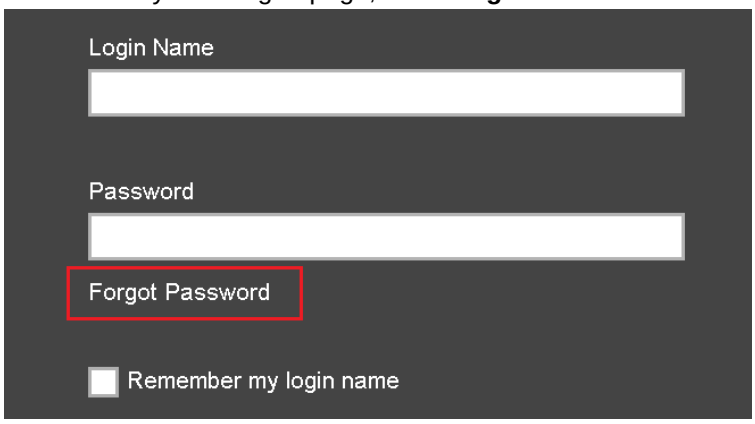
5. The following screen appears with 3 options: **User**, **Live Activities**, and **Run Direct**. The **User** and **Run Direct** options are used for backup and restore, while the **Live Activities option** is used for monitoring.



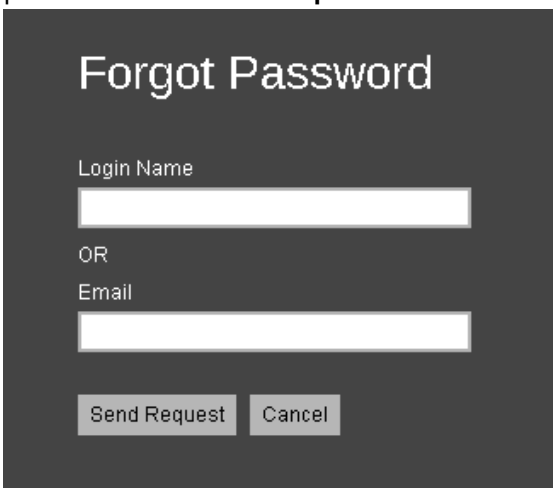
Resetting Your Password

If you have forgotten your password, you can perform the following steps to reset your password.

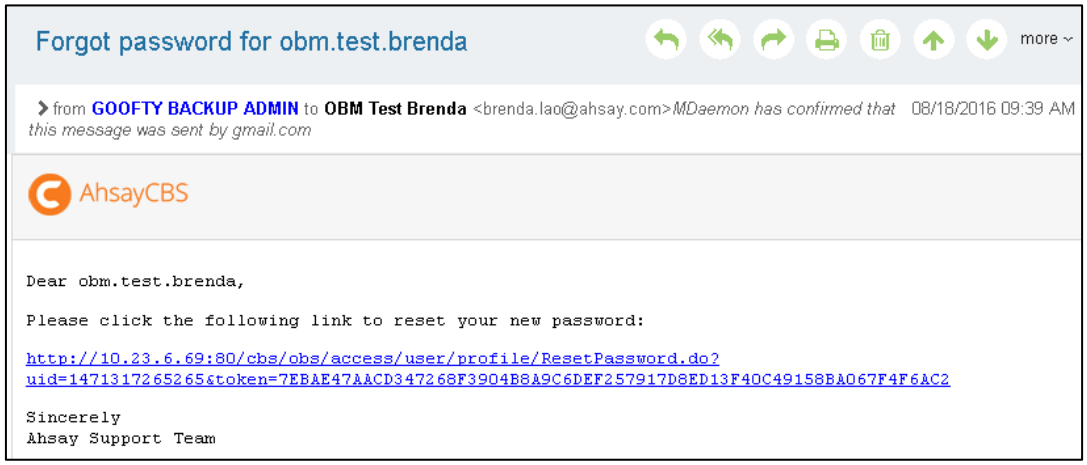
1. On the AhsayCBS Logon page, click **Forgot Password**.



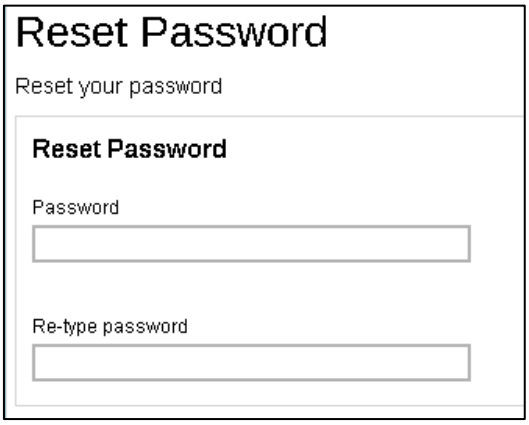
2. The following screen appears. Enter either your **Login Name** or your **Email** to reset the password. Click **Send Request**.



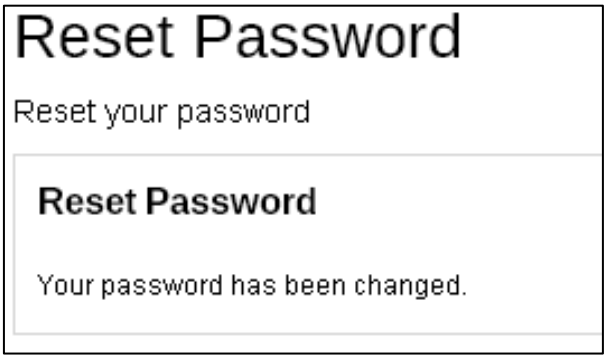
3. You receive an email containing a link. Click on the link to reset your password.



4. The Reset Password screen appears. Enter the new **Password** and then **Re-type Password**. Click to save the modification.



5. You get the following screen confirming that your password has been changed.

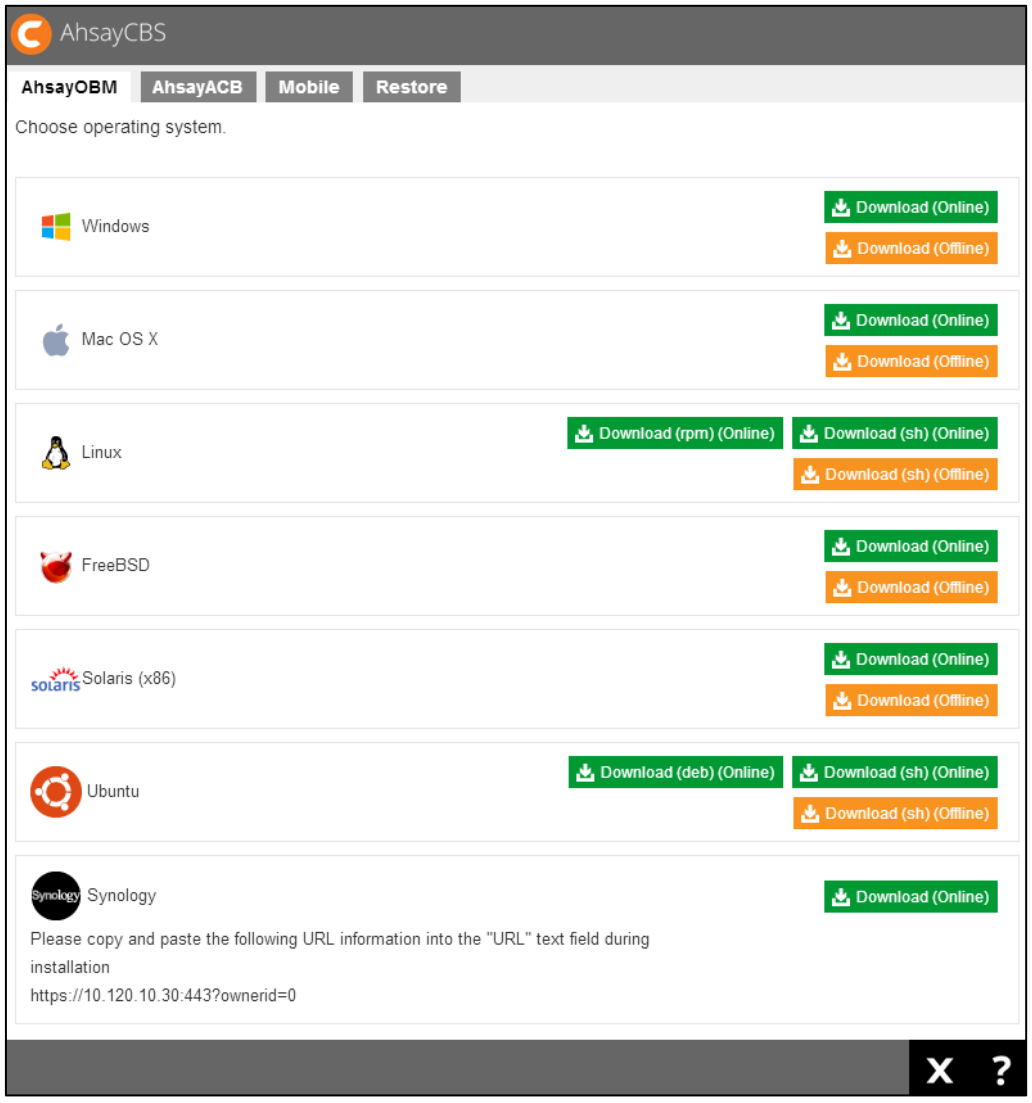


Downloading Software

You can choose what client software you wish to download as followed:

1. On the AhsayCBS Logon page, click the downward arrow on the top right hand corner.

2. The software download page appears. You can choose which product and which platform to download.



From v7.15.0.0 onwards AhsayCBS support two installation modes, online and offline installation (except for Linux (rpm), Ubuntu (deb) and Synology NAS which supports online installation only). User can download and run either one of the installers.

Below is the table of comparison between online installation and offline installation.

	Online Installation	Offline Installation
Internet	➢ It cannot be started without an internet connection. ➢ Clients need to have an internet connection each time an installation is run. ➢ If the client internet connection is interrupted or is not stable the installation may be unsuccessful. ➢ Online installer size is 6KB to 3.5MB depending on operating system as it contains only the initial installation package files.	➢ Once the offline installer is downloaded, the client does not require an internet connection each time an installation is run. ➢ The offline installer size is 80MB to 140MB depending on operating system as it contains all the necessary binary and component files
Backup Server Availability	The online installer requires the backup server to be online in order to run and complete the installation.	An offline installation can be performed independently of the backup server availability.
Installation Time	➢ Takes more time as it needs to download the binary and component files (80MB to 140MB depending on operating system) each time the installation is run. ➢ A slow internet connection on the client machine will also result in longer installation time.	Takes less time as all the necessary binary and component files are already available in the offline installer.
Version Control	Online installation ensures the latest version of the product is installed.	May need to update the product version after installation if an older offline installer is used.
Administrative Support	Need more time on the support for the installation as network factor might lead to unsuccessful installation.	Need less time as independent of network factor influence.
Deployments	➢ Suitable for single or small amount of device installations. ➢ Suitable for client sites with fast and stable internet connection.	➢ Suitable for multiple or mass device installations. ➢ Suitable for client sites with metered internet connections.

3. Download the executable and install the product in the usual way.

Changing the Language

You can change the language of AhsayCBS anytime, whether before or after you have logon to the system.

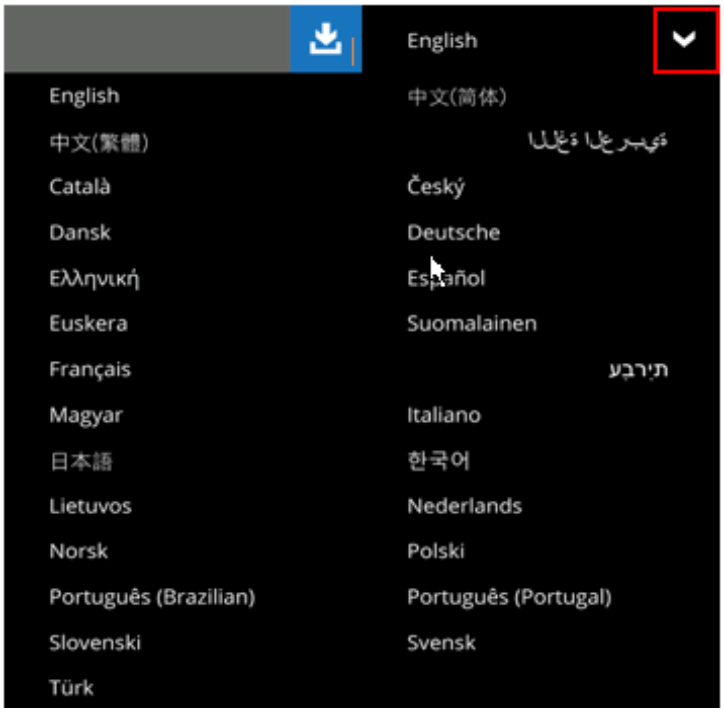
> **Note**
>
> If the language you want is not available, please contact your backup service provider for assistance.

The available languages are:

- English (default)
- German
- French
- Japanese
- Korean
- Chinese (Simplified)
- Chinese (Traditional)
- Catalan
- Danish
- Greek Modern
- Spanish
- Basque
- Hebrew
- Hungarian
- Lithuanian
- Dutch
- Norwegian
- Portuguese (Portugal)
- Swedish
- Turkish
- Portuguese (Brazil)
- Slovenian
- Polish
- Italian
- Finnish
- Arabic
- Czech

1. On the AhsayCBS Logon page, click the downward arrow on the upper right hand side.

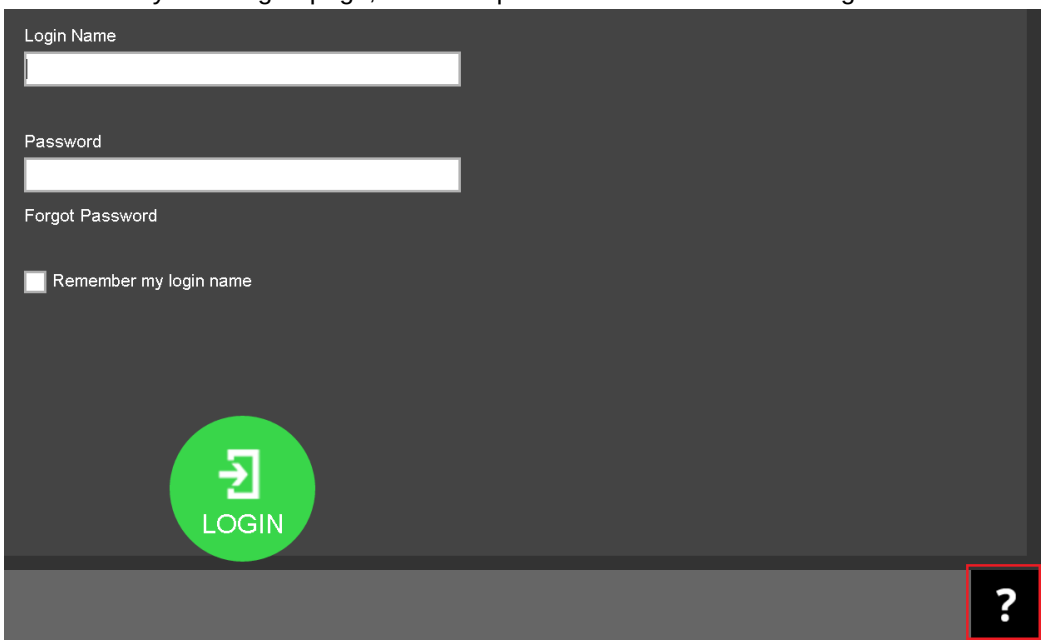
2. A list of available language is displayed for your choice.



Invoking Online Help

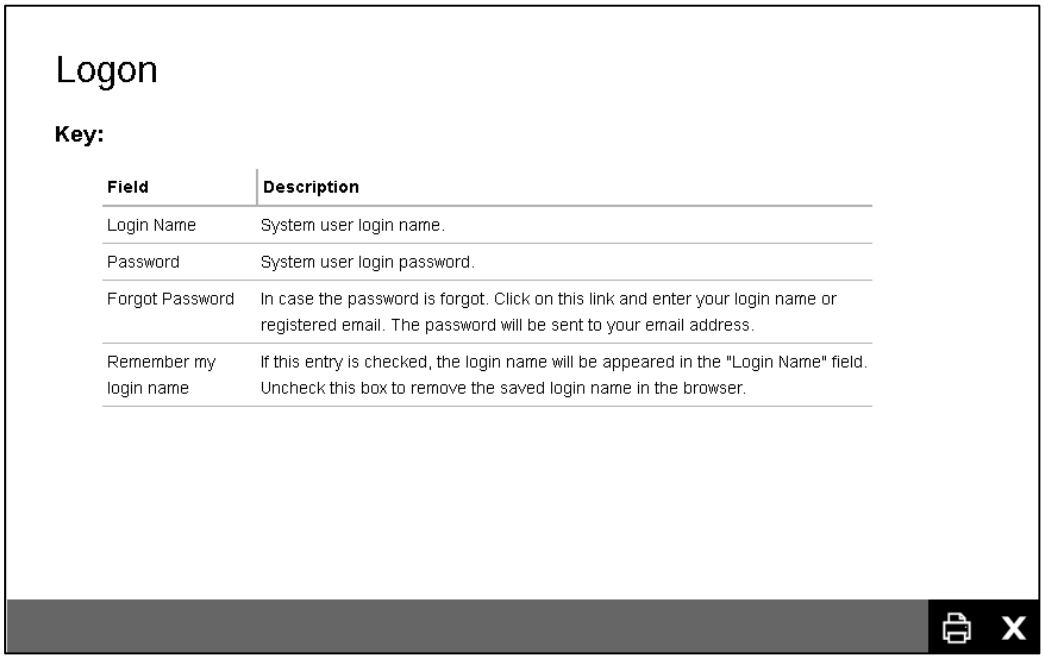
You can invoke online help if you have problems logging in to the AhsayCBS server.

1. On the AhsayCBS Logon page, click the question mark at the bottom right corner.



2. The online help for the topic “Logon” appears.

   It contains detailed description of each field on the logon screen and gives a brief description of each field.



Logon

Key:

Field	Description
Login Name	System user login name.
Password	System user login password.
Forgot Password	In case the password is forgot. Click on this link and enter your login name or registered email. The password will be sent to your email address.
Remember my login name	If this entry is checked, the login name will be appeared in the "Login Name" field. Uncheck this box to remove the saved login name in the browser.

3. You can print the online help by clicking at the bottom right corner. To exit, click **X**.

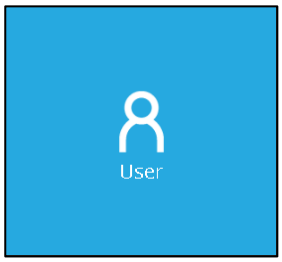
2 Managing Your AhsayCBS User Account

Login to AhsayCBS

Login to the AhsayCBS user web console according to the instruction provided in section Logging on to AhsayCBS User Web Console.

Managing AhsayCBS Backup User

To manage your AhsayCBS backup user account, simply click the **User** icon from your AhsayCBS environment.



You can perform the following operations on your own user account:

- Manage your user profile settings, e.g. New Password, Language, Timezone, Contact Information
- Customize event log settings, which is supported on AhsayOBM/ AhsayACB clients installed on Windows platform only
- View backup or restore reports for different time periods
- View usage statistics by selecting destination, backup set, and period
- View details of policies and settings on users, backup sets, GUIs, default values, preempted values, preempted backup sets, and mobile. The settings and the availability of this feature is depended on your backup service provider.

User Profile

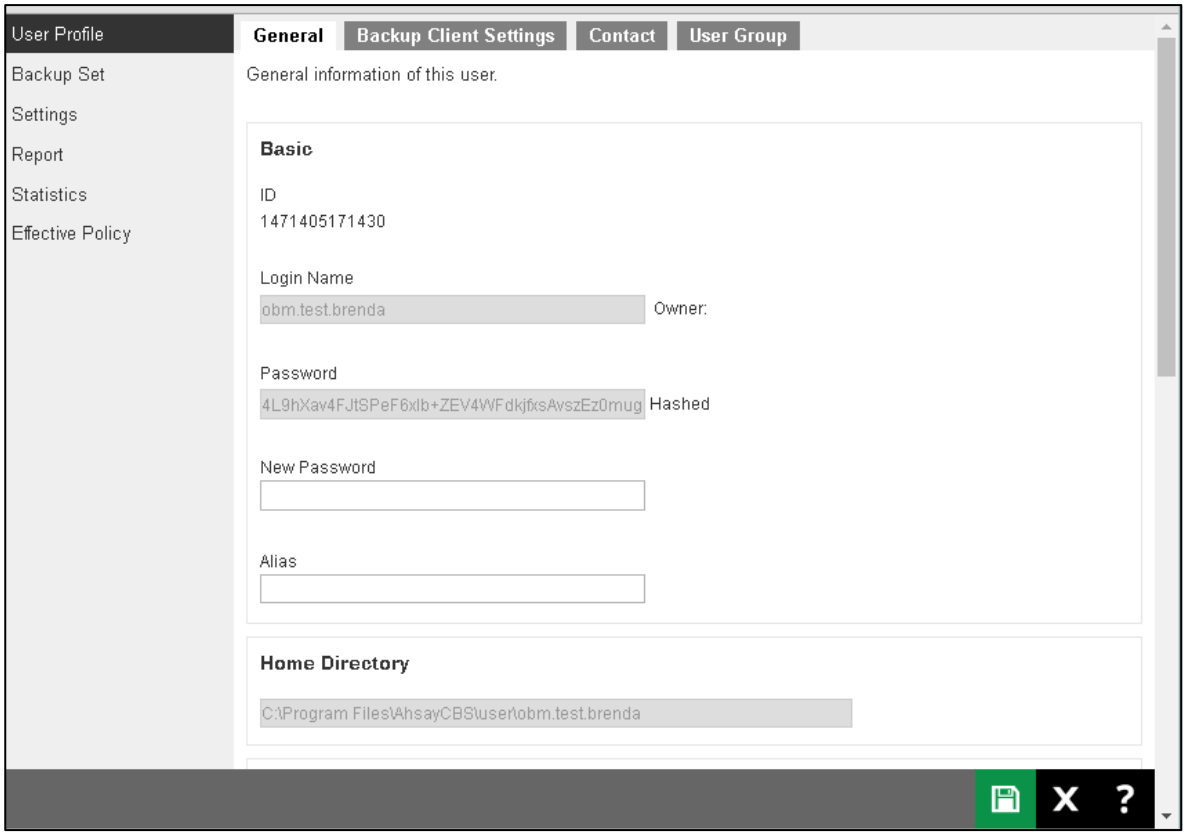
User Profile tab contains your user backup account settings information, subscribed modules backup quota, subscription type, contact information, and user group information.

Among all the above information, you can modify user backup account settings information and contact information. However, for the subscribed modules backup quota, subscription type and user group information, as the setting was done when the user account was created, the settings cannot be modified by the user.

There are 4 tabs under **User Profile**, each of which is described below.

General Tab

The following shows the General tab under the User Profile settings page.



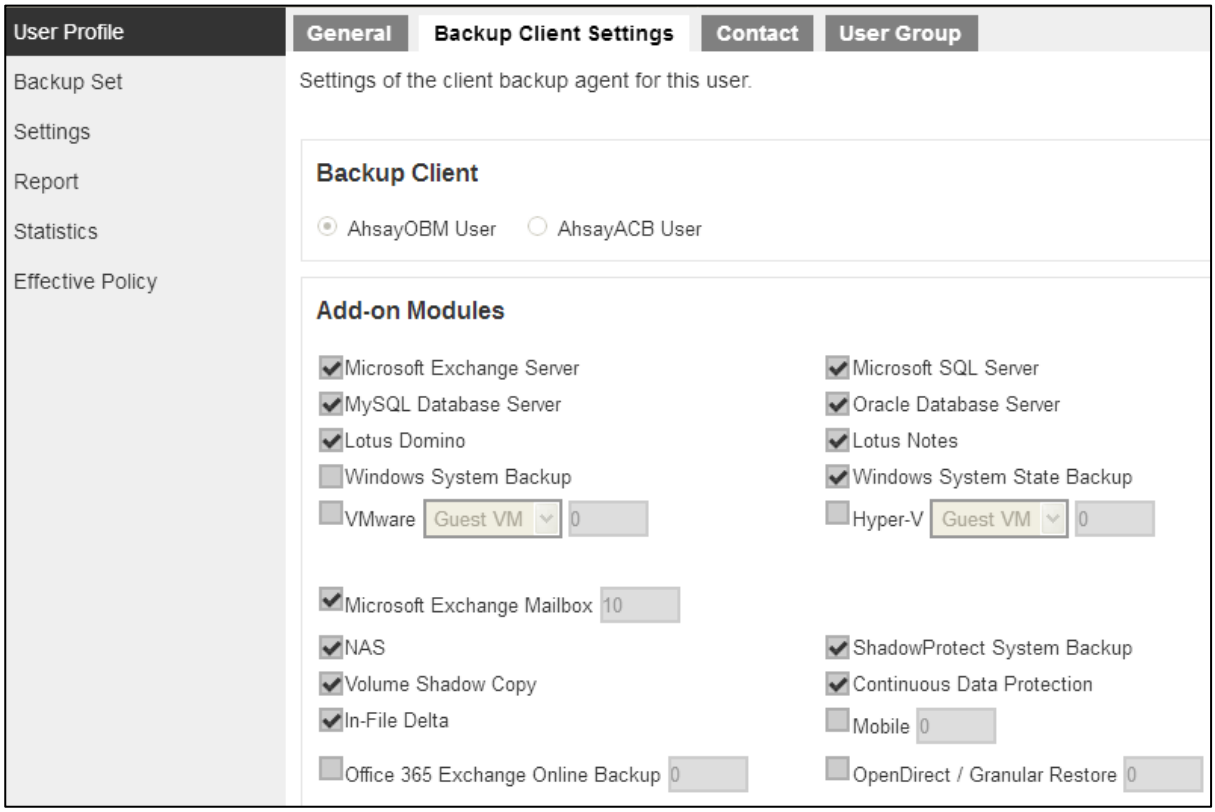
There are several groups of settings under the **General** tab, and they are described below.

Section	Description
Basic	You can change the password and alias name for your user account. However, you cannot change your login name.
Home Directory	This is the path where your backup data is stored on AhsayCBS backup destination. This was set when your account was created and cannot be modified by the user.

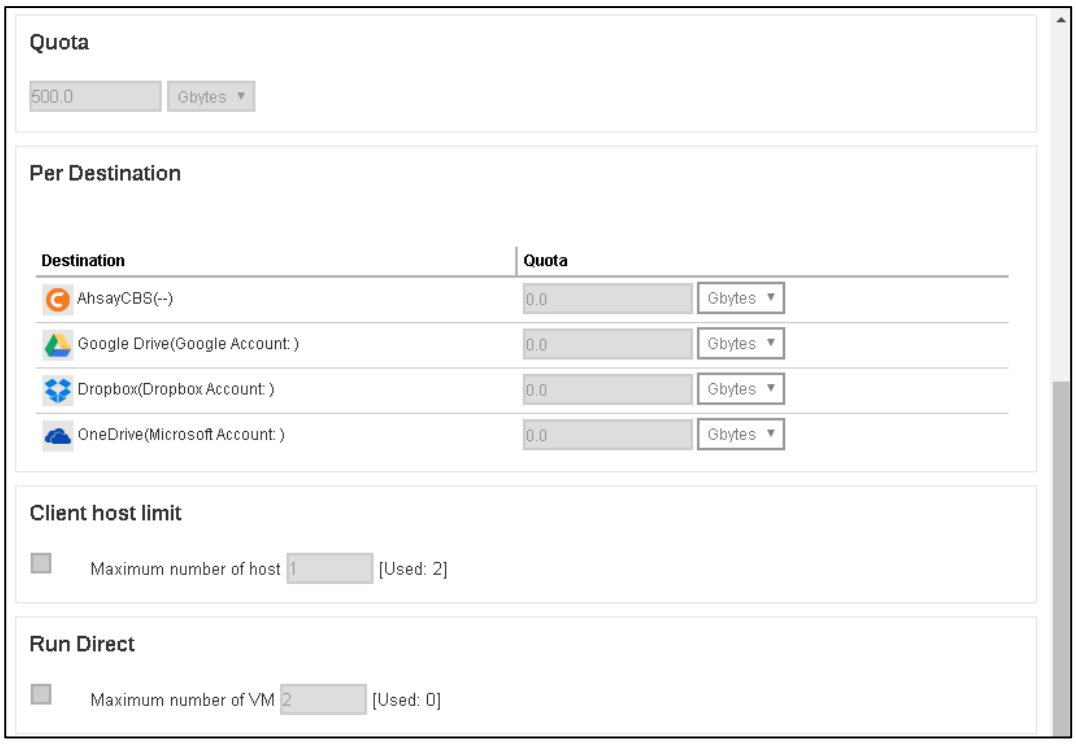
Subscription Type	There are 2 subscription types: **Trial User** and **Paid User**. Trial users can only have a maximum backup quota of 100GB within the trial period and are subject to automatic removal. Paid users do not have such restrictions. This was set when your account was created and cannot be modified by the user. If you need to change it, please contact your backup service provider.
Suspend At	This shows the date when the user account is scheduled to be suspended. This was set when your account was created and cannot be modified by the user. If you need to update it, please contact your backup service provider.
Status	There are 3 user account status: **Enable**, **Suspended**, and **Locked**. The **Locked** status refers to account lockout rules. For example, when the user has 3 consecutive unsuccessful login attempts, the user account will be locked. This was set when your account was created and cannot be modified by the user. If you need to change it, please contact your backup service provider.
Upload Encryption Key	Check this option to enable recovery of the encryption key. The encryption key file will be uploaded to the backup server, which can be retrieved by administrator only. If you forget the encryption key, please contact your backup service provider for support.
Language	Select your preferred language for all email reports.
Timezone	Select the time zone of the backup user.
Notes	A field for the AhsayCBS user to add notes.

Backup Client Settings Tab

The following shows the first half of the **Backup Client Settings** tab under the **User Profile** settings page.



The following shows the second half of the **Backup Client Settings** tab under the **User Profile** settings page.



There are several groups of settings under the **Backup Client Settings** tab, and they are described below.

Section	Description
Backup Client	There are 2 types of backup user accounts: **AhsayOBM** and **AhsayACB**. This was set when your account was created and cannot be modified by the user. If you need to change it, please contact your backup service provider.
Add-on Modules	The backup client comes with add-on modules. These add-on modules were set when the user account was created and cannot be modified by the user. If you need to change the add-on modules, please contact your backup service provider.
Quota	This is the backup quota reserved on all the destinations except local destination for your account. It was set when your account was created and cannot be modified by the user. If you need to change it, please contact your backup service provider.
Per Destination	This refers to the backup storage quota on each cloud backup destination defined by your backup service provider. If no backup quota is assigned for that destination, the general quota will be used. It was set when your account was created and cannot be modified by the user. If you need to change it, please contact your backup service provider.
Client Host Limit	This is for your backup service provider to set the maximum number of host machine for your backup user account. This field cannot be changed by the user. If you need to update this field, please contact your backup service provider.
Run Direct	This allows the user to select the maximum number of VMs to be restored by running them directly from the backup files on the AhsayCBS. This field cannot be changed by the user. If you need to update this field, please contact your backup service provider.

Add-on Modules

The following table shows all the add-on modules available under the **Backup Client Settings** tab. The backup of these add-on modules are supported by the AhsayOBM client. For some of the add-on modules, their backup are also supported by the AhsayACB client.

Note

The **File** and **Cloud File Backup** types are available by default for both AhsayACB and AhsayOBM. As a result, they do not need to be added and are not included in the Add-on Modules section of the **Backup Client Settings** tab.

The following table shows the name of the add-on modules, what it is used for, whether it is available in AhsayOBM client or AhsayACB client, and reference materials you can refer to for more information.

Add-on Module	Reference	AhsayOBM	AhsayACB

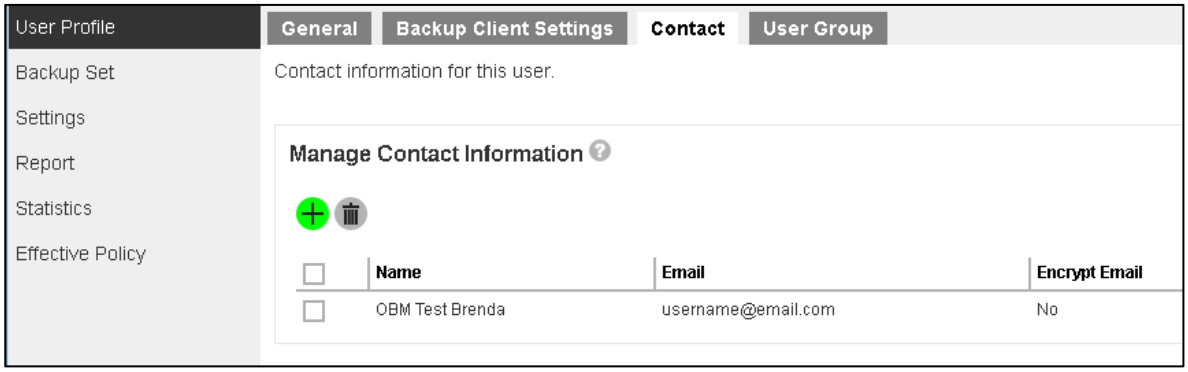
Microsoft Exchange Server	Backup and restore of Microsoft Exchange Server. Refer to the following link for how to use Microsoft Exchange Database Server with AhsayOBM client: Ahsay Online Backup Manager v7 Microsoft Exchange Database Backup and Restore Guide	✓	✗
Microsoft SQL Server	Backup and restore of Microsoft SQL Server. Refer to the following link for how to use Microsoft SQL Server with AhsayOBM client: Ahsay Online Backup Manager v7 Microsoft SQL Server Backup and Restore Guide	✓	✗
MySQL Database Server	Backup and restore of MySQL Database Server. Refer to the following link for how to use MySQL Database for the Windows platform with AhsayOBM client: Ahsay Online Backup Manager v7 MySQL Database Backup and Restore for Windows Refer to the following link for how to use MySQL Database for the Linux platform with AhsayOBM client: Ahsay Online Backup Manager v7 MySQL Database Backup and Restore for Linux (CLI)	✓	✗
Oracle Database Server	Backup and restore of Oracle Database Server on Windows and Linux platforms.	✓	✗
Lotus Domino	Backup and restore of Lotus Domino.	✓	✗
Lotus Notes	Backup and restore of Lotus Notes.	✓	✓
Windows System Backup	Backup and restore of Windows System Backup. Refer to the following link for how to use Windows System Backup with AhsayOBM and AhsayACB clients: Ahsay Online Backup Manager v7 Microsoft System Backup and Restore Guide	✓	✓
Windows System State Backup	Backup and restore of Windows System State Backup. Refer to the following link for how to use Windows System State Backup with AhsayOBM client: Ahsay Online Backup Manager v7 Microsoft System State Backup and Restore Guide	✓	✗
VMware	Backup and restore of VMware guest virtual machines. Refer to the following link for how to use VMware VCenter/EXSi with AhsayOBM client: Ahsay Online Backup Manager v7VMware vCenter/ESXi Backup and Restore Guide	✓	✗
Hyper-V	Backup and restore of Hyper-V guest virtual machines. Refer to the following link for how to use Microsoft Hyper-V with AhsayOBM client: Ahsay Online Backup Manager v7 Microsoft Hyper-V Backup and Restore Guide	✓	✗

Microsoft Exchange Mailbox	Backup and restore of Microsoft Exchange Mailbox. Refer to the following link for how to use Microsoft Exchange 2007/ 2010/ 2013 Mailbox with AhsayOBM client: Ahsay Online Backup Manager v7 Microsoft Exchange Mail-Level Backup & Restore Guide Refer to the following link for how to use Microsoft Exchange 2016 Mailbox with AhsayOBM client: Ahsay Online Backup Manager v7 Microsoft Exchange 2016 Mail Level Backup & Restore Guide	✓	✗
NAS	Backup and restore of file on Synology NAS devices. Refer to the following link for how to use the Synology NAS with AhsayOBM client: Ahsay Online Backup Manager v7 Quick Start Guide for Synology NAS Refer to the following link for a list of Synology hardware compatible with AhsayOBM: FAQ: Ahsay Hardware Compatibility List (HRL) for AhsayOBM on Synology NAS (5058)	✓	✗
Shadow Protect System Backup	Backup and restore of Shadow Protect System image (requires Shadow Protect).	✓	✗
Volume Shadow Copy	Volume Shadow Copy to support open file backups on Windows platform.	✓	✓
Continuous Data Protection	A backup will be made whenever this is a change (between 1 min to 12 hour intervals) for Windows platform.	✓	✓
In-File Delta	When enabled only the changes since the last backup job is backed up.	✓	✓
Mobile	Backup and restore of Mobile data (iOS and Android). Refer to the following links for instructions on using the AhsayMOB for Android and iOS platforms. AhsayMOB v7 User Guide – iOS AhsayMOB v7 User Guide – Android	✓	✓
Office 365 Exchange Online Backup	Backup and restore user's mailboxes on Office 365 Exchange mailboxes. Refer to the following links for how to use Office 365 Exchange Online with AhsayOBM: AhsayOBM v7 User Guide - Office365 Exchange Online Backup & Restore for Windows AhsayOBM v7 User Guide - Office365 Exchange Online Backup & Restore for Mac	✓	✗
OpenDirect / Granular Restore	For OpenDirect and Granular Restore. Refer to the following link for instructions on using OpenDirect / Granular Restore. AhsayACB v7 Quick Start Guide for Windows	✓	✗

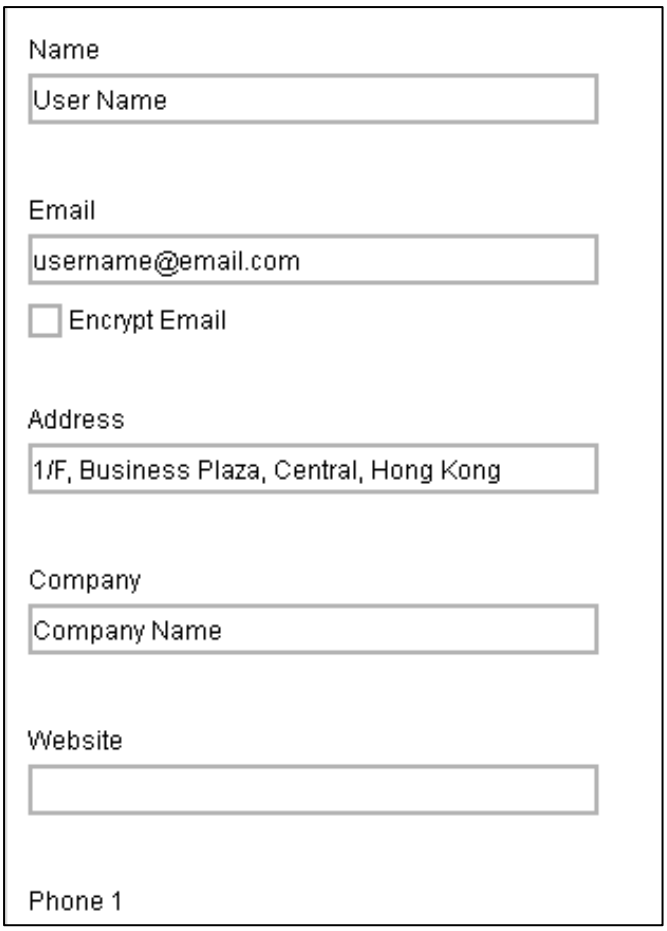
	Ahsay Online Backup Manager v7 Quick Start Guide for Windows Ahsay Online Backup Manager v7 Microsoft Hyper-V Backup and Restore Guide Ahsay Online Backup Manager v7 VMware vCenter/ESXi Backup and Restore Guide		

Contact Tab

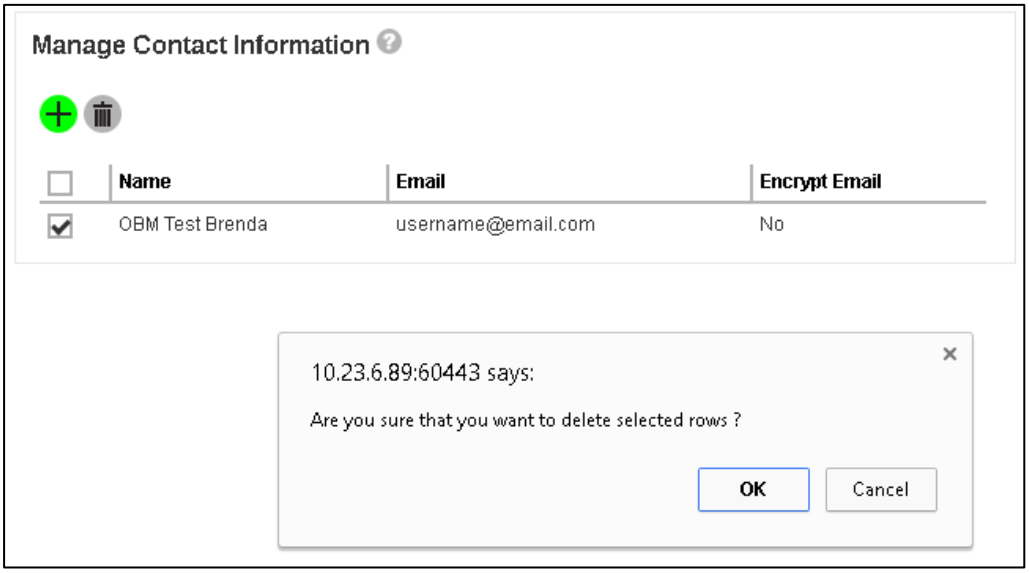
You can add your contact information here to receive backup or restore reports. You can also delete your contact information here. The following shows the **Contact** tab under the **User Profile** settings page.



- To add your contact information, click in the middle of the screen. Enter your **Name**, **Email**, **Address**, **Company**, **Website**, **Phone1**, **Phone2**, then click at the bottom right corner of the screen. A new contact is added.



- To delete a contact information, check the box next to the contact information you want to delete, then click in the middle of the screen. Confirm that you want to delete the contact when prompted. The selected contact is deleted. Click to save your changes.



User Group Tab

The following shows the **User Group** tab under the **User Profile** settings page. It shows the user group your user account belongs to. This is set when your account was created and cannot be

modified.

Note

Please remember to click after modification to save the change. Otherwise the modification will be lost after quitting the setting page.

Settings

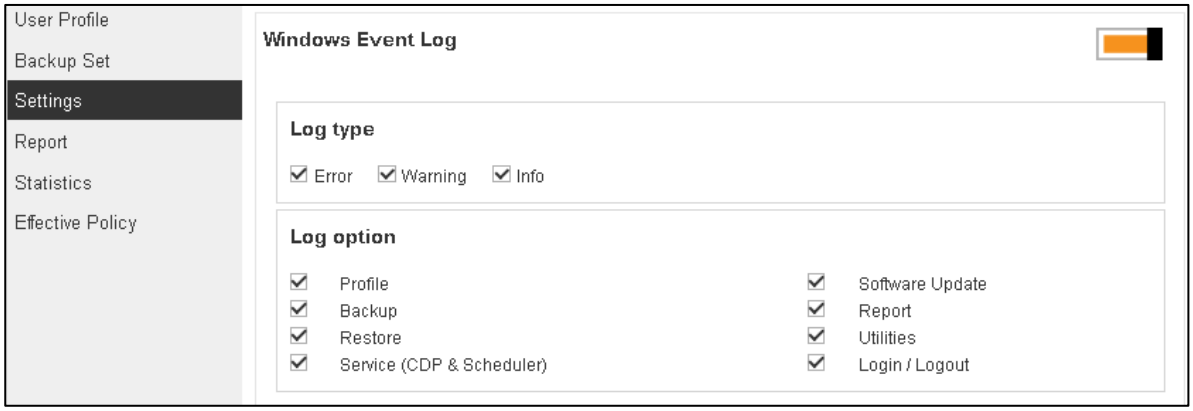
The **Settings** page allows the user to log the optional events, besides AhsayOBM/ AhsayACB logs, to the Windows event log.

Note

This feature is supported on AhsayOBM/AhsayACB clients installed on Windows platform only.

Windows event log

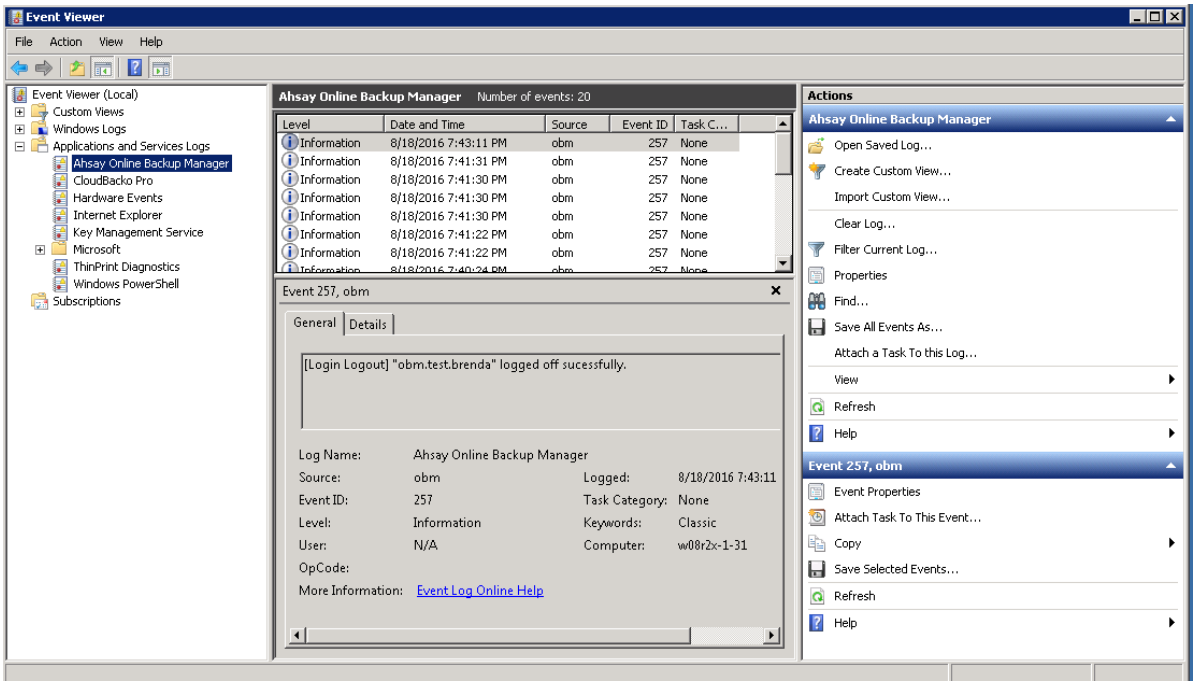
The following shows the options on the **Settings** page.



There are two groups of settings under the **Settings** tab, and they are described below.

Setting	Description
Log Type	There are 3 log types available: **Error**, **Warning** and **Info**. You can select any combinations of the 3 log types, and the messages will be logged in the Windows event log.
Log Option	Select the log option by which the particular action will be captured in the Windows event log. Currently there are 8 different log options that can be selected: **Profile**, **Backup**, **Restore**, **Service (CDP & Scheduler)**, **Software Update**, **Report**, **Utilities**, and **Login/Logout**.

The events are logged in the Windows event log and can be viewed from the Windows Event Viewer:



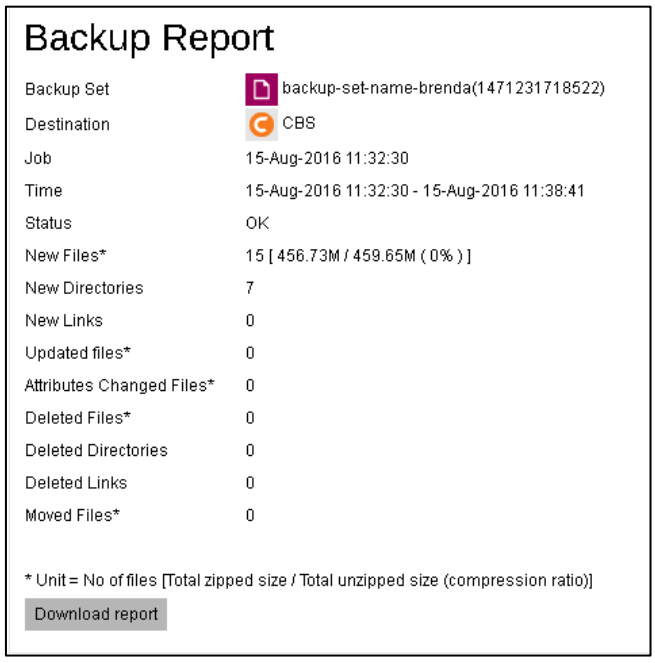
Reports

The **Report** tab allows you to check the **Backup** and **Restore** report of both backup and restore jobs proceeded in agent-based (AhsayOBM/ AhsayACB/ AhsayOBR/ AhsayMOB) and agentless (AhsayCBS User Web Console) type.

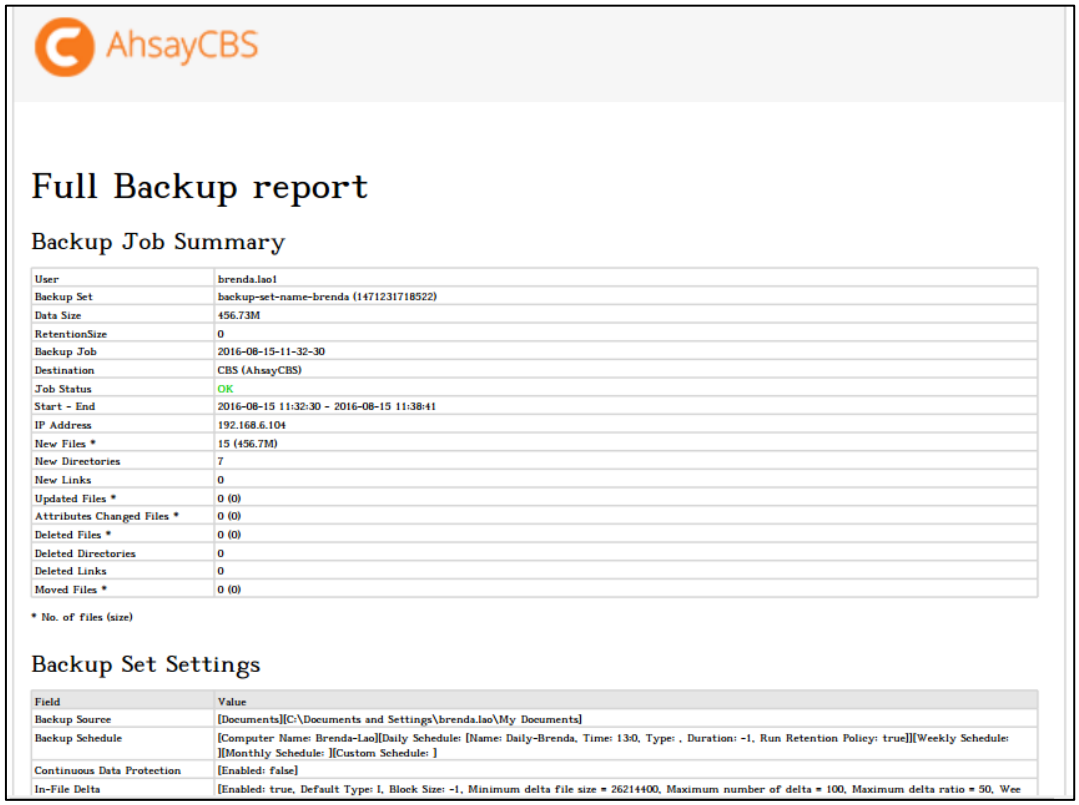
Backup Reports

1. A list of backup reports for this AhsayCBS user can be found on the **Backup** tab. Click on the desired report to get more details on the report.

2. Click the **Download report** button at the bottom to download the complete report in PDF format.



3. A full version of the backup report appears. You can view the detailed backup set settings on this report.



AhsayCBS

Full Backup report

Backup Job Summary

User	brenda.lao1
Backup Set	backup-set-name-brenda (1471231718522)
Data Size	456.73M
RetentionSize	0
Backup Job	2016-08-15-11-32-30
Destination	CBS (AhsayCBS)
Job Status	OK
Start - End	2016-08-15 11:32:30 - 2016-08-15 11:38:41
IP Address	192.168.6.104
New Files *	15 (456.7M)
New Directories	7
New Links	0
Updated Files *	0 (0)
Attributes Changed Files *	0 (0)
Deleted Files *	0 (0)
Deleted Directories	0
Deleted Links	0
Moved Files *	0 (0)

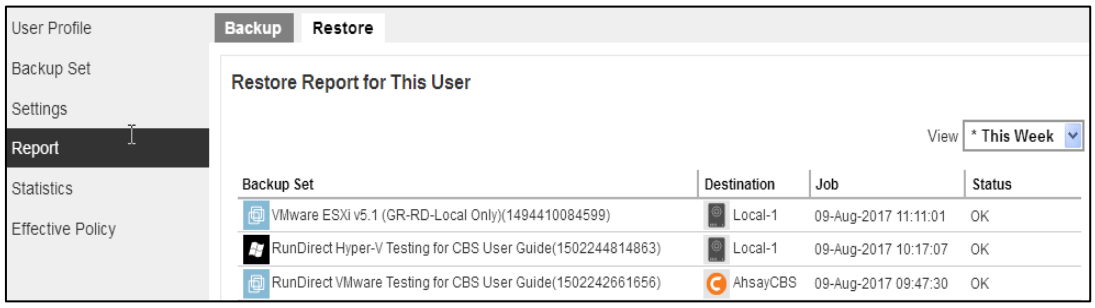
* No. of files (size)

Backup Set Settings

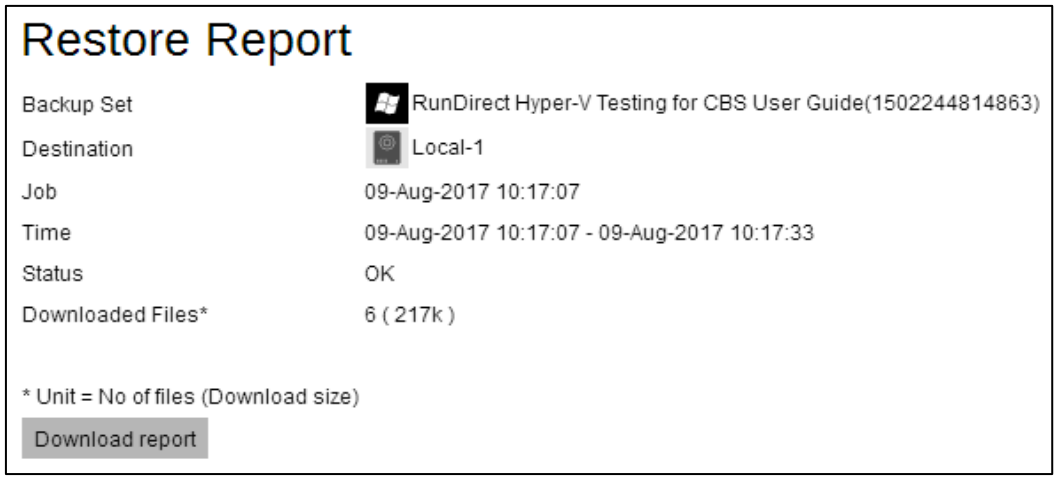
Field	Value
Backup Source	[Documents][C:\Documents and Settings\brenda.lao\My Documents]
Backup Schedule	[Computer Name: Brenda-Lao][Daily Schedule: [Name: Daily-Brenda, Time: 130, Type: , Duration: -1, Run Retention Policy: true]][Weekly Schedule:][Monthly Schedule:][Custom Schedule:]
Continuous Data Protection	[Enabled: false]
In-File Delta	[Enabled: true, Default Type: I, Block Size: -1, Minimum delta file size = 26214400, Maximum number of delta = 100, Maximum delta ratio = 50, Wee

Restore Reports

1. A list of restore reports for this AhsayCBS user can be found on the **Restore** tab. Click on the desired report to get more details on the report.

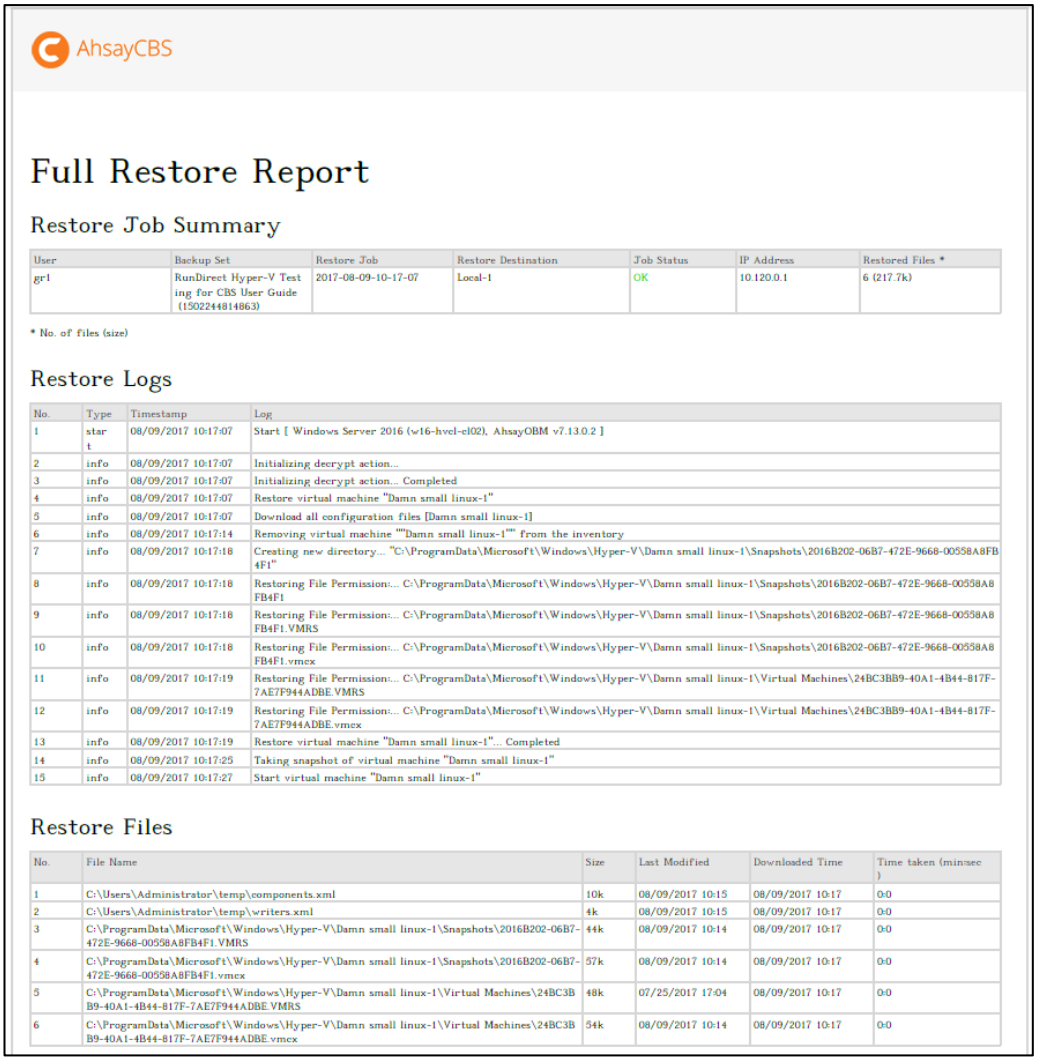


2. Click the **Download report** button at the bottom to download the complete report in PDF format.



3. A full version of the restore report appears. You can view the detailed backup set settings on this report.

   i. Normal Restore



AhsayCBS

Full Restore Report

Restore Job Summary

User	Backup Set	Restore Job	Restore Destination	Job Status	IP Address	Restored Files *
gr1	RunDirect Hyper-V Testing for CBS User Guide (1502244814863)	2017-08-09-10-17-07	Local-1	OK	10.120.0.1	6 (217.7k)

* No. of files (size)

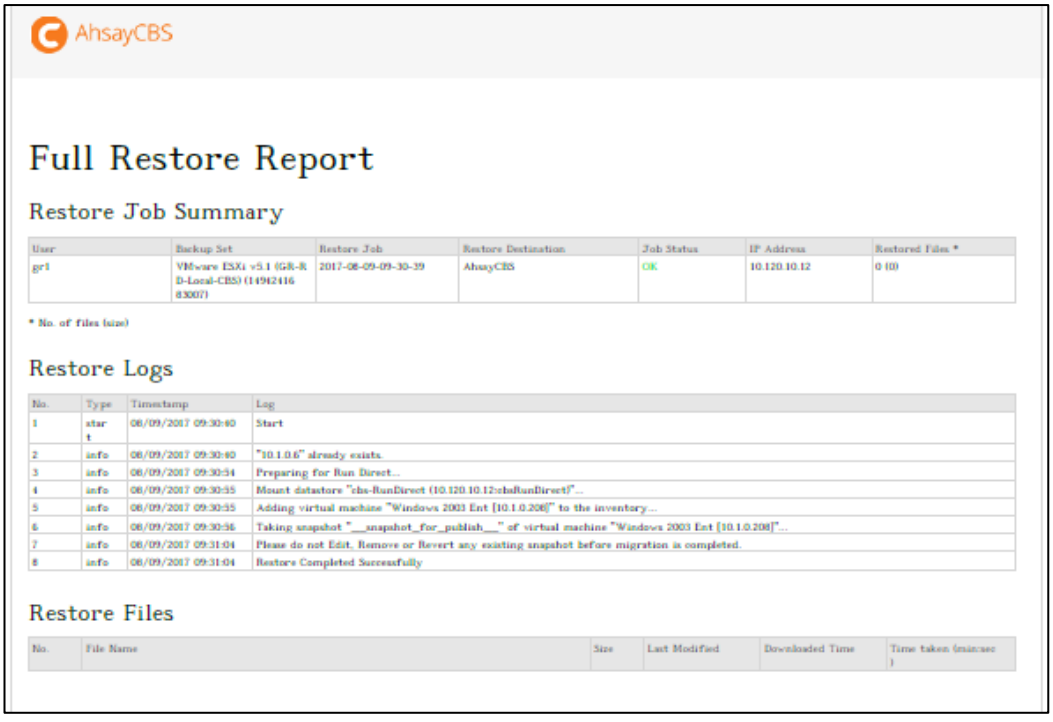
Restore Logs

No.	Type	Timestamp	Log
1	start	08/09/2017 10:17:07	Start [Windows Server 2016 (w16-hvcl-c102), AhsayOBM v7.13.0.2]
2	info	08/09/2017 10:17:07	Initializing decrypt action...
3	info	08/09/2017 10:17:07	Initializing decrypt action... Completed
4	info	08/09/2017 10:17:07	Restore virtual machine "Damn small linux-1"
5	info	08/09/2017 10:17:07	Download all configuration files [Damn small linux-1]
6	info	08/09/2017 10:17:14	Removing virtual machine ""Damn small linux-1"" from the inventory
7	info	08/09/2017 10:17:18	Creating new directory... "C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Snapshots\2016B202-06B7-472E-9668-00558A8FB4F1"
8	info	08/09/2017 10:17:18	Restoring File Permission:... C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Snapshots\2016B202-06B7-472E-9668-00558A8FB4F1
9	info	08/09/2017 10:17:18	Restoring File Permission:... C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Snapshots\2016B202-06B7-472E-9668-00558A8FB4F1.VMRS
10	info	08/09/2017 10:17:18	Restoring File Permission:... C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Snapshots\2016B202-06B7-472E-9668-00558A8FB4F1.vmcx
11	info	08/09/2017 10:17:19	Restoring File Permission:... C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Virtual Machines\24BC3BB9-40A1-4B44-817F-7AE7F944ADBE.VMRS
12	info	08/09/2017 10:17:19	Restoring File Permission:... C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Virtual Machines\24BC3BB9-40A1-4B44-817F-7AE7F944ADBE.vmcx
13	info	08/09/2017 10:17:19	Restore virtual machine "Damn small linux-1"... Completed
14	info	08/09/2017 10:17:25	Taking snapshot of virtual machine "Damn small linux-1"
15	info	08/09/2017 10:17:27	Start virtual machine "Damn small linux-1"

Restore Files

No.	File Name	Size	Last Modified	Downloaded Time	Time taken (min:sec)
1	C:\Users\Administrator\temp\components.xml	10k	08/09/2017 10:15	08/09/2017 10:17	0:0
2	C:\Users\Administrator\temp\writers.xml	4k	08/09/2017 10:15	08/09/2017 10:17	0:0
3	C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Snapshots\2016B202-06B7-472E-9668-00558A8FB4F1.VMRS	44k	08/09/2017 10:14	08/09/2017 10:17	0:0
4	C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Snapshots\2016B202-06B7-472E-9668-00558A8FB4F1.vmcx	57k	08/09/2017 10:14	08/09/2017 10:17	0:0
5	C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Virtual Machines\24BC3BB9-40A1-4B44-817F-7AE7F944ADBE.VMRS	48k	07/25/2017 17:04	08/09/2017 10:17	0:0
6	C:\ProgramData\Microsoft\Windows\Hyper-V\Damn small linux-1\Virtual Machines\24BC3BB9-40A1-4B44-817F-7AE7F944ADBE.vmcx	54k	08/09/2017 10:14	08/09/2017 10:17	0:0

ii. Run Direct Restore without Auto Migration



AhsayCBS

Full Restore Report

Restore Job Summary

User	Backup Set	Restore Job	Restore Destination	Job Status	IP Address	Restored Files *
gr1	VMware ESXi v5.1 (GR-RD-Local-CBS) (1496241683007)	2017-08-09-09-30-39	AhsayCBS	OK	10.120.10.12	0 (0)

* No. of files (size)

Restore Logs

No.	Type	Timestamp	Log
1	start	08/09/2017 09:30:40	Start
2	info	08/09/2017 09:30:40	"10.1.0.6" already exists.
3	info	08/09/2017 09:30:54	Preparing for Run Direct...
4	info	08/09/2017 09:30:55	Mount datastore "cbs-RunDirect (10.120.10.12:cbsRunDirect)"...
5	info	08/09/2017 09:30:55	Adding virtual machine "Windows 2003 Ent [10.1.0.208]" to the inventory...
6	info	08/09/2017 09:30:56	Taking snapshot "___snapshot_for_publish___" of virtual machine "Windows 2003 Ent [10.1.0.208]"...
7	info	08/09/2017 09:31:04	Please do not Edit, Remove or Revert any existing snapshot before migration is completed.
8	info	08/09/2017 09:31:04	Restore Completed Successfully

Restore Files

No.	File Name	Size	Last Modified	Downloaded Time	Time taken (min:sec)

iii. Run Direct with Auto Migration

AhsayCBS

Full Restore Report

Restore Job Summary

User	Backup Set	Restore Job	Restore Destination	Job Status	IP Address	Restored Files *
gr1	VMware ESXi v5.1 (GR-RD-Local-CBS) (1494241683007)	2017-08-14-15-36-39	AhsayCBS	OK	10.16.10.92	0 (0)

* No. of files (size)

Restore Logs

No.	Type	Timestamp	Log
1	start	08/14/2017 15:36:40	Start [Windows Server 2012 (Work12-w12x), AhsayOBM v7.13.0.2]
2	info	08/14/2017 15:36:40	Initializing decrypt action...
3	info	08/14/2017 15:36:40	Initializing decrypt action... Completed
4	info	08/14/2017 15:36:41	VMware ESXi 5.1.0 build-1157734|10.1.0.6:443|SSH:22|
5	info	08/14/2017 15:37:02	Preparing for Run Direct...
6	info	08/14/2017 15:37:04	Mount datastore "cbs-RunDirect (10.120.10.12\cbsRunDirect)"...
7	info	08/14/2017 15:37:04	Adding virtual machine "New Virtual Machine" to the inventory...
8	info	08/14/2017 15:37:11	Taking snapshot "___snapshot_for_publish___" of virtual machine "New Virtual Machine"...
9	info	08/14/2017 15:37:20	Powering on virtual machine "New Virtual Machine"...
10	info	08/14/2017 15:37:25	Please do not Edit, Remove or Revert any existing snapshot before migration is completed.
11	info	08/14/2017 15:37:28	Start manual migration...
12	info	08/14/2017 15:37:29	Loading information...
13	info	08/14/2017 15:37:33	Taking snapshot "___snapshot_for_migrate___" of virtual machine "New Virtual Machine"...
14	info	08/14/2017 15:37:41	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003-000001-delta.vmdk
15	info	08/14/2017 15:37:48	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003-000001.vmdk
16	info	08/14/2017 15:38:05	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003-flat.vmdk
17	info	08/14/2017 16:06:49	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003.vmdk
18	info	08/14/2017 16:06:54	Suspending virtual machine "New Virtual Machine"...
19	info	08/14/2017 16:07:05	Loading information...
20	info	08/14/2017 16:07:10	Removing virtual machine "New Virtual Machine" from the inventory...
21	info	08/14/2017 16:07:10	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003.nvram
22	info	08/14/2017 16:07:11	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003.vmsd
23	info	08/14/2017 16:07:17	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003.vmx
24	info	08/14/2017 16:07:18	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003.vmxf
25	info	08/14/2017 16:07:19	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003-9546e87f.vmss
26	info	08/14/2017 16:07:45	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003-000002-delta.vmdk
27	info	08/14/2017 16:07:50	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003-000002.vmdk
28	info	08/14/2017 16:07:57	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003-Snapshot1.vmsn
29	info	08/14/2017 16:07:57	Migrating...[datastore3_PD0405] New Virtual Machine/Win2003-Snapshot2.vmsn
30	info	08/14/2017 16:07:58	Adding virtual machine "New Virtual Machine" to the inventory...
31	info	08/14/2017 16:07:59	Powering on virtual machine "New Virtual Machine"...
32	info	08/14/2017 16:08:04	Removing snapshot "___snapshot_for_migrate___" from virtual machine "New Virtual Machine"...
33	info	08/14/2017 16:08:16	Removing snapshot "___snapshot_for_publish___" from virtual machine "New Virtual Machine"...
34	info	08/14/2017 16:08:17	Unmount datastore "cbs-RunDirect"...

Restore Files

No.	File Name	Size	Last Modified	Downloaded Time	Time taken (mm:ss)

Note

OpenDirect restore of file backup sets or granular restore of files from VMware and Hyper-V backup sets performed using Windows File Explorer will not any generate restore reports on AhsayCBS. Restore reports are only available when the restore is performed directly through AhsayOBM /AhsayACB/ AhsayOBR or AhsayCBS User Web Console.

Statistics

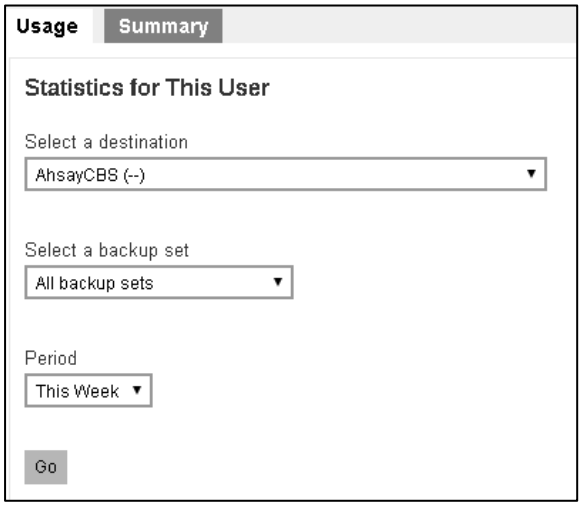
You can generate a graph of storage statistics for the user by modifying a few factors such as the backup destination, backup set and the period of the backup.

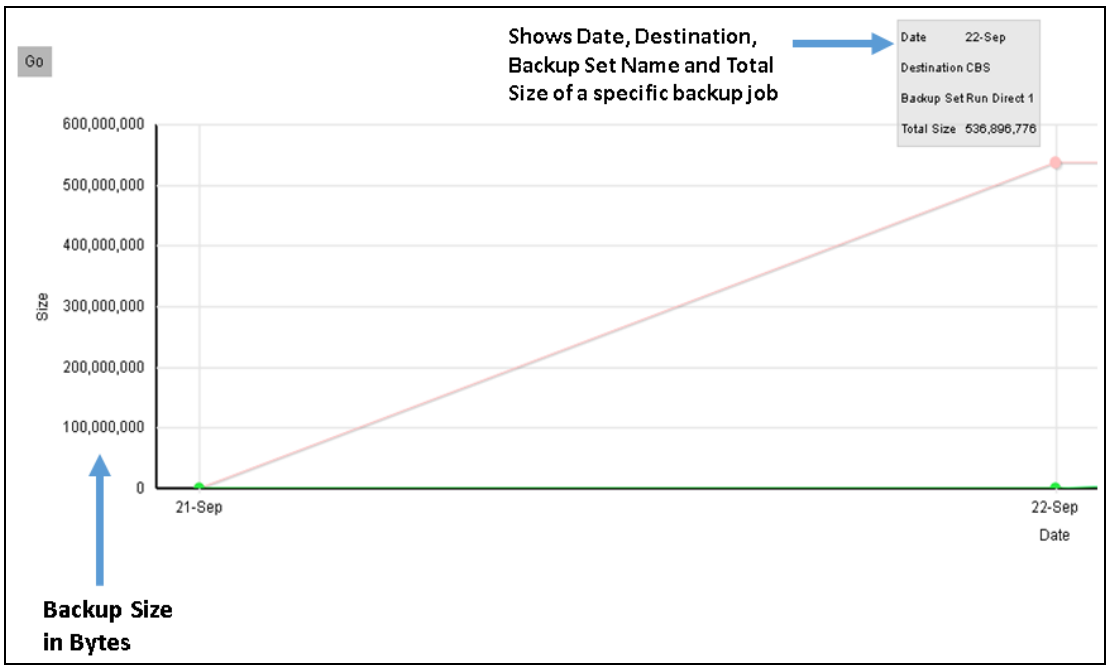
The statistics shows the storage capacity of different backup sets on different date.

Usage

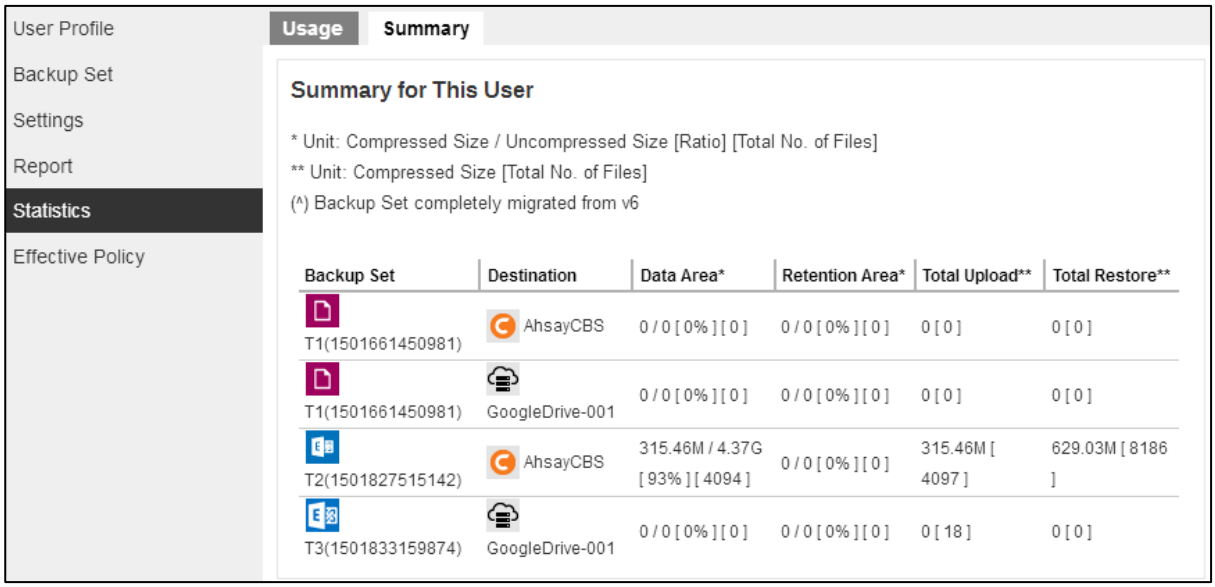
The following options are configurable for generating statistics in your desirable view.

- **Select a destination** – select the backup destination of your choice
- **Select a backup set** – you can choose a specific backup set or all backup sets
- **Period** – select the period of time during which backups were performed



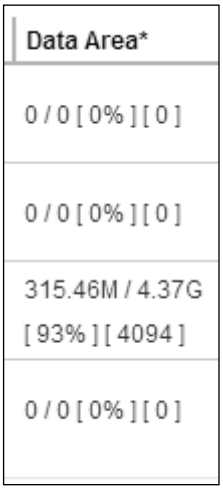


Summary



There are 4 columns showing the following information of each backup set.

Data Area



Format:
[Compressed Size] / [Uncompressed Size] [Compression Ratio in %] [Number of files]

Example: 315.46M / 4.37G [93%] [4094]

The data interpreted as the backup set has 4094 files in the data area; the files compressed and uncompressed sizes are 315.64M and 4.37G respectively; the compression ratio is 93%.

Retention Area

Retention Area**
0 / 0 [0%] [0]
4.12M / 4.12M [0%] [12]
0 / 0 [0%] [0]
0 / 0 [0%] [0]
0 / 0 [0%] [0]
34.12M / 234.07M [86%] [239]

Format:
[Compressed Size] / [Uncompressed Size] [Compression Ratio in %] [Total number of files]

Example: 34.12M / 234.07M [86%] [239]

The data interpreted as the backup set has 239 files in the retention area; the files compressed and uncompressed sizes are 34.12M and 234.07M respectively; the compression ratio is 86%.

Total Upload

Total Upload*
0 [0]
1.19G [183]
4M [20]
181.02M [706]
21.06M [78]
789.86M [683]

Format:
[Compressed Size] [Total number of files]

Example: 4M [20]

There are a total of 20 files sized of 4M uploaded for this backup set.

Total Restore

Total Restore*
0 [0]
612.2M [92]
0 [0]
0 [0]
25.12M [36]
4.48G [1044]

Format:
[Compressed Size] [Total number of files]

Example: 612.2M [92]

There are a total of 92 files sized of 612.2M restored from this backup set.

Effective Policy

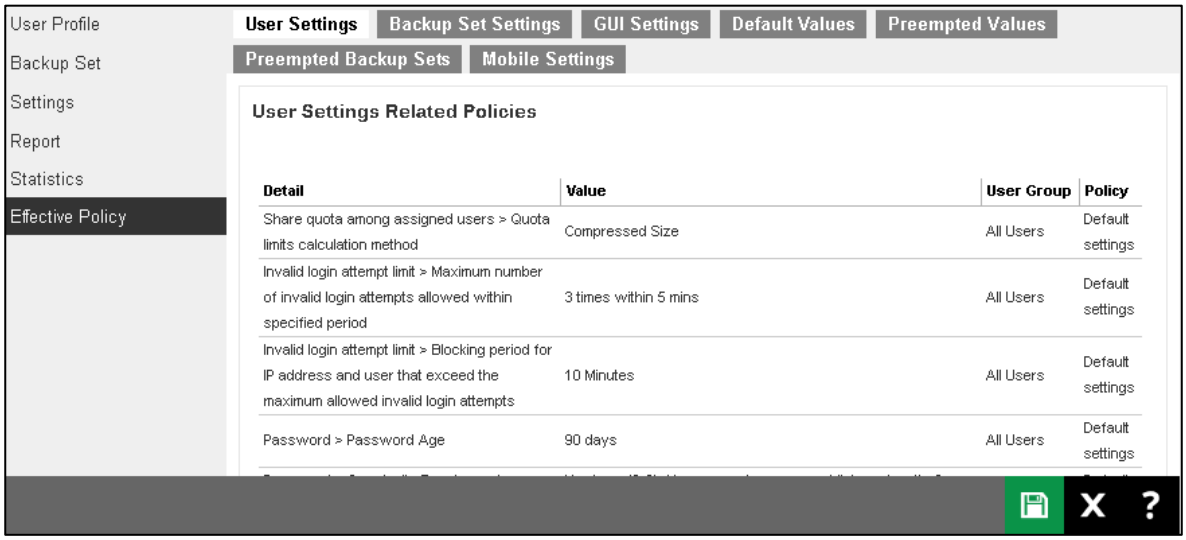
Note

Effective Policy tab may be hidden depending on the configuration your backup service provider made.

There are 7 tabs containing different groups of policy, and they are described below.

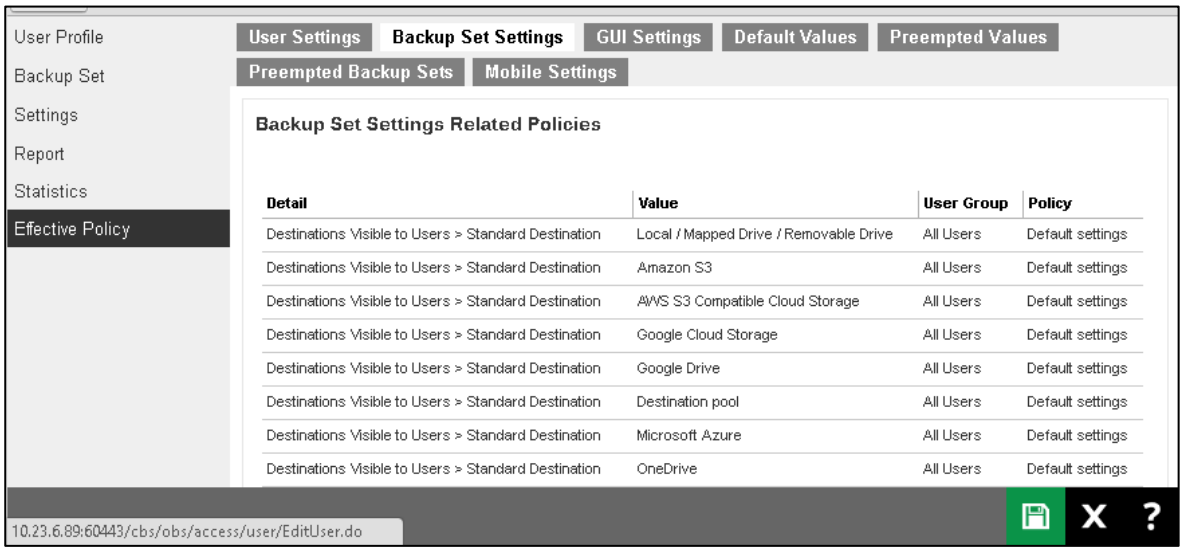
User Settings Tab

You can see the effective policy on user settings for this user on the User Settings tab.



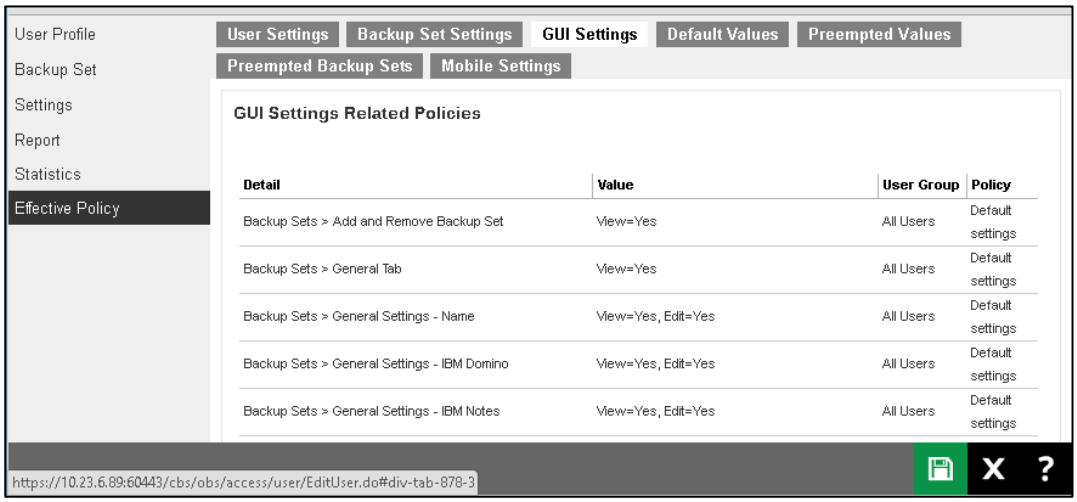
Backup Set Settings Tab

You can see the effective policy on backup set settings for this user on the Backup Set Settings tab.



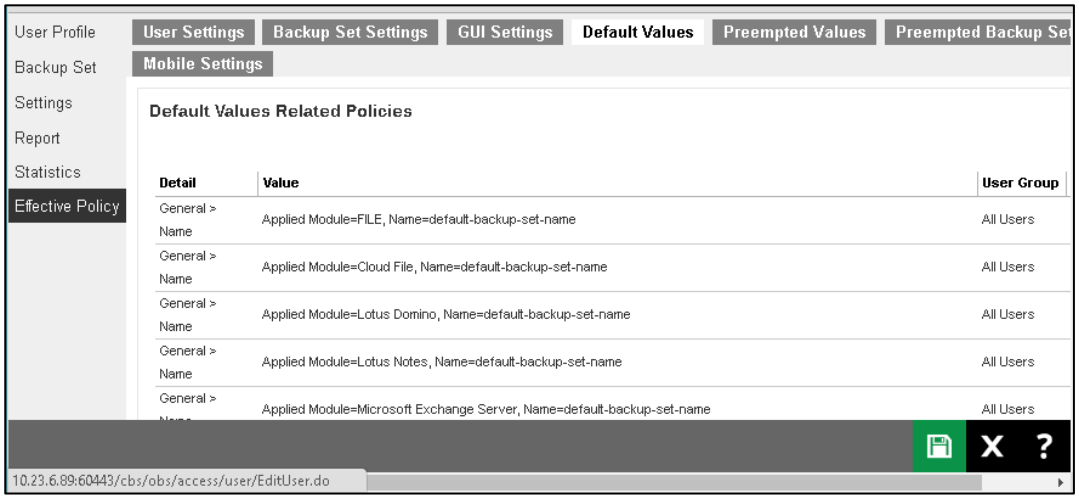
GUI Settings Tab

You can see the effective policy on AhsayOBM or AhsayACB GUI settings for this user on the GUI Settings tab.



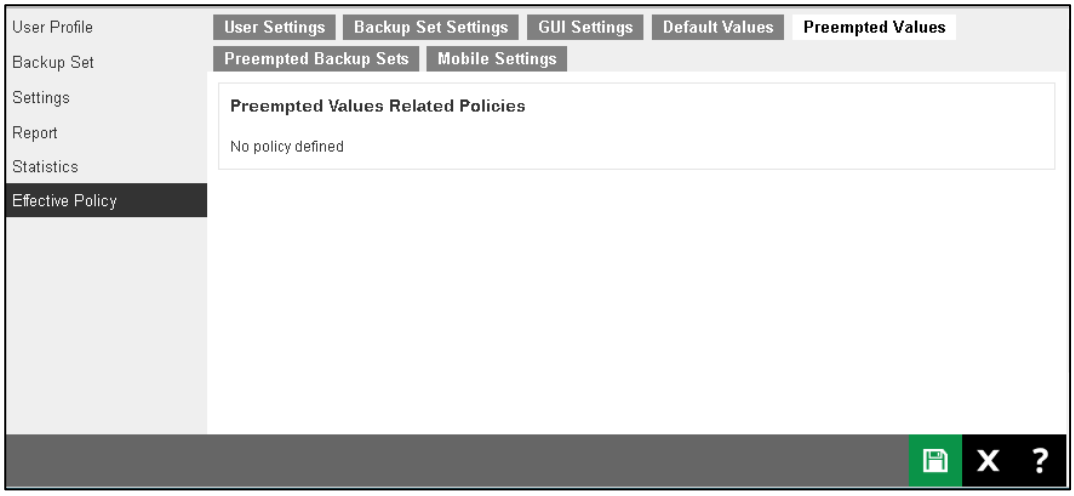
Default Values Tab

You can see the effective policy on default values for this user on the Default Values tab.



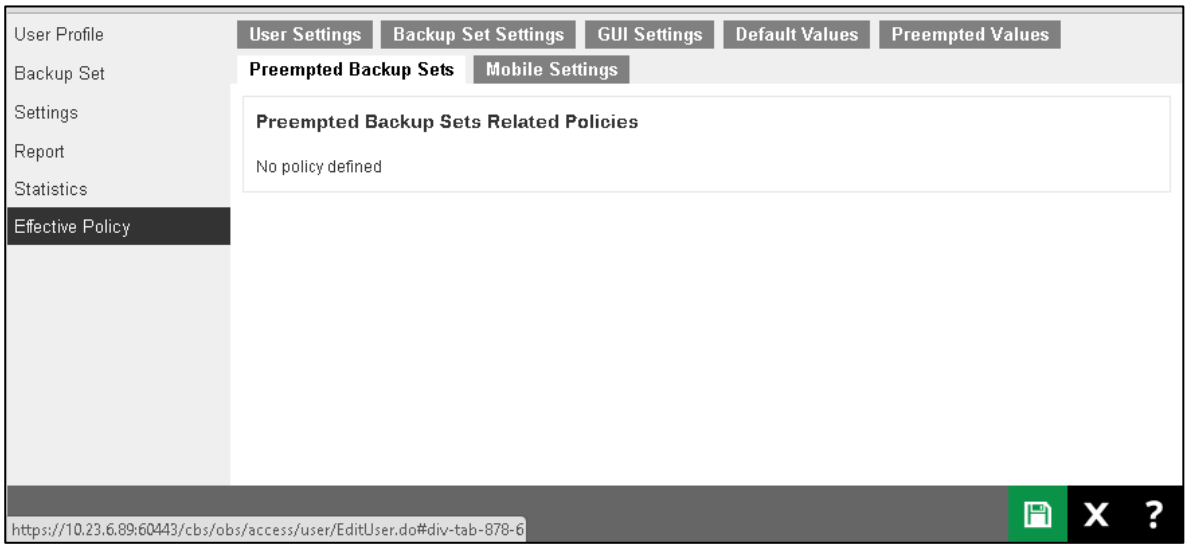
Preempted Values Tab

You can see the effective policy on preempted values for this user on the Preempted Values tab.



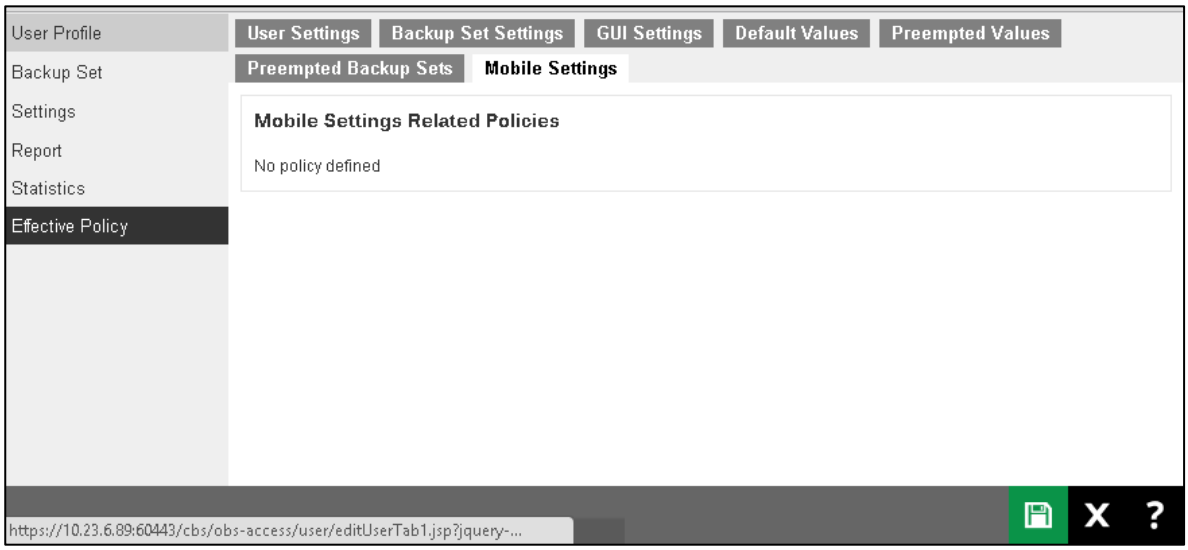
Preempted Backup Sets Tab

You can see the effective policy on preempted backup sets for this user on the Preempted Backup Sets tab.



Mobile Settings Tab

You can see the effective policy on mobile settings for this user on the Mobile Settings tab.



3 Monitoring Live Activities

Managing Live Activities

1. Login to AhsayCBS user web console according to the instruction provided in section Logging on to AhsayCBS User Web Console.

2. To manage your backup and restore live activities, simply click the Live Activities icon from your AhsayCBS environment.

You can perform the following operations on your own user account:

- View the status of the backup process live or finished within 1 hour
- View the status of the restore process live or finished within 1 hour

Note

For both backup and restore activities, there is an update interval of around 5 seconds.

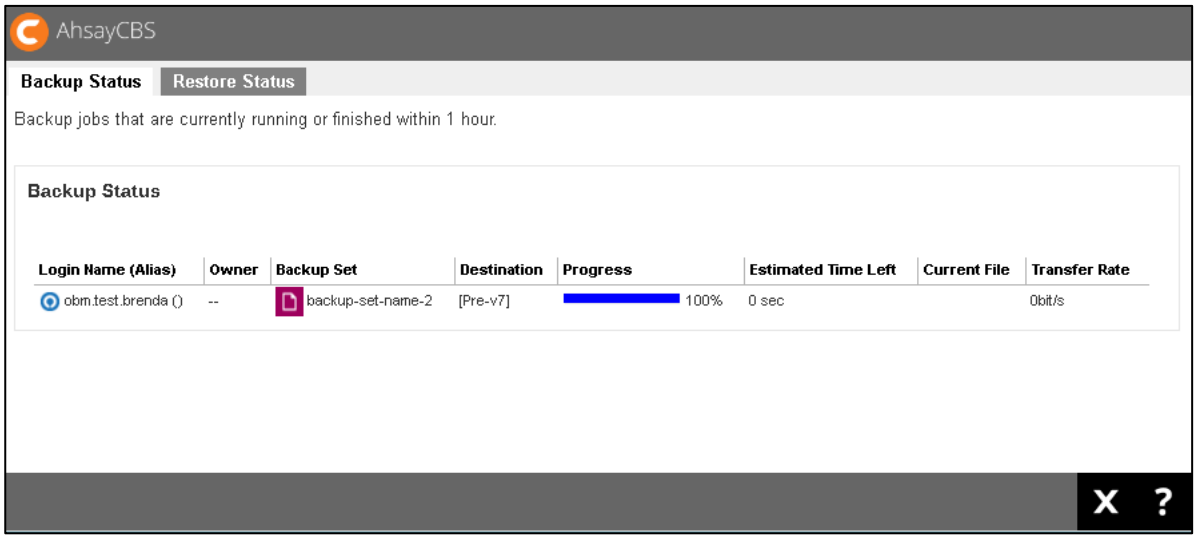
Backup Status

The **Backup Status** tab allows you to monitor the live activities of backup jobs running in both agent-based (AhsayOBM/ AhsayACB/ AhsayMOB) and agentless (AhsayCBS User Web Console) type.

Available Backup Jobs Can Be Monitored by Live Activities			
Backup Type	**AhsayOBM**	**AhsayACB**	**AhsayMOB**
File Backup	✓	✓	✓
Cloud File Backup	✓	✓	NA
IBM Lotus Domino Backup	✓	NA	NA
IBM Lotus Notes Backup	✓	✓	NA

MS Exchange Server Backup	✓	NA	NA
MS Exchange Mail Level Backup	✓	NA	NA
MS SQL Server Backup	✓	NA	NA
MS Windows System Backup	✓	✓	NA
MS Windows System State Backup	✓	NA	NA
MS Hyper-V Backup	✓	NA	NA
MySQL Backup	✓	NA	NA
Office 365 Exchange Online Backup	✓	✓	NA
Oracle Database Server	✓	NA	NA
ShadowProtect System Backup	✓	NA	NA
VMware Backup	✓	NA	NA

The following shows the backup status of a live backup activity.



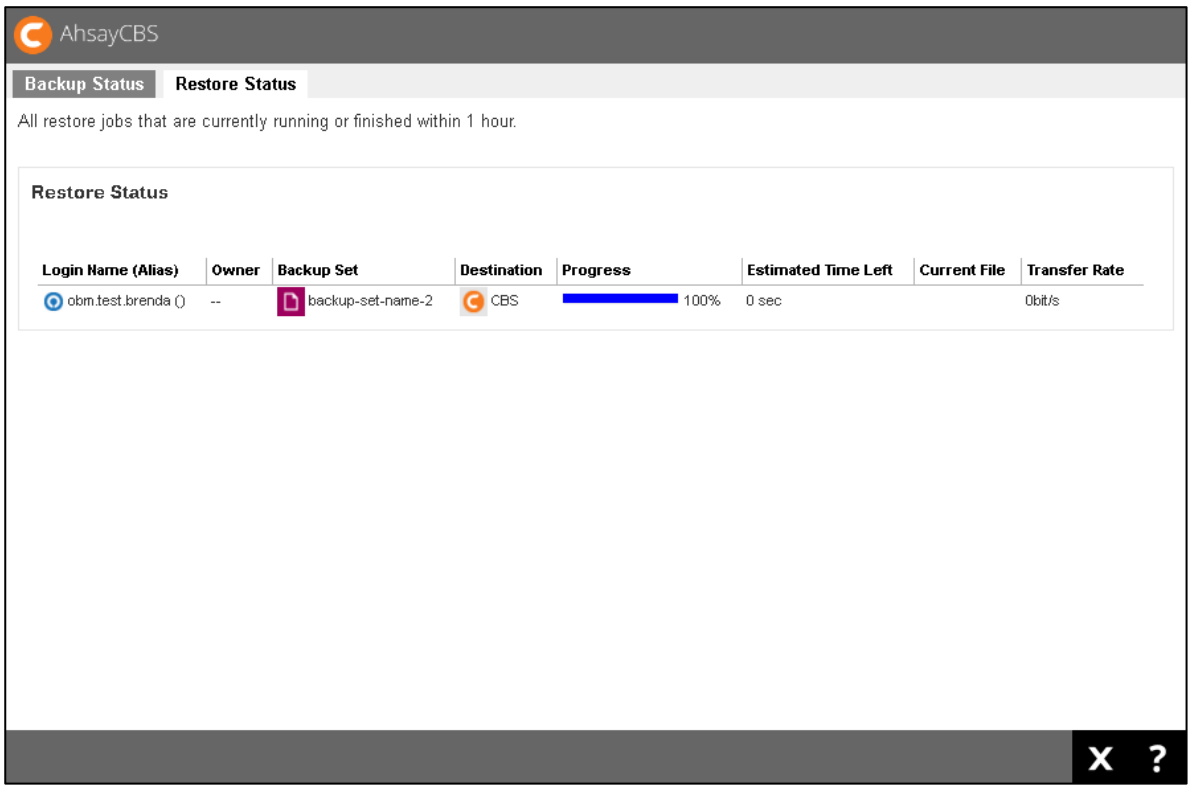
Restore Status

The **Restore Status** tab allows you to monitor the live activities of restore jobs running in both agent-based (AhsayOBM/ AhsayACB/ AhsayOBR/ AhsayMOB) and agentless (AhsayCBS User Web Console) type.

Available Restore Jobs Can Be Monitored by Live Activities					
Restore Type		**AhsayOBM**	**AhsayACB**	**AhsayOBR**	**AhsayMOB**
File	**Normal Restore**	✓	✓	✓	✓
	OpenDirect Restore	✗	✗	✗	NA
Cloud File Backup		✓	✓	✓	NA
IBM Lotus Domino Backup		✓	NA	✓	NA
IBM Lotus Notes Backup		✓	✓	✓	NA
MS Exchange Server Backup		✓	NA	✓	NA
MS Exchange Mail Level Backup		✓	NA	✓	NA
MS SQL Server Backup		✓	NA	✓	NA
MS Windows System Backup		✓	✓	✓	NA
MS Windows System State Backup		✓	NA	✓	NA
MS Hyper-V	**Normal Restore**	✓	NA	✓	NA
	Run Direct Restore	✓	NA	✓	NA
	Granular Restore with AhsayOBM File Explorer	✓	NA	✓	NA
	Granular Restore with Windows File Explorer	✗	NA	✗	NA
MS SQL Server Backup		✓	NA	✓	NA

MySQL Backup		✓	NA	✓	NA
Office 365 Exchange Online Backup		✓	✓	✓	NA
Oracle Database Server		✓	NA	✓	NA
ShadowProtect System Backup		✓	NA	✓	NA
VMware	**Normal Restore**	✓	NA	✓	NA
	Run Direct Restore	✓	NA	✓	NA
	Granular Restore with AhsayOBM File Explorer	✓	NA	✓	NA
	Granular Restore with Windows File Explorer	✗	NA	✗	NA

The following shows the restore status of a live restore activity.



Note

OpenDirect restore of file backup sets or granular restore from VMware and Hyper-V backup sets performed using Windows File Explorer will not show up on the [Restore Status] tab in Live Activities. This only applies to the restore performed directly through AhsayOBM/AhsayACB/AhsayOBR/ AhsayMOB or AhsayCBS User Web Console.

4 Managing Backup Set

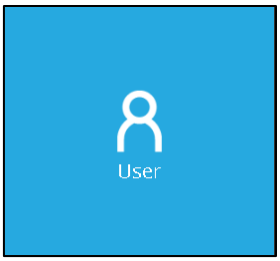
Create Backup Set (Generic Steps)

You can use your AhsayCBS user account to create backup sets. In some cases, you may need to create backup sets first before you install a backup client on the client machine.

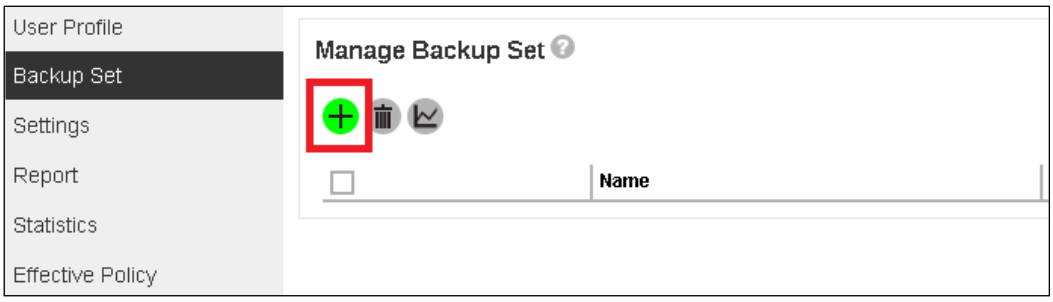
To add a new backup set, do the following:

1. Login to the AhsayCBS user web console according to the instruction provided in section Logging on to AhsayCBS User Web Console.

2. Click **User** icon from AhsayCBS environment.



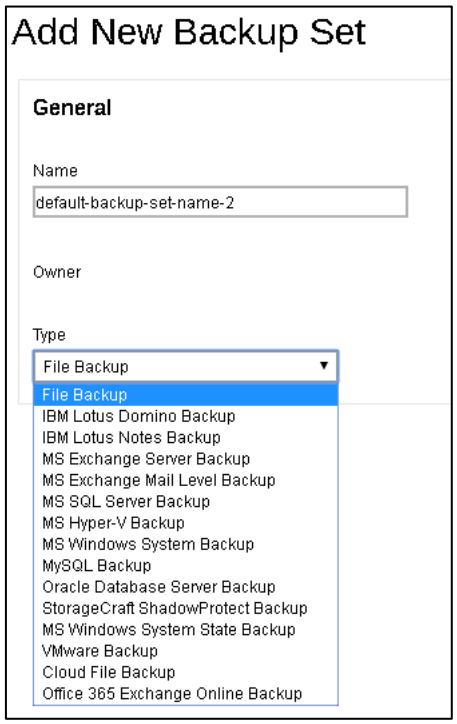
3. Click on the **Manage Backup Set** page.



4. Enter the **Name** of the new backup set and select the backup set type from the **Type** dropdown box. The choices for backup set types are:

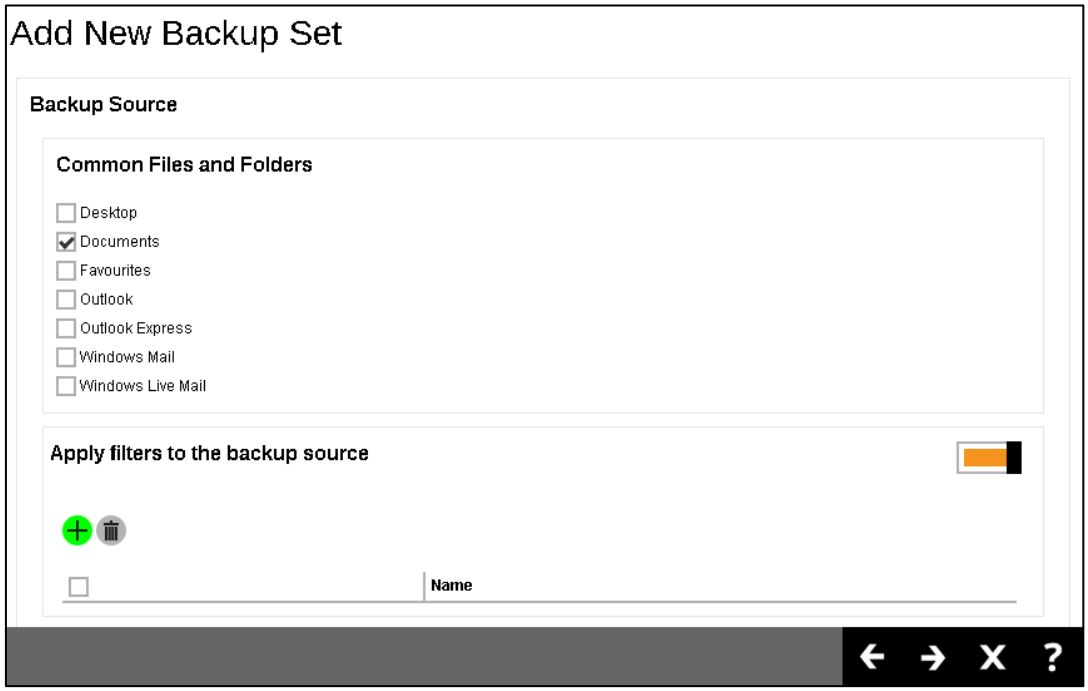
- File Backup
- IBM Lotus Notes Backup
- MS Exchange Mail Level Backup
- MS Hyper-V Backup
- MySQL Backup
- Storage Craft ShadowProtect Backup
- VMware Backup
- Office 365 Exchange Online Backup
- IBM Lotus Domino Backup
- MS Exchange Server Backup
- MS SQL Server Backup
- MS Windows System Backup
- Oracle Database Server Backup
- MS Windows System State Backup
- Cloud File Backup

In our example, the new backup set is called default-backup-set-name-2. Click at the bottom right corner of the screen to continue.

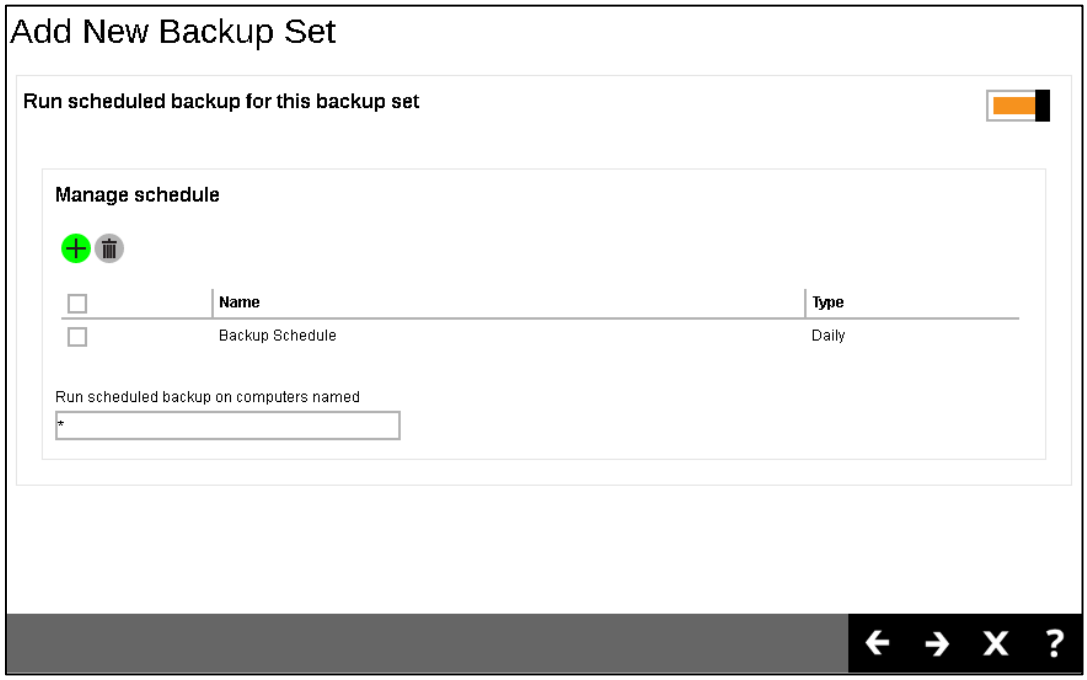


5. Specify the backup source for the new backup set. The content of the Backup Source page differs depending on the backup set type you have chosen. Below is an example of creating a file backup set.

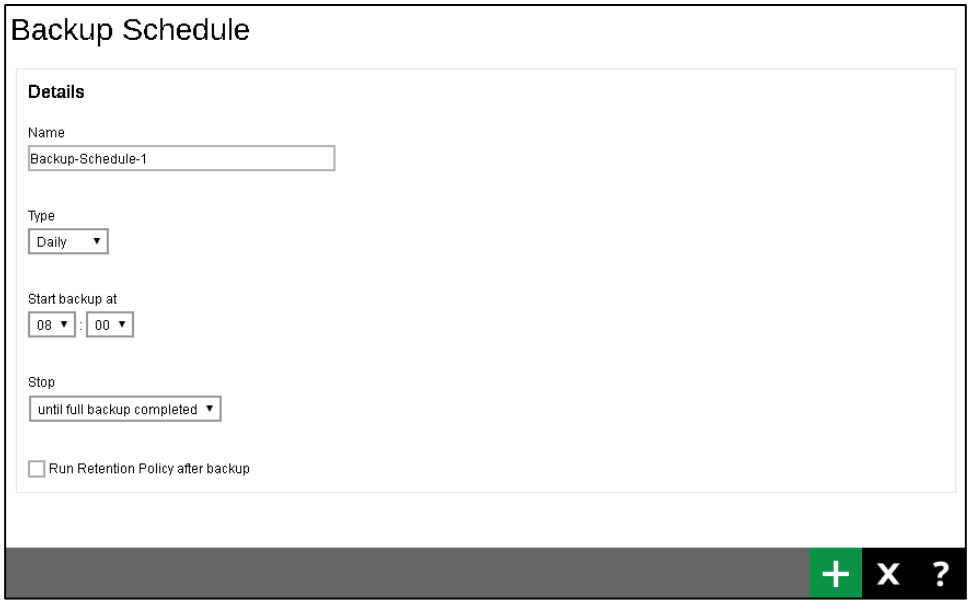
Click at the bottom right corner of the screen to continue.



6. Add a Backup Schedule for this backup set by sliding the **Run scheduled backup for this backup set** option to the right and clicking in the middle of the screen.

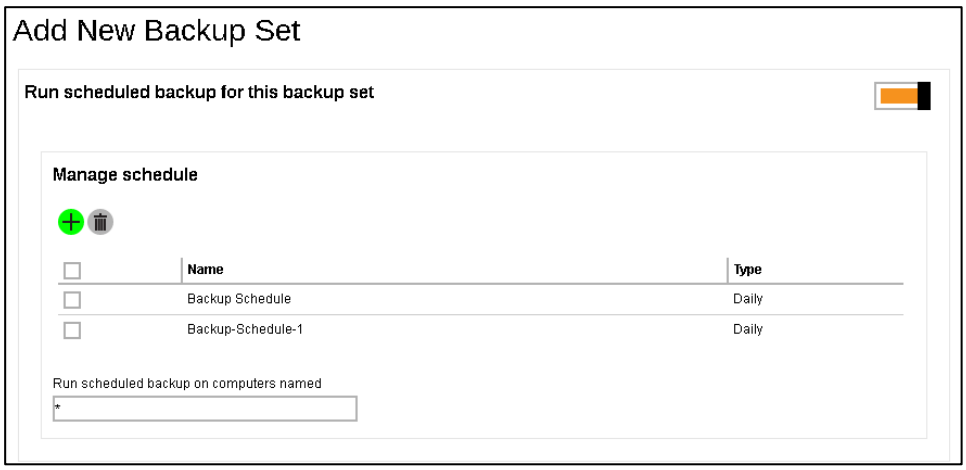


- Enter the information of the new backup schedule you want to add. Click at the bottom right corner of the screen to continue.



- The new backup schedule, **Backup-Schedule-1** in our example, can be seen under the **Manage schedule** list.

  Click at the bottom right corner of the screen to continue.

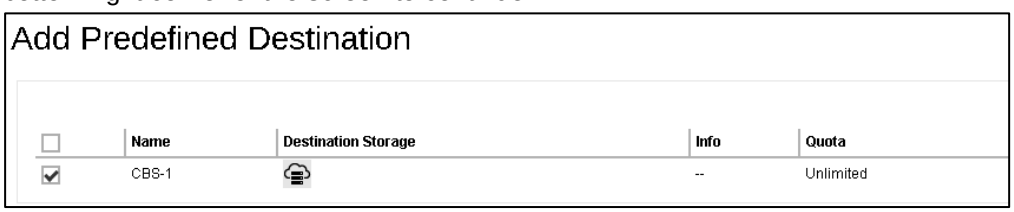


7. Add a new backup destination for this backup set.

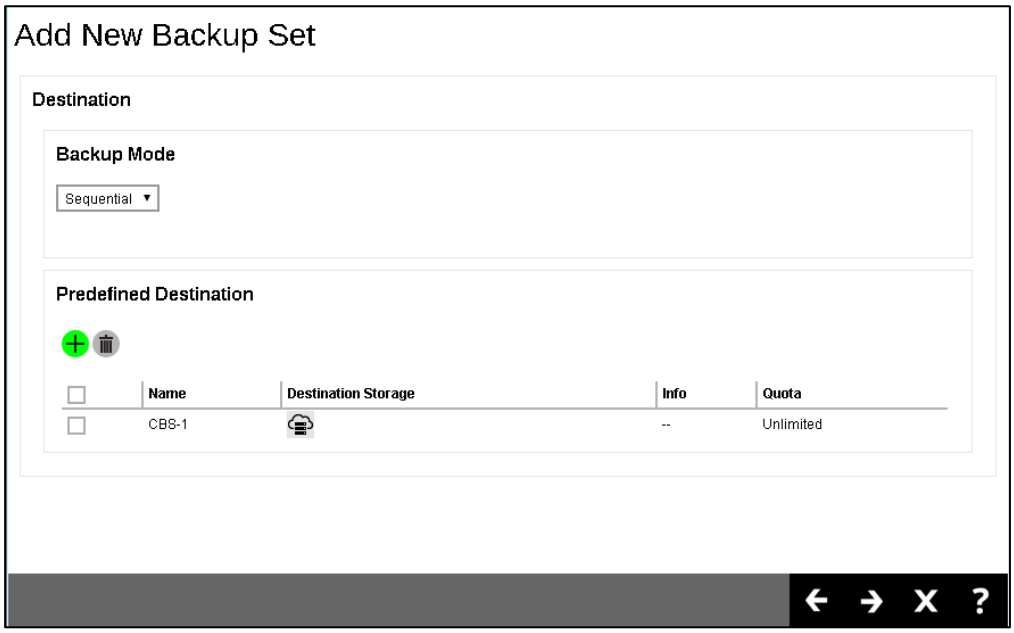
- From the Backup Mode dropdown box, select either Sequential or Concurrent. In our example, we select Sequential.
- Add a Predefined Destination set by your backup service provider by clicking in the middle of the screen.

> **Note**
>
> There should already at least one Predefined Destination had been configured by administrator before you can choose it as the backup destination. For more details about Predefined destination, refer to Ahsay Cloud Backup Suite v7 Administrator's Guide

Check the box next to the predefined destination you want, then click in the bottom right corner of the screen to continue.



- The new predefined destination, **CBS-1** in our example, can be seen under the **Predefined Destination** list.

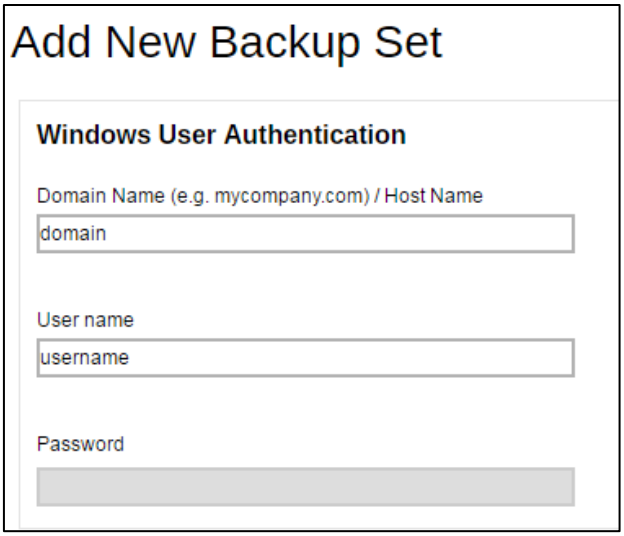


Note

If you would like to choose other standard destination, you will have to configure in the client backup agent (AhsayOBM/AhsayACB) after you finish creating the backup in AhsayCBS. For instructions on configuring the backup destination on client agent, refer to Appendix A Setting Backup Destination on AhsayOBM for Backup Created on User Web Console.

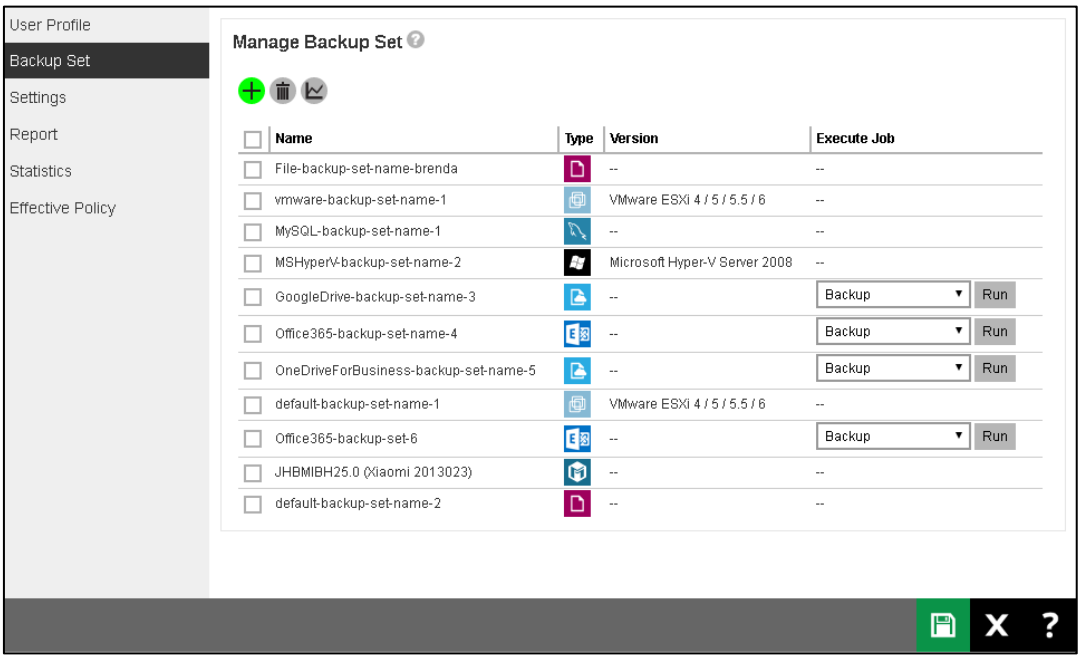
Click at the bottom right corner of the screen to continue.

8. Enter the Windows User Authentication information. This is needed for backup set with backup schedule and network shared drive selected as backup source. Enter the domain name and user name for AhsayOBM to access the network location.



Click at the bottom right corner of the screen to continue.

9. A new backup set called **default-backup-set-name-2** is created and can be seen in the backup set list. Click at the bottom right corner of the screen to save your changes.



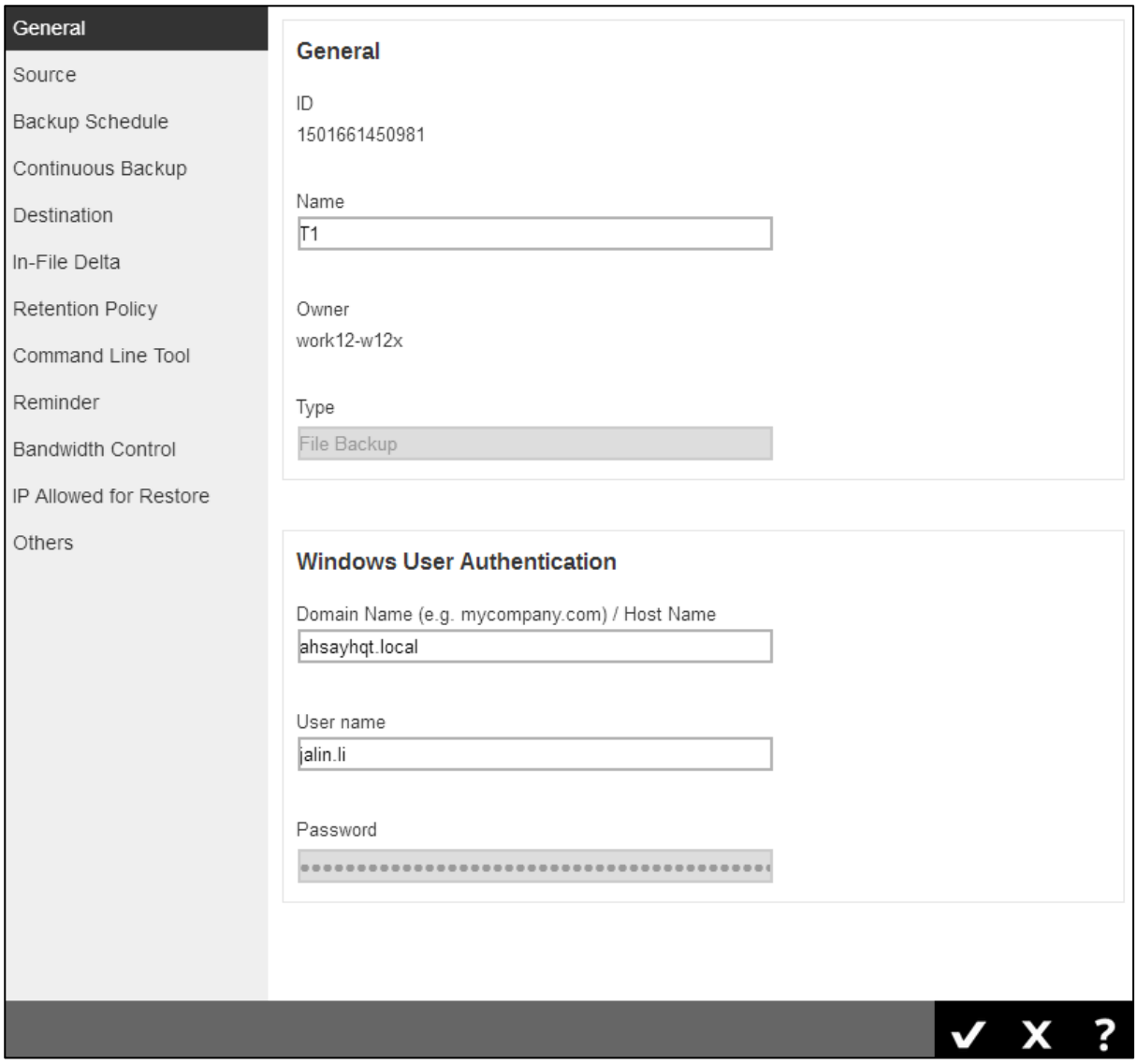
Important

If you do not click after setting, your new backup set will not be saved and will be lost after you quit the setting page.

Manage Backup Set

Click the backup set name you want to manage from the **Backup Set** tab. It is sub divided into the following tabs:

- General
- Continuous Backup
- Retention Policy
- Bandwidth Control
- Source
- Destination
- Command Line Tool
- IP Allowed for Restore
- Backup Schedule
- In-File Delta
- Reminder
- Others



Run a Backup Job

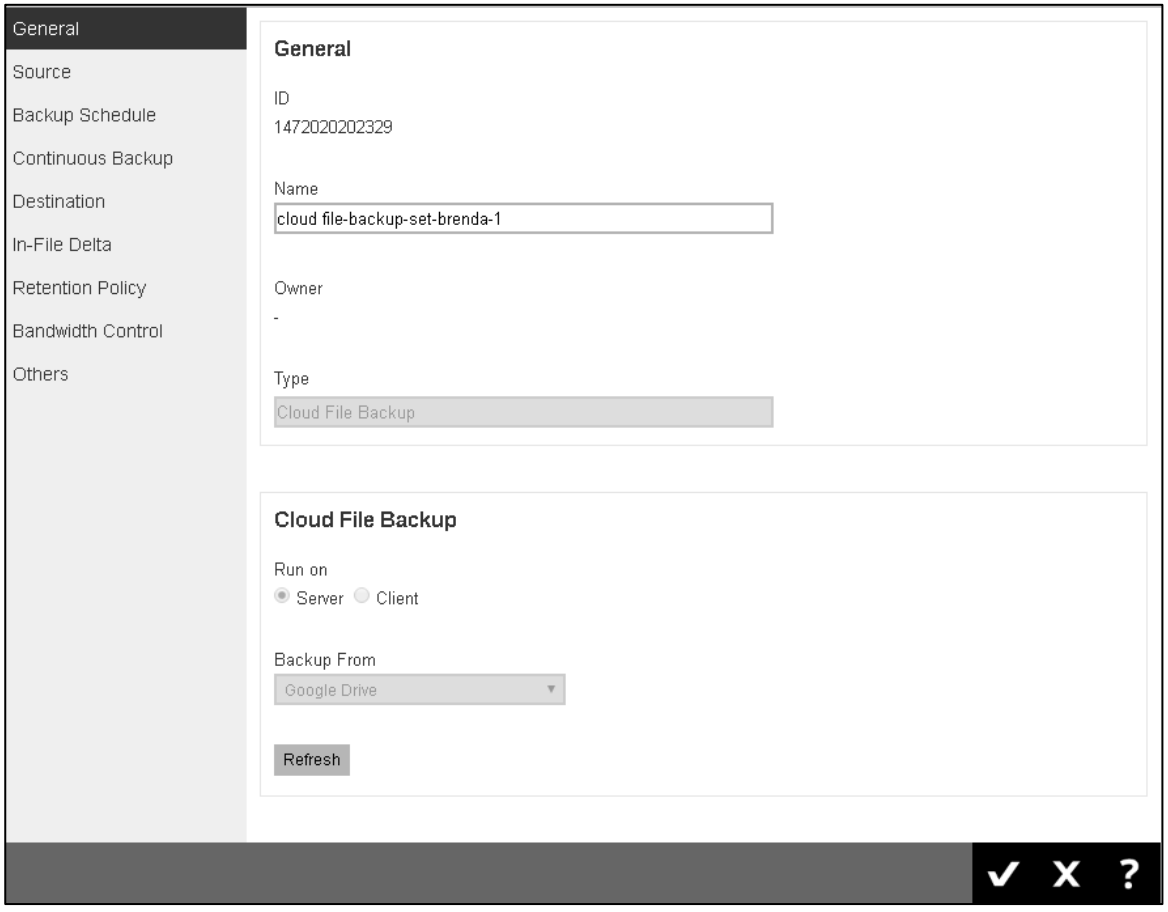
Run an Agent-based Backup using AhsayOBM / AhsayACB

Except for Cloud File Backup and Office 365 Exchange Online Backup which you can run an agentless backup in AhsayCBS, all other backup modules require you to perform backup and restore using your client backup agent (AhsayOBM or AhsayACB). For details on creating backup job using the AhsayOBM or AhsayACB, refer to the backup module's User Guide which can be downloaded on the User's Guide download page.

Run an Agentless Backup using AhsayCBS User Web Console (for Cloud File and Office 365 Exchange Online only)

There are two types of backup set, **Cloud File Backup** and **Office 365 Exchange Online Backup**, which can run agentless backup using AhsayCBS user web console**.** These 2 types of backup set can be created either on the AhsayCBS server, or the AhsayOBM or AhsayACB client and they can be both client-driven and server-driven.

When you create a new backup set with the **Type** being **Cloud File Backup**, you have a choice of whether to run the backup on the **Server** or on the **Client**. Please make sure that you choose **Server** if you want to run the backup from the AhsayCBS server directly.

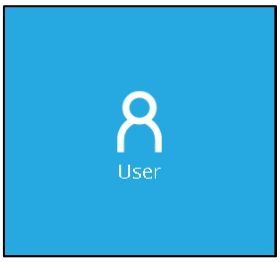


Backup Destination for Run-on-Server Backup Set

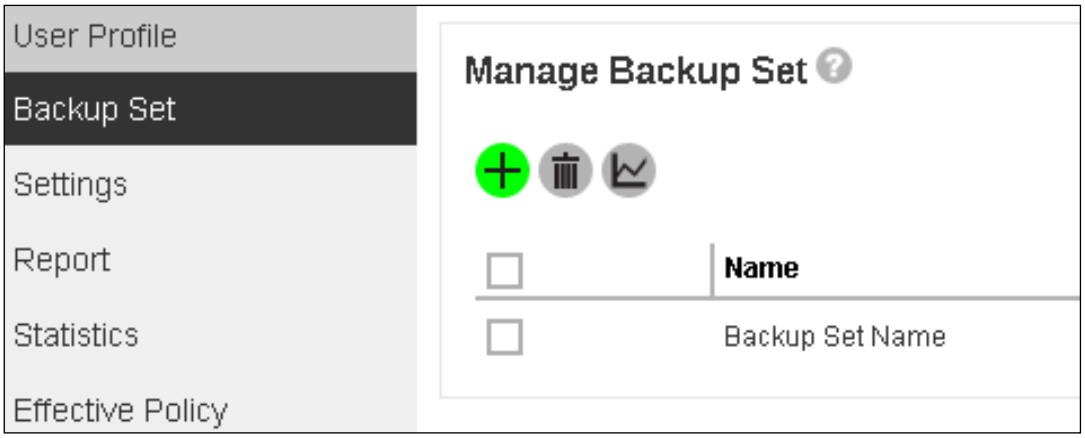
For **Office 365 Exchange Online** and **Cloud File** backup sets created in **Run-on-Server** backup type, the backup destination is restricted to AhsayCBS by default and cannot be altered. If you wish to back up to other destinations, backup sets should be created in **Run-on-Client** backup type instead.

1. Login to AhsayCBS user web console according to the instruction provided in section Logging on to AhsayCBS User Web Console.

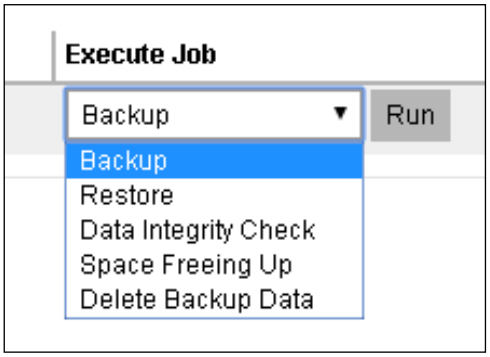
2. Click on the **User** icon.



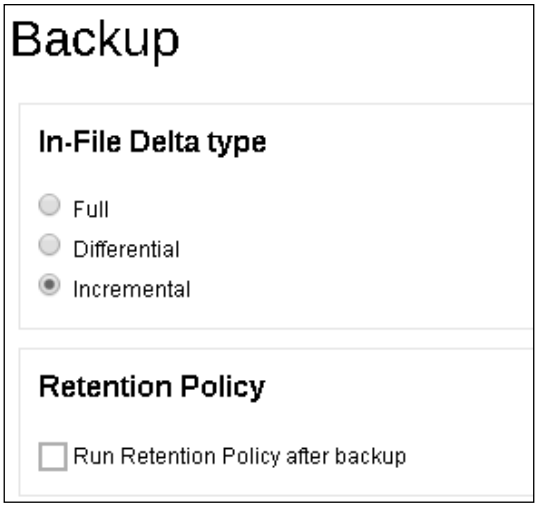
3. Under the **Backup Set** > **Manage Backup Set** menu, you should see the backup set you have created. If this is the first time you start the user account, you may need to generate a backup set first. Refer to Create Backup Set for the details about the process of how to create a backup set.



4. Click the drop-down menu on the backup set that you would like to start a backup for. Select **Backup** and then click **Run**.



5. Modify the **In-file Delta type** and **Rentention Policy** settings if necessary.



6. Click the icon at the bottom right corner to start the backup.

7. You will see the status showing **Backup is Running** when the backup is in progress.

Restore a Backup (Non Run Direct Restore)

As opposed to Run Direct Restore where you can instantly restore a VM by running it directly from the backup files in the backup destination. Non Run Direct restore is the traditional type of restore where you can restore the backed up data to the original location or an alternate location based on your choice.

Restore using AhsayOBM / AhsayACB (Agent-based restore)

Except for Cloud File Backup and Office 365 Exchange Online Backup which you can run an agentless restore in AhsayCBS (refer to the steps below), all other backup modules require you to perform restore using your client backup agent (AhsayOBM or AhsayACB).

Restore using AhsayCBS User Web Console (Agentless restore)

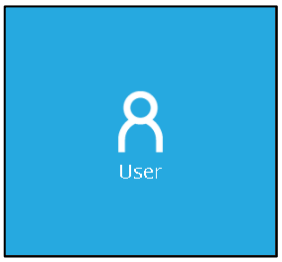
For Cloud File and Office 365 Exchange Online Backup only

There are 2 types of backup sets that can be restored through the AhsayCBS User Web Console, **Cloud File Backup** and **Office 365 Exchange Online Backup**, provided that the backup set was created to **Run on Server**.

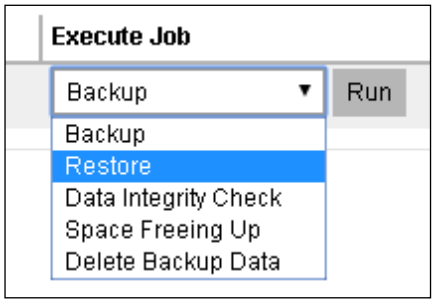
- **For Office 365 Exchange Online Restore**

1. Login to AhsayCBS user web console according to the instruction provided in section Logging on to AhsayCBS User Web Console.

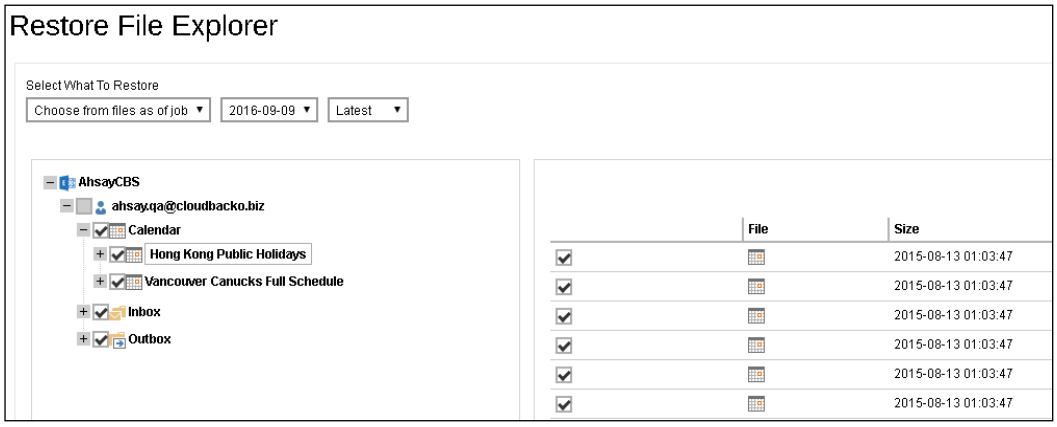
2. Click on the **User** icon



3. You should see the backup set you would like to restore under **Backup Set** > **Manage Backup Set**. Click on the drop-down menu on the backup set you would like to restore, then select **Restore** and click **Run**.



4. Select the mail object that you would like to restore. You can also choose to restore backed up mail objects from a specific backup job of your choice using the **Select What to Restore** drop-down menu.

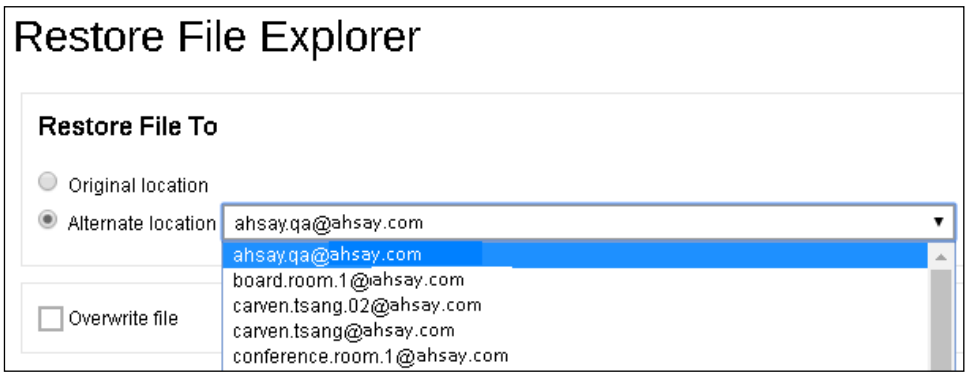


Click to proceed when you are done with the selection.

5. Select the destination you would like the mail objects to be restored.

- **Original location** – restore mail objects to the original location where you backed them up.

- **Alternate location -** restore mail object to other users' accounts under the same Office 365 account.

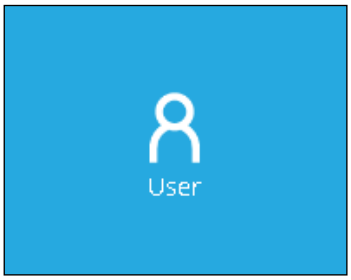


Click to start the restoration.

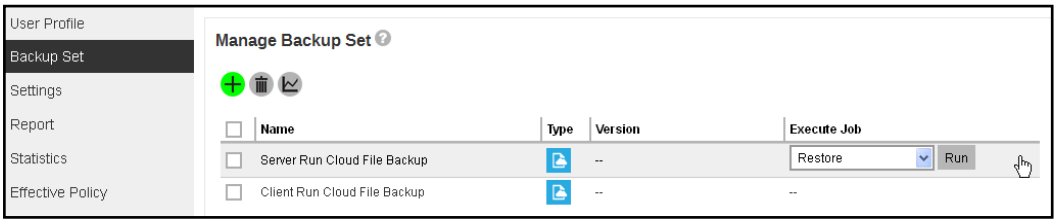
6. You will see the status showing **Restore is Running** when the restore is in progress.

➢ For Cloud File Restore

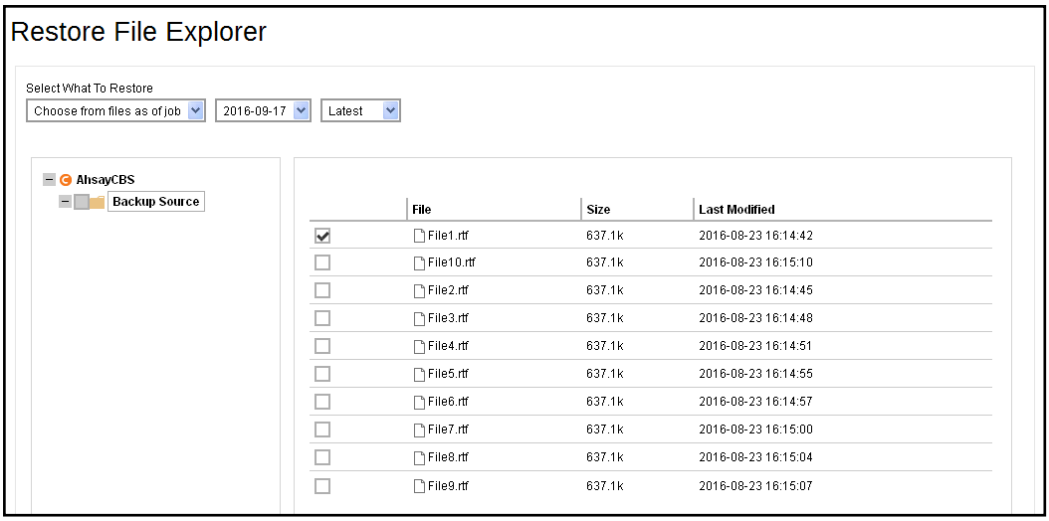
1. Click on the **User** icon.



2. Select Backup **Set** from the left panel, then select **Restore** under **Execute Job** drop down menu, then click **Run**.

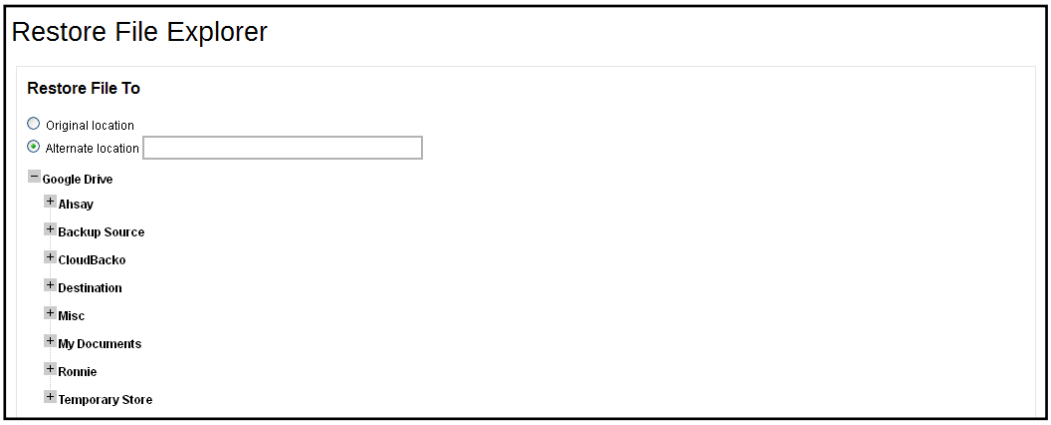


3. Select to restore from a specific backup job, or the latest job available from the **Select What To Restore** drop down menu. Click **Next** to proceed.



4. Select **Original location** to restore the data to the original directory path on the cloud storage, or **Alternate location** to restore to the data to an alternate path on the cloud storage.

Expand the directory path to browse to the alternate location on the cloud storage.



Important

Data can only be restored to the original cloud storage that the data was backed up from (e.g. same cloud storage provider and same account).

Click to start the restoration.

5. You will see the status showing **Restore is Running** when the restore is in progress.

5 Run Direct Restore

Introduction

What is Run Direct?

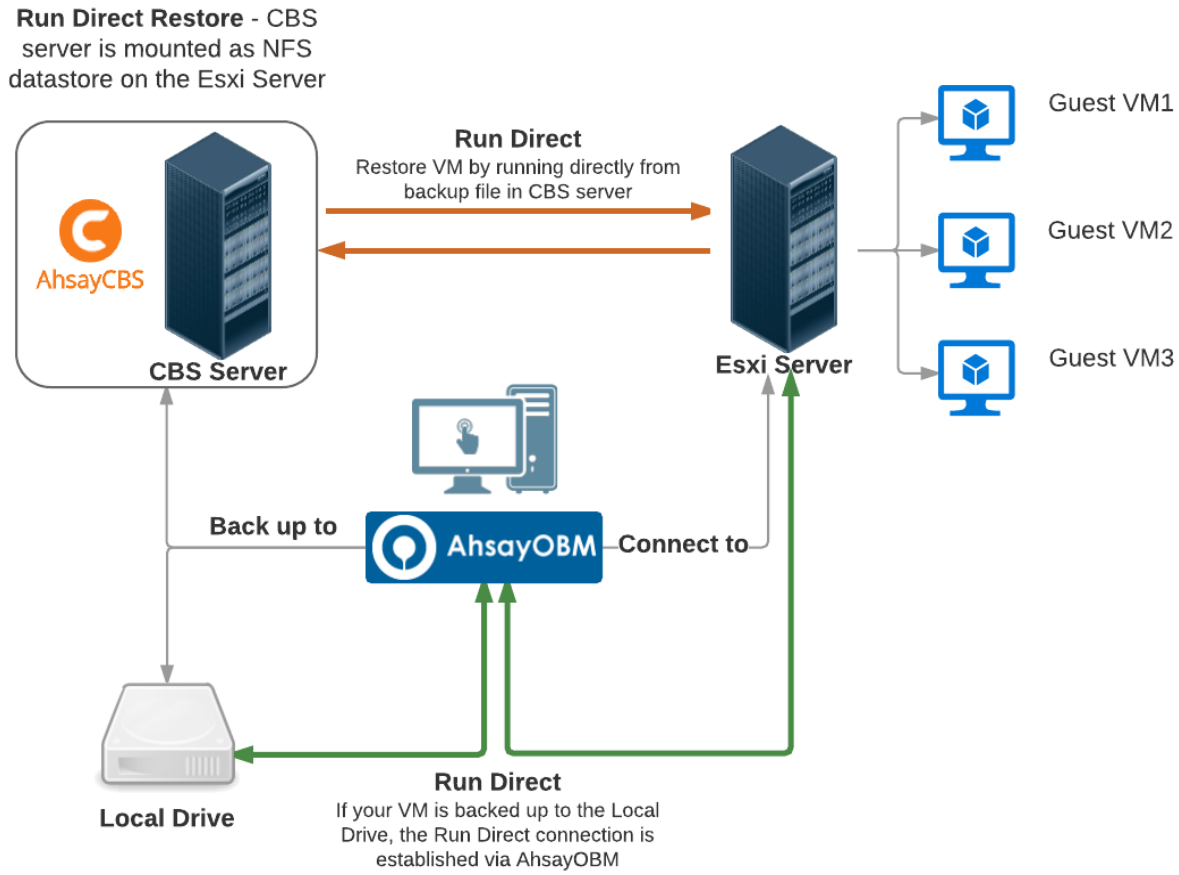
Run Direct is a feature introduced since AhsayOBM version 7.5.0.0 and supported by AhsayCBS since version 7.9.0.0, which helps reduce disruption and downtime of your production VMs.

Unlike normal VM restore procedure where a VM is extracted from backup files and copied to the production storage, which can take hours to complete. Restore with Run Direct can instantly power up a VM by running it directly from the backup files in the backup destination so that the VM can be put into production.

How does Run Direct work?

When a Run Direct restore is performed, the backup destination is mounted as a NFS datastore from the VMware host, where the VM is run directly from the backup files.

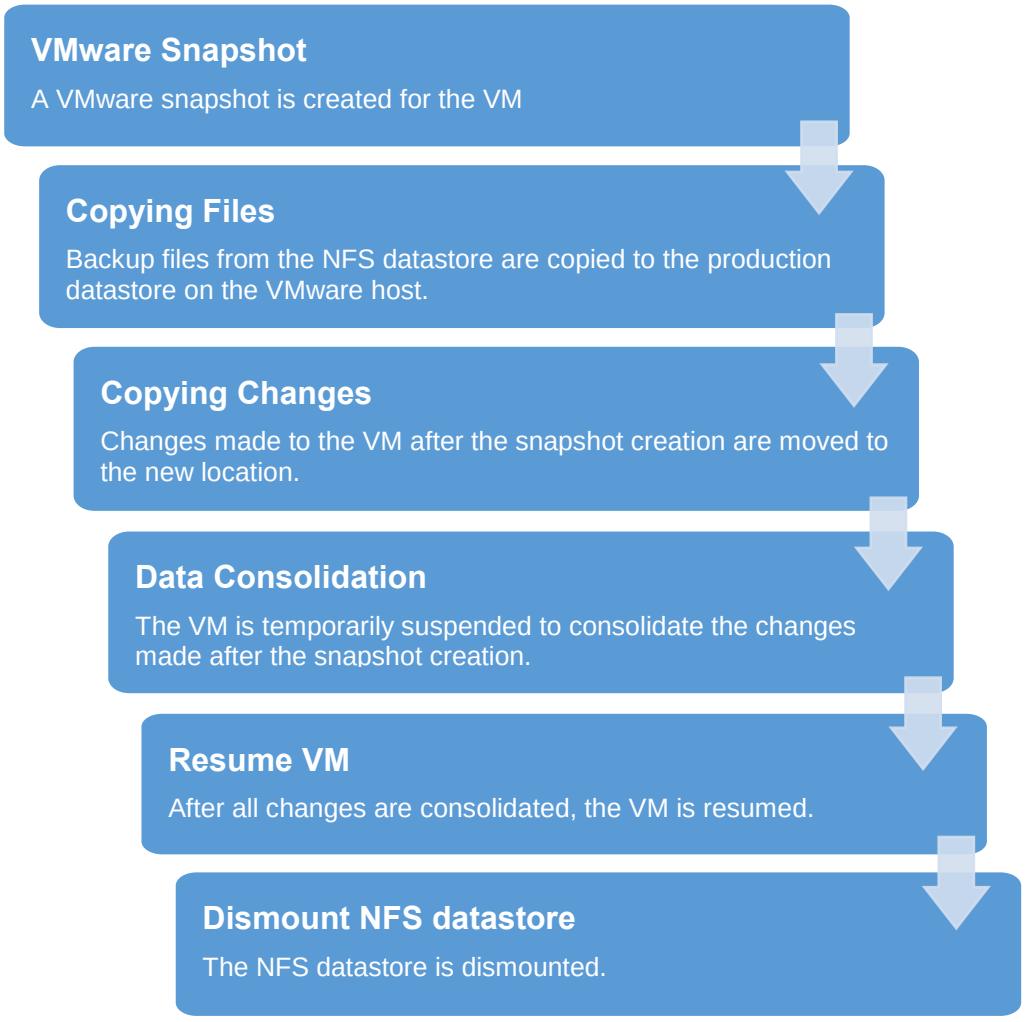
The backup destination can either be the AhsayCBS server or a local drive that can connect with AhsayOBM. Initiating a Run Direct from the AhsayCBS (also known as agentless restore) will trigger a connection directly with the VMware host (ESXi server and direction shown in orange indicator below), while initiating the same action on the AhsayOBM requires the connection to route through the AhsayOBM (shown in green indication below).



The restored virtual machine, at this stage (e.g. before the restore is finalized) is in a read-only state to preserve its integrity. All changes made to the virtual disks (e.g. operation within the guest virtual machine) are stored separately in transaction logs stored on the NFS datastore or the original datastore, depending on the setting selected. These changes are discarded when Run Direct is stopped, where the restored VM will be removed and all changes will be discarded, or the changes will be consolidated with the original virtual machine data when the restore is finalized.

Finalizing a VM Recovery (Migrating VM to permanent location)

To finalize recovery of a VM, you will still need to migrate it to a permanent location on the VMware host. The following steps are taken when you finalize a Run Direct restore:



Note

For vCenter VM backup set, provided that the vMotion feature of the vCenter set is working properly, the VM will not be suspended during the data consolidation.

Non Run Direct Restore

Run Direct restore gives you the convenience of quickly restoring the VM by running it directly from the backup files in the backup destination, however, if you wish to restore the VM permanently to a location of your choice first before accessing the backup files, you should perform a Non Run Direct restore instead. Refer to Restoring a Backup (Non Run Direct Restore) for instructions.

Run Direct Requirements & Best Practices

To utilize the Run Direct feature, ensure that the following requirements are met:

- **Backup Destination Requirement**

  When a Run Direct restore is performed, the backup destination containing the guest VM files is mounted on the VMware host as NFS datastore.

  Ensure that the following requirements are met by the backup destination of the VMware VM backup set:

  - **Destination Type** of the backup destination must be set to a **Single storage destination**.
  - Destination must be accessible to the VMWare host.
  - Destination must have sufficient disk space available for the Run Direct restore. There should be 1.5 x total provisioned size of all VMs selected for backup.
  - For Run Direct restore of 1 VM with provisioned size of 100GB, there should be 150GB (e.g. 1.5 x 100GB) of free space available in the Destination.

- **No compression and Encryption**

  Data backed up to a Run Direct enabled destination is not compressed or encrypted to optimize restore performance as Run Direct will make the VM restored by running the data directly form the backup files in the backup destination.

- **Restore to Alternate Location**

  - When performing a Run Direct restore to **Alternate Location**, only one VM can be selected per restore session.
  - Consider to create separate VMware VM backup set for each VM that you intend perform Run Direct restore (e.g. VMs that you may restore to alternate location).

Run Direct Restore Options

Run Direct restore gives you the convenience and flexibility of quickly restoring the VM by running it directly from the backup files in the backup destination, however, you may still wish to migrate the VM permanently afterward. There are 3 Run Direct Restore options you can choose from as explained below.

- Option 1: Perform Run Direct Only

  This option allows you to power up the VM instantly by running it directly from the backup files but it won't be migrated to any permanent location on VMware host. Leave the **Auto migrate after Run Direct is running** checkbox unchecked in step 6 under Performing a Run Direct Restore on VM below if you wish to go for this option.

- Option 2: Perform Run Direct + Auto Migration

This option allows you to power up the VM instantly by running it directly from the backup files. While you can now access the Run Direct restored VM, it will also be migrated automatically to a permanent location on the original VMware host, another datastore of the original VMware host or another VMware host. Make sure the **Auto migrate after Run Direct is running** checkbox is checked in step 6 under Performing a Run Direct Restore on VM below if you wish to go for this option.

- Option 3: Perform Run Direct + Manual Migration

  This option allows you to power up the VM instantly by running it directly from the backup files. While you can now access the Run Direct restored VM, you will have to manually migrate the VM to a permanent location on the original VMware host, another datastore of the original VMware host or another VMware host. Leave the **Auto migrate after Run Direct is running** checkbox unchecked in step 6 under Performing a Run Direct Restore on VM below if you wish to go for this option. When the Run Direct restore is completed, you can initiate a Manual Migration any time. Refer to step 8 below for relevant instructions.

  Note

  If perform Run Direct only without migration, any changes made to the VM during the Run Direct power up process will be lost when the VM is powered down.

  If perform Run Direct with auto or manual migration, any changes made to the VM during the Run Direct power up process will be consolidated with the original virtual machine data once the migration has been completed successfully.

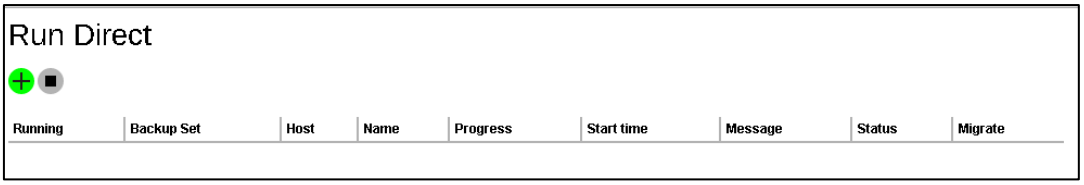
Performing a Run Direct Restore on VM

1. Login to AhsayCBS user web console according to the instruction provided in section Logging on to AhsayCBS User Web Console.

> **Note**
>
> Before you can start Run Direct, you must have a VMware backup set created in the AhsayOBM client. Please refer to the Ahsay Online Backup Manager v7 VMware vCenter/ESXi Backup & Restore Guide for information on how to create the backup set.
>
> In addition, you must also run a successful backup on the VMware backup set before you can perform restore from Run Direct.

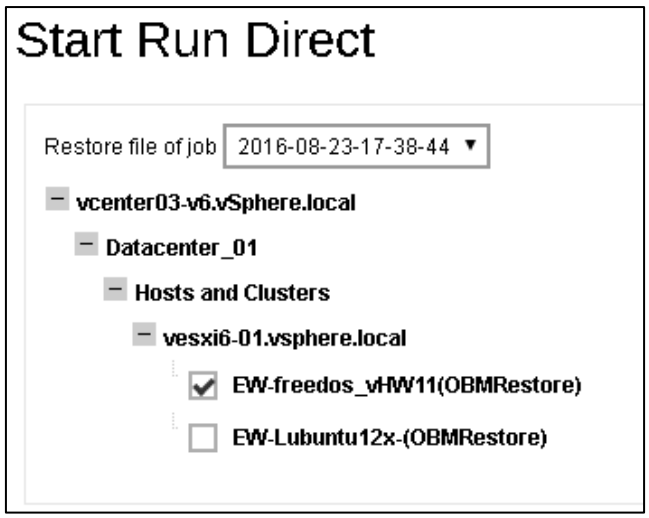
2. Click the **VM Run Direct** icon from your AhsayCBS environment.

3. Click from the **Run Direct** page to start a new Run Direct session.



4. Select the **Backup Set** from the dropdown box of VMware backup set you have created. In our example, the backup set is called **vCenter-6-NIX-CBS**. Click to continue.

5. Select the backup job to restore from the **Restore file of job** dropdown box. In our example, there are two virtual machines. Check the box next to the one on which we will perform a restore, **EW-freedos_VHW11(OBMRestore)**.



6. Select the location to restore your virtual machine. They are found under **Restore virtual machine to** on the **Start Run Direct** page.

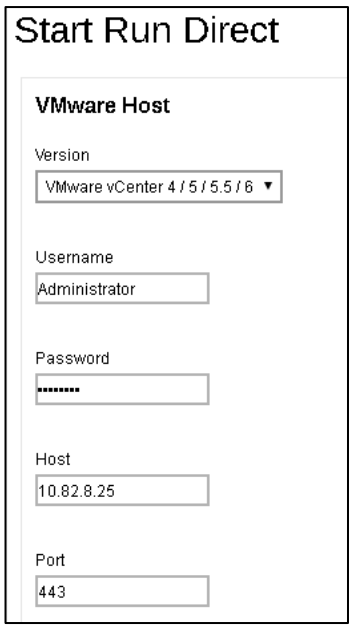
- Select **Original Location** to restore the VM to its original EXSi host and datastore.

- Select **Alternate Location** to restore the VM to a different VMware host and a different datastore. Alternatively, you can also restore to the same VMware host but to a different datastore.

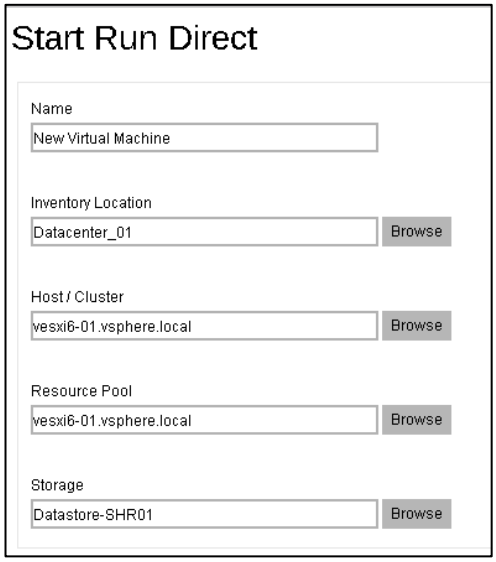
Note

If you select **Alternate Location**, you will see an additional option **Overwrite existing files**

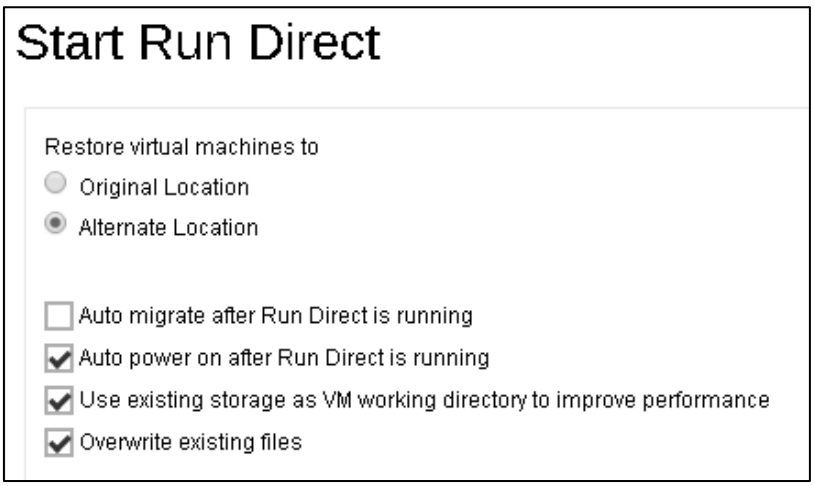
- If you selected **Alternate Location**, you need to enter the VMware host and access information of where you would like the VM to be restored to.
- For restoration to another VMware ESXi host, select **VMware vCenter 4 / 5 / 5.5 / 6** as **Version**, then enter the **Username**, **Password**, **Host**, and **Port** of the new host.



- Select the **Name**, **Inventory Location**, **Host/Cluster**, **Resource Pool**, and **Storage** for the alternate location.



7. Configure the following options according to your restore requirements.



- **Auto migrate after Run Direct is running**

  Select this option if you want to auto migrate the virtual machine to a permanent location on the original VMware host, another VMware host, or same VMware host but another datastore, depending on whether you have chosen **Original Location** or **Alternate Location** to restore your VM.

- **Auto power on after Run Direct is running**

  Select this option to power up the virtual machine automatically, after Run Direct is running for the VM.

- **Use exiting storage as VM working directory to improve performance**

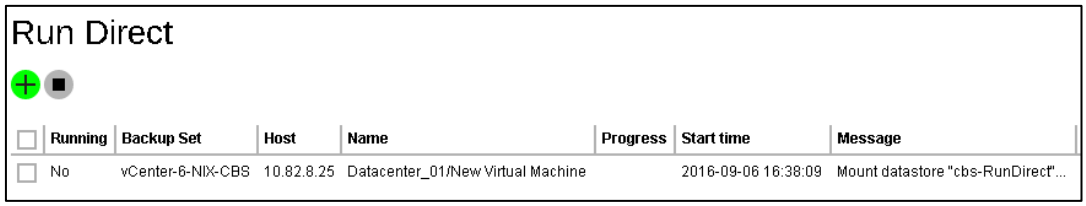
  Select this option to enhance performance of the restored VM.

- **Overwrite existing files** (Alternate Location only)

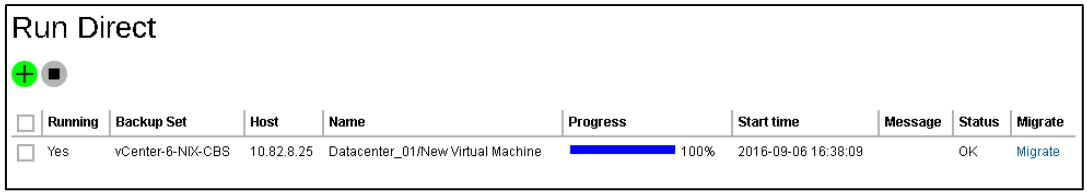
  Select this option to overwrite existing files when restoring to a different VMware host or a different datastore.

Click to proceed when you are done with the settings.

8. The **Run Direct** page appears, showing the status message of the Run Direct restore job.

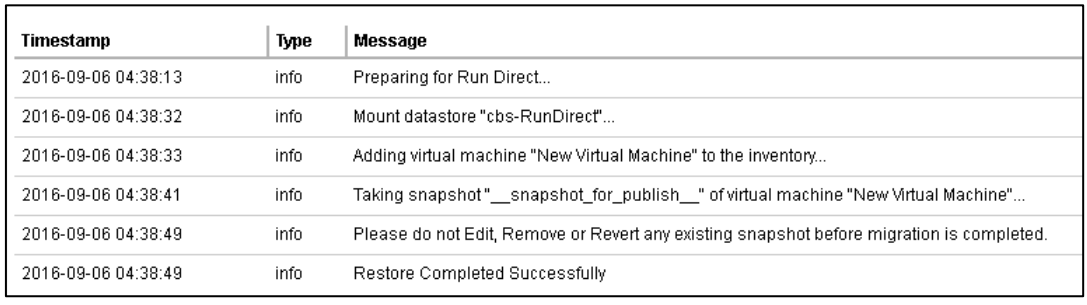


If your Run Direct is successful, you get a message similar to the following, with Status showing OK and Progress showing 100%.



Restore log messages on AhsayCBS

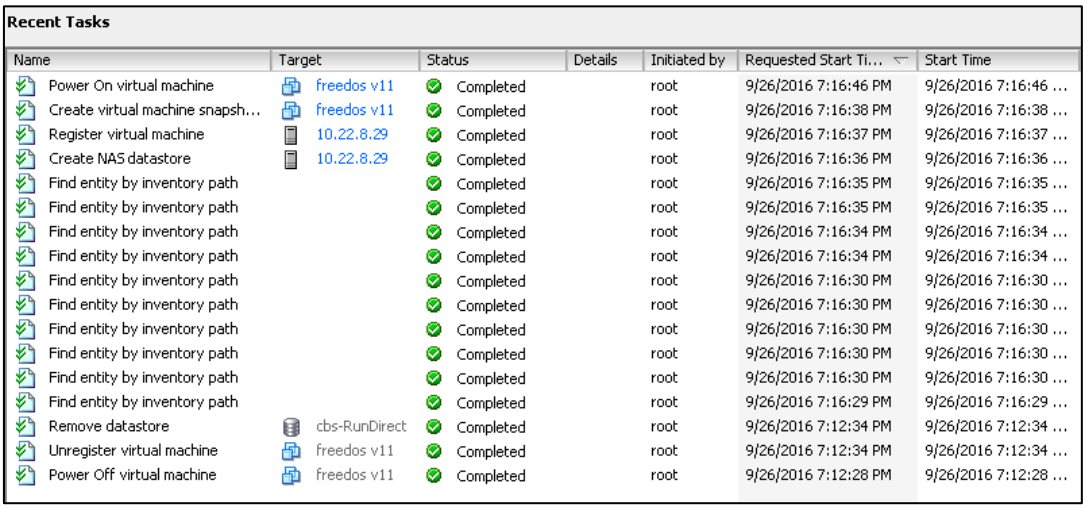
Click on the item on the Run Direct page.



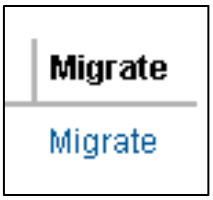
Timestamp	Type	Message
2016-09-06 04:38:13	info	Preparing for Run Direct...
2016-09-06 04:38:32	info	Mount datastore "cbs-RunDirect"...
2016-09-06 04:38:33	info	Adding virtual machine "New Virtual Machine" to the inventory...
2016-09-06 04:38:41	info	Taking snapshot "__snapshot_for_publish__" of virtual machine "New Virtual Machine"...
2016-09-06 04:38:49	info	Please do not Edit, Remove or Revert any existing snapshot before migration is completed.
2016-09-06 04:38:49	info	Restore Completed Successfully

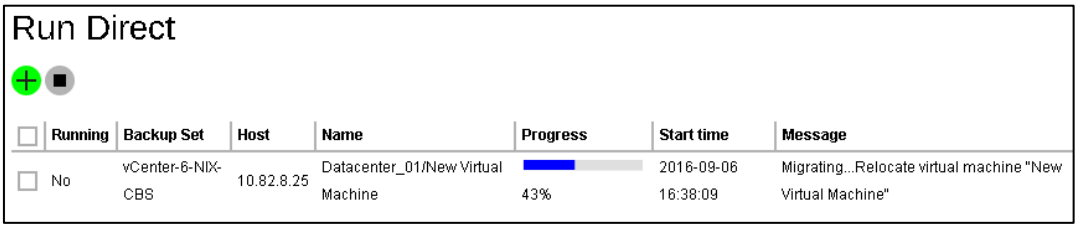
Restore log messages on the VMware vSphere Client

Open your VMware vSphere Client and you will see the following messages from the Recent Tasks section.

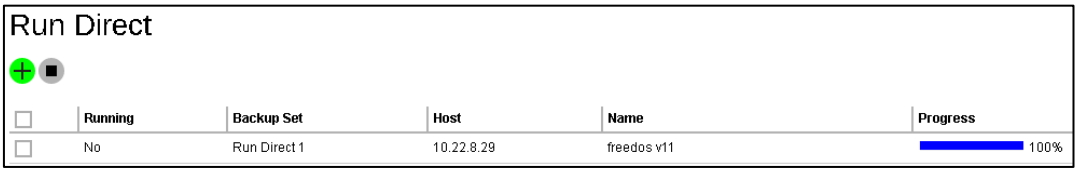


9. If you did not enable the **Auto Migrate after Run Direct is running** option in step 6, but still wish to migrate VM to a permanent location of your choice, click on the **Migrate** button as shown.





If your migration is successful, you get a message similar to the following.



Restore log messages on AhsayCBS

Click on the restore item on the Run Direct page to see the restore log messages.

Timestamp	Type	Message
2016-09-26 11:44:57	info	Start manual migration...
2016-09-26 11:44:59	info	Loading information...
2016-09-26 11:45:02	info	Taking snapshot "__snapshot_for_migrate__" of virtual machine "freedos v11"...
2016-09-26 11:45:10	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-000001-delta.vmdk
2016-09-26 11:45:14	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-000001.vmdk
2016-09-26 11:45:17	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-ctk.vmdk
2016-09-26 11:45:17	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-flat.vmdk
2016-09-26 11:45:28	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos.vmdk
2016-09-26 11:45:45	info	Loading information...
2016-09-26 11:45:48	info	Removing virtual machine "freedos v11" from the inventory...
2016-09-26 11:45:48	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-Snapshot3.vmsn
2016-09-26 11:45:49	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos.nvram
2016-09-26 11:45:50	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos.vmsd
2016-09-26 11:45:52	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos.vmx
2016-09-26 11:45:54	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos.vmxf
2016-09-26 11:45:55	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-000002-delta.vmdk
2016-09-26 11:45:56	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-000002.vmdk
2016-09-26 11:45:58	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-Snapshot1.vmsn
2016-09-26 11:45:58	info	Migrating...[Datastore-SHR01] freedos_v11_1/freedos-Snapshot3.vmem
2016-09-26 11:46:04	info	Adding virtual machine "freedos v11" to the inventory...
2016-09-26 11:46:05	info	Removing snapshot "__snapshot_for_migrate__" from virtual machine "freedos v11"...
2016-09-26 11:46:06	info	Removing snapshot "__snapshot_for_publish__" from virtual machine "freedos v11"...
2016-09-26 11:46:06	info	Unmount datastore "cbs-RunDirect"...
2016-09-26 11:46:06	info	Restore Completed Successfully

Restore log messages on the VMware vSphere Client

Open your VMware vSphere Client and you will see the following messages from the Recent Tasks section.

Recent Tasks

Name	Target	Status	Details	Initiated by	Requested Start Ti...	Start Time
Remove datastore	cbs-RunDirect	Completed		root	9/26/2016 7:36:14 PM	9/26/2016 7:36:14 ...
Remove snapshot	freedos v11	Completed		root	9/26/2016 7:36:14 PM	9/26/2016 7:36:14 ...
Remove snapshot	freedos v11	Completed		root	9/26/2016 7:36:13 PM	9/26/2016 7:36:13 ...
Register virtual machine	10.22.8.29	Completed		root	9/26/2016 7:36:12 PM	9/26/2016 7:36:12 ...
Copy file		Completed		root	9/26/2016 7:36:07 PM	9/26/2016 7:36:07 ...
Copy file		Completed		root	9/26/2016 7:36:06 PM	9/26/2016 7:36:06 ...
Find entity by inventory path		Completed		root	9/26/2016 7:36:04 PM	9/26/2016 7:36:04 ...
Copy file		Completed		root	9/26/2016 7:36:03 PM	9/26/2016 7:36:03 ...
Copy file		Completed		root	9/26/2016 7:36:03 PM	9/26/2016 7:36:03 ...
Find entity by inventory path		Completed		root	9/26/2016 7:36:00 PM	9/26/2016 7:36:00 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:58 PM	9/26/2016 7:35:58 ...
Copy file		Completed		root	9/26/2016 7:35:57 PM	9/26/2016 7:35:57 ...
Copy file		Completed		root	9/26/2016 7:35:57 PM	9/26/2016 7:35:57 ...
Unregister virtual machine	freedos v11	Completed		root	9/26/2016 7:35:57 PM	9/26/2016 7:35:57 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:57 PM	9/26/2016 7:35:57 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:56 PM	9/26/2016 7:35:56 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:36 PM	9/26/2016 7:35:36 ...
Copy file		Completed		root	9/26/2016 7:35:25 PM	9/26/2016 7:35:25 ...
Copy file		Completed		root	9/26/2016 7:35:25 PM	9/26/2016 7:35:25 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:23 PM	9/26/2016 7:35:23 ...
Copy file		Completed		root	9/26/2016 7:35:22 PM	9/26/2016 7:35:22 ...
Make Directory		Completed		root	9/26/2016 7:35:22 PM	9/26/2016 7:35:22 ...
Create virtual machine snapsh...	freedos v11	Completed		root	9/26/2016 7:35:10 PM	9/26/2016 7:35:10 ...
Find entity by inventory path		Completed		root	9/26/2016 7:35:10 PM	9/26/2016 7:35:10 ...

10. Click X to exit when finished.

6 Contacting Ahsay

Technical Assistance

To contact Ahsay support representatives for technical assistance, visit the following website:
https://www.ahsay.com/jsp/en/contact/kbQuestion.jsp

Also use the Ahsay Knowledge Base for resource such as Hardware Compatibility List, Software Compatibility List, and other product information:
https://forum.ahsay.com

Documentation

Documentations for all Ahsay products are available at:
https://www.ahsay.com/jsp/en/home/index.jsp?pageContentKey=ahsay_downloads_documentation_guides

You can send us suggestions for improvements or report on issues in the documentation, by contacting us at:
https://www.ahsay.com/jsp/en/contact/kbQuestion.jsp

Please specify the specific document title as well as the change required/suggestion when contacting us.

Appendix

Appendix A

Set Backup Destination on AhsayOBM for Backup Sets Created on AhsayCBS User Web Console

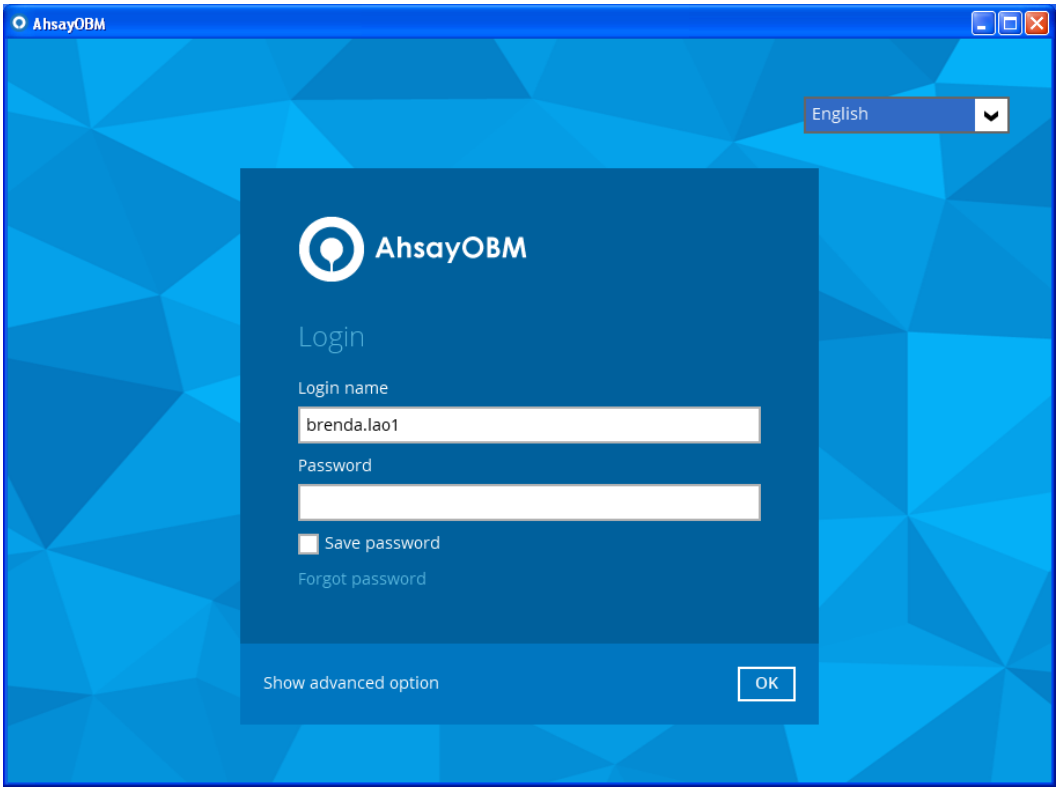
You need to read the instructions below only if you:

- Have created a backup set on AhsayCBS User Web Console; **AND**
- Selected the backup set to Run on Client (if you are running Office 365 Exchange Online and Cloud File Backup Set); **AND**
- Have not selected any Predefined Destination in the backup creation process on the AhsayCBS User Web Console

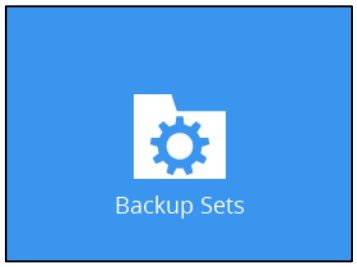
  -**OR-**

  Have selected a Predefined Destination in the backup creation process on AhsayCBS User Web Console but wish to add additional backup destination other than the predefined destination

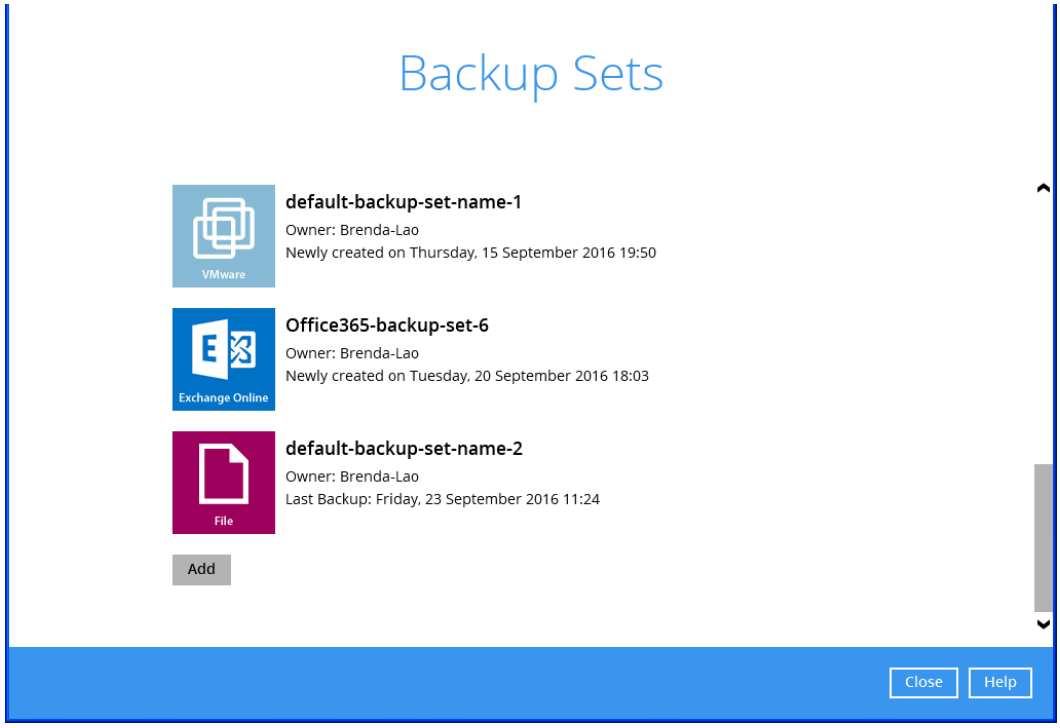
1. Login to AhsayOBM with user account **Login name** and **Password**.



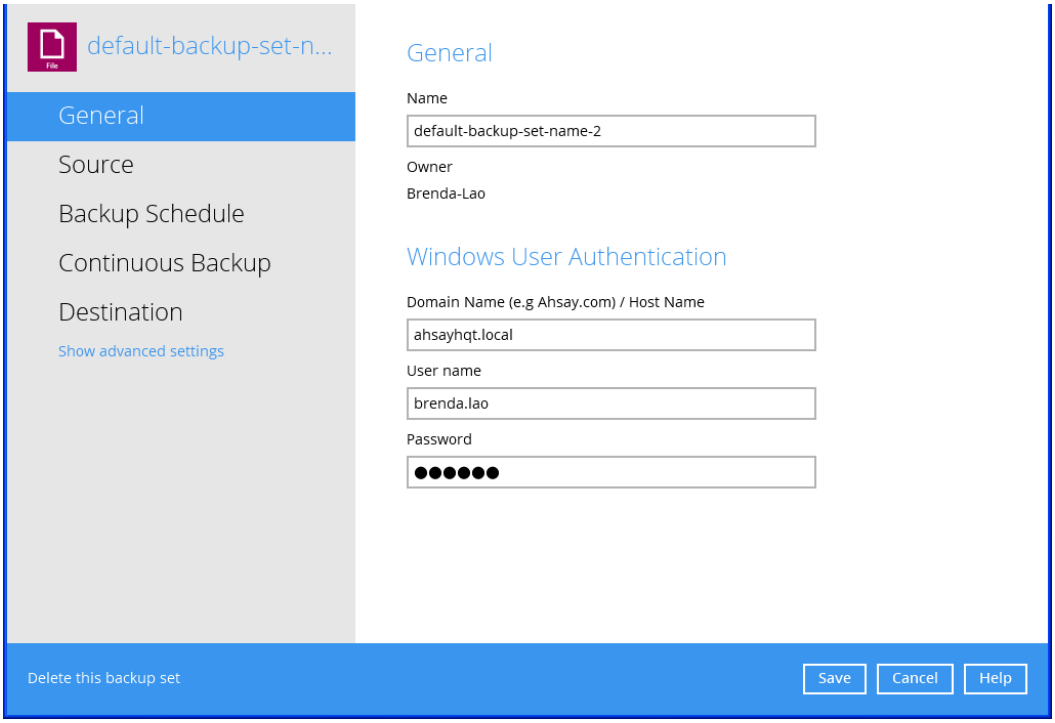
2. Click the **Backup Sets** button to open the backup sets.



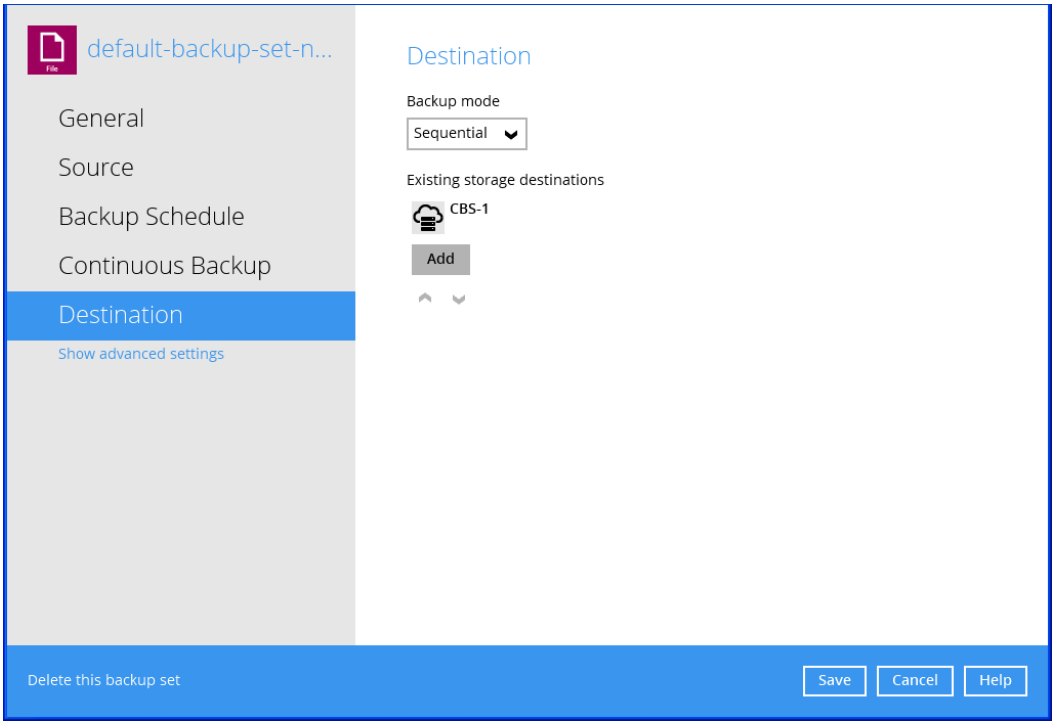
3. Select the backup set you want. In our example, the backup set is called **default-backup-set-name-2**.



4. The General page of the backup set opens.

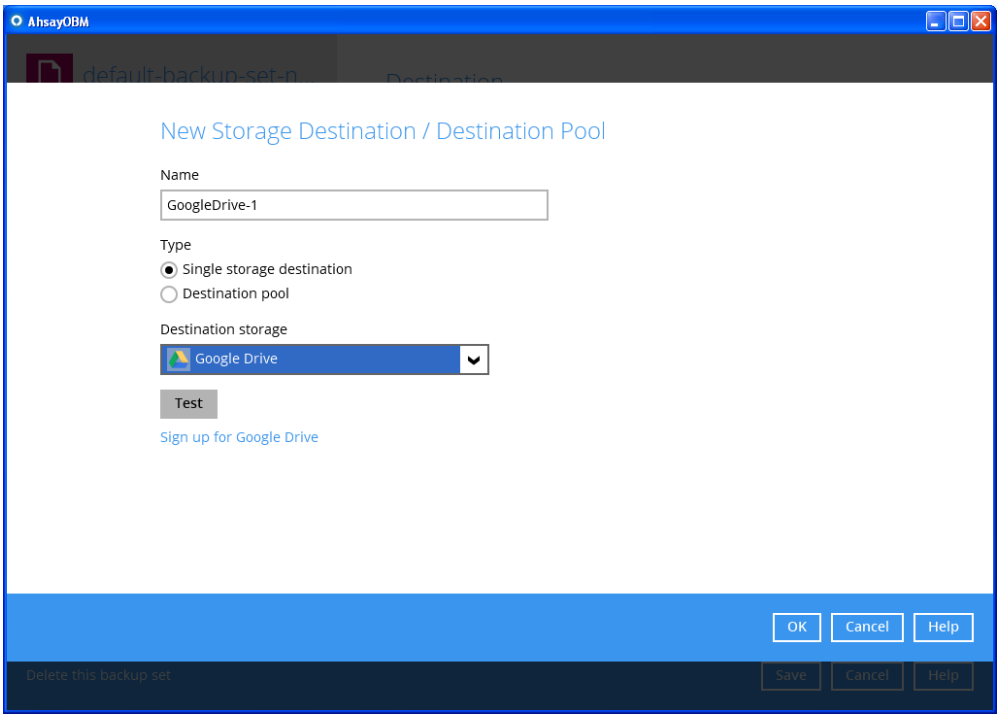


5. Go to the **Destination** page. You can add extra storage destinations here. Click the **Add** button.



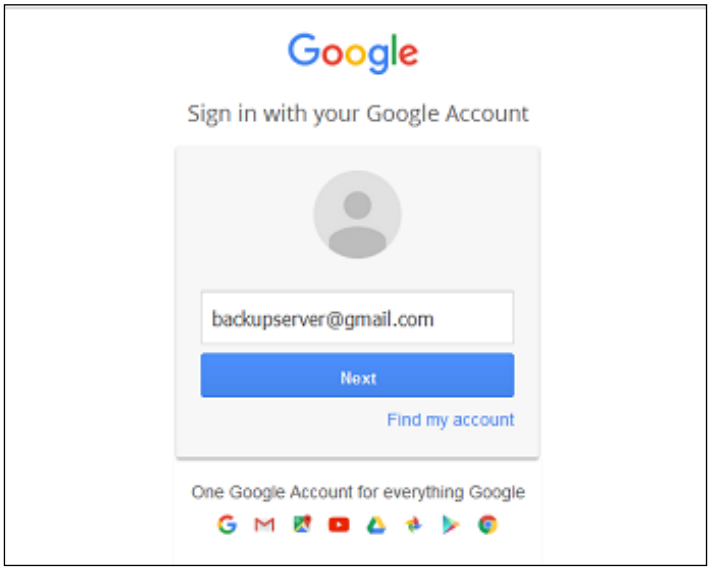
6. Add a new destination on the New Storage Destination / Destination Pool.

- Enter the **Name** of the destination
- Select the **Type** of the destination. There are two types: **Single storage destination** and **Destination pool**.
- Select the **Destination storage** from the dropdown list. In our example, it is **Google Drive**.

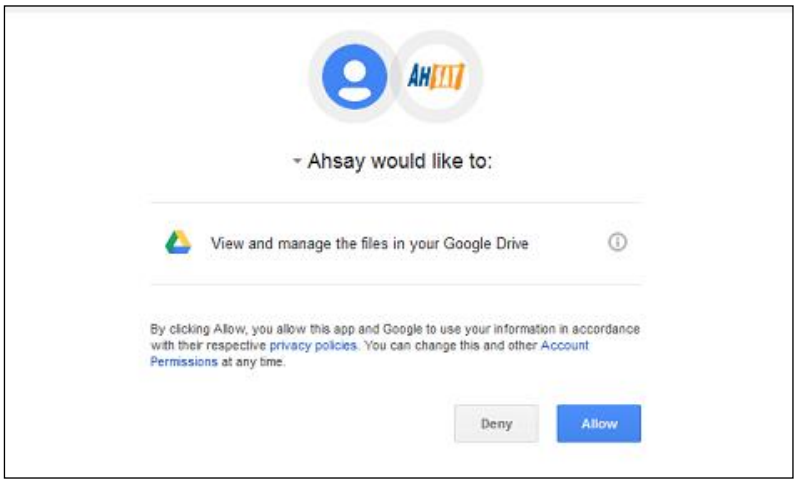


7. Click **Test** to test the Destination storage connection. For Google Drive, you need to enter an authorization code.

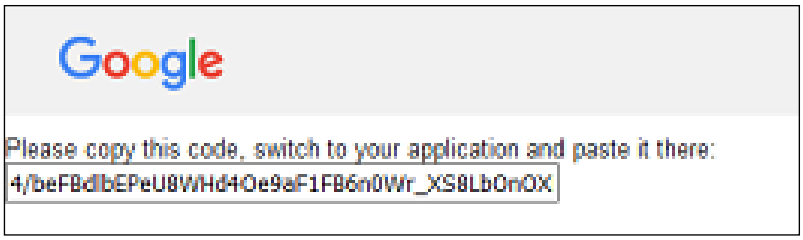
- Enter your login credential for Google Drive.

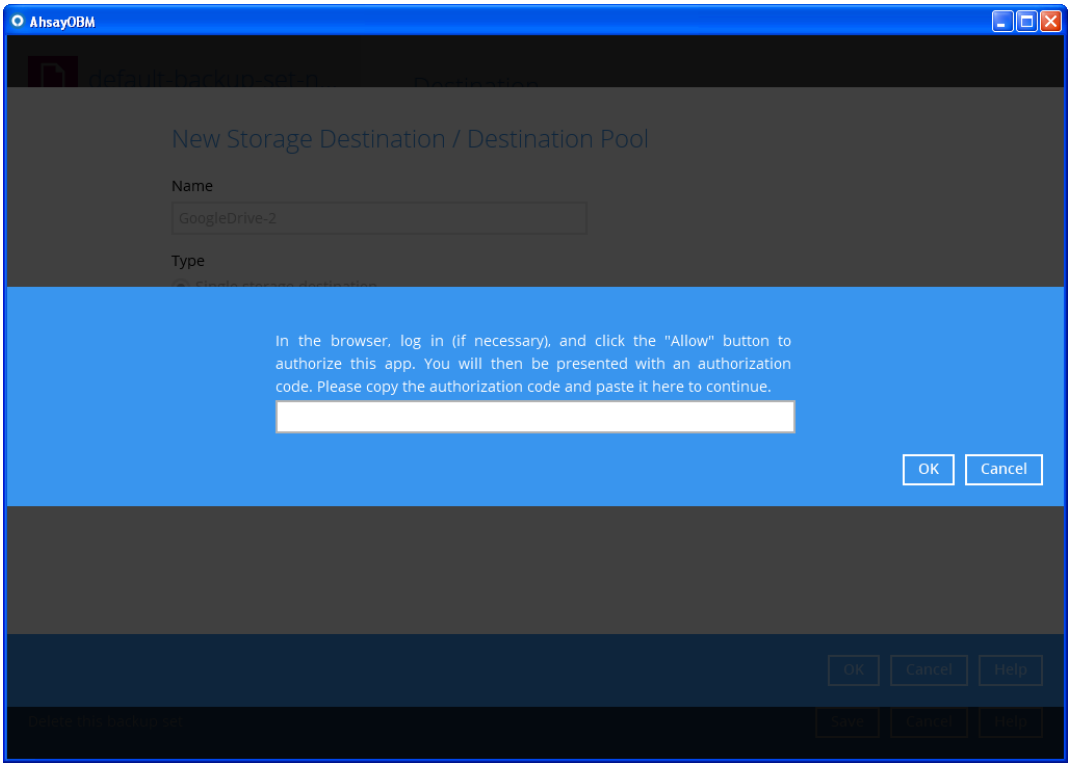


- A browser pops up and Google asks for your permission to access the storage. Click **Allow**.



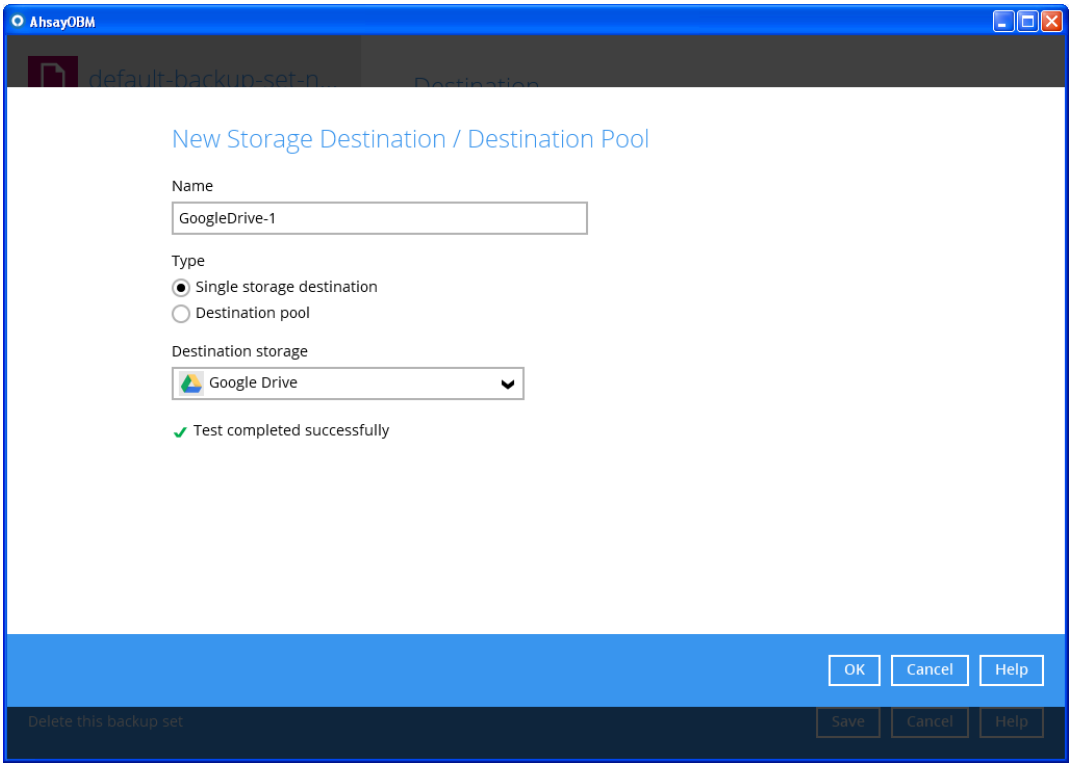
- On the browser, a code is displayed. Copy this code, then switch to AhsayCBS to paste the code.



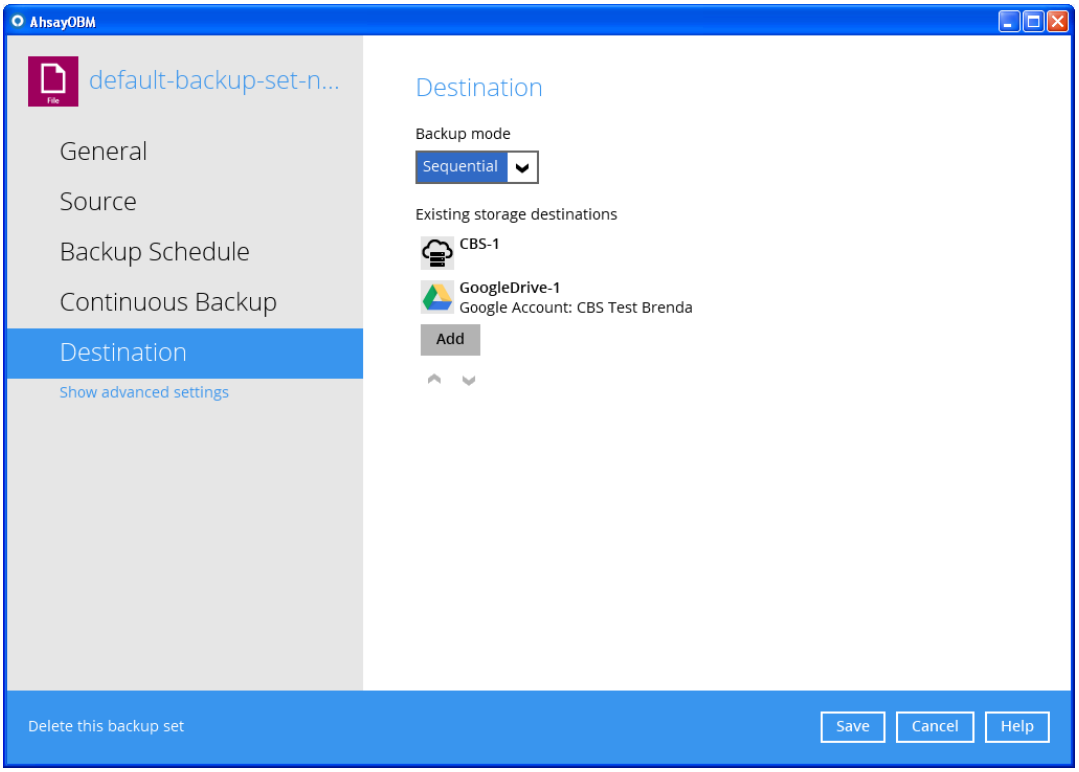


- Click **OK**.

8. You get the message **Test** completed **successfully** if the authorization code is correct. Click **OK**.



9. The new storage destination, **GoogleDrive-1**, can be seen on the Destination page.



10. Click on **Save** to save the modification.